Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-878	MH-1294	577.57	577.48	20.2	150	0.6	207	0.32197	0.2927	1.8	1.8	1.81	36.5	2.30	92.92	20.20	2.27	2.63	1	1	0	0	2.3	38.3	15.2
MH-1705	MH-1916	574.1	574.02	10.2	150	0.6	125	0.16929	0.1539	1.3	1.29	1.31	23.8	1.80	36.72	10.20	1.15	1.33	1	1	0	0	1.1	12.4	7.7
MH-1259	MH-1301	582.59	582.52	6.3	150	0.85	100	0.44176	0.4016	0.8	0.89	0.8	38	1.30	16.38	6.30	0.71	0.82	1	1	0	0	0.7	5.3	4.7
MH-1440	MH-1399	582.91	582.9	10.2	150	0.14	1000	0.0154	0.014	0.9	0.86	0.87	14.6	1.40	28.56	10.20	1.15	1.33	1	1	0	0	1.1	9.4	7.7
MH-1921	MH-1922	574.4	574.3	10.2	150	0.53	100	0.08437	0.0767	0.9	0.92	0.8	16.4	1.40	28.56	10.20	1.15	1.33	1	1	0	0	1.1	9.4	7.7
MH-1307	MH-1308	576.23	576.28	6.3	150	0.6	121	0.16247	0.1477	2.6	2.72	2.54	25.3	3.10	39.06	6.30	0.71	0.82	1	1	0	0	0.7	15.7	4.7
MH-1673	MH-2417	587.17	587.04	13.2	150	0.52	100	0.07898	0.0718	0.9	1	0.8	15.8	1.40	36.96	13.20	1.49	1.72	1	1	0	0	1.5	12.1	9.9
MH-1322	MH-1323	576.22	576.15	6.4	150	0.7	100	0.21406	0.1946	0.8	0.86	0.8	26.1	1.30	16.64	6.40	0.72	0.83	1	1	0	0	0.7	5.4	4.8
MH-1932	MH-1933	567.44	567.42	10.3	175	0.6	468	0.78771	0.7161	2.6	2.51	2.71	50.3	3.13	64.38	10.30	1.20	1.44	1	1	0	0	1.2	26.6	8.0
MH-667	MH-2427	581.11	581.09	12.9	217	0.6	586	1.09527	0.9957	2.6	2.78	2.46	51.3	3.17	81.71	12.90	1.58	2.06	1	1	0	0	1.6	35.2	10.5
MH-1335	MH-1336	580.28	580.28	6.4	150	0.09	1000	0.00297	0.0027	0.9	0.8	0.94	13.6	1.40	17.92	6.40	0.72	0.83	1	1	0	0	0.7	5.9	4.8
MH-1341	MH-1076	589.53	589.47	6.5	150	0.45	100	0.04983	0.0453	0.8	0.83	0.8	12.6	1.30	16.90	6.50	0.73	0.85	1	1	0	0	0.7	5.5	4.9
MH-1255	MH-1343	588	587.94	6.5	150	0.48	100	0.06127	0.0557	0.8	0.9	0.8	14	1.30	16.90	6.50	0.73	0.85	1	1	0	0	0.7	5.5	4.9
MH-1134	MH-1344	575.71	575.77	6.5	150	0.34	104	0.01936	0.0176	0.8	0.8	0.8	8.9	1.30	16.90	6.50	0.73	0.85	1	1	0	0	0.7	5.5	4.9
MH-1850	MH-2437	570.79	570.66	13.3	150	0.6	111	0.1463	0.133	0.8	0.8	0.82	26.6	1.30	34.58	13.30	1.50	1.73	1	1	0	0	1.5	11.2	10.0
MH-2849	MH-2718	588.88	588.72	16	150	0.36	100	0.02277	0.0207	0.8	0.85	0.8	8.6	1.30	41.60	16.00	1.80	2.08	1	1	0	0	1.8	13.5	12.0
MH-1959	MH-1960	578.83	578.73	10.5	217	1.12	108	1.1297	1.027	0.8	0.8	0.8	46.9	1.37	28.71	10.50	1.29	1.67	1	1	0	0	1.3	10.1	8.6
