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PURPOSE

To protect the City's character as a premier residential resort community, careful planning of the roadway network is essential. As the City's road system nears its capacity for handling traffic in a safe and efficient manner, the potential for delays and the risk of traffic accidents increases. To preserve the City's unique character while providing the safest and most efficient roadway system possible, the Circulation Element documents the current status of the City's road system, identifies problems and proposes solutions. Additionally, the Circulation Element analyzes future traffic impacts on Rancho Mirage caused by growth in the City and region. The purpose of the Circulation Element is to develop an efficient, cost-effective and comprehensive transportation management strategy consistent with regional plans and local needs to maintain and improve mobility.

BACKGROUND

The Circulation Element has been developed as a comprehensive transportation management strategy based upon an analysis of existing conditions within the City and future development as set forth by the General Plan Land Use Plan (see Land Use Element). The types and intensities of land uses in the City will predictably influence the types and volume of vehicles traveling the City's roads. The Circulation Element provides specific policy guidance and implementation programs that address existing and future traffic conditions and are designed to maintain and improve the performance of the circulation system.

The Circulation Element is also the result of coordination with the Regional Transportation Plan (RTP) and regional agencies including the California Department of Transportation (CalTrans), the Coachella Valley Association of Governments (CVAG), the Southern California Association of Governments (SCAG), the Riverside County Transportation Commission (RCTC), and the Sunline Transit Authority. Other federal and state transportation planning must also be coordinated with local planning.

Other elements of the General Plan affect and are affected by the policies and programs contained in the Circulation Element. For example, the Air Quality Element seeks to minimize pollution generated by vehicle emissions, which increases when roadway congestion increases travel times and decreases vehicle speeds. The maintenance of adequate traffic flows, the prevention of traffic congestion caused by inadequate or failing roadways, and enhanced vehicle efficiencies will help preserve the air quality in the community and improve circulation. Additionally, Ramon Road and Monterey Avenue are part of the Riverside County Congestion Management Program (CMP) system. The City must therefore maintain a level-of-service (LOS) E on these roadways to preserve gas tax funding (see section on Performance Criteria for a discussion on level-of-service standards)





CIRCULATION PLAN

The Circulation Plan describes the approach to be used in implementing the Circulation Element's goals and policies, as well as the location and extent of circulation facilities and services.

Roadway Classifications

Based upon existing and projected traffic demands generated by buildout of the General Plan, each major roadway has been assigned a specific design classification. The need for and appropriateness of each classification is based upon future traffic volumes and overall community design goals set forth in the General Plan. Each of the classifications corresponds with the street cross-sections illustrated in Exhibit III-1. Refinements may be required when securing right-of-way and constructing improvements at specific locations, especially at intersections.

There are six categories in the City roadway hierarchy, ranging from higher capacity primary arterials to lower capacity collector and local streets. These categories are described below:

- ✦ **Primary Arterial:** A six-lane divided roadway, with a typical right-of-way width of 134 feet and a curb-to-curb pavement width of approximately 108 feet. Primary arterials generally carry high traffic volumes and are main thoroughfares through the City. Ramon Road is an example of a primary arterial.
- ✦ **Major Arterial:** A six-lane divided roadway with a typical right-of-way width of 120 feet and a curb-to-curb pavement width of approximately 106 feet. Major arterials generally carry high traffic volumes and are main thoroughfares through the City. Monterey Avenue south of Country Club Drive is an example of a major arterial.
- ✦ **Minor Arterial:** A four-lane divided roadway with a typical right-of-way width of 110 feet and a curb-to-curb pavement width of approximately 86 feet. These arterials typically carry traffic along the perimeters of major developments but are also used as through streets. Gerald Ford Drive is an example of a minor arterial.
- ✦ **Major Collector:** A four-lane divided roadway with a typical right-of-way width of 100 feet and a curb-to-curb pavement width of approximately 76 feet. Its function is to distribute traffic between local streets and arterials. Although some collectors serve as through routes, their primary function is to provide access to surrounding land uses. Morningside Drive is an example of a major collector.
- ✦ **Minor Collector:** A four-lane undivided roadway with a typical right-of-way width of 88 feet and a curb-to-curb pavement width of approximately 64 feet. Its function is to distribute traffic between local streets and arterials. While no roadways are currently classified as a minor collector, this classification may be used for future roadways.

- ✿ **Local:** This category of roadway is designed to provide access to individual parcels of land. Local streets consist of two lanes with a typical right-of-way width of 60 feet and a pavement width of 40 feet. Examples of local streets are Sunny Lane and Sahara Road.

