DRAINAGE PROJECTS

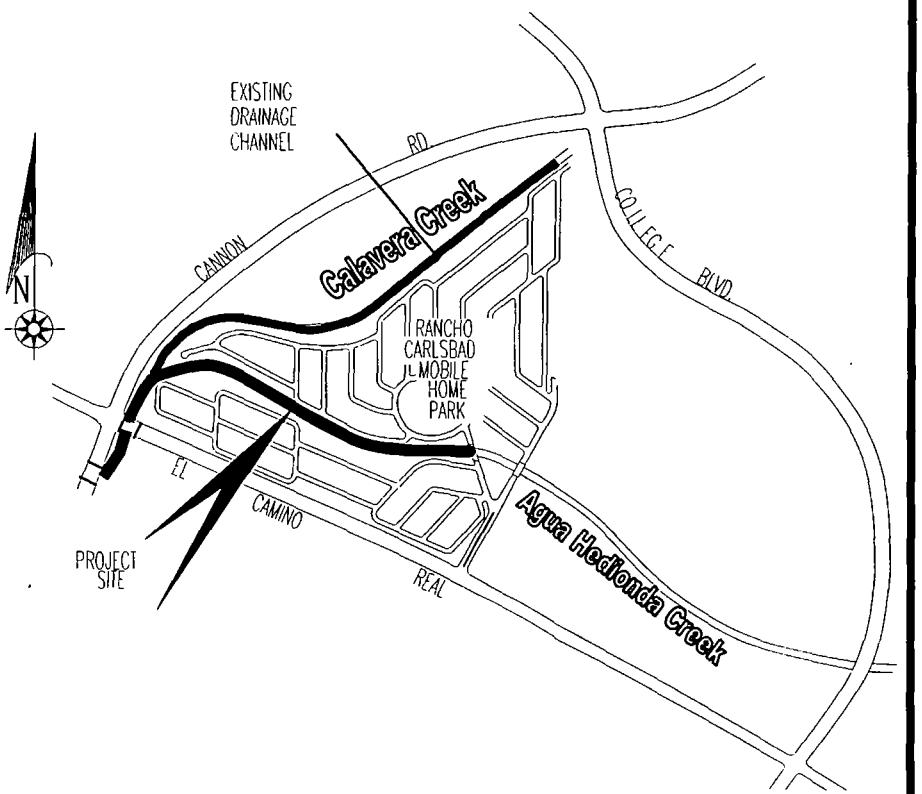
DRAINAGE PROJECTS

CAPITAL PROJECT DESCRIPTION

33381
PROJECT NO.

DRAINAGE PROJECTS – AGUA HEDIONDA CHANNEL IMPROVEMENTS
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Along the Agua Hedionda Creek Channel from the downstream edge of the Cannon Road bridge to approximately 3,100 feet upstream of the El Camino Real bridge.

PROJECT DESCRIPTION:

The proposed work includes dredging approximately 40,000 cubic yards of accumulated sediment from within the Agua Hedionda channel, widening and improvement of the channel at the confluence of the Agua Hedionda and Calavera Creeks, reconstruction of the bridge piers under El Camino Real to streamline flows and reduce potential blockages, stabilization of the Calavera Creek channel and mitigation work for the impacts associated with the channel improvement project. Further studies will determine the scope of the mitigation work and the construction costs associated with mitigation and construction. The project may also include removal of the weir wall at the confluence of Calavera Creek with Little Encinas Creek and modifications to the outlet structure at Basin BJB.

PROJECT NEED:

Required by the Drainage Master Plan to mitigate potential flooding impacts to the Rancho Carlsbad Mobile Home Park development.

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies/Design	$1,260,500	PLDA "B" Fees
Total Cost =	**$1,260,500**	

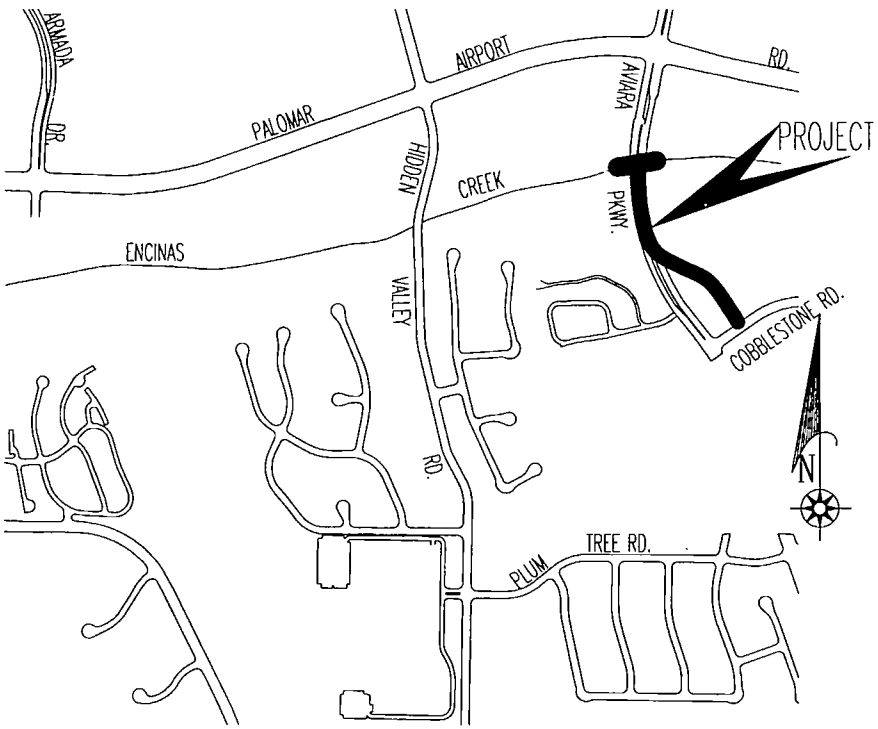
CAPITAL PROJECT DESCRIPTION

38041
PROJECT NO.

DRAINAGE PROJECTS - AVIARA PARKWAY STORM DRAIN REIMBURSEMENT

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Along Aviara Parkway from Cobblestone Road to Encinas Creek.

PROJECT DESCRIPTION:

Reimbursement to developers for the construction of portions of Master Storm Drainage Facilities "C" and CFA. The constructed facility consisted of approximately 526 feet of 72-inch RCP and 1,257 feet of 66-inch RCP. The developer also constructed a portion of Master Storm Drainage Facility "C" consisting of approximately 150 feet of double barreled 8-foot by 8-foot box culvert beneath Aviara Parkway at Encinas Creek. A complete audit of construction costs for eligibility requirements will be undertaken prior to reimbursing the developer from the PLDA fund. The constructed facilities are in excess of the facilities identified in the Master Drainage Plan. Reimbursement will not exceed the value of the improvement costs as estimated in the Master Drainage Plan without first amending the Master Drainage Plan and revising the PLDA fees accordingly.

