

CITY OF COACHELLA



specific plan and final environmental impact report

october 1990



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DRAFT SPECIFIC PLAN/ENVIRONMENTAL IMPACT REPORT
FOR
BRANDENBURG-BUTTERS/COACHELLA 380 PROPERTY
BEING A PORTION OF SPECIFIC PLAN 88-1 AREA
COACHELLA, CALIFORNIA

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executive summary

Executive Summary

Background and Planning Process

The Brandenburg-Butters project lies in an area which was annexed to the City in September, 1987. In December, 1988, the Coachella City Council amended the City General Plan to designate the square mile which includes the project site a Specific Plan Area. Subsequently (May, 1989), the Planning Commission found a refined concept plan for the Brandenburg-Butters project to be consistent with the original land use density and intensity approval. The present document is a combined Specific Plan and Environmental Impact Report which provides a detailed description and environmental analysis of the project to assist the Planning Commission in making its recommendation to the City Council, which will take final action on the Specific Plan and related zoning provisions. During study sessions to review this document, the Planning Commission changed the High Density Land use from 10 units per acre to 15 units per acre. This action, and Caltrans' finalizing of an alignment for Avenue 52 at Highway 86, necessitated a revision of densities and acreages in the Specific Plan (October, 1990). An analysis of the effects of the revised Specific Plan was done for each topic in the EIR; no significant changes in environmental impacts or mitigation measures were identified. (The detailed analysis of the changes resulting from the revised Specific Plan is presented as Part IV of the Final EIR.) This summary describes the revised Specific Plan and its impacts.

The environmental analysis includes a comparison of the proposed project in terms of its impacts with the following alternatives: a no development scenario; an initial industrial/commercial based land use mixture conceptualized for the applicant's property; a suburban residential development with minimum convenience commercial acreage included; location of the project as proposed on an alternative site. The no development scenario was found to have the least environmental impact but the fewest social and economic benefits; the proposed project was found to be the most viable of the development options. No benefit was found in locating the project on an alternative site.

Project Setting

The site consists of approximately 380 gross acres in the eastern portion of the City of Coachella. The property is flat agricultural land which has lain fallow for several years and has been invaded by Tamarisk scrub and weedy annuals and perennials. There are power lines and towers on the site, but no permanent structures. The surrounding area is in agricultural and rural residential uses. Surrounding hills and mountains are visible in the distance from the site.

The project represents an eastern expansion of the City to an area which was annexed in 1967. The area is to be served by a major transportation link (Highway 86) and has access by way of the thoroughfare system extending from the center of the City. There are no major physical barriers to the development of this virtually flat area.

Two other major projects in the eastern portion of Coachella have received final Specific Plan approval: the 1,065 unit Lusardi project on 260 acres southeast of the Brandenburg-Butters site; and the 8,000 unit McNaughton Specific Plan on 723 acres northeast of the project site.

The existing General Plan land use designation of the project site is "Specific Plan Area"; zoning for the site is Conditional Specific (SP) Plan Zoning. The intensity of development proposed for the site is that contemplated by the City.

Project Description

Studies of the project site show that it presents development opportunities related to the planned extension of Highway 86 and its interchange with Avenue 52; the relatively flat, easily developed terrain; and the projected future demand for a mixture of urban uses. Site constraints, typical of development projects, include provision of utility and roadway infrastructure; protection from geotechnical and flood hazards; and noise mitigation.

The Specific Plan consists of three major land uses: residential (68% of the land area); commercial (18.8% of the site); and public (5.5%). The arterial and collector road system makes up the balance of the 380 acres.

Residential acreage (approximately 259.1 acres) will be divided among medium low density, medium high density, and high density uses. 741 Units will be conventional single family detached dwellings, averaging four units per acre (medium low density); 243 units will be detached or semi-detached smaller single family units averaging six units per acre (medium high density); and 497 units will be multi-family attached units averaging fifteen units per acre (high density).

Commercial uses serving the needs of the development will include a 12 acre neighborhood commercial center. In addition, the project includes 38.5 acres of regional commercial uses and 21.0 acres of mixed commercial uses for business desiring a location near the interchange.

¹ Requirement for park land use may involve 11.8 acres, as determined when development progresses.

The developer is initially offering for dedication to the City a six acre neighborhood park site and a 4.2 acre municipal site which could be utilized for public services. A utility services area consisting of 10.9 acres is also being reserved on the site. The primary circulation system in the project area will account for approximately 41.5 acres of roadway; individual subdivision of residential areas will also contain minor local streets.

Anticipated phasing of the project is over a ten year period, subject to market considerations and more detailed site analysis at the site planning stage. The provision of supporting infrastructure will also dictate the ability to carry out the sequence contemplated within each land use category.

Circulation for the proposed project has regional, local and internal components. Regional access is from Highway 10. Subregional access is accommodated by Highway 111, Grapefruit Boulevard, and Highway 86; the future improvement of Highway 86 is important for the development of the project.

In the internal circulation system, primary access will be via Avenue 50 and via Polk Street and Avenue 52; realignment of Polk Street and Avenue 52 will occur with ultimate construction of Highway 86. All three mentioned streets will be upgraded to handle project build-out and cumulative traffic volumes in the eastern portion of the City, necessitating amendment of the General Plan Circulation Element. Three new two lane internal collector roadways will distribute trips within and through the project site. Further subdivision of the residential areas will require the creation of minor access streets.

The minimal grading required on this relatively flat site will allow each of the areas bounded by the arterial road network and project boundaries to drain southward to flow either into a street or into a catch basin or detention area. Off-site flows will be interrupted and channeled through the project by surface and underground systems. On-site flows will be carried in local streets or combined with off-site flows in an underground storm drain network. Use of detention basins is planned.

Water will be provided to the project by extending two lines of the City's existing water supply system to the site, where they will be connected by the proposed on-site water system. A well site and a water storage reservoir will be necessary to serve the project site. Location of water service infrastructure, and coordination of water main extension with City capital improvement program planning, could result in efficiency and economy in supplying the cumulative water needs of development in the area.

Wastewater will be handled by gravity feed to a pump station at the utilities/facilities site, from which effluent would be pumped to the existing treatment plant, via a new sewer main.

Natural gas (from Southern California Gas Company), telephone service (from General Telephone), and electricity (from Imperial Irrigation District) will be extended to the project according to the policies of the provider for new development. The City may wish to coordinate efforts of supplier utilities to meet the cumulative demand of development in the eastern portion of the community.

Seismic Safety

Context

No known faults exist on site. The site would be subject to severe groundshaking from earthquakes originating on nearby faults, especially the San Andreas fault system 1.25 miles northeast. The site is within Liquefaction Zone V.

Environmental Impacts

A design earthquake of 7.5 Richter magnitude can be calculated to originate from the San Andreas fault system. Ground acceleration from other regional faults is not as significant a consideration.

Sand layers on site would appear too dense for liquefaction to occur, but additional site specific liquefaction investigation is required.

Mitigation Measures

Design permanent construction to meet Uniform Building Code Seismic Zone IV requirements. Construct plumbing and utility services with flexible connections and/or provide convenient shutoffs. Design relocatable structures (if not supported on permanent type foundation) to minimize the effects of groundshaking. Evaluate site specific liquefaction potential with emphasis on areas of heavy loading. Perform further geotechnical investigations to assess engineering properties of underlying soils with respect to liquefaction.

Topography, Geology, Slopes and Erosion

Context

The site lies in the flat, alluvial portion of the Coachella Valley, bounded by the San Jacinto and Santa Rosa mountains to the west and the Little San Bernardino mountains to the east. The site averages 90 feet below sea level and has a 2% northwest to southeast slope.

Environmental Impacts

Soils on site are primarily silty sands and clayey silts with low plasticity in the "very low" to "low" expansion category. Removal and recompaction of soil will be necessary to limit settlement and improve bearing capacity.

No landslides were observed or mapped in or around the site, which is a on flat ground away from steep hills. The site shows no evidence of scouring and channeling.

Mitigation Measures

Clean construction sites of vegetation prior to grading. Employ an engineer to visually check site grading prior to placement of fill. Ensure that foundations bear on soils whose compaction has been verified by testing. Employ accepted engineering standards for site soils for foundation designs.

Wind Erosion

Wind erosion is not anticipated due to fallow vegetative cover and absence of high wind patterns. Watering during grading and re-vegetation will mitigate erosion resulting from construction activities.

Flooding and Drainage

Context

The site is in the typically alluvial Coachella Valley Drainage Basin, which has no natural perennial streams. Existing topography creates an undefined sheet flow effect across the property which could become channelized across a portion of the site, causing flooding. The drainage area tributary to site is approximately four square miles. A portion of the site might become inundated during a major storm due the elevation of the banks of the wasteway which borders the site on the south. The site is in F.E.M.A. Zone C (subject to minimal flooding).

Environmental Impacts

Development will increase total peak storm run-off and volume by decreasing pervious ground area on site. Off-site sheet flows must be intercepted and channelized through the project using street surface flow and storm drains. Flows will be conveyed to a detention basin to limit peak flow discharging from the site. (Additional detention basins will be in the park and open space areas.) An outlet structure (or pumping) will be necessary to discharge flows to the wasteway or the Coachella Valley Stormwater Channel, resulting in a slight increase in storm flows and associated erosion in the channel.

Mitigation Measures

Implement proposed Storm Drain Master Plan with development of the project. Perform further engineering studies to: design public right-of-way to contain 10, 25, and 100-year storm events; provide final design of detention basins; and select final outlet features and discharge rate. Implement measures to reduce breeding of eye gnats and mosquitos.

Noise

Context

The site is currently affected by motor vehicle noise from area roadways; it may be subject to aircraft noise from Thermal Airport and will be adjacent to the planned Highway 86 - Avenue 52 interchange.

Environmental Impacts

Construction activities will have short-term noise impacts, mitigated by limiting work to days and hours specified by City Ordinance. Long-term noise impacts will result from project-related traffic on and off site. Location of commercial uses closest to the Highway 86 - Avenue 52 interchange will reduce noise impacts on residential areas, limiting noise impacts to those from local street traffic.

Mitigation Measures

During construction: limit days and hours of construction adjacent to residential areas; equip construction equipment with mufflers; orient stationary equipment to emit noise away from sensitive receptors; locate stockpiling and vehicle staging areas away from residences; maximize distance between noise sources and sensitive receptors; concentrate noisiest construction operations to avoid continuing high noise periods.

Over the long-term, protect residential lots by: locating carpools and parking areas adjacent to major roadways; orienting dwelling units away from adjacent roadways; shielding courtyard or recreational open space areas by intervening structures or barriers.

Over the long-term, protect commercial uses by: carefully designing truck access, parking areas, and air conditioning units; utilizing building setbacks, design and orientation to reduce noise levels; locating parking areas between buildings and roadway.

Climate and Air Quality

Context

The site is in the Southeast Desert Air Basin, where state and national ambient air quality standards are exceeded up to 166 days annually, chiefly due to oxidants (especially ozone) from motor vehicle emissions. The site has a desert climate with low annual rainfall, low humidity, hot days, and cold nights. Topographical features contribute to surface-based inversions in some seasons. Winds bring pollutants from the Los Angeles/Orange County metropolitan area. Particulates and ozone have exceeded state and federal standards at local monitoring stations. The site may be seasonally subject to blowsand.

