

APPENDIX C
TRAFFIC REPORT FOR IMPERIAL COUNTY

TRAFFIC ANALYSIS
FOR
COUNTY OF IMPERIAL
CIRCULATION ELEMENT UPDATE
OF THE
GENERAL PLAN

Imperial, California

January 21, 1993

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is currently constructed with one travel lane in each direction (with the exception of a 2.2-mile stretch within the City of Calexico which provides two travel lanes in each direction). Daily traffic volumes in this facility range from 700 ADT west of the eastern connection of this route to Interstate 8 to 10,500 ADT just west of the Calexico western city limits. It should be noted that with implementation of proposed State Route 7, Caltrans is proposing to relocate State Route 98 northerly to Cole Road and upgrade from two to four travel lanes.

State Route 115 is a north/south two-lane undivided highway (with a few four-lane sections along its route) and primarily serves travel between Interstate 8, Holtville, and Calipatria. Existing daily traffic volumes range between 1,200 ADT and 5,800 ADT.

State Route 186 is a north/south facility connecting Interstate 8 to the southeastern portion of Imperial County to the Mexican border at Algodones. State Route 186 accommodates international travel and commercial travel. Currently this roadway is constructed with one travel lane in each direction and accommodates approximately 2,000 daily vehicle trips.

STREET CLASSIFICATIONS

The County of Imperial's roadway network consists of a highly integrated combination of street types. The County's Prime Arterial classification generally provides four travel lanes within a 100-foot right-of-way with no parking permitted and a raised median. Its primary purpose is to carry through traffic and provide a direct connection to the State Highway system.

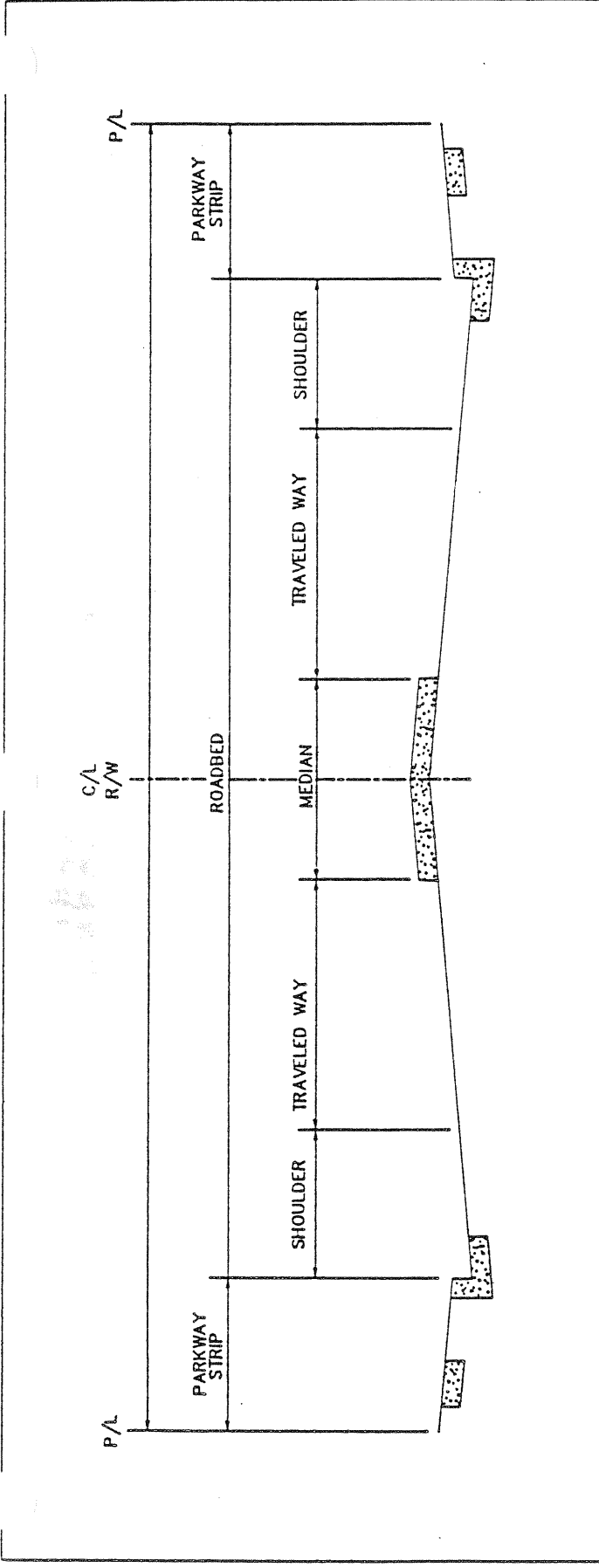
The Major Arterial classification generally provides four lanes and is 64 feet in width within an 84-foot right-of-way. The primary function of a major arterial is to carry through traffic and its secondary purpose is to provide access to abutting property.

The Minor Arterial roadway classification generally provides two travel lanes and is 40 feet wide curb-to-curb in 84 feet of right-of-way, with provision of a wide 22-foot parkway strip. Its primary purpose is to provide for local traffic movement and access to abutting property, and for movement between local streets and streets of higher classification. Minor arterials provide traffic circulation service within residential, commercial, and industrial areas.

The Collector roadway classification generally provides one lane in each direction with a 40-foot road bed within 70 feet of right-of-way, allowing for a 15-foot parkway strip and provision for parking and bike lanes. Its primary purpose is to provide for local traffic movement and direct access to the Collector street system. Many Collectors serve industrial and business areas and are not identified on the Circulation Element. Figure 2 displays the Imperial County Roadway and Right-of-Way Standards. Table 2 contains the proposed County of Imperial Standard Street Classification which relates levels of service to various roadway classifications.

NORTH/SOUTH ARTERIALS

Drew Road is a north/south roadway connecting Evan Hewes Highway to State Route 98 in the south. Currently this roadway is a two lane undivided roadway and provides access to Interstate 8 via a diamond-type interchange with stop sign controls at the east and westbound off ramps. Drew Road carries 2,400 and 1,300 ADT north and south of Interstate 8, respectively.



CORRIDOR CLASSIFICATION	MEDIAN	TRAVELED WAY	SHOULDER	PARKWAY STRIP	ROADBED	R/W
PRIME ARTERIAL - DESERT	0	12	8	30	40	100
PRIME ARTERIAL - IRRIGATED	7	24	10	9	41	100
PRIME ARTERIAL - PARKWAY	22	26	8	5	30	100
ARTERIAL - MAJOR	0	24	8	10	64	84
ARTERIAL - MINOR	0	12	8	22	40	84
COLLECTOR ROAD	0	12	8	15	40	70
LOCAL ROAD	0	12	8	12	40	60

EXISTING IMPERIAL COUNTY ROADWAY AND RIGHT OF WAY STANDARDS

FIGURE 2



WILLDAN ASSOCIATES
 CONSULTING ENGINEERS AND PLANNERS
 6383 GREENWICH DR., SUITE 210, SAN DIEGO, CA 92122

Forrester Road is a north/south principal arterial providing connection between Westmorland and Brawley and Interstate 8 continuing south to McCabe Road. This facility consists of one travel lane in each direction with traffic volumes ranging between 5,300 ADT south of Keystone Road to 6,300 ADT north of Keystone Road. Forrester Road also provides a diamond-type interchange with Interstate 8 with stop sign controls on both east and westbound off ramps. It should be noted that Forrester Road is planned to be upgraded to a four lane facility and designated as a State Route in the future. Field observations and traffic counts confirm a very high percentage of heavy vehicles traversing this roadway.

Dogwood Road is a north/south arterial street connecting State Route 78 in Brawley to the north to State Route 98 west of the City of Calexico to the south. This roadway is proposed to extend from State Route 98 south to Anza Road to enhance circulation to planned industrial development. This facility is a two lane undivided roadway with high travel speeds and currently carries between 3,300 and 4,000 ADT.

Holt Road (north of Holtville) and **Orchard Road** (south of Holtville) are north/south roadways providing primary access to the southern central portion of Imperial County. This facility provides a diamond-type interchange with Interstate 8 with stop sign controlled intersections for the east and westbound off ramps. This roadway is constructed with one travel lane in each direction. According to the latest available traffic counts, it carries 1,300 ADT between Evan Hewes Highway and Interstate 8. It should be noted that an extension of Orchard Road to the south connecting with State Route 98 and ultimately providing service to the proposed Los Alamos U.S./Mexican border crossing is undergoing environmental studies at this time.

EAST/WEST ARTERIALS

Evan Hewes Highway (S80) is an east/west roadway paralleling Interstate 8 to the north. Evan Hewes Highway served as the primary travel route between San Diego County and Arizona prior to the construction of Interstate 8. Daily traffic volumes on this facility range from 300 ADT in the Ocotillo vicinity to 9,000 ADT just east of the El Centro city limits. Through the City of El Centro Evan Hewes Highway changes names to Adams Street and Main Street and is constructed with two travel lanes in each direction. Most portions of this facility are constructed with one travel lane in each direction. West of the incorporated City of Holtville, Evan Hewes Highway shares the same alignment as State Route 115 for approximately one mile and carries 2,100 ADT.

McCabe Road is a two lane undivided east/west roadway south of Interstate 8. Daily traffic volumes on this roadway vary between 500 and 2,000 ADT.

Ross Road is an east/west roadway traversing through the incorporated City of El Centro. East and west of Forrester Road, Ross Road carries 1,300 and 1,200 ADT, respectively. East of the El Centro city limits, this facility currently carries 3,000 ADT.

Aten Road is an east/west roadway commencing west of Forrester Road and terminating at State Route 111. Imperial County Community College is located adjacent to this intersection. This roadway is a two lane undivided roadway and traverses the southernmost portion of the City of Imperial. According to the most recent daily traffic volume counts, Aten Road carries 4,900 and 5,000 ADT east and west of Dogwood Road, respectively.

Worthington Road is an east/west roadway commencing north of Seeley and terminating just east of Highline Road north of the City of Holtville. This two lane undivided roadway traverses the northernmost section of the City of Imperial and carries 300 ADT west of Forrester Road. East and west of State Route 111, Worthington Road carries 1,000 and 1,800 ADT, respectively.

Keystone Road is an east/west facility connecting Forrester Road and Highline Road through central Imperial Valley. This two lane undivided roadway carries 2,000 and 800 ADT east and west of State Route 86, respectively. Currently traffic volume data is not available for the eastern segments of this roadway.

Rutherford Road is an east/west roadway providing connection between the city of Westmorland and north central Imperial County. East and west of State Route 111, Rutherford carries 1,100 and 1,400 ADT, respectively.

County Road S24 in the Winterhaven community on the far southeastern edge of the county follows several roadway alignments (Picacho Road, Ross Road, Flood Road, Collins Road, York Road, Mehring Road, and Imperial Dam Road) and traverses in an east/west and north/south manner in the Winterhaven community. The most recent daily traffic volume information indicates this roadway carries between 2,000 and 3,000 ADT.

Winterhaven Drive between Interstate 8 and Picacho Road serves as the connector between County Route S24 and Interstate 8. The most recent daily traffic volumes on this segment indicate Winterhaven Drive carries 4,700 ADT. Table 1 presents a summary of selected street segments, their functional classification, most recent daily traffic volumes, and level of service (LOS). Figure 3 graphically illustrates interstate highways, state routes, selected county routes, jurisdictional boundaries, and daily traffic volumes for the roadways in the County of Imperial.

PUBLIC TRANSPORTATION

Fixed Route Transportation

The Countywide Transit System is an inter-city fixed route bus system, subsidized by the Imperial Valley Association of Governments (IVAG), managed by the County Department of Public Works and operated by a private transportation carrier.

Service is provided daily within the areas classified (see figure) as the Primary Corridor; a north/south axis throughout Brawley, Imperial, El Centro, and Calexico, and the Secondary Zone; outlying communities of Niland, Calipatria, Westmorland, Seeley, and Holtville. The Remote Zone communities of Desert Shores, Salton City, Salton Sea Beach, Bombay Beach, and Winterhaven are served once a week throughout the year.

The four routes that include service to Imperial Valley College do not serve the college or the Secondary Zone during college recess or holidays. During the recess and holidays, Secondary Zone passengers are able to access the once weekly Remote Zone buses, as the buses pass through the respective communities.

