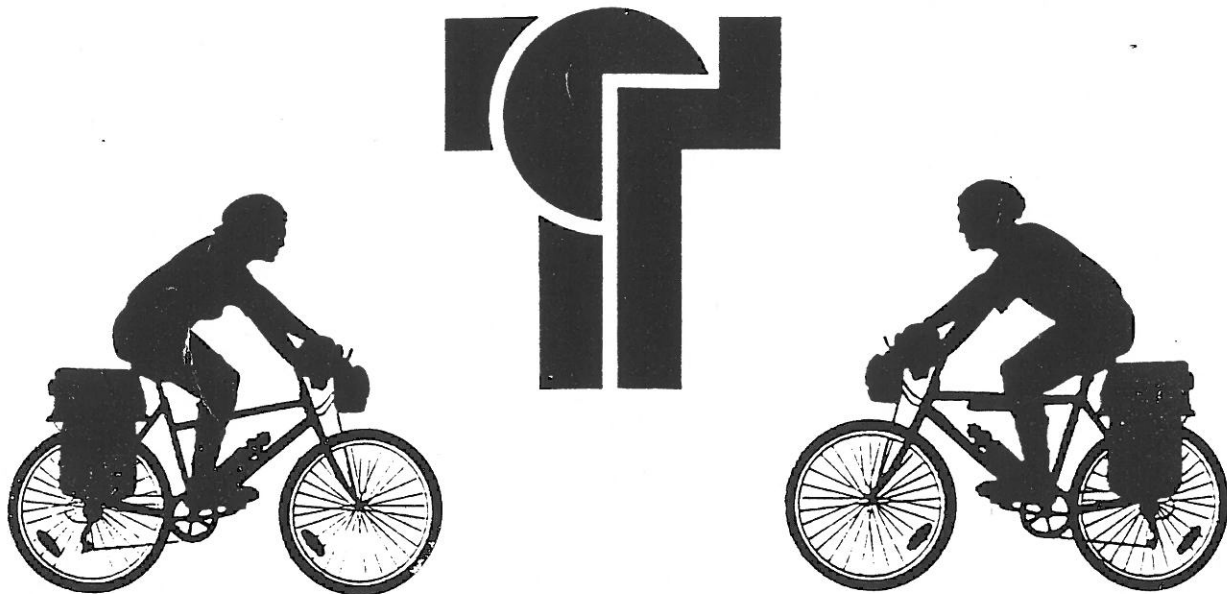


***CITY OF TEMPE
BICYCLE ADVISORY COMMITTEE***



***1995
BICYCLE FACILITIES PLAN UPDATE
EXECUTIVE SUMMARY***

For the last twenty years, the City of Tempe has been a leader within the state in bicycle facility planning, bicycle education, and citizen involvement in bicycle issues. The City adopted the first comprehensive bicycle plan in the Phoenix metropolitan area in September 1973. In 1986, the Tempe Bicycle Advisory Committee, the first local citizen advisory committee devoted to bicycling issues, was established.

As part of its ongoing process to improve the quality and quantity of bicycle facilities in Tempe, the City and the Bicycle Advisory Committee updated its bicycle plan in 1991. Recently, the Bicycle Advisory Committee completed another update of the plan in 1995. This executive summary of the 1995 plan update describes proposed plans to improve bicycle facilities in Tempe. Prior to introducing these plans, this summary provides background information on City of Tempe demographics, land use, existing policies, facilities and implementation strategies, and bicycle planning public involvement process.

Background

- ▶ *Demographics and Land Use.* With a 1990 census population of 141,865, the City of Tempe has the highest percentage (4.6%) of people who commute to work by bicycle in the region. The City encompasses 39.32 square miles. The major employment centers and the majority of the population are located north of Baseline Road with the largest concentration of people and jobs near the downtown Tempe and Arizona State University (ASU) area. At ASU, with a student population of 42,000, 21% of student trips to and from the university are made by bicycle.

- ▶ *Existing Policies.*

Adopted policies in the 1991 Bicycle Plan and Facilities Guidelines provide the starting point for the current update. Goal statements in the 1991 Bicycle Plan provide a guide for evaluating existing conditions, generating proposed improvements, and evaluating these improvements. These goals are:

- ▶ To make bicycling safer in Tempe.
- ▶ To encourage the use of the bicycle as a part of the transportation system.
- ▶ To improve the bikeway system by providing facilities for all types of bicyclists.

