

## Demolition Assumptions for

## GCID Canal Improvements 13

Code	# of Structures Demolished	Demolition per day (sf)
GCID Canal Improvements-1301	1	17,952
GCID Canal Improvements-1302	0	0
GCID Canal Improvements-1303	1	5820
GCID Canal Improvements-1304	1	5820
GCID Canal Improvements-1305	0	0

### Note

1. Demolition data per day in the table represents the total amount of demolition of the entire sub-package. This can be used if a worse-case daily fugitive dust emission is needed. If average daily emissions are needed or if the emissions will be multiplied by the number of working days to get the total emissions, the value in the table need to be divided by the number of working days for that sub-package

**Construction Schedule for**

**GCID Canal Improvements**

13

Subpackage

Phase	Code	Start Date	End Date	Working Days	Days/Week
13 GCID Canal Improvements	GCID Canal Improvements-13				
13.01 GCID MP 1.52 Headgates Structure	GCID Canal Improvements-1301	11/6/2025	10/6/2027	500	5
13.02 GCID MP 24.48 Waklker Creek Siphon	GCID Canal Improvements-1302	11/6/2025	11/6/2026	261	5
13.03 GCID MP 24.68 Willow Creek Siphon	GCID Canal Improvements-1303	11/6/2026	10/6/2027	239	5
13.04 GCID MP 26.6 RR Siphon	GCID Canal Improvements-1304	11/6/2025	10/6/2027	500	5
13.05 GCID Main Canal Bank Improvements	GCID Canal Improvements-1305	11/6/2025	10/6/2027	500	5