**TABLE 1
IMPERIAL COUNTY EXISTING VOLUMES AND CONGESTION LEVELS (IN THOUSANDS)**

Street Segment	Existing Street Classification	LOS C Capacity	Existing Volume (in thousands)			LOS
			1989	1990	1991	
Anza Road						
Pulliam/SR-111	Collector (Local east of Rockwood)	7,100			1.8	A
SR-111/Barbara Worth	Collector	7,100			0.3 ¹	A
Aten Road						
SR-86/Clark	Collector	7,100			4.7	C
Clark/Dogwood	Collector (4 lane facility)	7,100			5.0	A
Silsbee/Forrester	Local	7,100	< 1.9 ²			A
Forrester/SR-86 (Imperial)	Collector	7,100			4.7	C
Dogwood/SR-111	Collector (4 lane facility)	7,100			4.9	A
Bennett Road						
Havens/Evan Hewes Hwy	Local	7,100			2.4	B
Evan Hewes Hwy/Ross	Local	7,100	< 1.9 ²			A
Boarts Road (S26)						
SR-86/Kalin	Collector	7,100	< 1.9 ²			A
Borrego Salton Seaway (S22)						
Imperial County Line/SR-86	Minor Arterial	7,100			0.3	A
Brockman Road (S30)						
SR-98/McCabe	Collector	7,100	< 1.9 ²			A
Butters Road (S32)						
Gonder/SR-78	Collector	7,100	< 1.9 ²			A
SR-78/Rutherford	Collector	7,100	< 1.9 ²			A
Rutherford/Bowles	Collector (north to Albright)	7,100	< 1.9 ²			A
Clark Road						
SR-98/Heber	Collector	7,100	1.2		2.2 ¹	B
Heber/McCabe	Collector	7,100	2.7		2.3 ¹	B
McCabe/I-8	Local	7,100	3.0	2.9 ³		B
I-8/Ross	Local	7,100			3.5 ²	B
Ross/SR-86	Local	7,100			3.5 ²	B
SR-86/Aten Road	Local (4 lane facility)	7,100			3.9	A
Aten/Worthington	Local	7,100			2.4	B
Worthington/Larsen	Local	7,100	< 1.9 ²			A

- 1 1992 counts
- 2 Estimated
- 3 1986 counts

**TABLE 1
IMPERIAL COUNTY EXISTING VOLUMES AND CONGESTION LEVELS (IN THOUSANDS)**

Street Segment	Existing Street Classification	LOS C Capacity	Existing Volume (in thousands)			LOS
			1989	1990	1991	
Dogwood (S31)						
SR-98/Heber	Collector	7,100	3.6			B
Heber/McCabe	Collector	7,100	3.5			B
McCabe/I-8	Collector	7,100	3.4			B
I-8/Ross	Collector	7,100			3.5 ¹	B
Ross/Evan Hewes Hwy	Collector	7,100			3.6 ¹	B
Evan Hewes Hwy/Aten	Collector	7,100			4.0	B
Aten/Worthington	Collector	7,100			3.7	B
Worthington/Keystone	Collector	7,100			3.3	B
Keystone/SR-78	Collector	7,100			3.6 ²	B
Drew Road (S29)						
SR-98/I-8	Collector	7,100			1.3	A
I-8/Ross	Collector	7,100			1.8	A
Ross/Evan Hewes Hwy	Collector	7,100	2.0		2.4 ²	B
Dunaway Road						
I-8/Evan Hewes Hwy	Collector	7,100	0.1		0.8 ²	A
Eddins Road (S30)						
Gentry/SR-111	Collector	7,100			1.3	A
Evan Hewes Hwy (S80)						
I-8/Imperial Hwy	Collector	7,100	< 1.9 ¹			A
Imperial Hwy/W. Limit Plaster City	Collector	7,100			0.3 ²	A
E. Limit Plaster City/Dunaway	Collector	7,100			0.9 ²	A
Dunaway/Drew	Collector	7,100	1.8		2.6 ²	B
Drew/Bennett	Collector (within Seeley)	7,100			3.5 ¹	B
Bennett/Forrester	Collector	7,100	4.0		5.4 ²	C
Forrester/SR-86	Collector	7,100			5.3	C
SR-86/Dogwood	Non-County	27,400			9.0 ¹	A
Dogwood/SR-111	Collector	27,400			9.0	A
SR-111/SR-115 (W. end)	Collector (4 lane facility)	27,400			7.6	A
SR-115 (E. end)/Gordons Well	Local	7,100	< 1.9 ¹			A

1 Estimated
2 1992 counts

**TABLE 1
IMPERIAL COUNTY EXISTING VOLUMES AND CONGESTION LEVELS (IN THOUSANDS)**

Street Segment	Existing Street Classification	LOS C Capacity	Existing Volume (in thousands)			LOS
			1989	1990	1991	
Forrester Road (S30)						
McCabe/I-8	Collector	7,100	0.6			A
I-8/Ross	Collector	7,100			6.0 ¹	C
Ross/Evan Hewes Hwy	Collector	7,100			5.7 ¹	C
Evan Hewes Hwy/Aten	Collector	7,100	4.7		6.1 ¹	C
Aten/Worthington	Collector	7,100			5.9 ¹	C
Worthington/Keystone	Collector	7,100			5.3 ¹	C
Keystone/Cady	Collector	7,100			6.3 ¹	C
Cady/Baughman (S. Limit Westmorland)	Collector	7,100			6.0 ¹	C
N. Limit Westmorland/Gentry	Collector	7,100			0.9 ¹	A
Garst						
Sinclair/McDonald	Collector	7,100	< 1.9 ²			A
Gentry Road (S30)						
Forrester/Eddins	Collector	7,100			0.1 ¹	A
Eddins/Sinclair	Collector	7,100	< 1.9 ²			A
Heber Road						
La Brucherie/Clark	Local	7,100			0.5 ¹	A
Clark/W. End SR-86	Local	7,100			0.8 ¹	A
SR-111/Vencill	Collector	7,100			3.0 ²	B
Highline Road (S33)						
Kavanaugh/Worthington	Collector	7,100	0.4 ¹			A
Worthington/Keystone	Collector	7,100	< 1.9 ²			A
Keystone/Griffin	Collector	7,100	< 1.9 ²			A
Holt Road (S32)						
N. Limit Holtville/Worthington	Collector	7,100	< 1.9 ²			A
Worthington/Keystone	Collector	7,100	< 1.9 ²			A
Keystone/Gonder	Collector	7,100	< 1.9 ²			A
Hot Mineral Spa Road						
SR-111/Coachella	Collector	7,100	< 1.9 ²			A
Imperial Highway (S2)						
S.D.-Imperial County Line/Evan Hewes Hwy	Minor Arterial	7,100			0.2	A
Evan Hewes Hwy/I-8	Minor Arterial	7,100	< 1.9 ²			A
I-8/SR-98	Local	7,100			0.2	A

1 1992 counts
2 Estimated

**TABLE 1
IMPERIAL COUNTY EXISTING VOLUMES AND CONGESTION LEVELS (IN THOUSANDS)**

Street Segment	Existing Street Classification	LOS C Capacity	Existing Volume (in thousands)			LOS
			1989	1990	1991	
Interstate 8						
S.D.-Imperial County Line/I-8 & SR-98 Separation	Interstate	N/A ¹	8.6	9.1	10.7	A
I-8 & SR-98 Separation/Dunaway	Interstate	N/A ¹	7.6	8.5	8.6	A
Dunaway/Drew	Interstate	N/A ¹	7.7	8.6	8.7	A
Drew/Forrester	Interstate	N/A ¹	8.4	8.4	8.5	A
Forrester/Imperial Ave. (El Centro W. limits)	Interstate	N/A ¹	10.5	10.4	10.9	B
4th St/El Centro E. limits)/Dogwood	Interstate	N/A ¹	21.7	21.6	22.9	B
Dogwood/SR-111	Interstate	N/A ¹	20.9	20.8	22.0	B
SR-111/Bowker	Interstate	N/A ¹	8.4	8.3	8.4	A
Bowker/Orchard	Interstate	N/A ¹	7.7	7.6	7.6	A
Orchard/Bonds Corner Rd.	Interstate	N/A ¹	6.7	6.6	6.5	A
Bonds Corner Rd/SR-115	Interstate	N/A ¹	6.4	6.3	6.2	A
SR-115/SR-98	Interstate	N/A ¹	7.3	7.2	7.2	A
SR-98/Ogilby	Interstate	N/A ¹	8.6	8.7	8.7	A
Ogilby/Pilot Knob	Interstate	N/A ¹	9.3	9.5	9.6	A
Pilot Knob/SR-186	Interstate	N/A ¹	9.9	10.3	10.7	A
SR-186/Winterhaven	Interstate	N/A ¹	13.1	13.5	14.0	A
State Route 78						
S.D.-Imperial County Line/Junction SR-86	State Hwy	N/A ¹	0.5	0.6	0.6	B
SR-111/SR-115N	State Hwy	N/A ¹	4.1	3.6	3.5	B
SR-115N/SR-115S	State Hwy	N/A ¹	3.1	4.0	3.1	B
I-115S/Glamis	State Hwy	N/A ¹	1.6	1.6	1.6	B
Glamis/Ogilby	State Hwy	N/A ¹	1.6	1.4	1.3	B
Ogilby/Palo Verde, 4th	State Hwy	N/A ¹	1.7	1.5	1.5	B
Palo Verde, 4th/Imperial County Line	State Hwy	N/A ¹	2.6	2.6	2.5	B
State Route 86						
Imperial County Line/Desert Shores	State Hwy	N/A ¹	7.5	7.3	7.5	A
Desert Shores/Brawley	State Hwy	N/A ¹	5.9	5.7	5.8	A
Brawley/S. Marina	State Hwy	N/A ¹	4.9	4.8	4.9	B
S. Marina/Air Park	State Hwy	N/A ¹	5.4	5.3	5.4	B
Air Park/SR-78 West	State Hwy	N/A ¹	4.1	4.0	4.1	B
SR-78 West/Lack	State Hwy	N/A ¹	4.3	4.5	4.6	B
Lack/Westmorland W. City Limits	State Hwy	N/A ¹	5.0	5.2	5.3	B
Westmorland E. City Limits/Cady	State Hwy	N/A ¹	5.0	5.2	5.3	B
Western Ave. (S. Limits Brawley)/Legion	State Hwy	N/A ¹	12.8	13.0	13.5	C
Legion/Keystone	State Hwy	N/A ¹	10.9	11.1	11.5	C
Keystone/Imperial Ave.	State Hwy	N/A ¹	10.5	10.7	11.2	C
I-8/McCabe	State Hwy	N/A ¹	8.0	8.8	9.2	C
McCabe/Heber	State Hwy	N/A ¹	4.9	5.1	5.1	B
Heber/Dogwood	State Hwy	N/A ¹	4.4	5.5	5.5	B

¹ LOS C capacity not applicable to State Highways and Interstates

**TABLE 1
IMPERIAL COUNTY EXISTING VOLUMES AND CONGESTION LEVELS (IN THOUSANDS)**

Street Segment	Existing Street Classification	LOS C Capacity	Existing Volume (in thousands)			LOS
			1989	1990	1991	
Dogwood/SR-111	State Hwy	N/A ¹	4.3	4.4	4.3	B
Imperial S. Limits/El Centro N. Limits	State Hwy	N/A ¹			15.5	B
State Route 98						
W. Junction I-8/Imperial Hwy.	State Hwy	N/A ¹	1.6	1.8	1.8	A
Imperial Hwy/Drew	State Hwy	N/A ¹	1.8	2.1	2.1	A
Drew/Clark	State Hwy	N/A ¹	2.5	2.8	2.8	A
Clark/Dogwood	State Hwy	N/A ¹	7.8	8.6	8.6	B
Dogwood/Calexico W. City Limits	State Hwy	N/A ¹	11.3	12.4	12.0	B
Bowker (just E. of Calexico City Limits)/- Barbara Worth	State Hwy	N/A ¹	2.6	2.7	2.7	A
Barbara Worth/Bonds Corner	State Hwy	N/A ¹	1.5	1.6	1.6	A
Bonds Corner/E. Highline Canal	State Hwy	N/A ¹	0.9	0.9	0.9	A
E. Highline Canal/I-8	State Hwy	N/A ¹	0.7	0.7	0.7	A
State Route 111						
Cole (Calexico N. Limits)/Heber	State Hwy	N/A ¹	22.2	24.0	25.0	B
Heber/McCabe	State Hwy	N/A ¹	20.9	20.7	22.0	B
McCabe/I-8	State Hwy	N/A ¹	20.1	22.0	23.4	B
I-8/Evan Hewes Hwy	State Hwy	N/A ¹	10.7	11.2	12.1	D
Evan Hewes Hwy/Aten	State Hwy	N/A ¹	7.7	8.7	9.5	C
Aten/Worthington	State Hwy	N/A ¹	7.1	7.2	7.9	B
Worthington/Keystone	State Hwy	N/A ¹	7.1	6.6	7.4	B
Keystone/E. Junction 78	State Hwy	N/A ¹	4.9	6.2	6.9	B
Shank (Brawley N. Limits)/Rutherford	State Hwy	N/A ¹	5.9	6.3	7.1	B
Rutherford/Calipatria S. Limits	State Hwy	N/A ¹	6.0	6.2	7.1	B
California St (just inside Calipatria N. Limits)/ Sinclair	State Hwy	N/A ¹	6.9	5.3	5.9	B
Sinclair/Niland Ave	State Hwy	N/A ¹	7.9	6.6	7.6	B
Niland Ave/English	State Hwy	N/A ¹	4.2	5.0	5.6	B
English/Bombay Beach	State Hwy	N/A ¹	3.3	3.1	3.1	B
Bombay Beach/Imperial-Riverside County Line	State Hwy	N/A ¹	3.4	3.5	3.5	B
State Route 115						
Junction I-8/Grape (Holtville E. Limits)	State Hwy	N/A ¹	2.4	2.2	2.1	B
4th St (Holtville W. Limits)/W. Junction Evan Hewes Hwy	State Hwy	N/A ¹	5.8	5.7	5.8	B
W. Junction Evan Hewes Hwy/SR-78	State Hwy	N/A ¹	2.6	2.5	2.7	B
SR-78/Rutherford	State Hwy	N/A ¹	1.2	1.2	1.2	B
Rutherford/Wirt	State Hwy	N/A ¹	1.3	1.2	1.3	B
Wirt/East Ave (Calipatria E. Limits)	State Hwy	N/A ¹	1.7	1.7	1.8	B
State Route 186						
Mexican Border/I-8	State Hwy	N/A ¹	1.9	2.0	2.0	C