Adopted bicycle standards for on-street facilities, off-street facilities, signage/signal preemption, road conditions/maintenance, bridge and railroad crossings, and amenities are set forth in the 1991 Facilities Guidelines. These guidelines were also incorporated into Tempe's street classification system "Travel Ways (1994)."

- ▶ Existing Facilities and Implementation Strategies. Figure 1 shows existing bicycle facilities as of February 1995. A definition for each type of bicycle facility is provided on page 14 of this executive summary. As shown in Table 1, the percentage of on-street bike facility miles on existing arterial street miles is 52%, and 65% for collector streets. Overall, 57% of Tempe arterial and collector streets have a bicycle facility on them.

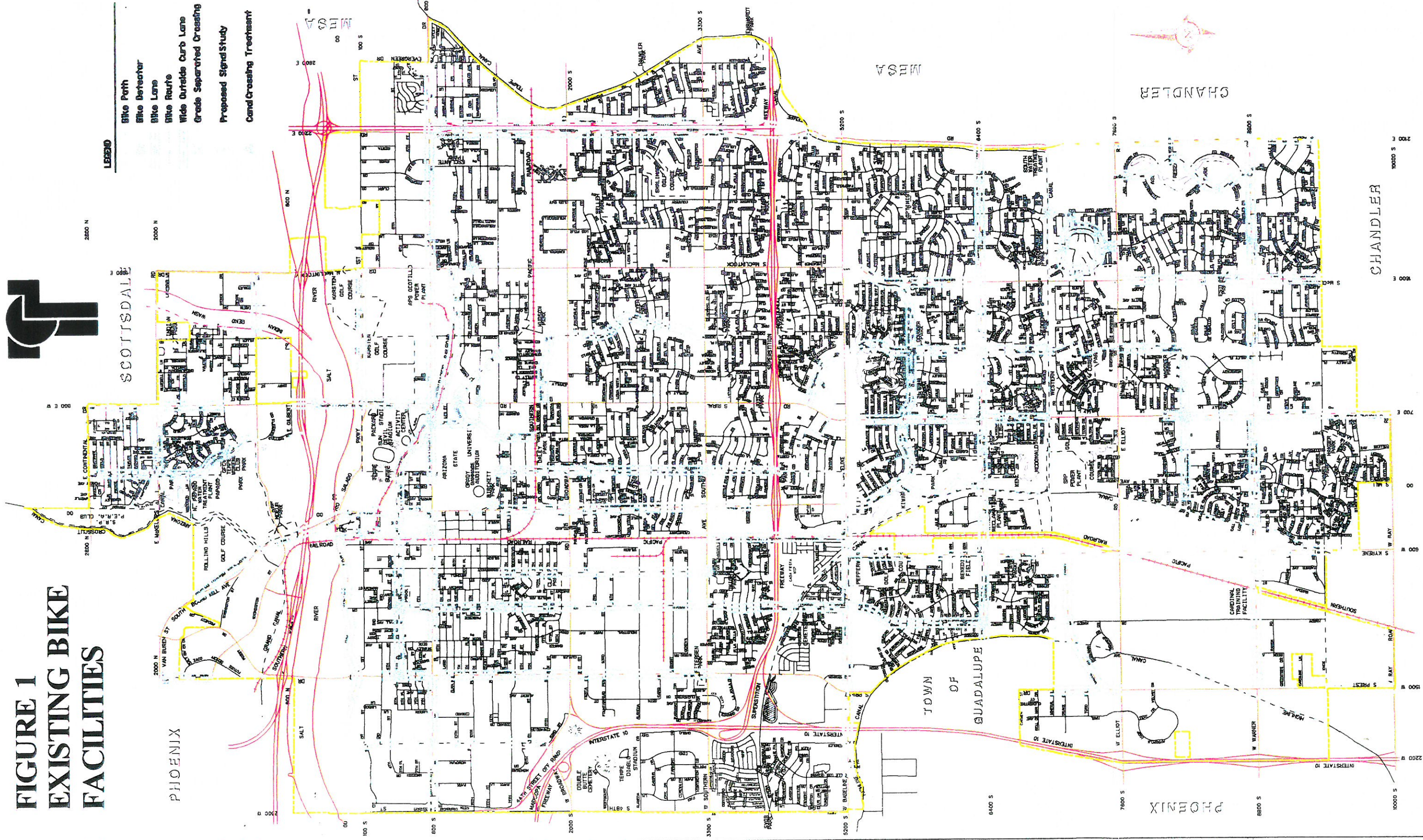
Street Classification	Miles of Street	Miles of Bike Facilities	Percent
Arterial	81.3	42.5	52%
Collector	42.1	27.5	65%
Total	123.4	70	57%

The strategy used to implement a majority of these bicycle facility improvements has been to include bicycle facilities as part of routine street resurfacing and restriping programs using funds through existing maintenance programs. Bicycle facility improvements requiring more extensive design and construction have been funded with local as well as federal grant funds.