Environmental Impacts

Construction activities will generate particulate (fugitive dust) emissions, mitigatable through dust suppression techniques such as watering, use of ground cover, and street sweeping. Impacts during construction will also include exhaust emissions from construction equipment and workers' vehicles. Over the long-term, project-generated pollution will include emissions from natural gas combustion and electrical generation (2%) and emissions from motor vehicles (98%). The project totals will be less than 1% of the levels of each pollutant projected for the region for the year 2000. Carbon monoxide concentrations adjacent to intersections most affected by project traffic will be below current state and federal standards. However, because the project proposes land uses in excess of land use and population forecasts utilized in the 1989 Air Quality Management Plan emission forecasts, the impact

of the project on air quality is considered "significant", even though project-generated pollutants will represent less than 0.03 percent of the South Coast Air Basin total by the year 2000.

Mitigation Measures

General Measures

Employ land use planning measures which support mixed uses in proximity to each other so that shorter motor vehicle trip distances and alternative forms of transportation are facilitated. Provide adequate on-site circulation to minimize congestion and reduce emissions. Design recreational and greenbelt area to maximize shading effect of landscaping for streets, parking areas, and building walls. Schedule construction activities first on upwind portion of site to reduce blowsand and dust impacts in downwind area. Suspend dust-creating activities under high wind conditions. Suspend construction during ozone episodes.

Specific Measures

Clean up construction-related dirt on approach routes to site. Employ adequate watering techniques to hold down construction-generated dust. Cover any earth transported and spray wheels and low portions of transport trucks with water. Use diesel engines with a four degree retard and diesel fuel with a maximum of 0.05% sulfur. Comply with energy use guidelines in Title 24 of the California Administrative Code.

Measures to be Implemented if Feasible

Use diesel-powered rather than gasoline-powered construction equipment. Maintain and service construction equipment to minimize exhaust emissions. Minimize construction during windy season. Use accumulated blowsand on-site as construction material. Transport accumulated blowsand off-site to destinations downwind and outside of blowsand hazard zone. Use energy efficient street lighting and parking lot lighting to reduce emissions at power plant serving the site. Provide adequate pedestrian facilities to encourage walking between uses on-site. Incorporate design features to facilitate public transit usage. Synchronize any traffic signals installed with other signals in project vicinity. Consider use of solar water and pool heaters. Ensure early contact between applicant and public transit; ride sharing; public works, and other service organizations to incorporate needed facilities and service in project design.

Water Quality

Context

The site is located over a large aquifer (the Ocotillo formation) which provides potable domestic water. This is overlain by a shallow perched aquifer fed by excessively salinated irrigation water. Contaminants associated with the construction of roadways will find their way into the shallow aquifer. Project domestic water and wastewater treatment would be provided by an extension of Coachella's municipal system.

Environmental Impacts

Roadway contaminants would further contaminate the already degraded shallow aquifer, but it is not a source of potable water. Use of municipal services for domestic water supply and wastewater treatment would eliminate any significant impact on water quality.

Mitigation Measures

Implement water and sewer master plans as per subsections 3.4.2 and 3.4.3 of the Specific Plan.

Open Space and Conservation

Context

The site is a disturbed agricultural area with no unique or endangered plant or animal communities and no known cultural resources. Designation by the City as a "Specific Plan Area" (December, 1988) presumes an eventual urban density and intensity of development.

Environmental Impacts

4,399 residents will require neighborhood and community recreation and open space. The project proposes a six acre neighborhood park site, and reservation of 11.8 acres for pocket parks, which would be developed for public open space and recreation purposes.

Mitigation Measures

Dedicate a six-acre neighborhood park and provide 11.8 acres for dedication as park sites with phased development. Bring in an archaeologist should cultural resources be discovered during grading. Utilize native and desert landscape material where appropriate.

Agriculture

Context

The site consists of agricultural land which has not been cultivated for several years. Although located in a region with a warm climate, inexpensive irrigation water, and abundant labor, the site itself has several constraints on agriculture: extreme soil salinity; a cold micro climate which limits the selection of the more profitable crops; non-existent, improper and unserviceable drainage; and, the necessity to redevelop the site with extraordinary cultivation and tillage procedures. If the site were reclaimed and farmed, its productive capabilities would be limited to lower-value flat crops such as hay, grain, and cotton.

Environmental Impacts

In its unused state, the site has no impact on the area or regional agricultural sector. Its development would have no effect unless the property were desired for reclamation and farming, which is unlikely given its constraints.

Mitigation Measures

None required.

Wildlife and Vegetation

Context

The site is a disturbed agricultural property which has lain fallow for 2-5 or more years. It supports Tamarisk Scrub in the heavily salinated center of the site and, elsewhere, plowed fields with weedy annuals and introduced perennials. Natural succession would lead to a simple saline sink plant community. Little wildlife exists on site, and no state or federally protected species of plant, vertebrate, or arthropod was found.

Environmental Impacts

Development would remove all remnant native vegetation and most small animal habitats, which is not considered a significant impact due to the degraded state of the native habitat on the site. Potential for disturbances within adjacent native habitats would be increased.

Mitigation Measures

Landscape with native species.

Energy Resources

Context

Locally, 60% of typical domestic electrical consumption is for air conditioning; 40% of natural gas is for heating water; and 30% of gas is for space heating. Conservation measures can be effective in these areas, especially the use of passive design elements such as insulation.

Environmental Impacts

The project will utilize 32,252,961 KWhs of electricity per year; 119,484,312 CuFt of natural gas per year; and 15,678 gallons of gasoline per year.

Mitigation Measures

To reduce gasoline consumption, provide bicycle parking areas, pedestrian walkways, and bicycle routes to encourage alternatives to driving; and facilitate bus transit through bus stop improvements. To reduce electricity and gas consumption, ensure that construction meets or exceeds Uniform Building Code specifications; utilize energy efficient appliances and fixtures; maximize shade features in landscaping and building design.

Aesthetics and Visual Analysis

Context

The site consists of very gently sloping fallow agricultural land surrounded by similar rural properties. It lies in an area which has been assigned a low scenic value in the Coachella Valley Master Environmental Assessment. The site affords views of distant encircling hills and mountains, somewhat marred by existing power lines and towers.

Environmental Impacts

Development will completely alter the vacant rural agricultural appearance of the site. The impact on landform will not be significant because of the site's limited topographic relief and the minor grading necessary. The site is highly degraded in terms of natural desert terrain and habitat, and has been assigned a low scenic value. Thus, the visual transformation of the site is not considered a significant impact.

Mitigation Measures

Comply with design guidelines in the Specific Plan.

Historic and Pre-Historic Resources

Context

The site consists of a disturbed agricultural area covered by modern alluvium, unlikely to yield paleontological resources. Although the site was part of Cahuilla territory in pre-historic and historic times, no archaeological sites have been recorded on or near the site and a representative of the Cabazon Band was unaware of any resources on site.

Environmental Impacts

The Archaeological Research Unit (University of California, Riverside) advises that there is a low probability of cultural resources on the site.

Mitigation Measures

If cultural resources are encountered during construction, employ an archaeologist to re-evaluate project area and prevent destruction of resources.

Light and Glare

Context

The site and the surrounding rural area currently produce no significant light and glare.

Environmental Impacts

Residences, commercial and municipal buildings, and street lighting will produce nighttime illumination where none existed before. Fixtures for street, security, and parking lighting may create unacceptable glare for adjacent areas. Sun glaring from reflective surfaces will periodically occur.

Mitigation Measures

Use sodium lamps in downward facing lamp fixtures in street and parking lot lighting. Use shielded fixtures and roofs constructed of low reflectance materials to reduce glare.

Traffic and Circulation

Context

The project site is vacant; area traffic is related to farming and rural residential uses. Existing immediate access to the site is from Polk Street, Avenue 50, and Avenue 52; regional access is from Highway 111, Interstate 10, and future Highway 86. Other roadways in the project area include Tyler Street to the west, Filmore Street to the east, and Airport Boulevard to the south. Traffic volumes are light in the project area, except on Highway 111, which is approaching the capacity of its two lane segments. The internal circulation system for the site shows primary access via Polk Street, Avenue 52, and Avenue 50. Polk Street and Avenue 52 are to be realigned with construction of Highway 86. Three new internal collector roadways are proposed to distribute trips within and through the site, two running north/south and one east/west.

The Circulation Element of the Coachella General Plan and the Coachella Valley Area Transportation Study outline the changes necessary to handle projected future traffic in the project area.

Project Impacts

At ultimate build out, which is anticipated to occur in approximately 10 years the proposed project is estimated to generate 453,240 daily trip ends (26,620 in/26,620 out) with 2,490 inbound/2,345 outbound trips during the PM peak period across the driveways. Due to pass-by trips, the project will generate about 41,660 external daily trips with 1,990 inbound/1,830 outbound trips during the afternoon peak hour.

Assuming that State Route 86 is constructed as a four lane expressway from Dillon Road to Avenue 58 with at grade crossing at Avenues 50,52,56 & Polk Street, all streets in the vicinity of the project, following the ultimate build out of the project, (including background traffic) will have a Level of Service (LOS) of C or better with the construction of required traffic mitigation improvements.

Assuming that SR 86 is constructed as described, and the Slater and Lusardi projects along with the project are constructed (including background traffic) all streets in the vicinity of the project, with the possible exception of SR 86 north of Dillon Road, will have an LOS of C or better with the construction of required mitigation improvements associated with these projects (including an interchange at SR 86 and Avenue 52).

With the addition of the McNaughton project to the project area all streets in the vicinity of the project, with the exception of Highway 111 north of Avenue 50, Avenue 50 west of Polk Street, and Avenue 52 west of Fillmore Street will have LOS C or better with the construction of required mitigation improvements associated with these projects (including an interchange at SR 86 and Avenue 50).

Mitigation Measures

Mitigation measures will include street widening, signal improvements and adding additional lanes at key intersections. Location, degree and type of improvement are dependent upon the timing of the proposed project and other projects east of SR 86. Three alternative methods of implementation are identified related to individual project mitigation improvements and/or jointly funded mitigation improvements (e.g., Mello-Roos).

Water

Context

Coachella's domestic water distribution system does not currently serve the project site. The City has an excess capacity of 1.5 million gallons per day (mgd), or 1,040 gallons per minute (gpm); its storage capacity is 5.1 million gallons.

Project Impacts

The project water demand will be 3.1 mgd, or 2,174 gpm, which exceeds the City's available supply. Fire flow requirements for the commercial uses would necessitate storage of 5.7 mg, which is greater than current storage capacity. The proposed water master plan would

extend the City's water supply system to the site on two sides and participate in well site(s) and reservoir development to provide adequate water and meet fire flow requirements for the project.

Mitigation Measures

Implement Water Master Plan from the Specific Plan. Ensure that project participates in development of needed well sites as determined/approved by the City. Ensure that project contributes its share to construction of a water reservoir, with reimbursement for any oversizing.

Sewer

Context

No sewer facilities exist on site. The nearest point of connection is a 12" main 1/4 mile west of the southwest corner of the site. The sewage treatment plant has a current excess capacity of 1 million gallons/day.

Project Impacts

The project will generate 1.3 mgd of sewage, exceeding available treatment capacity and overburdening the 12" sewer main. The project proposes an on-site collection system, a pump station, and a new 15" main from Avenue 52 to the treatment plant. Treatment plant expansion will be necessary at 75% buildout, or earlier if other development occurs.