Typical cross sections for roadway classifications are provided in Exhibit III-1. Actual cross-sections may vary somewhat from the indicated measurement standards, but in order to provide maximum capacity, as well as right-of-way protection for landscaping, bike lanes, and future roadway improvements, the typical roadway cross-sections are recommended as future minimums.

Regional Roadways

There are two regional routes serving the City: State Highway 111 and U.S. Interstate 10 (I-10). Highway 111 extends from its juncture with I-10, several miles west of Palm Springs and southeast to Brawley, in the Imperial Valley. I-10 connects the Los Angeles region with Arizona and other cities and states to the east. These two important roadways provide regional and interstate connections for the City and the Coachella Valley. Finally, the Mid-Valley Parkway provides an additional intra-regional arterial that extends from Highway 111 at Chino Canyon, southeast to Cook Street. Each of these regional facilities is briefly discussed below.

- ✿ **U.S. Interstate 10:** In the vicinity of Rancho Mirage, I-10 is built as an eight-lane divided freeway accessed from diamond intersections spaced a minimum of one mile apart. I-10 provides essential inter-city and inter-regional access and is a critical part of the local road network moving people and goods into and out of the Coachella Valley. Direct city access to I-10 is currently provided through the Monterey Avenue and Ramon Road interchanges.
- ✿ **State Highway 111:** While still maintaining its state highway status, this roadway has become more important as an intra-regional connector serving the local cities. In Rancho Mirage, this roadway has been improved to its ultimate six-lane divided design standard. The ultimate buildout of State Highway 111 throughout the Valley is expected to be reached within the next few years. Until recently, Highway 111 was under the management jurisdiction of CalTrans, but the City has now assumed these responsibilities.
- ✿ **Mid-Valley Parkway:** In Rancho Mirage, the Mid-Valley Parkway extends east from Plumley Road along Dinah Shore Drive to Bob Hope Drive. It then proceeds south to Gerald Ford Drive, where it continues east to Monterey Avenue. The Mid-Valley Parkway was conceived by CVAG to provide an additional intercity, high capacity connector to better link the cities of the upper Coachella Valley and further unify the market area.

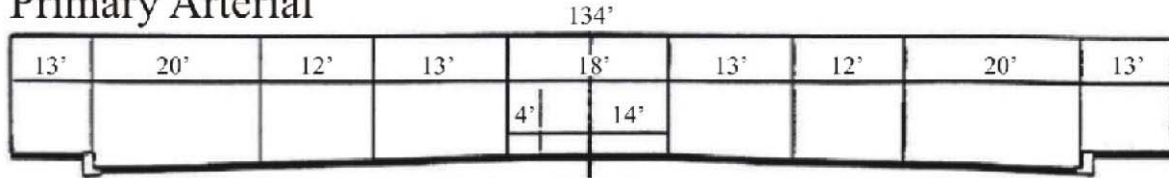
CIRCULATION ELEMENT

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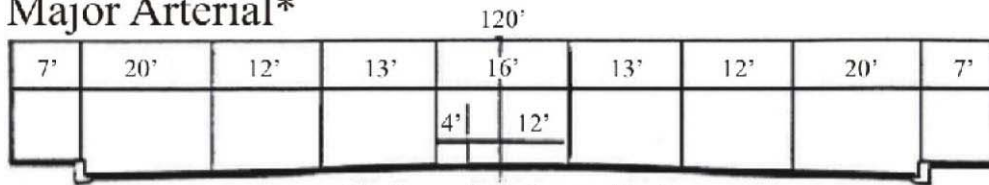
STREET CROSS SECTIONS

Primary Arterial



(Six Lanes divided, no parking)

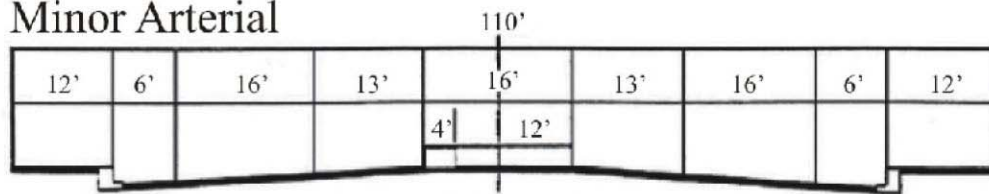
Major Arterial*



(Six Lanes divided, no parking)

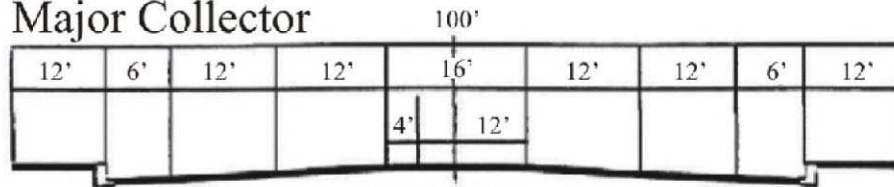
*Highway 111 has special design geometrics. See Rancho Mirage Highway 111 Alignment Study, 1996.