- ▶ Public Involvement Process.

Citizen participation is an ongoing part of the City of Tempe's bicycle planning and implementation process. This process involves staff, the Bicycle Advisory Committee, and the community at large. For this update, the Bicycle Advisory Committee, which generally holds monthly meetings, formed a subcommittee, which met a number of times to recommend projects in the plan.

**FIGURE 1
EXISTING BIKE
FACILITIES**



- LEGEND**
- Bike Path
 - Bike Detector
 - Bike Lane
 - Bike Route
 - Wide Outside Curb Lane
 - Grade Separated Crossing
 - Proposed Signal Study
 - Canal Crossing Treatment



After the full Committee reviewed a draft of the plan, workshops were held for ASU students, staff, and faculty and for all Tempe residents. The plan was also displayed at the Fall '94 and the Spring '95 *Old Town Tempe Festival of the Arts*. In addition, briefing sessions were held with three north Tempe neighborhood organizations who had prepared Neighborhood plans. All neighborhood associations were notified of the workshops. Finally, neighboring cities and the county were contacted to identify joint opportunities for facilities and to provide consistency.

Proposed Improvements

- ▶ *Proposed Short Range Plan.* As shown in Figure 2 and listed in Table 2, the Short Range Plan recommends bicycle facility projects for implementation within the next five years. The plan is intended to be revised each year in conjunction with the preparation of the City's annual budget and capital improvement program (CIP) as well as the regional Transportation Improvement Program (TIP). The short range implementation plan calls for the implementation of approximately:
 - ▶ 23 centerline miles of bicycle lanes and wide outside lanes
 - ▶ 23 centerline miles of bicycle routes
 - ▶ 3.5 centerline miles of bicycle paths.

Some of the improvements in the short range plan are already in progress in FY 94-95 or are already provided for in the capital.

- ▶ *Proposed Long Range Plan.* As shown in Figure 3 and listed in Table 3, the Long Range Plan identifies recommended bicycle improvement projects for implementation within the next 6 to 20 years. These projects are high cost improvements and generally require coordination with other outside agencies (such as the Arizona Department of Transportation) to implement. The Long Range Plan calls for implementation of approximately:
 - ▶ 3 grade separated crossings.
 - ▶ 2.25 centerline miles of bicycle lanes and wide outside lanes.
 - ▶ 1.5 centerline miles of bicycle routes.
 - ▶ 14 centerline miles of bicycle paths.

