

RCFC & WCD

2018

May 13, 2019

Calendar On

2018 - 0089 -

DATE

PROJECT NUMBER

INDIO MDP- AVE 45

PROJECT NAME

CONSTRUCTION COST	\$	<u>7,781,432</u>
PLUS 22% LUMP SUM ITEMS	+	<u>1,711,915</u>
PLUS 12% CONTINGENCY	+	<u>933,772</u>
SUBTOTAL	=	<u>10,427,119</u>
ENV. MITIGATION COSTS	+	<u>0</u>
PLUS 25% ENG & ADMIN	+	<u>2,178,801</u>
PLUS 3% MSHCP MITIGATION FEE	+	<u>261,456</u>
RIGHT-OF-WAY	+	<u>0</u>
TOTAL \$		<u>12,867,000</u>

DATE OF R/W ESTIMATE

ADDITIONAL INFORMATION

PROJECT
LENGTH

00 + 00

RESPONSIBLE
SECTION



ENGR. INT.

PROJECT TYPE:

Flood Control Water Conservation Water Quality Enhancement Ground Water Recharge

Other CITY OF INDIO MDP

PROJECT DESCRIPTION:

AVENUE 45 MDP DRAINAGE FACILITY, INCLUDING STORM DRAIN PIPE, MARKET DETENTION BASIN, INFILTRATION TRENCH, TUNNELING UNDER R/R TRACKS... FROM SHADOW PALM AVE TO BLISS, DEGLET NOOR, CROSS INDIO BLVD AND R/R TRACK TO THE PROPOSED MARKET BASIN, OUTLET TO THE EXISTING STROM DRAIN ON AVE 45.

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

PROJECT DESCRIPTION: **INDIO MDP- AVE 45**

ITEM	UNIT	QUANTITY	CRITERIA	2018 Cost	TOTAL
TRAP. CHANNEL EXCAVATION	CY		b > 8	\$6.60	
			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	
			b ≤ 8	\$480.00	
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			\$13.50	
SUBDRAIN	LF		6 < b ≤ 16	\$12.50	
			b > 16	\$25.00	
FENCING (6' TYP.)	LF			\$21.30	
CATCH BASINS	LF	714		\$560.00	\$399,840
MANHOLES (PIPE)	EA	14	FOR MAINLINE	\$6,200.00	\$86,800
		26	FOR JUNCTION	\$8,000.00	\$208,000
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 CONC.-ROCK SLOPE PROTECTION	CY ²	100		\$80.00	\$8,000
				\$130.00	
STORM DRAINS	SEE STORM DRAIN COST SHEET				\$4,965,180
SLAB BRIDGES	LBS	SEE BRIDGE COST SHEET	REBAR CONCRETE	\$1.10	
	CY			\$540.00	
MISCELLANEOUS COSTS	SEE MISCELLANEOUS COST SHEET				\$1,438,600
DAM & BASIN COSTS	SEE DAM & BASIN COST SHEET				\$675,012
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				\$7,781,432
	LUMP SUM ITEMS (22%) ⁶				\$1,711,915
	CONTINGENCIES (12%) ⁷				\$933,772
	SUBTOTAL				\$10,427,119
	ENG & ADMIN. (25%); MSHCP MITIGATION FEE: (3%) ? <input checked="" type="checkbox"/> ON FOR YES				\$2,440,257
AS-BUILT COSTS ⁸				\$0	
ENV. MITIGATION COSTS (LS)				\$0	
R/W (FROM R/W SHEET)				\$0	
R/W (FROM DAM & BASIN SHEET)				\$0	
rev. 9/21/2017					
NAME & DATE				TOTAL	\$12,867,376
05/13/19					

PROJECT DESCRIPTION: **INDIO MDP- AVE 45**

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	2680 FT	\$137		\$177	\$474,360
24	Y	4400 FT	\$156		\$202	\$888,800
30	Y	700 FT	\$181		\$233	\$163,100
36	Y	1320 FT	\$209		\$269	\$355,080
42	Y	640 FT	\$239		\$306	\$195,840
48	Y	5200 FT	\$276		\$350	\$1,820,000
60	Y	2400 FT	\$355		\$445	\$1,068,000
		17340 FT				
STORM DRAIN TOTAL						\$4,965,180