MH-1357	MH-1358	580.43	580.36	6.6	150	0.47	100	0.05775	0.0525	0.8	0.89	0.8	13.5	1.30	17.16	6.60	0.74	0.86	1	1	0	0	0.7	5.6	5.0
MH-2853	MH-1430	583.92	583.76	16	150	0.54	100	0.09339	0.0849	0.9	1.09	0.8	17.2	1.40	44.80	16.00	1.80	2.08	1	1	0	0	1.8	14.7	12.0
MH-1685	MH-2446	575.02	574.88	13.4	150	0.24	100	0.00693	0.0063	0.9	0.94	0.8	6.9	1.40	37.52	13.40	1.51	1.74	1	1	0	0	1.5	12.3	10.1
MH-1588	MH-1959	578.94	578.83	10.5	217	1.15	100	1.12189	1.0199	0.8	0.85	0.8	41.5	1.37	28.71	10.50	1.29	1.67	1	1	0	0	1.3	10.1	8.6
MH-1352	MH-1368	572.42	572.35	6.7	150	0.51	100	0.07326	0.0666	0.8	0.88	0.8	15.2	1.30	17.42	6.70	0.75	0.87	1	1	0	0	0.8	5.7	5.0
MH-1371	MH-1372	590.76	590.7	6.7	150	0.58	100	0.11792	0.1072	0.8	0.84	0.8	19.3	1.30	17.42	6.70	0.75	0.87	1	1	0	0	0.8	5.7	5.0
MH-1377	MH-1378	587.34	587.28	6.7	150	0.57	100	0.11165	0.1015	0.8	0.9	0.8	18.8	1.30	17.42	6.70	0.75	0.87	1	1	0	0	0.8	5.7	5.0
MH-2453	MH-2454	571.95	571.87	13.4	150	0.85	159	0.85723	0.7793	0.8	0.8	0.8	58.9	1.30	34.84	13.40	1.51	1.74	1	1	0	0	1.5	11.3	10.1
MH-1381	MH-1382	579.39	579.32	6.7	217	1.15	100	1.10473	1.0043	0.8	0.85	0.8	44.9	1.37	18.32	6.70	0.82	1.07	1	1	0	0	0.8	6.4	5.5
MH-2460	MH-2461	574.53	574.4	13.5	150	0.52	100	0.07832	0.0712	0.8	0.84	0.8	23.5	1.30	35.10	13.50	1.52	1.76	1	1	0	0	1.5	11.4	10.1
MH-2463	MH-1820	576.54	576.45	13.5	150	0.44	138	0.0649	0.059	0.8	0.8	0.8	16	1.30	35.10	13.50	1.52	1.76	1	1	0	0	1.5	11.4	10.1
MH-1767	MH-2334	577.41	577.39	13.5	150	0.19	1000	0.03949	0.0359	1.4	1.42	1.39	19.6	1.90	51.30	13.50	1.52	1.76	1	1	0	0	1.5	17.5	10.1
MH-1844	MH-1571	583.45	583.32	13.5	150	0.84	100	0.41811	0.3801	0.9	0.98	0.8	36.9	1.40	37.80	13.50	1.52	1.76	1	1	0	0	1.5	12.4	10.1
MH-1991	MH-38	595.75	595.65	10.7	150	0.32	100	0.01661	0.0151	0.8	0.85	0.8	22.8	1.30	27.82	10.70	1.20	1.39	1	1	0	0	1.2	9.0	8.0
MH-1406	MH-1407	576.29	576.26	7	150	0.39	253	0.09317	0.0847	0.8	0.8	0.8	19.9	1.30	18.20	7.00	0.79	0.91	1	1	0	0	0.8	5.9	5.3
MH-2001	MH-2002	568.29	568.28	10.7	150	0.18	1000	0.03641	0.0331	0.8	0.8	0.85	30.1	1.30	27.82	10.70	1.20	1.39	1	1	0	0	1.2	9.0	8.0
MH-2472	MH-2473	591.23	591.09	13.6	150	0.29	100	0.011	0.01	0.8	0.83	0.8	6	1.30	35.36	13.60	1.53	1.77	1	1	0	0	1.5	11.5	10.2
MH-2474	MH-2475	578.78	578.76	13.6	150	0.22	1000	0.06589	0.0599	1.3	1.32	1.35	23.4	1.80	48.96	13.60	1.53	1.77	1	1	0	0	1.5	16.6	10.2