FIGURE 2 SHORT RANGE PLAN

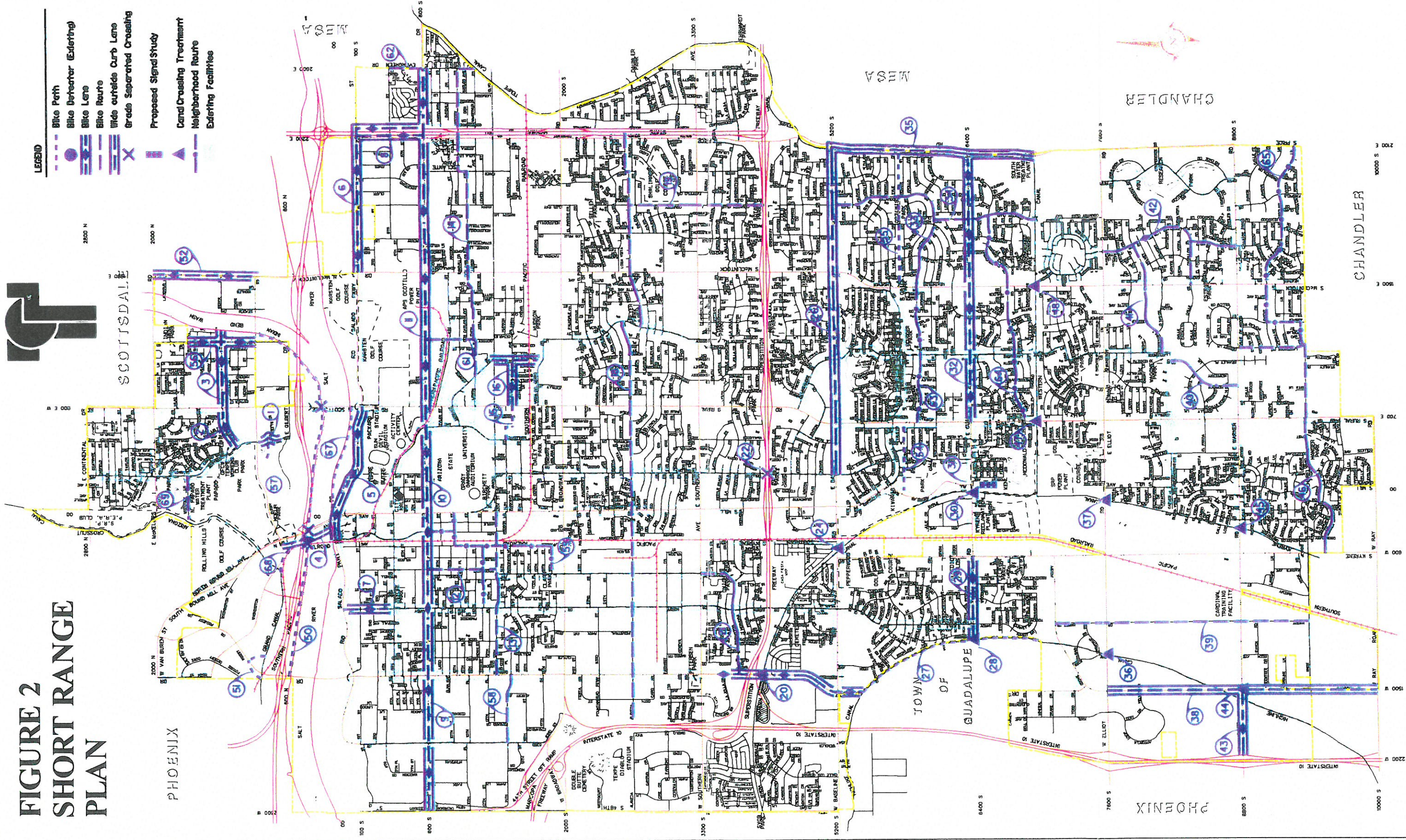


TABLE 2
PROPOSED SHORT RANGE BICYCLE PLAN PROJECT LIST

Map Proj.#	PROJECT DESCRIPTION Location	Facility
1	College Ave. from Curry to Gilbert	Bike lanes
2	Weber Dr. from College Ave. to Scottsdale Rd.	Bike Lanes
3	Weber Dr. from Scottsdale Rd. to Indian Bend Wash	Bike Lanes
4	Old Mill Ave. Bridge	Bike Lanes
5	Rio Salado Pkwy from Farmer to Rural Rd.	Bike Lanes
6	1st St. from McClintock Dr. to Price Fwy	Bike Lanes
7	Hardy Dr. from Rio Salado Pkwy to 5th St.	Bike Lanes
8	Price Fwy Frontage Roads from 1st St. to University Dr.	Bike Lanes
9	University Dr. from Hohokam Expressway to Mill Ave.	Restripe for Bike Lanes
10	University Dr. from Mill Ave. to Rural Rd.	Bike Lanes
11	University Dr. from Rural Rd. to Evergreen Dr.	Restripe for Bike Lanes
12	Roosevelt St. from University Dr. to 13th St.	Bike Route
13	13th St. from Priest Dr. to Mill Ave.	Bike Route
14	Lemon St. from Terrace to McClintock, Don Carlos Ave. from McClintock to River Dr., River Dr. to Escalante Park, Escalante Park to Lola Ln (Bike Path), Orange St. from Lola Ln to Victory Lane Crossing, Victory Dr. from Freeway Crossing to Evergreen Dr., Evergreen Dr. from Victory Dr. to Tempe Canal	Bike Route
15	Spence Ave. from Rural to McAllister Ave. (ASU)	Bike Path
16	Spence Ave. from Rural Rd. to Terrace, Terrace Rd. from Spence Ave. to Apache Blvd.	Bike Lane
17	West Rio Salado Dam	Bike Lane
18	Alameda Dr. from I-10 to Price Fwy	Bike Route
19	Country Club Way from Alameda to Superstition Fwy	Bike Route
20	Priest Rd. from Southern Ave. to Highline Canal	Restripe to Bike Lanes