¹ LOS C capacity not applicable to State Highways and Interstates

**TABLE 1
IMPERIAL COUNTY EXISTING VOLUMES AND CONGESTION LEVELS (IN THOUSANDS)**

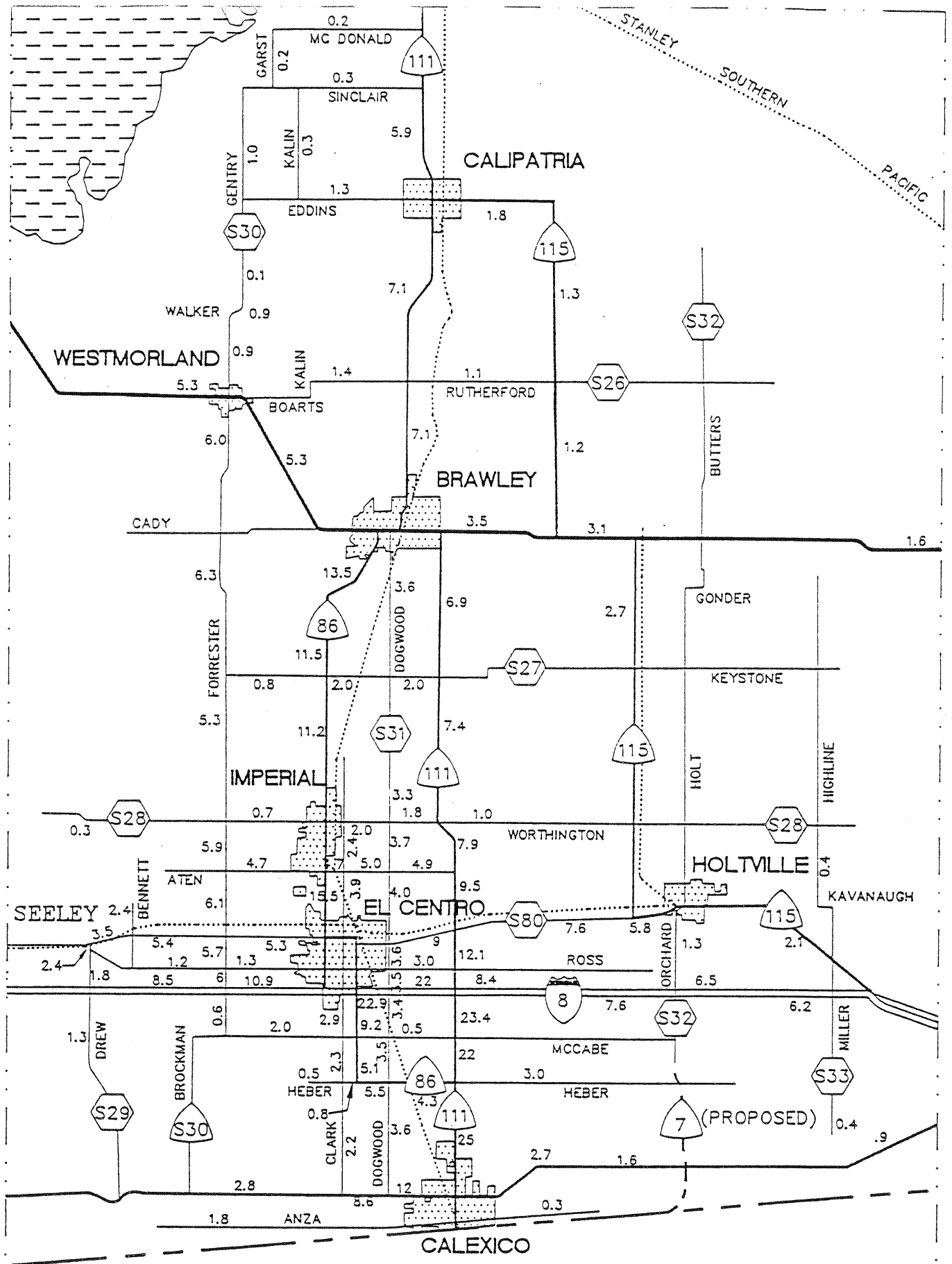
Street Segment	Existing Street Classification	LOS C Capacity	Existing Volume (in thousands)			LOS
			1989	1990	1991	
Kalin (S26)						
Boarts/Rutherford	Collector	7,100	< 1.9 ¹			A
Eddina/Sinclair	Collector	7,100	< 1.9 ¹			A
Keystone Road (S27)						
Forrester/SR-86	Collector	7,100	1.0 ²		0.8 ³	A
SR-86/Dogwood	Collector	7,100			2.0 ¹	B
Dogwood/SR-111	Collector	7,100			2.0 ¹	B
SR-111/SR-115	Collector	7,100	< 1.9 ¹			A
SR-115/Holt	Collector	7,100	< 1.9 ¹			A
Holt/Highline	Collector	7,100	< 1.9 ¹			A
McCabe Road						
Forrester/Clark	Collector	7,100	0.6 ²		2.0 ³	B
Clark/Heber	Collector	7,100			2.0 ³	B
Heber/Dogwood	Collector	7,100	< 1.9 ¹			A
Dogwood/SR-111	Collector	7,100	0.5 ¹			A
SR-111/Orchard	Collector	7,100	< 1.9 ¹			A
McDonald						
Gara/SR-111	Collector	7,100	< 1.9 ¹			A
Miller Road (S33)						
Kumberg/I-8	Collector	7,100	0.4 ²			A
I-8/SR-115	Local	7,100	< 1.9 ¹			A
SR-115/Kavanaugh	Collector	7,100	< 1.9 ¹			A
Ogilby Road (S34)						
I-8/SR-78	Major Collector	7,100			0.8	A
Orchard Road (S32)						
King/McCabe	Collector	7,100	< 1.9 ¹			A
McCabe/I-8	Collector	7,100	< 1.9 ¹			A
I-8/SR-115	Collector	7,100			1.3	A
Picacho						
Winterhaven/Ross	Collector	7,100			3.0 ³	B
Ross						
Picacho/Flood	Collector	7,100	2.8			B
Flood						
Ross/Collins	Collector	7,100			2.6 ³	B


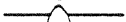



- 1 Estimated
- 2 1987 counts
- 3 1992 counts

**TABLE 1
IMPERIAL COUNTY EXISTING VOLUMES AND CONGESTION LEVELS (IN THOUSANDS)**

Street Segment	Existing Street Classification	LOS C Capacity	Existing Volume (in thousands)			LOS
			1989	1990	1991	
Collins						
Flood/York	Collector	7,100			2.4 ¹	B
York						
Collins/Mehring	Collector	7,100			2.2 ²	B
Mehring						
York/Imperial Dam	Collector	7,100	2.0			B
Imperial Dam						
Mehring/Imperial County Line	Collector	7,100			2.0 ³	B
Ross Road						
Drew/Bennett	Local	7,100	< 1.9 ¹			A
Bennett/Forrester	Local	7,100			1.2 ³	A
Forrester/El Centro W. City Limits	Collector	7,100	1.1		1.3 ³	A
Dogwood (El Centro E. City Limits) SR-111	Collector	7,100			3.0	B
SR-111/Mets	Collector	7,100	< 1.9 ¹			A
Rutherford (S26)						
Kalin/SR-111	Collector	7,100			1.4 ³	A
SR-111/SR-115	Collector	7,100			1.1 ³	A
SR-115/Butters	Collector	7,100	< 1.9 ¹			A
Butters/Irvine	Collector	7,100	< 1.9 ¹			A
Snclair						
Kalin/SR-111	Collector	7,100	< 1.9 ¹			A
Walker						
Forrester/Gentry	Collector	7,100	< 1.9 ¹			A
Winterhaven Drive						
I-8/Picacho	Collector	7,100			4.7	C
Worthington Road (S28)						
Huff/Forrester	Collector	7,100			0.3	A
Forrester/La Brucherie (W. limits of Imperial)	Collector	7,100	0.7			A
Clark (E. limits of Imperial)/Dogwood	Collector	7,100	2.0 ²			B
Dogwood/SR-111	Collector	7,100			1.8	A
SR-111/SR-115	Collector	7,100	1.0 ²			A
SR-115/Holt	Collector	7,100	< 1.9 ¹			A
Holt/Highline	Collector	7,100	< 1.9 ¹			A
Highline/Highline Canal	Local	7,100	< 1.9 ¹			A

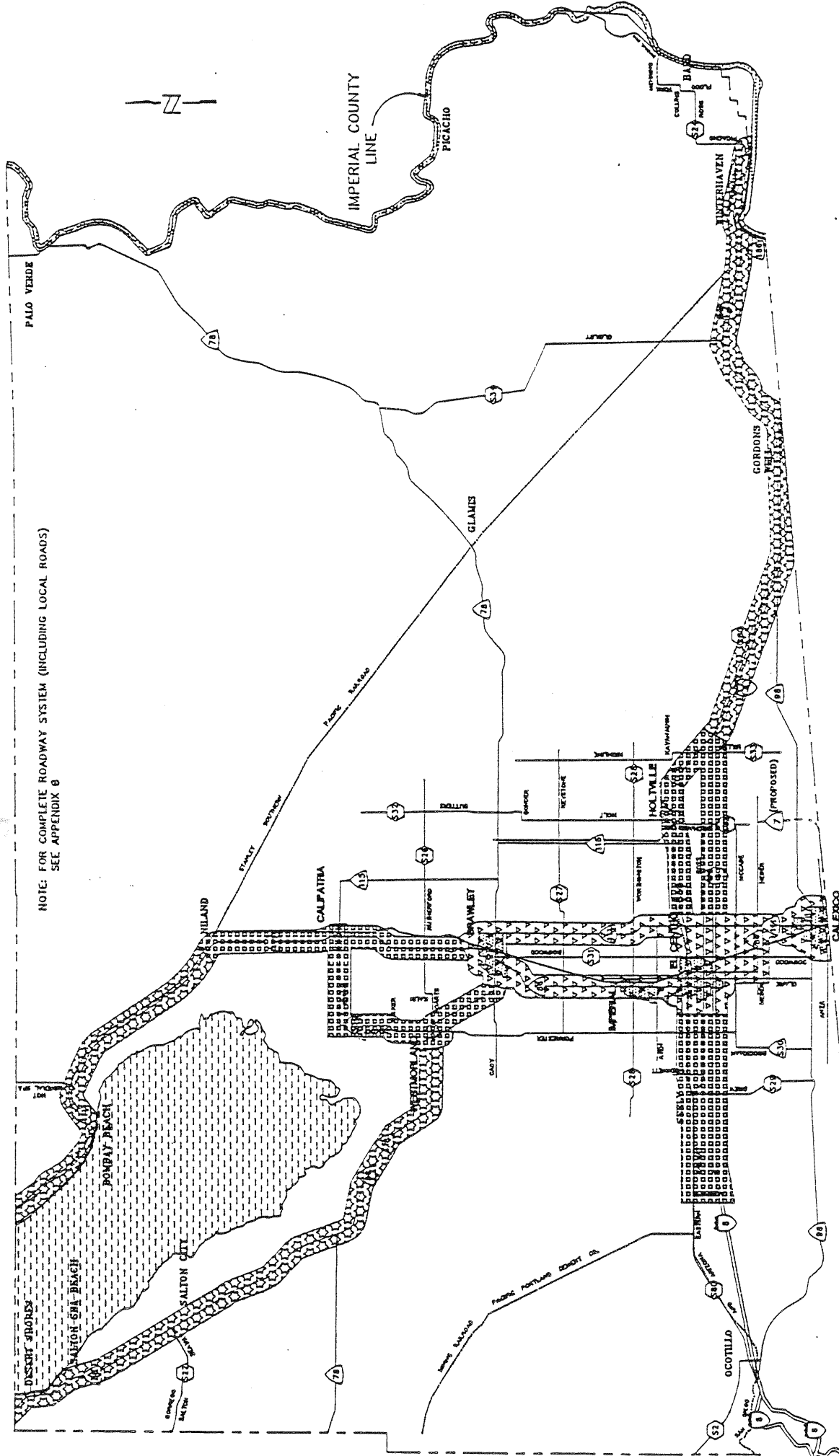
- 1 Estimated
- 2 1987 counts
- 3 1992 counts



INTERSTATE ADT VOLUMES= XXX (THOUSANDS)
 INTERSTATE ROUTES 
 STATE ROUTES 
 COUNTY ROUTES 
 CITY LIMITS 
 RAILROAD 

**FIGURE 3A
INSET**

COUNTYWIDE TRANSIT SYSTEM SERVICE AREA MAP - 1992



NOTE: FOR COMPLETE ROADWAY SYSTEM (INCLUDING LOCAL ROADS) SEE APPENDIX B

- INTERSTATE ROUTES
- STATE ROUTES
- COUNTY ROUTES
- CITY LIMITS
- RAILROAD
- PRIMARY CORRIDOR
- SECONDARY ZONE
- REMOTE ZONES

WILLDAN ASSOCIATES
 CONSULTING ENGINEERS AND PLANNERS
2000 WILSON AVENUE, SUITE 100, CHICO, CALIFORNIA 95926

1/20/93

FIGURE 4

Dial-A-Ride

Three cities contract for Dial-A-Ride services; Brawley, El Centro and Imperial. These services are also subsidized by IVAG. The services to city residents are provided through contract with local operators.

ADA Paratransit

The Americans With Disabilities Act (ADA) Comparable Complementary Paratransit Service is a federally mandated service requiring equal access to the public fixed route bus system for handicapped individuals. The service operates in tandem with the fixed route bus system for certified eligible handicapped passengers. The management, service area, and hours are the same as the fixed route bus system discussed above.

TRAVEL FORECASTING PROCESS

In order to plan the ultimate circulation system for the County of Imperial, it is critical to account for existing as well as future development patterns. The purpose of designating a Circulation Element is to provide for the orderly movement of people and goods, as well as to establish a balance with the County's Land Use Element.

Since the development of a computerized travel forecast model was not undertaken for this project, it was necessary to estimate the number of trips to be generated within the County of Imperial, as well as trips entering, leaving, or passing through the county. These trips were then distributed and assigned to the appropriate street network. It is our understanding that Caltrans District 11 is in the process of developing a travel forecast model for the County of Imperial using the TRANPLAN software package. However, completion is not expected until late 1993.

The methodology utilized to forecast traffic volumes on future roadways within Imperial County was with a variety of commonly used tools. These include trend line analysis, future population projections, projections contained in Caltrans District 11 Route Concept Reports (RCR), and manual assignment of approved projects and land use decisions made by the County Board of Supervisors. Circulation Elements from the incorporated cities were also examined to ensure consistency on a county-wide basis.

In order to assess the long-range impacts of the General Plan Land Uses on the proposed Circulation Element, we have utilized Table 2 (Proposed Imperial County Standard Street Classification). This table was originally developed for the County of San Diego by the San Diego County Department of Public Works in 1985 and compares ADT to levels of service for various roadway classifications. Proposed functional classifications were then inserted into this table and right-of-way widths adjusted to match County of Imperial standards.

For purposes of analysis, we have utilized a table to compare daily traffic levels of service. This is a broad base approach which can be used to identify potential capacity constraints. Where this potential exists, a more detailed peak hour analysis should be performed. The table which was developed as part of this study differs from the "daily capacities" used formally in the County of Imperial for traffic impact analysis studies. These "capacities" were generalized and not documented by any quantitative method. Of course, each jurisdiction determines what is an acceptable level of service, the table merely provides better uniformity in measuring the level of service. A brief description of the levels of service (A through F) appears in Appendix A of this report.

CIRCULATION ELEMENT ANALYSIS

Table 3 contains Circulation Element street segments, existing daily traffic volumes, growth rates estimated for those segments, year 2015 projected daily traffic volumes, and associated levels of service per functional classification. Figure 5 graphically illustrates future daily traffic volumes on interstate routes, state highways, and County of Imperial Circulation Element streets. It should be noted that level of service criteria for interstate routes and state highways were

extracted from the previously mentioned RCRs prepared by Caltrans and do not reflect proposed County of Imperial level of service standards.