Minor Arterial



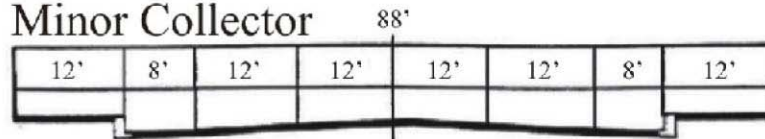
(Four Lanes divided, w/bike lane/no parking)

Major Collector



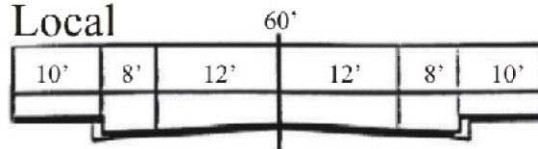
(Four Lanes divided, w/bike lane/no parking)

Minor Collector



(Four Lanes undivided, w/parking)

Local



(Two Lanes, w/parking)

CIRCULATION ELEMENT

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Performance Criteria

Evaluating the ability of the circulation system to serve the desired future land uses requires establishing suitable "performance criteria." These are the means by which future traffic volumes are compared to future capacity to evaluate the adequacy of the circulation system.

Level-of-Service

The available and utilized capacity of a roadway is typically characterized as "level-of-service." Level-of-service (LOS) is a qualitative measure describing the efficiency of the flow of traffic and includes a range of alphabetical connotations "A" through "F," used to characterize roadway operating conditions. LOS A represents the best (free flow) conditions and LOS F indicates the worst (system failure). Level-of-service can also be represented as volume to capacity (V/C) ratios, or vehicle demand divided by roadway capacity. Therefore, as the ratio approaches 1.00 the roadway approaches LOS F. Table III-1 describes the quality of traffic flow associated with each level-of-service and Exhibit III-2 provides a general illustration of each level-of-service.

To improve roadway capacity, the City can employ a variety of roadway design techniques. Added travel and turning lanes increase capacity, as does the inclusion of raised medians and restricted access on a roadway. Raised medians increase roadway capacity by reducing the number of vehicle conflict points and improving traffic flows. Restricted access avoids loss of capacity caused by interruptions and disruptions to traffic flow from vehicles coming onto or leaving the roadway.

Acceptable Level-of-Service

In recent years, traffic engineers and transportation planners have attempted to bridge the gap between providing ideal roadway operating conditions and the costs of infrastructure to assure those conditions. While LOS C has long been considered the desirable and optimal level of traffic volume on any given roadway, it represents a standard that is progressively more difficult and less cost-effective to achieve in urban areas. For peak operating periods, LOS D or a maximum volume to capacity ratio of 0.90 is now considered the generally acceptable service level.

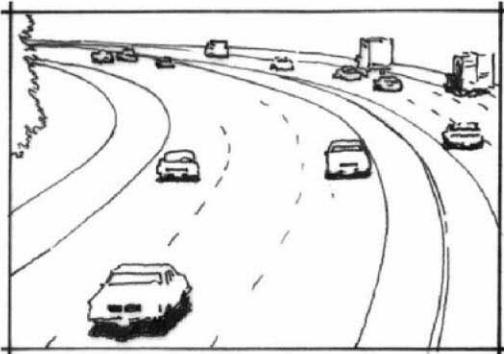
Additionally, the County of Riverside maintains a Congestion Management Program (CMP) to monitor and improve the County's regional network of roadways. For CMP streets or highways, the County accepts LOS E. If any CMP roadway falls below this standard, the City must go through a procedure to prepare a "deficiency plan" or risk losing a portion of the gasoline taxes it receives for road purposes from the State. Ramon Road and Monterey Avenue are a part of the CMP system. Where a LOS of E or worse exists along roadway segments and intersections along these CMP roadways, the City will attempt to take every reasonable measure to improve operating conditions.



