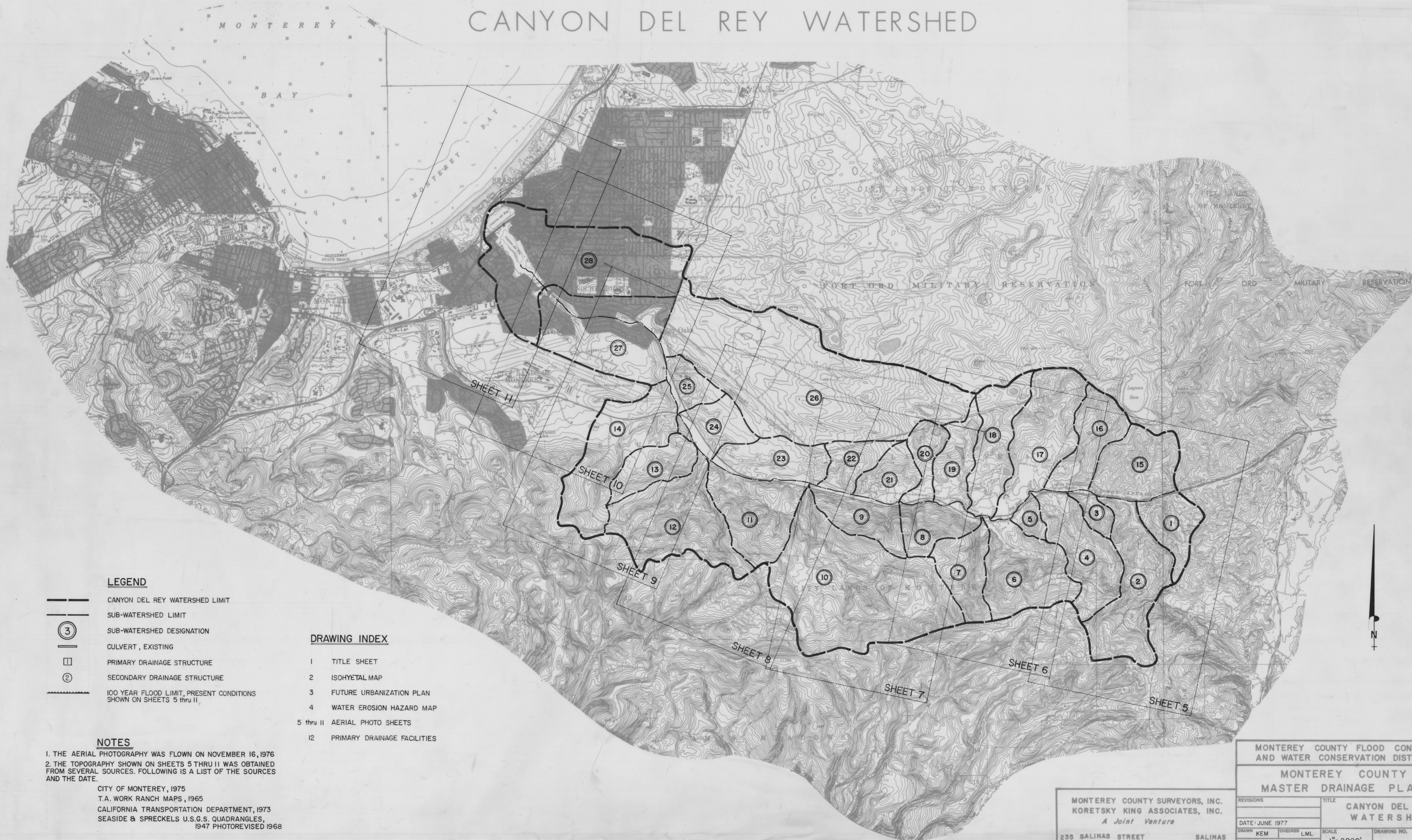


MONTEREY COUNTY MASTER DRAINAGE PLAN

CANYON DEL REY WATERSHED



LEGEND

- CANYON DEL REY WATERSHED LIMIT
- - - SUB-WATERSHED LIMIT
- ③ SUB-WATERSHED DESIGNATION
- CULVERT, EXISTING
- PRIMARY DRAINAGE STRUCTURE
- ② SECONDARY DRAINAGE STRUCTURE
- 100 YEAR FLOOD LIMIT, PRESENT CONDITIONS SHOWN ON SHEETS 5 thru 11

DRAWING INDEX

- 1 TITLE SHEET
- 2 ISOHYETAL MAP
- 3 FUTURE URBANIZATION PLAN
- 4 WATER EROSION HAZARD MAP
- 5 thru 11 AERIAL PHOTO SHEETS
- 12 PRIMARY DRAINAGE FACILITIES

NOTES

1. THE AERIAL PHOTOGRAPHY WAS FLOWN ON NOVEMBER 16, 1976
2. THE TOPOGRAPHY SHOWN ON SHEETS 5 THRU 11 WAS OBTAINED FROM SEVERAL SOURCES. FOLLOWING IS A LIST OF THE SOURCES AND THE DATE.