As shown on Table 3, all county street segments are forecast to operate at LOS C or better on a daily basis. For the purpose of this analysis, LOS C will be targeted as the minimum acceptable level of service. Most roadway segments are forecast to operate at level of service "A" with their proposed circulation element classification. Level of service on State Highways, in some cases, deteriorates to level of service "D", however, the County of Imperial has no jurisdiction over State Highways and planning for these facilities is undertaken by the State of California. County roads that intersect with State Routes should be given special consideration since delays at intersections tend to deteriorate operating conditions along street segments. Figure 7 illustrates the proposed street classifications of the circulation element of the County of Imperial General Plan. Figure 8 presents a composite street map of County roadways including all Circulation Element collector roadways.

Road		Level of Service				
Class	X-Section	A	B	C	D	E
Prime Arterial	106/126	22,200	37,000	44,600	50,000	57,000
Major Arterial	82/102	14,800	24,700	29,600	33,400	37,000
Secondary Arterial	64/84	13,700	22,800	27,400	30,800	34,200
Collector	40/70	1,900	4,100	7,100	10,900	16,200
Residential Street	36/60	*	*	1,500	*	*
Residential Cul-de-Sac or Loop Street	32/60	*	*	200	*	*

* Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

**TABLE 3
IMPERIAL COUNTY YEAR 2015 PROJECTED VOLUMES (IN THOUSANDS)**

Street Segment	Existing Volume		Growth Rate	Year 2015	Proposed Classification	LOS
	Volume	Year				
Anza Road						
Pulliam/Dogwood	1.8	1991	3%	3.1	Collector	B
Dogwood/SR-111	5.1 [*]	1991	3%	8.8	Secondary Arterial	A
SR-111/Barbara Worth	.3	1992	3%	0.5	Collector	A
Aten Road						
SR-86/Clark	4.7	1991	3%	8.1	Secondary Arterial	A
Clark/Dogwood	5.0	1991	3%	8.6	Secondary Arterial	A
Silsbee/Forrester	4.0 [*]	1991	2%	5.9 [*]	Secondary Arterial	A
Forrester/SR-86 (Imperial)	4.7	1991	2%	7.0	Secondary Arterial	A
Dogwood/SR-111	4.9	1991	2%	8.4	Secondary Arterial	A
Bennett Road						
Havens/Evan Hewes Hwy	2.4	1991	3%	4.1	Collector	C
Evan Hewes Hwy/Ross	2.4 [*]	1991	2%	3.6 [*]	Collector	B
Boarts Road (S26)						
SR-86/Kalin	1.4 [*]	1992	2% [*]	2.0	Collector	B
Borrego Salton Seaway (S22)						
Imperial County Line/SR-86	0.3	1992	2%	0.4	Collector	A
Brockman Road (S30)						
SR-98/McCabe	0.7 [*]	1989	5% [*]	1.6	Collector	A
Butters Road						
Gonder/SR-78	0.8 [*]	1992	2% [*]	1.2	Collector	A
SR-78/Rutherford	0.8 [*]	1992	2% [*]	1.2	Collector	A
Rutherford/Bowles	0.8 [*]	1992	2% [*]	1.2	Collector	A
Clark Road						
SR-98/Heber	2.2	1992	3%	3.7	Secondary	A
Heber/McCabe	2.3	1992	2%	3.4	Secondary	A
McCabe/I-8	3.0	1989	1.1%	3.9	Secondary	A
I-8/Ross	3.5 [*]	1991	2%	5.2 [*]	Secondary	A
Ross/SR-86	3.5 [*]	1991	2%	5.2 [*]	Secondary	A
SR-86/Aten Road	3.9 [*]	1991	2%	5.8 [*]	Secondary	A
Aten/Worthington	2.4 [*]	1991	3% [*]	4.1	Secondary	A
Worthington/Larsen	2.4 [*]	1991	3% [*]	4.1 [*]	Secondary	A

^{*}Estimated

TABLE 3
IMPERIAL COUNTY YEAR 2015 PROJECTED VOLUMES (IN THOUSANDS)

Street Segment	Existing Volume		Growth Rate	Year 2015	Proposed Classification	LOS
	Volume	Year				
Dogwood (S31)						
Anza/SR-98	N/A	N/A	5%	4.0 ^e	Secondary Arterial	A
SR-98/Heber	3.6	1989	5% ^e	8.3	Secondary Arterial	A
Heber/McCabe	3.5	1989	5% ^e	8.1	Secondary Arterial	A
McCabe/I-8	3.4	1989	5% ^e	7.8	Secondary Arterial	A
I-8/Ross	3.5 ^e	1991	5% ^e	7.7	Secondary Arterial	A
Ross/Evan Hewes Hwy	3.6 ^e	1991	5% ^e	7.9	Secondary Arterial	A
Evan Hewes Hwy/Aten	4.0	1991	5% ^e	8.8	Secondary Arterial	A
Aten/Worthington	3.7	1991	5% ^e	8.1	Secondary Arterial	A
Worthington/Keystone	3.3	1991	5% ^e	7.3	Secondary Arterial	A
Keystone/SR-78	3.6	1992	5% ^e	7.7	Secondary Arterial	A
Drew Road (S29)						
SR-98/I-8	1.3	1991	3% ^e	2.2	Collector	B
I-8/Ross	1.8	1991	15% ^e	8.0	Secondary	A
Ross/Evan Hewes Hwy	2.4	1992	15%	10.7	Secondary	A
Dunaway Road						
I-8/Evan Hewes Hwy	0.8	1992	20%	4.5	Collector	C
Eddins Road (S30)						
Gentry/SR-111	1.3	1991	2% ^e	1.9	Collector	A
Evan Hewes Hwy (S80)						
I-8/Imperial Hwy	0.3 ^e	1992	2% ^e	0.4	Collector	A
Imperial Hwy/W. Limit Plaster City	0.3	1992	2% ^e	0.4	Collector	A
E. Limit Plaster City/Dunaway	0.9	1992	2% ^e	1.3	Collector	A
Dunaway/Drew	2.6	1992	14.8%	11.5	Secondary Arterial	A
Drew/Bennett	3.5 ^e	1992	13% ^e	14.0 ^e	Secondary Arterial	B
Bennett/Forrester	5.4	1992	11.7%	19.0	Secondary Arterial	B
Forrester/SR-86	5.3	1991	8.9%	16.6	Secondary Arterial	B
SR-86/Dogwood	9.0	1991	4% ^e	17.6	Non-County	B
Dogwood/SR-111	9.0	1991	4% ^e	17.6	Secondary Arterial	B
SR-111/SR-115 (W. end)	7.6	1991	3% ^e	13.1	Secondary Arterial	A
SR-115 (E. end)/Gordons Well	1.0 ^e	1992	2% ^e	1.5 ^e	Collector	A

^eEstimated

TABLE 3
IMPERIAL COUNTY YEAR 2015 PROJECTED VOLUMES (IN THOUSANDS)

Street Segment	Existing Volume		Growth Rate	Year 2015	Proposed Classification	LOS
	Volume	Year				
Forrester Road (S30)						
McCabe/I-8	0.6	1989	2% [*]	0.9	Collector	A
I-8/Rosa	6.0	1992	5% [*]	12.9	Major Arterial	A
Ross/Evan Hewes Hwy	5.7	1992	5% [*]	12.3	Major Arterial	A
Evan Hewes Hwy/Aten	6.1	1992	9.9%	20.0	Major Arterial	B
Aten/Worthington	5.9	1992	5% [*]	12.7	Major Arterial	A
Worthington/Keystone	5.3	1992	5% [*]	11.4	Major Arterial	A
Keystone/Cady	6.3	1992	5% [*]	13.5	Major Arterial	A
Cady/Baughman (S. Limit Westmorland)	6.0	1992	5% [*]	12.9	Major Arterial	A
N. Limit Westmorland/Gentry	0.9	1992	2% [*]	1.3	Collector	A
Garst						
Sinclair/McDonald	0.2 [*]	1992	2%	0.3 [*]	Collector	A
Gentry Road (S30)						
Forrester/Eddins	0.1	1992	2% [*]	0.1	Collector	A
Eddins/Sinclair	1.0 [*]	1992	2%	1.5	Collector	A
Heber Road						
La Brucherie/Clark	0.5	1992	2% [*]	0.7	Collector	A
Clark/W. End SR-86	0.8	1992	2% [*]	1.2	Collector	A
SR-111/Vencill	3.0 [*]	1992	2% [*]	4.4 [*]	Collector	C
Highline Road (S33)						
Kavanaugh/Worthington	0.4	1992	2% [*]	0.6	Collector	A
Worthington/Keystone	0.8 [*]	1992	2% [*]	1.2 [*]	Collector	A
Keystone/Griffin	0.8 [*]	1992	2% [*]	1.2 [*]	Collector	A
Holt Road (S32)						
N. Limit Holtville/Worthington	1.0 [*]	1992	2% [*]	1.5 [*]	Collector	A
Worthington/Keystone	1.0 [*]	1992	2% [*]	1.5 [*]	Collector	A
Keystone/Gonder	1.0 [*]	1992	2% [*]	1.5 [*]	Collector	A
Hot Mineral Spa Road						
SR-111/Coachella	1.0 [*]	1992	2% [*]	1.5 [*]	Collector	A
Imperial Highway (S2)						
S.D.-Imperial County Line/Evan Hewes Hwy	0.2	1991	2% [*]	0.3	Secondary Arterial	A
Evan Hewes Hwy/I-8	0.2 [*]	1991	2% [*]	0.3 [*]	Secondary Arterial	A
I-8/SR-98	0.2	1991	2% [*]	0.3 [*]	Collector	A

^{*}Estimated

**TABLE 3
IMPERIAL COUNTY YEAR 2015 PROJECTED VOLUMES (IN THOUSANDS)**

Street Segment	Existing Volume		Growth Rate	Year 2015	Proposed Classification	LOS
	Volume	Year				
Interstate 8						
S.D.-Imperial County Line/I-8 & SR-98 Separation	10.7	1991	6.0%	26.1	State Hwy.	B
I-8 & SR-98 Separation/Dunaway	8.6	1991	4.7%	18.3	State Hwy.	B
Dunaway/Drew	8.7	1991	5.3%	19.8	State Hwy.	B
Drew/Forrester	8.5	1991	4.3%	17.3	State Hwy.	B
Forrester/Imperial Ave. (El Centro W. limits)	10.9	1991	7.0%*	29.2	State Hwy.	B
4th St/El Centro E. limits)/Dogwood	22.9	1991	5.0%*	50.4	State Hwy.	D
Dogwood/SR-111	22.0	1991	5.0%*	48.4	State Hwy.	D
SR-111/Bowker	8.4	1991	3.7%	15.9	State Hwy.	A
Bowker/Orchard	7.6	1991	3.4%	13.8	State Hwy.	A
Orchard/Bonds Corner Rd.	6.5	1991	4.0%*	12.7	State Hwy.	A
Bonds Corner Rd/SR-115	6.2	1991	4.0%*	12.2	State Hwy.	A
SR-115/SR-98	7.2	1991	4.0%*	14.1	State Hwy.	A
SR-98/Ogilby	8.7	1991	2.5%	13.9	State Hwy.	A
Ogilby/Pilot Knob	9.6	1991	3.1%	16.7	State Hwy.	B
Pilot Knob/SR-186	10.7	1991	4.2%	21.5	State Hwy.	B
SR-186/Winterhaven	14.0	1991	7.0%	37.5	State Hwy.	C
State Route 78						
S.D.-Imperial County Line/Junction SR-86	0.6	1991	7.0%*	1.6	State Hwy.	B
SR-111/SR-115N	3.5	1991	3.0%*	6.0	State Hwy.	C
SR-115N/SR-115S	3.1	1991	4.0%*	6.1	State Hwy.	C
1-115S/Glamis	1.6	1991	2.0%*	2.4	State Hwy.	B
Glamis/Ogilby	1.3	1991	3.7%	2.5	State Hwy.	B
Ogilby/Palo Verde, 4th	1.5	1991	4.2%	3.0	State Hwy.	B
Palo Verde, 4th/Imperial County Line	2.5	1991	7.7%	7.1	State Hwy.	C
State Route 86						
Imperial County Line/Desert Shores	7.5	1991	9.0%	23.7	State Hwy.	B
Desert Shores/Brawley	5.8	1991	6.8%	15.3	State Hwy.	B
Brawley/S. Marina	4.9	1991	4.4%	10.1	State Hwy.	B
S. Marina/Air Park	5.4	1991	7.2%	14.7	State Hwy.	B
Air Park/SR-78 West	4.1	1991	5.9%	9.9	State Hwy.	B
SR-78 West/Lack	4.6	1991	11.8%	17.6	State Hwy.	B
Lack/Westmorland W. City Limits	5.3	1991	0.7%	6.2	State Hwy.	B
Westmorland E. City Limits/Cady	5.3	1991	1.9%	7.7	State Hwy.	A
Western Ave. (S. Limits Brawley)/Legion	13.5	1991	2.0%	20.0	State Hwy.	B
Legion/Keystone	11.5	1991	3.8%*	22.0	State Hwy.	C
Keystone/Imperial Ave.	11.2	1991	4.0%	22.0	State Hwy.	C
Imperial S. Limits/El Centro N. Limits	15.5	1991	3.0%*	26.7	State Hwy.	C
I-8/McCabe	9.2	1991	8.0%	26.9	State Hwy.	C
McCabe/Heber	5.1	1991	3.8%	9.8	State Hwy.	C
Heber/Dogwood	5.5	1991	4.8%	11.8	State Hwy.	D
Dogwood/SR-111	4.3	1991	1.6%	6.0	State Hwy.	C