**Table III-1
Level-of-Service Description**

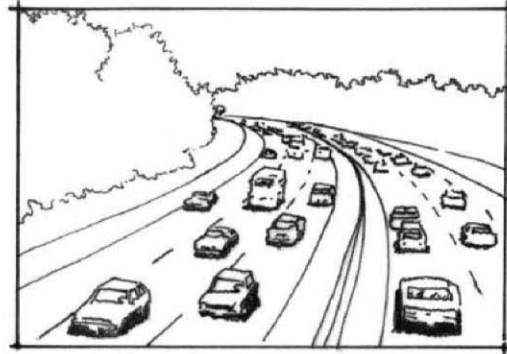
Level of Service	Quality of Traffic Flow	Signalized Intersection Delay	V/C Ratio
A	Low volumes, high speed; speed not restricted by other vehicles.	0–10 seconds	0.00–0.60
B	Operating speeds beginning to be affected by other traffic. Some drivers may begin to feel restricted by other vehicles. Operating speeds and maneuverability closely controlled by other traffic; recommended ideal design standard.	10–20 seconds	0.61–0.70
C	Occasionally drivers may have to wait through more than one red signal. Most drivers feel somewhat restricted, but not objectionably so.	20–35 seconds	0.071–0.80
D	Tolerable operating speeds; often used as design standard in urban areas. Increasing restriction at intersection, but no excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.	35–55 seconds	0.81–0.90
E	All drivers wait through more than one red signal. At 100% capacity (V/C=1.0), it theoretically represents the most vehicles that a particular intersection can accommodate.	55–80 seconds	0.91–1.00
F	System failure; long queues of traffic; unstable flows; stoppages of long duration; traffic volume and speed can drop to zero; traffic volume will be less than the volume which occurs at Level-of-Service E.	80 seconds and up	Above 1.00

LEVEL-OF-SERVICE



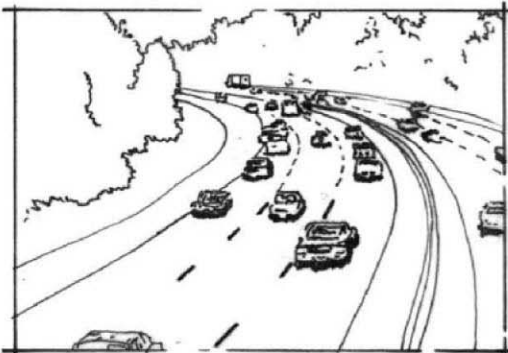
Level of service A

Free flow, individual vehicles are virtually unaffected by the presence of others in the traffic stream.



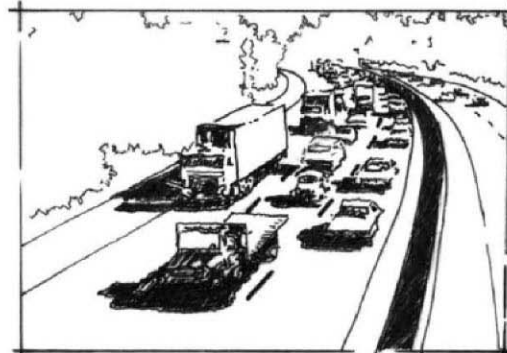
Level of service D

Below average or fair operating conditions with only minor delays experienced by motorists.



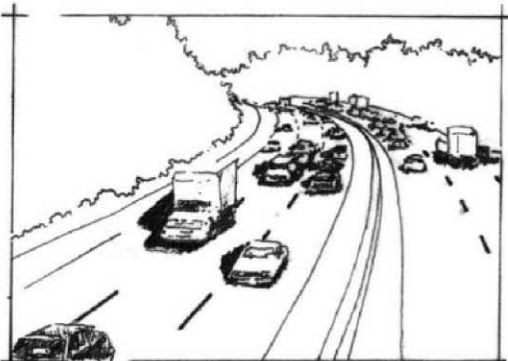
Level of service B

Stable flow, but the presence of other vehicles in the traffic stream begins to be noticeable. Freedom to select desired speed is relatively unaffected, but there is a slight decline in the freedom to maneuver.



Level of service E

At or near the level of capacity. Speeds are reduced to a low, but relatively uniform level.



Level of service C

Stable flow, but operation of individual vehicles becomes significantly affected by other vehicles in the traffic stream.



Level of service F

Highly congested traffic conditions where traffic volumes exceed the capacities of the streets, sidewalks, etc.

