APPENDIX J
ENGINEERING REPORT

ENGINEERING REPORT

OF THE

ADEQUACY OF EXISTING UTILITY INFRASTRUCTURE

to serve the

RINCON DE LOS ESTEROS REDEVELOPMENT PROJECT

Prepared by
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A. INTRODUCTION

This engineering report evaluates the adequacy of existing storm and sewer systems and presents comments on service utilities including telephone, water, electrical and gas systems for the Rincon De Los Esteros Redevelopment Project (Rincon Study Area).

This engineering study and report of the Rincon Study Area is intended to evaluate the impact to existing utilities in this area by developing 650 acres of either vacant or redevelopable lands. The existing utility systems are shown in drawings (SSD-1, 2 and SS-1,2 and Water-1, 2). Five development scenarios have been studied in which the Floor Area Ratios (FAR's) have been increased from 0.35 to 0.85.

The Rincon Study Area is bounded by Highway 101, Highway 880, the Guadalupe River, Coyote Creek, and Highway 237. This area is commonly referred as the "Golden Triangle". The Golden Triangle is zoned as either Industrial Park or High Density Residential according to the City of San Jose Horizon 2000 - Land Use/Transportation General Plan.

B. STORM DRAINAGE SECTION

STORM DRAINAGE SYSTEM BACKGROUND

The Rincon De Los Esteros Redevelopment Project (Drainage Basin) is generally bounded by an area south of Highway 101, Coyote Creek to the east, the Guadalupe River to the west and Highway 237 to the north. The basin drains in a northwest direction and encompasses about 5,500 acres. The Rincon Study basin is currently defined as a floodplain by the Federal Emergency Management Agency (FEMA). This designation as a flood plain is the result of past overtopping of either the Guadalupe River or Coyote Creek and the inadequate levees that existed on the Guadalupe River and Coyote Creek.

The Santa Clara Valley Water District (SCVWD) has jurisdiction for the Guadalupe River and Coyote Creek, which serves as the drainage system outfall for the Rincon Drainage Basin. The SCVWD regulates outfall into the river. The City of San Jose provides service to the existing storm drainage system. The underground drainage system is composed of storm lines which range in size from 12 inches to 108 inches. The system consists of storm laterals which intercept flow from site or streets surfaces. The laterals then gravity flow to storm interceptors (mains) that gravity flow to the Guadalupe River. Pumps exist for the northern and central region of the drainage basin. The storm lines consists mostly of Reinforced Concrete Pipe (RCP) and flow by gravity.

The Rincon drainage basin can be difficult to drain because of restrictions related to existing ground features and upstream and downstream storm flows in the Guadalupe River. The difficulty of removing stormwater from this basin is compounded by the high water levels in the River and Creek. Tidal action only has a minimal on the drainage basins.

The Santa Clara Valley Water District (SCVWD) recently completed construction of the Coyote Creek Flood Control Project. This project included levee improvements to Coyote Creek from the Montague Expressway to the outfall into the San Francisco Bay. The drainage capacity of the Creek will should be improved.

The FEMA Map (FIRM) for this area is currently under review. If the FIRM map revision is approved, certain areas might be removed from the floodplain designation.

The SCVWD has also improved the structural stability and capacity of the Guadalupe River for a few reaches north of Highway 101. These improvements include either raising the existing levees or structural improvements to the levees. A planning study is also currently being developed by the SCVWD for the river reaches between Highway 101 to the Alviso outlet. An additional project is planned for similar improvements to the Guadalupe River from the Highway 880 to Highway 101. Funding is currently being sought for this latter project. These planned improvements, together with channel maintenance to the Guadalupe River (such as dredging), could possibly improve the current floodplain conditions in the Rincon Study Area and lower the floodplain water elevation, depending on the SCVWD'S solutions to the Guadalupe River problems.

The City of San Jose has adopted a 50 percent blockage criteria for most of the Rincon Study Area. The general principal behind this blockage criteria is to assure that overland excess storm water flow within this flood plain is not restricted, thereby reducing flood damage to existing or proposed structures[5].

As a general rule, the flood water depth for overland flow in the study area is about 1 to 2 feet. Flood contours were developed for use in the 50% blockage methodology and proposed structures must be constructed at the appropriate water surface contour, or 2.5 feet above the existing ground, which ever is greater. The development scenarios for the Rincon Study Area was to comply with this criteria for proposed building elevations and site cross-sections (walls, landscaping, etc.).

Study Area Drainage Subbasins

Because of physical constraints within the existing storm drainage system, the Rincon Study Area was divided into northern, central, southern, and south of Highway 101 drainage basins for this study.

The Northern Basin consists of about 2200 acres, and lies essentially north of Montague Expressway to areas north of Highway 237. This study area drains to the northwest part of the Rincon Study Area (system #11 and #12). The existing storm lines flow by gravity to the Oakmead Pumping Station located north of Tasman Drive. This pump station lifts excess storm runoff into the Guadalupe River and it does not have a detention facility.

The Central Basin lies generally between Tasman Road and Montague Expressway and consists of about 550 acres (System #10). This basin outlets into the Guadalupe River from a pump and 84-inch RCP storm line.

The Southern Drainage basin is generally bounded by Highway 101, Coyote Creek, the Guadalupe River, and Montague Expressway and consists of about 1600 acres (Systems #9 and some of #2). The existing storm lines drain in a northwest direction by gravity. The existing outlets are a 96-inch RCP line in Montague Expressway that outlets into the Guadalupe River through a flapgate. A 36-inch outlet on Trimble Road also outlets into the Guadalupe River. This outlet also has a flap gate.

The basin South of Highway 101 drains in a northwesterly direction. The system outlets through a 66- and 78-inch RCP and has flap gates (System #1), a 54 RCP (System #2) and a 42-inch RCP with a pump discharge (System #3).

[5] North San Jose Floodplain Study Update June 1987 - Nolte and Associates.

NORTHERN BASIN

The northern part of the Rincon Study Area is served by the Oakmead Stormwater Pump Station (OSPS). The OSPS station is located on the east bank of the Guadalupe River about one half-mile southwest of North First Street at Rio Linda. Two inlet storm sewers, 108-inch and 84-inch, bring excess stormwater into the head end of the OSPS inlet structure. The pumping station lifts stormwater from a primarily industrial area to an outfall structure discharging into the Guadalupe River (See Fig. A2).

The OSPS has a design capacity of 340,000 gpm (758 cfs). The wet well is about 85x27x58 feet. The outfall structure (see Figure 13-5) is a concrete box, with outlet pipes and flapgates. A weir at the top of the box outlets to the Guadalupe River. The 108-inch storm sewer collects storm runoff from north of Highway 237, north of Tasman Avenue and east of First Street (System #12, Drawing SD-1). The 84-inch storm sewer collects excess runoff along Tasman Avenue including the Agnews Hospital Area.

Preliminary calculations indicate that the drainage basins for this pump station generate about 750 cfs for a 10 year storm. However, our calculations show that these storm pipes have a capacity less than demand, and carry about a 3 to 5 year storm (see Table D in appendix).

CENTRAL BASIN

The central basin is generally located between Tasman Road and Montague Expressway. This basin drains about 550 acres. The drainage system is composed of laterals and storm drains that range in size from 12 inches to a outfall of 84 inches. The pipes are Reinforced Concrete Pipe (RCP) and flow by gravity. The River Oaks pump station lifts storm excess flow above the Guadalupe River high water surface. The 84-inch outfall is located north of the River Oaks Expressway, and discharges into the Guadalupe River.

The calculations in this report shows that the storm drains and have a capacity less than demand, and will carry a 3 to 5 year storm.

SOUTHERN DRAINAGE BASIN

The recent improvements to certain sections of the Guadalupe River will alleviate some of the flooding that periodically takes place but will not remove the basin from the flood plain status.

A drainage report[4] was recently prepared addressing existing and potential flood concerns at the intersection of Montague Expressway and North First Street within this basin. The study objective was to evaluate performance of the existing underground storm drainage system serving the drainage basin and to identify and evaluate improvement alternatives to correct drainage deficiencies.

There have been three floods in the 1980's, and two floods in the 1990's where the Guadalupe River water surface has reached a high stage. This high water has either prevented or reduced storm runoff from developed low areas from discharging into the Guadalupe River. At several locations, including the intersection of North First Street and Montague Expressway, storm water has ponded to approximately two feet in depth. These inundated areas have brought water surface elevations within inches of existing building floor elevations.

The Schaaf and Wheeler study analyzed various alternatives to relieve potential flooding by the 10-year storm. The conclusion from the study included:

1. The existing storm drains have a capacity for about a 3-year storm, with free discharge.

2. The 10-year water surface level in the Guadalupe River is 20.5 feet (11,000 cfs) NGVD from the Santa Clara County Water District 1995 Study. The SCCWD will be releasing a upgrade to the 1995 study in the near future which could either increase or decrease the water surface elevation.

   This high water surface elevation in the Guadalupe River and the low ground elevations at Montague Expressway and North First Street Intersection (14.3 feet), or the elevation of the lots in the existing abutting developments (12.6 feet) can result in ponding of storm flows. Ponding is the result of the high water surface in the Guadalupe River closing the flap gates, and then because it cannot flow into the river, the stormdrain pipes surcharge until the storm water "bubbles" out at the lower elevation inlets.

3. The Schaaf Wheeler drainage report recommended the following:

   a. Construct two 96-inch diversion storm drains along Trimble Road to remove some of the excess flow that drains to Montague Expressway.

[4] Schaaf and Wheeler, Consulting Civil Engineers. Montague Expressway/North First Street Drainage Study, October 11, 1993

b. Construct one 96-inch storm drain on Montague Expressway from North First Street to the Guadalupe River Outfall.
c. Install a full pumping facility at the outfall vs. a combination detention - pumping station. This would enable the storm excess water to be discharged to a high water surface elevation in the river. A detention facility would probably not be practical due to the high cost of available vacant hand.
d. The storm drains in Trimble, Montague Expressway and North First, as a minimum, would all have to be upgraded in the future to create capacity for runoff from a 10-year storm.

Calculations performed for this report verified the findings in the Schaaf Wheeler drainage report.

The calculations in the appendix will show that the existing storm drainage system only has the capacity of a 2- to 4-year storm. The plot of the hydraulic grade line emphasized that some of the pipes will surcharge out of the existing inlets and inundate existing lots in some areas.

The City of San Jose capital improvement program allocated the following funds for storm drain improvements within the Rincon study area:

1.	Montague/Guadalupe Pump Station	$1,820,000 (1996 through 1999)
2.	North San Jose Capital Improvement Plan	$200,000 (1996 - 1997)
3.	Rincon Flood Control	$1,800,000 (1996 - 1999)

A storm water master plan for North San Jose is scheduled for completion in 1998. This master plan may define the need for several additional storm water pump stations and storm drain additions. The study will also verify the capacity of the entire storm drainage system in more detail.

SOUTH OF HIGHWAY 101

This region is generally bound by Highway 101, Highway 880 and the Guadalupe River. This drainage basin encompasses about 850 acres and drains in a northwesterly direction. Portions of this area have been designated as a floodplain by FEMA. The existing drainage system further subdivides the basin into three subbasins. The southern subbasin (System #1) drains approximately 525 acres. The storm drains in this subbasin range in size from 15 to 78 inches (RCP) and drain to the north westerly corner of the basin. The outlet from this subbasin is a 78-inch RCP pipe with a flapgate, and is located on Gish Road and the Guadalupe River.

The middle subbasin (System #2) generally drains in northwesterly direction and is composed of about 235 acres. However, portions of the storm runoff for this region flow

in storm drains northerly across Highway 101 into region 9. The storm drainage system outlets with a 54-inch RCP and is located at Brokaw Road and the Guadalupe River.

The northern subbasin (System #3) is composed of 40 acres. The existing storm drains flow in a southwesterly direction and outlets with a pump, 42-inch pipe and flapgate, which is located west of Gateway Place Street.

The South of Highway 101 Basin was analyzed for various storm frequencies, and the existing pipe capacities were determined. The result was similar to the basins in the northerly Rincon Study area in that the existing storm drains only have the capacity for about a three (3) year storm. Because of the high water level of the Guadalupe River, detention facilities and pumps will probably have to be considered in the future.

Methodology for Existing Storm Drains Analysis in the Report.

A computer data base of the existing storm drains in the Rincon Study Area was obtained from the City of San Jose. This data base was overlayed onto a AutoCAD 13 drawing of the Rincon Study Area base map which shows the development scenarios for the vacant and redevelopable land areas. Five drainage basins were then delineated following the natural drainage flows entering and are labeled from Northern to South of 101 of the existing storm drains. These five drainage basins were previously described. Several sub-basins shown in figure SD-1 and SD-2 were then delineated.

The hydrology for the basins was initially developed by determining flow times (times of concentration) for the existing and proposed development scenarios. A typical excess stormwater travel time was developed composed of initial time, roof gutter time, gutter flows and inlet pipe flows.

City of San Jose Design Guidelines for Storm Drains was used for evaluation of the existing or proposed storm drains. In general, the criteria used was:

- A 10-year storm capacity for underground conduits and a 100-year storm for overland flow.
- The Rational Method was used for the Hydrology.
- The Santa Clara County Drainage Manual - IDF Curve - Figure 6 was used in all addition.
- Runoff curve factor of 0.85 - 0.90 for Commercial/Industrial were used throughout the study
  This factor was increased five percent for the development scenario with the largest FAR (loss of landscaping).
- Manning's roughness factor n = 0.015 was used for all computation.
- Elevations for the water surfaces at the outfall were obtained from the SCVWD.

Initial flows were developed in the upstream areas, and then drained into the existing storm drains. Pipe flow times were calculated, and tributary areas were added until a scenario area of study was reached. The scenario areas were then added to the cumulative areas to establish the increased flow into the existing storm drains. The hydraulic computation were performed using Haestad Methods Software (StormCad and Flowmaster) to develop storm line computer models. This computer software plots the hydraulic grade line and determines the storm frequency capacity of each pipe for both full flow and surcharged flow. The exact procedure to analyze the storm pipes would have required establishment of a comprehensive computer model, including hydropgraphs, split flows in the existing pipe system, pumping systems, and the Guadalupe River fluctuating water surfaces. This type study with comprehension timing analysis was beyond the scope of this report. However, several Rincon Study Area subbasins were analyzed, a unit runoff factor was established incorporating all of the results from the previously mentioned hydrology calculations. These unit runoff factors were then used to generate flows for each of the scenarios. The results were consistent with the previous studies and pump reports, and were used to analyze storm lines fronting the proposed development scenarios. These unit runoff factor flows and pipe hydraulic calculations are then shown in the storm section of the appendix to this report.

Mitigation Issues

The existing storm drainage facilities were previously designed for a 3-year frequency storm, but the City of San Jose criteria has been upgraded to a 10-year storm. Therefore, the existing storm drains will have a capacity less than the demand. This has been demonstrated by supporting computation in this report and the drainage studies previously identified.
The undersized drainage pipes can be mitigated by the following:

- Installation of the proposed pump station at the Montague Expressway will enable excess flow to be pumped to a high water surface elevation in the Guadalupe River.

The proposed master plan drainage report should produce a more efficient Methodology to analyze the remaining storm drainage system. A computer model can be developed which can realistically simulated the complicated flow patterns that currently exist (such as split flows in pipes). Flows can also be developed with hydrograph techniques in coordination with present and proposed flows identified by the SCVWD. The existing pump station at Oakmead and River Oaks should be re-evaluated using the new criteria.

- A systematic upgrade of the existing storm drains should result from the master drainage report.

C. SEWER UTILITY SECTION

BACKGROUND

The City of San Jose (City), through a Joint Powers Authority, provides sanitary sewer collection services for the Cities of San Jose, Santa Clara and Milpitas, West Valley Sanitation District, and County Sanitation District 2-3. The sewer service area includes the North San Jose Rincon De Los Esteros Redevelopment Project Study Area (Rincon Study Area). The City's wastewater collection system consists of inter-connected pipelines. Sewer laterals originating at individually developed sites flow by gravity to sewer mains, collectors, and trunks. These sewer mains generally flow by gravity to a major sewer interceptor system located in Zanker Road. The sewer interceptors then flow northerly to the San Jose/Santa Clara Pollution Control Plant (WPCP) located north of the Rincon Study Area.

