

## AGANA HEIGHTS VILLAGE

LOCATION		COST ESTIMATES								
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS			QUANTITIES	UNITS	COST / UNITS	COST	TOTAL COST	TOTAL COST W/ENGINEERING & CONTINGENCIES
AG-101	San Vicente Solomon Street & Francisco Javier Ave	6 NEW INJECTION WELLS	INJECTION WELLS		1200	LF	\$1,000.00 / LF	\$1,200,000.00	\$1,386,473.02	\$2,357,004.13
		INCREASE BASIN SIZE BY 5000 SF (6' DEEP)	INFILTRATION BASIN	EXCAVATION	1111.11	CY	\$27.53 / CY	\$30,588.86		
				FENCING	10448	LF	\$14.92 / LF	\$155,884.16		
AG-102	Joseph Cruz Ave NEAR As Kotia Court	2 INFILTRATION TRENCHES	INFILTRATION TRENCH	EXCAVATION	222.22	CY	\$27.53 / CY	\$6,117.72	\$41,228.74	\$70,088.85
				0.75" ROCK	222.22	CY	\$41.00 / CY	\$9,111.02		
				EROSION CONTROL (HYDROSEED)	5200	SF	\$5.00 / SF	\$26,000.00		
AG-103	Rte 6 & Rte 7	10,000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		1	AC	\$4,562.38 / AC	\$4,562.38	\$107,316.00	\$182,437.19
		3,000 CF RIP RAP	RIP RAP		111.11	CY	\$744.79 / CY	\$82,753.62		
		2-HEADWALL/W WINGWALL	HEADWALL W/WINGWALL		2	EA	\$10,000.00 / EA	\$20,000.00		
AG-104	Agana Heights Ponding Basin	1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,140.59	\$83,894.21	\$142,620.16
		3000 CF RIP RAP	RIP RAP		111.11	CY	\$744.79 / CY	\$82,753.62		

## AGAT VILLAGE

LOCATION		COST ESTIMATE							
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS		QUANTITIES UNITS	COST / Unit	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES	
AV-102	Tun Rumon Chele Rd and Rte 2	3000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / CY	\$82,753.62	\$82,753.62	\$140,681.15	
AV-109, AV-125 (Cost Estimate for Each Project)	Baubata Road (AV-109), Salinas Rd (AV-125)	100' BIOSWALE	BIOSWALE	EXCAVATION	48.14 CY	\$27.53 / CY	\$1,325.29	\$78,960.72	\$134,233.22
		100'x24" RCP	24" RCP	EROSION CONTROL (HYDROSEED)	1600 SF	\$5.00 / SF	\$8,000.00		
		1 CATCH BASIN	CATCH BASIN		100 LF	\$554.79 / LF	\$55,479.38		
		HEADWALL W/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$3,500.00 / EA	\$3,500.00		
		300 CF RSP	ROCK SLOPE PROTECTION (RSP) METHOD B 1/4 TON (AKA RIP RAP)		1 EA	\$10,000.00 / EA	\$10,000.00		
					11.11 CY	\$59.05 / CY	\$656.05		
AV-101	Chalan Josen Milagro	2500'x3'x5' RCB	REINFORCED CONCRETE BOX CULVERT		1388.89 CY	\$1,103.85 / CY	\$1,533,126.23	\$1,577,698.30	\$2,682,087.11
		2 HEADWALLS/WINGWALLS	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000.00		
		1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59		
		2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00		
		2000' DITCH	DITCH		296.29 CY	\$27.53 / CY	\$8,156.86		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
AV-104	Paqacho Drive and Kalachucho	1 AC HYDROMULCH W/BFM	HYDROMULCH (BFM)	43560 SF	\$1.00 / SF	\$43,560.00	\$43,560.00	\$74,052.00	
AV-119, AV-120, AV-127 (Cost Estimate for Each Project)	Father Follard & Bruce Street (AV-119), Father Follard & Route 2 (AV-120), Rte 2 & Rte 12 (AV-127)	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,140.59	\$148,005.02	\$251,608.53	
		3000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / CY	\$82,753.62			
		2 CATCH BASINS	CATCH BASIN	2 EA	\$3,500.00 / EA	\$7,000.00			
		100'x24" RCP	24" RCP	100 LF	\$554.79 / LF	\$55,479.38			
		400' DITCH	DITCH	59.26 CY	\$27.53 / CY	\$1,631.43			
AV-113	Finile Orong Circle	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,140.59	\$96,580.94	\$164,187.59	
		2 CATCH BASINS	CATCH BASIN	2 EA	\$3,500.00 / EA	\$7,000.00			
		100'x18" RCP	18" RCP	100 LF	\$536.16 / LF	\$53,616.49			
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL	1 EA	\$10,000.00 / EA	\$10,000.00			
		300 CF RIP RAP	RIP RAP	11.11 CY	\$744.79 / CY	\$8,274.62			
		600 CF RIP RAP	RIP RAP	22.22 CY	\$744.79 / CY	\$16,549.23			
AV-110	Auau Creek & Route 2	3000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / CY	\$82,753.62	\$93,765.62	\$159,401.55	
AV-129	North Perino	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,140.59	\$33,340.97	\$56,679.64	
		600 CF RIP RAP	RIP RAP	22.22 CY	\$744.79 / CY	\$16,549.23			
		200 LF BIOSWALE	BIOSWALE	EXCAVATION	96.3 CY	\$27.53 / CY			\$2,651.14
				EROSION CONTROL (HYDROSEED)	2600 SF	\$5.00 / SF			\$13,000.00
AV-106	Pagachao Road	1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,140.59	\$47,531.27	\$80,803.15	
		0.5 AC HYDROMULCH W/BFM	HYDROMULCH (BFM)		21780 SF	\$1.00 / SF			\$21,780.00
		1000 LF CONCRETE DITCH	CONCRETE DITCH	EXCAVATION	74.07 CY	\$27.53 / CY			\$2,039.15
				CONCRETE (DITCH LINING)	35.64 CY	\$633.32 / CY			\$22,571.52
AV-121	Rte 2 and Erskin	1000 LF CONCRETE DITCH	CONCRETE DITCH	EXCAVATION	74.07 CY	\$27.53 / CY	\$2,039.15	\$106,996.10	\$181,893.36
				CONCRETE (DITCH LINING)	35.64 CY	\$633.32 / CY	\$22,571.52		
		2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00		
		100'x24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
		400 LF DITCH	DITCH		59.26 CY	\$27.53 / CY	\$1,631.43		
AV-126	Togcha River	100 LF 12" CONCRETE ENCASEMENT	MINOR CONCRETE (PIPE ENCASEMENT)		100 CY	\$345.65 / CY	\$34,565.00	\$138,459.21	\$235,380.66
		1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59		
		2 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000.00		
		3000 CF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,753.62		
AV-123	VT Baubata Lane	3000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / CY	\$82,753.62	\$83,894.21	\$142,620.16	
AV-108	Route 2 @ Chalgan Creek	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,140.59	\$83,894.21	\$142,620.16	
		3000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / CY	\$82,753.62			
AV-112	Route 2 @ Finile Road	100 LF 12" CONCRETE ENCASEMENT	MINOR CONCRETE (PIPE ENCASEMENT)		100 CY	\$345.65 / CY	\$34,565.00	\$118,459.21	\$201,380.66
		1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59		
		3000 CF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,753.62		

LOCATION		COST ESTIMATE							
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS			QUANTITIES UNITS	COST / Unit	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES
AV-128	Rte 2, North of Rte 12	1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00	\$92,753.62	\$157,681.15
		3000 CF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,753.62		
AV-115	Tomas Mesa Street	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00	\$151,864.42	\$258,169.52
		100 LF 24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
		1 HEADWALL	HEADWALL		1 EA	\$5,000.00 / EA	\$5,000.00		
		400 LF DITCH	DITCH		59.26 CY	\$27.53 / CY	\$1,631.43		
		3000 CF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,753.62		
AV-107	Route 2 N O Marina & S O Chalan Lata	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59	\$37,689.83	\$64,072.71
		600 CF RIP RAP	RIP RAP		22.22 CY	\$744.79 / CY	\$16,549.23		
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000.00		
AV-124	RR Cruz & Baubata Lane	3000 CF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,753.62	\$132,753.62	\$225,681.15
		5 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		5 EA	\$10,000.00 / EA	\$50,000.00		
AV-111	Gaan River & Route 2	3000 CF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,753.62	\$103,894.21	\$176,620.16
		1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59		
AV-117	Salinas River & Route 2	2 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000.00	\$83,894.21	\$142,620.16
		1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59		
AV-122	Route 2 South of Atao Rd	3000 CF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,753.62	\$186,647.83	\$317,301.31
		2 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000.00		
		1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59		
AV-116	San Roque Street	6000 CF RIP RAP	RIP RAP		222.22 CY	\$744.79 / CY	\$165,507.23	\$64,110.81	\$108,988.37
		400 LF DITCH	DITCH		59.26 CY	\$27.53 / CY	\$1,631.43		
		100 LF 24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
		2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00		
AV-130	South Perino	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00	\$119,099.35	\$202,468.90
		200 LF 24" RCP	24" RCP		200 LF	\$554.79 / LF	\$110,958.76		
		1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59		
AV-114	Rte 2 and Finile Creek	4 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		4 EA	\$10,000.00 / EA	\$40,000.00	\$205,507.23	\$349,362.30
		6000 CF RIP RAP	RIP RAP		222.22 CY	\$744.79 / CY	\$165,507.23		
AV-105	Paqacho Drive and Mike Cruz	1 MANHOLE	MANHOLE		1 EA	\$3,500.00 / EA	\$3,500.00	\$14,595.88	\$24,812.99
		20 LF 24" RCP	24" RCP		20 LF	\$554.79 / LF	\$11,095.88		
AV-131	Tun Leon Road	1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59	\$198,504.49	\$337,457.63
		300 LF 24" RCP	24" RCP		300 LF	\$554.79 / LF	\$166,438.14		
		200 LF BIOSWALE	BIOSWALE	EXCAVATION	96.3 CY	\$27.53 / CY	\$2,651.14		
		2 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000.00		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
AV-118	Erskin	300 LF 24" RCP	24" RCP		300 LF	\$554.79 / LF	\$166,437.00	\$213,623.10	\$363,159.27
		2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00		
		6 HEADWALL	HEADWALL		6 EA	\$5,000.00 / EA	\$30,000.00		
		2500 LF CONC DITCH	DITCH		370 CY	\$27.53 / CY	\$10,186.10		

## ASAN VILLAGE

LOCATION		COST ESTIMATE						TOTAL COST W/ENGINEERING CONTINGENCIES	
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS	QUANTITIES	UNITS	COST / UNIT	COST	TOTAL COST		
AS-103	Leon Guerrero @ Asan River Bridge	100' x 8" DIP WATER	DIP WATER	100	LF	\$52.77 / LF	\$5,277.00	\$6,277.00	\$10,670.90
		AIR RELEASE VALVE	AIR RELEASE VALVE	1	EA	\$1,000.00 / EA	\$1,000.00		
AS-109	Senator Juan Tim Toves Street	100'x3'x3' RCB (PER FCD)	REINFORCED CONCRETE BOX CULVERT	33.33	CY	\$1,103.85 / CY	\$36,791.32	\$51,199.08	\$87,038.44
		1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,140.59		
		NEW HEADWALL	HEADWALL	1	EA	\$5,000.00 / EA	\$5,000.00		
		100 SF RIP RAP	RIP RAP	11.1	CY	\$744.79 / CY	\$8,267.17		
AS-108	Santa Ana Street	100'x3'x3' RCB (PER FCD)	REINFORCED CONCRETE BOX CULVERT	33.33	CY	\$1,103.85 / CY	\$36,791.32	\$99,759.25	\$169,590.73
		1 AC HYDROMULCH (BFM)	HYDROMULCH (BFM)	43560.17	SF	\$1.00 / SF	\$43,560.17		
		2 NEW HEADWALLS	HEADWALL	2	EA	\$5,000.00 / EA	\$10,000.00		
		1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,140.59		
		100 SF RIP RAP	RIP RAP	11.1	CY	\$744.79 / CY	\$8,267.17		
AS-107	W. San Carlos Ct and Msgr Leon Guerrero St	1000 LF 30" RCP (PER FCD)	30" RCP	1000	LF	\$679.63 / LF	\$679,625.40	\$686,625.40	\$1,167,263.18
		2 CATCH BASINS	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000.00		
AS-106	Santa Ana & Nino Perdido	1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,140.59	\$100,180.14	\$170,306.25
		1 AC HYDROMULCH (BFM)	HYDROMULCH (BFM)	43560.17	SF	\$1.00 / SF	\$43,560.17		
		100 LF 24" RCP (PER FCD)	24" RCP	100	LF	\$554.79 / LF	\$55,479.38		
AS-104	Msgr. Leon Guerrero Street	100 LF 6'x4' RCB (per FCD)	REINFORCED CONCRETE BOX CULVERT	88.89	CY	\$1,103.85 / CY	\$98,121.23	\$98,121.23	\$166,806.09
AS-105	Consolacion & Msgr. Leon Guerrero Street	100 LF 4'x4' RCB (PER FCD)	REINFORCED CONCRETE BOX CULVERT	59.26	CY	\$1,103.85 / CY	\$65,414.15	\$93,103.98	\$158,276.77
		1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,140.59		
		2 HEADWALLS	HEADWALL	2	EA	\$5,000.00 / EA	\$10,000.00		
		200 SF RIP RAP	RIP RAP	22.22	CY	\$744.79 / CY	\$16,549.23		
AS-112	Route 1 @ Fonte River	10,000 SF RIP RAP STABILIZATION	RIP RAP	111	CY	\$744.79 / CY	\$82,753.62	\$83,802.96	\$142,465.04
		10,000 SF DEBRIS REMOVAL	DEBRIS REMOVAL	0.23	AC	\$4,562.38 / AC	\$1,049.35		
AS-111	Route 1; north of Church and in-between property @ 176 Route 1.	1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,140.59	\$59,700.76	\$101,491.30
		1 AC HYDROMULCH (BFM)	HYDROMULCH (BFM)	43560.17	SF	\$1.00 / SF	\$43,560.17		
		1 HEADWALL	HEADWALL	1	EA	\$5,000.00 / EA	\$5,000.00		
AS-110	Route 1 @ Asan River	200'x3'x3' RCB	REINFORCED CONCRETE BOX CULVERT	66.67	CY	\$1,103.85 / CY	\$73,593.68	\$91,868.30	\$156,176.10
		2 HEADWALLS	HEADWALL	2	EA	\$5,000.00 / EA	\$10,000.00		
		300 CF RIP RAP	RIP RAP	11.11	CY	\$744.79 / CY	\$8,274.62		
AS-102	Coast Line Along Route 1 Masso River to Fonte River	50,000 SF RIP RAP	RIP RAP	5,556	CY	\$744.79 / CY	\$4,137,725.53	\$4,137,725.53	\$7,034,133.41