01  
02  
03  
04  
05

Code	Equipment Name	General Equipment Category	#/day	Hours/day/ equipment	Fuel Type	Engine Horsepower (if known)	Fuel (gal/day) (if known)
GCID Canal Improvements-1301	Hyd. Excavator, 2.5 C.Y.	Excavators	0.00	8	Diesel		
GCID Canal Improvements-1301	Backhoe Loader, 48 H.P.	Tractors/Loaders/Backhoes	0.03	8	Diesel		
GCID Canal Improvements-1301	Rammer/Tamper, Gas, 15"	Other Construction Equipment	0.01	8	Diesel		
GCID Canal Improvements-1301	Trowel, 48" Walk-Behind	Other Construction Equipment	0.02	8	Diesel		
GCID Canal Improvements-1301	Hydraulic Crane, 25 ton	Cranes	0.00	8	Diesel		
GCID Canal Improvements-1301	S.P. Crane, 4x4, 25 Ton	Cranes	0.04	8	Diesel		
GCID Canal Improvements-1301	Grader, 30,000 Lbs.	Graders	0.00	8	Diesel		
GCID Canal Improvements-1301	Concrete Pump (Small)	Pumps	0.02	8	Diesel		
GCID Canal Improvements-1301	Tandem Roller, 5 Ton	Rollers	0.00	8	Diesel		
GCID Canal Improvements-1301	Dozer, 300 H.P.	Rubber Tired Dozers	0.00	8	Diesel		
GCID Canal Improvements-1301	F.E. Loader, W.M., 5.5 C.Y.	Tractors/Loaders/Backhoes	0.01	8	Diesel		
GCID Canal Improvements-1301	Truck Tractor, 220 H.P.	Off-Highway Tractors	0.00	8	Diesel		
GCID Canal Improvements-1301	Truck Tractor, 6x4, 380 H.P.	Off-Highway Tractors	0.03	8	Diesel		
GCID Canal Improvements-1301	Gas Engine Vibrator	Other Construction Equipment	0.05	8	Gasoline		
GCID Canal Improvements-1301	Welder, Gas Engine, 300 amp	Welders	0.01	8	Gasoline		
GCID Canal Improvements-1302	Clamshell Bucket, .5 C.Y.	Other Construction Equipment	0.05	8	Diesel		
GCID Canal Improvements-1302	Hyd. Excavator, 2.5 C.Y.	Excavators	0.14	8	Diesel		
GCID Canal Improvements-1302	Backhoe Loader, 48 H.P.	Tractors/Loaders/Backhoes	0.04	8	Diesel		
GCID Canal Improvements-1302	Backhoe Loader, 80 H.P.	Tractors/Loaders/Backhoes	0.01	8	Diesel		
GCID Canal Improvements-1302	Vibrating Plate, Gas, 21"	Plate compactors	0.01	8	Diesel		
GCID Canal Improvements-1302	Rammer/Tamper, Gas, 15"	Other Construction Equipment	0.13	8	Diesel		
GCID Canal Improvements-1302	Trowel, 48" Walk-Behind	Other Construction Equipment	0.06	8	Diesel		
GCID Canal Improvements-1302	Crawler Crane, 15 Ton	Cranes	0.05	8	Diesel		
GCID Canal Improvements-1302	Hydraulic Crane, 25 ton	Cranes	0.01	8	Diesel		
GCID Canal Improvements-1302	Grader, 30,000 Lbs.	Graders	0.01	8	Diesel		
GCID Canal Improvements-1302	Concrete Pump (Small)	Pumps	0.06	8	Diesel		
GCID Canal Improvements-1302	Tandem Roller, 5 Ton	Rollers	0.01	8	Diesel		
GCID Canal Improvements-1302	Dozer, 300 H.P.	Rubber Tired Dozers	0.01	8	Diesel		
GCID Canal Improvements-1302	F.E. Loader, W.M., 5.5 C.Y.	Tractors/Loaders/Backhoes	0.21	8	Diesel		
GCID Canal Improvements-1302	Truck Tractor, 220 H.P.	Off-Highway Tractors	0.03	8	Diesel		
GCID Canal Improvements-1302	Truck Tractor, 6x4, 380 H.P.	Off-Highway Tractors	0.31	8	Diesel		
GCID Canal Improvements-1302	Gas Engine Vibrator	Other Construction Equipment	0.12	8	Gasoline		