PROJECT NEED:

The above described Master Drainage Plan facilities were recently constructed by a developer. Pursuant to the provisions of the Local Drainage Area (PLDA) Fee Program, the developer is eligible to receive reimbursement for the cost of constructing these facilities in excess of the PLDA fees required of the developing project.

FINANCING:

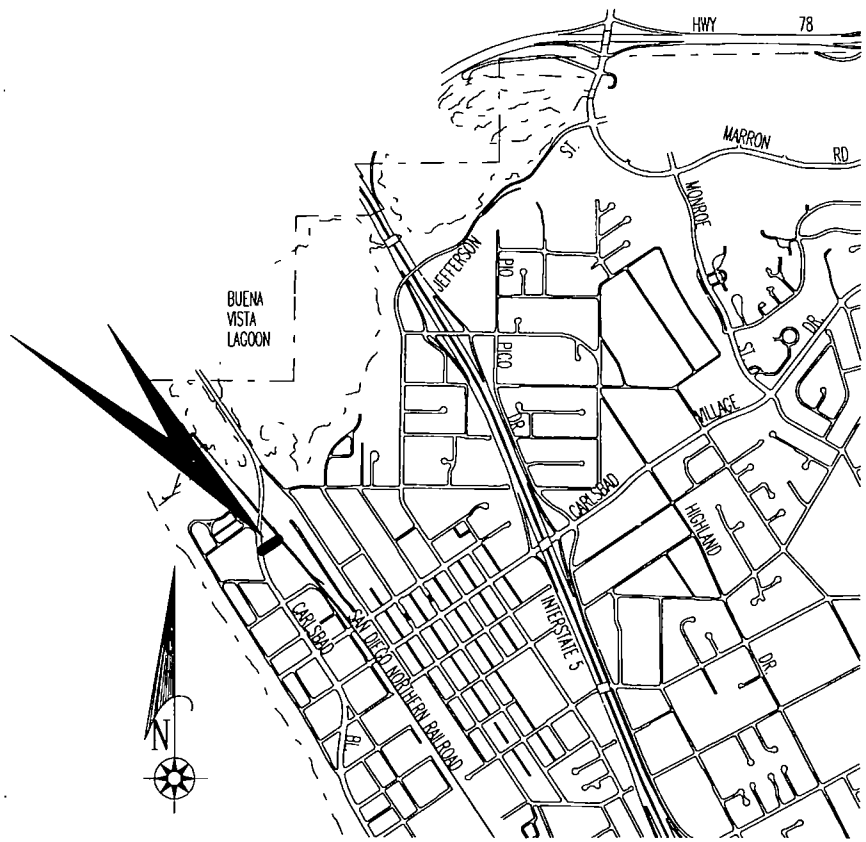
Purpose	Estimated Cost	Funding Source
Reimbursement	$290,000	PLDA "C"
Total Cost =	**$290,000**	

CAPITAL PROJECT DESCRIPTION

36241
PROJECT NO.

DRAINAGE PROJECTS - CARLSBAD BOULEVARD STORM DRAIN REPLACEMENT
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

From Carlsbad Boulevard to the San Diego Northern Railroad tracks just south of the railroad overcrossing.

PROJECT DESCRIPTION:

Relocate and replace approximately 350 feet of 18-inch corrugated metal storm drain pipe (CMP) with a reinforced concrete storm drain pipe. Project would include installation of new storm drain inlets and an outlet.

PROJECT NEED:

The existing CMP has corroded away and drainage water is now undermining the soil column above the pipe. Recently, a sinkhole developed which required extensive maintenance repairs. The pipe crosses private property along a previously vacated street right-of-way. At one point, the pipe runs beneath a private structure built many years ago over the vacated street. Replacing the pipe will reduce the potential of local flooding on Carlsbad Boulevard and/or damage to the structure above the pipe as well as additional maintenance repairs.

FINANCING:

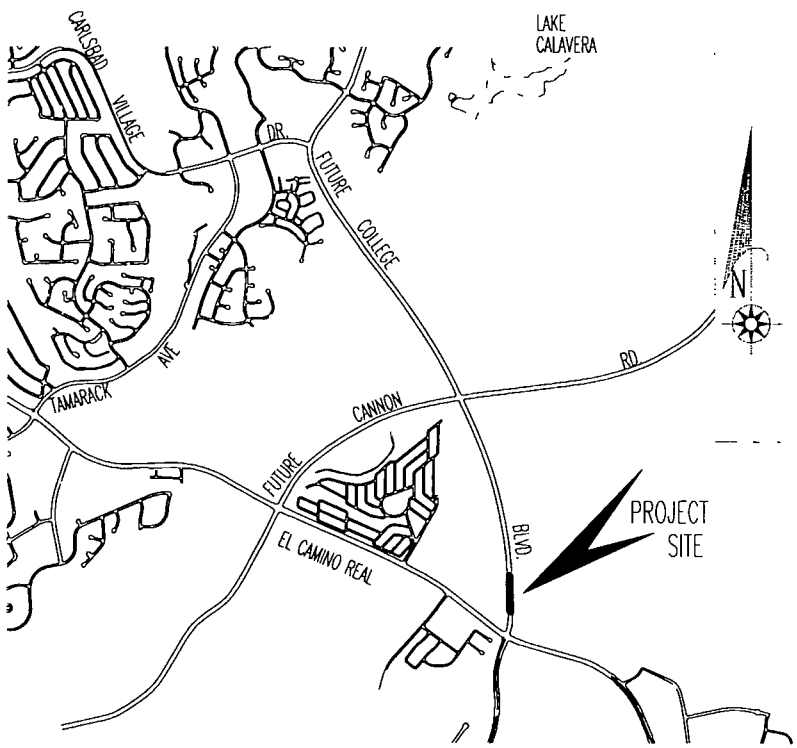
Purpose	Estimated Cost	Funding Source
Planning/Study	$7,000	IRF
Design	$20,000	IRF
Construction	$53,000	IRF
Total Cost =	**$80,000**	

CAPITAL PROJECT DESCRIPTION

DRAINAGE PROJECTS – COLLEGE BOULEVARD BRIDGE FACILITY
PROJECT NAME

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

At the College Boulevard crossing of the Agua Hedionda Creek.

PROJECT DESCRIPTION:

Construction of a bridge structure for the College Boulevard crossing of the Agua Hedionda Creek.

PROJECT NEED:

The project is needed to protect College Boulevard from flood damage.