CITY OF MONTEREY, 1975
 T.A. WORK RANCH MAPS, 1965
 CALIFORNIA TRANSPORTATION DEPARTMENT, 1973
 SEASIDE & SPRECKELS U.S.G.S. QUADRANGLES,
 1947 PHOTOREVISED 1968

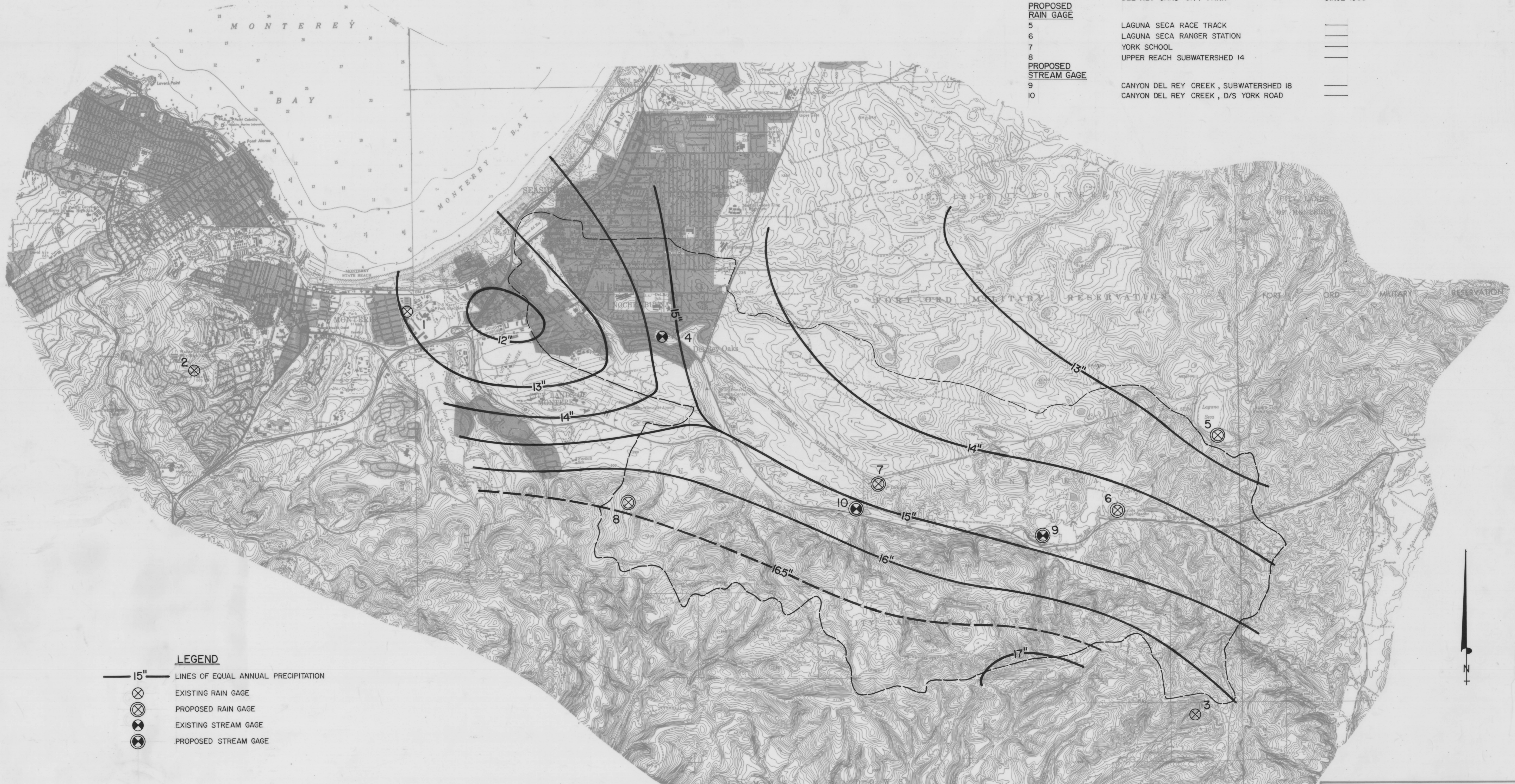
MONTEREY COUNTY FLOOD CONTROL
 AND WATER CONSERVATION DISTRICT

MONTEREY COUNTY MASTER DRAINAGE PLAN

MONTEREY COUNTY SURVEYORS, INC.
 KORETSKY KING ASSOCIATES, INC.
A Joint Venture
 235 SALINAS STREET SALINAS

REVISIONS	TITLE
DATE: JUNE 1977	CANYON DEL REY WATERSHED
DRAWN: KEM	CHECKED: LML
APPROVED:	SCALE: 1"=2000'
	DRAWING NO. 1

RAIN GAGE	LOCATION	YEAR OF CONTINUOUS RECORD
1	NAVAL POST GRADUATE SCHOOL	OVER 40
2	261 VIA GAYUBA, MONTEREY	OVER 30
3	HIDDEN HILLS	SINCE NOVEMBER 1968
STREAM GAGE		
4	DEL REY OAKS CITY PARK	SINCE 1966
PROPOSED RAIN GAGE		
5	LAGUNA SECA RACE TRACK	---
6	LAGUNA SECA RANGER STATION	---
7	YORK SCHOOL	---
8	UPPER REACH SUBWATERSHED 14	---
PROPOSED STREAM GAGE		
9	CANYON DEL REY CREEK, SUBWATERSHED 18	---
10	CANYON DEL REY CREEK, D/S YORK ROAD	---