Mitigation Measures

Implement proposed on-site collection system. Ensure that project provides its share of funding for main sizing and treatment plant expansion.

Fire Protection

Context

Fire services are provided by the City Fire Department from its headquarters at Sixth and Palm Streets. The site in its fallow agricultural state presents a certain fire hazard. Response time to the site is five minutes without delay due to train crossing.

Project Impacts

Increased traffic may slow response time. The neighboring proposed Lusardi development locates a fire station site 1-1/4 miles south of the project: a portion of the project's municipal use site might be used for fire facilities if necessary. Waterlines extended to the site will be sufficient to handle fire flow.

A well on the southeast corner of Avenue 50 and Polk Street must be secured/abandoned to avoid a safety problem.

Mitigation Measures

Ensure that applicant dedicates a 4.2 acre municipal site which might be used if necessary for fire facilities with immediate response time. Ensure that developer contributes fees and taxes toward cost of fire facilities and personnel. Extend water lines for fire suppression to project site. Explore formation of special taxing district or other assessment mechanism to finance improvements. Ensure that applicant abates on-site hazards.

Law Enforcement Services

Context

The City Police Department, housed in City Hall, maintains a ratio of 1 to 1.5 officers per 1,000 citizens. Response time to the site would be five minutes, barring delay due to train crossing.

Project Impacts

The project would require 4-7 additional officers to maintain the desired ratio. The department would want a satellite office space at the site. The project does not present any security/surveillance or access problems.

Mitigation Measures

Consider provision by City of satellite office facilities on the municipal use site. Submit new construction proposals to police department for routine review as part of the architectural review/site plan analysis process. Ensure that developers contribute their fair share towards improvements of access roadways. Encourage consideration of formation of a Mello-Roos or other assessment mechanism.

Schools

Context

Four Coachella Valley Unified School District schools would serve the site (two elementary, one junior high, and one high school); all are overcrowded. Post-secondary education is offered at College of the Desert, which has no unused capacity at its Palm Desert campus and offers limited courses off-campus in Indio and Coachella.

Project Impacts

The 1,481 dwelling units in the project would generate 1,614 students, using a student generation factor of 1.09 students per unit, which reflects the household make-up of the proposed market according to the school district's adopted impact fee study. The project has reserved 10 acres of land for school facilities.

The Coachella Valley Community College District projects an impact from this and other projects. A satellite campus in the eastern end of the valley is contemplated.

Mitigation Measures

Reserve a 10 acre site for acquisition by the Coachella Valley Unified School District. Require developer to pay school impact mitigation fees as established by the Coachella Valley Unified School District at time of construction approval. Explore mutual agreement between developer and school district for dedication of land in lieu of fees. Tax project property at established rate for school and community college districts.

Parks and Recreation

Context

Three state recreational facilities and one local regional park would serve the project site. The City of Coachella owns and maintains six public parks, none in the area of the site. The Coachella Valley Recreation and Park District administers recreation programs at the City parks. General Plan and Municipal Code provisions cover requirements for park acreage for new developments.

Project Impacts

The project will have 4,399 residents occupying 1,481 lots/units on 249.2 acres of land. General Plan requirements would call for 9.8 acres of parks; Municipal Code requirements would call for 17.8 acres of parks (by lot/unit method) or 12.5 acres of parks (by percent or area method). The project proposes to dedicate to the City a six acre park site, and reserve 11.8 acres for phased dedication of pocket parks. Tax revenues from the project will flow to the Recreation and Park District and the City.

Mitigation Measures

Dedicate a six acre park site to the City; and, reserve 11.8 acres for dedication of pocket parks with phases of development.

Utilities and Energy Conservation

Context

Telephone services are provided to the area by General Telephone (GTE). Electricity is provided by Imperial Irrigation District. Natural gas is provided by Southern California Gas Company, which has a main in Avenue 52, 650 feet east of Tyler Street.

Project Impacts

Development will require extension of existing telephone lines, which should be underground for aesthetic reasons; No impact is anticipated. Development would require construction and installation of new electrical facilities at developer's expense, creating no significant impact. The developer should work with all utility providers to explore energy conservation techniques.

Mitigation Measures

Underground new telephone lines. Construct according to Uniform Building Code and California Energy Code Standards. Place structures and landscaping to maximize use of shade features. Select fixtures and appliances for energy efficiency. Make provision to accommodate substation and distribution facilities. Construct buildings with insulation and air tight seals to reduce heating and cooling consumption. Use technical support concerning energy conservation provided by utilities.

Solid Waste

Context

Western Waste Industries takes solid waste from the site to Coachella Sanitary Landfill, which receives 700 tons per day. The landfill will reach capacity in 2020-2023.

Project Impacts

The project will generate 32,183 pounds of solid waste per day, or 2% of the total received at the landfill. This incremental impact is not considered significant.

Mitigation Measures

None required.

Health Services

Context

John F. Kennedy Memorial Hospital, a full-service hospital in Indio six miles from the site, would serve project residents. It has 130 beds and operates at 65% capacity.

Project Impacts

The project would generate 12 in-patients per month. John F. Kennedy Memorial Hospital can handle this increase without impact.

Mitigation Measures

None required.

Library Services

Context

The project area is served by a branch of the Riverside City/County Free Library System located 2-1/4 miles west of the site. This 3,000 square foot building houses 12,836 cataloged volumes of a 501,359 volume network system to serve a population of 18,000. Library funds come from a percentage of the general county tax levy and County development mitigation fees.

Project Impacts

The 3,938 project residents would have a significant impact on facilities which the system considers inadequate. The system projects a need for a 15,000 square foot, \$3.1 million library in Coachella with an annual operating cost of \$528,717, but no funding scheme is identified. The system suggests assessment of a library facilities and collections fee and determination that the project's assessed valuation will provide for ongoing expenses.

Mitigation Measures

The City of Coachella is not the tax collector or budget approval authority for the library system; the following actions can be taken by the Coachella City Council: Request that applicant negotiate an impact fee with the library director; or, look to other means of providing library services; or, allow the County Board of Supervisors to address funding and service levels for the library system.

Easements

Context

The project site contains 13 known easements for pipelines, water pipelines, irrigation distribution systems, public roads, public utilities, and an electrical transmission power line.

Project Impacts

Development will require relocation/abandonment of some easements. No adverse impacts are anticipated. Project design takes into consideration two electrical transmission power lines along Avenue 52. With realignment of Avenue 52 and Polk Street, the City of Coachella will vacate surplus right-of-way to adjacent property owners.

Mitigation Measures

Provide necessary new or replacement easements at time of land subdivision.

Fiscal Impact Analysis

The residential component of the project at the time of analysis consisted of 741 single family detached homes (averaging \$117,600 for 1,600 square feet); 243 attached or semi-attached "patio" homes (averaging \$88,725 for 1,300 square feet); and 497 apartment units. Housing would be phased over 10 years, with apartments built in the fourth and seventh years of the project. These residential uses will generate revenue, particularly from water and sewer service fees, property tax, motor vehicle license fees and retail sales taxes, in the amount of \$1,183,905 in the tenth year of development. The residential uses will require municipal services such as public safety, road maintenance, park maintenance, recreation programming, water and sewer service, and general government administration, at a cost of \$1,104,046 by the tenth year of development. At buildout, the project would generate \$1.087 of public revenue for each \$1.00 of incurred public cost. (The minor change in project description has not changed the positive fiscal impact.)

Commercial elements of the project would be constructed in the third, fifth and seventh years of the project. Commercial elements have potential annual sales generation of \$91,625,000, provided that significant additional residential development occurs within the market area.

1.0 introduction

1.0 INTRODUCTION

1.1 Background and Planning Process

The Brandenburg - Butters, Coachella 380, property consists of two separate land holdings totalling to approximately 380 gross acres. The subject property (hereinafter sometimes simply referred to as Applicant's Project), lies in the eastern portion of the City of Coachella, California, and was the subject of a large area annexation to the City in September 1987. General planning for this eastern portion of the City has not specifically been readdressed since originally discussed as a Sphere of Influence area in the January 1982, General Plan Update. The City is seeking to prepare an area policy plan, entitled the East Valley Community Plan, to assign densities to properties not already contemplating development, and to incorporate elements of the current privately sponsored projects.

The City of Coachella has been directing proposals for development in the eastern portion of the City to their Specific Plan process. The subject project sponsor, applying under the California Partnership name of Coachella 320, submitted applications in the Spring of 1987, seeking amendment of the General Plan and Conditional Specific Plan Zoning. In this context, a "Specific Plan," means the legal document consisting of a development plan and text material that describes the character and building intensity of proposed development, with standards to guide developers and designers of the property.¹

On December 7, 1988, the Coachella City Council designated the one square mile section of land, within which the Applicant's Project is located, as "Specific Plan Area" (Resolution 88-101); and also, rezoned the one square mile section of land Conditional Specific (SP) Plan" (Ordinance No. 617). The described one square mile section of land will sometimes, hereinafter, be referred to as the Specific Plan Area.

The next action of the City occurred on May 24, 1989, when the Planning Commission found a refined concept plan for Applicant's Project to be consistent with the original land use density and intensity approval. The plan had been updated from the initial submittal to address approval conditions, to incorporate new design information regarding the Avenue 52/Highway 86 interchange and to further detail land use distribution for purposes of preparing the Draft Specific Plan.

¹ Source: City of Coachella Ordinance No. 378.

The sequential stages of City processing beyond Conditional Specific Plan Zoning, provide for a "Draft" Specific Plan to be submitted to the planning staff (refer to City Ordinance No. 378, Section 058.08). After Planning Commission review, staff is to furnish the applicant with comments regarding the review, to assist in the preparation of a final plan. The "Final" Specific Plan is submitted along with required information; the Planning Commission, after hearing, makes its recommendation to the City Council; the Council takes final action on the Specific Plan and related zoning provisions by approving the Final Specific Plan, and implementing the Specific Plan zoning (by removing the conditional status). Thereafter, actual development plans and subdivision maps may follow for construction of each phase of the project.

1.2 Purpose and Scope of the Specific Plan and Environmental Impact Report

This document is a combined project Specific Plan and Environmental Impact Report (EIR). The Specific Plan describes the proposed development of the Applicant's Project property, a 360 acre site in the eastern portion of the City of Coachella. The proposed development is composed of up to 1481 dwelling units within three density ranges, a total of 71.5 acres of commercial use on three (3) sites, a 6 acre neighborhood park, a 4.2 acre municipal services area and a 10.9 acre utility services area. Additionally, the plan calls for the reservation of an additional 11.8 acres of "pocket parks" distributed in the residential areas as development progresses.

In order for development to proceed, a Draft and Final Specific Plan must be approved by the City of Coachella, along with deletion of the "conditional" provision of the Specific Plan Zoning (an action which takes place once the City Council approves a Final Specific Plan).

Ultimate parcelization and subdivision for commercial and residential uses will require City subdivision map approvals. Other agencies that will review project related plans may also use information contained in this Specific Plan - EIR.

The Environmental Impact Report portion of this document text has built upon information collected for a previous EIR involving a portion of this site, technical studies developed for previously contemplated uses on this site, information of subregional significance from area EIR's and original studies and analysis developed for this Specific Plan project.

The scope of the Specific Plan is established by City Ordinance No. 378, Comprehensive Zoning Ordinance, in Article 058, "Specific Plan Districts." The scope of the EIR was established in the Notice of Preparation issued by the City of

Coachella on September 6, 1988. All topics required by Section 15140 through 15145 of the State EIR Guidelines are addressed. The following concerns are emphasized.