GCID Canal Improvements-1303	Clamshell Bucket, .5 C.Y.	Other Construction Equipment	0.05	8	Diesel		
GCID Canal Improvements-1303	Hyd. Excavator, 2.5 C.Y.	Excavators	0.13	8	Diesel		
GCID Canal Improvements-1303	Backhoe Loader, 48 H.P.	Tractors/Loaders/Backhoes	0.04	8	Diesel		
GCID Canal Improvements-1303	Backhoe Loader, 80 H.P.	Tractors/Loaders/Backhoes	0.00	8	Diesel		
GCID Canal Improvements-1303	Vibrating Plate, Gas, 21"	Plate compactors	0.01	8	Diesel		
GCID Canal Improvements-1303	Rammer/Tamper, Gas, 15"	Other Construction Equipment	0.12	8	Diesel		
GCID Canal Improvements-1303	Trowel, 48" Walk-Behind	Other Construction Equipment	0.05	8	Diesel		
GCID Canal Improvements-1303	Crawler Crane, 15 Ton	Cranes	0.05	8	Diesel		
GCID Canal Improvements-1303	Hydraulic Crane, 25 ton	Cranes	0.01	8	Diesel		
GCID Canal Improvements-1303	Grader, 30,000 Lbs.	Graders	0.01	8	Diesel		
GCID Canal Improvements-1303	Concrete Pump (Small)	Pumps	0.05	8	Diesel		
GCID Canal Improvements-1303	Tandem Roller, 5 Ton	Rollers	0.01	8	Diesel		
GCID Canal Improvements-1303	Dozer, 300 H.P.	Rubber Tired Dozers	0.01	8	Diesel		
GCID Canal Improvements-1303	F.E. Loader, W.M., 5.5 C.Y.	Tractors/Loaders/Backhoes	0.19	8	Diesel		
GCID Canal Improvements-1303	Truck Tractor, 220 H.P.	Off-Highway Tractors	0.03	8	Diesel		
GCID Canal Improvements-1303	Truck Tractor, 6x4, 380 H.P.	Off-Highway Tractors	0.25	8	Diesel		
GCID Canal Improvements-1303	Gas Engine Vibrator	Other Construction Equipment	0.10	8	Gasoline		
GCID Canal Improvements-1304	Hyd. Excavator, 2.5 C.Y.	Excavators	0.05	8	Diesel		
GCID Canal Improvements-1304	Backhoe Loader, 48 H.P.	Tractors/Loaders/Backhoes	0.01	8	Diesel		
GCID Canal Improvements-1304	Rammer/Tamper, Gas, 15"	Other Construction Equipment	0.03	8	Diesel		
GCID Canal Improvements-1304	Trowel, 48" Walk-Behind	Other Construction Equipment	0.02	8	Diesel		
GCID Canal Improvements-1304	Hydraulic Crane, 25 ton	Cranes	0.00	8	Diesel		
GCID Canal Improvements-1304	Grader, 30,000 Lbs.	Graders	0.00	8	Diesel		
GCID Canal Improvements-1304	Concrete Pump (Small)	Pumps	0.02	8	Diesel		
GCID Canal Improvements-1304	Tandem Roller, 5 Ton	Rollers	0.00	8	Diesel		
GCID Canal Improvements-1304	Dozer, 300 H.P.	Rubber Tired Dozers	0.00	8	Diesel		
GCID Canal Improvements-1304	F.E. Loader, W.M., 5.5 C.Y.	Tractors/Loaders/Backhoes	0.07	8	Diesel		
GCID Canal Improvements-1304	Truck Tractor, 220 H.P.	Off-Highway Tractors	0.01	8	Diesel		
GCID Canal Improvements-1304	Truck Tractor, 6x4, 380 H.P.	Off-Highway Tractors	0.16	8	Diesel		
GCID Canal Improvements-1304	Gas Engine Vibrator	Other Construction Equipment	0.03	8	Gasoline		
GCID Canal Improvements-1305	Sheepsfoot Roller, 240 H.P.	Rollers	0.01	8	Diesel		
GCID Canal Improvements-1305	Dozer, 200 H.P.	Rubber Tired Dozers	0.02	8	Diesel		
GCID Canal Improvements-1305	F.E. Loader, W.M., 5.5 C.Y.	Tractors/Loaders/Backhoes	0.01	8	Diesel		
GCID Canal Improvements-1305	Truck Tractor, 6x4, 380 H.P.	Off-Highway Tractors	0.01	8	Diesel		