*Estimated

**TABLE 3
IMPERIAL COUNTY YEAR 2015 PROJECTED VOLUMES (IN THOUSANDS)**

Street Segment	Existing Volume		Growth Rate	Year 2015	Proposed Classification	LOS
	Volume	Year				
State Route 98						
W. Junction I-8/Imperial Hwy.	1.8	1991	10.0%*	6.1	State Hwy.	B
Imperial Hwy/Drew	2.1	1991	10.0%*	7.1	State Hwy.	B
Drew/Clark	2.8	1991	3.3%	5.0	State Hwy.	B
Clark/Dogwood	8.6	1991	4.0%	16.9	State Hwy.	C
Dogwood/Calexico W. City Limits	12.0	1991	5.0%*	26.1	State Hwy.	C
Bowker (just E. of Calexico City Limits)/Barbara Worth	2.7	1991	33.0%*	24.1	State Hwy.	C
Barbara Worth/Bonds Corner	1.6	1991	12.5%*	6.4*	State Hwy.	B
Bonds Corner/E. Highline Canal	0.9	1991	0.9%	1.1	State Hwy.	A
E. Highline Canal/I-8	0.7	1991	3.3%	1.3	State Hwy.	A
State Route 111						
Cole (Calexico N. Limits)/Heber	25.0	1991	3.0%*	43.0	State Hwy.	C
Heber/McCabe	22.0	1991	3.0%*	37.8	State Hwy.	C
McCabe/I-8	23.4	1991	3.0%*	40.2	State Hwy.	C
I-8/Evan Hewes Hwy	12.1	1991	3.0%*	20.8	State Hwy.	B
Evan Hewes Hwy/Aten	9.5	1991	3.0%*	16.3	State Hwy.	B
Aten/Worthington	7.9	1991	3.0%*	13.6	State Hwy.	B
Worthington/Keystone	7.4	1991	3.0%*	12.7	State Hwy.	B
Keystone/E. Junction 78	6.9	1991	3.0%*	11.9	State Hwy.	B
Shank (Brawley N. Limits)/Rutherford	7.1	1991	5.4%	16.3	State Hwy.	B
Rutherford/Calipatria S. Limits	7.1	1991	5.8%	17.0	State Hwy.	B
California St (just inside Calipatria N. Limits)/Sinclair	5.9	1991	2.4%	9.3	State Hwy.	B
Sinclair/Niland Ave	7.6	1991	6.9%	20.2	State Hwy.	C
Niland Ave/English	5.6	1991	6.5%	14.3	State Hwy.	B
English/Bombay Beach	3.1	1991	4.5%*	6.4	State Hwy.	B
Bombay Beach/Imperial-Riverside County Line	3.5	1991	3.8%	6.7	State Hwy.	B
State Route 115						
Junction I-8/Grape (Holtville E. Limits)	2.1	1991	2.8%*	3.5	State Hwy.	B
4th St (Holtville W. Limits)/W. Junction Evan Hewes Hwy	5.8	1991	1.1%	7.3	State Hwy.	C
W. Junction Evan Hewes Hwy/SR-78	2.7	1991	1.5%	3.7	State Hwy.	B
SR-78/Rutherford	1.2	1991	7.5%	3.4	State Hwy.	B
Rutherford/Wirt	1.3	1991	6.8%	3.4	State Hwy.	B
Wirt/East Ave (Calipatria E. Limits)	1.8	1991	4.0%	3.5	State Hwy.	B
State Route 186						
Mexican Border/I-8	2.0	1991	5.0%	4.4	State Hwy.	C
Kalin (S26)						
Boarts/Rutherford	1.4*	1992	2%*	2.0*	Collector	B
Eddins/Sinclair	0.3*	1992	2%	0.4*	Collector	A

*Estimated

TABLE 3
IMPERIAL COUNTY YEAR 2015 PROJECTED VOLUMES (IN THOUSANDS)

Street Segment	Existing Volume		Growth Rate	Year 2015	Proposed Classification	LOS
	Volume	Year				
Keystone Road (S27)						
Forrester/SR-86	0.8	1992	2% ^e	1.2	Collector	A
SR-86/Dogwood	2.0 ^e	1992	14% ^e	8.4 ^e	Secondary	A
Dogwood/SR-111	2.0 ^e	1992	14% ^e	8.4 ^e	Secondary	A
SR-111/SR-115	1.0 ^e	1992	2% ^e	1.5 ^e	Collector	A
SR-115/Holt	1.0 ^e	1992	2% ^e	1.5 ^e	Collector	A
Holt/Highline	0.8 ^e	1992	2% ^e	1.2 ^e	Collector	A
McCabe Road						
Forrester/Clark	2.0	1992	2% ^e	2.9	Collector	B
Clark/Heber	2.0 ^e	1992	2% ^e	2.9 ^e	Collector	B
Heber/Dogwood	1.0 ^e	1992	2% ^e	1.5 ^e	Collector	A
Dogwood/SR-111	0.5	1987	2% ^e	0.8	Collector	A
SR-111/Orchard	0.5 ^e	1992	2% ^e	0.70 ^e	Collector	A
McDonald						
Garst/SR-111	0.2 ^e	1992	2%	0.3	Collector	A
Miller Road (S33)						
Kumberg/I-8	0.4	1987	2% ^e	0.6	Collector	A
I-8/SR-115	0.5 ^e	1992	2% ^e	0.7 ^e	Collector	A
SR-115/Kavanaugh	0.6 ^e	1992	2% ^e	0.9 ^e	Collector	A
Ogilby Road (S34)						
I-8/SR-78	0.8	1991	2% ^e	1.2	Collector	A
Orchard Road (S32)						
King/McCabe	0.5 ^e	1992	N/A ^e	30.0 ^e	Prime	B
McCabe/I-8	1.0 ^e	1992	N/A ^e	35.0 ^e	Prime	B
I-8/SR-115	1.3	1990	N/A ^e	15.0 ^e	Major	B
Picacho (S24)						
Winterhaven/Ross	3.0 ^e	1992	2% ^e	4.4 ^e	Collector	C
Ross						
Picacho/Flood	2.8	1989	2% ^e	4.3	Collector	C
Flood						
Ross/Collins	2.6 ^e	1992	2% ^e	3.8 ^e	Collector	B
Collins						
Flood/York	2.4 ^e	1992	2% ^e	3.5 ^e	Collector	B
York						
Collins/Mehring	2.2 ^e	1992	2% ^e	3.2 ^e	Collector	B
Mehring						
York/Imperial Dam	2.0	1989	2% ^e	3.0	Collector	B
Imperial Dam						
Mehring/Imperial County Line	2.0 ^e	1992	2% ^e	2.9 ^e	Collector	B

^eEstimated

^eLOS C capacity not applicable to State Highways and Interstates

**TABLE 3
IMPERIAL COUNTY YEAR 2015 PROJECTED VOLUMES (IN THOUSANDS)**

Street Segment	Existing Volume		Growth Rate	Year 2015	Proposed Classification	LOS
	Volume	Year				
Ross Road						
Drew/Bennett	1.2 [*]	1992	6% [*]	2.9 [*]	Collector	B
Bennett/Forrester	1.2	1992	6% [*]	2.9	Collector	B
Forrester/El Centro W. City Limits	1.3	1992	6.1%	3.1	Collector	B
Dogwood (El Centro E. City Limits) SR-111	3.0	1991	3% [*]	5.2	Collector	C
SR-111/Mets	1.2 [*]	1992	2% [*]	1.8 [*]	Collector	A
Rutherford (S26)						
Kalin/SR-111	1.4	1992	2% [*]	2.0	Collector	B
SR-111/SR-115	1.1	1992	2% [*]	1.6	Collector	A
SR-115/Butters	1.0 [*]	1992	2% [*]	1.5 [*]	Collector	A
Butters/Irvine	0.8 [*]	1992	2% [*]	1.2 [*]	Collector	A
Sinclair						
Kalin/SR-111	0.3 [*]	1992	2% [*]	0.4 [*]	Collector	A
Walker						
Forrester/Gentry	0.9 [*]	1992	2% [*]	1.3 [*]	Collector	A
Winterhaven Drive						
I-8/Picacho	4.7	1991	2% [*]	7.0	Secondary	A
Worthington Road (S28)						
Huff/Forrester	0.3	1991	2% [*]	0.4	Collector	A
Forrester/La Brucherie (W. limits of Imperial)	0.7	1989	2% [*]	1.1	Collector	A
Clark (E. limits of Imperial)/Dogwood	2.0	1987	3% [*]	3.7	Collector	B
Dogwood/SR-111	1.8	1991	3% [*]	3.1	Collector	B
SR-111/SR-115	1.0	1987	2% [*]	1.6	Collector	A
SR-115/Holt	0.8 [*]	1992	2% [*]	1.2 [*]	Collector	A
Holt/Highline	0.6 [*]	1992	2% [*]	0.9 [*]	Collector	A
Highline/Highline Canal	0.6 [*]	1992	2% [*]	0.9 [*]	Collector	A

^{*} Estimated

YEAR 2015 PROJECTED DAILY TRAFFIC VOLUMES ON COUNTY OF IMPERIAL ROADWAYS

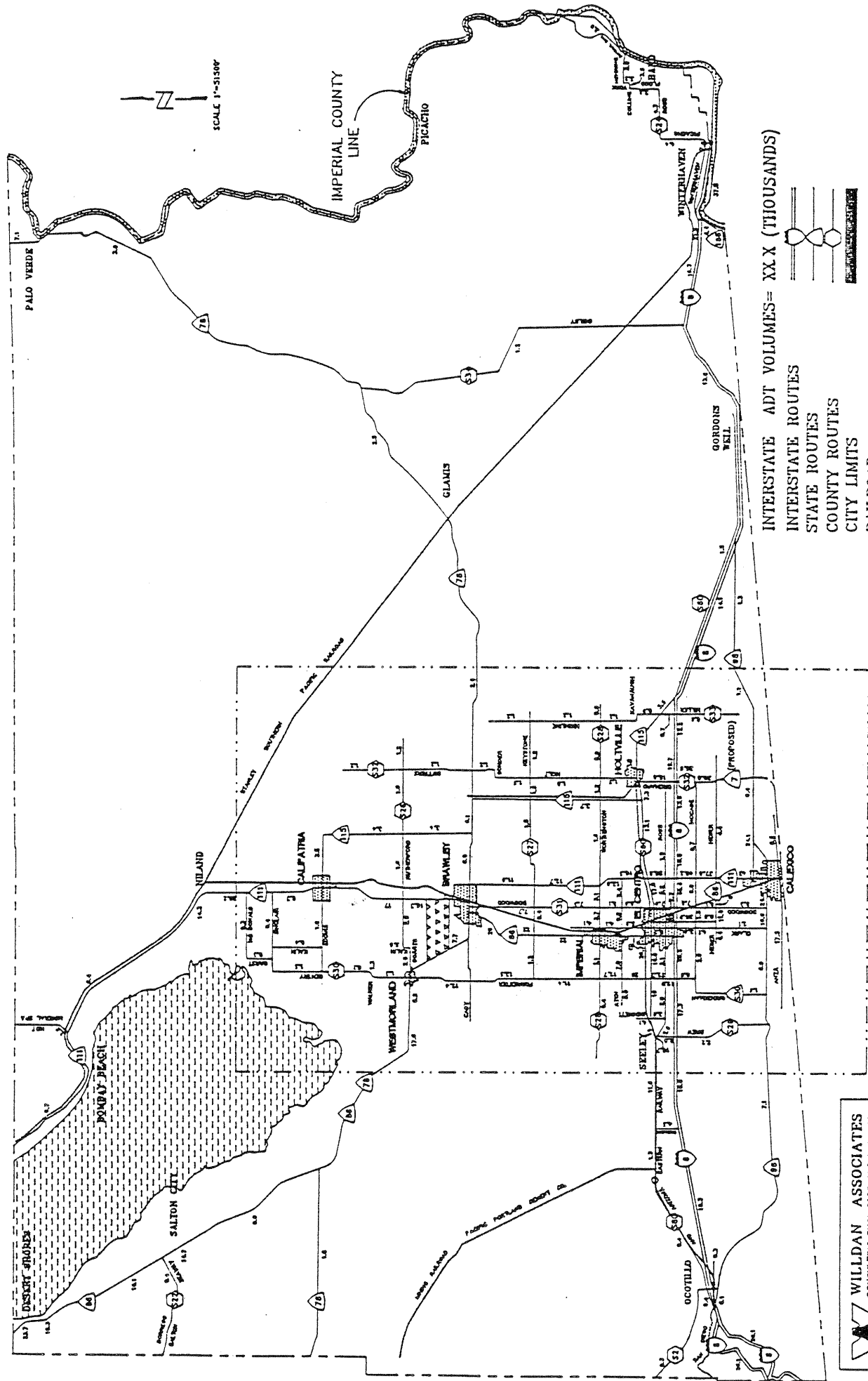
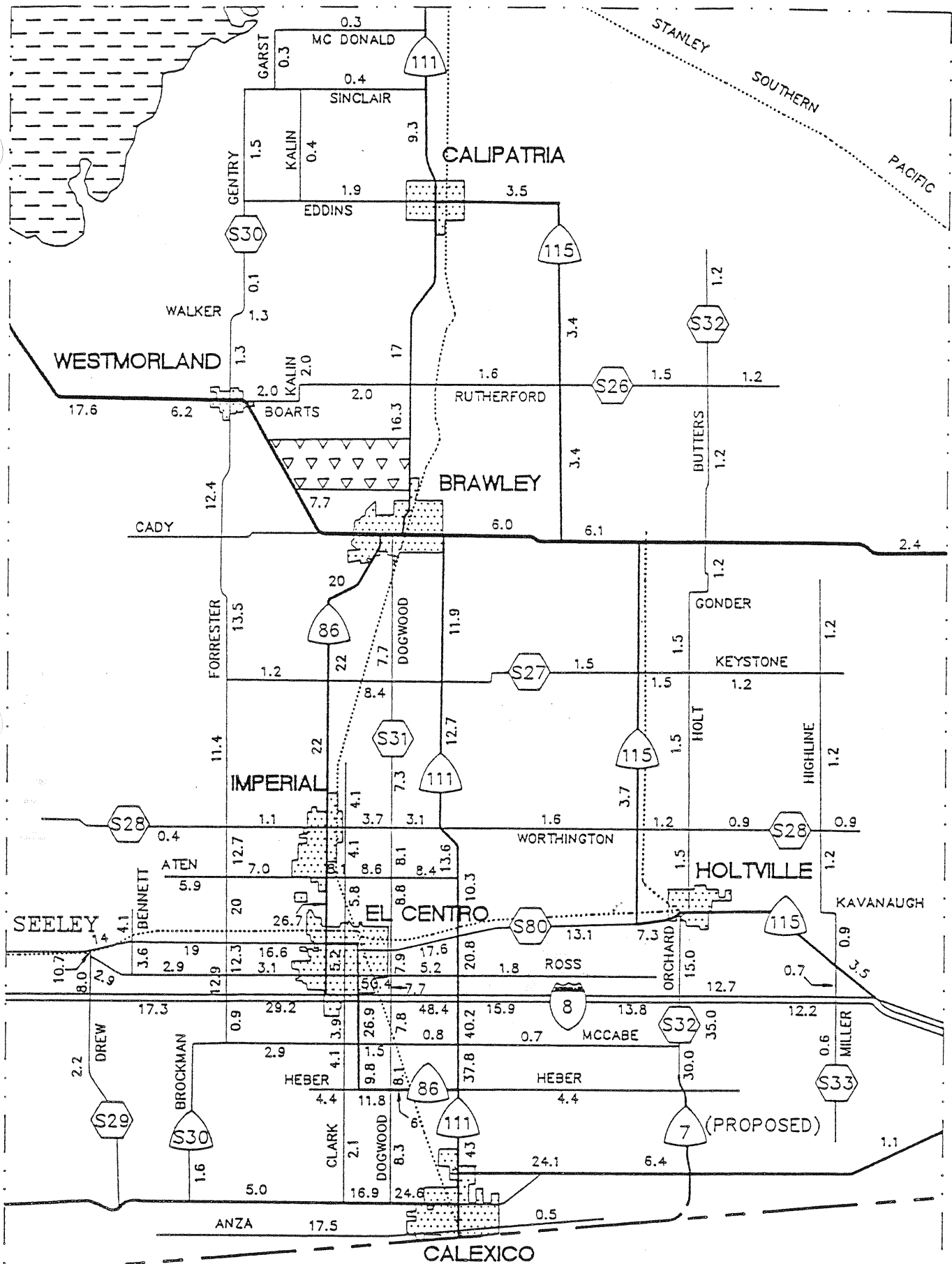