## BARRIGADA VILLAGE

LOCATION		COST ESTIMATES							TOTAL COST W/ENGINEERING CONTINGENCIES	
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS	QUANTITIES	UNITS	COST / Unit	COST	TOTAL COST			
BV-102	Route 16 & Cepeta Way	3 CATCH BASINS	CATCH BASIN	3	EA	\$3,500.00 / EA	\$10,500.00	\$26,615.05	\$45,245.59	
		100 LF x 24" RCP	24" RCP	24	LF	\$554.79 / LF	\$13,315.05			
		1 MANHOLE	MANHOLE	1	EA	\$2,800.00 / EA	\$2,800.00			
BV-106	Route 16 & N. Bana Drive	2 CATCH BASINS	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000.00	\$80,754.00	\$137,281.79	
		100 LF x 24" RCP	24" RCP	100	LF	\$554.79 / LF	\$55,479.38			
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL	1	EA	\$10,000.00 / EA	\$10,000.00			
		300 CF RIP RAP	RIP RAP	11.11	CY	\$744.79 / CY	\$8,274.62			
BV-134	Barrigada Heights next to property No. 261 C	200' LONG INFILTRATION TRENCH	INFILTRATION TRENCH	EXCAVATION	111.11	CY	\$27.53 / CY	\$3,058.86	\$11,514.37	\$19,574.43
				0.75" ROCK	111.11	CY	\$41.00 / CY	\$4,555.51		
				FILTER FABRIC	2600	SF	\$1.50 / SF	\$3,900.00		
BV-116	Limtiaco Street	2-200' LONG INFILTRATION TRENCHES	INFILTRATION TRENCH	EXCAVATION	222.22	CY	\$27.53 / CY	\$6,117.72	\$23,028.74	\$39,148.85
				0.75" ROCK	222.22	CY	\$41.00 / CY	\$9,111.02		
				FILTER FABRIC	5200	SF	\$1.50 / SF	\$7,800.00		
BV-103, BV-111, BV-118, BV-119, BV-131	Rte 16, Rte 10, Anderson St, Leyang St, Rte 8	2 CATCH BASINS	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000.00	\$80,754.00	\$137,281.79	
		100 LF x 24" RCP	24" RCP	100	LF	\$554.79 / LF	\$55,479.38			
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL	1	EA	\$10,000.00 / EA	\$10,000.00			
		300 CF RIP RAP	RIP RAP	11.11	CY	\$744.79 / CY	\$8,274.62			
BV-115	Westbrook (Westbrook; #239 Kaminga Area, 7 homes affected)	2 CATCH BASINS	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000.00	\$282,037.59	\$479,463.90	
		100 LF x 24" RCP	24" RCP	100	LF	\$554.79 / LF	\$55,479.38			
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL	1	EA	\$10,000.00 / EA	\$10,000.00			
		300 CF RIP RAP	RIP RAP	11.11	CY	\$744.79 / CY	\$8,274.62			
		200'x200' INFILTRATION BASIN	INFILTRATION BASIN	EXCAVATION	6851.85	CY	\$27.53 / CY			\$188,631.43
				FENCING	848	LF	\$14.92 / LF			\$12,652.16
BV-109	Lizama Street (Radio; #214 Dimalanta residence)	800' FENCE AROUND BASIN	FENCING	848	LF	\$14.92 / LF	\$12,652.16	\$12,652.16	\$21,508.67	
BV-124	Ungaguan Place	200'x5'x10' CONC CHNL	CONCRETE CHNL	74	CY	\$633.32 / CY	\$46,865.68	\$46,865.68	\$79,671.66	
BV-125	Ungaguan Place (Village; Gumabon, Ricalde and Mendiola area over to Capt Reyes Wy and Aguon Store)	1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,140.59	\$66,140.59	\$112,439.01	
		10,000 SF HYDROSEED W/BFM	HYDROSEED W/BFM	EROSION CONTROL (HYDROSEED)	10,000	SF	\$5.00 / SF			\$50,000.00
				EROSION CONTROL (BFM)	10000	SF	\$1.50 / SF			\$15,000.00

LOCATION		COST ESTIMATES							TOTAL COST W/ENGINEERING CONTINGENCIES	
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS		QUANTITIES	UNITS	COST / Unit	COST	TOTAL COST		
BV-121 & BV-127	Canada Toto Road & Dodo St (BV-127), Leon Guerrero & Leyang (BV-121)	2-200' LONG INFILTRATION TRENCHES	INFILTRATION TRENCH	EXCAVATION	222.22	CY	\$27.53 / CY	\$6,117.72	\$23,028.74	\$39,148.85
				0.75" ROCK	222.22	CY	\$41.00 / CY	\$9,111.02		
				FILTER FABRIC	5200	SF	\$1.50 / SF	\$7,800.00		
BV-128	Lujan Way (Canada; #239)	3000 CF RIP RAP	RIP RAP		111.11	CY	\$744.79 / CY	\$82,753.62	\$82,753.62	\$140,681.15
BV-133	Aschena Place (Village; #158 Galves and Santos area)	200' INFILTRATION TRENCH	INFILTRATION TRENCH	EXCAVATION	111.11	CY	\$27.53 / CY	\$3,058.86	\$11,514.37	\$19,574.43
				0.75" ROCK	111.11	CY	\$41.00 / CY	\$4,555.51		
				FILTER FABRIC	2600	SF	\$1.50 / SF	\$3,900.00		
BV-132	#196 San Roque Drive	2-200' LONG INFILTRATION TRENCHES	INFILTRATION TRENCH	EXCAVATION	222.22	CY	\$27.53 / CY	\$6,117.72	\$23,028.74	\$39,148.85
				0.75" ROCK	222.22	CY	\$41.00 / CY	\$9,111.02		
				FILTER FABRIC	5200	SF	\$1.50 / SF	\$7,800.00		
BV-108	Manibusan Road (Radio; George, Bamba, Palomo and Camacho area leading to E. Rte 8, 9 homes + condominium residences affected)	1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,140.59	\$302,473.42	\$514,204.81
		1 TRASH RACK	TRASH RACK		1	EA	\$2,000.00 / EA	\$2,000.00		
		200'x200' INFILTRATION BASIN	INFILTRATION BASIN	EXCAVATION	6851.85	CY	\$27.53 / CY	\$188,631.43		
				FENCING	848	LF	\$14.92 / LF	\$12,652.16		
		100'x36" RCP	36" RCP		100	LF	\$715.00 / LF	\$71,500.00		
		1 WINGWALL/HEADWALL	HEADWALL W/WINGWALL		1	EA	\$10,000.00 / EA	\$10,000.00		
		600 CF RIP RAP	RIP RAP		22.22	CY	\$744.79 / CY	\$16,549.23		
BV-101	Manibusan Street - Leyang - Gumabon	200' INFILTRATION TRENCH	INFILTRATION TRENCH	EXCAVATION	111.11	CY	\$27.53 / CY	\$3,058.86	\$11,514.37	\$19,574.43
				0.75" ROCK	111.11	CY	\$41.00 / CY	\$4,555.51		
				FILTER FABRIC	2600	SF	\$1.50 / SF	\$3,900.00		
BV-120	Leyang Road, #415 - Mafinas Residence	200' INFILTRATION TRENCH	INFILTRATION TRENCH	EXCAVATION	111.11	CY	\$27.53 / CY	\$3,058.86	\$11,514.37	\$19,574.43
				0.75" ROCK	111.11	CY	\$41.00 / CY	\$4,555.51		
				FILTER FABRIC	2600	SF	\$1.50 / SF	\$3,900.00		
BV-126	Captain Reyes Way	200' INFILTRATION TRENCH	INFILTRATION TRENCH	EXCAVATION	111.11	CY	\$27.53 / CY	\$3,058.86	\$11,514.37	\$19,574.43
				0.75" ROCK	111.11	CY	\$41.00 / CY	\$4,555.51		
				FILTER FABRIC	2600	SF	\$1.50 / SF	\$3,900.00		
BV-117	Vietnam Veterans Highway (Route 10; from Wendy's fronting the highway to Sgt. Robert Mendiola St. and the Angel and Amanda Santo area)	1 WINGWALL/HEADWALL	HEADWALL W/WINGWALL		1	EA	\$10,000.00 / EA	\$10,000.00	\$12,000.00	\$20,400.00
		1 TRASH RACK	TRASH RACK		1	EA	\$2,000.00 / EA	\$2,000.00		

LOCATION		COST ESTIMATES								
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS		QUANTITIES	UNITS	COST / Unit	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES	
BV-112	East Route 8 (Radio; Ignacio area to intersection of Cepeda Wy and E. Route 8, needs drainage clearing) - slated for Restoration paving	200' LONG INFILTRATION TRENCH	INFILTRATION TRENCH	EXCAVATION	111.11	CY	\$27.53 / CY	\$3,058.86	\$92,268.37	\$156,856.22
				0.75" ROCK	111.11	CY	\$41.00 / CY	\$4,555.51		
				FILTER FABRIC	2600	SF	\$1.50 / SF	\$3,900.00		
		2 CATCH BASINS	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000.00			
		100 LF x 24" RCP	24" RCP	100	LF	\$554.79 / LF	\$55,479.38			
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL	1	EA	\$10,000.00 / EA	\$10,000.00			
BV-140	Punzalan Street	200'x200' INFILTRATION BASIN	INFILTRATION BASIN	EXCAVATION	6851.85	CY	\$27.53 / CY	\$188,631.43	\$201,283.59	\$342,182.10
				FENCING	848	LF	\$14.92 / LF	\$12,652.16		
BV-107	Rosario Loop	2 CATCH BASINS	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000.00	\$282,037.59	\$479,463.90	
		100 LF x 24" RCP	24" RCP	100	LF	\$554.79 / LF	\$55,479.38			
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL	1	EA	\$10,000.00 / EA	\$10,000.00			
		300 CF RIP RAP	RIP RAP	11.11	CY	\$744.79 / CY	\$8,274.62			
		200'x200' INFILTRATION BASIN	INFILTRATION BASIN	EXCAVATION	6851.85	CY	\$27.53 / CY			\$188,631.43
				FENCING	848	LF	\$14.92 / LF			\$12,652.16
BV-137	Rte 8 East of Rte 10	2 CATCH BASINS	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000.00	\$80,754.00	\$137,281.79	
		100 LF x 24" RCP	24" RCP	100	LF	\$554.79 / LF	\$55,479.38			
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL	1	EA	\$10,000.00 / EA	\$10,000.00			
		300 CF RIP RAP	RIP RAP	11.11	CY	\$744.79 / CY	\$8,274.62			
BV-130	Rte 8 & San Vicente	2 CATCH BASINS	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000.00	\$83,507.00	\$141,961.89	
		100 LF x 24" RCP	24" RCP	100	LF	\$554.79 / LF	\$55,479.38			
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL	1	EA	\$10,000.00 / EA	\$10,000.00			
		300 CF RIP RAP	RIP RAP	11.11	CY	\$744.79 / CY	\$8,274.62			
		100 CY CUT	EXCAVATION	100	CY	\$27.53 / CY	\$2,753.00			
BV-129	Canada Toto Loop (Canada; Flores and Blas residences; culverts thru out snake road vicinity needs cleaning affects 4 homes)	100'x36"RCP	36" RCP	100	LF	\$715.00 / LF	\$71,500.00	\$71,500.00	\$121,550.00	

LOCATION		COST ESTIMATES							
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS		QUANTITIES	UNITS	COST / Unit	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES
BV-105	Rte 16 @ Mobil Sta	2 HEADWALLS/WINGWALLS	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000.00	\$28,274.62	\$48,066.85
		100 SF RIP RAP	RIP RAP		11.110 CY	\$744.79 / CY	\$8,274.62		
BV-104	Rte 16 @ N Sabana	4 CATCH BASINS	CATCH BASIN		4 EA	\$3,500.00 / EA	\$14,000.00	\$69,886.44	\$118,806.95
		100'x24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.00		
		100 LF DITCH	DITCH		14.8 CY	\$27.53 / CY	\$407.44		
BV-122	Leon Guerrero St.	1000 SF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,753.62	\$82,753.62	\$140,681.15
BV-110	Southeast corner of Route 8 and Route 10	1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59	\$28,670.59	\$48,740.01
		1000 CY DREDGING (CUT)	EXCAVATION		1000 CY	\$27.53 / CY	\$27,530.00		
		AGREEMENT W/DFW							
BV-113	Ungkulu Street	3 CATCH BASINS	CATCH BASIN		3 EA	\$3,500.00 / EA	\$10,500.00	\$26,615.05	\$45,245.59
		100 LF x 24" RCP	24" RCP		24 LF	\$554.79 / LF	\$13,315.05		
		1 MANHOLE	MANHOLE		1 EA	\$2,800.00 / EA	\$2,800.00		
BV-136	Rte 16 @ Pedang	100 LF x 36" RCP	36" RCP		100 LF	\$715.00 / LF	\$71,500.00	\$113,140.79	\$192,339.34
		4 HEADWALL/WINGWALLS	HEADWALL W/WINGWALL		4 EA	\$10,000.00 / EA	\$40,000.00		
		400 LF DITCH	DITCH		59.6 CY	\$27.53 / CY	\$1,640.79		
BV-139	Rte8 at Rte 33	1 CATCH BASIN	CATCH BASIN		1 EA	\$3,500.00 / EA	\$3,500.00	\$12,182.06	\$20,709.50
		100 LF DITCH	DITCH		14.8 CY	\$27.53 / CY	\$407.44		
		100 SF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		