MISCELLANEOUS COSTS

ITEM DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
MILLER PARK INFILTRATION TRENCH	500	LF	\$210	\$105,000
MAXWELL PLUS - 40' DEPTH	3	EA	\$40,000	\$120,000
MARKET BASIN INFILTRATION TRENCH	1600	LS	\$210	\$336,000
JUNCTION/ TRANSITION STRUCTURE	2	EA	\$12,000	\$24,000
2-48" TUNNELING UNDER R/R TRACKS	80	LF	\$2,000	\$160,000
UTILITY RELOCATION	17340	LF	\$40	\$693,600
MISCELLANEOUS TOTAL				\$1,438,600

**RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
2018 DAM/BASIN COST ESTIMATE FORM**

DAM/BASIN NAME: INDIO MDP- AVE 45

ITEM	UNIT	QUANTITY	CRITERIA	2018 Cost	TOTAL	
EXCAVATION (Off-site Disposal)	CY	92000	Use Lower Channel Excavation Unit Cost	\$6.60	\$607,200	
EXCAVATION (Used on site)	CY		60% of Lower Channel Excavation Unit Cost	\$4.00		
EMBANKMENT	CY		Compacted Fill Unit Cost ¹	\$3.25		
SPILLWAY CONCRETE ²	CY	10	Use Lower RCB Unit Cost	\$720	\$7,200	
ROCK (SPILLWAY) U/S SIDE ³	CY			\$80.00		
D/S SIDE ⁴	CY			\$80.00		
CONCRETED ROCK	CY			\$130.00		
ROCK (MISC.)	CY			\$80.00		
CONCRETED ROCK (MISC.)	CY			\$130.00		
OUTLET PIPE DIAMETER	IN	18	RCP unit cost w/o AC =	\$158		
LENGTH	LF	100	1.5 x RCP unit cost w/o AC =	\$237	\$23,700	
DEBRIS OUTLET STRUCTURE	EA		500 x unit cost of RCP outlet pipe	\$68,500		
OUTLET STRUCTURE	EA	1	30 x RCP unit cost	\$4,110	\$4,110	
CLASS 2 BASE (3" THICK)	SF			\$0.40		
FENCING (6' TYP.)	LF	1540		\$21.30	\$32,802	
			SUBTOTAL		\$675,012	
				LUMP SUM ITEMS (22%) ⁵		\$148,503
				CONTINGENCIES (12%) ⁶		\$81,001
			ENG & ADMIN. (25%) MITIGATION (3%) ?	<input checked="" type="checkbox"/> ON FOR YES	\$211,684	
			SUBTOTAL (AS-BUILT)			
				SUBTOTAL		\$1,116,200
			R/W (AC.)	COST/AC.		
					\$0	
				/ac. = -->		
			NAME & DATE			
			5/13/19		\$1,116,200	

1. If dam, add 50% for precompaction, filter, subdrain, etc.
2. Assume rectangular section; slab t = 12"; walls t = 9"
3. U/S side: quantity = ((spillway width + 20') x 50' x 2')/27
4. D/S side, grouted: quantity = (spillway width x 40' x 3')/27
D/S of concreted-rock slope protection: quantity = (spillway width x 80' x 4')/27
5. Mobilization, Water Control, etc.
6. Connector pipe, etc.

RCP STORM DRAIN COSTS
EASTERN RIVERSIDE COUNTY (East of I-10 and SR-79)
2018

INSIDE DIA. (IN)	PIPE (\$/FT.)	IN PLACE (\$/FT.) ¹	
		W/O AC. ²	W/AC. ³
18	\$137	\$158	\$177
24	\$156	\$182	\$202
30	\$181	\$212	\$233
36	\$209	\$246	\$269
42	\$239	\$282	\$306
48	\$276	\$325	\$350
54	\$312	\$368	\$395
60	\$355	\$417	\$445
66	\$397	\$467	\$503
72	\$443	\$520	\$557
78	\$497	\$582	\$620
84	\$550	\$644	\$684
90	\$611	\$714	\$755
96	\$679	\$791	\$834
102	\$749	\$870	\$914
108	\$812	\$943	\$988
114	\$884	\$1,025	\$1,072

1. IN PLACE COSTS ASSUME:

\$12.10 per C.Y. PIPE EXCAVATION

\$10.40 per C.Y. PIPE BACKFILL

\$43.00 per C.Y. AGGREGATE BASE

\$86.28 per TON ASPHALT CONCRETE

TRENCH DEPTH = PIPE OUTER DIA. + 5' COVER

TRENCH WIDTH = PIPE OUTER DIA. + 2'

PIPE COST INCLUDES TRANSPORTATION COSTS

2. W/O AC PAVING & BASE INCLUDES COST OF EXCAVATION AND BACKFILL

3. W/ AC PAVING & BASE INCLUDES COST OF EXCAVATION, BACKFILL,