CIRCULATION ELEMENT

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Circulation Roadway Plan

The goals and policies in this Element emphasize the importance of developing a circulation system that is capable of serving both existing and future residents while preserving community values and character. The City’s arterial and collector streets, shown in Exhibit III-3, are identified according to their roadway classification and are sized appropriately to provide sufficient capacity for projected traffic. The legend for Exhibit III-3 indicates the number of lanes for each class of roadway as well as its status as a divided or undivided roadway. For example, (6D) represents a six-lane divided roadway. Exhibit III-3 also identifies critical intersections, which are discussed later under the section on “Securing Right-of-Way.” Exhibit III-4 identifies designated truck routes throughout the City.







CIRCULATION ELEMENT

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

CIRCULATION ROADWAY PLAN

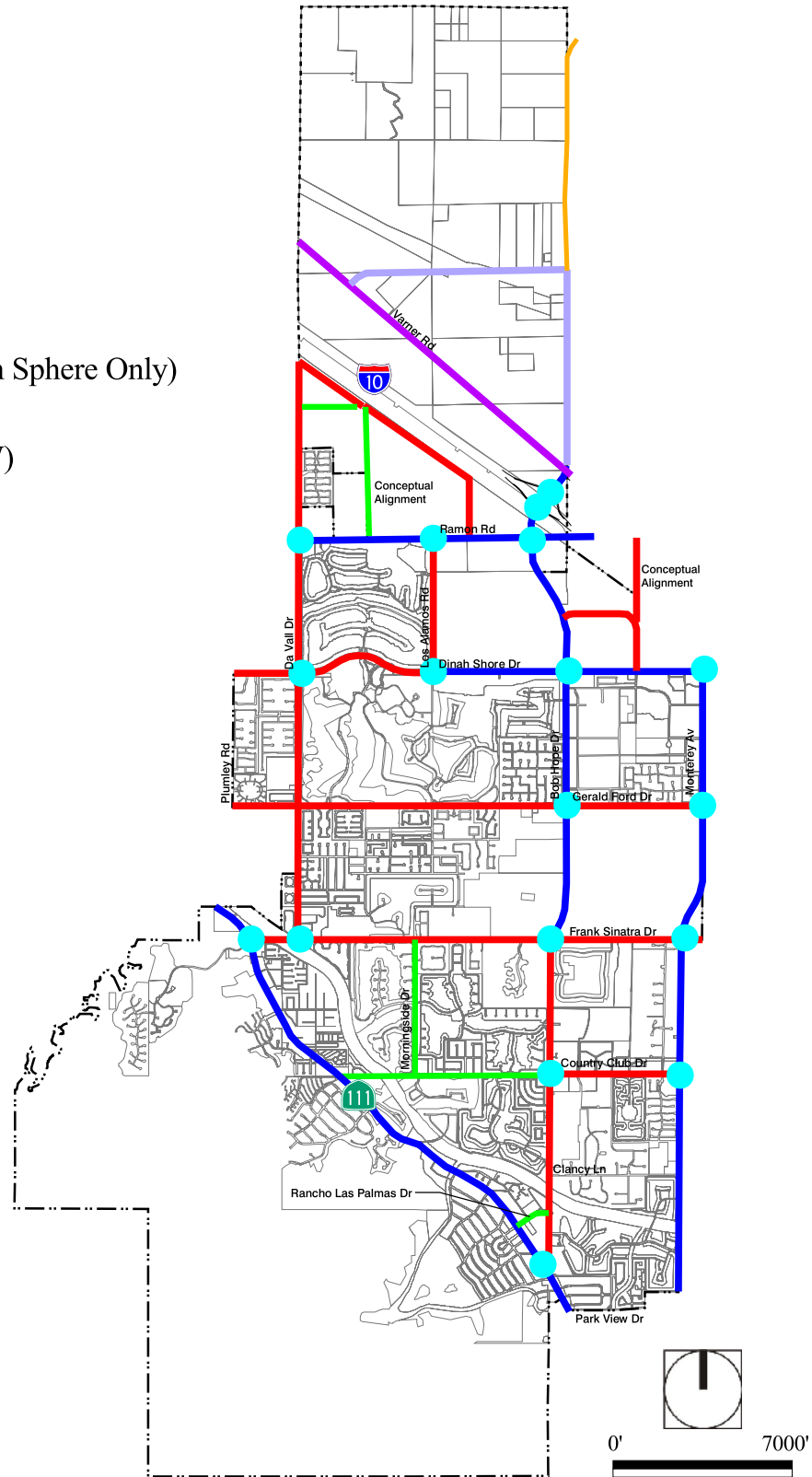
City Roadways

-  Major Arterial (6D)
-  Minor Arterial (4D)
-  Major Collector (4D)
-  Critical Intersection