## DEDEDO VILLAGE

LOCATION		COST ESTIMATE								
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS			QUANTITIES	UNITS	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING & CONTINGENCIES
DE-101	Route 1 (from Route 26 to Route 30)	4 CATCH BASIN	CATCH BASIN		4	EA	\$3,500.00 / EA	\$14,000.00	\$132,190.19	\$224,723.32
		200 LF 24" RCP	24" RCP		200	LF	\$554.79 / LF	\$110,958.76		
		400' DITCH	DITCH		59.26	CY	\$27.53 / CY	\$1,631.43		
		2 MANHOLES	MANHOLE		2	EA	\$2,800.00 / EA	\$5,600.00		
DE-103	Salisbury Street	100' CONCRETE CHANNEL	CONCRETE CHANNEL	EXCAVATION	29.63	CY	\$27.53 / CY	\$815.71	\$13,835.41	\$23,520.19
				CONCRETE (DITCH LINING)	7.704	CY	\$633.32 / CY	\$4,879.10		
		1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,140.59		
		2 CATCH BASINS	CATCH BASIN		2	EA	\$3,500.00 / EA	\$7,000.00		
DE-104	Loreta	2 CATCH BASINS	CATCH BASIN		2	EA	\$3,500.00 / EA	\$7,000.00	\$136,233.38	\$231,596.74
		200 LF 24" RCP	24" RCP		200	LF	\$554.79 / LF	\$110,958.76		
		1 HEADWALL W/WINGWALL	HEADWALL W/WINGWALL		1	EA	\$10,000.00 / EA	\$10,000.00		
		300 CF RIP RAP	RIP RAP		11.11	CY	\$744.79 / CY	\$8,274.62		
DE-105	Redondo Luchon	1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,140.59	\$3,336.29	\$5,671.69
		100 SF APRON	APRON	CONCRETE (DITCH LINING)	0.309	CY	\$633.32 / CY	\$195.70		
		1 TRASH RACK	TRASH RACK		1	EA	\$2,000.00 / EA	\$2,000.00		
DE-106	Route 1 at Route 27	2 CATCH BASINS	CATCH BASIN		2	EA	\$3,500.00 / EA	\$7,000.00	\$192,014.59	\$326,424.81
		100 LF 24" RCP	24" RCP		100	LF	\$554.79 / LF	\$55,479.38		
		1 HEADWALL W/WINGWALL	HEADWALL W/WINGWALL		1	EA	\$10,000.00 / EA	\$10,000.00		
		300 CF RIP RAP	RIP RAP		11.11	CY	\$744.79 / CY	\$8,274.62		
		10,000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,140.59		
		4000 CY DREDGING (CUT)	DREDGING (CUT)	EXCAVATION	4000	CY	\$27.53 / CY	\$110,120.00		
DE-108	Route 3	200'x200' INFILTRATION BASIN	INFILTRATION BASIN	EXCAVATION	6851.85	CY	\$27.53 / CY	\$188,631.43	\$272,037.59	\$462,463.90
				FENCING	848	LF	\$14.92 / LF	\$12,652.16		
		2 CATCH BASINS	CATCH BASIN		2	EA	\$3,500.00 / EA	\$7,000.00		
		100'x24" RCP	24" RCP		100	LF	\$554.79 / LF	\$55,479.38		
		300 CF RIP RAP	RIP RAP		11.11	CY	\$744.79 / CY	\$8,274.62		
DE-109	Ukudo	3 INJECTION WELLS	INJECTION WELLS	CIDH PILE (16")	300	LF	\$1,000.00 / LF	\$300,000.00	\$391,960.31	\$666,332.52
		100'x100' INFILTRATION BASIN	INFILTRATION BASIN	EXCAVATION	1574	CY	\$27.53 / CY	\$43,332.22		
				FENCING	448	LF	\$14.92 / LF	\$6,684.16		
		200 LF BIOSWALE	BIOSWALE	EXCAVATION	96.96	CY	\$27.53 / CY	\$2,669.31		
				EROSION CONTROL (HYDROSEED)	3200	SF	\$5.00 / SF	\$16,000.00		
		3 HEADWALLS	HEADWALL		3	EA	\$5,000.00 / EA	\$15,000.00		
DE-110	Route 1 and Route 3	300 CF RIP RAP	RIP RAP		11.11	CY	\$744.79 / CY	\$8,274.62	\$66,095.09	\$112,361.66
		2 CATCH BASINS	CATCH BASIN		2	EA	\$3,500.00 / EA	\$7,000.00		
		1 MANHOLE	MANHOLE		1	EA	\$2,800.00 / EA	\$2,800.00		
		200 LF DITCH	DITCH		29.63	CY	\$27.53 / CY	\$815.71		
		100 LF 24" RCP	24" RCP		100	LF	\$554.79 / LF	\$55,479.38		
DE-111	Route 1 and Route 27A	1 CATCH BASIN	CATCH BASIN		1	EA	\$3,500.00 / EA	\$3,500.00	\$61,779.38	\$105,024.95
		100 LF 24" RCP	24" RCP		100	LF	\$554.79 / LF	\$55,479.38		
		1 MANHOLE	MANHOLE		1	EA	\$2,800.00 / EA	\$2,800.00		

MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS			QUANTITIES	UNITS	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING & CONTINGENCIES
DE-113	Route 1 and Route 28	2 CATCH BASIN	CATCH BASIN		2	EA	\$3,500.00 / EA	\$7,000.00	\$83,526.02	\$141,994.23
		400 LF DITCH	DITCH		59.26	CY	\$27.53 / CY	\$1,631.43		
		100 LFX24" RCP	24" RCP		100	LF	\$554.79 / LF	\$55,479.38		
		1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,140.59		
		300 SF RIP RAP	RIP RAP		11.11	CY	\$744.79 / CY	\$8,274.62		
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1	EA	\$10,000.00 / EA	\$10,000.00		
DE-115	Route 3 A and Route 9	200 LF BIOSWALES	BIOSWALE	EXCAVATION	96.96	CY	\$27.53 / CY	\$2,669.31	\$99,423.31	\$169,019.62
				EROSION CONTROL (HYDROSEED)	3200	SF	\$5.00 / SF	\$16,000.00		
		2 CATCH BASIN	CATCH BASIN		2	EA	\$3,500.00 / EA	\$7,000.00		
		100 LFX24" RCP	24" RCP		100	LF	\$554.79 / LF	\$55,479.38		
		300 CF RIP RAP	RIP RAP		11.11	CY	\$744.79 / CY	\$8,274.62		
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1	EA	\$10,000.00 / EA	\$10,000.00		
DE-117	Route 3 and Bullard Avenue	3 CATCH BASINS	CATCH BASIN		3	EA	\$3,500.00 / EA	\$10,500.00	\$130,663.00	\$222,127.09
		150 LF x 24" RCP	24" RCP		150	LF	\$554.79 / LF	\$83,219.07		
		300 CF RIP RAP	RIP RAP		11.11	CY	\$744.79 / CY	\$8,274.62		
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1	EA	\$10,000.00 / EA	\$10,000.00		
		200 LF BIOSWALES	BIOSWALE	EXCAVATION	96.96	CY	\$27.53 / CY	\$2,669.31		
			EROSION CONTROL (HYDROSEED)	3200	SF	\$5.00 / SF	\$16,000.00			
DE-116	Route 3 and Chalan Kareta	2 HEADWALLS/WINGWALLS	HEADWALL W/WINGWALL		2	EA	\$10,000.00 / EA	\$20,000.00	\$41,689.83	\$70,872.71
		1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,140.59		
		600 CF RIP RAP	RIP RAP		22.22	CY	\$744.79 / CY	\$16,549.23		
		2 TRASH RACKS	TRASH RACK		2	EA	\$2,000.00 / EA	\$4,000.00		
DE-120	Route 3 and Control Tree Drive	2 CATCH BASINS	CATCH BASIN		2	EA	\$3,500.00 / EA	\$7,000.00	\$86,407.31	\$146,892.42
		100 LF CONCRETE DITCH	CONCRETE DITCH	EXCAVATION	7.41	CY	\$27.53 / CY	\$204.00		
				CONCRETE (DITCH LINING)	3.56	CY	\$633.32 / CY	\$2,254.62		
		100 LF x 24" RCP	24" RCP		100	LF	\$554.79 / LF	\$55,479.38		
		1 MANHOLE	MANHOLE		1	EA	\$2,800.00 / EA	\$2,800.00		
		200 LF BIOSWALES	BIOSWALE	EXCAVATION	96.96	CY	\$27.53 / CY	\$2,669.31		
				EROSION CONTROL (HYDROSEED)	3200	SF	\$5.00 / SF	\$16,000.00		
DE-118	Route 3 and Route 28	1000 LF BIOSWALES	BIOSWALE	EXCAVATION	484.8	CY	\$27.53 / CY	\$13,346.54	\$102,100.54	\$173,570.92
				EROSION CONTROL (HYDROSEED)	1600	SF	\$5.00 / SF	\$8,000.00		
		2 CATCH BASINS	CATCH BASIN		2	EA	\$3,500.00 / EA	\$7,000.00		
		100 LF x 24" RCP	24" RCP		100	LF	\$554.79 / LF	\$55,479.38		
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1	EA	\$10,000.00 / EA	\$10,000.00		
		300 CF RIP RAP	RIP RAP		11.11	CY	\$744.79 / CY	\$8,274.62		

MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS			QUANTITIES UNITS	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING & CONTINGENCIES
DE-114	Route 26 and Route 25	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00	\$81,894.59	\$139,220.81
		1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59		
		100 LF x 24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
DE-112	Route 27 A and Route 28	4 CATCH BASINS	CATCH BASIN		4 EA	\$3,500.00 / EA	\$14,000.00	\$130,558.76	\$221,949.89
		2 MANHOLES	MANHOLE		2 EA	\$2,800.00 / EA	\$5,600.00		
		200 LF x 24" RCP	24" RCP		200 LF	\$554.79 / LF	\$110,958.76		
DE-102	Route 26 NEAR MAGOF Rd	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00	\$80,754.00	\$137,281.79
		100 LF x 24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
DE-107	Route 27A	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00	\$80,754.00	\$137,281.79
		100 LF x 24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		

## DISTRICT CHALAN PAGO & ORDOT

LOCATION			COST ESTIMATE						TOTAL COST W/ ENGINEERING & CONTINGENCIES	
MAP DESIGNATION	STREET/ROUTE		RECOMMENDATIONS			QUANTITIES UNITS	COST / UNIT	COST		TOTAL COST
CP-101 CP-115	Chalan Famha	Leo Palace	500 LFX24" RCP	24" RCP		500 LF	\$554.79 / LF	\$277,396.90	\$325,545.35	\$553,427.09
			2 HEADWALLS/WINGWALLS	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000.00		
			600 CF RIP RAP	RIP RAP		22.22 CY	\$744.79 / CY	\$16,549.23		
			1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59		
			400 LF BIOSWALE	BIOSWALE	EXCAVATION EROSION CONTROL (HYDROSEED)	193.92 CY 6400 SF	\$27.53 / CY \$0.80 / SF	\$5,338.62 \$5,120.00		
CP-102	Victoriano Road	Dero Road	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00	\$82,385.42	\$140,055.22
			100' 24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
			HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
			400' DITCH	DITCH		59.26 CY	\$27.53 / CY	\$1,631.43		
			300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
CP-103	Ramirez Drive - Chalan Pago	Judge Sablan St	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00	\$304,302.94	\$517,315.01
			500' 24" RCP	24" RCP		500 LF	\$554.79 / LF	\$277,396.90		
			1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
			400' DITCH	DITCH		59.26 CY	\$27.53 / CY	\$1,631.43		
			300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
CP-104	Dero Road	Route 4	1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59	\$83,526.02	\$141,994.23
			2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00		
			100'x24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
			1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
			300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
CP-105	Gogue Drive	---	400' DITCH	DITCH		59.26 CY	\$27.53 / CY	\$1,631.43	\$449,885.42	\$764,805.22
			300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
			2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00		
			500'x36" RCP	36" RCP		500 LF	\$715.00 / LF	\$357,500.00		
			100'x24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
CP-106	Chalan Totto	Route 4	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00	\$449,885.42	\$764,805.22
			500'x36" RCP	36" RCP		500 LF	\$715.00 / LF	\$357,500.00		
			100 LFX24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
			2 HEADWALLS/WINGWALLS	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000.00		
			400' DITCH	DITCH		59.26 CY	\$27.53 / CY	\$1,631.43		
CP-107	Naki Street	Route 4	300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62	\$90,436.47	\$153,742.00
			2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00		
			100'x36" RCP	36" RCP		100 LF	\$715.00 / LF	\$71,500.00		
			EXCAVATION	CONCRETE CHANNEL	CONCRETE (DITCH LINING)	29.63 CY 3.85 CY	\$27.53 / CY \$633.32 / CY	\$815.71 \$2,438.28		
			100' DITCH	DITCH		14.815 CY	\$27.53 / CY	\$407.86		
CP-108	Maimai Road and Route 15	Chalan Apusento	EXCAVATION	CONCRETE CHANNEL	CONCRETE (DITCH LINING)	29.63 CY 3.85 CY	\$27.53 / CY \$633.32 / CY	\$815.71 \$2,438.28	\$401,185.02	\$682,014.53
			100' DITCH	DITCH		14.815 CY	\$27.53 / CY	\$407.86		
			2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00		
			500'x48" RCP	48" RCP		500 LF	\$744.50 / LF	\$372,248.55		
			300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00					