Note:

1. Number of equipment/day = Total Equipment Hours / 8 hours per day / Total number of days of the Sub-package.
2. Number of equipment in this table represents averages throughout each sub-package. It does not represent a typical day or peak day conditions.

Jacobs Calculations for #/days

Package		Equipment	total hours (Engineering Data)	hours per day	total equipment days @listed hours per day	total number of working days/phase	Number of equipment/day @ listed hours per day
		Hyd. Excavator, 2.5 C.Y.	12.33	8	2	500	0.00
		Backhoe Loader, 48 H.P.	117.91	8	15	500	0.03
		Rammer/Tamper, Gas, 15"	20.31	8	3	500	0.01
		Trowel, 48" Walk-Behind	82.16	8	10	500	0.02
		Hydraulic Crane, 25 ton	13.21	8	2	500	0.00
		S.P. Crane, 4x4, 25 Ton	177.78	8	22	500	0.04
		Grader, 30,000 Lbs.	16.34	8	2	500	0.00
		Concrete Pump (Small)	99.25	8	12	500	0.02
		Tandem Roller, 5 Ton	3.64	8	0	500	0.00
		Dozer, 300 H.P.	3.64	8	0	500	0.00
		F.E. Loader, W.M., 5.5 C.Y.	33.73	8	4	500	0.01
		Truck Tractor, 220 H.P.	4.95	8	1	500	0.00
		Truck Tractor, 6x4, 380 H.P.	127.18	8	16	500	0.03
		Gas Engine Vibrator	198.49	8	25	500	0.05
		Welder, Gas Engine, 300 amp	28.09	8	4	500	0.01
		Clamshell Bucket, .5 C.Y.	98.06	8	12	261	0.05
		Hyd. Excavator, 2.5 C.Y.	290.00	8	36	261	0.14
		Backhoe Loader, 48 H.P.	78.23	8	10	261	0.04
		Backhoe Loader, 80 H.P.	12.96	8	2	261	0.01
		Vibrating Plate, Gas, 21"	18.62	8	2	261	0.01
		Rammer/Tamper, Gas, 15"	262.56	8	33	261	0.13
		Trowel, 48" Walk-Behind	120.02	8	15	261	0.06
		Crawler Crane, 15 Ton	98.06	8	12	261	0.05
		Hydraulic Crane, 25 ton	17.40	8	2	261	0.01
		Grader, 30,000 Lbs.	21.99	8	3	261	0.01
		Concrete Pump (Small)	127.12	8	16	261	0.06
		Tandem Roller, 5 Ton	15.45	8	2	261	0.01
		Dozer, 300 H.P.	15.45	8	2	261	0.01
		F.E. Loader, W.M., 5.5 C.Y.	431.54	8	54	261	0.21
		Truck Tractor, 220 H.P.	64.00	8	8	261	0.03
		Truck Tractor, 6x4, 380 H.P.	656.83	8	82	261	0.31
		Gas Engine Vibrator	254.24	8	32	261	0.12
		Clamshell Bucket, .5 C.Y.	98.06	8	12	239	0.05
		Hyd. Excavator, 2.5 C.Y.	239.35	8	30	239	0.13
		Backhoe Loader, 48 H.P.	83.18	8	10	239	0.04
		Backhoe Loader, 80 H.P.	9.33	8	1	239	0.00
		Vibrating Plate, Gas, 21"	13.41	8	2	239	0.01
		Rammer/Tamper, Gas, 15"	236.27	8	30	239	0.12
		Trowel, 48" Walk-Behind	94.90	8	12	239	0.05
		Crawler Crane, 15 Ton	98.06	8	12	239	0.05
		Hydraulic Crane, 25 ton	12.83	8	2	239	0.01
		Grader, 30,000 Lbs.	17.38	8	2	239	0.01
		Concrete Pump (Small)	93.32	8	12	239	0.05
		Tandem Roller, 5 Ton	11.13	8	1	239	0.01
		Dozer, 300 H.P.	11.13	8	1	239	0.01
		F.E. Loader, W.M., 5.5 C.Y.	366.66	8	46	239	0.19
		Truck Tractor, 220 H.P.	57.59	8	7	239	0.03
		Truck Tractor, 6x4, 380 H.P.	478.08	8	60	239	0.25
		Gas Engine Vibrator	186.64	8	23	239	0.10
		Hyd. Excavator, 2.5 C.Y.	205.00	8	26	500	0.05
		Backhoe Loader, 48 H.P.	38.23	8	5	500	0.01
		Rammer/Tamper, Gas, 15"	131.28	8	16	500	0.03
		Trowel, 48" Walk-Behind	80.33	8	10	500	0.02
		Hydraulic Crane, 25 ton	9.85	8	1	500	0.00
		Grader, 30,000 Lbs.	14.71	8	2	500	0.00
		Concrete Pump (Small)	68.50	8	9	500	0.02
		Tandem Roller, 5 Ton	15.45	8	2	500	0.00
		Dozer, 300 H.P.	15.45	8	2	500	0.00
		F.E. Loader, W.M., 5.5 C.Y.	277.1	8	35	500	0.07
		Truck Tractor, 220 H.P.	32	8	4	500	0.01
		Truck Tractor, 6x4, 380 H.P.	623.6	8	78	500	0.16
		Gas Engine Vibrator	137.01	8	17	500	0.03
		Sheepsfoot Roller, 240 H.P.	34.26	8	4	500	0.01
		Dozer, 200 H.P.	78.3	8	10	500	0.02
		F.E. Loader, W.M., 5.5 C.Y.	28.55	8	4	500	0.01
		Truck Tractor, 6x4, 380 H.P.	22.84	8	3	500	0.01