- Air
- Water
- Noise
- Light and Glare
- Land Use
- Natural Resources
- Population
- Housing
- Transportation/Circulation
- Public Services
- Energy
- Utilities
- Human Health
- Recreation

Responses received to the Notice of Preparation were also utilized in preparation of this analysis.

1.3 Alternatives Considered

A portion of the environmental analysis contained in this document examines a range of reasonable alternatives to the proposed project, or to its location. In this instance a matrix format has been utilized (see Section 8.5) with the proposed project inserted for comparison. The alternatives considered included: a required "No Project" (no development) scenario; an initial land use mixture conceptualized for Applicant's Property (industrial/commercial based); the proposed project (for comparative purposes); and, a suburban residential development with minimum convenience commercial acreage included. Also, the proposed development land use mixture is discussed occurring at a different location.

The "No Project" alternative avoids the impacts associated with urban development of vacant lands, but does not provide other social and economic benefits which could result from property development. The subject proposed project was considered to be the most viable of the development options for the property (with "No Project" having the least impact on the existing environment), because most of the impacts typically resulting from this type of proposal were either mitigated by the project design or could otherwise be addressed as a part of project implementation. Additionally, the proposed project was projected to have a positive impact on the public fiscal balance and satisfy a broader base of housing demand than the other alternatives. Moving the proposed project to another site was not perceived to further reduce any negative effects.

2.0 project setting

2.0 PROJECT SETTING

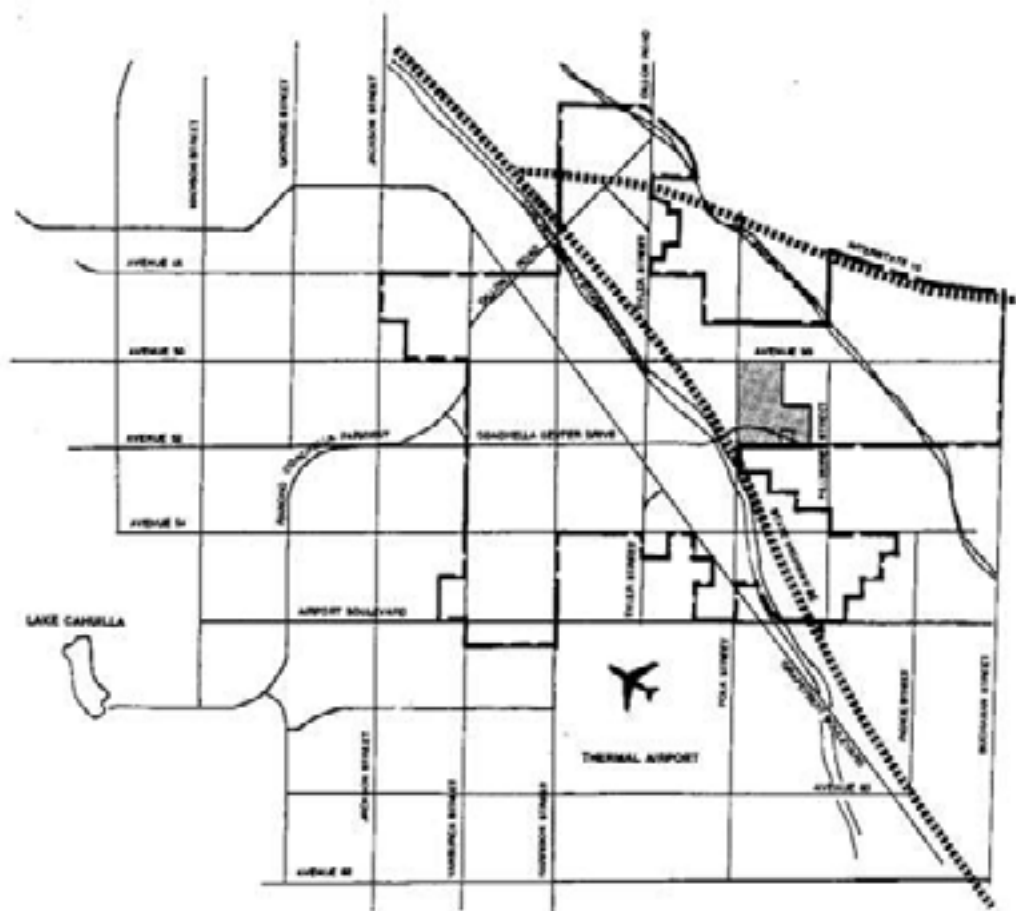
2.1 Project Location and Boundaries

The Applicant's Project site consists of approximately 380 gross acres located within a 640 acre square mile area (Section 3, T.6S., R.8E.) located in the eastern portion of the City of Coachella. The site is bounded on the west by Polk Street, on the north by Avenue 50 and on the south by Avenue 52; the remainder of Section 3 lies to the east, extending to Filmore Street. The project site is further identified by Riverside County Assessor's Parcel Nos. 763-070-001, 002 and 763-080-001, 002, 003. (See Figure 2.1, Project Vicinity; and Figure 2.2, Parcel Divisions.).

2.2 Physical Setting

The site consists of flat agricultural land which has not been cultivated for several years. Topographic relief is minimal on site, with slopes ranging from 0% to 2%. Since its abandonment for agriculture, the property has been invaded by Tamarisk scrub, which forms a band of vegetation roughly bisecting the site on a diagonal from northwest to southeast and covering approximately 1/3 of the site. The remainder is covered more sparsely by invasive weedy annuals and perennials, largely introduced species with occasional patches of native annuals and perennials. The southwest corner of the site is a barren 10 acre area of exposed soils with a thin white crust of evaporated salts. There are power lines and towers on the site, but no permanent structures.

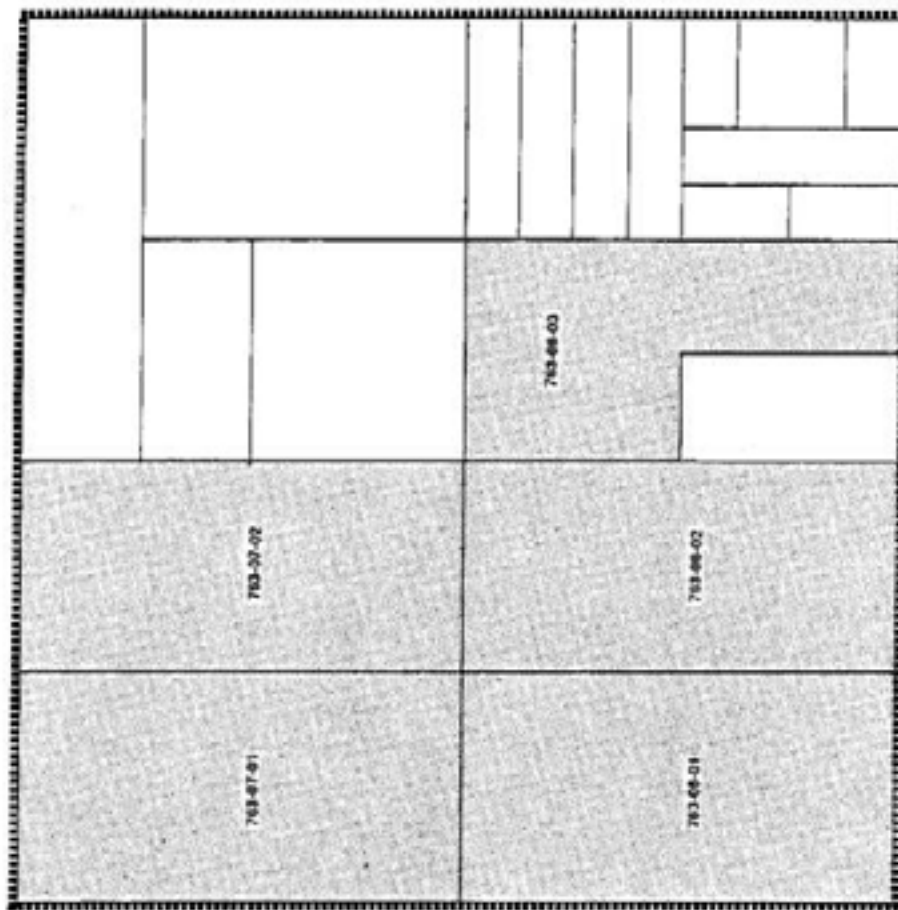
The land immediately surrounding the site on all sides is in agricultural and low density residential/farming uses. In the distance, views of the hills and mountains can be seen from the site. These include views of the Indio Hills to the northwest, the Little San Bernardino Mountains to the north and east, the Mecca Hills to the southeast, and the Santa Rosas and San Jacintos to the west.

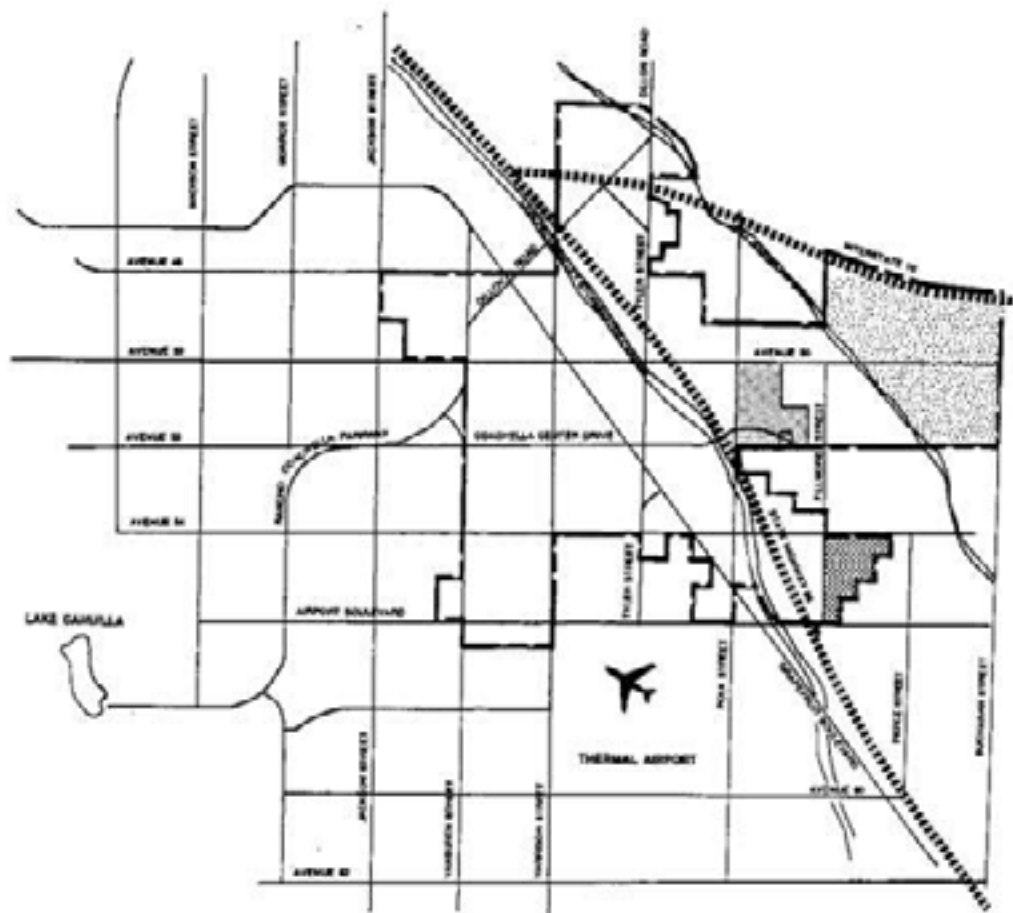


LEGEND

- APPLICANT'S PROJECT SITE
- CITY BOUNDARY

<p>PROJECT VICINITY</p>		<p>NO SCALE</p> <p></p> <p>N</p>
<p>Smith, Peroni & Fox</p>		<p>2.1</p>
<p>brandenburg butters</p>		


SPECIFIC PLAN AREA INDICATOR



LEGEND

-  APPLICANT'S PROJECT SITE
-  MG NAUGHTON S.P.
-  LUSARDI S.P.