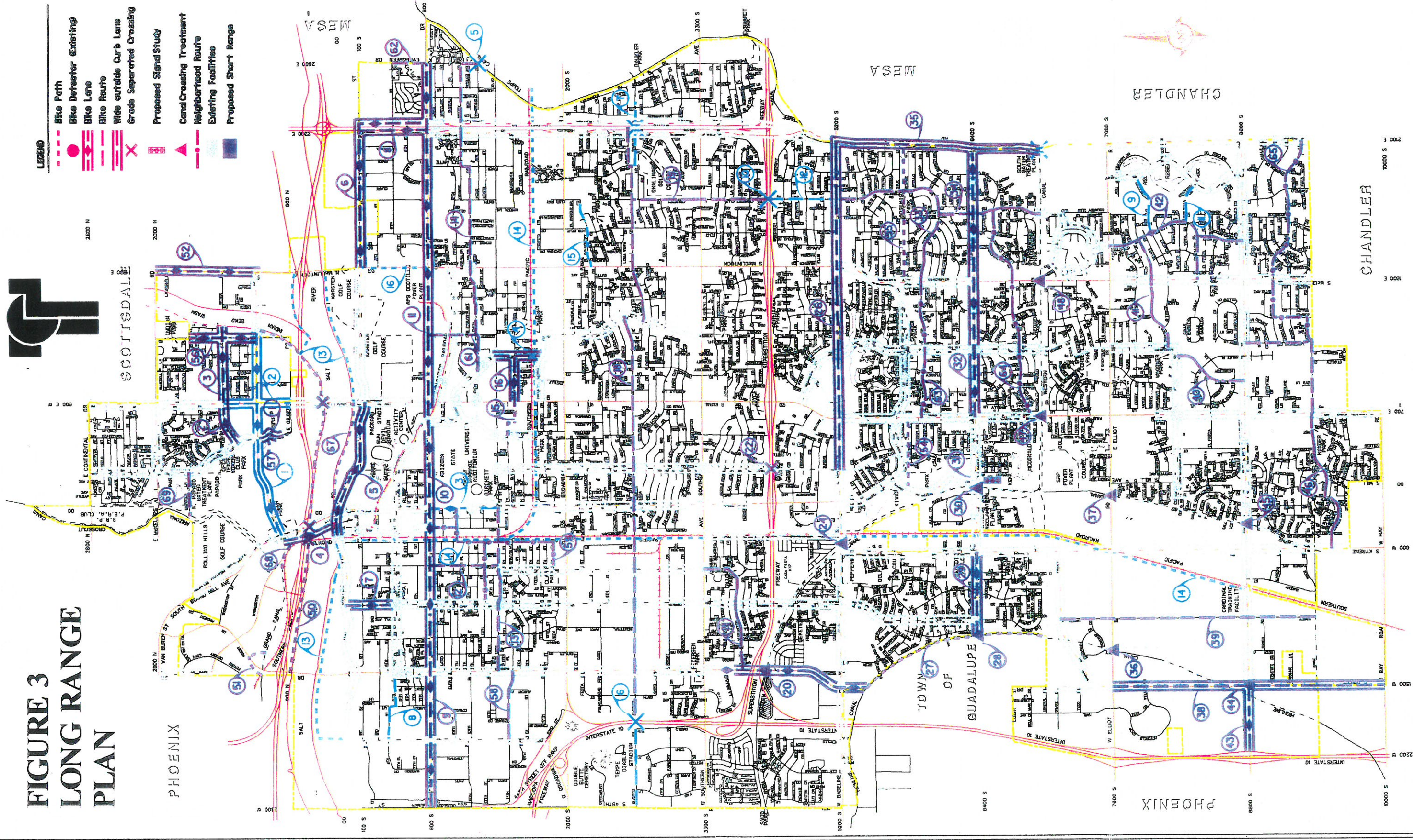
TABLE 2 PROPOSED SHORT RANGE BICYCLE PLAN PROJECT LIST		
Map Proj.#	PROJECT DESCRIPTION Location	Facility
21	Manhattan Dr. from Priest to Roosevelt, Roosevelt St. from Manhattan to Southern Ave.	Bike Route
22	College Ave. and Superstition Fwy (Reconstruction)	Grade-Separated Crossing
24	Baseline Rd. and Western Canal	Canal Crossing Treatment
26	Baseline Rd. from College Ave. to Price Fwy	Wide Outside Lane
27	Highline Canal from Priest Dr. to Mineral Rd.	Bike Path
28	Highline Canal and Guadalupe Rd.	Canal Crossing Treatment
29	Guadalupe Rd. from Highline Canal to Kyrene Rd.	Restripe to Bike Lanes
30	Guadalupe Rd. and Western Canal	Canal Crossing Treatment
31	Guadalupe Rd. and All America Way	Signal Study
32	Guadalupe Rd. from Rural Rd. to Price Fwy	Restripe to Bike Lanes
33	Watson Dr. from McClintock Dr. to Country Club Way	Bike Route
34	Country Club Way from Baseline Rd. to Western Canal	Bike Route
35	Price Fwy Frontage Rd. from Baseline Rd. to Western Canal	Wide Outside Lane
36	Elliot Rd. and Highline Canal	Canal Crossing Treatment
37	Elliot Rd. and Western Canal	Canal Crossing Treatment
38	Priest Dr. from Elliot Rd. to Ray Rd.	Wide Outside Lane
39	Hardy Dr. from Grove Pkwy to Knox Rd.	Bike Route
40	Terrace Rd. from Carver Dr. to Warner Rd.	Bike Route
41	Secretariat Dr. from Lakeshore Dr. to Los Feliz Dr.	Bike Route
42	Los Feliz Dr. from Elliot Rd. to Hazelton Ln., Hazelton Ln. to Calle de Caballos Dr., Calle de Caballos Dr. east to McClintock Dr. Los Feliz Dr. from Calle de Caballos Dr. to Warner Rd.	Bike Lane
43	Warner Rd. from Priest Dr. to I-10	Bike Lane
44	Warner Rd. and Highline Canal	Canal Crossing Treatment