County Roadways (Northern Sphere Only)

-  Arterial (152' ROW)
-  Secondary (100' ROW)
-  Collector (74' ROW)

-  City Limits
-  Sphere of Influence







CIRCULATION ELEMENT

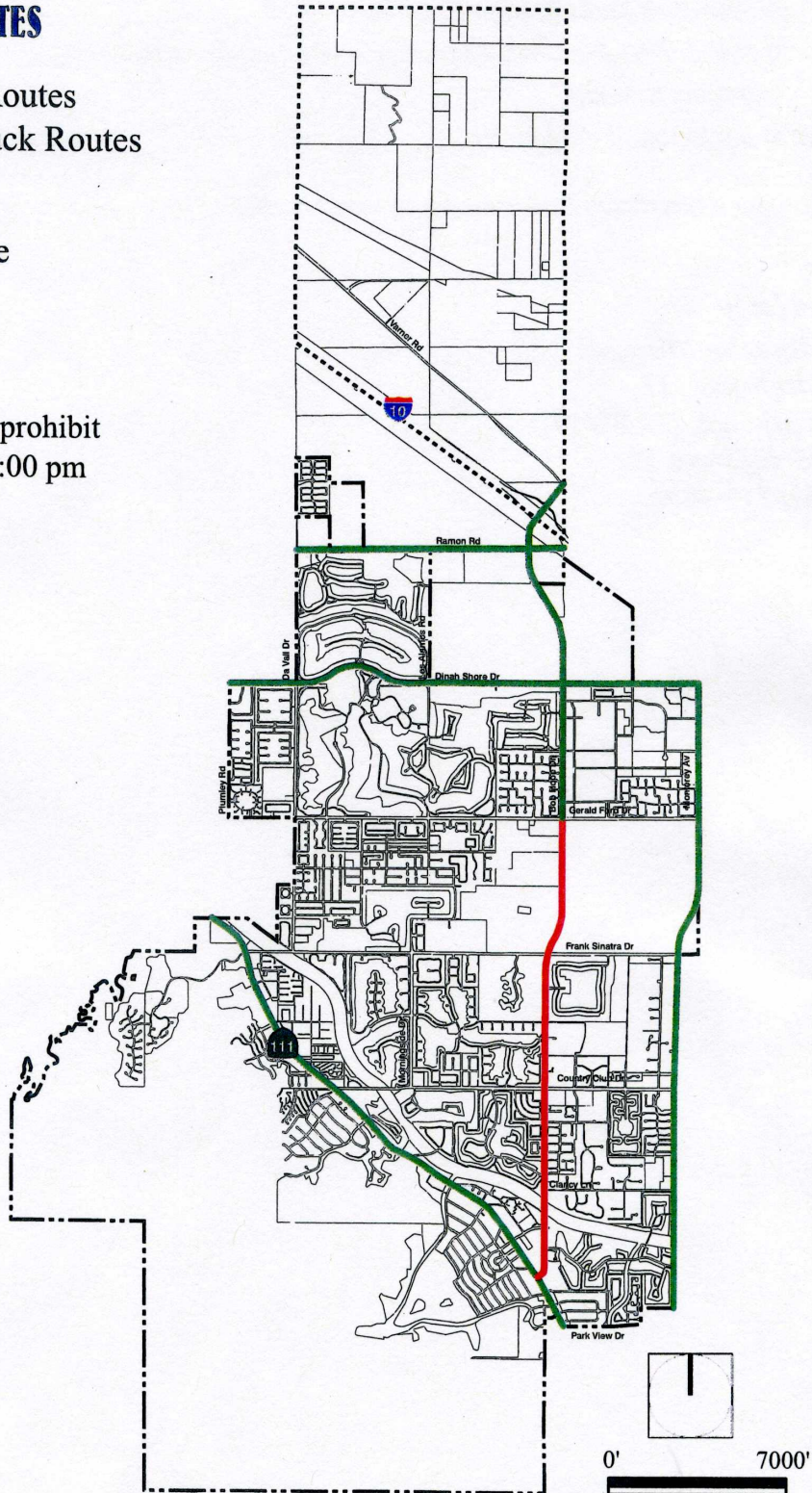
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DESIGNATED TRUCK ROUTES

-  Designated Truck Routes
-  Time Restricted Truck Routes
-  City Limits
-  Sphere of Influence

Note: Time restricted routes prohibit truck travel between 9:00 pm and 6:00 am.