MH-1423	MH-1424	594.29	594.22	7.1	150	0.66	100	0.17545	0.1595	0.8	0.84	0.8	23.6	1.30	18.46	7.10	0.80	0.92	1	1	0	0	0.8	6.0	5.3
MH-2007	MH-2008	567.61	567.59	10.7	175	0.6	418	0.65989	0.5999	1.4	1.42	1.43	49	1.93	41.20	10.70	1.24	1.50	1	1	0	0	1.2	14.5	8.3
MH-1557	MH-2012	574.14	574.04	10.7	150	0.45	100	0.0506	0.046	0.8	0.86	0.8	12.7	1.30	27.82	10.70	1.20	1.39	1	1	0	0	1.2	9.0	8.0
MH-2481	MH-381	579.43	579.29	13.6	150	0.45	100	0.05082	0.0462	0.9	0.98	0.8	14.6	1.40	38.08	13.60	1.53	1.77	1	1	0	0	1.5	12.5	10.2
MH-2014	MH-2015	586.88	586.77	10.8	150	0.43	100	0.04081	0.0371	0.9	0.96	0.8	11.4	1.40	30.24	10.80	1.22	1.41	1	1	0	0	1.2	9.9	8.1
MH-1436	MH-1437	575.78	575.72	7.1	150	0.6	125	0.17006	0.1546	0.9	0.9	0.9	25.5	1.40	19.88	7.10	0.80	0.92	1	1	0	0	0.8	6.5	5.3
MH-2487	MH-281	578.82	578.8	13.6	150	0.12	1000	0.00858	0.0078	0.9	0.8	0.96	12.6	1.40	38.08	13.60	1.53	1.77	1	1	0	0	1.5	12.5	10.2
MH-1443	MH-1444	585.71	585.64	7.2	150	0.47	100	0.0572	0.052	0.8	0.9	0.8	14.7	1.30	18.72	7.20	0.81	0.94	1	1	0	0	0.8	6.1	5.4
MH-1451	MH-1290	573.57	573.49	7.2	150	0.68	100	0.19976	0.1816	0.8	0.89	0.8	25.2	1.30	18.72	7.20	0.81	0.94	1	1	0	0	0.8	6.1	5.4
MH-1452	MH-1453	585.57	585.5	7.2	150	0.48	100	0.06072	0.0552	0.8	0.89	0.8	13.9	1.30	18.72	7.20	0.81	0.94	1	1	0	0	0.8	6.1	5.4
MH-1457	MH-1458	583.77	583.7	7.2	271	1.44	100	2.64946	2.4086	0.8	0.89	0.8	43.2	1.42	20.46	7.20	0.94	1.36	1	1	0	0	0.9	7.6	6.3
MH-2496	MH-125	588.32	588.18	13.7	150	0.4	100	0.03311	0.0301	0.9	0.99	0.8	12.3	1.40	38.36	13.70	1.54	1.78	1	1	0	0	1.5	12.6	10.3
MH-2497	MH-2498	594.41	594.28	13.7	150	0.35	112	0.02442	0.0222	0.8	0.8	0.8	10.3	1.30	35.62	13.70	1.54	1.78	1	1	0	0	1.5	11.6	10.3
MH-1291	MH-1468	587.69	587.68	7.3	271	0.6	956	2.42803	2.2073	2.6	2.69	2.53	65	3.22	47.03	7.30	0.95	1.37	1	1	0	0	1.0	21.3	6.4
MH-1450	MH-315	585.92	585.85	7.4	150	0.46	100	0.05214	0.0474	0.9	0.92	0.8	12.9	1.40	20.72	7.40	0.83	0.96	1	1	0	0	0.8	6.8	5.6
MH-1474	MH-1475	576.54	576.47	7.4	150	0.68	102	0.20614	0.1874	0.8	0.8	0.8	25.7	1.30	19.24	7.40	0.83	0.96	1	1	0	0	0.8	6.3	5.6
MH-2049	MH-2050	580.46	580.57	10.9	150	0.55	100	0.09614	0.0874	0.9	0.8	0.99	17.4	1.40	30.52	10.90	1.23	1.42	1	1	0	0	1.2	10.0	8.2