FINANCING:

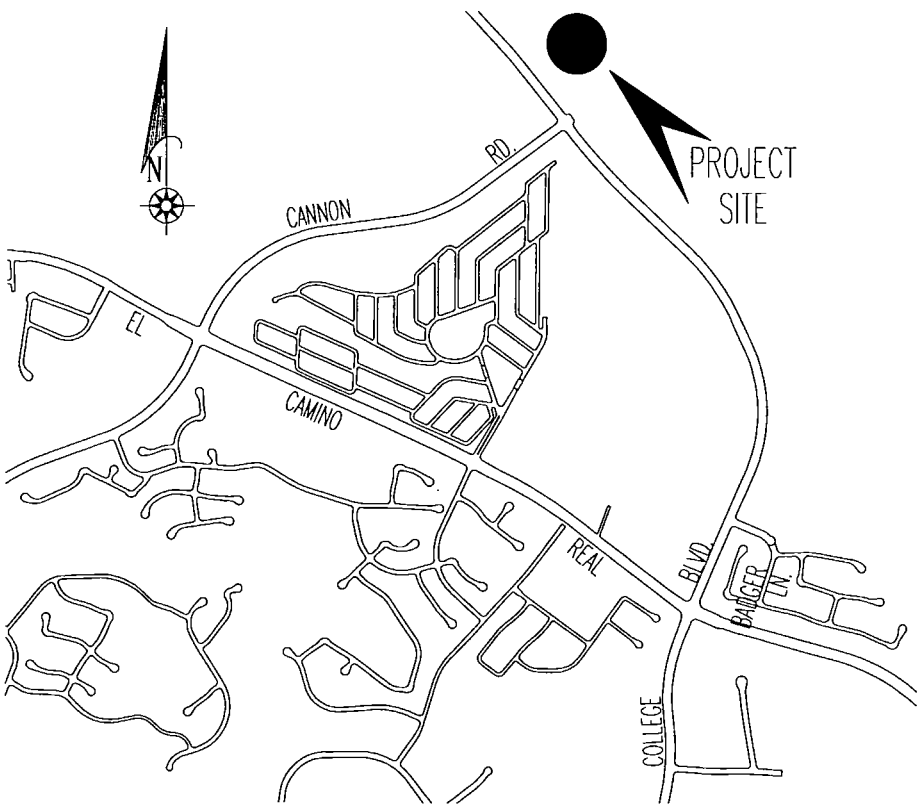
Purpose	Estimated Cost	Funding Source
Design/Construction	$1,783,000	PLDA "B"
Total Cost =	**$1,783,000**	

CAPITAL PROJECT DESCRIPTION

36363
PROJECT NO.

DRAINAGE PROJECTS –COLLEGE BOULEVARD / CANNON ROAD (DRAINAGE BASIN BJB)
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Within and adjacent to Calavera Creek located at the northeast corner of the Cannon Road and College Boulevard intersection.

PROJECT DESCRIPTION:

Construction of a 49 acre-foot drainage retention basin covering approximately 15 acres of land within and adjacent to Calavera Creek located northeast of the College Boulevard and Cannon Road intersection. The project includes construction of a 11-foot by 7-foot reinforced concrete box extending across the College Boulevard and Cannon Road intersection, a 72-inch low flow pipe draining the retention basin, a concrete spillway and rock slope protection.

PROJECT NEED:

This project is one of a series of projects designed to help reduce flooding along the Agua Hedionda Creek especially within the RCMHP community. The series of projects include the construction of four floodwater retention basins, including Basin BJ, Basin BJB, the Melrose Drive Basin and the Faraday Avenue basin, and the dredging and/or improvement of the Agua Hedionda and Calavera Creek channels.

FINANCING:

Purpose	Estimated Cost	Funding Source
Reimbursement	$ 291,247	PLDA "B"
Reimbursement	$539,663	Fed Grant
Total Cost =	**$830,910**	

FUNDING MATRIX FOR DRAINAGE PROJECTS

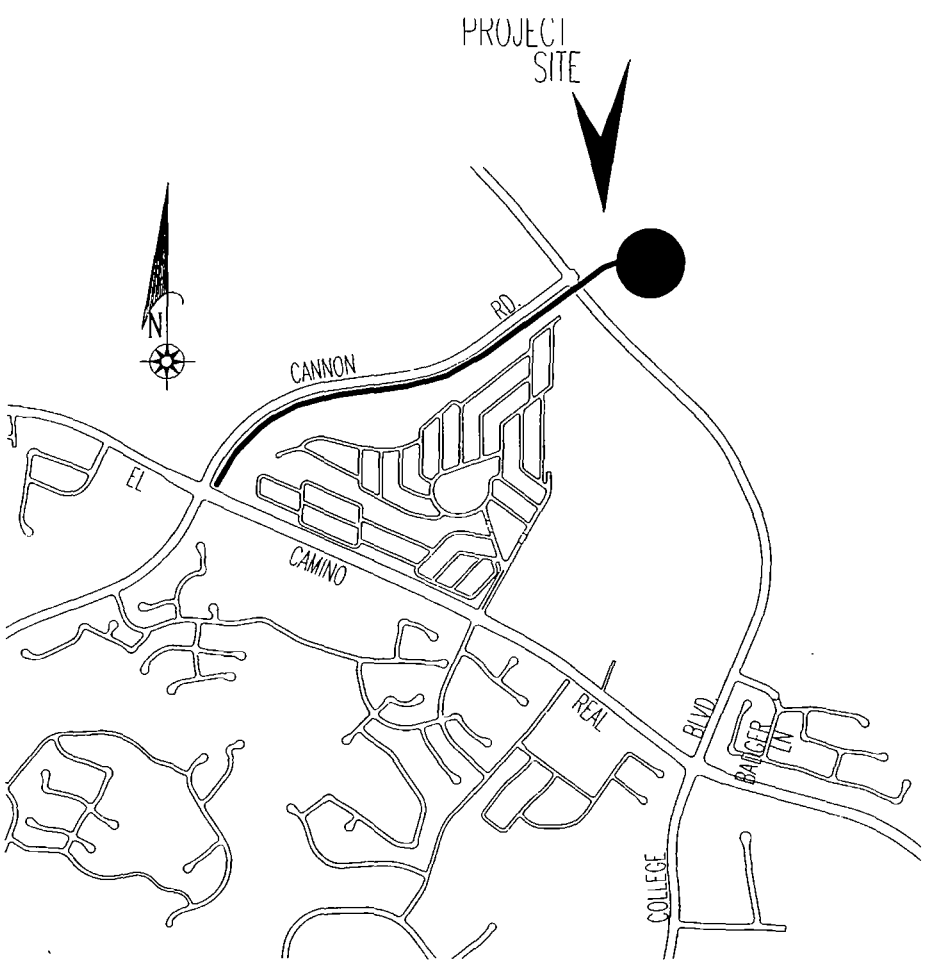
PROJ NO.	PROJECT TITLE	FUNDING SOURCE	TOTAL BUDGET	FUTURE YEAR BUDGET AMOUNTS						
				YEAR 1 2005-2006	YEAR 2 2006-2007	YEAR 3 2007-2008	YEAR 4 2008-2009	YEAR 5 2009-2010	YEAR 6-10 2010-2015	BUILDOUT 2015-2020
33381	AGUA HEDIONDA CHANNEL (PLDA "B")	PLD	1,260,500							
38041	AVIARA PARKWAY STORM DRAIN REIMBURSEMENT (PLDA "C")	PLD	290,000							
36241	CARLSBAD BLVD STORM DRAIN REPLACEMENT	IRF	80,000							
	COLLEGE BLVD. BRIDGE FACILITY BL (REIMB./PLDA "B")	PLD	1,783,000						1,783,000	
36363	COLLEGE BLVD/CANNON RD (BASIN BJB - REIMB./PLDA "B") (FEMA + PLD)	PLD	830,910							
36363	COLLEGE BLVD/CANNON RD (BJ AND CALAVERA CR. CHANNEL)	PLD	2,778,833							
NEW	CYNTHIA LANE STORM DRAIN	IRF	100,000	100,000						
36225	FARADAY/MELROSE DRAINAGE FACILITIES (PLDA "B")	PLD	300,000							
39341	GABIANO LANE STORM DRAIN MODIFICATION	GAS TAX	35,000							
NEW	HIGHLAND DRIVE - BETWEEN PINE & BASSWOOD	GCC	240,000	43,200	196,800					
39051	HIGHLAND DRIVE STORM DRAIN	PLD	450,600							
39052	HIGHLAND DRIVE STORM DRAIN	GCC	199,000							
NEW	LA COSTA AVE STORM DRAIN REPLACEMENT	IRF	492,150	492,150						
38721	MASTER PLAN UPDATE	PLD	454,933							
	MISCELLANEOUS MASTER DRAINAGE FACILITIES	PLD	10,936,000							10,936,000
36811	MISCELLANEOUS ROAD SUBDRAINS	GAS TAX	485,000	475,000						
	PARK DRIVE AND TAMARACK AVENUE STORM DRAIN (PLDA "B")	PLD	500,000						500,000	
	TAMARACK AND ECR STORM DRAIN AND SILT. BASIN (REIMB./PLDA "B")	PLD	1,279,000							1,279,000