LOCATION			COST ESTIMATE						TOTAL COST W/ ENGINEERING & CONTINGENCIES	
MAP DESIGNATION	STREET/ROUTE		RECOMMENDATIONS			QUANTITIES UNITS	COST / UNIT	COST		TOTAL COST
CP-109	Kongga Road	---	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00	\$115,520.69	\$196,385.17
			100'x24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
			300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
			1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
			400' DITCH	DITCH		59.26 CY	\$27.53 / CY	\$1,631.43		
			1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59		
CP-110	Chalan Okso	Santa Cruz Dr	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00	\$115,520.69	\$196,385.17
			100'x 24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
			300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
			1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
			1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59		
			400' DITCH	DITCH		59.26 CY	\$27.53 / CY	\$1,631.43		
					EXCAVATION	311 CY	\$27.53 / CY	\$8,561.83		
					CONCRETE (DITCH LINING)	37 CY	\$633.32 / CY	\$23,432.84		
CP-222	Manibusan Lane	Santa Cruz Dr	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00	\$83,526.02	\$141,994.23
			100'x24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
			300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
			1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
			1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59		
			400' DITCH	DITCH		59.26 CY	\$27.53 / CY	\$1,631.43		
CP-112	Chalan Chirik	Route 10	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00	\$82,385.42	\$140,055.22
			100'x24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
			300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
			1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
			400' DITCH	DITCH		59.26 CY	\$27.53 / CY	\$1,631.43		
CP-114	Chalan Nganga	Leo Palace	100'x5'x5' RCB	REINFORCED CONCRETE BOX CULVERT		92.59 CY	\$1,103.85 / CY	\$102,205.47	\$354,336.78	\$602,372.52
			1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.59		
			1000 SF GABIONS	GABION		92.9 CY	\$629.66 / CY	\$58,495.67		
			1200 CF RIP RAP	RIP RAP		44.44 CY	\$744.79 / CY	\$33,098.47		
			2 HEADWALLS/WINGWALLS	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000.00		
			100'x3'x5' RCB	REINFORCED CONCRETE BOX CULVERT		55.55 CY	\$1,103.85 / CY	\$61,318.87		
			300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
					EXCAVATION	29.63 CY	\$27.53 / CY	\$815.71		
			100' CONCRETE DITCH	CONCRETE CHANNEL	CONCRETE (DITCH LINING)	7.7 CY	\$633.32 / CY	\$4,876.56		
			400' DITCH	DITCH		59.26 CY	\$27.53 / CY	\$1,631.43		
			2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00		
100'x24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38					

## Hagatna Village

LOCATION		COST ESTIMATES							
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS			QUANTITIES UNITS	COST / UNITS	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES
HA-101	Route 4 & Route 1	300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62	\$8,275	\$14,100
HA-102	Route 2 & Route 7B	200'x4'x4' RCB	RCB		118.52 CY	\$1,103.85 / CY	\$130,828.30	\$144,103	\$245,000
		1 HEADWALL	HEADWALL		1 EA	\$5,000.00 / EA	\$5,000.00		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
HA-103	Sixth Street	2-100' BIOSWALES (HOTSPOT)	BIOSWALE	EXCAVATION	96.3 CY	\$27.53 / CY	\$2,651.14	\$728,277	\$1,240,000
				EROSION CONTROL (HYDROSEED)	2600 SF	\$5.00 / SF	\$13,000.00		
		ABANDON DRY WELLS (6 TOTAL)	ABANDON DRY WELLS	ABANDON WATER WELL	6 EA	\$5,500.00 / EA	\$33,000.00		
		UPSIZE PIPE IN Rte 7A (1000'x30")	UPSIZE PIPE	30" RCP	1000 LF	\$679.63 / LF	\$679,625.40		
HA-104	Aniceto Street	4-100' BIOSWALES (HOTSPOT)	BIOSWALE	EXCAVATION	192.6 CY	\$27.53 / CY	\$5,302.28	\$149,261	\$254,000
				EROSION CONTROL (HYDROSEED)	5200 SF	\$5.00 / SF	\$26,000.00		
		2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000.00		
		200'x24" RCP	24" RCP		200 LF	\$554.79 / LF	\$110,958.76		
HA-105	Route 7A & Detention Facility	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.60	\$83,894	\$143,000
		3,000 CF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,753.62		
HA-106	Route 7 A and O'Brien Drive	UPSIZE PIPE IN Rte 7A (4000'x48")	UPSIZE PIPE	48" RCP	4000 LF	\$744.50 / LF	\$2,977,988.40	\$2,996,263	\$5,100,000
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
HA-107	Minondo Bridge	4 NEW WINGWALLS @ ABUTMENT	WINGWALL		4 EA	\$5,000.00 / EA	\$20,000.00	\$53,098	\$90,300
		1200 CF RIP RAP	RIP RAP		44.44 CY	\$744.79 / CY	\$33,098.47		
HA-108	Agana River Bridge	1 AC DEBRIS REMOVAL	DEBRIS REMOVAL		1 AC	\$4,562.38 / AC	\$4,562.38	\$70,042	\$119,000
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
		100'x24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479.38		
HA-109	Route 7 & Route 33	ADD 5,000 SF to INFILTRATION BASIN (6' DEEP)	INFILTRATION BASIN	EXCAVATION	1111.11 CY	\$27.53 / CY	\$30,588.86	\$1,386,473	\$2,360,000
				FENCING	10,448 LF	\$14.92 / LF	\$155,884.16		
		INSTALL 6 INJECTION WELLS (200 LF EA)	INJECTION WELL		1200 LF	\$1,000.00 / LF	\$1,200,000.00		
HA-110	Route 7 & Fonte River	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.60	\$692,611	\$1,180,000
		3,000 CF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,753.62		
		2 - 200'x9'x4' RCB	RCB		533.33 CY	\$1,103.85 / CY	\$588,716.32		
		2 HEADWALL/WINGWALL STRUCTURES	HEADWALL/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000.00		
HA-111	Route 1 & East Hagatna Beach	300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62	\$18,275	\$31,100
		1 HEADWALL/WINGWALL STRUCTURE	HEADWALL/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
HA-112	Chen's Furniture	10,000 SF ROCK BLANKET	ROCK BLANKET		1111.11 SY	\$73.51 / SY	\$81,677.70	\$104,876	\$178,000
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
		1 HEADWALL/WINGWALL STRUCTURE	HEADWALL/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
		200 LF CONCRETE DITCH	CONCRETE DITCH	EXCAVATION	14.81 CY	\$27.53 / CY	\$407.72		
		CONCRETE (DITCH LINING)	7.13 CY	\$633.32 / CY	\$4,515.57				
HA-113	Route 1 & Mobil Gas Station	10,000 SF ROCK BLANKET	ROCK BLANKET		1111.11 SY	\$73.51 / SY	\$81,677.70	\$104,876	\$178,000
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
		1 HEADWALL/WINGWALL STRUCTURE	HEADWALL/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
		200 LF CONCRETE DITCH	CONCRETE DITCH	EXCAVATION	14.81 CY	\$27.53 / CY	\$407.72		
		CONCRETE (DITCH LINING)	7.13 CY	\$633.32 / CY	\$4,515.57				
HA-115	Route 1 & Citibank	10,000 SF ROCK BLANKET	ROCK BLANKET		1111.11 SY	\$73.51 / SY	\$81,677.70	\$104,876	\$178,000
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62		
		1 HEADWALL/WINGWALL STRUCTURE	HEADWALL/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
		200 LF CONCRETE DITCH	CONCRETE DITCH	EXCAVATION	14.81 CY	\$27.53 / CY	\$407.72		
		CONCRETE (DITCH LINING)	7.13 CY	\$633.32 / CY	\$4,515.57				
HA-116	Shell Gas Stn and Route 1	1 AC DEBRIS REMOVAL	DEBRIS REMOVAL		1 AC	\$4,562.38 / AC	\$4,562.38	\$26,992	\$45,900
		200 LF CONCRETE DITCH	CONCRETE DITCH	EXCAVATION	14.81 CY	\$27.53 / CY	\$407.72		
				CONCRETE (DITCH LINING)	7.13 CY	\$633.32 / CY	\$4,515.57		
		10'x10' APRON AROUND EXIST CATCH BASIN	APRON	CONCRETE (DITCH LINING)	4.17 CY	\$1,800.00 / CY	\$7,506.00		
		HYDROMULCH (BFM)	10,000 SF	\$1.00 / SF	\$10,000.00				
HA-117	Route 4 & Route 1	3000 CF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,753.62	\$82,800	\$141,000

LOCATION		COST ESTIMATES							
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS			QUANTITIES UNITS	COST / UNITS	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES
HA-118	Route 1 & District Court House	300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,274.62	\$18,275	\$31,100
		1 HEADWALL/WINGWALL STRUCTURE	HEADWALL/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000.00		
HA-119	Route 1 & Sewage Treatment Plant	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,140.60	\$83,894	\$143,000
		3,000 CF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,753.62		
HA-120	Route 1 & Gregorio Perez Marina	200'x4'x4' RCB	RCB		118.52 CY	\$1,103.85 / CY	\$130,828.30	\$135,828	\$231,000
		1 HEADWALL	HEADWALL		1 EA	\$5,000.00 / EA	\$5,000.00		
HA-121	Route 1 & Padre Palomo Memorial Park	1/2 ACRE DEBRIS REMOVAL	DEBRIS REMOVAL		0.5 AC	\$4,562.38 / AC	\$2,281.19	\$167,788	\$285,000
		6,000 CF RIP RAP	RIP RAP		222.22 CY	\$744.79 / CY	\$165,507.23		

**INARAJAN VILLAGE**

LOCATION		\$ COST ESTIMATE \$						TOTAL COST W/ENGINEERING CONTINGENCIES		
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS	QUANTITIES	UNITS	COSTS / UNITS	COST	TOTAL COST			
IV-112	Agfayan River Bridge	1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141	\$83,894	\$142,620	
		3000 CF RIP RAP	RIP RAP	111.11	CY	\$744.79 / CY	\$82,754			
IV-117	Route 4 and Tongan Creek	1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141	\$103,894	\$176,620	
		3000 CF RIP RAP	RIP RAP	111.11	CY	\$744.79 / CY	\$82,754			
		4 WINGWALLS	WINGWALL	4	EA	\$5,000.00 / EA	\$20,000			
IV-113	Route 4 near Tun Santiago N Paulino	1/2 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.5	AC	\$4,562.38 / AC	\$2,281	\$167,788	\$285,240	
IV-114		3,000 CF RIP RAP	RIP RAP	222.22	SF	\$744.79 / SF	\$165,507			
IV-109	Route 4 at Tinago River	1/2 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.5	AC	\$4,562.38 / AC	\$2,281	\$179,505	\$305,158	
		1,000 SF CHANNEL LINING	CONCRETE CHANNEL LINING	18.5	CY	\$633.32 / CY	\$11,716			
		6,000 CF RIP RAP	RIP RAP	222.22	CY	\$744.79 / CY	\$165,507			
IV-107	Route 4 & Aslinger River	250,000 SF HYDROSEED (W/BFM)	HYDROSEED (W/BFM)	250000	SF	\$1.50 / SF	\$375,000	\$375,000	\$637,500	
IV-102, IV 103, IV-104, IV-106	Rte 4 & Ates Ln, Rte 4 @ Dan Dan Store, Rte 4 & NO Malojloj Wall, Rte 4 & Chargala	2-200 INFILTRATION TRENCHES	INFILTRATION TRENCH	EXCAVATION	222.22	CY	\$27.53 / CY	\$6,118	\$26,629	\$45,269
				0.75" ROCK	222.22	CY	\$41.00 / CY	\$9,111		
				FILTER FABRIC	7600	SF	\$1.50 / SF	\$11,400		
IV-108	Route 4 at Aslinger River	6,000 CF RIP RAP	RIP RAP	222	CY	\$744.79 / CY	\$165,507	\$177,788	\$302,240	
		1/2 ACRE DEBRIS REMOVAL	DEBRIS REMOVAL	0.5	AC	\$4,562.37 / AC	\$2,281			
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALLS	1	EA	\$10,000.00 / EA	\$10,000			
IV-101	Route 4 at unnamed tributary near Asalonso River	100'x6'x6' RCB	REINFORCED CONCRETE BOX CULVERT	133.33	CY	\$1,103.85 / CY	\$147,176	\$251,071	\$426,820	
		2 HEADWALLS/WINGWALLS	HEADWALL W/WINGWALLS	2	EA	\$10,000.00 / EA	\$20,000			
		3000 CF RIP RAP	RIP RAP	111.11	CY	\$744.79 / CY	\$82,754			
		1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141			
IV-121	Route 4 at Belen Avenue	2-200' INFILTRATION TRENCHES	INFILTRATION TRENCH	EXCAVATION	222.22	CY	\$27.53 / CY	\$6,118	\$26,629	\$45,269
				0.75" ROCK	222.22	CY	\$41.00 / CY	\$9,111		
				FILTER FABRIC	7600	SF	\$1.50 / SF	\$11,400		
IV-118	Route 4 at Bisbesbes	100'x3'x6' RCB	REINFORCED CONCRETE BOX CULVERT	66.67	CY	\$1,103.85 / CY	\$73,594	\$111,284	\$189,182	
		2 HEADWALLS/WINGWALLS	HEADWALL W/WINGWALLS	2	EA	\$10,000.00 / EA	\$20,000			
		600 CF RIP RAP	RIP RAP	22.22	CY	\$744.79 / CY	\$16,549			
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141			
IV-122	Route 4 at Chagaminlago Street	1 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	1	AC	\$4,562.38 / AC	\$4,562	\$1,659,650	\$2,821,404	
		60,000 CF RIP RAP	RIP RAP	2222.22	CY	\$744.79 / CY	\$1,655,087			
IV-110	Route 4 at Jamie Ann's	1,000'x4' RECTANGULAR CONCRETE CHANNEL	CONCRETE CHNL LINING	266.5	CY	\$633.32 / CY	\$168,780	\$168,780	\$286,926	
IV-120	Route 4 at Ahayan River	2 CATCH BASINS	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000	\$81,569	\$138,668	
		100 LF 24" RCP	RCP	100	LF	\$554.79 / LF	\$55,479			
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALLS	1	EA	\$10,000.00 / EA	\$10,000			
		300 CF RIP RAP	RIP RAP	11.11	CY	\$744.79 / CY	\$8,275			
		200 LF DITCH	DITCH	29.63	CY	\$27.53 / CY	\$816			
IV-123	Apman Dr	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141	\$83,894	\$142,620	
		3000 CF RIP RAP	RIP RAP	111.11	CY	\$744.79 / CY	\$82,754			
IV-119	Route 4 S O Bisbesbes	100'x6'x3' RCB	RCB	65.00	CY	\$1,103.85 / CY	\$71,750	\$122,754	\$208,682	
		2-HEADWALL/WINGWALLS	HEADWALL W/WINGWALLS	2	EA	\$10,000.00 / EA	\$20,000			
		1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141			
		600 CF RIP RAP	RIP RAP	22.22	CY	\$744.79 / CY	\$16,549			
		1-200' INFILTRATION TRENCH	INFILTRATION TRENCH	1	EA	\$13,314.00 / EA	\$13,314			