Jacobs Equipment Types

Equipment	General Type	Fuel Type
Asphalt Paver, 130 H.P.	Pavers	Diesel
Horz. Boring Csg. Mch.	Bore/Drill Rigs	Diesel
Hyd. Excavator, 1.5 C.Y.	Excavators	Diesel
Hyd. Excavator, 2.5 C.Y.	Excavators	Diesel
Backhoe Loader, 48 H.P.	Tractors/Loaders/Backhoes	Diesel
Crawler Crane, 75 Ton	Cranes	Diesel
Hydraulic Crane, 25 ton	Cranes	Diesel
Hyd. Crane, 55 Ton	Cranes	Diesel
S.P. Crane, 4x4, 12 Ton	Cranes	Diesel
Grader, 30,000 Lbs.	Graders	Diesel
Concrete Pump (Small)	Pumps	Diesel
Grout Pump, 50 C.F./hr.	Pumps	Diesel
Roller, Vibratory, 25 Ton	Rollers	Diesel
Tandem Roller, 10 Ton	Rollers	Diesel
Roller, Pneum. Whl., 12 Ton	Rollers	Diesel
Sheepsfoot Roller, 240 H.P.	Rollers	Diesel
S.P. Scraper, 14 C.Y.	Scrapers	Diesel
Dozer, 200 H.P.	Rubber Tired Dozers	Diesel
Dozer, 300 H.P.	Rubber Tired Dozers	Diesel
F.E. Loader, Crl, 1.5 C.Y.	Tractors/Loaders/Backhoes	Diesel
F.E. Loader, W.M., 5.5 C.Y.	Tractors/Loaders/Backhoes	Diesel
Dump Truck, 12 C.Y., 400 H.P.	Off-Highway Trucks	Diesel
Water Tank Trailer, 5000 Gal.	Off-Highway Trucks	Diesel
Dump Trailer, 20 C.Y.	Off-Highway Trucks	Diesel
Truck Tractor, 220 H.P.	Off-Highway Tractors	Diesel
Truck Tractor, 6x4, 380 H.P.	Off-Highway Tractors	Diesel
Truck Tractor, 6x4, 450 H.P.	Off-Highway Tractors	Diesel
Gas Engine Vibrator	Other Construction Equipment	Gasoline
Welder, Electric, 300 amp	Welders	Electric
Welder, Gas Engine, 300 amp	Welders	Gasoline
Rammer/Tamper, Gas, 15"	Other Construction Equipment	Diesel
Trowel, 48" Walk-Behind	Other Construction Equipment	Diesel
Lattice Boom Crane, 40 Ton	Cranes	Diesel
Tandem Roller, 5 Ton	Rollers	Diesel
Clamshell Bucket, .5 C.Y.	Other Construction Equipment	Diesel
Crawler Crane, 15 Ton	Cranes	Diesel
20' Suction Hose, 6"	Pumps	Diesel
50' Discharge Hose, 6"	Pumps	Diesel
Centr. Water Pump, 6"	Pumps	Diesel
Clamshell Bucket, 1 C.Y.	Other Construction Equipment	Diesel
Crawler Crane, 25 Ton	Cranes	Diesel
Crawler Loader, 3 C.Y.	Tractors/Loaders/Backhoes	Diesel
Dist. Tanker, 3000 Gallon	Off-Highway Trucks	Diesel
Dump Truck, 8 C.Y., 220 H.P.	Off-Highway Trucks	Diesel
Dump Truck, Off Hwy., 65 Ton	Off-Highway Trucks	Diesel
Hyd. Crane, 12 Ton	Cranes	Diesel
Hyd. Excavator, .75 C.Y.	Excavators	Diesel
Lattice Boom Crane, 90 Ton	Cranes	Diesel
S.P. Crane, 4x4, 5 Ton	Cranes	Diesel
S.P. Scraper, 21 C.Y.	Scrapers	Diesel
Vibratory Roller, Towed, 23 Ton	Rollers	Diesel
Crew Truck	Pickups	Diesel
Application Equipment	Other Construction Equipment	Diesel
Tar Kettle/Pot	Other Construction Equipment	Diesel
Earth Auger, Truck-Mtd.	Other Construction Equipment	Diesel
Manual Fence Post Auger, Gas	Other Construction Equipment	Gasoline
Flatbed Truck, Gas, 1.5 Ton	Off-Highway Trucks	Diesel
Flatbed Truck, Gas, 3 Ton	Off-Highway Trucks	Diesel
S.P. Crane, 4x4, 25 Ton	Cranes	Diesel
Backhoe Loader, 80 H.P.	Tractors/Loaders/Backhoes	Diesel
Vibrating Plate, Gas, 21"	Plate compactors	Diesel