CAPITAL PROJECT DESCRIPTION

36363
PROJECT NO.

DRAINAGE PROJECTS – COLLEGE BOULEVARD / CANNON ROAD (CALAVERA CREEK CHANNEL AND DRAINAGE BASIN BJ)
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Along Calavera Creek from El Camino Real to future College Boulevard and within the Little Encinas Creek immediately east of the future College Boulevard.

PROJECT DESCRIPTION:

Construction of a 49 acre-foot drainage retention basin covering approximately 8 acres of land within and adjacent to the Little Encinas Creek located east of the future College Boulevard at the northeast corner of the Rancho Carlsbad Mobile Home Park (RCMHP). Included with the project is a reinforced concrete box culvert under future College Boulevard. Also included is an 84 inch storm drain pipe proposed along the north side of Cannon Road, designed to take overflow drainage from the Calavera Creek. The construction of the retention basin requires relocation of an existing RV storage lot, community garden and maintenance yard owned by the RCMHP property owners association. The proposed site of the relocated facility is north of the RCMHP and south of Cannon Road.

PROJECT NEED:

This project is one in a series of projects designed to help reduce flooding along the Agua Hedionda and Calavera Creeks primarily within the RCMHP community. The project also eliminates flooding of El Camino Real during a 100-year flood event. The series of projects include the construction of four floodwater retention basins, including Basin BJ, Basin BJB, the Melrose Drive Basin and the Faraday Avenue basin, and the dredging and/or improvement of the Agua Hedionda and Calavera Creek channels.

FINANCING:

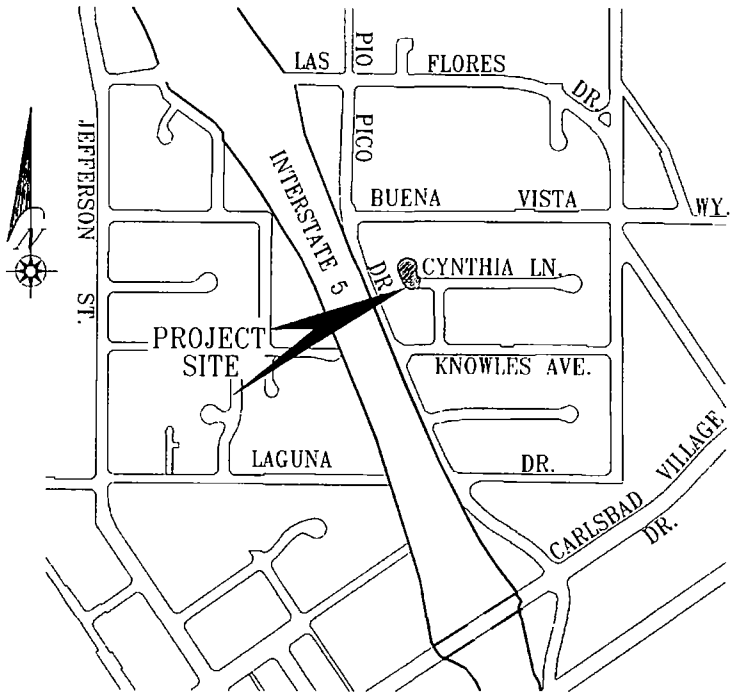
Purpose	Estimated Cost	Funding Source
Total Cost	$2,778,833	PLDA "B"
Total Cost =	**$2,778,833**	

CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

DRAINAGE PROJECTS – CYNTHIA LANE STORM DRAIN
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Cynthia Lane

PROJECT DESCRIPTION:

Replace existing 18" CMP with a new 24" RCP.

PROJECT NEED:

The current drainage system is old and insufficient to convey peak storm runoff.