FIGURE 5

WILLDAN ASSOCIATES
CONSULTING ENGINEERS AND PLANNERS
1000 UNIVERSITY BLVD., SUITE 100, BRAWLEY, CA 92520

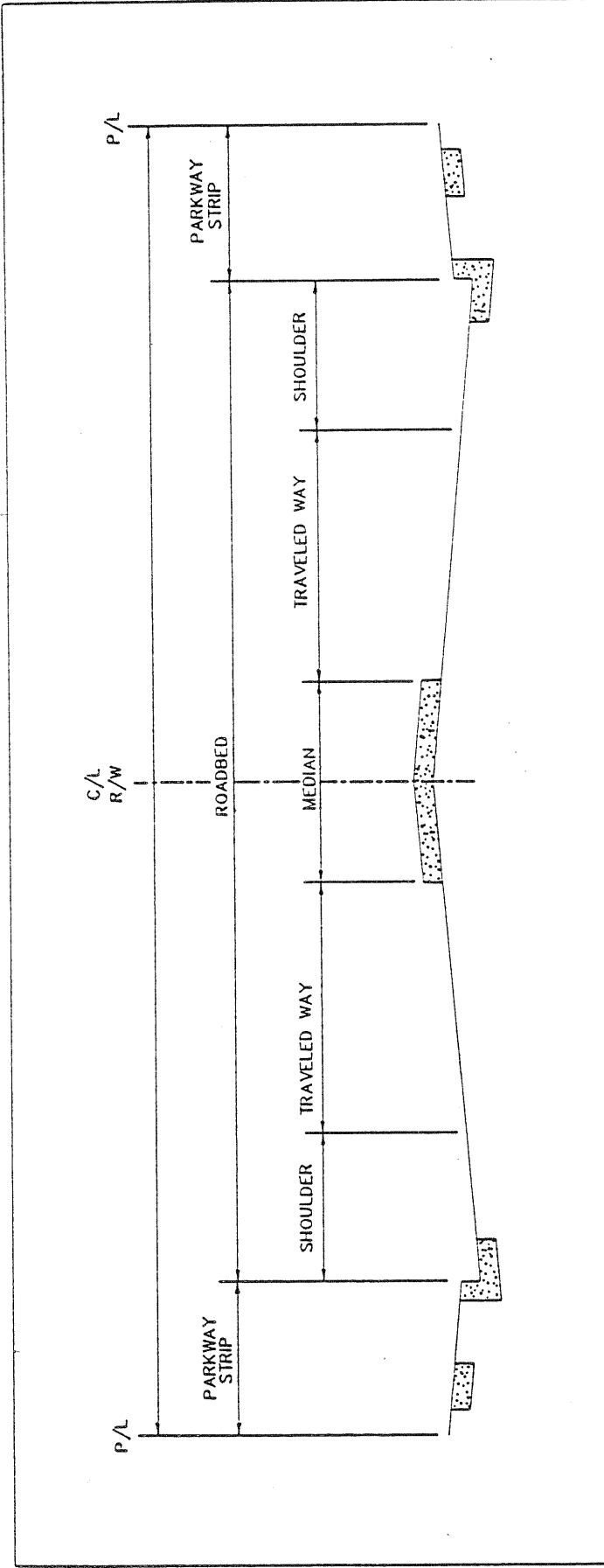
1/27/93

NOTE: FOR COMPLETE ROADWAY SYSTEM (INCLUDING LOCAL ROADS) SEE APPENDIX B



INTERSTATE ADT VOLUMES= XXX (THOUSANDS)
 INTERSTATE ROUTES
 STATE ROUTES
 COUNTY ROUTES
 CITY LIMITS
 RAILROAD
 POSSIBLE BRAWLEY BYPASS CORRIDOR

FIGURE 5A
INSET



CORRIDOR CLASSIFICATION	MEDIAN	TRAVELED WAY	SHOULDER	PARKWAY STRIP	ROADBED	R/W
PRIME ARTERIAL	18	36	8	10	106	126
MAJOR ARTERIAL	18	24	8	10	82	102
SECONDARY ARTERIAL	0	24	8	10	64	84
COLLECTOR	0	12	8	10	40	70
RESIDENTIAL STREET	0	12	6	10	36	60
RESIDENTIAL CUL-DE-SAC OR LOOP STREET	0	12	4	10	32	60

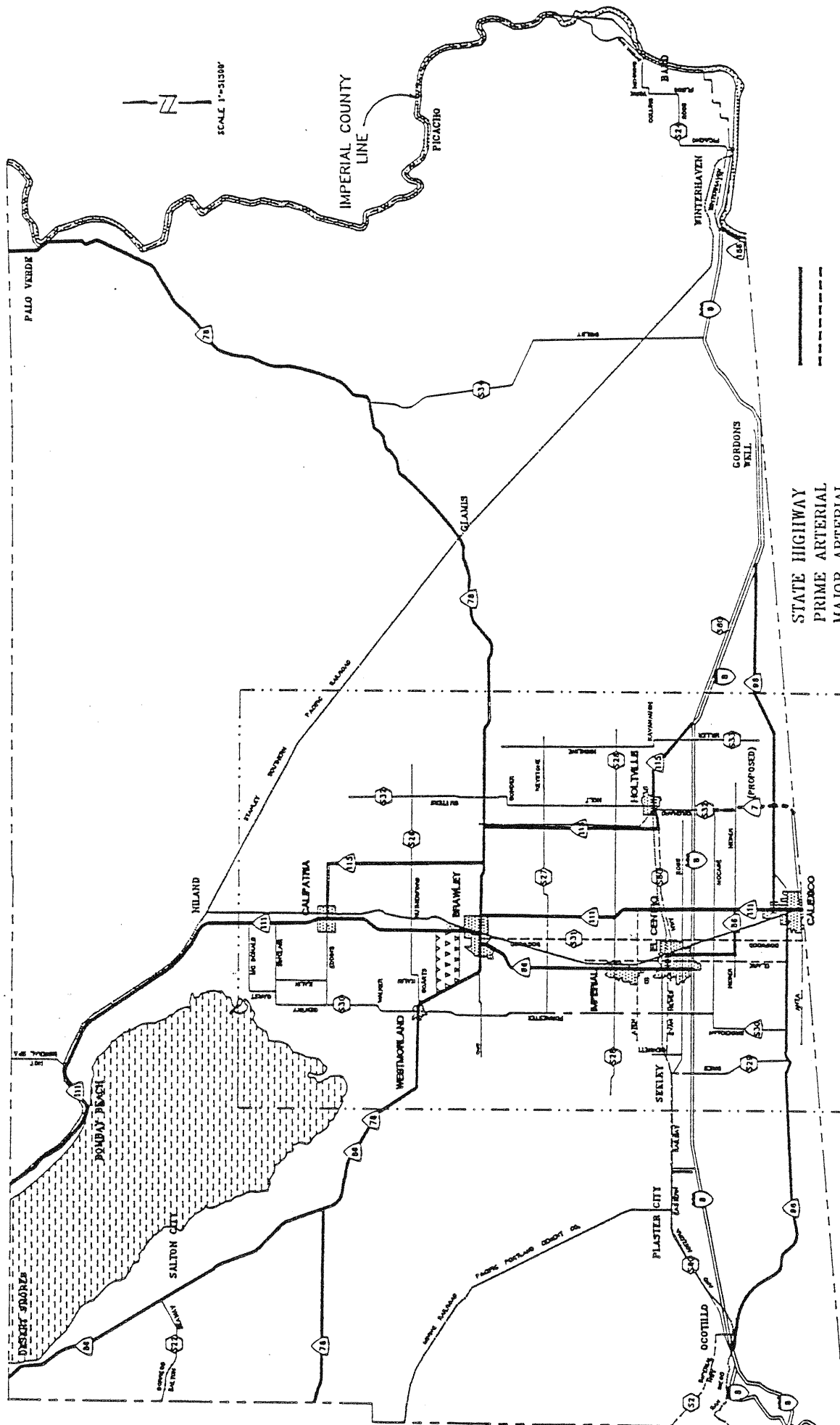
*PROPOSED IMPERIAL COUNTY ROADWAY AND
RIGHT OF WAY STANDARDS*

FIGURE 6



WILLDAN ASSOCIATES
CONSULTING ENGINEERS AND PLANNERS
9393 GREENWICH DR., SUITE 280
EGG, CA 92122

PROPOSED CIRCULATION ELEMENT CLASSIFICATION FOR COUNTY OF IMPERIAL ROADWAYS



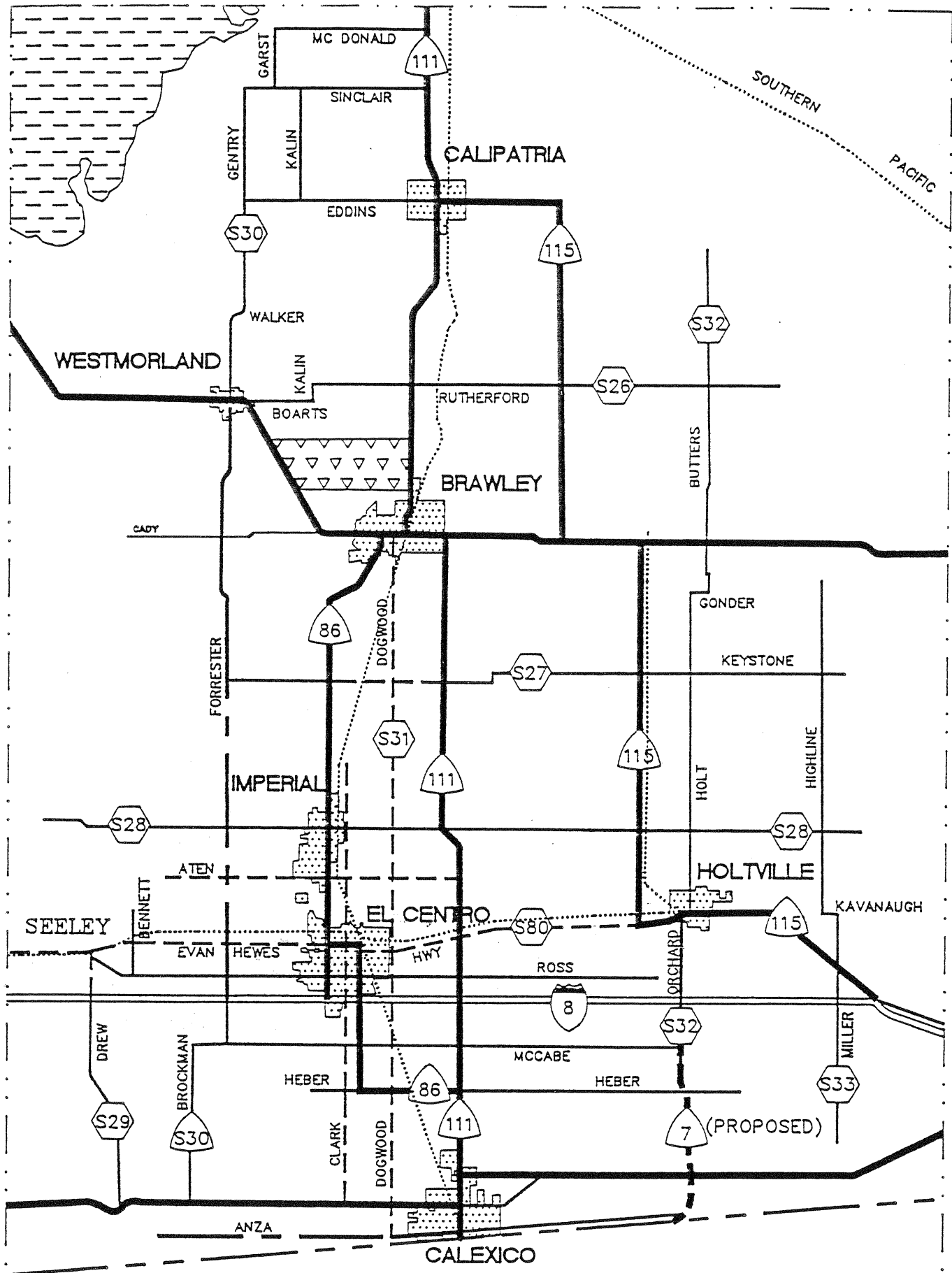
- STATE HIGHWAY
- PRIME ARTERIAL
- MAJOR ARTERIAL
- SECONDARY ARTERIAL
- COLLECTOR
- RAILROAD
- POSSIBLE BRAWLEY
- BYPASS CORRIDOR

FIGURE 7

NOTE: FOR COMPLETE ROADWAY SYSTEM (INCLUDING LOCAL ROADS) SEE APPENDIX B

WILLDAN ASSOCIATES
 CONSULTING ENGINEERS AND PLANNERS
4000 EAST 10TH STREET, SUITE 100, INDIANAPOLIS, IN 46219

1/27/93



STATE HIGHWAY
 PRIME ARTERIAL
 MAJOR ARTERIAL
 SECONDARY ARTERIAL
 COLLECTOR
 RAILROAD
 POSSIBLE BRAWLEY
 BYPASS CORRIDOR