TABLE 2 PROPOSED SHORT RANGE BICYCLE PLAN PROJECT LIST		
Map Proj.#	PROJECT DESCRIPTION Location	Facility
45	Warner Rd. and Western Canal	Canal Crossing Treatment
46	Warner Ranch Dr. from Kyrene Rd. to Knox Rd., west along Knox Rd. to Lakeshore Dr., north along Lakeshore Dr. to Warner Rd.	Bike Route
47	Rural Rd. and Western Canal	Canal Crossing Treatment
48	McClintock Dr. and Western Canal	Canal Crossing Treatment
50	Rio Salado northshore, Mill Ave. to Rural Rd.	Bike Path
51	Priest Dr. connection to Grand Canal	Bike Path
52	McClintock Dr., McKellips Rd. to Curry Rd.	Bike Lane
54	Gas Line Corridor, Kiwanis Park to Rural Rd.	Bike Path
55	Gas Line Corridor, McClintock Dr. to Price Rd.	Bike Path
56	Miller Rd, Marigold Ln. to Weber Dr.	Bike Lane
57	Papago Park Trail System	Bike Path
58	14th Street, Priest Dr. to 52nd St.	Bike Route
59	19th St, Roosevelt St. to Farmer Ave. 12th St., Priest Dr. to Farmer Ave. Farmer Ave., 19th St. to 10th St. 10th Street, Farmer Ave. to Mill Ave. Ash. 10th St. to University Dr.	Neighborhood Bike Route
61	Dorsey Ln., Lemon St. to University Dr.	Bike Route
62	Evergreen Dr., University Dr. to 5th St.	Bike Route
63	Watson Dr., McClintock Dr. to Rural Rd.	Neighborhood Bike Route
64	Bell de Mar Dr., Rural Rd. to Country Club Way	Neighborhood Bike Route
65	Knox Rd., Lakeshore Dr. to Juniper Dr. Juniper Dr., Knox Rd. to La Viene Ln. La Viene Ln., Juniper Dr. to McClintock Dr. Caroline Ln., McClintock Dr. to Price Rd.	Neighborhood Bike Route
66	Western Canal, Price Fwy to Highline Canal	Future Improvement
67	Rio Salado southshore , Rural Rd. to Mill Ave.	Bike Path

TABLE 2 PROPOSED SHORT RANGE BICYCLE PLAN PROJECT LIST		
Map Proj.#	PROJECT DESCRIPTION Location	Facility
68	Rio Salado northshore, Railroad Right-of-Way to Grand Canal	Bike Path
69	Marigold Ln, Curry Rd. to Crosscut Canal	Bike Route
Not shown on map	Indian Bend Wash	Upgrade bike path (concrete and lighting)

- ▶ Ultimate Plan. As shown in Figure 4 and listed in Table 4, the Ultimate Plan identifies recommended bicycle improvement projects for implementation beyond 20 years. These projects may require changes in the current street configuration and represent the Committee's desire to ultimately place bicycle lanes on all major streets.
- ▶ Canal Street Crossing Concepts. To allow easier bicycle crossings at intersections of canals and major streets, six crossing concepts were suggested by the Bicycle Advisory Committee. These concepts include: cross-walk with advance signage; cross-walk with advance signage and striped left-turn lane; cross-walk with textured pavements in the median; cross-walk with raised landscape median; signalized crossing; and a grade separated overpass. The specific design at these intersections will be determined by the Transportation Division using the input from the Bicycle Advisory Committee.
- ▶ Estimated Costs and Funding Options. The estimated total cost for the proposed Short Range Plan is \$2,113,000 and for the proposed Long Range Plan is \$13,500,000. Some of these costs would be absorbed as part of the City's street resurfacing program. Other costs will be reviewed during the capital improvements program budget process and through various grant application cycles. Potential funding sources for these improvements include federal (ISTEA) funds, state (ADOT) funds, and local funds (HURF or other).