— CITY BOUNDARY

<p>PROJECT TITLE</p> <p>PLANNED AND APPROVED DEVELOPMENT IN THE PROJECT VICINITY</p>		<p>NO SCALE</p> <p></p> <p>N</p>
<p>DESIGNED BY</p> <p>Smith, Peroni & Fox</p>		
<p>SOURCE: Smith, Peroni & Fox</p> <p>brandenburg butters</p>		<p>2.3</p>

COASTELLA G.E.P.

TABLE 2.1
AREA PROJECTS - LAND USE

BRANDENBURG-BUTTERS PROJECT			McNAUGHTON SPECIFIC PLAN		
RESIDENTIAL LAND USE	ACREAGE	DWELLING UNITS	RESIDENTIAL LAND USE	ACREAGE	DWELLING UNITS
Medium Low Density	165.4	741	Single Family	530.0	2,480
Medium High Density	40.5	243	Townhouse	187.0	1,800
High Density	33.3	457	Condominiums	109.0	2,180
	259.1*	1,481	Multi-Family	73.0	1,450
				899.0	8,000
COMMERCIAL LAND USE			COMMERCIAL LAND USE		
Neighborhood	12.0	---	General	25.0	---
Regional	38.5	---	Shopping Center	78.0	---
Mixed-Use	21.0	---	Office Park	39.0	---
	71.5	---	Commercial/Recreation	55.0	---
				218.0	---
PUBLIC/QUASI-PUBLIC LAND USE			HOTELS/LODGE		
Municipal Services	4.2	---	Hotels/Lodge	99.0	---
Utility Services	80.9	---			
Neighborhood Park	6.0	---			
	21.1	---			
LUSARDI PROJECT (RANCHO COACHELLA VINEYARDS)			RECREATION		
RESIDENTIAL LAND USE	ACREAGE	DWELLING UNITS	Rowing club	21.0	---
Single Family Residential	171.0	815	Polo/Equestrian Center	90.0	---
Multi-Family Residential	18.0	270	Golf Course	283.0	---
	189.0	1,085	Other Open Space	324.0	---
				723.0	---
COMMERCIAL LAND USE					
General Commercial	46.0	---			
MUNICIPAL LAND USE					
Park Site and School Site	15.0 (23.0)*	---			
Fire Station Site	3.0	---			
Neighborhood Park	7.0	---			
	25.0	---			

* Approximately 118 acres may be required for park lands (i.e. pocket parks).
 These will be distributed in the residential area as development progresses.
 * Conditional Approval provided for two school/park sites totaling 23 acres.

2.3 Community Setting

The Applicant's property was annexed to the City in September of 1987, and represents a logical eastern expansion of the City. The area is to be served by a major transportation link (Highway 86), and presently has access by way of the thoroughfare system extending from the center of the City. There are no major physical barriers to development of this area; topography up to the base of the foothills is virtually flat. The eastern portion of the City presents a unique opportunity for future social and economic growth and establishment of a distinct community image.

2.4 Area Projects and Future Trends

There are three major projects presently proposed for the eastern portion of Coachella including the subject development. The two other major land developments, which have now received final Specific Plan approval from the City, are the Rancho Coachella Vineyards (Lusardi) project and the McNaughton Specific Plan. The Rancho Coachella Vineyards project lies southeast of Avenue 54 and Filmore Street consisting of some 1,085 dwelling units on 260 acres. The McNaughton property north and east of the subject site is proposed to contain 8,000 dwelling units and involve 723 acres. Table 2.1, Area Projects - Land Uses, more precisely illustrates the use breakdown for all three properties, with their locations being depicted on Figure 2.3, Planned and Approved Development in the Project Vicinity.

2.5 Existing General Plan and Zoning Designation

The existing General Plan land use designation for Applicant's Project Site is "Specific Plan Area" (Resolution 88-101). The zoning for the site is "Conditional Specific (SP) Plan" (Ordinance No. 617).

3.0 project description

3.0 PROJECT DESCRIPTION

3.1 Planning Goals, Objectives/Concepts

This subsection of the overall project description chapter provides an opportunity to briefly highlight and point out some of the basic ingredients of the development philosophy which is intended to carry this plan forward. Particular aspects of the development strategy will later be detailed by the land use plan and its implementing guidelines and regulations.

3.1.1 Summary Description of the Specific Plan

The draft Specific Plan for the Applicant's Project proposes the development of up to 1,481 dwelling units (at varying densities), construction of three commercial sites totaling 71.5 acres, provision of 10.9 acres of land for drainage water and sewer facilities and dedication of 6.0 acres of land for public park and 4.2 acres for municipal uses.

3.1.2 Specific Plan Objectives

To provide the framework and guidelines for the development of the Brandenburg-Butters property in such a way that land planning is in the best interest of the project sponsor, the city government and future residents/employees/shoppers, while producing a land use concept which responds to real world constraints and opportunities and is highly developable.

To create up to 741 single family detached dwelling units in a conventional subdivision pattern which will respond to a upper middle income market segment with household characteristics resembling those of the greater Coachella Valley rather than the historic City pattern.

To develop up to 243 detached or semi-attached smaller scale single family dwellings to appeal to singles, couples or starter families, where households may represent the young first home family or more efficient housing for the mature household.

To allow, but not mandate, Cluster or Residential Planned Developments in response to defined market conditions.

To allow up to 497 attached multi-family dwelling units addressing a broader variety of tenure and life style choices within the project. These multi-family units would not be marketed to large households, but rather to singles and working couples as an alternative to home ownership.

To satisfy the retail sales and service needs of the immediate residential market area by providing for a Neighborhood Commercial site.

To take advantage of the site location in relation to a highway interchange by providing for General/Highway/Tourist Commercial uses.

To provide an opportunity for regional commercial development to occur in the City of Coachella by reserving sufficient land in a high traffic location with excellent freeway access for major high volume retailers whose market area would be targeted to the entire valley; and, additional land area for those activities which typically occur as a satellite to major retail centers.

To allocate land for municipal uses and public parks in such quantity as may be necessary for those purposes.

To provide opportunity for a neighborhood scale park system developed with phases of the project area.

To allow for pedestrian and bicycle circulation along enhanced thoroughfare parkways.

To provide for residential and neighborhood commercial in a mediterranean influenced southern California vernacular of architecture, oriented in this particular application to a desert climate; and, to have this theme influence the embellishment of other project uses.

To ensure consistency with the goals and policies of the City General Plan.

To ensure compliance with Sections 65450 through 65453 of the California Government Code (these Sections establish the legislative authority for the preparation of the Specific Plan).

3.1.3 Site Development Constraints and Opportunities

As a part of the design process and environmental analysis, a series of studies were either prepared or researched from previous site investigations. The research and studies included, the following partial listing:

- | | |
|----------------------------|-----------------------------------|
| o Soils Investigation | o Traffic Engineering/Circulation |
| o Geotechnical Information | o Noise Exposure |
| o Biological Survey | o Utility Services |
| o Archaeological Survey | o Grading and Drainage |
| o Climate Analysis | o Agricultural Appraisal |
| o Air Quality Analysis | |

Principal site development opportunities are presented by the planned extension of Highway 86 and its interchange with Avenue 52; the relatively flat, easily developed terrain; and, the projected future demand for a mixture of urban uses.

Site constraints are generally typical to development projects, and include: provision of utility and roadway infrastructure; protection from geotechnical and flood hazards; and noise mitigation.

3.1.4 Design Concept

The design concept for the Brandenbrug-Butters property is based on several objectives:

1. To provide a functional design for the Avenue 52-Highway 86 interchange.
2. To develop a circulation system which serves and/or is adaptable to the entire square mile area contained in the Specific Plan Area.
3. To encourage pedestrian and cyclists through provision of bikeways and pedestrian paths along landscaped parkways.
4. To allocate commercial parcels with a realistic expectation of market absorption.
5. To create a pleasant and safe living environment.
6. To provide design continuity or unity within the project while at the same time avoiding monotony through excessive design repetition.
7. To promote a Mediterranean influenced Southern California vernacular architecture oriented to the desert climate which promotes shade and materials which are durable in the hot dry Coachella Valley Climate.
8. To provide for public recreation opportunities and other municipal needs.

-
9. To encourage public and private open space and landscaped areas.
 10. To provide for a rational continuation of the City of Coachella to the east.
 11. To respect the constraints and limitations of the natural environment while maximizing the beneficial use of land