The City's collection system includes about 1,800 miles of sanitary sewer pipe, the majority (1,600 miles) of which is under fifteen inches in diameter. Sewer lift stations and force mains exist within the collection system to transport sewer flows that cannot be transmitted by gravity. The system sewer mains, collectors, and trucks range in size from 6 to 54 inches in diameter. These lines are primarily Vitrified Clay Pipe (VCP) or Reinforced Concrete Pipe (RCP). The force mains are generally Ductile Iron Pipe (DIP).

The major Interceptor System originates at the intersection of Empire and Seventh Streets (central downtown San Jose) and flows northerly along Fourth and Heading, Fifth and San Fernando, Commercial and Seventh Streets crossing Highway 101 and into Zanker Road to the WPCP. The interceptor lines include a 60-inch diameter Brick Sewer, a 60-inch diameter (RCP) and an 84-inch RCP. The three interceptors are inter-connected at five structures located along Zanker Road. Wastewater flowing within the interceptor system is a composite of flows from all areas within the City's service area.

The Lamplighter Sewage Pump Station (LSPS), located at the southwest corner of the intersection of North First Street and Lamplighter Way serves an area bounded on the north by Highway 237, on the east by Zanker Road, on the south by McGier Lane and on the west by the Guadalupe River including the Rincon Study Area. The LSPS contains four-pumps operating unmanned 24 hours per-day year round. Each of the four pumps is rated at 60 horse power with a capacity of 4,000 gallons-per-minute. An 8,533 foot long, 24-inch diameter Ductile Iron Pipe force main carries the wastewater from the pumping station to a discharge box in the treatment plant (WPCP).

General Design Considerations

1. Sewer Level of Service (SLOS)

The City of San Jose has adopted a SLOS Policy for design of sanitary sewer mains. The Levels of Service range from "A" to "F". Level A is defined as unrestricted flow and

Level F is defined as being inadequate to convey existing sewer flow. The SLOS for a sewer line is determined by comparing its calculated capacity. Flows generated by a new development are calculated and then added to the existing flows to establish the developed level of service. New developments in the Rincon Study Area are required to meet SLOS D. If the SLOS falls below Level D to either E or F, the site developers must install sewer supplements to improve the SLOS to level D.

2. Maximum Depth of Flow and Peak Flow Rate:

The City of San Jose generally uses the following sewer design criteria.

a. Peak sewer flows are determined by multiplying the average daily flows by a "P6 peak factor".
b. Sewers are designed for flows at depths of 2/3 full.
c. For sewer pipes flowing at 1/2 full, the minimum velocity will be 2.5 fps.
d. Mannings roughness coefficient of n=0.013 will be used for sewer pipe hydraulics.

As a general rule, if the flow depth in a sewer main is too low, velocities are slow. Low velocity results in deposits of untreated sewage and long retention times within the pipes. This can result in production of hydrogen sulfide, a toxic gas with an unpleasant odor. If flow depth in the sewer main is too high, there can be lack of oxygen in the pipe. This can also lead to production of hydrogen sulfide in the sewer main and potential releases to the atmosphere. Most of the large diameter sewer lines are made of concrete which is susceptible to corrosion by hydrogen sulfide. The smaller VCP lines are not susceptible. If hydrogen sulfide is produced in the smaller lines, this corrosive gas can travel downstream and corrode the larger concrete lines. For this reason, it is desirable to design all sewer lines to flow about two-thirds full to inhibit the generation hydrogen sulfide gas.

Average flow, usually expressed in million gallons per day (MGD), is the average flow rate during a 7 day period. Peak flow, also expressed in MGD, is the maximum flow rate during a 7 day period and can exceed twice the average flow rate. A pipe is surcharged if it is flowing full. While not necessarily unacceptable, a surcharge condition is undesirable. At full depth pipe flow, the sewage level rises above the top of the pipe and into the manholes. Undesirable effects of a surcharged pipe may include generation of hydrogen sulfide gas, difficulties with cleaning and inspection, restriction to flows from laterals which can cause flow stoppages in the laterals, and possible sewage overflows from manholes onto streets.

At the City's SLOS D, a sewer main may become surcharged but still be rated acceptable, but not recommended. Flows above SLOS E and F require sewer supplements.

Infiltration and inflow (I/I) of rain and ground water into a sewer is a also consideration in design and rehabilitation of sewers. I/I can be caused by inflow from stormwater or

infiltration from groundwater, or both. Stormwater inflow generally enters the sewer at manholes or through private sewer laterals. Groundwater Infiltration enters the sewer through faulty pipe joints, damaged pipes, or damaged manholes. I/I causes an increase in volume that must be treated at the WPCP. The City of San Jose has recorded the water use for the San Jose area and compared these water use records with wastewater flows at the treatment plant. From this comparison, it is generally concluded that the percentage of flow attributable to infiltration has increased from 5-percent in 1982-1991 to 15-percent in the 1990's. As a result, the average daily flow for this evaluation of the Rincon Study Area was increased by 15-percent. This 15-percent factor is consistent with recommendations in Wastewater Engineering Handbooks.

Methodology Used for Sewer Capacity Analysis in Rincon Study Area

The Rincon Study Area was analyzed for five Floor Area Ratio (FAR) scenarios ranging from 0.35 for existing conditions to 1.00 at full buildout. A sewer computer data base was obtained from the City of San Jose (Drawings SS-1 and SS-2). This data base contain sewer pipeline characteristics including size, type and slope. The North San Jose Vacant and Redevelopable Land Date Base was superimposed onto the City's sewer pipeline data base.

Sewer tributary basin areas were then selected which were representative of similar areas in the Rincon Study Area and the area was determined for each selected basin. Basin flows were then calculated by multiplying these basin areas by City Sewage Generation Factors (SGF). The City generally uses SGF's of 0.003 mgd/acre for commercial development and 0.004 mgd/acre for industrial and commercial developments. The calculated basin flows were then doubled to obtain peak flows in accordance with the City's design criteria. Sewage Generation Factors (SGF)were increased in direct proportion to the FAR increase for each scenario evaluated. For example, for a FAR of 0.35 a SGF of 0.003 was used (initial condition). For a FAR of 1.00, a SGF of 0.0114 was used (full buildout).

The SLOS guidelines were followed to evaluate the capacities of the existing sanitary sewer mains. Initially, the capacities and depth of existing flows were compared with the generated flows for each of the five scenarios (see Table B). The generated flows for each scenario were then added to the existing condition (Scenario 1). This procedure was applied to areas typical to the Rincon Study Area.

SLOS D was used as the bench mark to determine if the existing mains had sufficient capacity to carry the increased flows for each FAR scenario. Table B demonstrates that the Original (0.35 FAR), Scenario 1 (0.4 FAR) and Scenarios 2 and 3 (0.5 FAR) would not surcharge the existing sewer mains. However, Scenarios 4 and 5 would surcharge the sewer mains and requires some form of sewer supplement.

To properly evaluate available sewer main capacities, other factors such as Inflow/Inflation rates should be field measured and included in the existing flow determinations. The SGF

scenarios assumed the same I/I. The condition of the pipe and its structural integrity must also be evaluated. Such evaluations are usually accomplished by video-taping inside the pipe. The City of San Jose sewer capacity computer model should also be updated to more accurately represent the existing SLOS. Such verifications were beyond the scope of this report.

Findings:

Table A shows the generated sewer flows (mgd) for the complete Rincon Study Area.

Table B shows the increase in flow for the selected sewer basins and the percent of pipe capacity at peak flow. All calculated flows were for the wet season (rain and high ground water).

Major Sewer Interceptors

James M. Montgomery Consulting Engineers (JMMCE) prepared a Preliminary Design Report for a Fourth major Interceptor in August 1986. The existing and projected flows for the interceptors are shown in Table C. Existing flows for the three existing interceptors, the proposed fourth interceptor, and deficiencies were calculated. It should be noted that these flows were calculated for dry weather conditions which generally do not include Inflow/Infiltration (I/I) components. The deficiencies identified in the JMM Design Report should be adjusted to include I/I contributions. San Jose has experienced about a 3 percent annual growth rate since 1986. However, the WPCP has not experience the 30 percent increase in sewage influent that would be expected. The influent has increased from 120 mgd in 1986 to 133.6 mgd in 1996. The per capita use has actually decreased about 10 per cent the last ten years, mostly due to conservation practices. However, the present influent is approaching a average annual increase of about 10 percent. The JMM study flows should reflect this increase in flows.

In 1983, the City of San Jose Department of Public Works, in conjunction with JMM studied the structural condition of the interceptors. This 1983 study concluded that the Brick Sewer had suffered recession of the mortar between the bricks and could be structurally vulnerable to nearby construction. For this reason, a condition for the approval of nearby development has been to protect the Brick Sewer. The JMM study also concluded that the Brick Interceptor was nearing the end of its useful life and required rehabilitation to extend its longevity. The 60-inch RCP suffers from hydrogen sulfide corrosion throughout its length with two of the worst segments in the area of Highway 237 and 4th Street between Highway 101 and Hedding Street. The Highway 237 segment was replaced in July, 1993 with an 84-inch diameter RCP. The 4th Street segment was rehabilitated by inserting an HDPE liner in 1988. The 84-inch RCP is reportedly in good condition and does not appear to require rehabilitation at this time. The gates and weir slots on all diversion structures are currently operable. Realizing that the capacity of the

entire sewer pipe system is dependent on the flow capacity and structural integrity of the Interceptor system, the City has included upgrades of the Interceptors and construction of a 4th Interceptor in its current five year Sanitary Sewer Capital-Improvement-Plan (CIP). The proposed five year CIP improvements include:

- 1998-99
  Construct two 72-inch Interceptors by replacing the 4th Interceptor and the 60- inch Brick Interceptor from Daggett Drive to Trimble Road.

- 1999
  Rehabilitate the 60-inch Brick Interceptor with lining on Zanker Road from the Agnews complex to Daggett Drive.

- 2000
  Rehabilitate the 60" RCP Interceptor on Zanker Road from Daggett Drive to Trimble Road.

- 2001
  Construct a 60-inch RCP 4thth Interceptor and replace the 60-inch Brick Sewer from Trimble Road to Highway 101.

- 2002
  Replace the 60-inch Brick Interceptor from Highway 101 to Taylor Street and rehabilitate this 60-inch RCP from Trimble Road to Bering Drive.

San Jose - Santa Clara Water Pollution Control Plant (WPCP)

The WPCP plant capacity has been upgraded recently to 167 mgd. However, maximum allowable discharge into the San Francisco Bay has been limited to 120 mgd. The WPCP currently experiences peak inflow of 132 mgd. The excess flow will be mitigated by the construction of a pipeline to recycle treated effluent from the WPCP. This recycled treated effluent will be piped for alternative uses.

Conclusion and Recommendation

1. The sewer mains available to serve either the developable or redevelopable lands in the Rincon Study Area would generally have a Level of Service D at full buildout based upon the conceptual analysis performed for this report. However, some sewer supplement may be required (parallel sewer mains) when site specific evaluations are performed for future developments.

To properly evaluate the existing system, the City's computer model together with measurement of sewer flow will be required to verify the model results and to establish the existing level of service.

2. Pursuant to the City's Five Year Capital Improvement Plan, the Fourth Interceptor should be constructed in Zanker Road and the 60 inch RCP and Brick Interceptors should be replaced or rehabilitated as proposed.

3. The City's Maintenance Program should be augmented to remove settled solids from the collection system, repair damaged sewers, and decrease I/I by pipe lining and repair of joints and manholes.

4. The San Jose-Santa Clara Water Pollution Central Plant has reached its currently permitted allowable discharge limit (120 mgd). Completion of the South Bay Water Recycling Program is mandatory.

D. MISCELLANEOUS UTILITY SECTION

DOMESTIC WATER

TELEPHONE

TCI CABLEVISION

ELECTRICITY AND NATURAL GAS

DOMESTIC WATER SUPPLY

The potable water service to the Rincon Study Area is provided by the San Jose Water Company (SJWC) and the San Jose Municipal Water System (SJMWS).

SAN JOSE WATER COMPANY

The SJWC service boundaries include areas south of Trimble Road on the eastern side of North First Street and south of Component Drive on the western side of North First Street. The areas in the Rincon Study Area north of these boundaries are served by the SJMWS. These systems are independent of each other (see map Water-1 and 2).

SJWC obtains its water from multiple sources including imported water purchased from SCVWD and from SJWC's groundwater pumping wells. SJWC does not maintain storage reservoirs in the study area. There are 2 pumping stations within the study boundaries. They are located on Charcot Avenue near Coyote Creek and in the northern quadrant of the 101/880 interchange.

The SJWC water distribution mains range in size form 6 to 17 inches. SJWC determines the cost to extend service to undeveloped parcels on a case-by-case basis. Factors considered include distance to supply line, size of supply, construction cost, and engineering cost.

SAN JOSE MUNICIPAL WATER SYSTEM

The water sources for the SJMWS are the Hetch-Hetchy Aqueduct (HHA) and four wells. A second HHA connection has been installed and will be in service by the end of 1997. This new connection will provide up to 10,000 gpm of additional water supply. The existing wells will then be used as back-up to the system.

In the Montague Expressway/Coyote Creek area, water is provided from a 3-million gallon storage reservoir located on Trimble Road close to the Guadalupe River. There are three 3,000 gpm pumps located at the reservoir. A second 3 million gallon reservoir/pump station is currently under construction. Both of these reservoirs are supplied from the HHA.

The SJMWS water supply network consists of an 18 inch pipeline located along N. 1st Street with an extension eastward along Trimble Road. The remainder of the distribution system consists of pipes ranging from 4 to 12 inches. Pipe materials include asbestos

cement, ductile iron, and techite. Most undeveloped areas have available service stubs nearby.

SJMWS has a worksheet for determining cost to supply water service to a new development. Factors used to determine cost are area of parcel, size and frontage of existing mains, meters required, projected water use (based on building use) as well as water service construction, engineering, and inspection costs.

Both of these water supply companies are able to supply potable water for the proposed scenarios in the Rincon Study Area. The developer will be responsible for costs associated with a water service line to the site if one does not exist.

TELEPHONE

The Rincon Study Area is serviced by Pacific Bell, and other subsidiaries for telephone. Pacific Bell will proceed to develop a 2-acre Central office, install a new wire center, and install new switches as the Rincon Study Area develops. Pacific Bell does not anticipate any problems with supplying telecommunication service to the proposed development.

TCI CABLEVISION

TCI Cablevision of California provides cable television service in the study area south of (approximately) Tasman Drive. In the future, TCI Cablevision of California will offer telephone service and ultra high speed computer links in their service area. Presently, TIC does not have any plans to extend their service area north of Tasman Road. Area which TCI does not service have no cable television service at this time. Currently, this transmission line consist of paired coaxial cable. As lines are added, upgraded, or replaced, fiber-optics cables are used wherever possible.