LOCATION		\$ COST ESTIMATE \$						TOTAL COST	TOTAL COST	TOTAL COST
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS		QUANTITIES	UNITS	COSTS / UNITS	COST	TOTAL COST	W/ENGINEERING CONTINGENCIES	
IV-105 IV-111	Rte 4 & Chalan Tun Pedro Riviera Dr. & Rte 4 & S. Tinago River	1-200' INFILTRATION TRENCH	INFILTRATION TRENCH	EXCAVATION	111.11	CY	\$27.53 / CY	\$3,059	\$13,314	\$22,634
				0.75" ROCK	111.11	CY	\$41.00 / CY	\$4,556		
				FILTER FABRIC	3800	SF	\$1.50 / SF	\$5,700		
IV-116	Rte 4 & Tun Mariano D. Leon Guerrero Rd.	2 CATCH BASINS	CATCH BASIN		2	EA	\$3,500.00 / EA	\$7,000	\$81,570	\$138,669
		100 LF 24" RCP	24" RCP		100	LF	\$554.79 / LF	\$55,479		
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALLS		1	EA	\$10,000.00 / EA	\$10,000		
		300 CF RIP RAP	RIP RAP		11.11	CY	\$744.79 / CY	\$8,275		
		200 LF DITCH	DITCH		29.63	CY	\$27.53 / CY	\$816		
IV-124	Enemicio & Regina Diego Drive	1500' CONCRETE CHANNEL	CONCRETE CHANNEL	EXCAVATION	4000	CY	\$27.53 / CY	\$110,120	\$816,945	\$1,388,806
				CONCRETE (DITCH LINING)	833	CY	\$633.32 / CY	\$527,556		
		1 Ac DEBRIS REMOVAL	DEBRIS REMOVAL		1	AC	\$4,562.38 / AC	\$4,562		
		3000 CF RIP RAP	RIP RAP		111.11	CY	\$744.79 / CY	\$82,754		
		100 LF 48" RCP	48" RCP		100	LF	\$146.00 / LF	\$14,600		
		6 HEADWALLS/WINGWALLS	HEADWALL W/WINGWALLS		6	EA	\$10,000.00 / EA	\$60,000		
		100 CY CUT	EXCAVATION		100	CY	\$27.53 / CY	\$2,753		
		100 LF 36" RCP	36" RCP		100	LF	\$146.00 / LF	\$14,600		

**MANGILAO VILLAGE**

LOCATION		COST ESTIMATE						TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS	QUANTITIES	UNITS	COST / UNIT	COST			
MO-101	Spanish Lane & Rt 15	2 Catch Basins; 100 LF 24" RCP; 1 Headwall/Wingwall, 100 SF Rip Rap, 200 LF Ditch	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000	\$81,569	\$139,000
			24" RCP		100 LF	\$554.79 / LF	\$55,479		
			HEADWALL/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000		
			RIP RAP		11.11 CY	\$744.79 / CY	\$8,275		
			DITCH		29.6 CY	\$27.53 / CY	\$815		
MO-103	Kotpus Street	2 Catch Basins; 100 LF 24" RCP; 1/4 AC Debris Removal; 200'x200' Infiltration Basin; 800' Fence	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000	\$264,904	\$450,000
			24" RCP		100 LF	\$554.79 / LF	\$55,479		
			DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,141		
			INFILTRATION BASIN	EXCAVATION	6851.85 CY	\$27.53 / CY	\$188,631		
			FENCE		848 LF	\$14.92 / LF	\$12,652		
MO-104	Chargualaf Street & Chalan Kareta	50'x400' Infiltration Basin w/900'Fence; 1 AC Debris Removal	INFILTRATION BASIN	EXCAVATION	9210 CY	\$27.53 / CY	\$253,551	\$272,258	\$463,000
			FENCE		948 LF	\$14.92 / LF	\$14,144		
			DEBRIS REMOVAL		1 AC	\$4,562.38 / AC	\$4,562		
MO-105	Chargualaf Street	2 Catch Basins; 100 LF 24" RCP; 1/4 AC Debris Removal; 200'x200' Infiltration Basin; 800' Fence	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000	\$263,763	\$448,000
			24" RCP		100 LF	\$554.79 / LF	\$55,479		
			INFILTRATION BASIN	EXCAVATION	6851.85 CY	\$27.53 / CY	\$188,631		
			FENCE		848 LF	\$14.92 / LF	\$12,652		
MO-106	Tangerine Lane & Rt 10	200'x200' INFILTRATION BASIN 800' FENCE 8 INJECTION WELLS	INFILTRATION BASIN	EXCAVATION	6851.85 CY	\$27.53 / CY	\$188,631	\$701,284	\$1,190,000
			FENCING		848 LF	\$14.92 / LF	\$12,652		
			INJECTION WELLS	16" INJECTION WELL	500 LF	\$1,000 / LF	\$500,000		
MO-107	Mandarine Lane & Chero Lane	1000 LF CONCRETE DITCH	EXCAVATION		74 CY	\$27.53 / CY	\$2,037	\$50,828	\$86,400
			CONCRETE (DITCH LINING)		77.04 CY	\$633.32 / CY	\$48,791		
MO-110	Kita L G Court	1000 LF CONCRETE TRAP CHANNEL 8000 CF RETAINING WALL 1/4 Ac DEBRIS REMOVAL 1000 SF HYDROMULCH W/BFM	EXCAVATION		1777.78 CY	\$27.53 / CY	\$48,942	\$934,749	\$1,590,000
			CONCRETE (DITCH LINING)		718.52 CY	\$633.32 / CY	\$455,053		
			RETAINING WALL		296.3 CY	\$1,003.50 / CY	\$297,337		
			DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,141		
MO-111	Manha Lane	1 CATCH BASIN 100 LF 24" RCP 1 HEADWALL/WINGWALL 300 CF RIP RAP 200' LONG INFILTRATION TRENCH	CATCH BASIN		1 EA	\$3,500.00 / EA	\$3,500	\$88,768	\$151,000
			24" RCP		100 LF	\$554.79 / LF	\$55,479		
			HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000		
			RIP RAP		11.11 CY	\$744.79 / CY	\$8,275		
			INFILTRATION TRENCH	EXCAVATION	111.11 CY	\$27.53 / CY	\$3,059		
				0.75" ROCK	111.11 CY	\$41.00 / CY	\$4,556		
	FILTER FABRIC	2600 SF	\$1.50 / SF	\$3,900					
MO-112	Route 10 & Lalo Street	100' CONCRETE CROSS GUTTER	CONCRETE CROSS GUTTER	Concrete (Ditch Lining)	18.5 CY	\$633.32 / CY	\$11,716	\$11,716	\$19,900
MO-113	Intersection of Route 15 & Route 10	3 CATCH BASINS 200'x24" RCP	CATCH BASIN		3 EA	\$3,500.00 / EA	\$10,500	\$121,459	\$206,000
			24" RCP		200 LF	\$554.79 / LF	\$110,959		

LOCATION		COST ESTIMATE							
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS	QUANTITIES	UNITS	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES	
MO-116	Southern Cross Lane	2 CATCH BASINS	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000	\$458,476	\$779,000
		400 LF 24" RCP	24" RCP	400	LF	\$554.79 / LF	\$221,918		
		100 SF RIP RAP	RIP RAP	11.11	CY	\$744.79 / CY	\$8,275		
		2 HEADWALL/WINGWALL	HEADWALL/WINGWALL	2	EA	\$10,000.00 / EA	\$20,000		
		200'x200' INFILTRATION BASIN	INFILTRATION BASIN	6851.85	CY	\$27.53 / CY	\$188,631		
		800' FENCE	FENCING	848	LF	\$14.92 / LF	\$12,652		
MO-114	Intersection of Route 15 & Route 26 (Carnation Lane)	4- 200 LF Bioswales (800 LF BIOSWALE)	EXCAVATION	533.33	CY	\$27.53 / CY	\$14,683	\$37,333	\$63,500
			EROSION CONTROL (HYDROSEED)	15100	SF	\$1.50 / SF	\$22,650		
MO-115	Old Route 26	2 CATCH BASINS	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000	\$81,570	\$139,000
		100 LF 24" RCP	24" RCP	100	LF	\$554.79 / LF	\$55,479		
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL	1	EA	\$10,000.00 / EA	\$10,000		
		300 CF RIP RAP	RIP RAP	11.11	CY	\$744.79 / CY	\$8,275		
		200 LF DITCH	DITCH	29.63	CY	\$27.53 / CY	\$816		
MO-102	Farfan St & Rt 15	2 Catch Basins; 100 LF 24" RCP; 1 Headwall/Wingwall, 100 SF Rip Rap, 200 LF Ditch	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000	\$81,569	\$139,000
			24" RCP	100	LF	\$554.79 / LF	\$55,479		
			HEADWALL/WINGWALL	1	EA	\$10,000.00 / EA	\$10,000		
			RIP RAP	11.11	CY	\$744.79 / CY	\$8,275		
			DITCH	29.6	CY	\$27.53 / CY	\$815		
MO-108	Lemon Lane & Chero Lane	2 Catch Basins; 100 LF 24" RCP; 1 Headwall/Wingwall, 100 SF Rip Rap, 200 LF Ditch	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000	\$81,569	\$139,000
			24" RCP	100	LF	\$554.79 / LF	\$55,479		
			HEADWALL/WINGWALL	1	EA	\$10,000.00 / EA	\$10,000		
			RIP RAP	11.11	CY	\$744.79 / CY	\$8,275		
			DITCH	29.6	CY	\$27.53 / CY	\$815		
MO-109	Aga Lane & Mngga Lane	2 Catch Basins; 100 LF 24" RCP; 1 Headwall/Wingwall, 100 SF Rip Rap, 200 LF Ditch	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000	\$81,569	\$139,000
			24" RCP	100	LF	\$554.79 / LF	\$55,479		
			HEADWALL/WINGWALL	1	EA	\$10,000.00 / EA	\$10,000		
			RIP RAP	11.11	CY	\$744.79 / CY	\$8,275		
			DITCH	29.6	CY	\$27.53 / CY	\$815		

**MERIZO VILLAGE**

LOCATION		COST ESTIMATE						TOTAL COST W/ENGINEERING & CONTINGENCIES
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS	QUANTITIES UNITS	COST / UNIT	COST	TOTAL COST		
ME-113 ME-119 ME-121 ME-122	Rt 4 & Juan Baubata St Rt 4 & SO Benny Espinoza Ave Rt 4 & NO Benny Espinoza Ave Rt 4 & Chalan Joseph A Cruz	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0 AC	\$4,562.38 / CY	\$1,141	\$83,894	\$142,620
		3000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / LF	\$82,754		
ME-101	Rt 4 & Asmaile Creek	1/2 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.5 AC	\$4,562.38 / AC	\$2,281	\$167,788	\$285,240
		6000 CF RIP RAP	RIP RAP	222.22 CY	\$744.79 / CY	\$165,507		
ME-124	Culvert at Mobil Station	100'x12'x6' RCB	REINFORCED CONCRETE BOX CULVERT	266.67 CY	\$1,103.85 / CY	\$294,364	\$398,258	\$677,038
		2 HEADWALL/WINGWALLS	HEADWALL W/WINGWALL	2 EA	\$10,000.00 / EA	\$20,000		
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141		
		3000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / CY	\$82,754		
ME-130	Rt 4 & Ajayan River	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141	\$83,894	\$142,620
		3000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / CY	\$82,754		
ME-111	Emma Juan Reyes Street	1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141	\$84,429	\$143,529
		3000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / CY	\$82,754		
		3000 CF FILL	STRUCTURAL FILL	11.11 CY	\$48.14 / CY	\$535		
ME-114	Mannell Channel	4000 CY ROCK REMOVAL	ROCK REMOVAL	4000 CY	\$14.53 / CY	\$58,120	\$4,487,587	\$7,628,897
		1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141		
		15000 CF RIP RAP	RIP RAP	555.56 CY	\$744.79 / CY	\$413,776		
		20 CY CUT	EXCAVATION	20 CY	\$27.53 / CY	\$551		
		4000 CY RETAINING WALL	RETAINING WALL	4,000 CY	\$1,003.50 / CY	\$4,014,000		
ME-115	North of Mannell Channel	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141	\$6,489	\$11,032
		3,000 CF RIP RAP	RIP RAP	111.11 CY	\$48.14 / CY	\$5,349		
ME-128	N O Bile River	2 HEADWALL W/WINGWALL	HEADWALL W/WINGWALL	2 EA	\$10,000.00 / EA	\$20,000	\$98,466	\$167,393
		600 CF RIP RAP	RIP RAP	22.22 CY	\$744.79 / CY	\$16,549		
		1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141		
		100'x5'x3' RCB	RCB	54.56 CY	\$1,103.85 / CY	\$60,226		
		20 CY CUT	EXCAVATION	20 CY	\$27.53 / CY	\$551		
ME-117	N O Geus River	1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141	\$83,894	\$142,620
		3000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / CY	\$82,754		
ME-116	Rte 4 and Achang River at Jesus R Quinene	1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141	\$9,415	\$16,006
		300 CF RIP RAP	RIP RAP	11.11 CY	\$744.79 / CY	\$8,275		
ME-102	Rte 4 and Asgado Creek	1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141	\$27,690	\$47,073
		600 CF RIP RAP	RIP RAP	22.22 CY	\$744.79 / CY	\$16,549		
		1 HEADWALL W/WINGWALL	HEADWALL W/WINGWALL	1 EA	\$10,000.00 / EA	\$10,000		