3.2 Proposed Land Uses

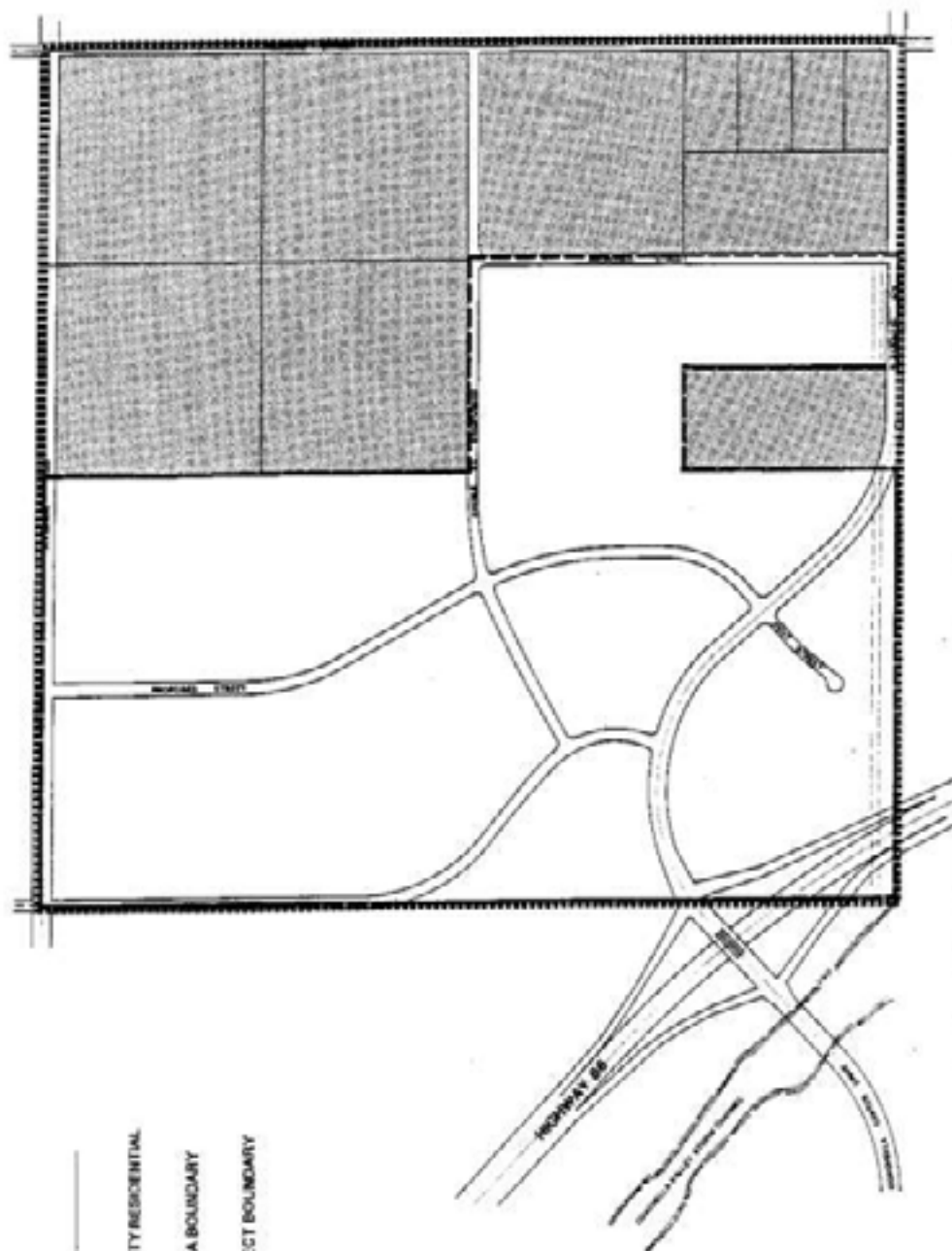
3.2.1 Land Use Plan

The proposed land use plan for Applicant's Project, is depicted on Figure 3.1. In the case of commercial land uses, a number of specialized commercial use types are allowed under the generic heading of "General Commercial"; the exact use opportunities and limitations for Applicant's Project are described in Section 5.0, Implementation. The principal use of the site as depicted on the referenced Figure, is residential (approximately 68% of the land area). The next most prominent use of land is by proposed commercial development(occupying approximately 19% of the site). Allocation to Neighborhood Park, Utility Services, and Municipal Services Uses accounts for 5.5% of the project site area, while the arterial and collector road system (major streets and Highway 86) make-up the balance of the 380 acres contained in Applicant's Project.

Figure 3.2 illustrates one option in terms of a compatible land use designation for the balance of the Specific Plan which is not contained within the Applicant's Project boundaries. This scenario has been used in evaluations contained in this Specific Plan/EIR analysis, but the final selection of land use will be at the discretion of the City.

3.2.2 Residential Uses

Residential uses are proposed at three General Plan Density Ranges. The exception in this application is that each density range has been "capped", below the allowable top of the General Plan range. The following descriptions first indicate the residential land use category, then the density range provided by that category, followed by the maximum number of dwelling units (and resulting density) contemplated by the Draft Specific Plan. In general, the target density provided by the Draft Specific Plan is either just above or at the beginning of the density range allowed by the General Plan.




- LEGEND**
-  MEDIUM LOW DENSITY RESIDENTIAL
 -  SPECIFIC PLAN AREA BOUNDARY
 -  APPLICANT'S PROJECT BOUNDARY

3.2


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LAND USE PLAN FOR BALANCE OF SPECIFIC PLAN AREA

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0 100 200 300 400 500 600 700 800 900 1000



- Medium Low Density (3.5-5.5 dwelling units per acre). The Specific Plan provides for up to 741 dwelling units on 165.4 acres of land, yielding 4 dwelling units per acre. The actual number and density may decrease with subdivision of land, depending on average size parcels/lots created and the efficiency of the internal subdivision street layout. The anticipated housing product is conventional single family detached housing on individually owned lots. A cluster or residential planned development, with a variety of housing products and varying ownership methods, is also feasible at this density.
- Medium High Density (5.5-10 dwelling units per acre). The contemplated land use arrangement would produce up to 243 dwelling units on 40.6 acres of land (or 16% of Residential acreage), resulting in a density of 6 units per acre or minimum average 5,900 square foot lots for detached single family units. The housing type often developed at this density is semi-attached or a zero lot line single family dwelling. Sales descriptions typically refer to this product as a "Patio Home". Cluster or residential planned development is also available at this density.
- High Density (10-20 dwelling units per acre). Thirty-three point one (33.1) acres of multiple family density has been proposed to provide a transitional use between commercial development and lower density residential uses. This use is anticipated to provide another alternative for economic level, tenure and lifestyle of residents within the Applicant's Project. The housing product (building type) to be developed would more than likely be attached units of one to two and possibly three stories, involving up to 497 units, at 15 dwelling units per acre.

3.2.3 Commercial Uses

Proposed commercial development comes under the General Plan land use category designation of "General Commercial". A number of more specialized commercial uses have been suggested for the project area as follows:

- Neighborhood Commercial (12 acre site). Traditional neighborhood commercial center geared to daily shopping needs of adjacent residential areas. Major center tenants would be a supermarket and drug store.

- Regional Commercial (38.5 acre site). Principal use of the site would involve a region wide retailer, needing the access provided by the future Highway 86 interchange. In this case, the major tenant could be a home improvement center or discount department store, etc., and even involve a grouping of automobile dealerships, along with supportive commercial activities such as automotive fuel and accessories, financial institutions, food service (or fast-food park) and small to medium sized shops. Commercial space that would function near or on the periphery of the regional commercial uses (satellite activities) would also be permitted in this zone.
- Mixed-Use Commercial (21.0 acre site). This center (or physically linked development) could provide for a mixture of commercial uses benefiting from the adjacency to the highway interchange and other retail centers. Tenant uses may include hotel/motel, restaurant and general business/professional office park, medical/dental complex and related or support uses, plus, other uses desiring a location near the interchange.

3.2.4 Public/Quasi-Public

The Specific Plan contemplates the following dedications for public use:

- The dedication to the City of Coachella of a 6 acre neighborhood park site. Sized to provide for active (group) play activities as well as more passive open space pursuits. Locationally, the site has immediate access from the higher density residential areas and convenient access from other portions of the project site.
- The dedication to the City of Coachella of a 4.2 acre municipal facilities site (to be located next to regional commercial site). This site could accommodate a police station, a fire station and a public library.
- The reservation for the City of Coachella (or the appropriate utility company) of 10.9 acres for installation of drainage, waste and sewer facilities.
- The reservation of 11.8 acres as pocket parks to be maintained in a lighting and landscaping district as discussed in Section 7.8. These parks of less than one acre will be defined by the City in terms of their design and recreation user; they may be oriented towards pre-schoolers (tots) and early primary years; or for more passive adult uses.

- The dedication of required streets and highways. A significant amount of acreage will be dedicated to public streets and highways. The primary circulation system in the project area will account for some 41.5 acres of roadway including the freeway interchange. Individual subdivision of residential areas will also contain minor local streets.

3.2.5 Phasing Plan

The Applicant's Project is envisioned to be built-out over a ten year period. The information provided in this subsection should be seen as a guide for planning purposes. It might be modified as development proceeds based upon market considerations and the fact that more detailed site analysis at the site planning stage could reveal other approaches. The provision of supporting infrastructure will also dictate the ability to carry-out the sequence contemplated within each land use category, as illustrated in Table 3.1.

3.3 Circulation Plan

3.3.1 Regional Circulation System

Regional access to the eastern Coachella Valley is provided by Interstate Highway 10. The existing interchange which most directly serves the City of Coachella is located at Dillon Road. The McNaughton Specific Plan anticipates an interchange being created either at Fillmore or as a midpoint entry to their project.

Subregional access to the area is accommodated by State Highway 111, Grapetruit Boulevard, Highway 86. The future improvement of Highway 86 figures significantly in the subject project's development based on the access potential it provides and the traffic support for proposed commercial land uses. (See Figure 3.3)

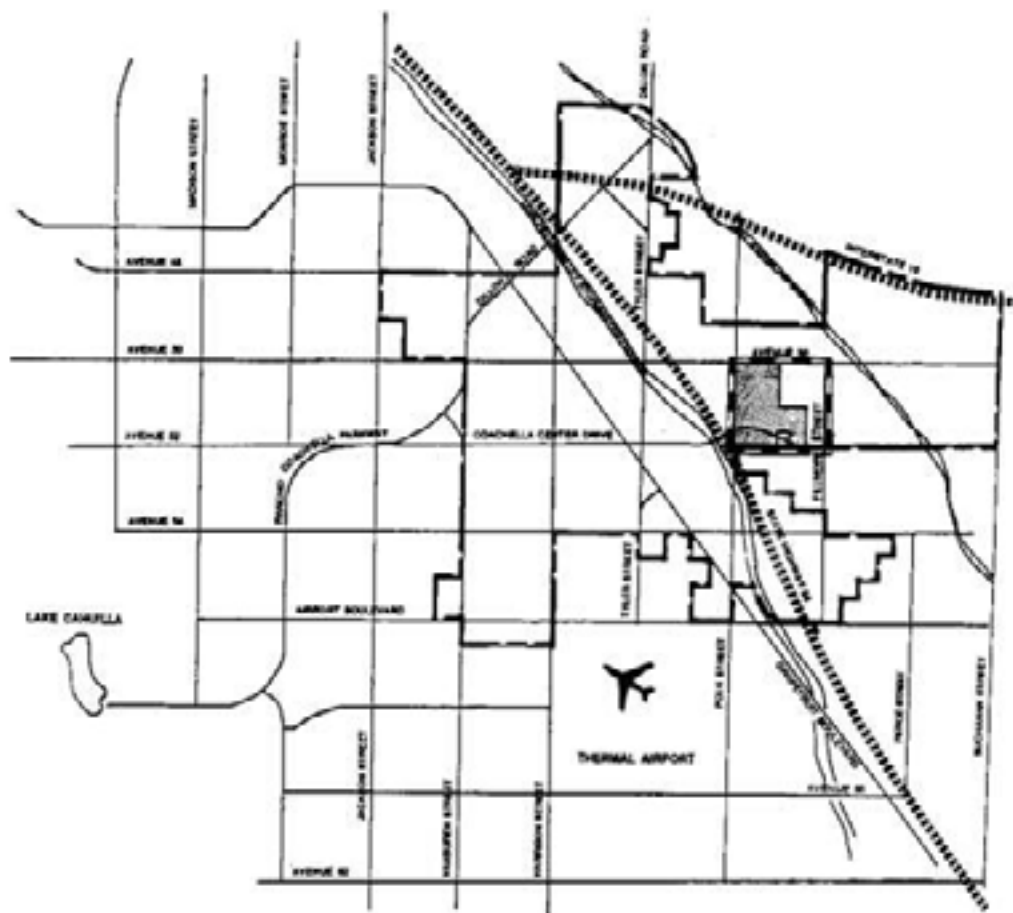
3.3.2 Circulation Concept Plan

The internal circulation system concept for the Specific Plan Area is shown on Figure 3.4. Primary access will be via Polk Street, Avenue 52 and Avenue 50. Both Polk Street and Avenue 52 are to be realigned with construction of Highway 86. Avenue 52 is curved to the north (1200 foot radius) to provide a 90 degree approach angle to the Highway 86 interchange. Polk Street is curved to the east to intersect with Avenue 52 approximately 1,000 feet east of the Highway 86/Avenue 52 interchange. To accommodate project build-out and cumulative traffic volumes within the eastern portion of the City, the General Plan Circulation Element will need to be amended as proposed by the following circulation concept plan improvements:

TABLE 3.1
PHASING, UNITS, POPULATION AND ACREAGE

RESIDENTIAL LAND USE	1	2	3	YEARS/UNITS						
				4	5	6	7	8	9	10
Medium Low Density Residence	75	74	74	74	74	74	74	74	74	74
Medium High Density Residence	24	24	25	24	24	25	24	24	25	24
High Density Residence				290			207			
ANNUAL TOTALS/UNITS	99	98	99	368	98	99	305	98	99	98
CUMULATIVE TOTALS/UNITS		197	296	664	762	861	1166	1264	1363	1461
ANNUAL TOTALS/POPULATION	294	291	294	1153	291	294	506	291	294	291
CUMULATIVE TOTALS/POPULATION		585	879	2031	2323	2617	3523	3814	4108	4399
COMMERCIAL LAND USE				YEARS/ACRES						
				12.0						
Neighborhood										
Regional										
Mixed Use										
ANNUAL TOTAL/ACRES	0	0	0	0	0	0	48.5	0	0	0
CUMULATIVE TOTAL/ACRES	0	0	0	0	0	23.0	71.5	71.5	71.5	71.5

NOTE: Population based on average of 2.97 persons per household.