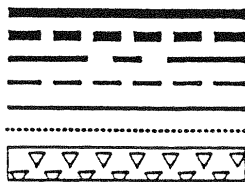


FIGURE 7A
 INSET

COMPOSITE CIRCULATION ELEMENT CLASSIFICATION FOR COUNTY OF IMPERIAL ROADWAYS

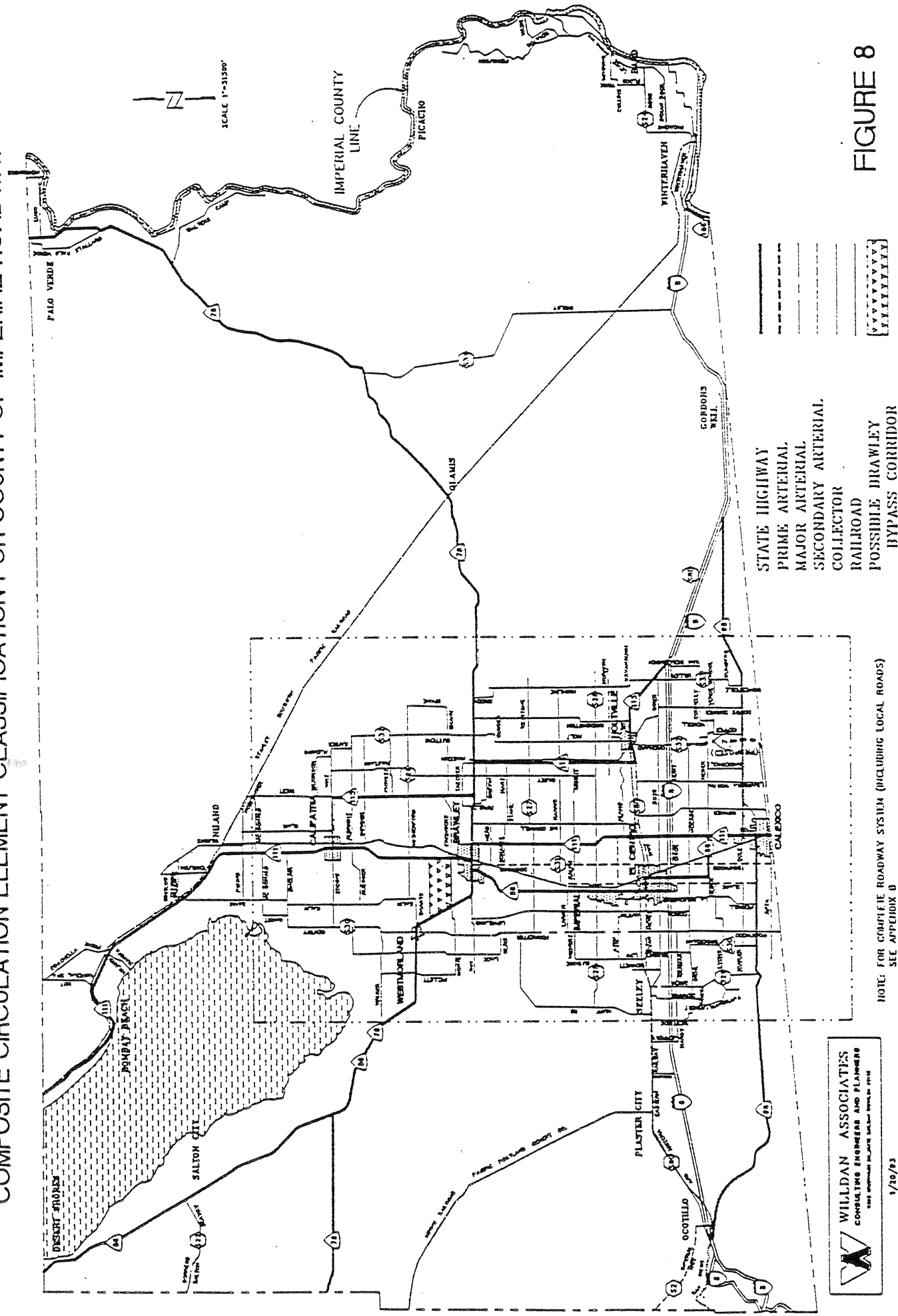



FIGURE 8


WILLDAN ASSOCIATES
 CONSULTING ENGINEERS AND PLANNERS
1000 WEST 10TH STREET, SUITE 100, BRAWLEY, CA 92520

NOTE: FOR COMPLETE ROADWAY SYSTEM (INCLUDING LOCAL ROADS) SEE APPENDIX B

1/30/93

GOALS, POLICIES, AND OBJECTIVES

As part of this update to the County of Imperial General Plan, a set of goals and objectives is presented along with policies to achieve these specific goals and objectives. These are broken down into the Master Transportation Plan, Roadway Improvements, Transportation Demand Management (TDM), and Non-Motorized Transportation.

GOALS

The goals of the Circulation Element are described as follows:

1. Provide an integrated transportation system for the safe and efficient movement of people and goods within and through the County of Imperial with minimum disruption to the environment.
2. Consider all modes of transportation, including motor vehicle (Master Transportation Plan), mass transit (public and private bus, rail, and taxi systems), air transportation, and non-motorized transportation (pedestrian and bicycle).
3. Develop alternative transportation strategies designed to reduce traffic volumes and improve traffic flow.
4. Participate in and assist with coordinating regional efforts which integrate the County Transportation System with the Regional Transportation System.
5. Give recognition to the fact that transportation needs must be balanced with community values and public acceptance. There will be situations where undesirable levels of service cannot be overcome cost effectively. Some permanent traffic congestion will be the result.

OBJECTIVE

To provide for the transportation needs of the County and Subregion by implementing a circulation system which provides a high level of mobility, efficiency, access, safety, and environmental considerations for all modes and purposes of trips. These modes may include, but not be limited to automobiles, trucks, buses, bicycles, pedestrians, and rail. The intent of this section is to ensure that the siting and development of new facilities are coordinated with future population and employment growth and provide a balanced mix of transportation resources serving the County of Imperial.

POLICIES

The County's circulation system does not stand on its own, but is an integral part of the overall land use planning for the County. It also must function as a component of the Regional Transportation system. The following policies are intended to direct County efforts to promote this integration of the circulation system with county-wide land use policies and the Regional Transportation System:

-
1. The County's Master Street Plan shall be designed to provide the facility and level of access necessary to serve the specific existing and proposed land use designated in the Land Use Plan and to satisfy regional travel needs.
 2. The County shall provide necessary facilities to obtain balanced use of all travel modes to address the transportation needs of all ages and to provide mobility for a variety of trip purposes. The County shall generally recognize the following priorities for new transportation facilities: vehicular, freight movement, transit, pedestrian, and bicycle.
 3. The County shall cooperate with the adjacent communities and agencies such as the Federal Government, State Department of Transportation (Caltrans District 11), El Centro, Brawley, Calexico, Holtville, Imperial, Westmorland, and Calipatria to provide the maximum compatibility of adopted circulation elements and regional facility plans.
 4. The County's circulation system shall promote efficient intra- and inter-county travel with minimum disruption to established and planned communities.

MASTER TRANSPORTATION PLAN

OBJECTIVE

To provide a network of roadways throughout the County, which is the foundation of the transportation system. The street system is used for vehicular, bicycle, transit, pedestrian, and freight movement. Thus, it is essential to define a hierarchical system in which each roadway functions in a manner consistent with its intended use.

POLICIES

- A. The policies contained in this section are intended to encourage design standards which promote efficiency and safety of the circulation system. The County shall plan, design, and implement a street system which recognizes the importance of the use and function of each hierarchical street classification. These street classifications include Prime Arterial, Major Arterial, Secondary Arterial, Collector, and Local Streets. The function of each is described below, and the general alignment of the Prime Arterial, Major Arterial, Secondary Arterial, and Collector Streets are shown on the Master Street Plan.
1. **Prime Arterial** — the main function of this classification is to provide regional, subregional, and intra-county travel services. Features include high design standards with four or six travel lanes, raised and landscaped medians, highly restricted access, and no parking.
 2. **Major Arterial** — these provide intra-county and subregional service. Access and parking may be allowed, but closely restricted in such a manner as to ensure proper function of this roadway. Typical standards include the provision for four and six travel lanes with raised and landscaped medians for added safety and efficiency by providing protected left turn lanes at selected locations.
 3. **Secondary Arterial** — these are designed for intra-county travel as a link between the long haul facilities and the collector/local facilities. Although it frequently provides direct access to abutting properties, that is not its primary purpose. Typical design features include provision for four travel lanes without a raised median. Parking is generally not permitted.
 4. **Collector Street** — this is designed to connect local streets with the adjacent arterial street system. Design standards include provision for two travel lanes and parking, except in specific locations where parking is removed to provide a turn lane at intersections. Collector streets frequently provide direct access to abutting properties, although that is not desirable.
 5. **Local Street** — this street is designed to provide direct access to abutting properties and to give access from neighborhoods to the Collector Street system. This classification should be discontinuous in alignment such that through trips are

discouraged. Typical design standards include provision for one travel lane in each direction, parking on both sides, and direct driveway access.

- B. The Master Transportation Plan is the graphical reference guide which shows the present and planned street system, along with the classification of those streets. It is important to note that where there is a change from one classification to another along a certain street, the transition will occur in mid-block areas to preclude non-continuing lanes and intersections. The design criteria (design, speed, curve radii, etc.) for the higher classification shall generally take precedence through the transition area. The County Director of Public Works shall review these transition areas and provide guidance in achieving this policy.
- C. The County shall require new development to provide for local streets to serve the direct access needs of abutting property. These streets should be designed with a discontinuous pattern to discourage through traffic. They generally should not intersect with arterial street classifications. Typical design features provide for two travel lanes with parking on both sides of the street. Local streets include loop streets and cul-de-sacs.
- D. The County's goal for an acceptable traffic service standard during AM and PM peak periods shall be LOS C for all arterial and street links and LOS C for all intersections. These service values are defined by the 1985 edition of the *Highway Capacity Manual* or any subsequent edition thereof. This policy shall acknowledge that the aforementioned level of service standards may not be obtainable on some existing facilities where abutting development precludes acquisition of additional right-of-way needed for changes in facility classification.
- E. In order to achieve the level of service goals in the previous policy, the County shall develop and institute a long-range funding program in which new land development shall bear the major burden of the associated costs and improvement requirements.
- F. The County shall adopt design standards for all streets in accordance with their functional classifications and recognized design guidelines. In developing these standards, the County shall consider the design standards of Caltrans and the American Association of State and Highway Transportation Officials (AASHTO). All streets within the County shall be designed in accordance with the adopted County of Imperial Design Standards. Typical cross sections and design criteria for the various street classifications are shown as an attachment to this document.
- G. The County may permit construction of private streets within individual development projects providing:
 - 1. They are designed geometrically and structurally to meet County standards;
 - 2. Only project occupants are served;
 - 3. Emergency vehicle access requirements are satisfied;
 - 4. The streets do not provide a direct through route between public streets;
 - 5. The Homeowners Associations and/or property owners provide an acceptable program for financing regular street maintenance; and

H. The County shall institute street access guidelines consistent with the street classifications. These shall be applied where feasible to all new developments. The following guidelines shall be used to define appropriate access:

1. The County shall prohibit driveway access to Prime Arterials.
2. Access to Major Arterials shall not be permitted unless there is no other reasonable means of access to the public street system. Where access to Major or Secondary Arterials must be allowed, it shall be limited through the use of medians and/or access controls in order to maintain street capacity.
3. Along Major Arterials, access spacing shall be a standard distance of 1,200 feet or more. Under special circumstances, this distance may be reduced to a minimum of 600 feet. Along secondary arterials, the corresponding access spacing shall be 600 feet for the standard distance and 300 feet for the minimum distance. The above measurements shall be from the ends of the curb returns.

I. The County shall adopt specific alignment plans when "stand equal sided" widening is not adequate for future needs, or when special conditions exist which require a detailed implementation plan. When necessary, the specific alignment plan should be prepared prior to the official submittal of the development proposal. The need for such plans will be indicated by the following:

1. Variable terrain or other sensitive areas which may preclude straightforward preparation of street improvement plans.
2. Alignments which are necessary because of existing street design and/or land use configurations.
3. Development proposals which must deal with extraordinary physical or environmental features.

ROADWAY IMPROVEMENTS

OBJECTIVE

The ultimate circulation system is not in place at this time, nor is it necessary for it to be fully completed until the County and regional growth warrant it. In general, the road network will be constructed in phases consistent with the needs of the community. This section incorporates policies which will encourage the orderly development and funding of the street system. It is expected that the construction will be funded through a combination of developer contributions and fees, County funds such as gasoline tax, and state and federal subventions.

POLICIES

- A. The County shall require dedication and improvement of necessary rights-of-way along Master Transportation Plan streets. This usually will occur in fulfillment of a condition of approval for a tentative map or as a condition of approval for building permit, whichever occurs first.
- B. The County shall assure that each addition to the circulation system is a usable link on the total system and that new routes and links are coordinated with existing routes to ensure that each new and existing roadway continues to function as it was intended.
- C. The County shall require or provide adequate traffic safety measures on all new and existing roadways. These measures may include, but not be limited to, appropriate levels of maintenance, proper street design, traffic control devices (signs, signals, and striping), street lighting, and coordination with the school districts to provide school crossing signs and protection.
- D. The County shall give priority to funding and implementing projects which either complete links on the circulation system or relieve existing deficiencies.
- E. Where feasible, the County shall interconnect traffic signals to form area networks or corridor systems. These systems shall be timed to facilitate the flow of through traffic on the arterial system, thus enhancing the movement of vehicles and goods through the County, while reducing fuel consumption and air pollution.
- F. The County shall impose appropriate pro-rated fees for construction of roadway facilities and associated landscaping to ensure that all new development contributes to the completion of the circulation system. In addition to pre-permit collection, such fees may be imposed through creation of assessment districts.
- G. The County shall approve and build streets as per County of Imperial Design Standards.
- H. The County shall require additional right-of-way and additional improvements of major arterials where required for turning movements or to provide access to adjacent properties wherever access is not feasible from the lower classification street system.

