RCFC & WCD
2018

August 13, 2019 Calendar On
DATE

2018 - 0089 -
PROJECT NUMBER

INDIO MDP- CABAZON RD
PROJECT NAME

CONSTRUCTION COST	$	3,670,640
PLUS 22% LUMP SUM ITEMS	+	807,541
PLUS 12% CONTINGENCY	+	440,477
SUBTOTAL	=	4,918,658
ENV. MITIGATION COSTS	+	0
PLUS 25% ENG & ADMIN	+	1,027,779
PLUS 3% MSHCP MITIGATION FEE	+	123,334
RIGHT-OF-WAY	+	55,000
TOTAL	**$**	**6,125,000**

DATE OF R/W ESTIMATE

ADDITIONAL INFORMATION

ENGR. INT.

PROJECT LENGTH
00 + 00

RESPONSIBLE SECTION

PROJECT TYPE:

☐ Flood Control ☐ Water Conservation ☐ Water Quality Enhancement ☐ Ground Water Recharge

☑ Other CITY OF INDIO MDP

PROJECT DESCRIPTION:

CABAZON RD MDP DRAINAGE FACILITY, INCLUDING STORM DRAIN PIPE, CONCRETE TRAP CHANNEL, FROM NORTH OF ENTERPRISE WAY TO DILLON RD, DISCHARGE TO AVE 48 CONCRETE TRAP CHANNEL

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
2018 PROJECT PLANNING COSTS

PROJECT DESCRIPTION: INDIO MDP- CABAZON RD

ITEM	UNIT	QUANTITY	CRITERIA	2018 Cost	TOTAL
TRAP. CHANNEL EXCAVATION	CY	3850	b > 8	$6.60	$25,410
			b ≤ 8	$9.20	
RCB & RECT. CHAN. EXCAVATION	CY		b > 12	$8.00	
			b ≤ 12	$12.10	
COMPACTED FILL	CY		EXC > FILL	$3.25	
			EXC < FILL	$7.30	
STRUCTURE BACKFILL	CY			$10.40	
TRAP. CHANNEL CONCRETE	CY		b > 8[1]	$380.00	
		650	b ≤ 8	$480.00	$312,000
R.C.B. CONCRETE (INCLUDING STEEL)	CY		L > 150	$720.00	
			L < 150	$860.00	
RECT. CHAN. CONC. (INCLUDING STEEL)	CY		L > 150	$440.00	
			L < 150	$615.00	
CUTOFF WALL (2' TYP.)	LF	3200		$13.50	$43,200
SUBDRAIN	LF	1600	6 < b ≤ 16	$12.50	$20,000
			b > 16	$25.00	
FENCING (6' TYP.)	LF	1700		$21.30	$36,210
CATCH BASINS	LF	266		$560.00	$148,960
MANHOLES (PIPE)	EA	4	FOR MAINLINE	$6,200.00	$24,800
		11	FOR JUNCTION	$8,000.00	$88,000
MANHOLES (RCB)	EA			$2,100.00	
HOT MIX ASPHALT (HMA) TYPE A[3]	SF			$3.00	
CLASS 2 BASE (3" THICK)	SF			$0.40	
ROCK SLOPE PROTECTION[4]	CY[2]			$80.00	
CONC.-ROCK SLOPE PROTECTION				$130.00	
STORM DRAINS	SEE STORM DRAIN COST SHEET				$2,692,860
SLAB BRIDGES	LBS	SEE BRIDGE COST SHEET	REBAR	$1.10	
	CY		CONCRETE	$540.00	
MISCELLANEOUS COSTS	SEE MISCELLANEOUS COST SHEET				$279,200
DAM & BASIN COSTS	SEE DAM & BASIN COST SHEET				

1. No.4 bars at 18 inches
2. 1.9 tons/cy
3. Includes 4" A.C. & 8" A.B.
4. Use 75% for large installations (>1000cy)
5. Use 125% of rock slope protection to determine concreted-rock quantity
6. i.e. Mobilization, Water Control, etc.
7. Connector pipe, etc.
8. Cell typically only used for ADP Updates.