LOCATION		COST ESTIMATE						
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS	QUANTITIES UNITS	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING & CONTINGENCIES	
ME-120	Rte 4 & Benny Espinoza Ave	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141	\$1,141	\$1,939
ME-103	Rte 4 and Liyog River	100 CY CUT	EXCAVATION	100 CY	\$27.53 / CY	\$2,753	\$86,647	\$147,300
		3000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / CY	\$82,754		
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141		
ME-126	Rte 4 and Pigua River	100 CY CUT	EXCAVATION	100 CY	\$27.53 / CY	\$2,753	\$319,653	\$543,410
		300 CF RIP RAP	RIP RAP	11.11 CY	\$744.79 / CY	\$8,275		
		100'x6'x12' RCB	RCB	266.67 CY	\$1,103.85 / CY	\$294,364		
		800 CF GABIONS	GABIONS	22.65 CY	\$629.66 / CY	\$14,262		
ME-106	Rte 4 and Sumay River	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.00 / AC	\$1,141	\$83,894	\$142,620
		3000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / AC	\$82,754		
ME-110	Rte 4 and Suyafe River	3000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / CY	\$82,754	\$83,894	\$142,620
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141		
ME-118	Rte 4 and Geus River	1/2 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.5 AC	\$4,562.38 / AC	\$2,281	\$167,788	\$285,240
		6000 CF RIP RAP	RIP RAP	222.22 CY	\$744.79 / CY	\$165,507		
ME-104	Rte 4 Coastal Issues	1 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	1 AC	\$4,562.38 / AC	\$4,562	\$418,338	\$711,174
ME-107		15000 CF RIP RAP	RIP RAP	555.56 CY	\$744.79 / CY	\$413,776		
ME-125	Rte 4 & NO Merizo Catholic Church	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141	\$9,513	\$16,172
		300 CF RIP RAP	RIP RAP	11.11 CY	\$744.79 / CY	\$8,275		
		100 SF APRON	CONCRETE (DITCH LINING)	0.1543 CY	\$633.32 / CY	\$98		
ME-112	Rte 4 S O Baubata	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141	\$83,894	\$142,620
		3000 SF RIP RAP	RIP RAP	111.11 CY	\$744.79 / LF	\$82,754		
ME-105	Rte 4 S O Sumay River	1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141	\$83,894	\$142,620
		3,000 CF RIP RAP	RIP RAP	111.11 CY	\$744.79 / CY	\$82,754		
ME-108	Rte 4 S O Suyafe River	1/2 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.5 AC	\$4,562.38 / AC	\$2,281	\$167,788	\$285,240
		6000 CF RIP RAP	RIP RAP	222.22 CY	\$744.79 / CY	\$165,507		
ME-129	Toguan River	1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141	\$115,411	\$196,199
		600 CF RIP RAP	RIP RAP	22.22 CY	\$744.79 / CY	\$16,549		
		10000 SF Ditch Lining	CONCRETE (DITCH LINING)	154.3 CY	\$633.32 / CY	\$97,721		

**MONGMONG VILLAGE**

LOCATION		COST ESTIMATE						TOTAL COST W/ENGINEERING CONTINGENCIES	
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS	QUANTITIES	UNITS	COST / UNIT	COST	TOTAL COST		
MM-101	Sergeant Roy T. Damian (Rt 33) & Rt 8	2 CATCH BASINS	CATCH BASIN	2	EA	\$3,500.00 / EA	\$7,000	\$636,233	\$1,081,597
		200' - 24" RCP	RCP	200	LF	\$554.79 / LF	\$110,959		
		300 CF RIP RAP	RIP RAP	11.11	CY	\$744.79 / CY	\$8,275		
		1 HEADWALL/WINGWALL	HEADWALL W/WINGWALL	1	EA	\$10,000.00 / EA	\$10,000		
		UNDERGROUND INFILTRATION CHAMBER	INFILTRATION CHAMBER	1	EA	\$500,000.00 / EA	\$500,000		

**PITI VILLAGE**

LOCATION		COST ESTIMATE							
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS		QUANTITIES	UNITS	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES
PI-116	Rt 1 & Tepungan Beach Park	2 - 100' - 36" RCP	36" RCP	100	LF	\$715.00 / LF	\$71,500	\$109,190	\$185,623
		2 HEADWALL/WINGWALLS	HEADWALL W/WINGWALL	2	EA	\$10,000.00 / EA	\$20,000		
		1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141		
		600 CF RIP RAP	RIP RAP	22.22	CY	\$744.79 / CY	\$16,549		
PI-111	c/o Assumption Drive & Spruance Drive	100'x24" RCP	24" RCP	100	LF	\$554.79 / LF	\$55,479	\$93,169	\$158,388
		2 HEADWALL/WINGWALLS	HEADWALL W/WINGWALL	2	EA	\$10,000.00 / EA	\$20,000		
		600 CF RIP RAP	RIP RAP	22.22	CY	\$744.79 / CY	\$16,549		
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141		
PI-104 PI-105 PI-106 PI-108	A Quenga St. & Assumption Dr (PI-104) Assumption Drive (PI-105) Assumption Drive & Masso River (PI-106) Rt. 1 & Atantano River (PI-108)	3000 CF RIP RAP	RIP RAP	111.11	CY	\$744.79 / CY	\$82,754	\$83,894	\$142,620
1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141				
PI-114	JC Santos & J.M. Tuncap St	100'x36" RCP	36" RCP	100	LF	\$715.00 / LF	\$71,500	\$298,366	\$507,223
		6000 CF RIP RAP	RIP RAP	276.22	CY	\$744.79 / CY	\$205,726		
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141		
		2 HEADWALL/WINGWALLS	HEADWALL W/WINGWALL	2	EA	\$10,000.00 / EA	\$20,000		
PI-115	Route 1 & Taguag River	1/4 AC DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141	\$83,894	\$142,620
		3000 CF RIP RAP	RIP RAP	111.11	CY	\$744.79 / CY	\$82,754		
PI-101	Route 1	10,000 SF DEBRIS REMOVAL	DEBRIS REMOVAL	1	AC	\$4,562.38 / AC	\$4,562	\$842,106	\$1,431,580
		30,000 CF RIP RAP	RIP RAP	1111.11	CY	\$744.79 / CY	\$827,544		
		HEADWALL/WINGWALL	HEADWALL W/WINGWALL	1	EA	\$10,000.00 / EA	\$10,000		
PI-109 PI-110 PI-112 PI-113	Route 1 @ Masso River	3000 CF RIP RAP	RIP RAP	111.11	CY	\$744.79 / CY	\$82,754	\$83,894	\$142,620
1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141				
PI-103	Marin Peling Street (Mary Pelen)	100'x 2-36" RCP	36" RCP	100	LF	\$715.00 / LF	\$71,500	\$109,190	\$185,623
		2 HEADWALL/WINGWALLS	HEADWALL W/WINGWALL	2	EA	\$10,000.00 / EA	\$20,000		
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141		
		600 CF RIP RAP	RIP RAP	22.22	CY	\$744.79 / CY	\$16,549		
PI-118	Rt11 & Commercial Port	200' BIOSWALE	BIOSWALE	96.96	CY	\$27.53 / CY	\$2,669	\$22,267	\$37,854
			EXCAVATION	3200	SF	\$5.00 / SF	\$16,000		
		100 SF APRON	APRON	0.1543	CY	\$633.32 / CY	\$98		
		1 CATCH BASIN	CATCH BASIN	1	EA	\$3,500.00 / EA	\$3,500		
PI-107	Route 1 at Chalan Soling	100'x3'x3" RCB	REINFORCED CONCRETE BOX CULVERT	33.33	CY	\$1,153.35 / CY	\$38,441	\$76,131	\$129,423
		2 HEADWALL/WINGWALLS	HEADWALL W/WINGWALL	2	EA	\$10,000.00 / EA	\$20,000		
		600 CF RIP RAP	RIP RAP	22.22	CY	\$744.79 / CY	\$16,549		
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141		
PI-102	Rt1	200'x3'x5' RCB	REINFORCED CONCRETE BOX CULVERT	111.11	CY	\$1,153.35 / CY	\$128,149	\$232,043	\$394,473
		2 HEADWALL/WINGWALLS	HEADWALL W/WINGWALL	2	EA	\$10,000.00 / EA	\$20,000		
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141		
		3000 CF RIP RAP	RIP RAP	111.11	CY	\$744.79 / CY	\$82,754		
PI-119	Rt 1 & Polaris Point	6500'x24" RCP	24" RCP	6,500	LF	\$554.79 / CY	\$3,606,160	\$19,006,989	\$32,311,880
		22 CATCH BASINS	CATCH BASIN	22	EA	\$3,500 / EA	\$77,000		
		8 Media Filters or Underground Vaults	MEDIA FILTERS	8	EA	\$400,000.00 / EA	\$3,200,000		
		43,000 CY FILL	FILL	43,000	CY	\$27.53 / CY	\$1,183,790		
		1,200 CY RIP RAP	RIP RAP	1,200	CY	\$744.79 / CY	\$893,748		
		11,000 CY GABIONS	GABIONS	11,000	CY	\$629.66 / CY	\$6,926,291		
30,000 SY PAVEMENT	PAVEMENT, FRICTION COURSE & SUBBASE	30,000	SY	\$104 / SY	\$3,120,000				

**SANTA RITA VILLAGE**

LOCATION		COST ESTIMATE							
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS			QUANTITIES UNITS	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES
SR-101	746 Bishop Olano Drive & Pale Medina	200' conc ditch	CONCRETE DITCH	CONC LINING	1.5 CY	\$633.32 / CY	\$950	\$83,704	\$142,296
		1000 SF Rip Rap	RIP RAP		111.11 CY	\$744.79 / CY	\$82,754		
SR-102	DS of Pale Medina	20'x100' gabion wall	GABION		22.22 CY	\$629.66 / CY	\$13,991	\$97,885	\$166,405
		111 CF Rip Rap	RIP RAP		111.11 CY	\$744.79 / CY	\$82,754		
		0.009290304 HA Debris Removal	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,141		
SR-113	Felix T Dydasco	100'x6'x4' RCB (per FCD)	REINFORCED CONCRETE BOX CULVERT		88.89 CY	\$1,153.35 / CY	\$102,521	\$152,121	\$258,606
		100' conc ditch, 2:1 SIDE SLOPES, 4' deep	CONCRETE DITCH	EXCAVATION	178 CY	\$27.53 / CY	\$4,900		
				CONCRETE (DITCH LINING)	39 CY	\$633.32 / CY	\$24,699		
		2 headwalls/wingwalls	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000		
SR-112	Felix T Pelinginan	100'x6'x4' RCB (per FCD)	REINFORCED CONCRETE BOX CULVERT		88.89 CY	\$1,153.35 / CY	\$102,521	\$128,639	\$218,686
		500' ditch	DITCH		222.22 CY	\$27.53 / CY	\$6,118		
		2 headwalls/wingwalls	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000		
SR-116	Jct Route 12 at Naval Gate Entry	1/4 Ac Debris Removal	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,141	\$4,641	\$7,889
		Add 1 catch basin	CATCH BASIN		1 EA	\$3,500.00 / EA	\$3,500		
SR-117	Jose Sarmiento Drive_Gregoria Barajo	100'x8'x5' RCB	REINFORCED CONCRETE BOX CULVERT		148.15 CY	\$1,153.35 / CY	\$170,869	\$273,622	\$465,158
		1/4 Ac RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,754		
		2 headwalls/wingwalls	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000		
SR-105	Namo Falls Road	100' x 36" RCP	36" RCP		100 LF	\$715.00 / LF	\$71,500	\$239,268	\$406,755
		2 headwalls/wingwalls	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000		
		1/4 Ac Debris Removal	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,141		
		3 catch basins	CATCH BASIN		1 EA	\$3,500.00 / EA	\$3,500		
		100'x24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479		
		1000 SF Rip Rap	RIP RAP		111.11 CY	\$744.79 / CY	\$82,754		
		400 LF Ditch	DITCH		177.78 CY	\$27.53 / CY	\$4,894		
SR-107	Pale Ferinan_SR 2	RCB 100' x double 5'x3.5' (per FCD)	REINFORCED CONCRETE BOX CULVERT		64.81 CY	\$1,153.35 / CY	\$74,749	\$112,438	\$191,145
		2 headwalls/wingwalls	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000		
			DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,141		
		1/4 Ac Debris Removal, 200 SF Rip Rap	RIP RAP		22.22 CY	\$744.79 / CY	\$16,549		
SR-103	Pale Roman	100' x 8'x5' RCB	REINFORCED CONCRETE BOX CULVERT		148.15 CY	\$1,153.35 / CY	\$170,869	\$595,346	\$1,012,088
		2 headwalls/wingwalls	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000		
		4000 CF Gabions	GABION		113.27 CY	\$629.66 / CY	\$71,322		
		4000 SF rip rap	RIP RAP		444.44 CY	\$744.79 / CY	\$331,014		
		1/4 Ac Debris Removal	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,141		
		1000 SF Hydromulch w/ BFM	HYDROMULCH (BFM)		1000 SF	\$1.00 / SF	\$1,000		
SR-119	Route 5 and Route 17	100'x 3'x3' RCB	REINFORCED CONCRETE BOX CULVERT		33.33 CY	\$1,153.35 / CY	\$38,441	\$142,335	\$241,970
		2 headwalls/wingwalls	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000		
		1/4 Ac Debris Remval	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,141		
		1000 SF Rip Rap	RIP RAP		111.11 CY	\$744.79 / CY	\$82,754		
SR-110	Route 17 Cross Drains	500'x36" RCP	36" RCP		500 LF	\$715.00 / LF	\$357,500	\$407,500	\$692,750
		10 HEADWALLS	HEADWALL		10 EA	\$5,000.00 / EA	\$50,000		
SR-120	Route 12 and Namo Falls Road	1 Ac Spillway	AC SPILLWAY		1 EA	\$1,000.00 / EA	\$1,000	\$167,648	\$285,001
		2000 SF Rip Rap, 1/4 Ac Debris Removal	RIP RAP		222.22 CY	\$744.79 / CY	\$165,507		
			DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,141		
SR-115	Route 12 W	2 headwalls/wingwalls	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000	\$99,029	\$168,349
		200 SF Rip Rap, 400 LF Ditch	RIP RAP		22.22 CY	\$744.79 / CY	\$16,549		
		2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000		
		100 LF 24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479		