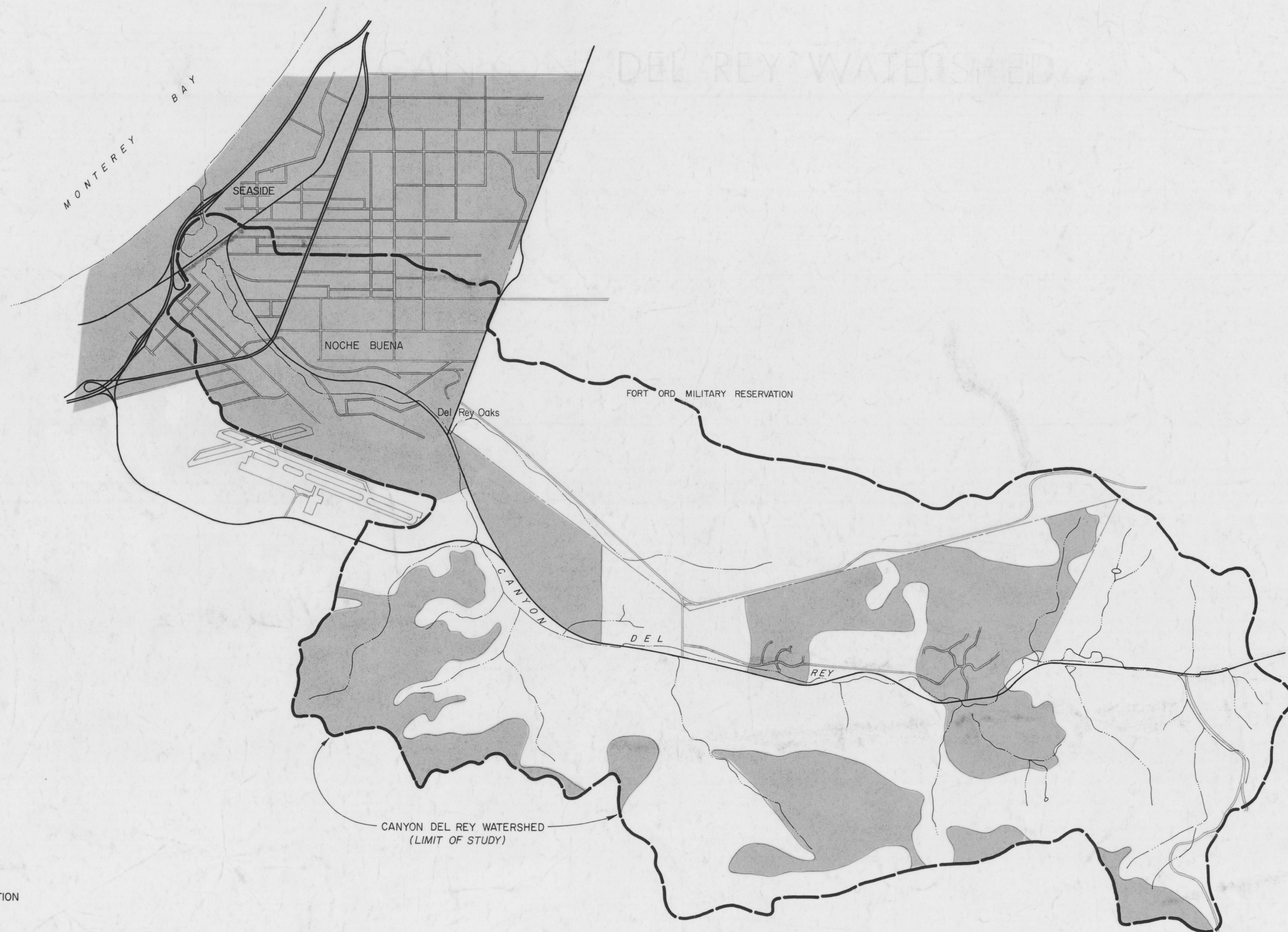
LEGEND

— 15" —	LINES OF EQUAL ANNUAL PRECIPITATION
⊗	EXISTING RAIN GAGE
⊗	PROPOSED RAIN GAGE
⊗	EXISTING STREAM GAGE
⊗	PROPOSED STREAM GAGE


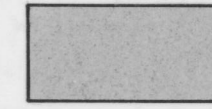

ISOHYETAL MAP

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MONTEREY COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT			
MONTEREY COUNTY MASTER DRAINAGE PLAN			
REVISIONS		TITLE	
		CANYON DEL REY WATERSHED	
DATE: JUNE 1977			
DRAWN: KEM	CHECKED: LML	SCALE: 1"=2000'	DRAWING NO.: 2
APPROVED:			