LEGEND

— SPECIFIC PLAN AREA BOUNDARY

— CITY BOUNDARY

PROJECT SITE

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CIRCULATION SYSTEM ACCESS

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COACHELLA EXP



3.3

Avenue 50, (between Highway 86 and Fillmore) upgraded to major arterial status with a 120-foot right-of-way.

Avenue 52, (between Highway 86 and Fillmore) upgraded to a major arterial status with a 120-foot right-of-way.

Polk Street, (between Avenue 50 and Avenue 52) added to the Circulation Element as a collector street, 72-feet of right-of-way shown on the Applicant's Project Specific Plan.

Three internal collector roadways are provided to distribute trips within and through the project site. Street "A" traverses the site in a north/south manner, connecting with Avenue 50 on the north and intersecting with Avenue 52 approximately 1,000 feet east of the Polk Avenue/Avenue 52 Intersection, before cul-de-sac'ing to the south. Both intersections of Street "A" with Avenue 50 and Avenue 52 are assumed to require signalization. Internal collector Street "B" (Avenue 51 alignment), traverses the project site east to west, creating "T" intersections with Polk Street on the west and Fillmore Street to the east. Street "C", also functions as an internal collector, along the eastern most boundary of the subject project, running in a north/south direction between Street "B" and Avenue 52, one quarter mile west of Fillmore Street. All three of the internal collector roadways are shown as two lane (72 feet of right-of-way) collectors which will accommodate anticipated traffic volumes at acceptable levels of service.

Further subdivision of the residential areas (particularly the medium low density) will result in the creation of property serving minor access streets.

3.4 Utilities and Services Plans

3.4.1 Drainage and Grading Plan

A conceptual drainage and grading plan for Applicant's Project is shown on Figure 3.5. The project site, which is essentially flat in topography, will be designed to provide for a balanced cut and fill grading operation. It is unlikely that topographic modifications will be noticeable. Grade changes will be absorbed in the residential lot areas between lots and at streets. Maximum grade break will be less than 5 feet and average grade breaks should not exceed 2-3 feet. All manufactured slopes shall be provided with a landscape and irrigation plan prior to obtaining a building permit. All manufactured slopes that may erode or are three feet or more in height with slopes of 3:1 or greater shall be landscaped with landscape materials which are determined adequate by a licensed landscape architect to prevent erosion.

LEGEND

EXISTING CONTOUR

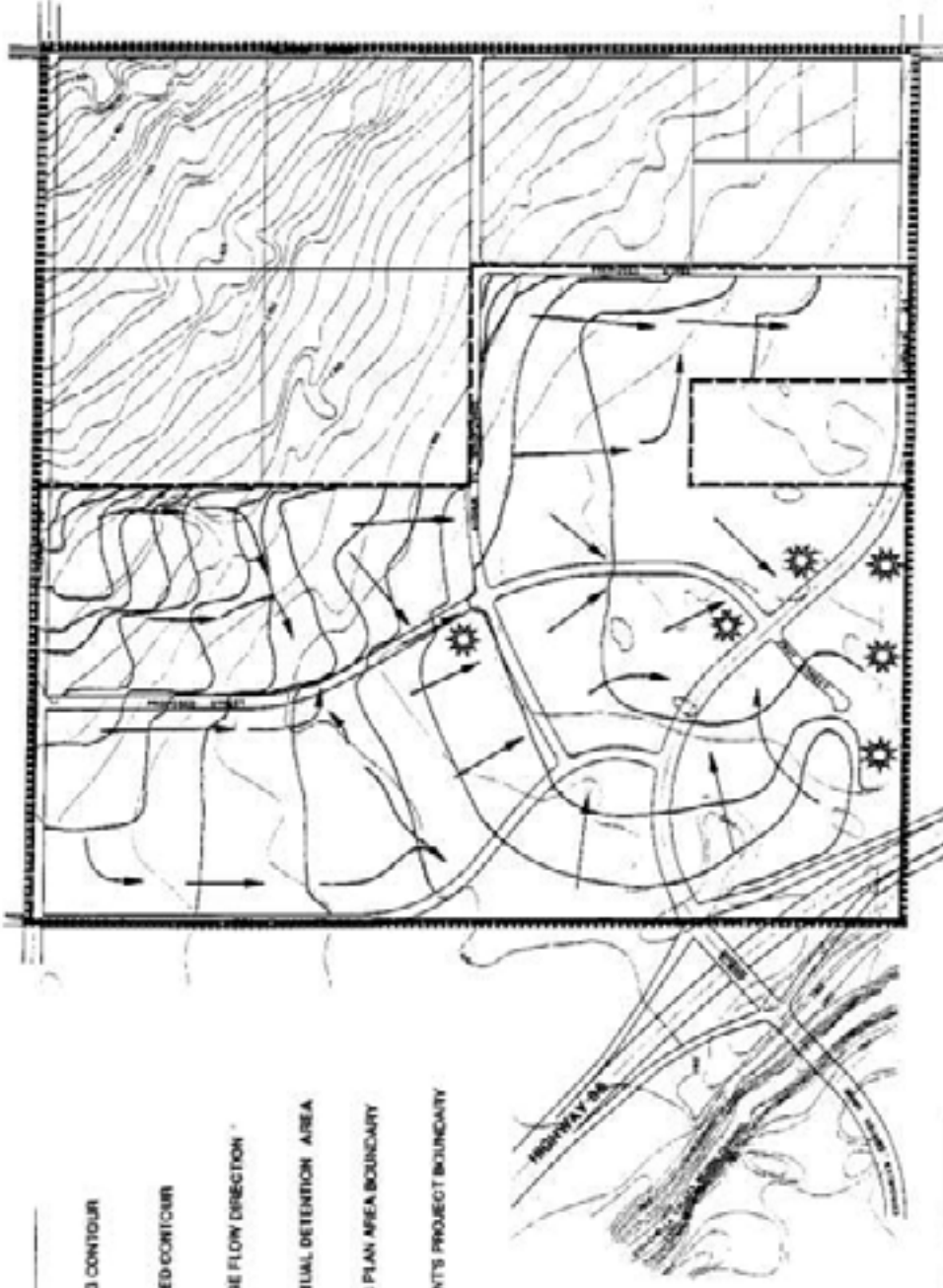
PROPOSED CONTOUR

DRAINAGE FLOW DIRECTION

CONCEPTUAL DETENTION AREA

SPECIFIC PLAN AREA BOUNDARY

APPLICANT'S PROJECT BOUNDARY



CONCEPTUAL GRADING AND DRAINAGE PLAN

Sheet A05 Consulting Engineer, August 1988

3.5

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Contouring of the site as illustrated is contemplated to allow each of the areas bounded by the arterial road network and project boundaries, to drain southward to either flow into a street or catch basin or detention area. The generalized grading approach which is depicted on the referenced Figure, would allow for a range of precise development patterns, (including the concept arrangement highlighted by the Urban Design Plan, Figure 5.2). Therefore, it is considered to be a reasonable depiction (at this stage) of the approach that will be taken to develop the site.

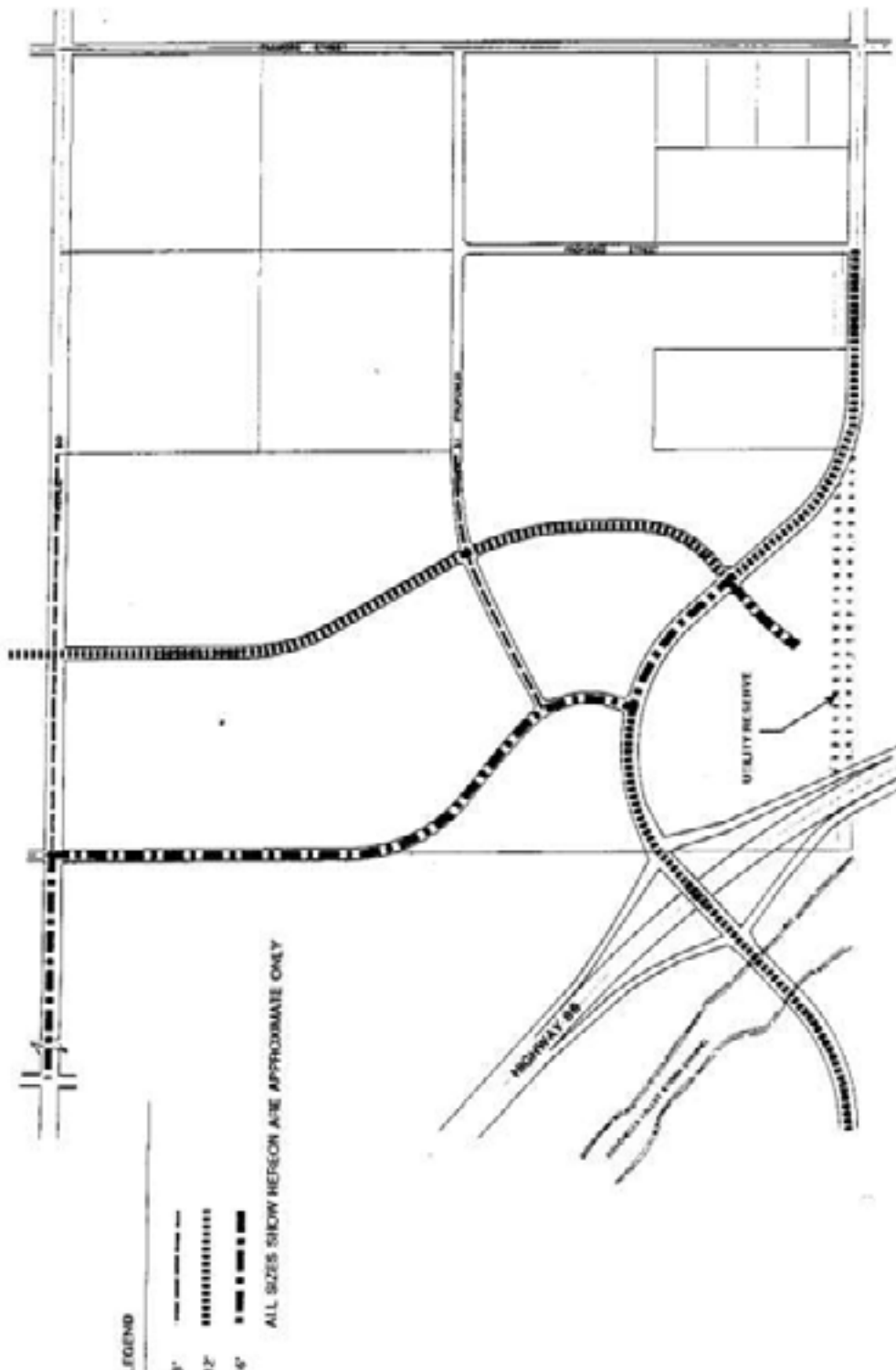
If the site were not otherwise protected, it could be subject to shallow flooding. In its developed state, off-site flows would be interrupted and channeled through the project by both surface and underground systems. On-site flows are proposed to be carried in local streets and where necessary combined with off-site flows in an underground storm drain network. A series of detention areas will be utilized in the design of the system; logical locations are depicted on the conceptual plan. However, each phase of development is responsible for detaining incremental flows and shall provide final engineering design of phased flood management as part of tract map review. Storm flows will be discharged to either the Coachella Valley Water District - Wasteway No. 2, or the Coachella Valley Stormwater Channel (Whitewater River), subject to final engineering design. Section 6.4, presents a more complete discussion of flooding and drainage considerations for the project site.