**FIGURE 3
LONG RANGE
PLAN**



**TABLE 3
PROPOSED LONG RANGE BICYCLE PLAN PROJECT LIST**

Map Proj.#	PROJECT DESCRIPTION Location	Facility
1	Curry Rd. from Indian Bend Wash to Mill Ave.	Bike Lanes
2	Scottsdale Rd. from Curry Rd. to Salt River Bridge	Wide Outside Lanes
3	Mill Ave. from University Dr. to Apache Blvd.	Bike Lanes
4	Terrace Rd. south of Spence Ave. to Vista Del Cerro Dr.	Railroad Crossing
5	Evergreen Dr. and Tempe Canal	Grade Separated Crossing
6	Alameda Dr. at I-10	Grade Separated Crossing
7	Alameda Dr. at Price Fwy	Grade Separated Crossing
8	5th St. and 4th St., 52nd St. to Priest Dr.	Bike Route
9	Link Citation Lane (East of Los Feliz Dr.) to Technology Dr.	Bike Route
10	Country Club Way at Superstition Fwy	Grade Separated Crossing
11	Link Buena Vista Dr. (East of Los Feliz Dr.) to Centennial Cir.	Bike Route
12	From bike route along Country Club Way through Rotary Park (bike path) and through Cole Park (bike path) to Country Club Way south of Carson Dr.	Bike Path and Bike Route
13	Rio Salado Bike Path, Mill Ave. to Priest Northshore, Indian Bend Wash to McClintock Northshore, McClintock Dr. to 52nd Street Southshore	Bike Path
14	All Railroad Right-of-Way	Bike Path
15	Alley South of Palmcroft Dr. (Gasline easement) from McClintock Dr. to Club Way	Bike Path