LEGEND

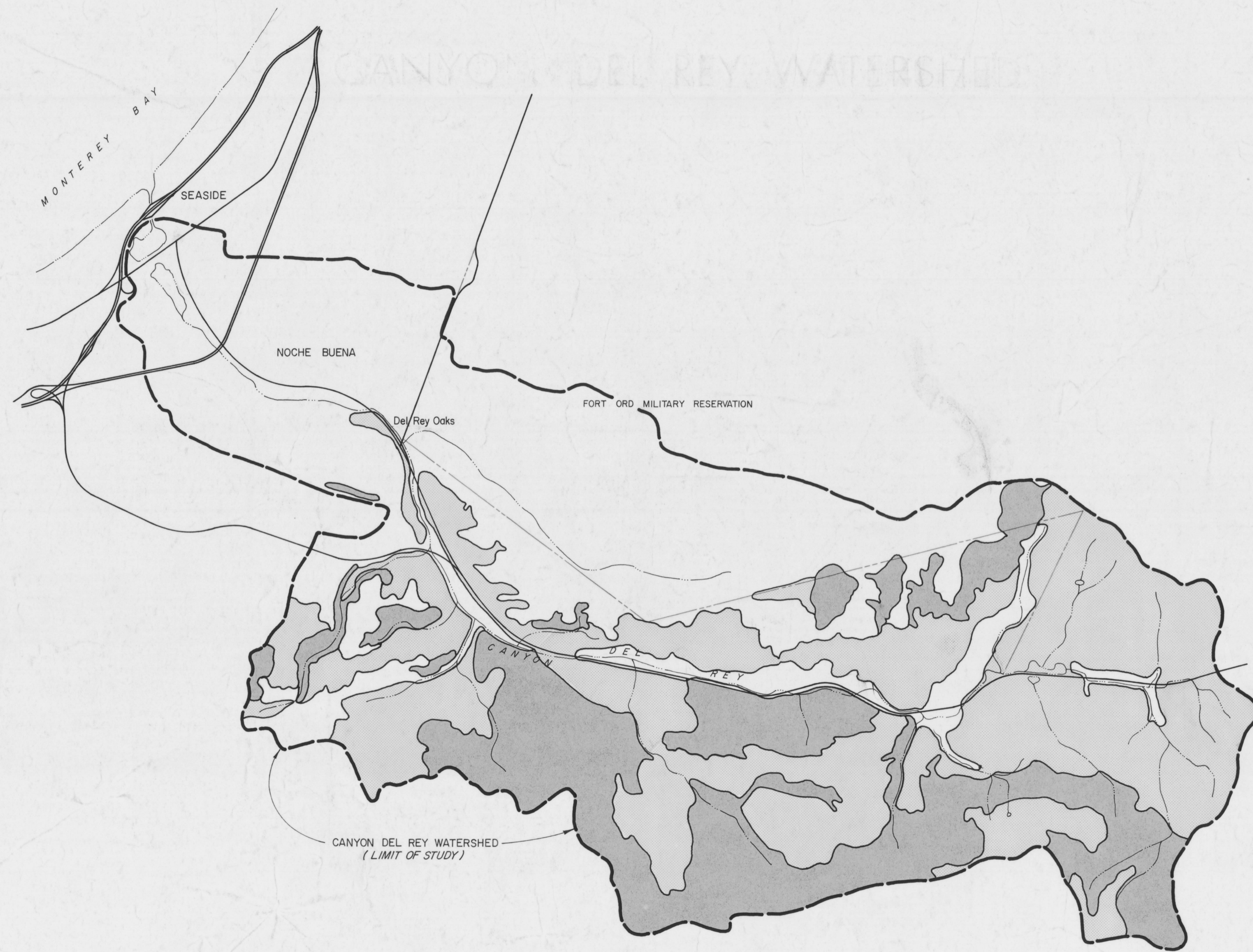
-  EXISTING URBANIZATION
-  FUTURE URBANIZATION (FROM MONTEREY II PLAN)
-  OPEN SPACE

FUTURE URBANIZATION PLAN



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MONTEREY COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		TITLE	
MONTEREY COUNTY MASTER DRAINAGE PLAN		CANYON DEL REY WATERSHED	
REVISIONS	DATE: JUNE, 1977	SCALE	DRAWING NO.
DRAWN: KEM	CHECKED: LML	1" = 2000'	3
APPROVED:			



LEGEND

- VERY HIGH EROSION
- HIGH EROSION
- MODERATE EROSION

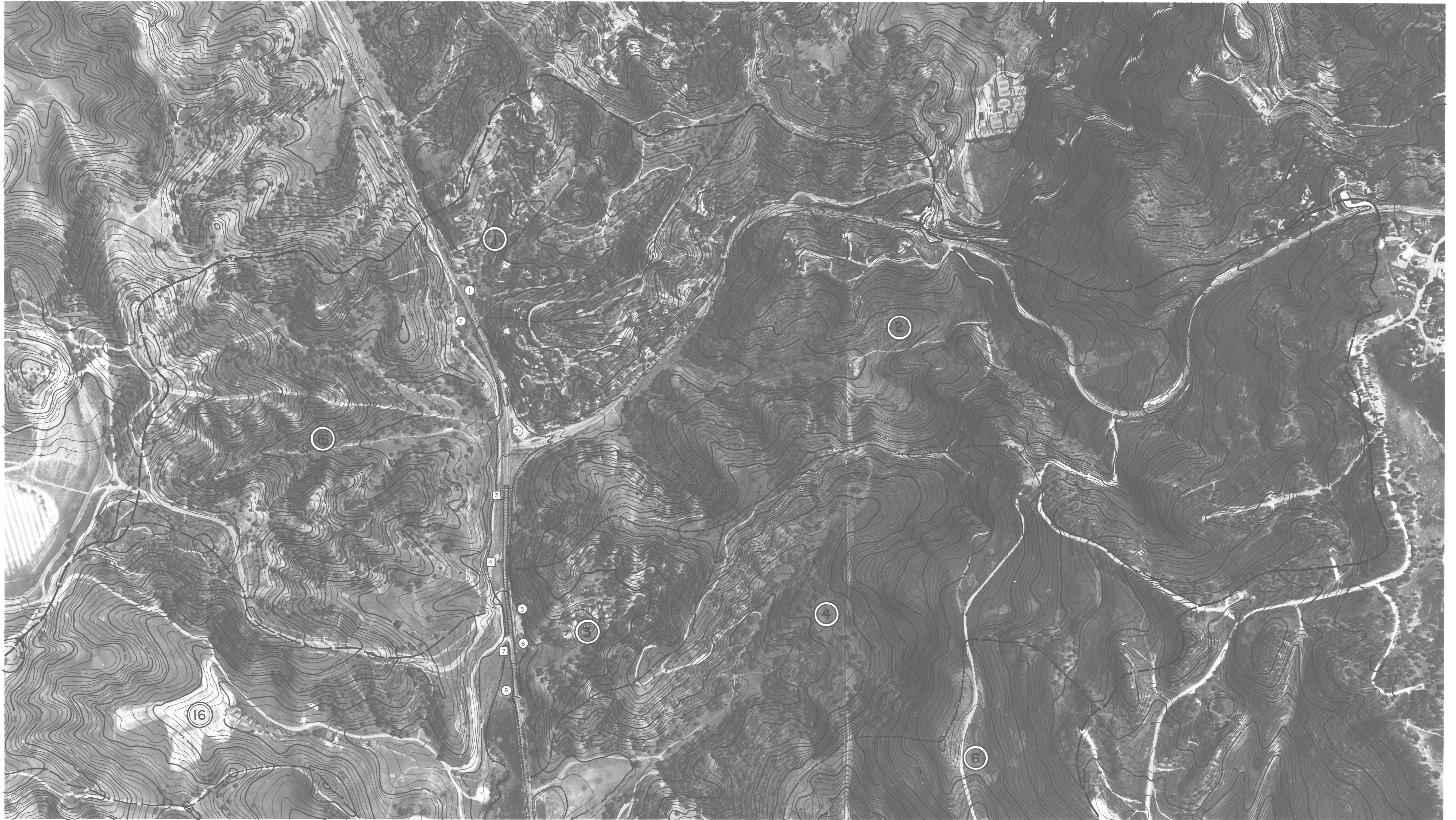
NOTE: FOR ADDITIONAL INFORMATION
SEE CHAPTER IV OF REPORT.