FINANCING:

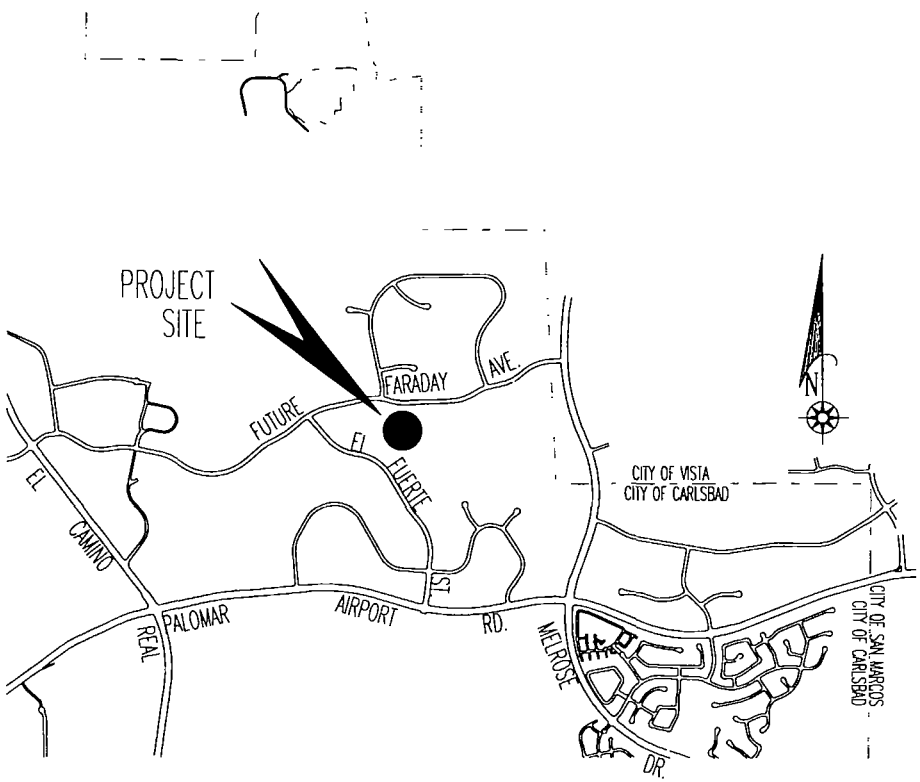
Purpose	Estimated Cost	Funding Source
Environmental	$5,000	IRF
Design	$25,000	IRF
Construction	$50,000	IRF
Admin/Inspection	$20,000	IRF
Total Cost =	**$100,000**	

CAPITAL PROJECT DESCRIPTION

36225
PROJECT NO.

DRAINAGE PROJECTS – FARADAY/MELROSE DRAINAGE FACILITIES
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Within Faraday Avenue at the crossing of the Agua Hedionda Creek tributary draining the raceway properties.

PROJECT DESCRIPTION:

Construction of a 49 acre foot floodwater retention facility including a reinforced concrete box culvert beneath Faraday Avenue.

PROJECT NEED:

This project is one of a series of projects designed to help reduce flooding along the Agua Hedionda Creek especially within the RCMHP community. The series of projects include the construction of four floodwater retention basins, including Basin BJ, Basin BJB, the Melrose Drive Basin and the Faraday Avenue basin, and the dredging and/or improvement of the Agua Hedionda and Calavera Creek channels.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design/Construction	$300,000	PLDA "B"
Total Cost =	**$300,000**	

Farbasin

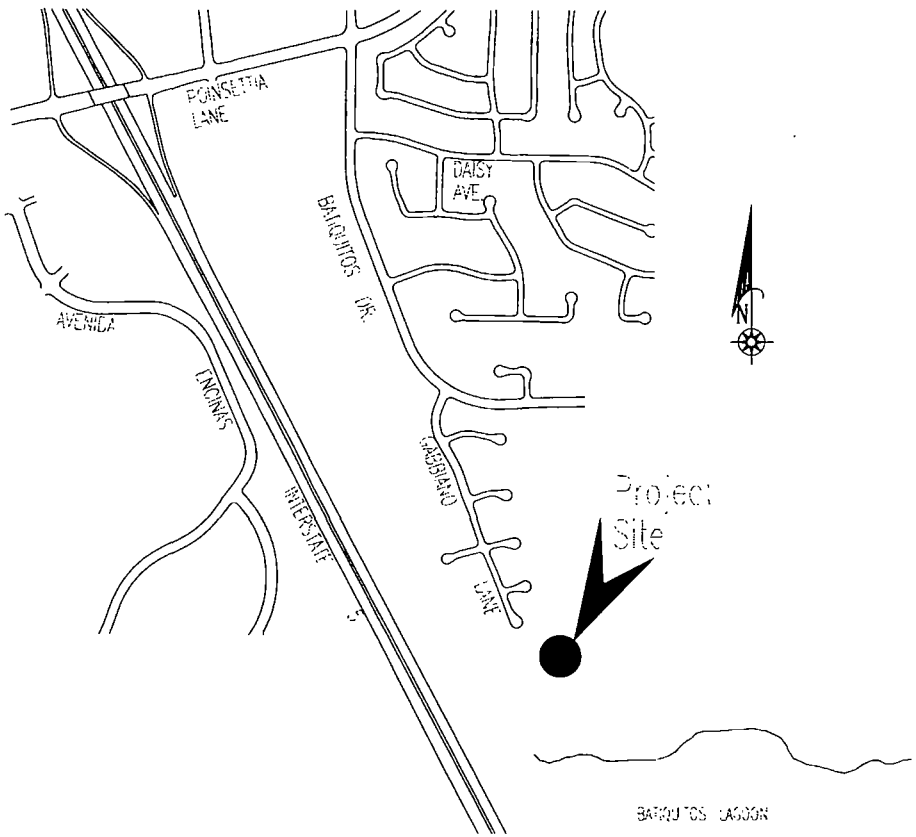
CAPITAL PROJECT DESCRIPTION

39341
PROJECT NO.

DRAINAGE PROJECTS – GABBIANO LANE STORM DRAIN MODIFICATION STUDY

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Southerly end of Gabbiano Lane.

PROJECT DESCRIPTION:

Study the configuration of the public storm drain outlet and develop a revised configuration that will enable the adjacent private desiltation basin to drain entirely.