ELECTRICITY AND NATURAL GAS

Electric power service is provided to the Rincon area by Pacific Gas and Electric (PG&E.). Distribution of electric power to the various facilities is accomplished primarily through underground systems extending through the area from the various high voltage transmission lines. There are several large transmission lines passing though or adjacent to the redevelopment area, including a 115 kilovolt (kv) line running along the easterly side of the Guadalupe River, a 60 kv line running along North Fourth Street, and three 12 kv lines along North First Street, Route 237, and Zanker Road. PG&E also operates an electrical substation located on the west side of North First Street, south of Trimble Road. PG&E

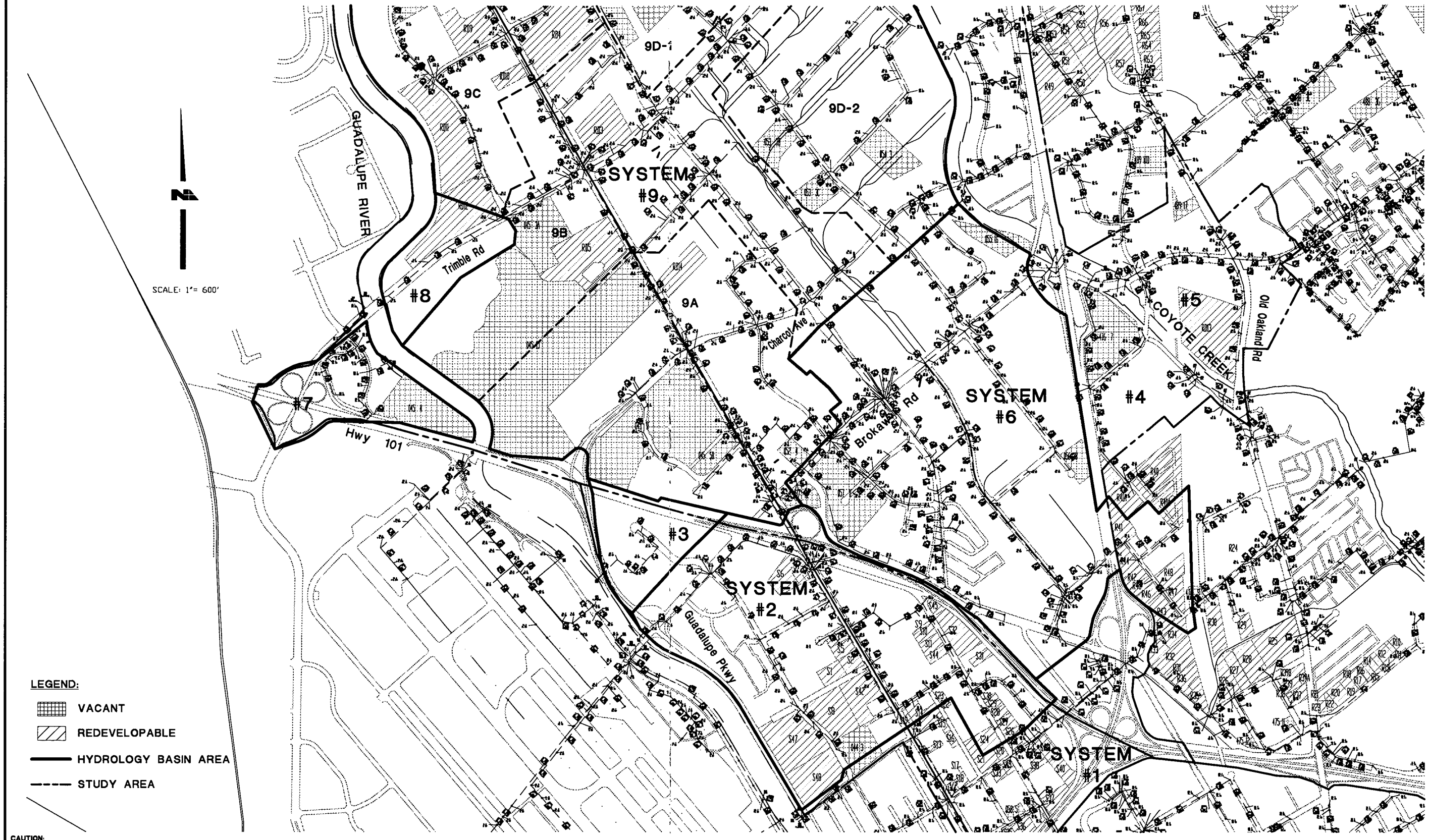
anticipates no problems in meeting the projected demand for electricity within Rincon de los Esteros.

NATURAL GAS

Natural gas service is provided to the redevelopment area by PG&E. Natural gas is distributed to the area through a series of gas distribution lines located within street rights-of-way. The existing underground distribution system will be extended in new roadways and to individual users as development occurs. PG&E foresees no unusual problems in meeting the demand for natural gas in the redevelopment area.

E. DRAWINGS

STORM	**SD-1, SD-2**
SEWER	**SS-1, SS-2**
WATER	**W-1, W-2**



CAUTION:
The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

DATE: 04/30/97
SCALE: 1" = 600'
DRAWN: NFE
CHECKED: REM
PROJ. ENGR.: REM
PROJ. MGR.: TKS

NO.	BY	DATE	REVISIONS	APP'D	BY

NOLTE and ASSOCIATES, Inc.
Engineers / Planners / Surveyors
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60 South Market Street, Suite 300, San Jose, CA 95113

NORTH SAN JOSE EIR

RINCON DE LOS ESTEROS - REDEVELOPMENT PROJECT
STORM DRAIN - HYDROLOGY MAP

SAN JOSE — CALIFORNIA

DRAWING SD-2
2 OF 2 SHEETS
JOB NO. 8J0402

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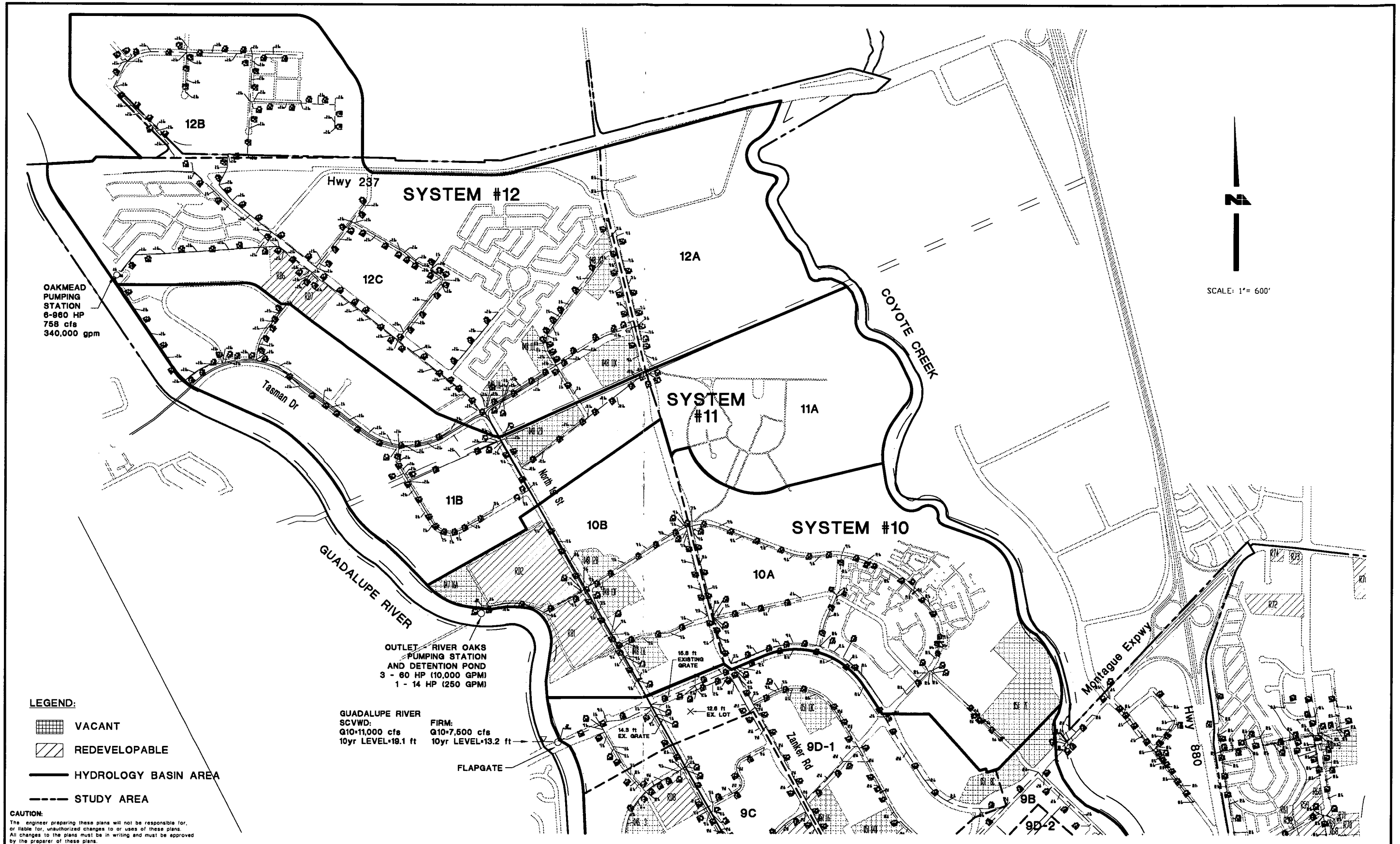

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DATE: 04/30/97						
SCALE: 1" = 600'						
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PROJ. ENGR.: REM						
PROJ. MGR.: TKS						

NOLTE and ASSOCIATES, Inc.
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60 South Market Street, Suite 300, San Jose, CA 95113

NORTH SAN JOSE EIR
RINCON DE LOS ESTEROS - REDEVELOPMENT PROJECT
STORM DRAIN - HYDROLOGY MAP

SAN JOSE — CALIFORNIA

DRAWING SD-1
1 OF 2 SHEETS
JOB NO. SJ0402

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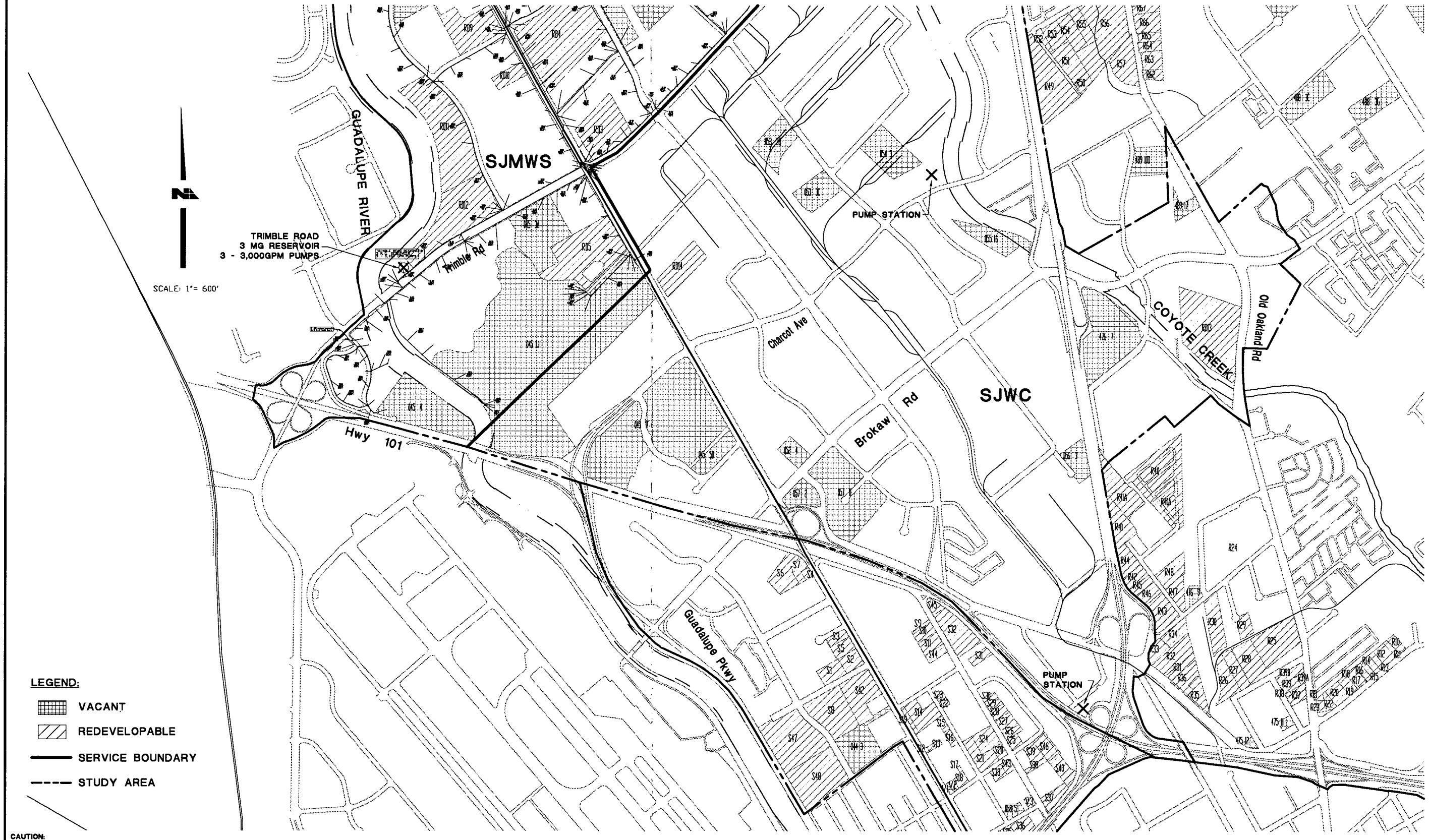

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	NO.	BY	DATE	REVISIONS	APPV'D	BY
DATE: 04/30/97						
SCALE: 1" = 600'						
DRAWN: NFE						
CHECKED: REM						
PROJ. ENGR.: REM						
PROJ. MGR.: TKS						

NOLTE and ASSOCIATES, Inc.
Engineers / Planners / Surveyors
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60 South Market Street, Suite 300, San Jose, CA 95113

NORTH SAN JOSE EIR

RINCON DE LOS ESTEROS - REDEVELOPMENT PROJECT
WATER SERVICE FACILITIES MAP

SAN JOSE CALIFORNIA

DRAWING W-2
2 OF 2 SHEETS
JOB NO. SJ0402

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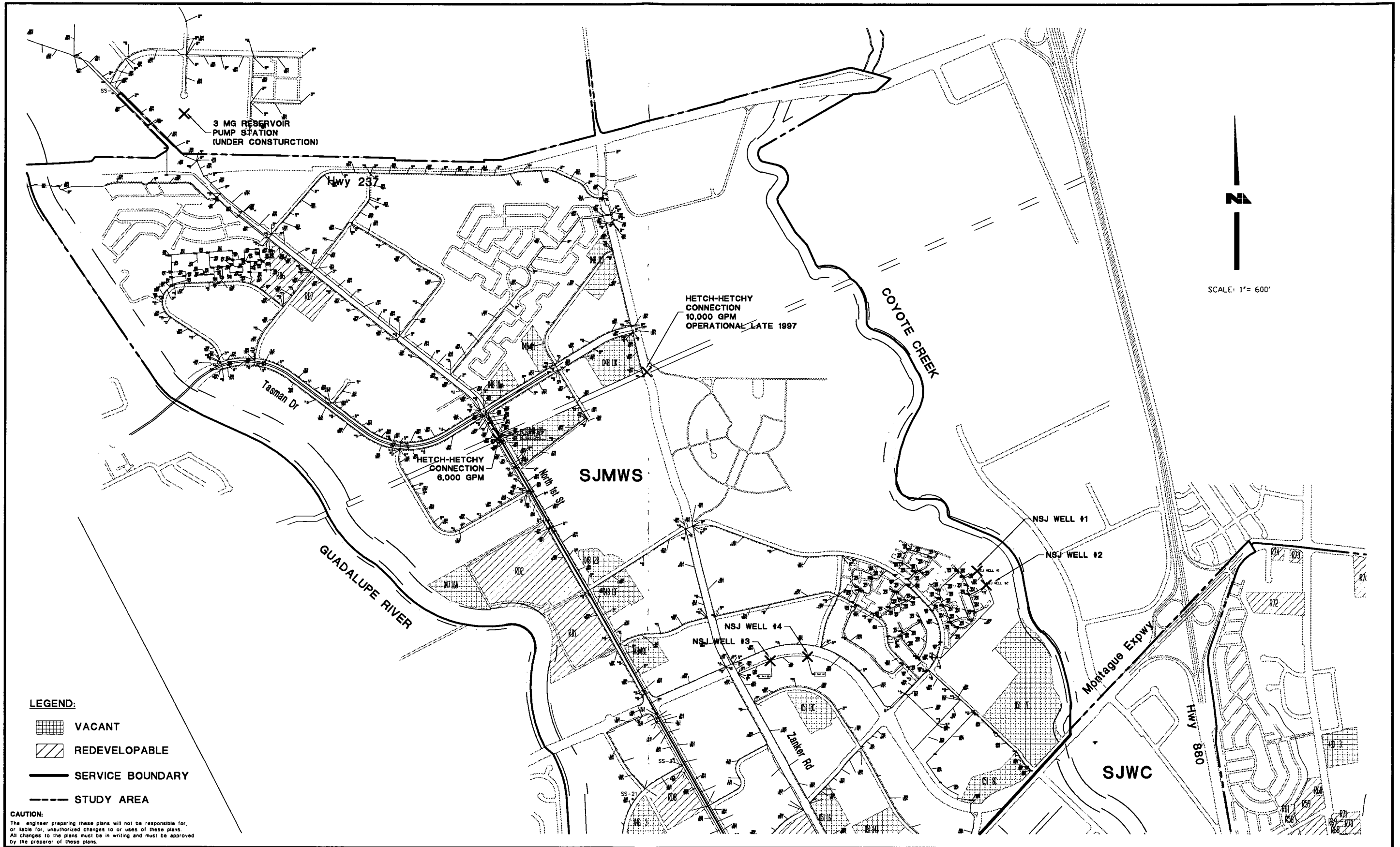