I. The County shall:

1. Require development to provide collector and local street improvements according to standards of the County Public Works Department.
2. Require development to dedicate necessary right-of-way when the subdivision or development of property adjacent or straddling Master Transportation Plan streets is proposed.
3. Require development to provide all necessary grading, installation of curbs, gutters, sidewalks, and parkway tree planting, unless these improvements are provided through other means.
4. Require development to provide half-width street improvements plus 12-feet beyond the centerline in accordance with County standards.

J. If the location and traffic generation of a proposed development will result in congestion on major streets or failure to meet LOS C at peak hour periods, or if it creates safety hazards, the proposed development shall be required to make necessary offsite improvements. Such improvements may be eligible for reimbursement from collected impact fees. In some cases, the development may have to wait until financing for required offsite improvements is available. In other cases where development would result in unavoidable impacts, appropriate findings of overriding consideration would be required to allow temporary undesirable levels of service.

TRANSPORTATION DEMAND MANAGEMENT

OBJECTIVE

The transportation system envisioned for the County is a balanced system, incorporating the needs of all groups, as well as making provision for many different modes of transportation. To accomplish this, it is necessary to implement policies encouraging a range of transportation opportunities while reducing the dependency upon automobiles.

POLICIES

- A. The County shall encourage the reduction of vehicle miles, reduction of the total number of daily and peak hour vehicular trips, and provide better utilization of the circulation system through development and implementation of Transportation Demand Management and Transportation Systems Management programs. These may include implementation of mandatory peak hour trip reduction, requirements for staggered work hours, telecommunications, increased development of employment centers where transit usage is highly viable, encouraging of ride sharing in the public and private sector, provision for park and ride facilities adjacent to the regional transportation system, and provision for transit subsidies.
 - 1. The County in its role as a major employment center shall commit to the use of trip reduction and vehicle miles traveled reduction strategies identified by Transportation Management and Transportation Systems Management programs.
- B. The County shall consider the use of bicycles during the design and implementation of the street system.
- C. The County shall update and maintain a bikeway plan as part of the Recreational Trails Element to recommend bicycle routes. These routes shall connect residential areas with schools, parks, recreation areas, major employment centers, and neighborhood commercial centers.
- D. The County shall require pedestrian facilities along all streets.
- E. The County shall require that adequate off-street parking be provided for all properties. This assumes that on-street parking will not be available on Prime, Major, or Secondary Arterials, since it is necessary in most cases to utilize curb-to-curb width for vehicular traffic, transit, and bicycle uses.
- F. The County shall maintain curb use priorities that consider, in descending order, the needs of through traffic, transit stops, bus turnouts, passenger loading needs, and short and long term parking.
- G. The County shall prohibit the use of public streets for freight loading and unloading.

PUBLIC TRANSIT AND RAILWAY TRANSIT

An integral part of the multi-modal system is the provision for public transit and rail service. For transit and rail service to be successful, they should be properly planned so that they are accessible to users and operate on a reasonable schedule. The following goals, objectives, and policies are intended to provide guidance in establishing a transit system and encouraging usage of railroad facilities to serve the needs of the County and region.

GOALS

Develop public transportation in concert with local and regional plans to achieve;

1. More efficient patterns of land development
2. More efficient expenditure of funds
3. Public input in the planning process
4. Increased public transportation use
5. To achieve an overall coordinated system

OBJECTIVES

1. More efficient patterns of land development:
 - a. Public transit should be a viable alternative to private automobile.
 - b. Review of pending development and proposals to include comments on recommendations for the implementation of public transit.
2. More efficient expenditure of funds:
 - a. Service should be evaluated annually to determine efficiency and effectiveness.
 - b. Service should maintain minimum area-wide operating ratio.
 - c. Annual operating cost/revenue mile rate of increase should not exceed the annual inflation rate.
3. Public input in the planning process:
 - a. Respond to community socio-economic needs.
 - b. Public hearings conducted as necessary to solicit ideas and information.
 - c. Community acceptance is required for implementation of new services.
4. Increased public transportation use:
 - a. Vehicles should be clean, safe, and comfortable to use.

-
- b. Connections should be made possible between all areas of the community.
 - c. Intercity, local, and express transit should be considered where feasible, for a balanced system.
 - d. Stops should be considered for implementation at safe convenient locations; inside city limits should be a maximum of .5 miles between stops.
 - e. Service should be programmed for ride times not to exceed sixty (60) minutes between the Primary Corridor and Secondary Zone.
 - f. All vehicles shall be accessible to the handicapped and operators should be familiar with providing services to the handicapped community.
5. Achieve an overall coordinated system:
- a. Open communications are necessary between private and public entities and transportation providers.
 - b. Provide information, technical resources, and materials for assistance and educational purposes.
 - c. Strive for the elimination in the duplication of services.
 - d. Achieve benefits associated with consolidated purchases and coordinated use of resources.

POLICIES

- A. The County shall cooperate with the IVAG and the provider employed for a Countywide Transit System to attain a balance of transportation opportunities. This shall include the establishment of criteria to implement transit improvements, short and long range transit service plans, corridor improvements, transit centers, and park-and-ride lots with amenities for bicyclists.
- B. The County shall require developers to construct, where appropriate, transit facilities, including bus pull-outs on arterials and bus stop amenities, including lighted shelters, benches, telephones, and route information signs.
- C. The County shall work with the Countywide Transit System to establish transit stops adjacent to senior housing facilities, areas with high concentration of medical facilities, major employment centers, and retail and commercial areas.
- D. The County should continue to work with the Countywide Transit System, Caltrans, and appropriate agencies to plan and implement rail service between the international border crossings in Calexico with the Coachella Valley.
- E. The County shall encourage the use of railroad freight service to minimize long haul truck traffic by providing efficient rail freight loading access facilities.

NON-MOTORIZED TRANSPORTATION

OBJECTIVE

To enhance environmental and social benefits for the citizens of Imperial County by providing an integrated network system of bicycle and pedestrian facilities for safe and efficient movement in and through the County of Imperial.

BICYCLE FACILITIES — OBJECTIVE

To provide an integrated bicycle circulation system which includes facilities to promote the environmental and social benefits of commuter and recreational bicycling. The bicycle circulation system and associated bicycle facilities shall provide mobility and safety to all persons and areas within the County of Imperial.

POLICIES

- A. Class II bikeways (on-street bike lanes) shall be planned into all Prime, Major, and Secondary arterials.
- B. Collector Streets, which are identified to function at length for the bicycle circulation system, should be provided with Class II bikeways (bike lanes). In such cases, the County shall accommodate cyclists on these identified streets by widening the street or eliminating on-street parking wherever possible.
- C. The County shall cooperate with other governmental agencies to provide connection and continuation of bicycle corridors.
- D. The utilization of land shall integrate the bicycle circulation system with auto, pedestrian, and transit systems.
 1. Development shall provide short term bicycle parking and long term bicycle storage facilities, such as bicycle racks, pedestrian posts, and rental bicycle lockers. Provision of bicycle storage facilities shall apply to medium and high density residential developments, as well as to commercial and industrial developments.
 2. Development shall provide safe and convenient bicycle access to high activity land uses, such as schools, parks, shopping, employment, and entertainment centers.
- E. The County shall continue seeking funds at the private, local, state, and federal levels for bicycle circulation system expansion.

PEDESTRIAN FACILITIES — OBJECTIVE

1. Provide for safe pedestrian circulation throughout the County, including sidewalks, pedestrian malls, and hiking trails.

-
2. Provide properly designed pedestrian facilities for the handicapped and elderly population to ensure their safety and enhanced mobility.

POLICIES

- A. The construction of a minimum of five foot wide sidewalk adjacent to the curb shall be required in all new developments and street improvements.
- B. The County shall encourage the inclusion of green belts and common open space for pedestrian use within the residential development areas.
- C. The County shall, in accordance with state law, provide access for the handicapped and elderly to all public buildings by removal of architectural and access barriers.
- D. The County shall require all new development to provide handicap access.

CONCLUSIONS

As shown in the street segment analysis section, the roadway classifications proposed will support future daily traffic volumes projected within the County of Imperial. The new standard street classifications proposed will define a hierarchy of functional street classifications, specific roadbed and right-of-way requirements, as well as a measure of performance (level of service) for each roadway.

The street capacities used in the study assure the various roadways will function as described. This means that the main purpose of major and primary arterials is to carry through traffic as opposed to providing access to abutting properties. Conversely, the main function of local collectors is providing access.

Roadway capacity can be maintained or improved by increasing the number of travel lanes or reducing side friction. This can be accomplished by eliminating or reducing on street parking, the number of driveways, adding bus turnouts, and providing raised medians to separate opposing flows of traffic. Capacity can be maximized on the street network by proper signal timing and coordination of adjacent traffic signals. Additionally, this analysis has been completed assuming a "worst case" condition where all known developments and recent historical trends have been utilized to forecast daily traffic volumes. If development intensity is scaled back, or growth trends tend to decline rather than maintain current levels, impacts to the surrounding street system can greatly be minimized. In summary, implementation of the following measures can mitigate forecasted impacts to the street network:

1. Implementation of the proposed Master Transportation Plan, as shown on Figure 7 and Table 3.
2. Work closely with Caltrans in the planning and implementation of proposed State Route 7, east of the Calexico International border crossing.
3. Special design treatments should be considered for intersecting streets of two four-lane roadways, or heavily traveled collector roadway intersecting with State Highways.
4. Work closely with the incorporated cities within the County, as well as County of San Diego and County of Riverside in implementing the Circulation Element of the General Plan where streets intersect with these adjacent jurisdictions.
5. Coordinate with Caltrans, U.S. Government, and the property owners in the vicinity of the new border crossing east of Calexico to develop and implement a rail spur to facilitate the movement of goods between the international border and existing rail service north of Interstate 8.

Table 4 presents a summary of the County of Imperial Circulation Element Streets and their proposed classifications.

TABLE 4
SUMMARY OF COUNTY OF IMPERIAL CIRCULATION ELEMENT STREETS AND CLASSIFICATIONS

Interstate and State Highways	
Interstate 8	State Route 98
State Route 7	State Route 111
State Route 78	State Route 115
State Route 86	State Route 186
Prime Arterials	
Orchard Road/King Road/I-8	
Major Arterials	
Anza Road/Pulliam/SR 111	Orchard Road/I-8/State Route 115
Forrester Road/I-8/Westmorland South City Limits	
Secondary Arterials	
Aten Road/SR 86/SR 111	Evan Hewes Highway/Dogwood/West SR 115
Clark Road/SR 98/Larsen	Imperial Highway/Evan Hewes Highway/I-8
Dogwood Road/Anza/SR 78	Keystone Road/SR 86/SR 111
Drew Road/I-8/Evan Hewes Highway	Winterhaven Drive/I-8/Picacho
Collectors	
Anza Road/SR 111/SR 7	Highline Road/Kavanaugh/Griffin
Bennett Road/Havens/Ross	Holt Road/North Holtville City Limits/Gonder
Boarts Road/SR 86/Kalin	Hot Mineral Spa Road/SR 111 Riverside County Line
Borrego Salton Seaway/San Diego County Line	Imperial Highway/I-8/SR 98
Brockman Road/SR 98/McCabe	Kalin Road/Boarts/Rutherford
Burters Road/Gonder/SR 78	Keystone Road/Forrester/SR 86
Drew Road/SR 98/I-8	Keystone Road/SR 111/Highline
Dunaway Road/I-8/Evan Hewes Highway	McCabe Road/Forrester/Orchard
Eddins Road/Gentry/SR 111	Miller Road/Kumberg/Kavanaugh
Evan Hewes Highway/I-8/Dunaway	Ogilby Road/I-8/SR 78
Evan Hewes Highway/East of SR 115 (east)	Picacho Road/Winterhaven/County Line
Forrester Road/McCabe/I-8	Ross Road/Drew/Mets
Forrester Road/North Westmorland City Limits/Gentry	Rutherford Road/Kalin/Irvine
Gentry Road/Forrester/Eddins	Worthington Road/Huff/Highline Canal
Heber Road/La Brucherie/Vencill	

Appendix A

- ◆ Description of Conditions for Various Levels of Service
- ◆ Level of Service Ranges for Signalized Intersections

DESCRIPTION OF CONDITIONS FOR VARIOUS LEVELS OF SERVICE

LEVEL OF SERVICE CONCEPT

The 1985 Highway Capacity Manual (Special Report No. 209) published by the Transportation Research Board establishes a system by which highway facilities are examined for their adequacy to handle traffic volumes. The terminology "Level of Service" is used to provide a "qualitative" evaluation based on certain "quantitative" calculations which are related to empirical values.

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort, frustration, fuel consumption, and loss of travel time. Specifically, level of service criteria are stated in terms of the Average Stopped Delay per vehicle for the peak 15 minute period within the hour analyzed. The criteria for the various Level of Service designations are given in the following table.

Level of Service	Average Delay per Vehicle (sec)
A	5.0 or less
B	5.1 - 15.0
C	15.1 - 25.0
D	25.1 - 40.0
E	40.1 - 60.0
F	60.0 or greater

LEVEL OF SERVICE DESCRIPTIONS

Following are brief descriptions of the six Level of Service designations as reported in the *1985 Highway Capacity Manual*:

Level of Service A describes operations with very low delay i.e., less than 5.0 seconds per vehicle. This occurs when progression is extremely favorable and most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to low delay.

Level of Service B describes operations with delay in the range of 5.1 to 15.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.

Level of Service C describes operations with delay in the range of 15.1 to 25.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level of service. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.

Level of Service D describes operations with delay in the range of 25.1 to 40.0 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

Level of Service E describes operations with delay in the range of 40.1 to 60.0 seconds per vehicle and is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.

Level of Service F describes operations with delay in excess of 60.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over saturation, i.e., arrival flow rates exceed the capacity of the intersection. It may also occur at high V/C ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Delay is a complex measure, and is dependent on a number of variables, including the quality of Traffic Signal progression, the cycle length, the Green time to Cycle length ratio (G/C), and the Volume to Capacity Ratio (V/C) for the lane group or approach in question. Intersection Capacity, Level of Service and delay are thus dependent upon a number of factors, including the following:

- ◆ Area type
- ◆ Intersection geometrics
- ◆ Parking conditions
- ◆ Pedestrian activity
- ◆ Bus stop location and activity
- ◆ Traffic signal operation
- ◆ Vehicle mix
- ◆ Peak hour factor