WATER EROSION HAZARD MAP



MONTEREY COUNTY SURVEYORS, INC.
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MONTEREY COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT			
MONTEREY COUNTY MASTER DRAINAGE PLAN			
REVISIONS		TITLE	
		CANYON DEL REY WATERSHED	
DATE: JUNE, 1977			
DRAWN: KEM	CHECKED: L.M.L.	SCALE:	DRAWING NO.
APPROVED:		1" = 2000'	4



SEE SHEET 1 FOR LEGEND

STRUCTURE	EXISTING	IMPROVEMENT REQUIRED
1	12" RCP	
2	18" RCP	
3a		
3	28" x 18" CM ARCH	PROVIDE NEW 42" CMP REPLACE WITH 6' x 2.5' RCB
4	12" CMP	REPLACE WITH DOUBLE 42" CMP, RAISE ROAD.
5	18" CMP	
6	36" CMP	
7	48" CMP	
8	24" CMP	PARALLEL 48" CMP WITH HEADWALL INLET



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MONTEREY COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		TITLE	
MONTEREY COUNTY		CANYON DEL REY WATERSHED	
MASTER DRAINAGE PLAN		REVISIONS	TITLE
		DATE: JUNE, 1977	SCALE
DRAWN: KEM	CHECKED: LML	SCALE	DRAWING NO.
APPROVED		1" = 400' APPROX.	5



SEE SHEET 1 FOR LEGEND

STRUCTURE	EXISTING	IMPROVEMENT REQUIRED
9	24" CMP	_____
10	36" CMP	PARALLEL 36" CMP, DROP INLET, RAISE ROAD.
11	24" CMP	_____
12	18" CMP	_____
13	16" CMP	_____
14	36" CMP	PARALLEL 36" CMP, COMMON HEADWALL ENTRANCE.
15	12" CMP	_____
16	48" CMP	PROVIDE PARALLEL 36" CMP ABOVE EXISTING 48" CMP.
17	24" CMP	_____
18	12" CMP	_____
19	24" CMP	_____
20	18" CMP	_____
21	54" CMP	_____

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MONTEREY COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	
MONTEREY COUNTY	
MASTER DRAINAGE PLAN	
REVISIONS	TITLE
DATE: JUNE, 1977	CANYON DEL REY WATERSHED
DRAWN: KEM	CHECKED: L, ML
SCALE: 1" = 400' APPROX.	DRAWING NO. 6