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DATE:	04/30/97
SCALE:	1" = 600'
DRAWN:	NFE
CHECKED:	REM
PROJ. ENGR.:	REM
PROJ. MGR.:	TKS

NO.	BY	DATE	REVISIONS	APP'D	BY

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60 South Market Street, Suite 300, San Jose, CA 95113

NORTH SAN JOSE EIR
RINCON DE LOS ESTEROS - REDEVELOPMENT PROJECT
WATER SERVICE FACILITIES MAP

SAN JOSE CALIFORNIA

DRAWING W-1
1 OF 2 SHEETS
JOB NO. SJ0402

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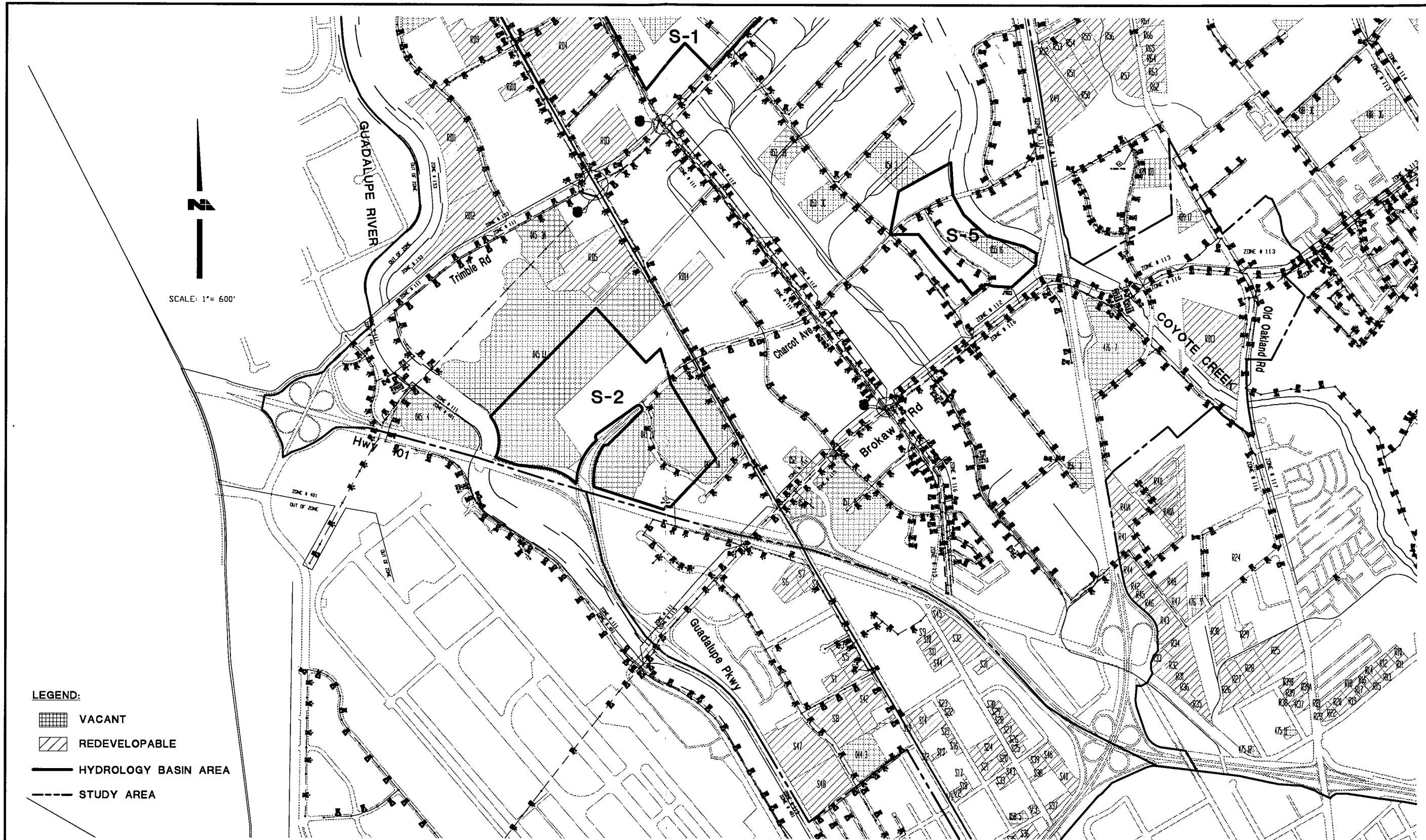

CAUTION:
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DATE:	05/07/97
SCALE:	1" = 600'
DRAWN:	NFE
CHECKED:	REM
PROJ. ENGR.:	REM
PROJ. MGR.:	TKS

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60 South Market Street, Suite 300, San Jose, CA 95113

NORTH SAN JOSE EIR
RINCON DE LOS ESTEROS - REDEVELOPMENT PROJECT
SANITARY SEWER - HYDROLOGY MAP

SAN JOSE CALIFORNIA

DRAWING SS-2
2 OF 2 SHEETS
JOB NO. 8J0402

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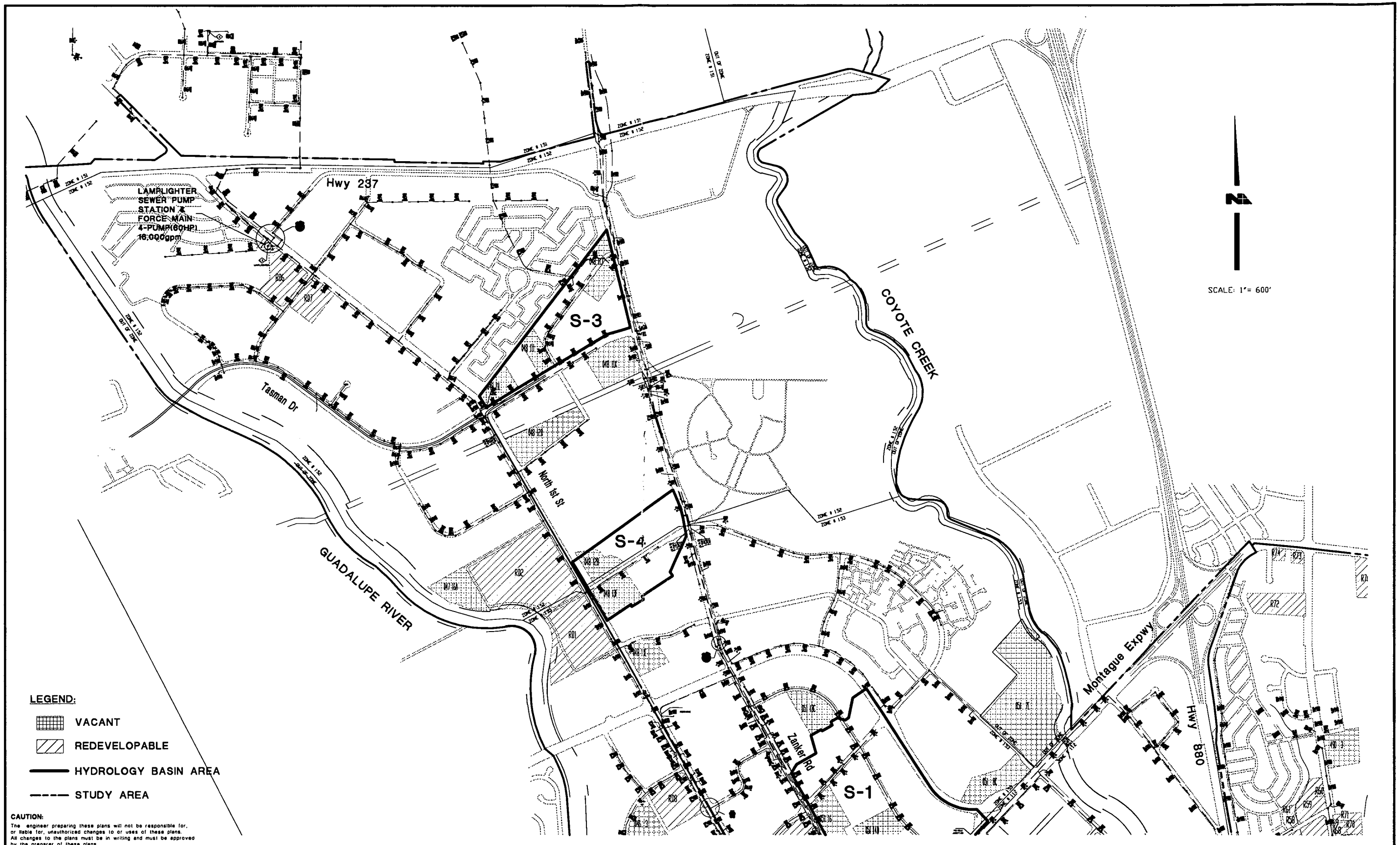

CAUTION:
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DATE:	05/07/97
SCALE:	1" = 600'
DRAWN:	NFE
CHECKED:	REM
PROJ. ENGR.:	REM
PROJ. MGR.:	TKS

NO.	BY	DATE	REVISIONS	APP'D	BY

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Engineers / Planners / Surveyors
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60 South Market Street, Suite 300, San Jose, CA 95113

NORTH SAN JOSE EIR
RINCON DE LOS ESTEROS - REDEVELOPMENT PROJECT
SANITARY SEWER - HYDROLOGY MAP

SAN JOSE — CALIFORNIA

DRAWING SS-1
1 OF 2 SHEETS
JOB NO. 8J0402

SANITARY SEWER APPENDIX

CALCULATIONS FOR SANITARY SEWER FLOWS AND CAPACITY

TABLE A
SANITARY SEWER MAINS
RINCON STUDY AREA

Analysis of sewage generated by areas of study

Sewage Generation Factor (SGF)				
Heavy Industrial	0.003	mgd/acre	Generation factors provided by The City of San Jose	
Industrial Park	0.003	mgd/acre	For scenarios other than the original general plan, these factors were modified using a direct relationship between the FAR and the SGF.	
General Commercial	0.004	mgd/acre	e.g., at FAR = 0.35, SGF = 0.003mgd, therefore at FAR = 0.70, SGF = 0.006mgd	
Combined Ind / Com	0.004	mgd/acre		