PROJECT NEED:

The project will identify a permittable project that will reduce the maintenance cost for both the private and public facilities associated with the storm drain outlet.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$15,000	Gas Tax
Report	$20,000	Gas Tax
Total Cost =	**$35,000**	

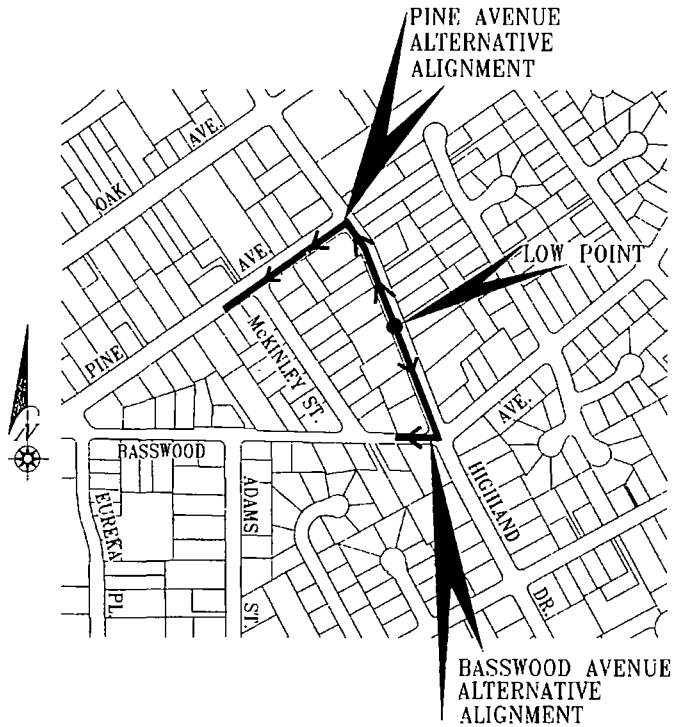
CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

DRAINAGE PROJECTS – HIGHLAND DRIVE BETWEEN PINE AVENUE AND BASSWOOD AVENUE

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

West side of Highland Drive between Pine Avenue and Basswood Avenue

PROJECT DESCRIPTION:

Construction of an 18" reinforced concrete storm drain pipe along Highland Drive from a low point at the mid-block between Pine Avenue and Basswood Avenue to a point of discharge into an existing drainage channel on either Pine Avenue or Basswood Avenue. The specific alignment will be determined after further study and analysis of potential alternative storm drain alignments. The project will include construction of catch basin, junction structures and pipe outlet improvements.

PROJECT NEED:

The project is needed to prevent potential flooding of private property downstream of Highland Drive.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$25,000	GCC
Construction	$196,800	GCC
Admin/Inspection	$18,200	GCC
Total Cost =	**$240,000**	

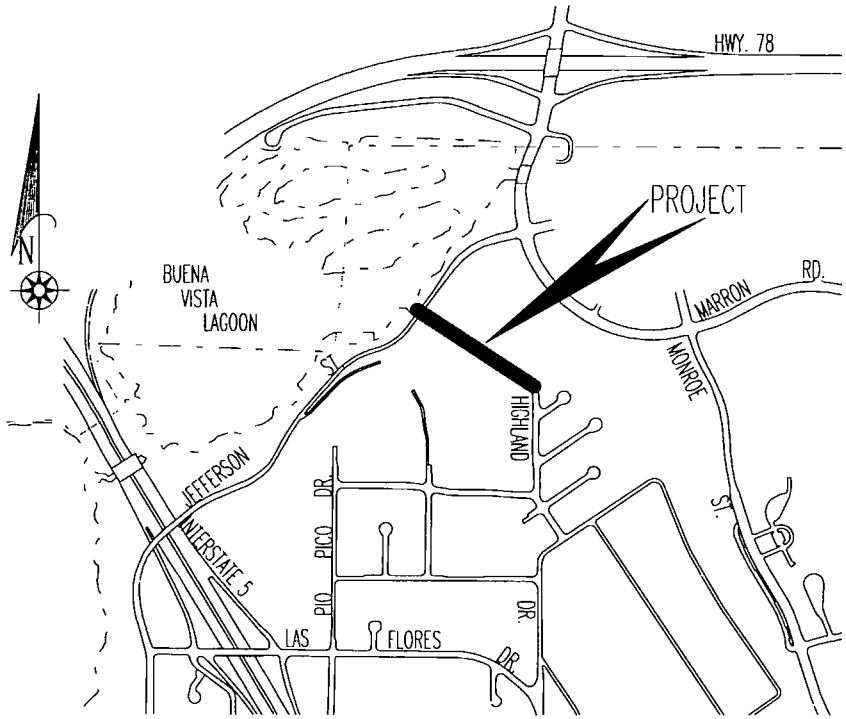
CAPITAL PROJECT DESCRIPTION

39051 & 39052
PROJECT NO.

DRAINAGE PROJECTS – HIGHLAND DRIVE STORM DRAIN

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

North end of Highland Drive.

PROJECT DESCRIPTION:

Design and construct a portion of Drainage Master Plan Facility "AC" at the north end of Highland Drive.

PROJECT NEED:

The existing 24" CMP is undersized and in need of replacement. Master Drainage Plan Facility "AC" requires upsizing to a 36" RCP.

FINANCING:

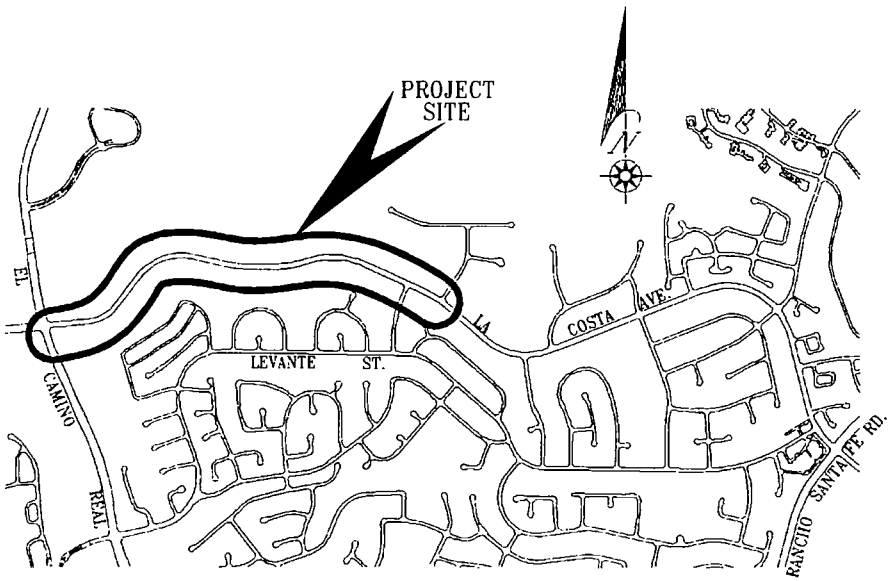
Purpose	Estimated Cost	Funding Source
Design/Construction	$450,600	PLDA
Design/Construction	$199,000	GCC
Total Cost =	**$649,600**	

CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

DRAINAGE PROJECTS – LA COSTA AVENUE STORM DRAIN REPLACEMENTS
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Various locations on La Costa Avenue east of El Camino Real.

PROJECT DESCRIPTION:

Replace old corrugated metal storm drains with reinforced concrete pipe at various locations along La Costa Avenue east of El Camino Real.