**FIGURE 4
ULTIMATE PLAN**

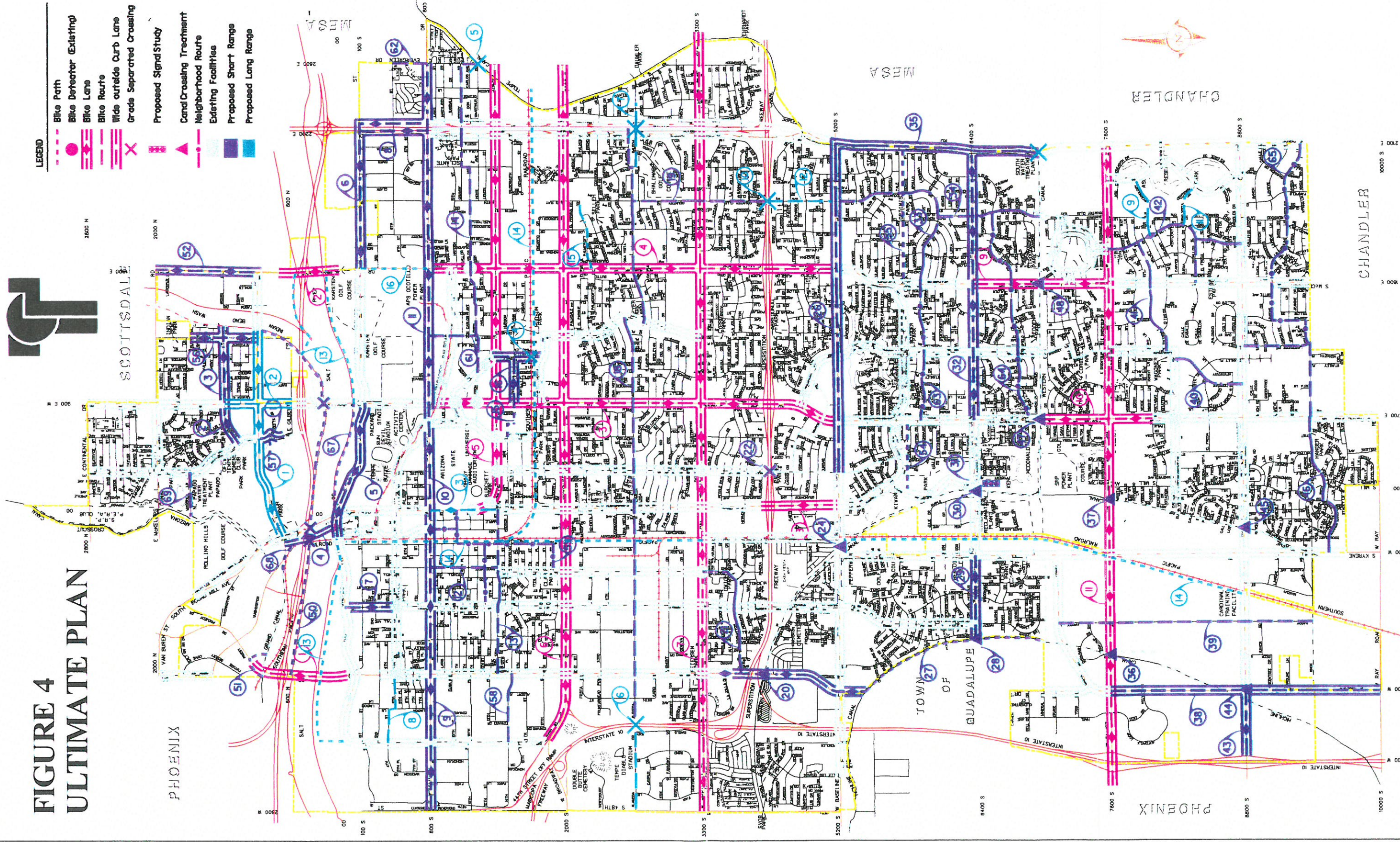


TABLE 4 PROPOSED ULTIMATE BICYCLE PLAN PROJECT LIST		
Map Proj.#	PROJECT DESCRIPTION Location	Facility
1	Priest Dr., Grand Canal to Rio Salado Parkway	Bike Lanes
2	McClintock Dr. Bridge	Retrofit for Bike Lanes
3	Rural Rd., University Dr. to Baseline Rd.	Bike Lanes
4	McClintock Rd., University Dr. to Baseline Rd.	Bike Lanes
5	Apache Blvd., Mill Ave. to City Limits	Bike Lanes
6	Broadway Rd., 52nd St. to City Limits	Bike Lanes
7	Southern Ave., 48th St. to City Limits	Bike Lanes
8	Mill Ave., Superstition Fwy to Baseline Rd.	Bike Lanes
9	McClintock Dr., Guadalupe Rd. to Elliot Rd.	Bike Lanes
10	Rural Rd., Western Canal to Citation Ln.	Bike Lanes
11	Elliot Rd., I-10 to Price Rd.	Bike Lanes

Glossary

- ▶ *AASHTO.* American Association of State Highway and Transportation Officials. AASHTO publishes bikeway design guidelines, most recently in its 1991 "Guide for the Development of Bicycle Facilities".
- ▶ *Bicycle.* Every device propelled by human power upon which any person may ride, having two tandem wheels either of which is more than 16' in diameter or having three wheels in contact with the ground any of which is more than 16' in diameter. (ARS 28-101)
- ▶ *Bicycle Facilities.* A general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling, including parking facilities, maps, all bikeways, and shared roadways not specifically designated for bicycle use.
- ▶ *Bicycle Lane.* A portion of a roadway which has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists.
- ▶ *Bicycle Wide Curb Lane or Wide Outside Lane.* A portion of a roadway which has been designated for shared use by bicycles and motorized traffic, characterized by a curb lane which is wide enough for bicycle and motorized traffic to be accommodated in the same lane. The bicycle wide curb lane may or may not include an edgeline stripe. the roadway width at which an edgeline stripe would be included is identified in the City's Bicycle Facilities Guidelines.
- ▶ *Bicycle Path.* A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right of way or within an independent right of way. Sidewalks adjacent to roadways are not considered bicycle paths.
- ▶ *Bicycle Route.* A segment of a system of bikeways designated by the jurisdiction having authority with appropriate directional and informational markers, with or without a specific bicycle route number. A "neighborhood bike route" in the City of Tempe Bicycle Plan designates a preferred route for linking residential areas with schools and parks.
- ▶ *Bikeable Street.* A shared vehicular roadway with no signing, striping or other traffic control devices, but which is considered desirable for bicycling from operational and safety viewpoints (because of its width or volume of traffic).
- ▶ *Bikeway.* Any road, path or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

Tempe Bicycle Advisory Committee

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