SEE SHEET 1 FOR LEGEND

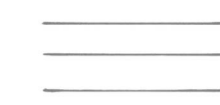
STRUCTURE

- 21
- 22
- 23
- 24
- 25
- 26
- 27

EXISTING

- 54" CMP
- 48" CMP
- 24" CMP
- 24" CMP
- 48" CMP
- 12' x 6' RCB
- 6' x 3' RCB

IMPROVEMENT REQUIRED

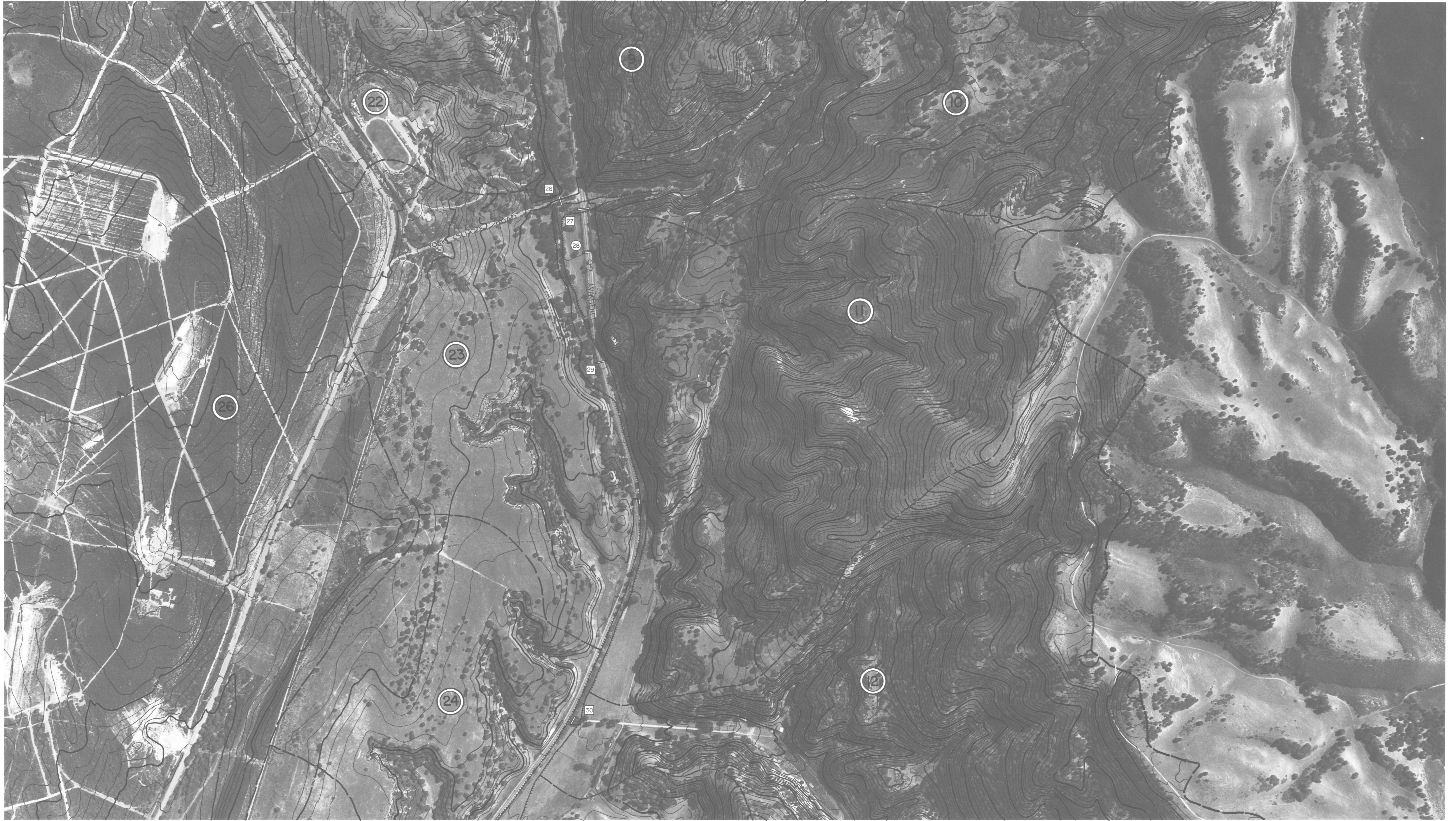


PARALLEL 42" CMP WITH DROP INLET
 REMOVE TREES FROM INLET CHANNEL
 PARALLEL 4' x 3' RCB, COMMON HEADWALL ENTRANCE



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MONTEREY COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT		TITLE	
MONTEREY COUNTY		CANYON DEL REY	
MASTER DRAINAGE PLAN		WATER SHED	
REVISIONS	DATE: JUNE, 1977	SCALE	DRAWING NO.
DRAWN: KEM	CHECKED: LML	1" = 400' APPROX.	7
APPROVED:			



SEE SHEET 1 FOR LEGEND

STRUCTURE	EXISTING	IMPROVEMENT REQUIRED
26	12' x 6' RCB	REMOVE TREES FROM INLET CHANNEL.
27	6' x 3' RCB	PARALLEL 4' x 3' RCB, COMMON HEADWALL ENTRANCE.
28	18" CMP	
29	TRIPLE 30" CMP	REPLACE WITH TRIPLE 6' x 3' RCB, COMMON HEADWALL ENTRANCE.
30	8.5' x 3.5' BRIDGE	ENLARGE BRIDGE TO 12' x 6', OR DOUBLE 6' x 6' BOX.

MONTEREY COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT			
MONTEREY COUNTY			
MASTER DRAINAGE PLAN			
REVISIONS		TITLE	
		CANYON DEL REY WATERSHED	
DATE: JUNE, 1977		SCALE	
DRAWN: KEM	CHECKED: L.M.L.	DRAWING NO.	
APPROVED:		8	

MONTEREY COUNTY SURVEYORS, INC.
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1" = 400' APPROX.



SEE SHEET 1 FOR LEGEND

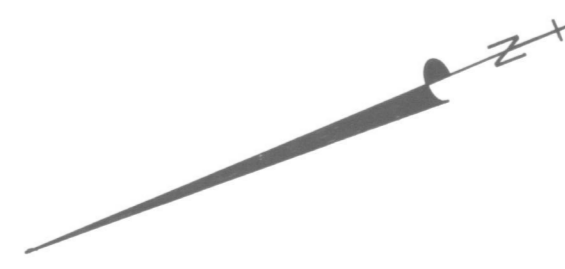
STRUCTURE

STRUCTURE	EXISTING
31	DOUBLE 48" RCP
32	6' x 6' RCP
33	18" CMP
34	12" CMP
35	15" CMP
36	24" CMP
37	90" CMP
38	6' x 8' RCB
39	10' x 8' RCB
40	6' x 7' RCB

IMPROVEMENT REQUIRED

IMPROVEMENT REQUIRED
REPLACE WITH TRIPLE 7' x 4.5' RCB, COMMON HEADWALL ENTRANCE
REPLACE WITH 12' x 7.5' BRIDGE OR EQUIVALENT SIZE STRUCTURE PARALLEL 6' x 8' RCB WITH ROUNDED INLET
PARALLEL 6' x 8' RCB WITH ROUNDED INLET. "FROG POND" TO BE UTILIZED AS A RETENTION BASIN.