PROJECT NEED:

Existing corrugated metal storm drains are in very poor condition and need to be replaced in order to maintain adequate drainage.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$50,000	IRF
Construction	$378,000	IRF
Admin/Inspection	$64,150	IRF
Total Cost =	**$492,150**	

CAPITAL PROJECT DESCRIPTION

38721
PROJECT NO.

DRAINAGE PROJECTS – MASTER DRAINAGE PLAN UPDATE
PROJECT NAME

PROJECT LOCATION MAP:

VARIOUS LOCATIONS OF THE CITY

PROJECT LOCATION:

Throughout the City.

PROJECT DESCRIPTION:

Update the City's Master Drainage Plan (MDP) based on current growth projections, new Federal storm water quality permit requirements, the City's Habitat Management Plan (HMP) and construction and environmental mitigation cost increases. Also included is the cost to prepare and process an environmental impact report for the updated MDP.

PROJECT NEED:

The MDP update will help identify the need for changes to planned facilities based on the timing of growth projections and NPDES requirements. The City's MDP was last updated in 1994. Since 1994, there have been several changes to the City's growth patterns due to the HMP and HCP that impact growth projections and densities in various areas of the City. This Master Plan is necessary for identifying the facilities needed to meet Growth Management Standards.

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies/Reports	$454,933	PLDA
Total Cost =	**$454,933**	

CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

DRAINAGE PROJECTS - MISCELLANEOUS MASTER DRAINAGE FACILITIES
PROJECT NAME

PROJECT LOCATION MAP:

VARIOUS LOCATIONS THROUGHOUT THE CITY

PROJECT LOCATION:

Various locations throughout the City.

PROJECT DESCRIPTION:

Construction of various major storm drain facilities within the City. The facilities funded through this program are outlined in the Master Drainage and Storm Water Management Plan.

PROJECT NEED:

Required to meet Growth Management Standards and identified in the Master Drainage and Storm Water Quality Management Plan.

FINANCING:

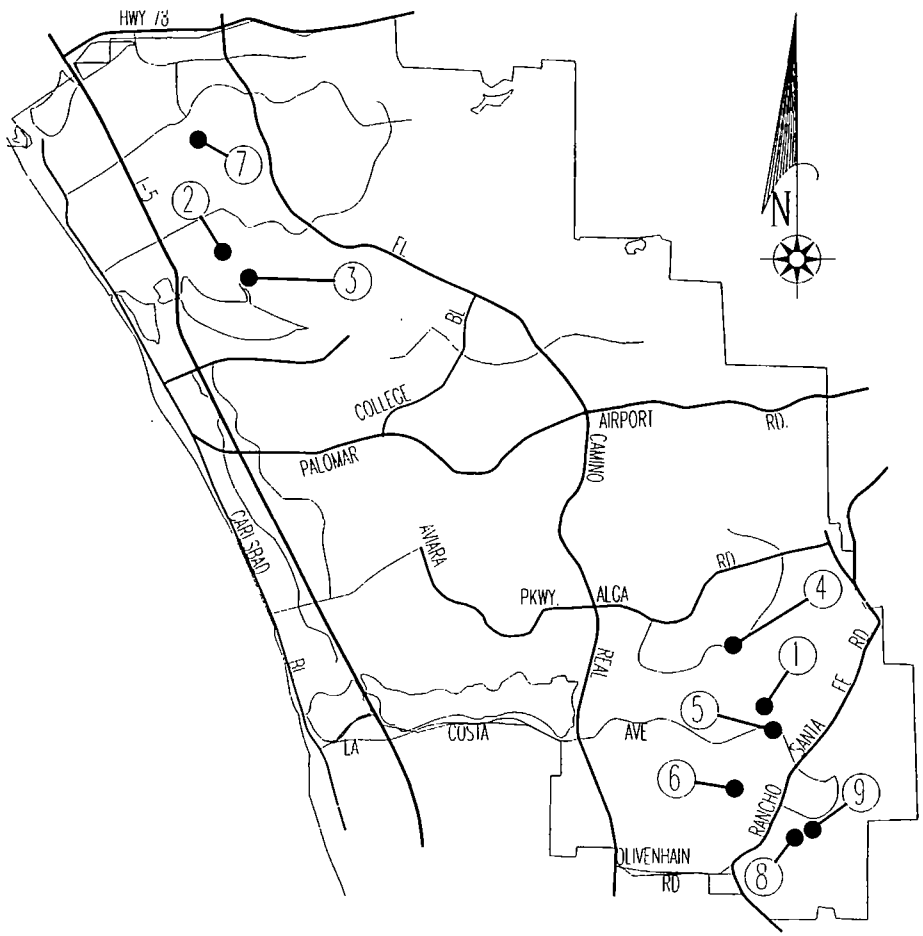
Purpose	Estimated Cost	Funding Source
Design/Construction	$10,936,000	PLDA Fees
Total Cost =	**$10,936,000**	

CAPITAL PROJECT DESCRIPTION

3681
PROJECT NO.

DRAINAGE PROJECTS - MISCELLANEOUS ROAD SUBDRAINS
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Nine locations throughout Carlsbad:

1. Carlina & Hataca Road
2. Calavo Court
3. Park Drive & Cove
4. Alicante & Corte De La Vista
5. La Costa Avenue & Cadencia
6. Quebrada Circle
7. Linda Lane
8. Avenida Nieve
9. Circulo Adorno

PROJECT DESCRIPTION:

Preparation of an engineering study report investigating the potential causes and remedies for various surface/subsurface drainage problems occurring at the various street locations listed above. Repairs will be made to the extent funding is available. Additional funding requests will be made after more detailed cost estimates are prepared in the study report.

PROJECT NEED:

Based upon citizen request and maintenance staff requests.