					Original			Scenario 1			Scenario 2 / 3			Scenario 4			Scenario 5		
I.D.	APN	Category	GP	Acres	FAR	SGF	mgd	FAR	SGF	mgd	FAR	SGF	mgd	FAR	SGF	mgd	FAR	SGF	mgd
RD1	9706032	R	IP	18.45	0.35	0.0030	0.0554	0.40	0.0034	0.0633	0.50	0.0043	0.0791	0.70	0.0060	0.1107	0.85	0.0073	0.1344
047 16A	9706037	V	IP	6.88	0.35	0.0030	0.0206	0.40	0.0034	0.0236	0.50	0.0043	0.0295	0.70	0.0060	0.0413	0.70	0.0060	0.0413
RD2	9706039	R	IP	32.60	0.35	0.0030	0.0978	0.40	0.0034	0.1118	0.50	0.0043	0.1397	0.70	0.0060	0.1956	0.85	0.0073	0.2375
048 11I	9707032	V	IP	3.50	0.35	0.0030	0.0105	0.40	0.0034	0.0120	0.50	0.0043	0.0150	0.70	0.0060	0.0210	0.70	0.0060	0.0210
048 11L	9707034	V	IP	3.86	0.35	0.0030	0.0116	0.40	0.0034	0.0132	0.50	0.0043	0.0165	0.70	0.0060	0.0231	0.85	0.0073	0.0281
048 12D	9707040	V	IP	9.27	0.35	0.0030	0.0278	0.40	0.0034	0.0318	0.50	0.0043	0.0397	0.70	0.0060	0.0556	0.85	0.0073	0.0675
048 11J	9707047	V	IP	5.69	0.35	0.0030	0.0171	0.40	0.0034	0.0195	0.50	0.0043	0.0244	0.70	0.0060	0.0341	0.70	0.0060	0.0341
048 11K	9707056	V	IP	9.31	0.35	0.0030	0.0279	0.40	0.0034	0.0319	0.50	0.0043	0.0399	0.70	0.0060	0.0559	0.70	0.0060	0.0559
048 13F	9709031	V	IP	6.74	0.35	0.0030	0.0202	0.40	0.0034	0.0231	0.50	0.0043	0.0289	0.70	0.0060	0.0404	0.85	0.0073	0.0491
048 13E	9709037	V	IP	5.14	0.35	0.0030	0.0154	0.40	0.0034	0.0176	0.50	0.0043	0.0220	0.70	0.0060	0.0309	0.85	0.0073	0.0375
RD3	9713054	R	IP	9.15	0.35	0.0030	0.0275	0.40	0.0034	0.0314	0.50	0.0043	0.0392	0.70	0.0060	0.0549	0.85	0.0073	0.0667
RD4	9713075	R	IP	22.94	0.35	0.0030	0.0688	0.40	0.0034	0.0787	0.50	0.0043	0.0983	0.70	0.0060	0.1376	0.85	0.0073	0.1671
R77	9714057	V	IP	19.85	0.35	0.0030	0.0596	0.40	0.0034	0.0681	0.50	0.0043	0.0851	0.70	0.0060	0.1191	0.70	0.0060	0.1191
051 13C	9714061	V	IP	6.34	0.35	0.0030	0.0190	0.40	0.0034	0.0217	0.50	0.0043	0.0272	0.70	0.0060	0.0380	0.70	0.0060	0.0380
051 14D	9714075	V	IP	6.94	0.35	0.0030	0.0208	0.40	0.0034	0.0238	0.50	0.0043	0.0297	0.70	0.0060	0.0416	0.70	0.0060	0.0416
051 7E	9715030	V	IP	32.71	0.35	0.0030	0.0981	0.35	0.0030	0.0981	0.50	0.0043	0.1402	0.70	0.0060	0.1963	0.70	0.0060	0.1963
045 4	9725051	V	IP	14.69	0.35	0.0030	0.0441	0.35	0.0030	0.0441	0.50	0.0043	0.0630	0.70	0.0060	0.0881	0.70	0.0060	0.0881
045 3A	9745014	V	IP	10.59	0.35	0.0030	0.0318	0.40	0.0034	0.0363	0.50	0.0043	0.0454	0.70	0.0060	0.0636	0.85	0.0073	0.0772
045 1J	9745021	V	IP	104.40	0.35	0.0030	0.3132	0.40	0.0034	0.3579	0.50	0.0043	0.4474	0.70	0.0060	0.6264	0.85	0.0073	0.7606
RD5	9745023	R	IP	14.23	0.35	0.0030	0.0427	0.40	0.0034	0.0488	0.50	0.0043	0.0610	0.70	0.0060	0.0854	0.85	0.0073	0.1037
RD6	9752013	R	IP	7.51	0.35	0.0030	0.0225	0.35	0.0030	0.0225	0.50	0.0043	0.0322	0.70	0.0060	0.0451	0.85	0.0073	0.0547
RD7	9753006	R	IP	5.26	0.35	0.0030	0.0158	0.35	0.0030	0.0158	0.50	0.0043	0.0225	0.70	0.0060	0.0316	0.85	0.0073	0.0383
RD8	9756003	R	IP	9.24	0.35	0.0030	0.0277	0.40	0.0034	0.0317	0.50	0.0043	0.0396	0.70	0.0060	0.0554	0.85	0.0073	0.0673
RD9	9756005	R	IP	8.24	0.35	0.0030	0.0247	0.40	0.0034	0.0283	0.50	0.0043	0.0353	0.70	0.0060	0.0494	0.85	0.0073	0.0600
046 3	9756008	V	IP	6.05	0.35	0.0030	0.0181	0.40	0.0034	0.0207	0.50	0.0043	0.0259	0.70	0.0060	0.0363	0.85	0.0073	0.0440
RD10	9757010	R	IP	2.15	0.35	0.0030	0.0065	0.40	0.0034	0.0074	0.50	0.0043	0.0092	0.70	0.0060	0.0129	0.85	0.0073	0.0157
RD11	9758001	R	IP	18.50	0.35	0.0030	0.0555	0.40	0.0034	0.0634	0.50	0.0043	0.0793	0.70	0.0060	0.1110	0.70	0.0060	0.1110
RD12	9758003	R	IP	15.18	0.35	0.0030	0.0455	0.40	0.0034	0.0520	0.50	0.0043	0.0651	0.70	0.0060	0.0911	0.70	0.0060	0.0911
045 5B	9760007	V	CIC	4.45	0.35	0.0040	0.0178	0.40	0.0046	0.0203	0.50	0.0057	0.0254	0.70	0.0080	0.0356	0.85	0.0097	0.0432
045 1F	9760008	V	IP	42.05	0.35	0.0030	0.1262	0.40	0.0034	0.1442	0.50	0.0043	0.1802	0.70	0.0060	0.2523	0.85	0.0073	0.3064
051 8C	9766002	V	IP	8.72	0.35	0.0030	0.0262	0.35	0.0030	0.0262	0.50	0.0043	0.0374	0.70	0.0060	0.0523	0.70	0.0060	0.0523
S47	23029074	R	CIC	11.33	0.35	0.0040	0.0453	0.40	0.0046	0.0518	0.50	0.0057	0.0647	0.70	0.0080	0.0906	1.00	0.0114	0.1295
S48	23029075	R	CIC	9.64	0.35	0.0040	0.0386	0.40	0.0046	0.0441	0.50	0.0057	0.0551	0.70	0.0080	0.0771	1.00	0.0114	0.1102
S43	23005007	R	CIC	0.57	0.35	0.0040	0.0023	0.40	0.0046	0.0026	0.50	0.0057	0.0033	0.70	0.0080	0.0046	0.85	0.0097	0.0055
S1	23029017	R	CIC	1.97	0.35	0.0040	0.0079	0.40	0.0046	0.0090	0.50	0.0057	0.0113	0.70	0.0080	0.0158	0.85	0.0097	0.0191
S2	23029018	R	CIC	1.67	0.35	0.0040	0.0067	0.40	0.0046	0.0076	0.50	0.0057	0.0095	0.70	0.0080	0.0134	0.85	0.0097	0.0162
S3	23029022	R	CIC	0.87	0.35	0.0040	0.0035	0.40	0.0046	0.0040	0.50	0.0057	0.0050	0.70	0.0080	0.0070	0.85	0.0097	0.0085
S4	23029026	R	CIC	0.40	0.35	0.0040	0.0016	0.40	0.0046	0.0018	0.50	0.0057	0.0023	0.70	0.0080	0.0032	0.85	0.0097	0.0039
S5	23029034	R	CIC	1.46	0.35	0.0040	0.0058	0.40	0.0046	0.0067	0.50	0.0057	0.0083	0.70	0.0080	0.0117	0.85	0.0097	0.0142
S6	23029041	R	CIC	3.37	0.35	0.0040	0.0135	0.40	0.0046	0.0154	0.50	0.0057	0.0193	0.70	0.0080	0.0270	0.85	0.0097	0.0327
S7	23029042	R	CIC	1.18	0.35	0.0040	0.0047	0.40	0.0046	0.0054	0.50	0.0057	0.0067	0.70	0.0080	0.0094	0.85	0.0097	0.0115
044 3	23029056	V	CIC	6.58	0.35	0.0040	0.0263	0.40	0.0046	0.0301	0.50	0.0057	0.0376	0.70	0.0080	0.0526	0.85	0.0097	0.0639
S8	23029057	R	CIC	7.45	0.35	0.0040	0.0298	0.40	0.0046	0.0341	0.50	0.0057	0.0426	0.70	0.0080	0.0596	0.85	0.0097	0.0724
S42	23029085	R	CIC	5.87	0.35	0.0040	0.0235	0.40	0.0046	0.0268	0.50	0.0057	0.0335	0.70	0.0080	0.0470	0.85	0.0097	0.0570
S9	23501002	R	CIC	0.29	0.35	0.0040	0.0012	0.40	0.0046	0.0013	0.50	0.0057	0.0017	0.70	0.0080	0.0023	0.85	0.0097	0.0028
S10	23501003	R	CIC	1.10	0.35	0.0040	0.0044	0.40	0.0046	0.0050	0.50	0.0057	0.0063	0.70	0.0080	0.0088	0.85	0.0097	0.0107

TABLE A
SANITARY SEWER MAINS
RINCON STUDY AREA

					Original			Scenario 1			Scenario 2 / 3			Scenario 4			Scenario 5		
I.D.	APN	Category	GP	Acres	FAR	SGF	mgd	FAR	SGF	mgd	FAR	SGF	mgd	FAR	SGF	mgd	FAR	SGF	mgd
S11	23501004	R	CIC	1.42	0.35	0.0040	0.0057	0.40	0.0046	0.0065	0.50	0.0057	0.0081	0.70	0.0080	0.0114	0.85	0.0097	0.0138
S44	23501005	R	CIC	0.93	0.35	0.0040	0.0037	0.40	0.0046	0.0043	0.50	0.0057	0.0053	0.70	0.0080	0.0074	0.85	0.0097	0.0090
V2	23502001	V	CIC	0.30	0.35	0.0040	0.0012	0.40	0.0046	0.0014	0.50	0.0057	0.0017	0.70	0.0080	0.0024	0.85	0.0097	0.0029
V1	23502002	V	CIC	0.21	0.35	0.0040	0.0008	0.40	0.0046	0.0010	0.50	0.0057	0.0012	0.70	0.0080	0.0017	0.85	0.0097	0.0020
S12	23502009	R	CIC	0.08	0.35	0.0040	0.0003	0.40	0.0046	0.0004	0.50	0.0057	0.0005	0.70	0.0080	0.0006	0.85	0.0097	0.0008
S13	23502010	R	CIC	0.35	0.35	0.0040	0.0014	0.40	0.0046	0.0016	0.50	0.0057	0.0020	0.70	0.0080	0.0028	0.85	0.0097	0.0034
S14	23502014	R	CIC	2.97	0.35	0.0040	0.0119	0.40	0.0046	0.0136	0.50	0.0057	0.0170	0.70	0.0080	0.0238	0.85	0.0097	0.0289
S15	23502016	R	CIC	0.50	0.35	0.0040	0.0020	0.40	0.0046	0.0023	0.50	0.0057	0.0029	0.70	0.0080	0.0040	0.85	0.0097	0.0049
S16	23502017	R	CIC	0.57	0.35	0.0040	0.0023	0.40	0.0046	0.0026	0.50	0.0057	0.0033	0.70	0.0080	0.0046	0.85	0.0097	0.0055
S17	23502024	R	CIC	0.09	0.35	0.0040	0.0004	0.40	0.0046	0.0004	0.50	0.0057	0.0005	0.70	0.0080	0.0007	0.85	0.0097	0.0009
S18	23502025	R	CIC	0.64	0.35	0.0040	0.0026	0.40	0.0046	0.0029	0.50	0.0057	0.0037	0.70	0.0080	0.0051	0.85	0.0097	0.0062
S19	23502026	R	CIC	0.53	0.35	0.0040	0.0021	0.40	0.0046	0.0024	0.50	0.0057	0.0030	0.70	0.0080	0.0042	0.85	0.0097	0.0051
S20	23503001	R	CIC	0.65	0.35	0.0040	0.0026	0.40	0.0046	0.0030	0.50	0.0057	0.0037	0.70	0.0080	0.0052	0.85	0.0097	0.0063
S21	23503002	R	CIC	2.51	0.35	0.0040	0.0100	0.40	0.0046	0.0115	0.50	0.0057	0.0143	0.70	0.0080	0.0201	0.85	0.0097	0.0244
S22	23503006	R	CIC	0.29	0.35	0.0040	0.0012	0.40	0.0046	0.0013	0.50	0.0057	0.0017	0.70	0.0080	0.0023	0.85	0.0097	0.0028
S23	23503007	R	CIC	0.22	0.35	0.0040	0.0009	0.40	0.0046	0.0010	0.50	0.0057	0.0013	0.70	0.0080	0.0018	0.85	0.0097	0.0021
S24	23503013	R	CIC	2.15	0.35	0.0040	0.0086	0.40	0.0046	0.0098	0.50	0.0057	0.0123	0.70	0.0080	0.0172	0.85	0.0097	0.0209
S25	23504002	R	CIC	0.70	0.35	0.0040	0.0028	0.40	0.0046	0.0032	0.50	0.0057	0.0040	0.70	0.0080	0.0056	1.00	0.0114	0.0080
S26	23504003	R	CIC	0.62	0.35	0.0040	0.0025	0.40	0.0046	0.0028	0.50	0.0057	0.0035	0.70	0.0080	0.0050	1.00	0.0114	0.0071
S27	23504004	R	CIC	1.25	0.35	0.0040	0.0050	0.40	0.0046	0.0057	0.50	0.0057	0.0071	0.70	0.0080	0.0100	1.00	0.0114	0.0143
S28	23504005	R	CIC	0.77	0.35	0.0040	0.0031	0.40	0.0046	0.0035	0.50	0.0057	0.0044	0.70	0.0080	0.0062	1.00	0.0114	0.0088
S29	23504006	R	CIC	0.44	0.35	0.0040	0.0018	0.40	0.0046	0.0020	0.50	0.0057	0.0025	0.70	0.0080	0.0035	1.00	0.0114	0.0050
S30	23504007	R	CIC	0.55	0.35	0.0040	0.0022	0.40	0.0046	0.0025	0.50	0.0057	0.0031	0.70	0.0080	0.0044	1.00	0.0114	0.0063
S31	23504012	R	CIC	0.96	0.35	0.0040	0.0038	0.40	0.0046	0.0044	0.50	0.0057	0.0055	0.70	0.0080	0.0077	1.00	0.0114	0.0110
S32	23504014	R	CIC	4.97	0.35	0.0040	0.0199	0.40	0.0046	0.0227	0.50	0.0057	0.0284	0.70	0.0080	0.0398	1.00	0.0114	0.0568
S45	23504015	R	CIC	0.74	0.35	0.0040	0.0030	0.40	0.0046	0.0034	0.50	0.0057	0.0042	0.70	0.0080	0.0059	1.00	0.0114	0.0085
S33	23505006	R	CIC	0.72	0.35	0.0040	0.0029	0.40	0.0046	0.0033	0.50	0.0057	0.0041	0.70	0.0080	0.0058	0.85	0.0097	0.0070
V3	23505009	V	CIC	0.42	0.35	0.0040	0.0017	0.40	0.0046	0.0019	0.50	0.0057	0.0024	0.70	0.0080	0.0034	0.85	0.0097	0.0041
058 5	23505010	V	CIC	0.90	0.35	0.0040	0.0036	0.40	0.0046	0.0041	0.50	0.0057	0.0051	0.70	0.0080	0.0072	0.85	0.0097	0.0088
S34	23505014	R	CIC	0.62	0.35	0.0040	0.0025	0.40	0.0046	0.0028	0.50	0.0057	0.0035	0.70	0.0080	0.0050	0.85	0.0097	0.0060
S35	23505015	R	CIC	0.93	0.35	0.0040	0.0037	0.40	0.0046	0.0043	0.50	0.0057	0.0053	0.70	0.0080	0.0074	0.85	0.0097	0.0090
S36	23505016	R	CIC	1.81	0.35	0.0040	0.0072	0.40	0.0046	0.0083	0.50	0.0057	0.0103	0.70	0.0080	0.0145	0.85	0.0097	0.0176
S37	23505018	R	CIC	1.61	0.35	0.0040	0.0064	0.40	0.0046	0.0074	0.50	0.0057	0.0092	0.70	0.0080	0.0129	1.00	0.0114	0.0184
S38	23505022	R	CIC	0.49	0.35	0.0040	0.0020	0.40	0.0046	0.0022	0.50	0.0057	0.0028	0.70	0.0080	0.0039	1.00	0.0114	0.0056
S39	23505025	R	CIC	1.16	0.35	0.0040	0.0046	0.40	0.0046	0.0053	0.50	0.0057	0.0066	0.70	0.0080	0.0093	1.00	0.0114	0.0133
S46	23505026	R	CIC	1.55	0.35	0.0040	0.0062	0.40	0.0046	0.0071	0.50	0.0057	0.0089	0.70	0.0080	0.0124	1.00	0.0114	0.0177
S40	23505033	R	CIC	2.14	0.35	0.0040	0.0086	0.40	0.0046	0.0098	0.50	0.0057	0.0122	0.70	0.0080	0.0171	1.00	0.0114	0.0245
489 17	23703044	V	HI	1.79	0.35	0.0030	0.0054	0.35	0.0030	0.0054	0.50	0.0043	0.0077	0.70	0.0060	0.0107	0.70	0.0060	0.0107
RD13	23703060	R	HI	18.59	0.35	0.0030	0.0558	0.35	0.0030	0.0558	0.50	0.0043	0.0797	0.70	0.0060	0.1115	0.70	0.0060	0.1115
476 7	23705050	V	HI	15.79	0.35	0.0030	0.0474	0.35	0.0030	0.0474	0.50	0.0043	0.0677	0.70	0.0060	0.0947	0.70	0.0060	0.0947
057 1F	23716072	V	IP	16.75	0.35	0.0030	0.0503	0.40	0.0034	0.0574	0.50	0.0043	0.0718	0.70	0.0060	0.1005	0.85	0.0073	0.1220
057 2	23716073	V	CIC	3.27	0.35	0.0040	0.0131	0.40	0.0046	0.0149	0.50	0.0057	0.0187	0.70	0.0080	0.0261	0.85	0.0097	0.0317
052 4	23717168	V	IP	2.41	0.35	0.0030	0.0072	0.40	0.0034	0.0083	0.50	0.0043	0.0103	0.70	0.0060	0.0145	0.85	0.0073	0.0176
054 3	23718054	V	IP	7.43	0.35	0.0030	0.0223	0.35	0.0030	0.0223	0.50	0.0043	0.0318	0.70	0.0060	0.0446	0.70	0.0060	0.0446
055 16	23720113	V	IP	5.38	0.35	0.0030	0.0161	0.35	0.0030	0.0161	0.50	0.0043	0.0231	0.70	0.0060	0.0323	0.70	0.0060	0.0323
056 3	23721170	V	CIC	1.38	0.35	0.0040	0.0055	0.35	0.0040	0.0055	0.50	0.0057	0.0079	0.70	0.0080	0.0110	0.70	0.0080	0.0110
RD14	23722065	R	IP	5.23	0.35	0.0030	0.0157	0.40	0.0034	0.0179	0.50	0.0043	0.0224	0.70	0.0060	0.0314	0.85	0.0073	0.0381
053 3B	23728046	V	IP	5.32	0.35	0.0030	0.0160	0.35	0.0030	0.0160	0.50	0.0043	0.0228	0.70	0.0060	0.0319	0.70	0.0060	0.0319
053 3C	23728046	V	IP	4.92	0.35	0.0030	0.0148	0.35	0.0030	0.0148	0.50	0.0043	0.0211	0.70	0.0060	0.0295	0.70	0.0060	0.0295
TOTAL				**650.38**			**2.0518**			**2.2892**			**2.9311**			**4.1035**			**4.7804**
PERCENTAGE INCREASE FROM ORIGINAL							**0.0**			**11.6**			**42.9**			**100.0**			**133.0**
GENERAL PLAN FOR THE AREAS LISTED																			