LOCATION		COST ESTIMATE							
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS			QUANTITIES UNITS	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES
SR-114	Rt 17 & Felix T Dydasco Dr	1000 LF DITCH, 2 HEADWALLS, 200 SF RIP RAP, 100 LF 36" RCP	1000 LF DITCH	DITCH	148.15 CY	\$27.53 / CY	\$4,079	\$102,128	\$173,617
			2 HEADWALLS	HEADWALLS	2 EA	\$5,000.00 / LF	\$10,000		
			600 CF RIP RAP	RIP RAP	22.22 CY	\$744.79 / EA	\$16,549		
			100 LF 36" RCP	RCP	100 LF	\$715.00 / CY	\$71,500		
SR-106	Sgt Quenga and Pale Duenas Haya	100 LF 3'x5' RCB 1000 SF RIP RAP 2 headwalls/wingwalls	REINFORCED CONCRETE BOX CULVERT		55.56 CY	\$1,153.35 / CY	\$64,080	\$166,834	\$283,617
			RIP RAP		111.11 CY	\$744.79 / CY	\$82,754		
			HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000		
SR-109	SR 7	2 AC Spillways 1/4 Ac Debris Removal 1000 SF Rip Rap	AC SPILLWAY		2 EA	\$1,000.00 / EA	\$2,000	\$85,894	\$146,020
			DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,141		
			RIP RAP		111.11 CY	\$744.79 / CY	\$82,754		
SR-108	Sumay Memorial Street	100'x36"RCP 1000 SF Rip Rap 1/4 Ac debris removal 2 headwalls/wingwalls	36" RCP		100 LF	\$715.00 / LF	\$71,500	\$175,394	\$298,170
			RIP RAP		111.11 CY	\$744.79 / CY	\$82,754		
			DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,141		
			HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000		
SR-111	Vicente Borja	200 LF ditch 100'X4'X4' RCB 2 HEADWALLS 200 SF RIP RAP	DITCH		88.89 CY	\$27.53 / CY	\$2,447	\$97,344	\$165,485
			REINFORCED CONCRETE BOX CULVERT		59.26 CY	\$1,153.35 / CY	\$68,348		
			HEADWALL		2 EA	\$5,000.00 / EA	\$10,000		
			RIP RAP		22.22 CY	\$744.79 / CY	\$16,549		
SR-118	Vicente Lizama	1/4 Ac Debris Removal 1000 SF Rip Rap 2 headwalls/wingwalls	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,141	\$103,894	\$176,620
			RIP RAP		111.11 CY	\$744.79 / CY	\$82,754		
			HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000		

## SINJANA VILLAGE

LOCATION		COST ESTIMATE							
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS	QUANTITIES	UNITS	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES	
SV-101	Chalan Guma Yuos	400 SF Gabions, 1/4 Ac Debris Removal, 100 SF Rip Rap	GABION	34	CY	\$629.66 / CY	\$21,409	\$30,824	\$52,400
			DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141		
			RIP RAP	11.11	CY	\$744.79 / CY	\$8,275		
SV-102	Route 24A	1/4 Ac Debris Removal, 500 SF Rip Rap	DEBRIS REMOVAL	0.25	AC	\$4,562.38 / AC	\$1,141	\$42,521	\$72,286
			RIP RAP	55.56	CY	\$744.79 / CY	\$41,381		

**TALOFOFO VILLAGE**

LOCATION		COST ESTIMATE							
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS			QUANTITIES UNIT	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES
TA-116	Rt 4 & Talofof Beach Park	60,000 CF RIP RAP	RIP RAP		2222.22 CY	\$744.79 / CY	\$1,655,087	\$1,655,087	\$2,813,648
TA-108	David Gorton Street S O JP Cruz	100'x48" RCP	48" RCP		100 LF	\$744.50 / LF	\$74,450	\$110,821	\$188,396
		2 HEADWALLS W/WINGWALLS	HEADWALL W/WINGWALL		2 EA	\$10,000.00 / EA	\$20,000		
		200' BIOSWALE	BIOSWALE	EXCAVATION	48.48 CY	\$2.00 / CY	\$97		
		300 CF RIP RAP	RIP RAP	EROSION CONTROL (HYDROSEED)	1600 SF	\$5.00 / SF	\$8,000		
TA-112	Rte 4 & Togcha River	3000 CF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,754	\$83,894	\$142,620
		1/4 Ac Debris Removal	DEBRIS REMOVAL		0.25 EA	\$4,562.38 / AC	\$1,141		
TA-110	Ernest Santos Street & Siguenza Court	1 CATCH BASIN	CATCH BASIN		1 EA	\$3,500.00 / EA	\$3,500	\$188,213	\$319,962
		300'x24" RCP	24" RCP		300 LF	\$554.79 / LF	\$166,438		
		1 HEADWALL W/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,275		
TA-101	E Johnny Taitague	1000' CONCRETE CHANNEL	CHANNEL	EXCAVATION	296.3 CY	\$27.53 / CY	\$8,157	\$78,665	\$133,731
				CONCRETE (DITCH LINING)	77 CY	\$633.32 / CY	\$48,766		
		1 CATCH BASIN	CATCH BASIN		1 EA	\$3,500.00 / EA	\$3,500		
		1 APRON	APRON	CONCRETE (DITCH LINING)	1 CY	\$633.32 / CY	\$633		
		1 BIOSWALE	BIOSWALE	EXCAVATION	48.48 CY	\$27.53 / CY	\$1,335		
				EROSION CONTROL (HYDROSEED)	1600 SF	\$5.00 / SF	\$8,000		
TA-102	Ignacio Quinata Street S O JP Cruz	NEW INFILTRATION BASIN (6' DEEP)	INFILTRATION BASIN	EXCAVATION	2222 CY	\$27.53 / CY	\$61,172	\$70,348	\$119,591
				FENCING	548 LF	\$14.92 / LF	\$8,176		
		AC SPILLWAY	AC SPILLWAY		1 EA	\$1,000.00 / EA	\$1,000		
TA-104	Francisco Reyes East	1000' CONCRETE DITCH	CONCRETE DITCH	EXCAVATION	37 CY	\$27.53 / CY	\$1,019	\$101,590	\$172,703
				CONCRETE (DITCH LINING)	35.64 CY	\$633.32 / CY	\$22,572		
		100 LF 12" RCP	12" RCP		100 LF	\$300.00 / LF	\$30,000		
TA-105, TA-106, TA-109	Francisco Reyes West, Tenorio, David Gordon Street	6 HEADWALLS W/WINGWALLS	HEADWALL W/WINGWALL	(SMALL SIZE @ \$8000)	6 EA	\$8,000.00 / EA	\$48,000	\$229,221	\$389,676
		2000' CONCRETE DITCH	CONCRETE DITCH	EXCAVATION	148.14 CY	\$27.53 / CY	\$4,078		
				CONCRETE (DITCH LINING)	71.28 CY	\$633.32 / CY	\$45,143		
		200 LF 12" RCP	12" RCP		200 LF	\$300.00 / LF	\$60,000		
TA-113	Rte 4 & Pacifico	12 HEADWALLS W/WINGWALLS	HEADWALL W/WINGWALL		12 EA	\$10,000.00 / EA	\$120,000	\$254,191	\$432,124
		4 CATCH BASINS	CATCH BASIN		4 EA	\$3,500.00 / EA	\$14,000		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,275		
		400 LF 24" RCP	24" RCP		400 LF	\$554.79 / LF	\$221,916		
		1 HEADWALLS W/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000		

LOCATION		COST ESTIMATE							
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS			QUANTITIES UNIT	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES
TA-107	Jose P Cruz	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000	\$90,089	\$153,151
		100 LF 24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479		
		1 HEADWALL W/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,275		
		100 LF BIOSWALES	BIOSWALE	EXCAVATION	48.48 CY	\$27.53 / CY	\$1,335		
				EROSION CONTROL (HYDROSEED)	1600 SF	\$5.00 / SF	\$8,000		
TA-111	Ernest Santos Street and Pasadero Francisco Diego	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000	\$145,568	\$247,466
		200 LF 24" RCP	24" RCP		200 LF	\$554.79 / LF	\$110,959		
		1 HEADWALL W/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,275		
		100 LF BIOSWALE	BIOSWALE	EXCAVATION	48.48 CY	\$27.53 / CY	\$1,335		
				EROSION CONTROL (HYDROSEED)	1600 SF	\$5.00 / SF	\$8,000		
TA-103	Monte Drive	1 CATCH BASIN	CATCH BASIN		1 EA	\$3,500.00 / EA	\$3,500	\$188,213	\$319,962
		300'x24" RCP	24" RCP		300 LF	\$554.79 / LF	\$166,438		
		1 HEADWALL W/WINGWALL	HEADWALL W/WINGWALL		1 EA	\$10,000.00 / EA	\$10,000		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,275		
TA-114	Route 4 A S O Route 17	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000	\$51,048	\$86,782
		12,000 LF DITCH	DITCH		1600 CY	\$27.53 / CY	\$44,048		
TA-115	Route 4 A North_Low Points	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000	\$7,000	\$11,900

**TAMUNING VILLAGE**

LOCATION		COST ESTIMATE							
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS	QUANTITIES UNITS	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES		
TV-101	Pizza Hut	200' CONCRETE TRAP CHANNEL	CONCRETE TRAP CHANNEL	EXCAVATION	355.56 CY	\$27.53 / CY	\$9,789	\$184,754	\$314,082
				CONCRETE (DITCH LINING)	143.8 CY	\$633.32 / CY	\$91,071		
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL		0.25 AC	\$4,562.38 / AC	\$1,141		
		3000 CF RIP RAP	RIP RAP		111.11 CY	\$744.79 / CY	\$82,754		
TV-102	Tun Jose Coves Way	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000	\$185,128	\$314,718
		100' 24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479		
		200' x DOUBLE 3'x5' RCB	REINFORCED CONCRETE BOX CULVERT		111.11 CY	\$1,103.85 / CY	\$122,649		
TV-103	Tamuning Outlet Channel	300,000 CF RIP RAP	RIP RAP		11111.11 CY	\$744.79 / CY	\$8,275,444	\$8,298,255	\$14,107,034
		5 AC DEBRIS REMOVAL	DEBRIS REMOVAL		5 AC	\$4,562.28 / AC	\$22,811		
TV-104	Estrellita Court	400' 24" RCP	24" RCP		400 LF	\$554.79 / LF	\$221,918	\$247,192	\$420,227
		2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000		
		1 HEADWALL W/WINGWALL	HEADWALL W/WINGWALLS		1 EA	\$10,000.00 / EA	\$10,000		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,275		
TV-105	N. Sgt David Camacho Street	200' INFILTRATION TRENCH	INFILTRATION TRENCH	EXCAVATION	111.11 CY	\$27.53 / CY	\$3,059	\$12,330	\$20,961
				0.75" ROCK	111.11 CY	\$41.00 / CY	\$4,556		
				FILTER FABRIC	2600 SF	\$1.50 / SF	\$3,900		
		200' DITCH	DITCH		29.63 CY	\$27.53 / CY	\$816		
TV-106	Sand Castle	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000	\$62,479	\$106,215
		100' 24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479		
TV-108	McDonald's (Rte 27)	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000	\$351,322	\$597,248
		400' 36" RCP	36" RCP		400 LF	\$815.12 / LF	\$326,048		
		1 HEADWALL W/WINGWALL	HEADWALL W/WINGWALLS		1 EA	\$10,000.00 / EA	\$10,000		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,275		
TV-109	McDonald's (Rte 27 @ Anthurum Ln)	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000	\$248,707	\$422,801
		400' 24" RCP	24" RCP		400 LF	\$554.79 / LF	\$221,918		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,275		
		200' INFILTRATION TRENCH	INFILTRATION TRENCH	EXCAVATION	111.11 CY	\$27.53 / CY	\$3,059		
				0.75" ROCK	111.11 CY	\$41.00 / CY	\$4,556		
				FILTER FABRIC	2600 SF	\$1.50 / SF	\$3,900		
TV-110	Rte 27	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000	\$82,268	\$139,856
		100' 24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479		
		300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,275		
		200' INFILTRATION TRENCH	INFILTRATION TRENCH	EXCAVATION	111.11 CY	\$27.53 / CY	\$3,059		
				0.75" ROCK	111.11 CY	\$41.00 / CY	\$4,556		
				FILTER FABRIC	2600 SF	\$1.50 / SF	\$3,900		
TV-107	Fujita Ponding Basin	2 CATCH BASINS	CATCH BASIN		2 EA	\$3,500.00 / EA	\$7,000	\$80,754	\$137,282
		100' 24" RCP	24" RCP		100 LF	\$554.79 / LF	\$55,479		
	1 HEADWALL W/WINGWALL	HEADWALL W/WINGWALLS		1 EA	\$10,000.00 / EA	\$10,000			
	300 CF RIP RAP	RIP RAP		11.11 CY	\$744.79 / CY	\$8,275			
	Lot 2151-36								