CONSTRUCTION COST	$3,670,640
LUMP SUM ITEMS (22%)[6]	$807,541
CONTINGENCIES (12%)[7]	$440,477
SUBTOTAL	$4,918,658
ENG & ADMIN. (25%); MSHCP MITIGATION FEE: (3%) ? ☑ ON FOR YES	$1,151,113
AS-BUILT COSTS[8]	$0
ENV. MITIGATION COSTS (LS)	$0
R/W (FROM R/W SHEET)	$55,000
R/W (FROM DAM & BASIN SHEET)	$0

rev. 9/21/2017

NAME & DATE	TOTAL	
08/13/19		**$6,124,770**

PROJECT DESCRIPTION: INDIO MDP- CABAZON RD

STORM DRAIN COSTS FOR: DESERT AREA

INSIDE DIA. (INCHES)	AC COVER? ENTER Y or N	LENGTH OF PIPE (FT)	PIPE ($/FT)	IN PLACE ($/FT) W/O AC	IN PLACE ($/FT) W/AC	TOTAL
18	Y	480 FT	$137		$177	$84,960
24	Y	1200 FT	$156		$202	$242,400
36	Y	1500 FT	$209		$269	$403,500
42	Y	600 FT	$239		$306	$183,600
84	Y	2600 FT	$550		$684	$1,778,400
		6380 FT				
				STORM DRAIN TOTAL		$2,692,860

MISCELLANEOUS COSTS

ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
UTILITY RELOCATION	6380	LF	$40	$255,200
PIPE TO CHANNEL TRANSITIONS	2	EA	$12,000	$24,000
		MISCELLANEOUS TOTAL		$279,200

TRAP CHANNEL OVERBURDEN EXCAVATION*

INDIO
MDP / ADP

8/13/19
DATE

INDIO MDP- CABAZON RD
FACILITY

WEBB
ENGINEER

	Station (FT)		Channel			No. Access	Avg. Overburden	Overburden	Length	Channel	R/W	With Overburden		
	From	To	B (FT)	D (FT)	Z	Roads	at C.L. Channel (FT)	Cut Slope Z	(FT)	Top Width (FT)	Width (FT)	R/W Width (FT)	Overburden Excavation (CF/LF)	Overburden Excavation (CY)
1	3700	5300	6	4	1.5	0	0		1600	20				
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
rev. 9/21/2017		**TOTAL:**							1,600					0

*This sheet is to be used in conjunction with FC 416. It is used when the channel section will be lower than existing ground.

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
- PROJECT PLANNING R/W COSTS -

PROJECT: INDIO MDP- CABAZON RD

DATE:

(1) Raw R/W Costs (*Land Value A*) = ***$50,000*** $/acre

Total Area required = ***1.00*** acres

Total R/W Raw Costs = **$50,000**

(2) Number of vacant parcels = ***1*** x *$5,000* = ***$5,000***

Number of occupied parcels = ***0*** x *$10,000* = ***$0***

Total Parcels Affected = ***1***

Total Parcels Costs = **$5,000**

(3) Total acreage of Improved parcels significantly impacted by the project = acres

$= \left[\left(\frac{1}{1-R}\right)-1\right]$

Improvement ratio ***R*** (*decimal*) = ***20%*** coefficient→ **0.3**

Land Value ***A*** (*per acre*) = ***$50,000***

Improvement value ***I*** (*per acre*) = ***$12,500*** ← $= A.\left[\left(\frac{1}{1-R}\right)-1\right]$

Value of Improved Land (*per acre*) = ***$62,500*** ← $= A + A.\left[\left(\frac{1}{1-R}\right)-1\right]$

Total Value of Damaged Property = ***$0***

Total Damages Costs (*25%.Total Improvement value*) = **$0**

(4) Number of Houses for Buyout = houses

Cost per Home = ***$500,000***

Total Relocation/Buyout Costs = **$0**

Grand Total R/W Costs = **$55,000**

1. **ITEM 1**. Enter the raw cost per acre and the total acres needed to complete the project.
2. **ITEM 2**. Enter the number of vacant and occupied parcels that are involved in the project. The sum of the two should total all of the parcels affected. Item 2 will calculate how much it costs to complete negotiations with the owners of the parcels.
3. **ITEM 3**. Enter total acres of all parcels **significantly impacted** by the project.

   However, the engineer needs assess that the project **may enhance** the property owner by allowing him/her to develop and use the land that less developable due to flood hazard before the construction. These enhancements will offset damages for these parcels.

   Item 3 will compute the total damages by using the Improvement Ratio **R**. The ratio can be found in the Win2Data database (See item b below).

   a) The improvement ratio **R** is the percentage of the improvement value to the total assessed value of land and improvements.

   b) The improvement ratio **R** (Imprv %) can be obtained from the summary spreadsheet-like table after the search was done. The Imprv % field can be dragged and dropped from the "Drag/Drop Fields" button to the table.
4. **ITEM 4**. Enter the number of houses that are to be bought and/or relocated. Also, enter the average value per home (also use Win2Data to help with this). This item will calculate the total relocation/buyout costs.

NOTE: There is an example R/W estimate in the planning files A-14.4 for San Jacinto MDP Line E (can be found in the "Black Hole area" in the blue binder Titled "Planning Cost Sheets Revisions 1994-2002", just before the 1999-2000 tab).