Code	Vehicle	Primary Trip Purpose/Location (within construction footprint vs. offsite)	# of Vehicles	One-Way Trips/Day	Miles per Trip	Fuel Type	Fuel (gal/day) (if known)
GCID Canal Improvements-1301	Water Tank Trailer, 5000 Gal.	Onsite	1	0.1	1	Diesel	
GCID Canal Improvements-1301	Dump Trailer, 20 C.Y.	Onsite	1	2.5	1	Diesel	
GCID Canal Improvements-1302	Water Tank Trailer, 5000 Gal.	Onsite	1	2.5	1	Diesel	
GCID Canal Improvements-1302	Dump Trailer, 20 C.Y.	Onsite	1	25.2	1	Diesel	
GCID Canal Improvements-1303	Water Tank Trailer, 5000 Gal.	Onsite	1	2.4	1	Diesel	
GCID Canal Improvements-1303	Dump Trailer, 20 C.Y.	Onsite	1	20.0	1	Diesel	
GCID Canal Improvements-1304	Water Tank Trailer, 5000 Gal.	Onsite	1	0.6	1	Diesel	
GCID Canal Improvements-1304	Dump Trailer, 20 C.Y.	Onsite	1	12.5	1	Diesel	
GCID Canal Improvements-1305	Dist. Tanker, 3000 Gallon	Onsite	1	0.5	1	Diesel	
GCID Canal Improvements-1305	Dump Truck, Off Hwy., 65 Ton	Onsite	1	1.6	1	Diesel	
GCID Canal Improvements-1301	Dump Truck - 20 cy	Offsite/Haul	1	0.25	25	Diesel	
GCID Canal Improvements-1301	Concrete Trucks 10 cy	Offsite/Haul	1	0.78	20	Diesel	
GCID Canal Improvements-1302	Dump Truck - 20 cy	Offsite/Haul	1	2.45	25	Diesel	
GCID Canal Improvements-1302	Concrete Trucks 10 cy	Offsite/Haul	1	1.95	20	Diesel	
GCID Canal Improvements-1303	Dump Truck - 20 cy	Offsite/Haul	1	1.95	25	Diesel	
GCID Canal Improvements-1303	Concrete Trucks 10 cy	Offsite/Haul	1	1.57	20	Diesel	
GCID Canal Improvements-1304	Dump Truck - 20 cy	Offsite/Haul	1	1.22	25	Diesel	
GCID Canal Improvements-1304	Concrete Trucks 10 cy	Offsite/Haul	1	0.56	20	Diesel	

Note:

1. Onsite water truck and dump truck numbers and miles per trip were set to 1.
2. The one-way trips/day were estimated by dividing the total number of trips by the number of days of the sub-package.
3. Number of trips per day in this table represents averages throughout each sub-package. It does not represent a typical day or peak day conditions.