TABLE B
SANITARY SEWER MAINS
RINCON STUDY AREA

Area	Scenario	Portion of Area Redeveloped	Average Flow (cfs)	Peak Flow (cfs)	Infiltration Inflow (15%) (cfs)	Peak + Inflow (cfs)	Pipe Size at Main	Pipe Slope	Pipe Capacity full (cfs)	% Full at Peak Flow	SLOS
50B	Original	14%	0.46	0.92	0.14	1.06	10"	(Est.) .0035	1.28	83	D
S-1 (map)	1		0.48	0.96	0.14	1.10				86	D
(100 2c)	2/3		0.52	1.04	0.16	1.20				94	D
	4		0.59	1.18	0.18	1.36				106	-
	5		0.59	1.18	0.18	1.36				106	-
50B	Original	60%	0.49	0.98	0.15	1.13	10"	(Est.) .0035	1.28	88	D
S-2 (map)	1		0.51	1.02	0.15	1.17				91	D
(105 ac)	2/3		0.59	1.18	0.18	1.36				106	-
	4		0.79	1.58	0.24	1.80				142	-
	5		0.88	1.76	0.26	2.02				158	-
S-3 (Maps 35A, B, C)	Original	42%	0.20	0.40	0.06	0.46	8"	.0030	0.67	67	D
	1		0.22	0.44	0.07	0.51				76	D
(44 ac)	2/3		0.24	0.48	0.08	0.55				82	D
	4		0.30	0.60	0.09	0.69				103	-
	5		0.30	0.60	0.09	0.69				103	-
S-4 (maps 35C,D)	Original	19%	0.17	0.34	0.05	0.39	8"	.0050	0.87	45	-
	1		0.17	0.34	0.05	0.39				45	D
(36 ac)	2/3		0.18	0.36	0.05	0.41				47	D
	4		0.20	0.40	0.06	0.46				53	D
	5		0.21	0.42	0.06	0.48				55	D
S-5	Original	13%	0.19	0.38	0.06	0.44	8"	0.0086	1.14	39	D
Maps	1		0.19	0.38	0.06	0.44				39	D
50 B,C	2/3		0.20	0.4	0.06	0.46				40	D
51 A,C	4		0.21	0.42	0.06	0.48				42	D
40 A,C	5		0.21	0.42	0.06	0.48				42	D

TABLE C
INTERCEPTOR SYSTEM FLOW ANALYSIS OF
BRICK SEWER, 84 INCH RCP, 60 INCH -1986

Phase	MGD				
Column (1)	Capacity (2)	Existing Flow (3)	Surcharge Capacity (4)	Ultimate Required (5)	Capacity Deficit (6)
WPCP					
PHASE I/II - 9085'	158	212	228	276	118
AGNEWS - (A)					
PHASE III - 5930'	166	212	250	267	101
DAGGETT - (B)					
PHASE IV - 2875'	149	212	300	257	108
TRIMBLE ROAD (C)					
PHASE V - 8160'	172	206	300	257	85
HIGHWAY 101 - (E)					
PHASE VI - 4500'	245	178	358	245	0
COMMERC/4TH ST.					
PHASE VII - 6440'	140	178	360	245	104
YOUNGER					
PART PHASE VII	75	86	150	195	120
7TH & EMPIRE					

Existing flow values are based on a limited number of dry weather measurements taken in 1985 & 1986 adjusted to include inflow and infiltration.
Surcharge capacity is the capacity of the line within 1 to 2 ft of spilling out of the manhole.

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: NSJ Sewer

Comment: area s-1, 2

Solve For Full Flow Capacity

Given Input Data:

Diameter.....	0.83 ft (10")
Slope.....	0.0035 ft/ft
Manning's n.....	0.013
Discharge.....	1.28 cfs

Computed Results:

Full Flow Capacity.....	1.28 cfs
Full Flow Depth.....	0.83 ft
Velocity.....	2.37 fps
Flow Area.....	0.54 sf
Critical Depth....	0.51 ft
Percent Full.....	100.00 %
Full Capacity.....	1.28 cfs
QMAX @.94D.....	1.38 cfs
Froude Number.....	FULL

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: NSJ Sewer

Comment: area s-14

Solve For Full Flow Capacity

Given Input Data:

Diameter.....	0.67 ft (8")
Slope.....	0.0050 ft/ft
Manning's n.....	0.013
Discharge.....	0.87 cfs

Computed Results:

Full Flow Capacity.....	0.87 cfs
Full Flow Depth.....	0.67 ft
Velocity.....	2.46 fps
Flow Area.....	0.35 sf
Critical Depth....	0.44 ft
Percent Full.....	100.00 %
Full Capacity.....	0.87 cfs
QMAX @.94D.....	0.93 cfs
Froude Number.....	FULL

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: NSJ Sewer

Comment: area s-13

Solve For Full Flow Capacity

Given Input Data:

Diameter.....	0.67 ft (8")
Slope.....	0.0030 ft/ft
Manning's n.....	0.013
Discharge.....	0.67 cfs

Computed Results:

Full Flow Capacity.....	0.67 cfs
Full Flow Depth.....	0.67 ft
Velocity.....	1.90 fps
Flow Area.....	0.35 sf
Critical Depth....	0.39 ft
Percent Full.....	100.00 %
Full Capacity.....	0.67 cfs
QMAX @.94D.....	0.72 cfs
Froude Number.....	FULL

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name:

Comment:

Solve For Full Flow Capacity

Given Input Data:

Diameter.....	0.67 ft (8")
Slope.....	0.0086 ft/ft
Manning's n.....	0.013
Discharge.....	1.14 cfs

Computed Results:

Full Flow Capacity.....	1.14 cfs
Full Flow Depth.....	0.67 ft
Velocity.....	3.22 fps
Flow Area.....	0.35 sf
Critical Depth....	0.50 ft
Percent Full.....	100.00 %
Full Capacity.....	1.14 cfs
QMAX @.94D.....	1.22 cfs
Froude Number.....	FULL

STORM DRAINAGE SYSTEM
APPENDIX

EXISTING STORM DRAINAGE SYSTEM

SUMMARY OF FLOWS AND CAPACITY

TABLE D
STORM LINES
RINCON STUDY AREA

Storm Drain System	Storm Drain SubSystem	Drainage Basin Area (AC)	Cumulative Area (AC)	Q_2 (cfs)	Q_2 (cfs) Cumulative	Q_5 (cfs)	Q_5 (cfs) Cumulative	Q_{10} (cfs)	Q_{10} (cfs) Cumulative	Pipe Q_{cap} (cfs) Gravity Flow Only
6	-	440	**440**	216	**216**	270	**270**	330	**330**	**92**
7	-	50	**50**	25	**25**	30	**30**	37	**37**	**90**
8	-	43	**43**	21	**21**	26	**26**	32	**32**	**26**
9	9a	260	260	127	127	159	159	195	195	90
	9b	370	630	181	308	225	384	275	410	157
	9c	220	850	108	416	134	518	165	635	184
	$9d_1$	250	1100	123	539	150	668	188	823	
	$9d_2$	190	**1290**	93	**632**	116	**784**	140	**963**	**194**
10	10a	330	330	162	162	200	200	250	250	96
	10b	110	440	54	**216**	67	**267**	83	**333**	**166**
11	11a	185	185	91	91	110	110	140	140	45
	11b	285	**470**	140	**231**	170	**280**	210	**350**	**184** [1]
12	12a	165	165	81	81	100	100	124	124	40
	*12b	155	320	76	**157**	95	**195**	115	**239**	**147** [2]
	12c	400	**720**	196	**353**	245	**440**	300	**539**	**196** [1]
	*	Outside of Study Area, but Contributes Flow to System 12								
	1	Pump Station at Outlet, Total Capacity = 758 cfs								
	2	Pipe Only Carries Flow from Area 12b at this Point								
	Q_x =	Volumetric Flow Rate of Storm Water @ x Yr Event								

existing general plan

North San Jose EIR Study Area:
Vacant and Redevelopable Lands

I.D.	APN	Category	GP	Acres	Existing (ft^2)
RD1	9706032	R	IP	18.45	214,428
047 16A	9706037	V	IP	6.88	
RD2	9706039	R	IP	32.60	454,200
048 11I	9707032	V	IP	3.50	
048 11L	9707034	V	IP	3.86	
048 12D	9707040	V	IP	9.27	
048 11J	9707047	V	IP	5.69	
048 11K	9707056	V	IP	9.31	
048 13F	9709031	V	IP	6.74	
048 13E	9709037	V	IP	5.14	
RD3	9713054	R	IP	9.15	164,586
RD4	9713075	R	IP	22.94	329,894
R77	9714057	V	IP	19.85	10,379
051 13C	9714061	V	IP	6.34	
051 14D	9714075	V	IP	6.94	
051 7E	9715030	V	IP	32.71	
045 4	9725051	V	IP	14.69	
045 3A	9745014	V	IP	10.59	
045 1J	9745021	V	IP	104.40	
RD5	9745023	R	IP	14.23	175,000
RD6	9752013	R	IP	7.51	118,491
RD7	9753006	R	IP	5.26	93,136
RD8	9756003	R	IP	9.24	150,000
RD9	9756005	R	IP	8.24	80,000
046 3	9756008	V	IP	6.05	
RD10	9757010	R	IP	2.15	52,500
RD11	9758001	R	IP	18.50	199,600
RD12	9758003	R	IP	15.18	234,633
045 5B	9760007	V	CIC	4.45	
045 1F	9760008	V	IP	42.05	
051 8C	9766002	V	IP	8.72	
S47	23029074	R	CIC	11.33	202,594
S48	23029075	R	CIC	9.64	163,600
S43	23005007	R	CIC	0.57	
S1	23029017	R	CIC	1.97	25,600
S2	23029018	R	CIC	1.67	26,688
S3	23029022	R	CIC	0.87	11,824
S4	23029026	R	CIC	0.40	1,109
S5	23029034	R	CIC	1.46	16,060
S6	23029041	R	CIC	3.37	36,624
S7	23029042	R	CIC	1.18	7,375
044 3	23029056	V	CIC	6.58	
S8	23029057	R	CIC	7.45	
S42	23029085	R	CIC	5.87	
S9	23501002	R	CIC	0.29	
S10	23501003	R	CIC	1.10	20,160
S11	23501004	R	CIC	1.42	
S44	23501005	R	CIC	0.93	
V2	23502001	V	CIC	0.30	
V1	23502002	V	CIC	0.21	
S12	23502009	R	CIC	0.08	592
S13	23502010	R	CIC	0.35	
S14	23502014	R	CIC	2.97	
S15	23502016	R	CIC	0.50	
S16	23502017	R	CIC	0.57	
S17	23502024	R	CIC	0.09	
S18	23502025	R	CIC	0.64	21,840
S19	23502026	R	CIC	0.53	
S20	23503001	R	CIC	0.65	2,127
S21	23503002	R	CIC	2.51	
S22	23503006	R	CIC	0.29	6,018
S23	23503007	R	CIC	0.22	5,424
S24	23503013	R	CIC	2.15	31,450
S25	23504002	R	CIC	0.70	
S26	23504003	R	CIC	0.62	
S27	23504004	R	CIC	1.25	
S28	23504005	R	CIC	0.77	16,760
S29	23504006	R	CIC	0.44	8,400
S30	23504007	R	CIC	0.55	
S31	23504012	R	CIC	0.96	
S32	23504014	R	CIC	4.97	
S45	23504015	R	CIC	0.74	
S33	23505006	R	CIC	0.72	
V3	23505009	V	CIC	0.42	

existing general plan
North San Jose EIR Study Area:
Vacant and Redevelopable Lands

I.D.	APN	Category	GP	Acres	Existing (ft^2)
058 5	23505010	V	CIC	0.90	
S34	23505014	R	CIC	0.62	
S35	23505015	R	CIC	0.93	6,000
S36	23505016	R	CIC	1.81	
S37	23505018	R	CIC	1.61	
S38	23505022	R	CIC	0.49	
S39	23505025	R	CIC	1.16	
S46	23505026	R	CIC	1.55	
S40	23505033	R	CIC	2.14	21,564
489 17	23703044	V	HI	1.79	
RD13	23703060	R	HI	18.59	28,287
476 7	23705050	V	HI	15.79	
057 1F	23716072	V	IP	16.75	
057 2	23716073	V	CIC	3.27	
052 4	23717168	V	IP	2.41	
054 3	23718054	V	IP	7.43	
055 16	23720113	V	IP	5.38	
056 3	23721170	V	CIC	1.38	
RD14	23722065	R	IP	5.23	81,600
053 3B	23728046	V	IP	5.32	
053 3C	23728046	V	IP	4.92	
TOTAL				**650.38**	**3,018,543**