CIRCULATION ELEMENT

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Circulation Systems and Access

Public Transportation

The Sunline Transit Authority is the provider of public transit service within the City of Rancho Mirage and the Coachella Valley. The Sunline fleet consists of buses powered by compressed natural gas. Buses are also equipped with wheelchair lifts and bike racks.

Aircraft Traffic

The Palm Springs International Airport is the primary air transportation facility serving Rancho Mirage and the Coachella Valley. Passenger traffic is seasonal, with the peak season being the January February March period and the slowest period occurring during the summer months.

Railway Facilities

Rail freight service is provided to the Coachella Valley by the Southern Pacific Railroad (SPRR), with freight transfer facilities located in Indio and Coachella. There is also current Amtrak service to Indio on the Southern Pacific line. These facilities carry between 30 and 40 trains per day, almost all of which are freight.

Non-Motorized Circulation

Pedestrian and other non-motor circulation is encouraged in the City wherever possible. The provision of sidewalks, bike lanes and golf cart paths is especially important along major roadways. Currently, the City has only a partially integrated system of sidewalks, bicycle lanes, golf cart paths, or multi-use trails within roadway designs and rights-of-way. Carefully thought out and planned alternative transportation corridors will enhance and give greater opportunity to the use of alternative modes of transportation. It should be noted that golf carts are legally restricted to designated pathways and roadways with speed limits less than 35 miles per hour.

With future development, pedestrian safety and accommodation should be given attention and serious consideration. Future bike and golf cart paths will serve as safe routes for intra city traffic. Routes should be clearly marked and striped and should be designed as one way routes to flow in the same direction as the adjacent automobile traffic. Combination sidewalk/bikeway/golf cart paths require a minimum eight-foot width.

Parking and Access Facilities

While many of the newer commercial developments in the City have been able to provide adequate parking to serve their customers, some older developments are frequently unable to provide sufficient off street parking. This problem is particularly evident along State Highway 111 and associated with older and smaller retail outlets. It is essential that new development, as well as projects undergoing redevelopment, be required to provide adequate on site parking to meet the parking demand generated. Parking lot ingress and egress should also be thoughtfully controlled and consolidation encouraged to minimize disruption to traffic flow on adjacent streets.





Transportation Demand Management

As the Valley and the City continue to grow, transportation demand and systems management will become more important in preserving and increasing available roadway capacity. Transportation Demand Management (TDM) involves the development and implementation of policies, plans and programs designed to encourage the use of a wider range of transportation alternatives, including public transit and bicycles. In addition to an emphasis on alternative travel modes such as carpooling, van pooling and mass transit, TDM can also include employee flex time as an important component that reduces peak hour travel and associated traffic congestion.

In response to State mandates, the Riverside County Transportation Commission (RCTC) prepared a regional Congestion Management Program, which required Rancho Mirage and other cities to prepare TDM ordinances or risk the loss of federal transportation funds. The City adopted its TDM ordinance in April, 1992.

Major Utility Corridors

The General Plan also plays an important role in assuring the planned provision of major corridors and easements for the transport of natural gas, electricity, communications, domestic water, sewerage, and storm drainage. In many instances, the need for utility corridors is met through the provision of easements in or adjacent to City streets and along common lot lines. The planning of future land use, the division of land, and the processing of development applications requires communication and coordination with utility companies and other service providers to assure the availability and provision of easements and rights-of-way for the extension of roads and utility lines and services.

All Weather Access

The Whitewater River and a few channels draining the local mountains require the construction of all weather crossings to assure accessibility during major flooding. Currently, Bob Hope Drive and Monterey Avenue at the Whitewater River, and a bridge on Highway 111 just west of Mirage Road, provide all weather crossings for these roadways. As traffic volumes increase elsewhere in the City, it may be necessary to construct all weather bridges at other locations.

Securing Right-of-Way

The City has generally been able to secure right-of-way needed to provide full-width mid-block roadway improvements and has also been able to secure additional right-of-way along major arterials designated as scenic corridors. However, the need for expanded intersection improvements throughout the City requires that additional right-of-way be secured to provide for additional through and turning lanes. The greatest demand for additional right-of-way will be at critical intersections, where ideal roadway configurations would provide three through lanes, two left turn lanes, and one dedicated right turn lane. Exhibit III-3 identifies the location of critical intersections in the City. Please see the General Plan Program EIR for critical intersection design standards and traffic related technical information.