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MONTEREY COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT			
MONTEREY COUNTY MASTER DRAINAGE PLAN			
REVISIONS	TITLE		
	CANYON DEL REY WATERSHED		
DATE: JUNE, 1977	SCALE	DRAWING NO.	
DRAWN: KEM	CHECKED: LML	9	
APPROVED:	1" = 400' APPROX.		



SEE SHEET 1 FOR LEGEND

STRUCTURE	EXISTING	IMPROVEMENT REQUIRED
37	90" CMP	REPLACE WITH 12' x 7.5' BRIDGE OR EQUIVALENT STRUCTURE
38	6' x 8' RCB	PARALLEL 6' x 8' RCB WITH ROUNDED INLET
39	10' x 8' RCB	
40	6' x 7' RCB	PARALLEL 6' x 8' RCB WITH ROUNDED INLET "FROG POND" TO BE UTILIZED AS A RETENTION BASIN.
41	6' x 6' RCB	REPLACE WITH DOUBLE 6' x 7' RCB. UPSTREAM CHANNEL MINIMUM 5' VERTICAL CLEARANCE AND CROSS SECTIONAL AREA OF AT LEAST 90 SQUARE FEET.
42	8' x 8' RCB	NO ENCROACHMENTS OF UPSTREAM, PONDING AREA ALLOWED.
43	6' x 6' RCB	REMOVE EXISTING EXTEND 8' x 8' RCB, STRUCTURE 42 TO LAGUNA GRANDE IF FILLED AREA IS TO BE USED.

MONTEREY COUNTY SURVEYORS, INC.
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MONTEREY COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	
MONTEREY COUNTY	
MASTER DRAINAGE PLAN	
REVISIONS	TITLE
DATE: JUNE, 1977	CANYON DEL REY WATERSHED
DRAWN: KEM	CHECKED: LML
APPROVED:	SCALE: 1" = 400' APPROX.
DRAWING NO.	10



SEE SHEET I FOR LEGEND

STRUCTURE	EXISTING	IMPROVEMENT REQUIRED
42	8' x 8' RCB	NO ENCROACHMENTS OF U/S PONDING AREA ALLOWED.
43	6' x 6' RCB	REPLACE WITH 8' x 8' RCB EXTENDING FROM STRUCTURE 42 TO LAGUNA GRANDE IF FILLED AREA IS TO BE USED.
44	DOUBLE 7' x 16' RCB	
45	48" CMP COLLAPSED	REPLACE WITH DOUBLE 8' x 6' RCB
46	QUADRUPLE 6' x 6' RCB	

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MONTEREY COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	
MONTEREY COUNTY	
MASTER DRAINAGE PLAN	
REVISIONS	TITLE
DATE: JUNE, 1977	CANYON DEL REY WATERSHED
DRAWN: KEM	CHECKED: L.M.L.
APPROVED:	SCALE: 1" = 400' APPROX.
	DRAWING NO. 11