	Equipment	total hours (Engineering Data)	total number of working days/phase	average hours/day	Miles/day (assume 10 miles/hour)
	Water Tank Trailer, 5000 Gal.	4.95	500	0.01	0.1
	Dump Trailer, 20 C.Y.	127.18	500	0.25	2.5
	Water Tank Trailer, 5000 Gal.	64.00	261	0.25	2.5
	Dump Trailer, 20 C.Y.	656.83	261	2.52	25.2
	Water Tank Trailer, 5000 Gal.	57.59	239	0.24	2.4
	Dump Trailer, 20 C.Y.	478.08	239	2.00	20.0
	Water Tank Trailer, 5000 Gal.	32	500	0.06	0.6
	Dump Trailer, 20 C.Y.	623.6	500	1.25	12.5
	Dist. Tanker, 3000 Gallon	22.84	500	0.05	0.5
	Dump Truck, Off Hwy., 65 Ton	77.69	500	0.16	1.6
	<b>Total amount</b>	<b>Assumption</b>	<b>One-way trips total</b>	<b>Number of days</b>	
	1240	Assume 20 cy per load	124	500	
	1943	Assume 10 cy per load	389	500	
	6404	Assume 20 cy per load	640	261	
	2547	Assume 10 cy per load	509	261	
	4661	Assume 20 cy per load	466	239	
	1878	Assume 10 cy per load	376	239	
	6080	Assume 20 cy per load	608	500	
	1398	Assume 10 cy per load	280	500	



**Employees Required to Construct****GCID Canal Improvements 13**

<b>Code</b>	<b>Vehicle Type</b>	<b># of Employees/Day</b>	<b>One-Way Trips/Day</b>	<b>Miles per Trip</b>
GCID Canal Improvements-1301	Employee	3	6	60.0
GCID Canal Improvements-1302	Employee	8	16	60.0
GCID Canal Improvements-1303	Employee	7	14	60.0
GCID Canal Improvements-1304	Employee	3	6	60.0
GCID Canal Improvements-1305	Employee	1	2	60.0

**Note:**

1. Worker trips assumed that the trips would be from Sacramento (68 miles), Willows (19 miles), Williams (9 miles), and Red Bluff (60 miles). One-way distance of 60 miles.
2. Number of trips per day in this table represents averages throughout each sub-package. It does not represent a typical day or peak day conditions.

*Jacobs Calculations*

Subpackage	Total labor hours (Engineering Data)	Hours per employee/day	Total days of construction	#employees/d ay	one-way Trips/day
01	8418	8	500	3	6
02	15151	8	261	8	16
03	11499	8	239	7	14
04	8147	8	500	3	6
05	335	8	500	1	2

miles was used.





**Earthmoving/Paving Assumptions for**

**GCID Canal Improven 13**

Code	<i>Daily</i>				
	Stripping or Grading (acres/day)	Borrow/Excavate (cy/day)	Dredge (cy/day)	Paving (sf/day)	Stripping or Grading (total acres)
GCID Canal Improvements-1301	0.0018	15.6	0.0	0.0	0.4
GCID Canal Improvements-1302	0.0045	420.3	0.0	0.0	0.6
GCID Canal Improvements-1303	0.0039	380.9	0.0	0.0	0.5
GCID Canal Improvements-1304	0.0016	151.7	0.0	0.0	0.395
GCID Canal Improvements-1305	0.0000	22.8	0.0	0.0	0.000

Note:

1. Daily amounts were estimated using 50% of construction days.

**Total**

<b>Borrow/Excavate (total cy)</b>	<b>Dredge (total cy)</b>	<b>Paving (total sf)</b>
3910.0	0.0	0.0
54854.0	0.0	0.0
45513.3	0.0	0.0
37930.0	0.0	0.0
5710.0	0.0	0.0

**Jacobs Calculations**

<b>Total # days/subpackage</b>	<b>Total # days/earthmoving -paving</b>
500	250
261	130.5
239	119.5
500	250
500	250