3.4.2 Water System

A conceptual water master plan is shown on Figure 3.6. The proposal is to extend the City's existing water supply system across the Coachella Valley Stormwater Channel (Whitewater River) on Avenue 52 to the project site and along Avenue 50 to the northwest corner of the site. These lines would then be connected by the proposed on-site water system to create a "looped" system for the project, thereby, insuring a supply from either connection.

Two other facilities would need to be developed either on the project site or elsewhere in the Specific Plan Area, and would consist of a well site and water storage reservoir. These improvements will be located at time of development.

Applicant's Project along with other development in the East Valley Community Area will place cumulative demands on municipal facilities. Opportunity exists in this development to locate water service infrastructure and to coordinate water main extension with City capital improvement program planning, for purpose of efficiency and economy.



<p>PROPOSED WATER MASTER PLAN</p>	
<p>3.6</p>	<p>brandenburg butters</p>

3.4.3 Wastewater System

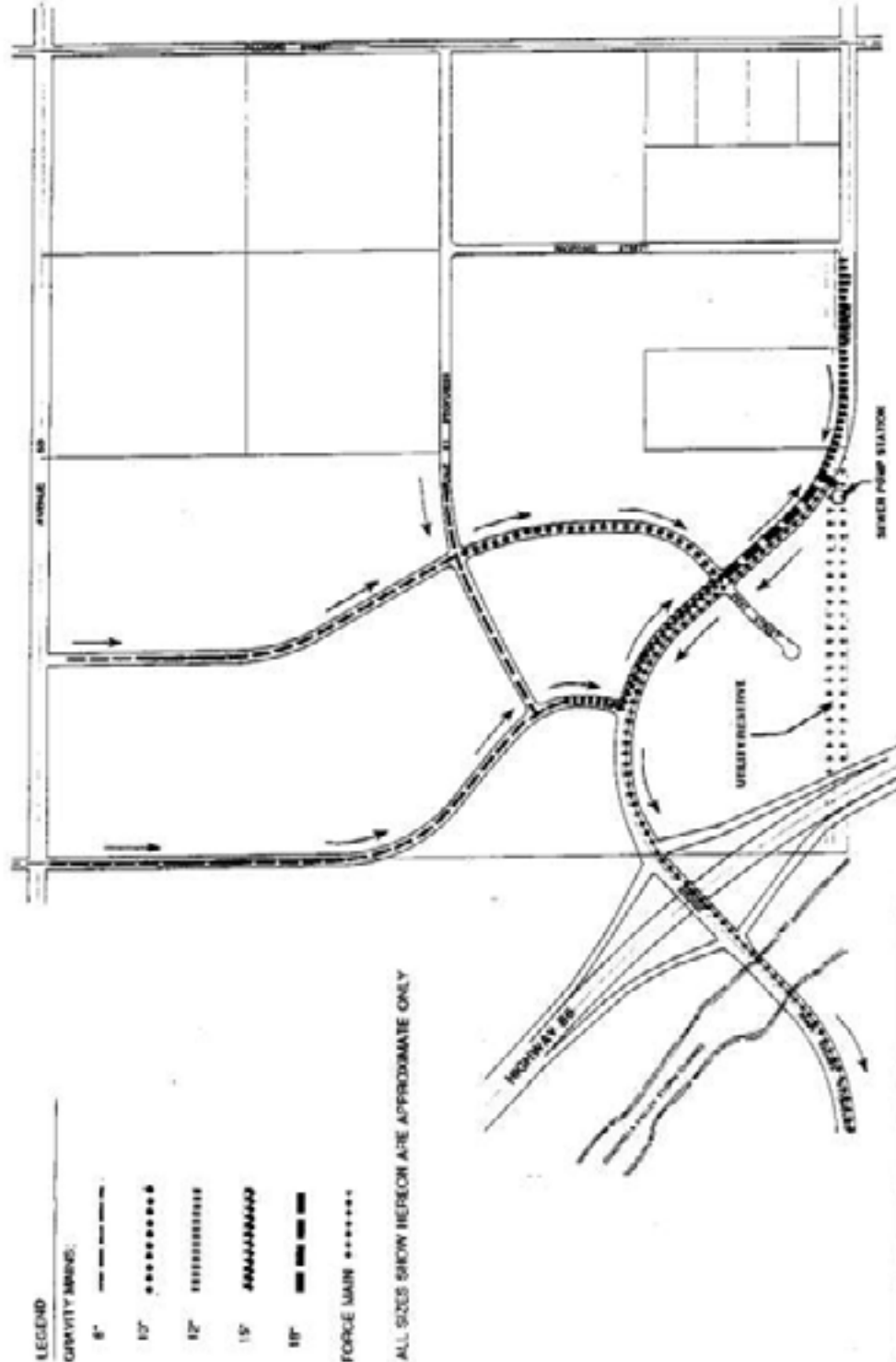
A conceptual on-site collection system is shown on Figure 3.7. It is proposed to gravity feed to a pump station at the utility facilities area. Effluent would then be pumped across the Coachella Valley Stormwater Channel (Whitewater River) in a force main to a gravity flow system which would discharge at the existing treatment plant (see Figure 3.8). Off-site improvements would involve a new sewer main from Avenue 52 to the treatment plant. (Refer to Project Impact Section 7.4, for further discussion.)

3.4.4 Other Utilities

Other basic utilities required by the proposed project include:

Natural Gas - Southern California Gas Company, provider.
Telephone - General Telephone (GTE), provider.
Electricity - Imperial Irrigation District, provider.

In each case facilities would need to be extended to serve the project. Although service would be supplied in accordance with the policies of the provider for new development, some evaluation of the cumulative demands being made within this portion of the City could be explored for purposes of system efficiency and the lowering of individual development costs and/or funding of system-wide improvements. The City may find it appropriate to play a coordinative role in terms of assisting with projected growth information and encouragement of special taxing or assessment districts formation to fund utility line extensions, where the cost of such extension is borne by the developer.



LEGEND

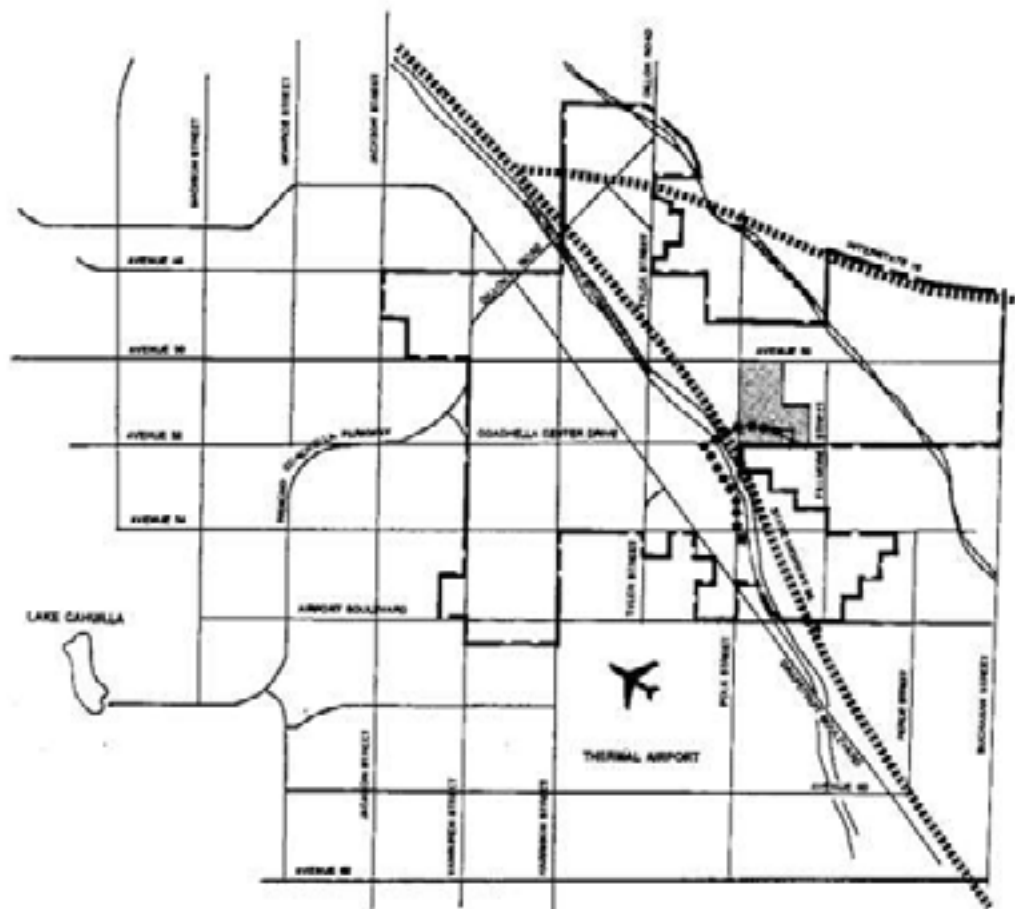
GRAVITY MAINS:

- 8"
- 10"
- 12"
- 15"
- 18"

FORCE MAIN *****

ALL SIZES SHOWN HEREON ARE APPROXIMATE ONLY

<p>DATE: 10/1/10</p> <p>PROPOSED ON-SITE SEWER SYSTEM</p> <p>Source: AEC Consulting Engineers, August 1998</p>			
<p>3.7</p>	<p>brandenburg</p>	<p>buffers</p>	<p>Smith, Peroni & Fox</p>



LEGEND

- SEWER FORCE MAIN & GRAVITY FLOW ALIGNMENT TO TREATMENT PLANT
- SEWAGE TREATMENT PLANT
- CITY BOUNDARY
- APPLICANT'S PROJECT SITE

MAPS 101A

MAIN CONNECTION TO SEWAGE TREATMENT PLANT

Smith, Peroni & Fox

Source: K&L Consulting Engineers, August 1988

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COASTAL AREA



3.8

FIGURE 1