GOALS, POLICIES, AND PROGRAMS

The City should continue to review and monitor land use trends and their associated changes in traffic volumes and patterns and make periodic adjustments in planning and program implementation by utilizing roadway improvement and maintenance management programs. This will be accomplished by regularly monitoring traffic on major roadways and by conducting on-going inventories of current traffic and circulation patterns. Through the implementation of this Element, TDM techniques, and involvement with regional, State and federal regulators, the City will progressively alleviate current problems and avoid future system inadequacies.

GOAL 1

A safe, efficient, attractive, and economical circulation network meeting current and future demands in a manner consistent with the resort residential character of the community.

Policy 1

The City's street system shall be designed and constructed to maximize mobility, minimize congestion, and assure that all intersections and street segments shall operate at LOS "D" or better during the peak hours of traffic, as generated by the buildout of the Land Use Plan.

Program 1.A

Periodically update the General Plan traffic study to maintain its relevance and correspondence to the General Plan land use designations and the design and construction of City streets.

Program 1.B

Prepare a master plan for road construction, which includes standards for ultimate rights-of-way and pavement width, and provides a schedule for securing right-of-way and constructing improvements needed to maintain the level-of-service standards set forth in the Circulation Element.

Program 1.C

Prepare a traffic study to analyze possible improvements needed for Monterey Avenue south of Country Club Drive.

Program 1.D

Establish and maintain a roadways pavement management program (PMP) that sets forth budgeting, timelines, and schedules for maintenance of existing roadways in the community.

Policy 2

A detailed traffic analysis shall be required for development proposals or other activities that might potentially require roadway improvements above and beyond those evaluated in the Circulation Element and General Plan EIR.

Policy 3

The City shall require improvements at critical intersections beyond those needed to meet standard levels-of-service at the discretion of the City Engineer.





Policy 4

The number of access points and intersections along arterials shall be limited in order to preserve mid block and intersection capacities and to maintain public safety.

Program 4.A

Maintain a design specifications manual that includes but is not necessarily limited to standards for major roadway intersection spacing, access restrictions and separations, median island opening separation, turning movement restrictions, turning lanes, driveways and gated entries, roadway parking restrictions, and street lighting and signage.

Program 4.B

Facilitate the consolidation of access driveways along all arterials in a manner that minimizes conflicting turning movements and maximizes the use of existing and planned signalized intersections.

Policy 5

Access points shall be coordinated between future development in Section 31 and any future development of the properties on the west side of Bob Hope Drive.

Policy 6

The City shall actively participate in a wide range of regional transportation planning and programs to improve the capacity, efficiency, and safety of the shared circulation system.

Program 6.A

Regularly coordinate with other local agencies regarding their plans, programs, and services that affect the quality and safety of the Rancho Mirage roadway system.

Program 6.B

Study the need and feasibility of providing additional all weather crossings along critical roadways and develop an implementation plan and schedule, if appropriate.

Policy 7

The City shall develop a system of continuous and convenient bicycle routes and multi use trails to places of employment, shopping centers, schools, and other high activity areas; as well as a golf cart transportation program.

Program 7.A

Incorporate design standards and guidelines for bicycle routes and associated facilities such as bike racks and route signs.

Program 7.B

Maintain and expand a golf cart transportation program that will provide a safe and convenient means of golf cart access to golf courses and neighboring uses within the City of Rancho Mirage.

Policy 8

The local street system within developing neighborhoods shall be established through a cooperative public/ private planning process.

Program 8.A

Monitor the volume, speed, and characteristics of traffic on local streets to assure that neighborhoods are not adversely impacted.

Policy 9

Circulation and access for undeveloped parcels shall be coordinated with surrounding properties.

Policy 10

Streets within private planned residential areas shall be installed and maintained as private streets, and shall be developed in accordance with development standards set forth in the Zoning Ordinance and other applicable standards and guidelines.

Policy 11

City streets should not be converted to private streets when it would diminish circulation alternatives.

Policy 12

City truck routes shall be designated and limited to Ramon Road, Dinah Shore Drive, Gerald Ford Drive, Monterey Avenue, Highway 111, and portions of Bob Hope Drive, Frank Sinatra Drive, and Country Club Drive.



CIRCULATION ELEMENT

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