scenario 1

North San Jose EIR Land Study Area:
Vacant and Redevelopable Lands

C factor, bldg =	0.9								
C factor, land =	0.7								
i for area =	1	in./hr.							
I.D.	APN	Category	GP	Acres	Existing (ft^2)	FAR	New Development (ft^2)	Weighted C factor	Flow (cfs)
RD1	9706032	R	IP	18.45	214,428	0.40	107,045	0.78	14.39
047 16A	9706037	V	IP	6.88		0.40	119,877	0.78	5.37
RD2	9706039	R	IP	32.60	454,200	0.40	113,822	0.78	25.43
048 11I	9707032	V	IP	3.50		0.40	60,914	0.78	2.73
048 11L	9707034	V	IP	3.86		0.40	67,204	0.78	3.01
048 12D	9707040	V	IP	9.27		0.40	161,433	0.78	7.23
048 11J	9707047	V	IP	5.69		0.40	99,143	0.78	4.44
048 11K	9707056	V	IP	9.31		0.40	162,217	0.78	7.26
048 13F	9709031	V	IP	6.74		0.40	117,438	0.78	5.26
048 13E	9709037	V	IP	5.14		0.40	89,612	0.78	4.01
RD3	9713054	R	IP	9.15	164,586	0.40	(5,156)	0.78	7.14
RD4	9713075	R	IP	22.94	329,894	0.40	69,813	0.78	17.89
R77	9714057	V	IP	19.85	10,379	0.40	335,487	0.78	15.48
051 13C	9714061	V	IP	6.34		0.40	110,468	0.78	4.95
051 14D	9714075	V	IP	6.94		0.40	120,905	0.78	5.41
051 7E	9715030	V	IP	32.71		0.35	498,697	0.77	25.19
045 4	9725051	V	IP	14.69		0.35	223,948	0.77	11.31
045 3A	9745014	V	IP	10.59		0.40	184,590	0.78	8.26
045 1J	9745021	V	IP	104.40		0.40	1,819,066	0.78	81.43
RD5	9745023	R	IP	14.23	175,000	0.40	72,944	0.78	11.10
RD6	9752013	R	IP	7.51	118,491	0.35	(3,994)	0.77	5.78
RD7	9753006	R	IP	5.26	93,136	0.35	(12,942)	0.77	4.05
RD8	9756003	R	IP	9.24	150,000	0.40	10,998	0.78	7.21
RD9	9756005	R	IP	8.24	80,000	0.40	63,574	0.78	6.43
046 3	9756008	V	IP	6.05		0.40	105,328	0.78	4.72
RD10	9757010	R	IP	2.15	52,500	0.40	(15,038)	0.78	1.68
RD11	9758001	R	IP	18.50	199,600	0.40	122,744	0.78	14.43
RD12	9758003	R	IP	15.18	234,633	0.40	29,863	0.78	11.84
045 5B	9760007	V	CIC	4.45		0.40	77,537	0.78	3.47
045 1F	9760008	V	IP	42.05		0.40	732,679	0.78	32.80
051 8C	9766002	V	IP	8.72		0.35	132,945	0.77	6.71
S47	23029074	R	CIC	11.33	202,594	0.40	(5,180)	0.78	8.84
S48	23029075	R	CIC	9.64	163,600	0.40	4,367	0.78	7.52
S43	23005007	R	CIC	0.57		0.40	9,932	0.78	0.44
S1	23029017	R	CIC	1.97	25,600	0.40	8,725	0.78	1.54
S2	23029018	R	CIC	1.67	26,688	0.40	2,410	0.78	1.30
S3	23029022	R	CIC	0.87	11,824	0.40	3,335	0.78	0.68
S4	23029026	R	CIC	0.40	1,109	0.40	5,861	0.78	0.31
S5	23029034	R	CIC	1.46	16,060	0.40	9,379	0.78	1.14
S6	23029041	R	CIC	3.37	36,624	0.40	22,095	0.78	2.63
S7	23029042	R	CIC	1.18	7,375	0.40	13,185	0.78	0.92
044 3	23029056	V	CIC	6.58		0.40	114,650	0.78	5.13
S8	23029057	R	CIC	7.45		0.40	129,809	0.78	5.81
S42	23029085	R	CIC	5.87		0.40	102,279	0.78	4.58
S9	23501002	R	CIC	0.29		0.40	5,053	0.78	0.23
S10	23501003	R	CIC	1.10	20,160	0.40	(994)	0.78	0.86
S11	23501004	R	CIC	1.42		0.40	24,742	0.78	1.11
S44	23501005	R	CIC	0.93		0.40	16,204	0.78	0.73
V2	23502001	V	CIC	0.30		0.40	5,227	0.78	0.23
V1	23502002	V	CIC	0.21		0.40	3,659	0.78	0.16
S12	23502009	R	CIC	0.08	592	0.40	802	0.78	0.06
S13	23502010	R	CIC	0.35		0.40	6,098	0.78	0.27
S14	23502014	R	CIC	2.97		0.40	51,749	0.78	2.32
S15	23502016	R	CIC	0.50		0.40	8,712	0.78	0.39
S16	23502017	R	CIC	0.57		0.40	9,932	0.78	0.44
S17	23502024	R	CIC	0.09		0.40	1,568	0.78	0.07
S18	23502025	R	CIC	0.64	21,840	0.40	(10,689)	0.78	0.50
S19	23502026	R	CIC	0.53		0.40	9,235	0.78	0.41
S20	23503001	R	CIC	0.65	2,127	0.40	9,199	0.78	0.51
S21	23503002	R	CIC	2.51		0.40	43,734	0.78	1.96
S22	23503006	R	CIC	0.29	6,018	0.40	(965)	0.78	0.23
S23	23503007	R	CIC	0.22	5,424	0.40	(1,591)	0.78	0.17
S24	23503013	R	CIC	2.15	31,450	0.40	6,012	0.78	1.68
S25	23504002	R	CIC	0.70		0.40	12,197	0.78	0.55
S26	23504003	R	CIC	0.62		0.40	10,803	0.78	0.48
S27	23504004	R	CIC	1.25		0.40	21,780	0.78	0.98
S28	23504005	R	CIC	0.77	16,760	0.40	(3,344)	0.78	0.60
S29	23504006	R	CIC	0.44	8,400	0.40	(733)	0.78	0.34
S30	23504007	R	CIC	0.55		0.40	9,583	0.78	0.43
S31	23504012	R	CIC	0.96		0.40	16,727	0.78	0.75
S32	23504014	R	CIC	4.97		0.40	86,597	0.78	3.88
S45	23504015	R	CIC	0.74		0.40	12,894	0.78	0.58
S33	23505006	R	CIC	0.72		0.40	12,545	0.78	0.56
V3	23505009	V	CIC	0.42		0.40	7,318	0.78	0.33

scenario 1

North San Jose EIR Land Study Area:
Vacant and Redevelopable Lands

I.D.	APN	Category	GP	Acres	Existing (ft^2)	FAR	New Development (ft^2)	Weighted C factor	Flow (cfs)
058 5	23505010	V	CIC	0.90		0.40	15,699	0.78	0.70
S34	23505014	R	CIC	0.62		0.40	10,803	0.78	0.48
S35	23505015	R	CIC	0.93	6,000	0.40	10,204	0.78	0.73
S36	23505016	R	CIC	1.81		0.40	31,537	0.78	1.41
S37	23505018	R	CIC	1.61		0.40	28,053	0.78	1.26
S38	23505022	R	CIC	0.49		0.40	8,538	0.78	0.38
S39	23505025	R	CIC	1.16		0.40	20,212	0.78	0.90
S46	23505026	R	CIC	1.55		0.40	27,007	0.78	1.21
S40	23505033	R	CIC	2.14	21,564	0.40	15,723	0.78	1.67
489 17	23703044	V	HI	1.79		0.35	27,290	0.77	1.38
RD13	23703060	R	HI	18.59	28,287	0.35	255,136	0.77	14.31
476 7	23705050	V	HI	15.79		0.35	240,734	0.77	12.16
057 1F	23716072	V	IP	16.75		0.40	291,852	0.78	13.07
057 2	23716073	V	CIC	3.27		0.40	56,889	0.78	2.55
052 4	23717168	V	IP	2.41		0.40	41,974	0.78	1.88
054 3	23718054	V	IP	7.43		0.35	113,278	0.77	5.72
055 16	23720113	V	IP	5.38		0.35	82,023	0.77	4.14
056 3	23721170	V	CIC	1.38		0.35	21,039	0.77	1.06
RD14	23722065	R	IP	5.23	81,600	0.40	9,528	0.78	4.08
053 3B	23728046	V	IP	5.32		0.35	81,109	0.77	4.10
053 3C	23728046	V	IP	4.92		0.35	75,010	0.77	3.79
TOTAL				**650.38**	**3,018,543**		**8,031,703**		**506.00**

C factor, bldg =	0.9								
C factor, land =	0.7								
i for area =	1	in./hr.							
I.D.	APN	Category	GP	Acres	Existing (ft^2)	FAR	New Development (ft^2)	Weighted C factor	Flow (cfs)
RD1	9706032	R	IP	18.45	214,428	0.50	187,413	0.80	14.76
047 16A	9706037	V	IP	6.88		0.50	149,846	0.80	5.50
RD2	9706039	R	IP	32.60	454,200	0.50	255,828	0.80	26.08
048 11I	9707032	V	IP	3.50		0.50	76,143	0.80	2.80
048 11L	9707034	V	IP	3.86		0.50	84,005	0.80	3.09
048 12D	9707040	V	IP	9.27		0.50	201,792	0.80	7.41
048 11J	9707047	V	IP	5.69		0.50	123,928	0.80	4.55
048 11K	9707056	V	IP	9.31		0.50	202,772	0.80	7.45
048 13F	9709031	V	IP	6.74		0.50	146,797	0.80	5.39
048 13E	9709037	V	IP	5.14		0.50	112,015	0.80	4.11
RD3	9713054	R	IP	9.15	164,586	0.50	34,701	0.80	7.32
RD4	9713075	R	IP	22.94	329,894	0.50	169,739	0.80	18.35
R77	9714057	V	IP	19.85	10,379	0.50	421,954	0.80	15.88
051 13C	9714061	V	IP	6.34		0.50	138,085	0.80	5.07
051 14D	9714075	V	IP	6.94		0.50	151,131	0.80	5.55
051 7E	9715030	V	IP	32.71		0.50	712,424	0.80	26.17
045 4	9725051	V	IP	14.69		0.50	319,926	0.80	11.75
045 3A	9745014	V	IP	10.59		0.50	230,737	0.80	8.48
045 1J	9745021	V	IP	104.40		0.50	2,273,832	0.80	83.52
RD5	9745023	R	IP	14.23	175,000	0.50	134,929	0.80	11.38
RD6	9752013	R	IP	7.51	118,491	0.50	45,077	0.80	6.01
RD7	9753006	R	IP	5.26	93,136	0.50	21,427	0.80	4.21
RD8	9756003	R	IP	9.24	150,000	0.50	51,247	0.80	7.39
RD9	9756005	R	IP	8.24	80,000	0.50	99,467	0.80	6.59
046 3	9756008	V	IP	6.05		0.50	131,660	0.80	4.84
RD10	9757010	R	IP	2.15	52,500	0.50	(5,673)	0.80	1.72
RD11	9758001	R	IP	18.50	199,600	0.50	203,330	0.80	14.80
RD12	9758003	R	IP	15.18	234,633	0.50	95,987	0.80	12.14
045 5B	9760007	V	CIC	4.45		0.50	96,921	0.80	3.56
045 1F	9760008	V	IP	42.05		0.50	915,849	0.80	33.64
051 8C	9766002	V	IP	8.72		0.50	189,922	0.80	6.98
S47	23029074	R	CIC	11.33	202,594	0.50	44,173	0.80	9.06
S48	23029075	R	CIC	9.64	163,600	0.50	46,359	0.80	7.71
S43	23005007	R	CIC	0.57		0.50	12,415	0.80	0.46
S1	23029017	R	CIC	1.97	25,600	0.50	17,307	0.80	1.58
S2	23029018	R	CIC	1.67	26,688	0.50	9,685	0.80	1.34
S3	23029022	R	CIC	0.87	11,824	0.50	7,125	0.80	0.70
S4	23029026	R	CIC	0.40	1,109	0.50	7,603	0.80	0.32
S5	23029034	R	CIC	1.46	16,060	0.50	15,739	0.80	1.17
S6	23029041	R	CIC	3.37	36,624	0.50	36,775	0.80	2.70
S7	23029042	R	CIC	1.18	7,375	0.50	18,325	0.80	0.94
044 3	23029056	V	CIC	6.58		0.50	143,312	0.80	5.26
S8	23029057	R	CIC	7.45		0.50	162,261	0.80	5.96
S42	23029085	R	CIC	5.87		0.50	127,849	0.80	4.70
S9	23501002	R	CIC	0.29		0.50	6,316	0.80	0.23
S10	23501003	R	CIC	1.10	20,160	0.50	3,798	0.80	0.88
S11	23501004	R	CIC	1.42		0.50	30,928	0.80	1.14
S44	23501005	R	CIC	0.93		0.50	20,255	0.80	0.74
V2	23502001	V	CIC	0.30		0.50	6,534	0.80	0.24
V1	23502002	V	CIC	0.21		0.50	4,574	0.80	0.17
S12	23502009	R	CIC	0.08	592	0.50	1,150	0.80	0.06
S13	23502010	R	CIC	0.35		0.50	7,623	0.80	0.28
S14	23502014	R	CIC	2.97		0.50	64,687	0.80	2.38
S15	23502016	R	CIC	0.50		0.50	10,890	0.80	0.40
S16	23502017	R	CIC	0.57		0.50	12,415	0.80	0.46
S17	23502024	R	CIC	0.09		0.50	1,960	0.80	0.07
S18	23502025	R	CIC	0.64	21,840	0.50	(7,901)	0.80	0.51
S19	23502026	R	CIC	0.53		0.50	11,543	0.80	0.42
S20	23503001	R	CIC	0.65	2,127	0.50	12,030	0.80	0.52
S21	23503002	R	CIC	2.51		0.50	54,668	0.80	2.01
S22	23503006	R	CIC	0.29	6,018	0.50	298	0.80	0.23
S23	23503007	R	CIC	0.22	5,424	0.50	(632)	0.80	0.18
S24	23503013	R	CIC	2.15	31,450	0.50	15,377	0.80	1.72
S25	23504002	R	CIC	0.70		0.50	15,246	0.80	0.56
S26	23504003	R	CIC	0.62		0.50	13,504	0.80	0.50
S27	23504004	R	CIC	1.25		0.50	27,225	0.80	1.00
S28	23504005	R	CIC	0.77	16,760	0.50	11	0.80	0.62
S29	23504006	R	CIC	0.44	8,400	0.50	1,183	0.80	0.35
S30	23504007	R	CIC	0.55		0.50	11,979	0.80	0.44
S31	23504012	R	CIC	0.96		0.50	20,909	0.80	0.77
S32	23504014	R	CIC	4.97		0.50	108,247	0.80	3.98
S45	23504015	R	CIC	0.74		0.50	16,117	0.80	0.59
S33	23505006	R	CIC	0.72		0.50	15,682	0.80	0.58
V3	23505009	V	CIC	0.42		0.50	9,148	0.80	0.34

scenario 2 & 3

North San Jose EIR Land Study Area:
Vacant and Redevelopable Lands

I.D.	APN	Category	GP	Acres	Existing (ft^2)	FAR	New Development (ft^2)	Weighted C factor	Flow (cfs)
058 5	23505010	V	CIC	0.90		0.50	19,624	0.80	0.72
S34	23505014	R	CIC	0.62		0.50	13,504	0.80	0.50
S35	23505015	R	CIC	0.93	6,000	0.50	14,255	0.80	0.74
S36	23505016	R	CIC	1.81		0.50	39,422	0.80	1.45
S37	23505018	R	CIC	1.61		0.50	35,066	0.80	1.29
S38	23505022	R	CIC	0.49		0.50	10,672	0.80	0.39
S39	23505025	R	CIC	1.16		0.50	25,265	0.80	0.93
S46	23505026	R	CIC	1.55		0.50	33,759	0.80	1.24
S40	23505033	R	CIC	2.14	21,564	0.50	25,045	0.80	1.71
489 17	23703044	V	HI	1.79		0.50	38,986	0.80	1.43
RD13	23703060	R	HI	18.59	28,287	0.50	376,603	0.80	14.87
476 7	23705050	V	HI	15.79		0.50	343,906	0.80	12.63
057 1F	23716072	V	IP	16.75		0.50	364,815	0.80	13.40
057 2	23716073	V	CIC	3.27		0.50	71,112	0.80	2.61
052 4	23717168	V	IP	2.41		0.50	52,468	0.80	1.93
054 3	23718054	V	IP	7.43		0.50	161,825	0.80	5.94
055 16	23720113	V	IP	5.38		0.50	117,176	0.80	4.30
056 3	23721170	V	CIC	1.38		0.50	30,056	0.80	1.10
RD14	23722065	R	IP	5.23	81,600	0.50	32,309	0.80	4.18
053 3B	23728046	V	IP	5.32		0.50	115,870	0.80	4.26
053 3C	23728046	V	IP	4.92		0.50	107,158	0.80	3.94
TOTAL				**650.38**	**3,018,543**		**11,146,799**		**520.31**