1. Save maintenance dollars
2. Mitigates hazards from slip and falls
3. Relieve health hazards

FINANCING:

Purpose	Estimated Cost	Funding Source
Design/Construction	$485,000	Gas Tax
Total Cost =	**$485,000**	

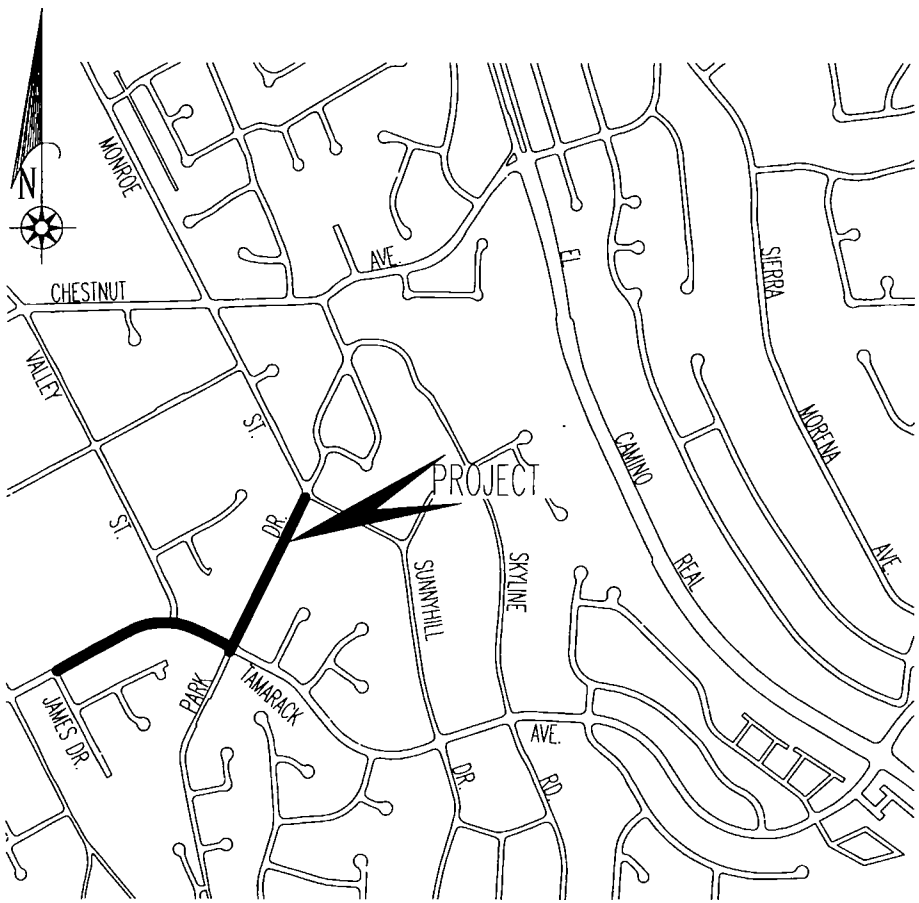
Misc_drn

CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

DRAINAGE PROJECTS - PARK DRIVE AND TAMARACK AVENUE STORM DRAIN
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Along Park Drive from Monroe Street to Tamarack Avenue and along Tamarack Avenue from Park Drive to James Drive.

PROJECT DESCRIPTION:

Installation of approximately 2,100 linear feet of 24-inch diameter reinforced concrete storm drain pipe including access holes and other appurtenances. Identified within the Master Drainage Plan as facility "BCA".

PROJECT NEED:

Required to prevent flooding of properties west of Park Drive and north of Tamarack Avenue. The development of a proposed new subdivision east of Park Drive between Tamarack Avenue and Monroe Street will add the existing drainage and create a greater need for this master planned drainage facility.

FINANCING:

Purpose	Estimated Cost	Funding Source
Planning/Study	$100,000	PLDA "B"
Construction	$400,000	PLDA "B"
Total Cost =	**$500,000**	

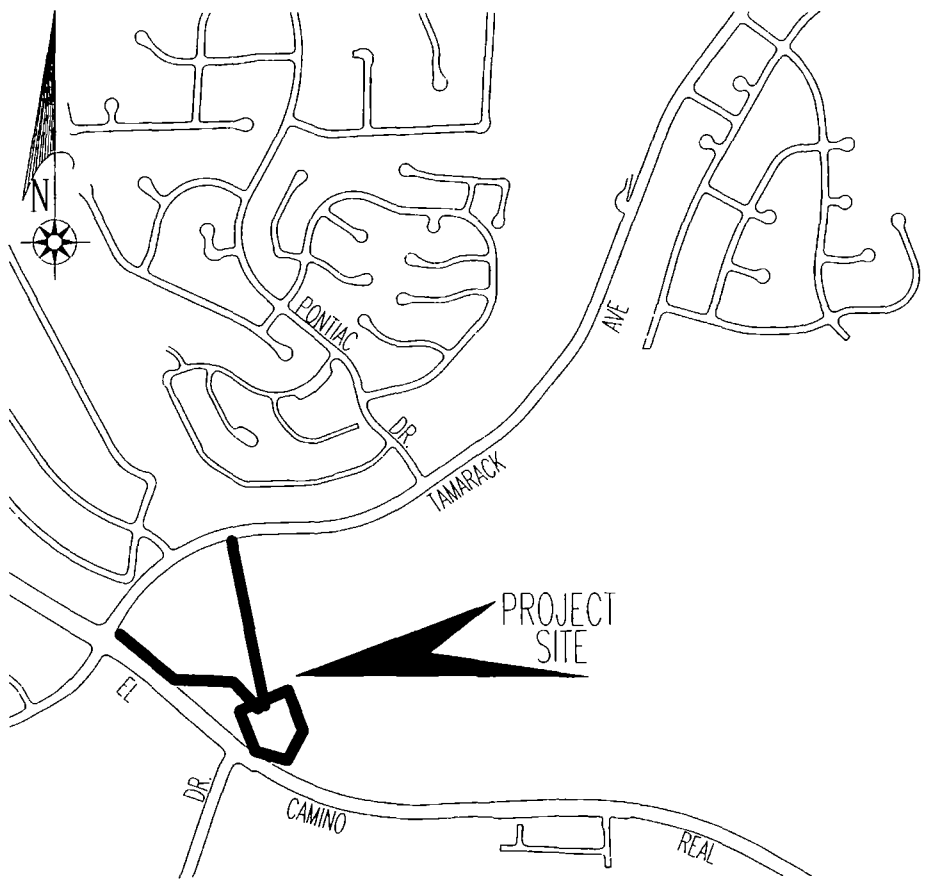
CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

DRAINAGE PROJECTS - TAMARACK AND EL CAMINO REAL STORM DRAIN AND SILTATION BASIN

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

At the southeast corner of Tamarack Avenue and El Camino Real.

PROJECT DESCRIPTION:

Reimbursement for the construction of a 45-inch and 75-inch storm drainage system together with appurtenant inlets, access holes and outlet structures. Project also includes the installation of an approximate 32,000 cubic yard siltation basin. The project facilities are identified as facilities "BF", "BFB" and Basin "BF1".

PROJECT NEED:

The Robertson Ranch property owners are currently processing a master plan for development of the Robertson Ranch project including the property at the southeast corner of Tamarack Avenue and El Camino Real. As a condition of development, the developer will be required to install the above-described Master Drainage Plan facilities. The cost of the facilities is expected to exceed the drainage fee obligation for the project, thus creating the potential need for reimbursement.

FINANCING:

Purpose	Estimated Cost	Funding Source
Reimbursement	$1,279,000	PLDA "B" Fees
Total Cost =	**$1,279,000**	