**UMATAC VILLAGE**

LOCATION		COST ESTIMATE							TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATION			QUANTITIES	UNITS	COST / UNIT	COST		
UM-108	Jose Q Leilei River	1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,141	\$83,894	\$142,620
		3000 CF RIP RAP	RIP RAP		111.11	CY	\$744.79 / CY	\$82,754		
UM-113	Route 2 Tributary of Sella River	1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,141	\$1,141	\$1,939
UM-112	Route 2 and Cetti River	30' x 5 - 48" RCP	48" RCP		150	LF	\$744.50 / LF	\$111,675	\$389,263	\$661,747
		HEADWALL W/WINGWALL	HEADWALL W/WINGWALL		1	EA	\$10,000.00 / EA	\$10,000		
		8000 SF GABIONS	GABIONS		286.3	CY	\$629.66 / CY	\$180,272		
		1 Ac DEBRIS REMOVAL	DEBRIS REMOVAL		1	AC	\$4,562.38 / AC	\$4,562		
		3000 CF RIP RAP	RIP RAP		111.11	CY	\$744.79 / CY	\$82,754		
UM-114	Route 2 and Sella River	1000 SF DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,141	\$1,141	\$1,939
UM-101	Route 2 and Umatac River	1 Ac DEBRIS REMOVAL	DEBRIS REMOVAL		1	AC	\$4,562.38 / AC	\$4,562	\$1,661,690	\$2,824,872
		60,000 CF RIP RAP	RIP RAP		2222.22	CY	\$744.79 / CY	\$1,655,087		
		2000 CF DREDGING (EARTHWORK)	DREDGING (EARTHWORK)	EXCAVATION	74.1	CY	\$27.53 / CY	\$2,040		
UM-102	Finona St NEAR Madog River	30,000 CF RIP RAP	RIP RAP		1111.11	CY	\$744.79 / CY	\$827,544	\$833,126	\$1,416,314
		1 Ac DEBRIS REMOVAL	DEBRIS REMOVAL		1	AC	\$4,562.38 / AC	\$4,562		
		1000 CF DREDGING (EARTHWORK)	DREDGING (EARTHWORK)	EXCAVATION	37.04	CY	\$27.53 / CY	\$1,020		
UM-103	Finona St NEAR Jose A Quintana St	2 HEADWALLS W/WINGWALLS	HEADWALL W/WINGWALL		2	EA	\$10,000.00 / EA	\$20,000	\$93,169	\$158,388
		600 CF RIP RAP	RIP RAP		22.22	CY	\$744.79 / CY	\$16,549		
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,141		
		100 LF - 24" RCP	24" RCP		100	LF	\$554.79 / LF	\$55,479		
UM-104	Finona St NEAR Jose A Quintana St	1000' CONCRETE DITCH	CONCRETE DITCH	EXCAVATION	74.07	CY	\$27.53 / CY	\$2,039	\$32,885	\$55,905
				CONCRETE (DITCH LINING)	35.64	CY	\$633.32 / CY	\$22,572		
		300 CF RIP RAP	RIP RAP		11.11	CY	\$744.79 / CY	\$8,275		
UM-105	Jose A Quintana St NEAR Finona St	100' - 24" RCP	24" RCP		100	LF	\$554.79 / LF	\$55,479	\$84,895	\$144,321
		2 HEADWALLS W/WINGWALLS	HEADWALL W/WINGWALL		2	EA	\$10,000.00 / EA	\$20,000		
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,141		
		300 CF RIP RAP	RIP RAP		11.11	CY	\$744.79 / CY	\$8,275		
UM-106	Rt 2 Near Jagar Dr	100' Concrete Trap Channel	CONCRETE TRAP CHANNEL	EXCAVATION	177.78	CY	\$27.53 / CY	\$4,894	\$222,845	\$378,837
				CONCRETE (DITCH LINING)	71.9	CY	\$633.32 / CY	\$45,536		
		200'x36" RCP	36" RCP		200	LF	\$715.00 / LF	\$143,000		
		2 HEADWALLS W/WINGWALLS	HEADWALL W/WINGWALL		2	EA	\$10,000.00 / EA	\$20,000		
		300 CF RIP RAP	RIP RAP		11.11	CY	\$744.79 / CY	\$8,275		
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,141		
UM-107	Road A	4 CATCH BASIN	CATCH BASIN		4	EA	\$3,500.00 / EA	\$14,000	\$169,569	\$288,268
		100' 24" RCP	24" RCP		100	LF	\$554.79 / LF	\$55,479		
		1000' CONCRETE DITCH	CONCRETE DITCH	EXCAVATION	74.07	CY	\$27.53 / CY	\$2,039		
				CONCRETE (DITCH LINING)	35.64	CY	\$633.32 / CY	\$22,572		
		2 HEADWALLS W/WINGWALLS	HEADWALL W/WINGWALL		2	EA	\$10,000.00 / EA	\$20,000		
UM-108	Jose Q Aguon St NEAR Laelae River	1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,141	\$83,894	\$142,620
		3000 CF RIP RAP	RIP RAP		111.11	CY	\$744.79 / CY	\$82,754		
UM-109	Rte 2	0.5 Ac DEBRIS REMOVAL	DEBRIS REMOVAL		0.5	AC	\$4,562.38 / AC	\$2,281	\$436,057	\$741,296
		15000 CF RIP RAP	RIP RAP		555.56	CY	\$744.79 / CY	\$413,776		
		2 HEADWALLS W/WINGWALLS	HEADWALL W/WINGWALL		2	EA	\$10,000.00 / EA	\$20,000		

LOCATION		COST ESTIMATE								
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATION		QUANTITIES	UNITS	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES	
UM-110	Rte 2 NEAR La Sa Fua River	2 AC SPILLWAYS	AC SPILLWAY		2	EA	\$1,000.00 / EA	\$2,000	\$36,239	\$61,606
		1200 CF RIP RAP	RIP RAP		44.44	CY	\$744.79 / CY	\$33,098		
		1/4 Ac DEBRIS REMOVAL	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,141		
UM-111	Rte 2 NEAR Observation Rest Area	1 AC HYDROSEED W/BFM	HYDROSEED W/BFM	EROSION CONTROL (HYDROSEED)	43560.1	SF	\$5.00 / SF	\$217,801	\$374,181	\$636,108
				EROSION CONTROL (BFM)	43560.1	SF	\$3.59 / SF	\$156,381		

**YIGO VILLAGE**

LOCATION		COST ESTIMATE								
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS		QUANTITIES	UNIT	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES	
YI-108	Chalan Tun Luis Duenas Street & Route 1	200' INFILTRATION TRENCH	INFILTRATION TRENCH	EXCAVATION	111.11	CY	\$27.53 / CY	\$3,059	\$11,514	\$19,574
				0.75" ROCK	111.11	CY	\$41.00 / CY	\$4,556		
				FILTER FABRIC	2600	SF	\$1.50 / SF	\$3,900		
YI-102	Azud Street	2 - 200' INFILTRATION TRENCHES	INFILTRATION TRENCH	EXCAVATION	222.22	CY	\$27.53 / CY	\$6,118	\$23,029	\$39,149
				0.75" ROCK	222.22	CY	\$41.00 / CY	\$9,111		
				FILTER FABRIC	5200	SF	\$1.50 / SF	\$7,800		
YI-103	Chalan Sta. Bernadita	2 - 200' INFILTRATION TRENCHES	INFILTRATION TRENCH	EXCAVATION	222.22	CY	\$27.53 / CY	\$6,118	\$23,029	\$39,149
				0.75" ROCK	222.22	CY	\$41.00 / CY	\$9,111		
				FILTER FABRIC	5200	SF	\$1.50 / SF	\$7,800		
YI-105	Chalan Tun Luis Duenas Street at Route 29 (cont'd)	1000 LF CONCRETE DITCH	CONCRETE DITCH	EXCAVATION	74.07	CY	\$27.53 / CY	\$2,039	\$100,365	\$170,620
		100'x24" RCP	24" RCP	CONCRETE (DITCH LINING)	35.64	CY	\$633.32 / CY	\$22,572		
		2 CATCH BASINS	CATCH BASIN		100	LF	\$554.79 / LF	\$55,479		
		1 HEADWALL	HEADWALL		2	EA	\$3,500.00 / EA	\$7,000		
		300 CF RIP RAP	RIP RAP		1	EA	\$5,000.00 / EA	\$5,000		
					11.11	CY	\$744.79 / CY	\$8,275		
YI-106	Route 29 and Chn. Tun Jose Anaco	2 CATCH BASINS	CATCH BASIN		2	EA	\$3,500.00 / EA	\$7,000	\$132,374	\$225,036
		200'x24" RCP	24" RCP		200	LF	\$554.79 / LF	\$110,959		
		1 HEADWALL	HEADWALL		1	EA	\$5,000.00 / EA	\$5,000		
		300 CF RIP RAP	RIP RAP		11.11	CY	\$744.79 / CY	\$8,275		
		1/4 Ac CLEARING & GRUBBING	DEBRIS REMOVAL		0.25	AC	\$4,562.38 / AC	\$1,141		
YI-104	Chalan Tun Luis Duenas NEAR Kiko Isabela Loop	2- 200' INFILTRATION TRENCHES	INFILTRATION TRENCH	EXCAVATION	222.22	CY	\$27.53 / CY	\$6,118	\$23,029	\$39,149
				0.75" ROCK	222.22	CY	\$41.00 / CY	\$9,111		
				FILTER FABRIC	5200	SF	\$1.50 / SF	\$7,800		
YI-107	Gayinero Dr (Rt29) & Chalan Padiron Lagu (Rt 15)	2-200' INFILTRATION TRENCHES	INFILTRATION TRENCH	EXCAVATION	222.22	CY	\$27.53 / CY	\$6,118	\$23,029	\$39,149
				0.75" ROCK	222.22	CY	\$41.00 / CY	\$9,111		
				FILTER FABRIC	5200	SF	\$1.50 / SF	\$7,800		
YI-109	Rt 1 & Chalan Chamorri	200' INFILTRATION TRENCH	INFILTRATION TRENCH	EXCAVATION	111.11	CY	\$27.53 / CY	\$3,059	\$11,514	\$19,574
				0.75" ROCK	111.11	CY	\$41.00 / CY	\$4,556		
				FILTER FABRIC	2600	SF	\$1.50 / SF	\$3,900		



## YONA VILLAGE

LOCATION		COST ESTIMATE						
MAP DESIGNATION	STREET/ROUTE	RECOMMENDATIONS	QUANTITIES	UNIT	COST / UNIT	COST	TOTAL COST	TOTAL COST W/ENGINEERING CONTINGENCIES
YO-101	Route 4 (Route 10 to Ylig)	1 Ac Hydromulch, 2000 LF Silt Fence	Hydromulch	1 AC	\$1,000.00 / AC	\$1,000	\$6,640	\$11,300
			TEMPORARY SILT FENCE	2000 LF	\$2.82 / LF	\$5,640		
Y-108	Route 4 near Chalan Aguon	1000 SF Debris Removal, 1000 SF Rip Rap	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141	\$83,894	\$143,000
			RIP RAP	111.11 CY	\$744.79 / CY	\$82,754		
YO-102	Chalan Teleforo	2 catch basins, 100 LF 24" RCP, 1 Headwall/wingwall, 100 SF Rip Rap	CATCH BASINS	2 EA	\$3,500.00 / EA	\$7,000	\$80,672	\$137,000
			24" RCP	100 LF	\$554.79 / LF	\$55,479		
			HEADWALL/WINGWALL	1 EA	\$10,000.00 / EA	\$10,000		
			RIP RAP	11 CY	\$744.79 / CY	\$8,193		
YO-103	Jesus Santos Road	2 catch basins, 400 LF 24" RCP, 1 Headwall/wingwall, 100 SF Rip Rap, 250 LF Inf Trench	CATCH BASINS	2 EA	\$3,500.00 / EA	\$7,000	\$251,418	\$427,000
			24" RCP	400 LF	\$554.79 / LF	\$221,918		
			HEADWALL/WINGWALL	1 EA	\$10,000.00 / EA	\$10,000		
			INFILTRATION TRENCH	138.89 CY	\$90.00 / CY	\$12,500		
YO-104	Balajadia Road	2 Ac Spillways, 200 SF Rip Rap, 1/4 Ac Debris Removal	AC SPILLWAY	2 EA	\$1,000.00 / EA	\$2,000	\$19,690	\$33,500
			RIP RAP	22.22 CY	\$744.79 / CY	\$16,549		
			DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141		
Y-105	Route 4 @ Ylig River	1/4 Ac Debris Removal, 1000 SF Rip Rap, 800 SF Gabions	DEBRIS REMOVAL	0.25 AC	\$4,562.38 / AC	\$1,141	\$126,604	\$215,000
			RIP RAP	111 CY	\$744.79 / CY	\$82,672		
			GABIONS	67.96043 CY	\$629.66 / CY	\$42,792		
Y-107	Salas Road	2 catch basins, 100 LF 24" RCP, 200 SF Rip Rap	CATCH BASINS	2 EA	\$3,500.00 / EA	\$7,000	\$78,865	\$134,000
			24" RCP	100 LF	\$554.79 / LF	\$55,479		
			RIP RAP	22 CY	\$744.79 / CY	\$16,385		