C factor, bldg =	0.9								
C factor, land =	0.7								
i for area =	1	in./hr.							
I.D.	APN	Category	GP	Acres	Existing (ft^2)	FAR	New Development (ft^2)	Weighted C factor	Flow (cfs)
RD1	9706032	R	IP	18.45	214,428	0.70	348,149	0.84	15.50
047 16A	9706037	V	IP	6.88		0.70	209,785	0.84	5.78
RD2	9706039	R	IP	32.60	454,200	0.70	539,839	0.84	27.38
048 11I	9707032	V	IP	3.50		0.70	106,600	0.84	2.94
048 11L	9707034	V	IP	3.86		0.70	117,608	0.84	3.24
048 12D	9707040	V	IP	9.27		0.70	282,508	0.84	7.78
048 11J	9707047	V	IP	5.69		0.70	173,499	0.84	4.78
048 11K	9707056	V	IP	9.31		0.70	283,881	0.84	7.82
048 13F	9709031	V	IP	6.74		0.70	205,516	0.84	5.66
048 13E	9709037	V	IP	5.14		0.70	156,820	0.84	4.32
RD3	9713054	R	IP	9.15	164,586	0.70	114,416	0.84	7.69
RD4	9713075	R	IP	22.94	329,894	0.70	369,592	0.84	19.27
R77	9714057	V	IP	19.85	10,379	0.70	594,887	0.84	16.67
051 13C	9714061	V	IP	6.34		0.70	193,319	0.84	5.33
051 14D	9714075	V	IP	6.94		0.70	211,584	0.84	5.83
051 7E	9715030	V	IP	32.71		0.70	997,393	0.84	27.48
045 4	9725051	V	IP	14.69		0.70	447,897	0.84	12.34
045 3A	9745014	V	IP	10.59		0.70	323,032	0.84	8.90
045 1J	9745021	V	IP	104.40		0.70	3,183,365	0.84	87.70
RD5	9745023	R	IP	14.23	175,000	0.70	258,901	0.84	11.95
RD6	9752013	R	IP	7.51	118,491	0.70	110,504	0.84	6.31
RD7	9753006	R	IP	5.26	93,136	0.70	67,252	0.84	4.42
RD8	9756003	R	IP	9.24	150,000	0.70	131,746	0.84	7.76
RD9	9756005	R	IP	8.24	80,000	0.70	171,254	0.84	6.92
046 3	9756008	V	IP	6.05		0.70	184,324	0.84	5.08
RD10	9757010	R	IP	2.15	52,500	0.70	13,058	0.84	1.81
RD11	9758001	R	IP	18.50	199,600	0.70	364,502	0.84	15.54
RD12	9758003	R	IP	15.18	234,633	0.70	228,236	0.84	12.75
045 5B	9760007	V	CIC	4.45		0.70	135,689	0.84	3.74
045 1F	9760008	V	IP	42.05		0.70	1,282,189	0.84	35.32
051 8C	9766002	V	IP	8.72		0.70	265,890	0.84	7.32
S47	23029074	R	CIC	11.33	202,594	0.70	142,880	0.84	9.52
S48	23029075	R	CIC	9.64	163,600	0.70	130,343	0.84	8.10
S43	23005007	R	CIC	0.57		0.70	17,380	0.84	0.48
S1	23029017	R	CIC	1.97	25,600	0.70	34,469	0.84	1.65
S2	23029018	R	CIC	1.67	26,688	0.70	24,234	0.84	1.40
S3	23029022	R	CIC	0.87	11,824	0.70	14,704	0.84	0.73
S4	23029026	R	CIC	0.40	1,109	0.70	11,088	0.84	0.34
S5	23029034	R	CIC	1.46	16,060	0.70	28,458	0.84	1.23
S6	23029041	R	CIC	3.37	36,624	0.70	66,134	0.84	2.83
S7	23029042	R	CIC	1.18	7,375	0.70	28,606	0.84	0.99
044 3	23029056	V	CIC	6.58		0.70	200,637	0.84	5.53
S8	23029057	R	CIC	7.45		0.70	227,165	0.84	6.26
S42	23029085	R	CIC	5.87		0.70	178,988	0.84	4.93
S9	23501002	R	CIC	0.29		0.70	8,843	0.84	0.24
S10	23501003	R	CIC	1.10	20,160	0.70	13,381	0.84	0.92
S11	23501004	R	CIC	1.42		0.70	43,299	0.84	1.19
S44	23501005	R	CIC	0.93		0.70	28,358	0.84	0.78
V2	23502001	V	CIC	0.30		0.70	9,148	0.84	0.25
V1	23502002	V	CIC	0.21		0.70	6,403	0.84	0.18
S12	23502009	R	CIC	0.08	592	0.70	1,847	0.84	0.07
S13	23502010	R	CIC	0.35		0.70	10,672	0.84	0.29
S14	23502014	R	CIC	2.97		0.70	90,561	0.84	2.49
S15	23502016	R	CIC	0.50		0.70	15,246	0.84	0.42
S16	23502017	R	CIC	0.57		0.70	17,380	0.84	0.48
S17	23502024	R	CIC	0.09		0.70	2,744	0.84	0.08
S18	23502025	R	CIC	0.64	21,840	0.70	(2,325)	0.84	0.54
S19	23502026	R	CIC	0.53		0.70	16,161	0.84	0.45
S20	23503001	R	CIC	0.65	2,127	0.70	17,693	0.84	0.55
S21	23503002	R	CIC	2.51		0.70	76,535	0.84	2.11
S22	23503006	R	CIC	0.29	6,018	0.70	2,825	0.84	0.24
S23	23503007	R	CIC	0.22	5,424	0.70	1,284	0.84	0.18
S24	23503013	R	CIC	2.15	31,450	0.70	34,108	0.84	1.81
S25	23504002	R	CIC	0.70		0.70	21,344	0.84	0.59
S26	23504003	R	CIC	0.62		0.70	18,905	0.84	0.52
S27	23504004	R	CIC	1.25		0.70	38,115	0.84	1.05
S28	23504005	R	CIC	0.77	16,760	0.70	6,719	0.84	0.65
S29	23504006	R	CIC	0.44	8,400	0.70	5,016	0.84	0.37
S30	23504007	R	CIC	0.55		0.70	16,771	0.84	0.46
S31	23504012	R	CIC	0.96		0.70	29,272	0.84	0.81
S32	23504014	R	CIC	4.97		0.70	151,545	0.84	4.17
S45	23504015	R	CIC	0.74		0.70	22,564	0.84	0.62
S33	23505006	R	CIC	0.72		0.70	21,954	0.84	0.60
V3	23505009	V	CIC	0.42		0.70	12,807	0.84	0.35

scenario 4
North San Jose EIR Study Area:
Vacant and Redevelopable Lands

I.D.	APN	Category	GP	Acres	Existing (ft^2)	FAR	New Development (ft^2)	Weighted C factor	Flow (cfs)
058 5	23505010	V	CIC	0.90		0.70	27,473	0.84	0.76
S34	23505014	R	CIC	0.62		0.70	18,905	0.84	0.52
S35	23505015	R	CIC	0.93	6,000	0.70	22,358	0.84	0.78
S36	23505016	R	CIC	1.81		0.70	55,191	0.84	1.52
S37	23505018	R	CIC	1.61		0.70	49,092	0.84	1.35
S38	23505022	R	CIC	0.49		0.70	14,941	0.84	0.41
S39	23505025	R	CIC	1.16		0.70	35,371	0.84	0.97
S46	23505026	R	CIC	1.55		0.70	47,263	0.84	1.30
S40	23505033	R	CIC	2.14	21,564	0.70	43,689	0.84	1.80
489 17	23703044	V	HI	1.79		0.70	54,581	0.84	1.50
RD13	23703060	R	HI	18.59	28,287	0.70	538,559	0.84	15.62
476 7	23705050	V	HI	15.79		0.70	481,469	0.84	13.26
057 1F	23716072	V	IP	16.75		0.70	510,741	0.84	14.07
057 2	23716073	V	CIC	3.27		0.70	99,556	0.84	2.74
052 4	23717168	V	IP	2.41		0.70	73,455	0.84	2.02
054 3	23718054	V	IP	7.43		0.70	226,556	0.84	6.24
055 16	23720113	V	IP	5.38		0.70	164,047	0.84	4.52
056 3	23721170	V	CIC	1.38		0.70	42,079	0.84	1.16
RD14	23722065	R	IP	5.23	81,600	0.70	77,873	0.84	4.39
053 3B	23728046	V	IP	5.32		0.70	162,217	0.84	4.47
053 3C	23728046	V	IP	4.92		0.70	150,021	0.84	4.13
TOTAL				**650.38**	**3,018,543**		**16,812,935**		**546.32**

C factor, bldg =	0.9								
C factor, land =	0.7								
i for area =	1	in./hr.							
I.D.	APN	Category	GP	Acres	Existing (ft^2)	FAR	Total Development (ft^2)	Weighted C factor	Flow (cfs)
RD1	9706032	R	IP	18.45	214,428	0.85	683,130	0.87	16.05
047 16A	9706037	V	IP	6.88		0.70	209,785	0.84	5.78
RD2	9706039	R	IP	32.60	454,200	0.85	1,207,048	0.87	28.36
048 11I	9707032	V	IP	3.50		0.70	106,600	0.84	2.94
048 11L	9707034	V	IP	3.86		0.85	142,809	0.87	3.36
048 12D	9707040	V	IP	9.27		0.85	343,046	0.87	8.06
048 11J	9707047	V	IP	5.69		0.70	173,499	0.84	4.78
048 11K	9707056	V	IP	9.31		0.70	283,881	0.84	7.82
048 13F	9709031	V	IP	6.74		0.85	249,555	0.87	5.86
048 13E	9709037	V	IP	5.14		0.85	190,425	0.87	4.47
RD3	9713054	R	IP	9.15	164,586	0.85	338,788	0.87	7.96
RD4	9713075	R	IP	22.94	329,894	0.85	849,376	0.87	19.96
R77	9714057	V	IP	19.85	10,379	0.70	605,266	0.84	16.67
051 13C	9714061	V	IP	6.34		0.70	193,319	0.84	5.33
051 14D	9714075	V	IP	6.94		0.70	211,584	0.84	5.83
051 7E	9715030	V	IP	32.71		0.70	997,393	0.84	27.48
045 4	9725051	V	IP	14.69		0.70	447,897	0.84	12.34
045 3A	9745014	V	IP	10.59		0.85	392,253	0.87	9.22
045 1J	9745021	V	IP	104.40		0.85	3,865,514	0.87	90.83
RD5	9745023	R	IP	14.23	175,000	0.85	526,880	0.87	12.38
RD6	9752013	R	IP	7.51	118,491	0.85	278,065	0.87	6.53
RD7	9753006	R	IP	5.26	93,136	0.85	194,757	0.87	4.58
RD8	9756003	R	IP	9.24	150,000	0.85	342,120	0.87	8.04
RD9	9756005	R	IP	8.24	80,000	0.85	305,094	0.87	7.17
046 3	9756008	V	IP	6.05		0.85	223,822	0.87	5.26
RD10	9757010	R	IP	2.15	52,500	0.85	79,606	0.87	1.87
RD11	9758001	R	IP	18.50	199,600	0.70	564,102	0.84	15.54
RD12	9758003	R	IP	15.18	234,633	0.70	462,869	0.84	12.75
045 5B	9760007	V	CIC	4.45		0.85	164,766	0.87	3.87
045 1F	9760008	V	IP	42.05		0.85	1,556,943	0.87	36.58
051 8C	9766002	V	IP	8.72		0.70	265,890	0.84	7.32
S47	23029074	R	CIC	11.33	202,594	1.00	493,535	0.90	10.20
S48	23029075	R	CIC	9.64	163,600	1.00	419,918	0.90	8.68
S43	23005007	R	CIC	0.57		0.85	21,105	0.87	0.50
S1	23029017	R	CIC	1.97	25,600	0.85	72,941	0.87	1.71
S2	23029018	R	CIC	1.67	26,688	0.85	61,833	0.87	1.45
S3	23029022	R	CIC	0.87	11,824	0.85	32,213	0.87	0.76
S4	23029026	R	CIC	0.40	1,109	0.85	14,810	0.87	0.35
S5	23029034	R	CIC	1.46	16,060	0.85	54,058	0.87	1.27
S6	23029041	R	CIC	3.37	36,624	0.85	124,778	0.87	2.93
S7	23029042	R	CIC	1.18	7,375	0.85	43,691	0.87	1.03
044 3	23029056	V	CIC	6.58		0.85	243,631	0.87	5.72
S8	23029057	R	CIC	7.45		0.85	275,844	0.87	6.48
S42	23029085	R	CIC	5.87		0.85	217,343	0.87	5.11
S9	23501002	R	CIC	0.29		0.85	10,738	0.87	0.25
S10	23501003	R	CIC	1.10	20,160	0.85	40,729	0.87	0.96
S11	23501004	R	CIC	1.42		0.85	52,577	0.87	1.24
S44	23501005	R	CIC	0.93		0.85	34,434	0.87	0.81
V2	23502001	V	CIC	0.30		0.85	11,108	0.87	0.26
V1	23502002	V	CIC	0.21		0.85	7,775	0.87	0.18
S12	23502009	R	CIC	0.08	592	0.85	2,962	0.87	0.07
S13	23502010	R	CIC	0.35		0.85	12,959	0.87	0.30
S14	23502014	R	CIC	2.97		0.85	109,967	0.87	2.58
S15	23502016	R	CIC	0.50		0.85	18,513	0.87	0.44
S16	23502017	R	CIC	0.57		0.85	21,105	0.87	0.50
S17	23502024	R	CIC	0.09		0.85	3,332	0.87	0.08
S18	23502025	R	CIC	0.64	21,840	0.85	23,697	0.87	0.56
S19	23502026	R	CIC	0.53		0.85	19,624	0.87	0.46
S20	23503001	R	CIC	0.65	2,127	0.85	24,067	0.87	0.57
S21	23503002	R	CIC	2.51		0.85	92,935	0.87	2.18
S22	23503006	R	CIC	0.29	6,018	0.85	10,738	0.87	0.25
S23	23503007	R	CIC	0.22	5,424	0.85	8,146	0.87	0.19
S24	23503013	R	CIC	2.15	31,450	0.85	79,606	0.87	1.87
S25	23504002	R	CIC	0.70		1.00	30,492	0.90	0.63
S26	23504003	R	CIC	0.62		1.00	27,007	0.90	0.56
S27	23504004	R	CIC	1.25		1.00	54,450	0.90	1.13
S28	23504005	R	CIC	0.77	16,760	1.00	33,541	0.90	0.69
S29	23504006	R	CIC	0.44	8,400	1.00	19,166	0.90	0.40
S30	23504007	R	CIC	0.55		1.00	23,958	0.90	0.50
S31	23504012	R	CIC	0.96		1.00	41,818	0.90	0.86
S32	23504014	R	CIC	4.97		1.00	216,493	0.90	4.47
S45	23504015	R	CIC	0.74		1.00	32,234	0.90	0.67
S33	23505006	R	CIC	0.72		0.85	26,659	0.87	0.63
V3	23505009	V	CIC	0.42		0.85	15,551	0.87	0.37

scenario 5
North San Jose EIR Study Area:
Vacant and Redevelopable Lands

I.D.	APN	Category	GP	Acres	Existing (ft^2)	FAR	Total Development (ft^2)	Weighted C factor	Flow (cfs)
058 5	23505010	V	CIC	0.90		0.85	33,360	0.87	0.78
S34	23505014	R	CIC	0.62		0.85	22,956	0.87	0.54
S35	23505015	R	CIC	0.93	6,000	0.85	34,434	0.87	0.81
S36	23505016	R	CIC	1.81		0.85	67,017	0.87	1.57
S37	23505018	R	CIC	1.61		1.00	70,132	0.90	1.45
S38	23505022	R	CIC	0.49		1.00	21,344	0.90	0.44
S39	23505025	R	CIC	1.16		1.00	50,530	0.90	1.04
S46	23505026	R	CIC	1.55		1.00	67,518	0.90	1.40
S40	23505033	R	CIC	2.14	21,564	1.00	93,218	0.90	1.93
489 17	23703044	V	HI	1.79		0.70	54,581	0.84	1.50
RD13	23703060	R	HI	18.59	28,287	0.70	566,846	0.84	15.62
476 7	23705050	V	HI	15.79		0.70	481,469	0.84	13.26
057 1F	23716072	V	IP	16.75		0.85	620,186	0.87	14.57
057 2	23716073	V	CIC	3.27		0.85	120,890	0.87	2.84
052 4	23717168	V	IP	2.41		0.85	89,196	0.87	2.10
054 3	23718054	V	IP	7.43		0.70	226,556	0.84	6.24
055 16	23720113	V	IP	5.38		0.70	164,047	0.84	4.52
056 3	23721170	V	CIC	1.38		0.70	42,079	0.84	1.16
RD14	23722065	R	IP	5.23	81,600	0.85	193,646	0.87	4.55
053 3B	23728046	V	IP	5.32		0.70	162,217	0.84	4.47
053 3C	23728046	V	IP	4.92		0.70	150,021	0.84	4.13
TOTAL				**650.38**	**3,018,543**		**22,970,406**		**560.73**