CANYON DEL REY WATERSHED PRIMARY DRAINAGE FACILITIES

STRUC- TURE NO.	SUB- WATER- SHED	DESCRIPTION OF EXISTING STRUCTURE	PRESENT CAPACITY EXISTING STRUCTURE	PEAK DISCHARGE 100YR. STORM FUT. cfs. PRES. cfs.		PRIMARY FACILITY REQUIRED FUTURE	ESTIMATED COST FUTURE	PRIMARY FACILITY REQUIRED PRESENT	ESTIMATED COST PRESENT
3	2	28" x 18" CMARCH UNDER HIGHWAY 68	30 cfs	182	135	REPLACE WITH 6' x 25' RCB	\$8,300	REPLACE WITH 5' x 25' RCB	\$7,200
4	15	12" CMP UNDER LAGUNA SECA RD., EAST FORK	10	286	270	REPLACE WITH DBL. 42" CMP & RAISE ROAD 2' CLEAN OUTLET CHANNEL DOWN TO STRUC. 7'	6,700	SAME AS FUTURE	6,700
7	16	48" CMP UNDER LAGUNA SECA RD., WEST FORK	180	237	235	PROVIDE PARALLEL 48" CMP w/ ROUNDED ENTRANCE HEADWALL	3,800	PROVIDE PARALLEL 36" CMP w/ ROUNDED ENTRANCE HEADWALL	2,900
10	16	36" CMP UNDER LAGUNA SECA RANGER STA. RD. IT HAS A DROP INLET & ROAD ACTS AS DAM.	90	170	170	PROVIDE PARALLEL 36" CMP w/ DROP INLET & RAISE ROAD 2'	10,400	SAME AS FUTURE	10,400
14	17	36" CMP UNDER HWY 68	100	130	135	PROVIDE PARALLEL 36" CMP w/ ROUNDED COMMON HEADWALL ENTRANCE	5,000	PROVIDE PARALLEL 24" CMP w/ ROUNDED COMMON HEADWALL ENTRANCE	3,400
16	6	48" CMP UNDER HWY 68	240	260	194	PROVIDE PARALLEL 36" CMP ABOVE EXISTING CULVERT	7,300	NO CHANGE	0
25	22	48" CMP UNDER LARKSPUR DR.	260	391	230	PROVIDE PARALLEL 42" CMP w/ DROP INLET. KEEP INLETS & APPROACHING DITCH CLEAR.	8,800	NO CHANGE	0
26	22	12' x 6' RCB UNDER YORK SCHOOL RD.	500	391	391	REMOVE EXISTING TREES AT ENTRANCE OF STRUCTURE	1,000	SAME AS FUTURE	1,000
27	10	6' x 3' RCB UNDER HWY. 68	200	344	265	PROVIDE PARALLEL 4' x 3' RCB w/ LONGITUDINAL SLOPE OVER 1% TO REDUCE SILTING, CONSTRUCT COMMON ROUNDED HEADWALL ENTRANCE	8,200	PROVIDE PARALLEL 3' x 3' RCB w/ LONGITUDINAL SLOPE OVER 1% TO REDUCE SILTING, CONSTRUCT COMMON ROUNDED HEADWALL ENTRANCE	6,900
29	23	TRIPLE 30" CMP UNDER HWY. 68	200	757	583	REPLACE WITH TRIPLE 6' x 3' RCB w/ COMMON ROUNDED HEADWALL ENTRANCE	21,000	REPLACE WITH TRIPLE 5' x 3' RCB w/ COMMON ROUNDED HEADWALL ENTRANCE	19,100
30	11	8.5' x 3.5' BRIDGE AT PRIVATE DRIVEWAY	450	834	668	ENLARGE STRUCTURE TO MIN. 72 sq. ft. OPENING RAISE ROAD 2'	3,300	ENLARGE STRUCTURE TO MIN. 60 sq. ft. OPENING RAISE ROAD 2'	3,200
31	14	DBL. 48" RCP w/ ROUNDED ENTRANCE HEADWALL UNDER HWY 68	300	1088	853	REPLACE WITH TRIPLE 7' x 4.5' RCB w/ COMMON ROUNDED HEADWALL ENTRANCE	35,800	REPLACE WITH TRIPLE 6' x 4.5' RCB w/ COMMON ROUNDED HEADWALL ENTRANCE	32,900
37	14	90" CMP UNDER CANYON DEL REY GARDENS ROAD	500	1120	898	REPLACE WITH 12' x 7.5' RCB w/ ROUNDED ENTRANCE OR EQUIVALENT STRUCTURE w/ CLEAR OPENING OF 90 sq. ft. MIN.	16,400	REPLACE WITH 10' x 7.5' RCB w/ ROUNDED ENTRANCE OR EQUIVALENT STRUCTURE w/ CLEAR OPENING OF 75 sq. ft. MIN.	10,200
38	27	6' x 8' RCB UNDER HWY 218	600	1129	906	PROVIDE PARALLEL 6' x 8' RCB w/ ROUNDED ENTRANCE	16,300	PROVIDE PARALLEL 3' x 8' RCB w/ ROUNDED ENTRANCE	12,800
40	27	6' x 7' RCB AT FROG POND OUTLET UNDER HWY 218	420	960	794	PROVIDE PARALLEL 6' x 8' RCB w/ COMMON ROUNDED HEADWALL ENTRANCE. SET INVERT 1' BELOW EXIST. CULVERT INVERT	19,100	PROVIDE PARALLEL 4' x 8' RCB w/ COMMON ROUNDED HEADWALL ENTRANCE. SET INVERT 1' BELOW EXIST. CULVERT INVERT	16,200
41	27	6' x 6' RCB UNDER ROSITA RD.	400	960	794	REPLACE WITH DBL. 6' x 7' RCB w/ ROUNDED ENTRANCE MAINTAIN U/S CHANNEL w/ 90 sq. ft. MIN. AREA & 5' MIN. VERT. CLEARANCE TO PRIVATE BRIDGES	26,900	REPLACE WITH DBL. 6' x 6' RCB w/ ROUNDED ENTRANCE. MAINTAIN U/S CHANNEL w/ 75 sq. ft. MIN. AREA & 5' MIN. VERT. CLEARANCE TO PRIVATE BRIDGES	16,600
42	27	8' x 8' RCB AT FREMONT AVE. & UNDER MONTE MART & FREMONT BLVD.	1800	870	720	PROVIDE MAINTENANCE CLEANING AT INLET & NO FILING OR ENCROACHMENTS OF U/S PONDING AREA	—	SAME AS FUTURE	0
43	28	6' x 6' RCB AT END OF KOLB AVE.	780	870	720	REMOVE EXIST. STRUCTURE 43 & EXTEND EXIST. STRUC. 42 TO LAGUNA GRANDE IF FILLED AREA IS TO BE USED	107,200	NO CHANGE	0
45	28	COLLAPSED 48" CMP, LAKE ROBERTS OUTLET	0	200		REPLACE WITH DBL. 8' x 6' RCB ENTRANCE TO ALLOW FOR DESIRED OPERATING ELEV. OF LAKE	24,300	SAME AS FUTURE	24,300

NOTES

- PRIMARY FACILITIES NOT INCLUDED IN THE ABOVE LIST ARE ADEQUATE IN SIZE OR ARE LOCATED ON PRIVATE PROPERTY.
- ALL PRIMARY FACILITIES, SUCH AS CULVERTS, BRIDGES, PONDING AREAS & CHANNEL IMPROVEMENTS ARE SUBJECT TO MODIFICATION DURING DESIGN.
- ESTIMATED CONSTRUCTION COSTS ARE AT SPRING OF 1977 LEVELS & EXCLUDE COSTS OF ENGINEERING, ADMINISTRATION, RIGHTS OF WAY & EASEMENTS.

FUTURE
TOTAL ESTIMATED COST \$ 331,000

PRESENT
TOTAL ESTIMATED COST \$ 173,800

MONTEREY COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

MONTEREY COUNTY
MASTER DRAINAGE PLAN

MONTEREY COUNTY SURVEYORS, INC.
KORETSKY KING ASSOCIATES, INC.
A Joint Venture
235 SALINAS STREET SALINAS

REVISIONS	TITLE
DATE: JUNE, 1977	CANYON DEL REY WATER SHED
DRAWN: KEM	CHECKED: LML
APPROVED	SCALE
	DRAWING NO. 12