MH-1479	MH-1140	575.57	575.5	7.4	150	0.86	102	0.45738	0.4158	0.8	0.8	0.8	38.8	1.30	19.24	7.40	0.83	0.96	1	1	0	0	0.8	6.3	5.6
MH-1480	MH-1481	595.22	595.15	7.4	150	0.6	100	0.13189	0.1199	0.8	0.84	0.8	20.5	1.30	19.24	7.40	0.83	0.96	1	1	0	0	0.8	6.3	5.6
MH-1314	MH-1423	594.37	594.31	7.5	150	0.6	126	0.17149	0.1559	0.9	0.88	0.82	24	1.40	21.00	7.50	0.84	0.98	1	1	0	0	0.8	6.9	5.6
MH-2054	MH-1833	570.81	570.72	18.8	150	0.34	205	0.04609	0.0419	0.8	0.8	0.8	15	1.30	48.88	18.80	2.12	2.45	1	1	0	0	2.1	15.9	14.1
MH-1486	MH-1487	582.9	582.82	7.5	150	1.05	100	0.98593	0.8963	0.8	0.82	0.8	58.6	1.30	19.50	7.50	0.84	0.98	1	1	0	0	0.8	6.3	5.6
MH-1475	MH-2059	576.18	576.07	11	400	1.44	100	3.83372	3.4852	0.8	0.84	0.8	31.5	1.55	34.10	11.00	1.65	3.03	1	1	0	0	1.7	14.0	11.0
MH-2060	MH-2061	595.53	595.64	11	217	1.13	100	1.04247	0.9477	0.8	0.8	0.87	35.4	1.37	30.07	11.00	1.35	1.75	1	1	0	0	1.3	10.5	9.0
MH-2062	MH-2063	575.04	575.03	11	150	0.24	1000	0.09581	0.0871	0.9	0.87	0.9	45.7	1.40	30.80	11.00	1.24	1.43	1	1	0	0	1.2	10.1	8.3
MH-1485	MH-2064	570.2	570.19	11	150	0.24	1000	0.09031	0.0821	0.9	0.88	0.83	24.5	1.40	30.80	11.00	1.24	1.43	1	1	0	0	1.2	10.1	8.3
MH-2515	MH-2133	596.49	596.63	13.9	150	0.36	100	0.02387	0.0217	0.8	0.8	0.85	8.8	1.30	36.14	13.90	1.56	1.81	1	1	0	0	1.6	11.7	10.4
MH-2067	MH-153	588.18	588.07	11	271	1.3	100	1.84228	1.6748	0.9	0.97	0.8	35.3	1.52	33.46	11.00	1.44	2.07	1	1	0	0	1.4	12.5	9.6
MH-1499	MH-1500	577.3	577.29	7.6	150	0.23	1000	0.07755	0.0705	1.1	1.08	1.03	26.8	1.60	24.32	7.60	0.86	0.99	1	1	0	0	0.9	8.1	5.7
MH-254	MH-2930	578.72	578.69	16.7	217	0.6	578	1.07481	0.9771	1.2	1.39	1.08	45.4	1.77	59.02	16.70	2.05	2.66	1	1	0	0	2.0	21.4	13.6

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-2081	MH-2082	574.85	574.74	11.1	271	1.33	100	1.97934	1.7994	0.9	0.94	0.8	36.7	1.52	33.77	11.10	1.45	2.09	1	1	0	0	1.5	12.6	9.7
MH-1327	MH-1128	579.02	579.14	14	150	0.6	116	0.15455	0.1405	1.8	1.96	1.68	24.8	2.30	64.40	14.00	1.58	1.82	1	1	0	0	1.6	26.5	10.5
MH-2084	MH-1644	582.4	582.38	11.2	400	0.65	1000	4.4561	4.051	1.2	1.28	1.07	47.5	1.95	43.68	11.20	1.68	3.09	1	1	0	0	1.7	18.8	11.2
MH-1518	MH-832	590	589.99	7.8	150	0.19	1000	0.04312	0.0392	0.8	0.8	0.81	15.5	1.30	20.28	7.80	0.88	1.02	1	1	0	0	0.9	6.6	5.9
MH-1520	MH-1521	575.13	575.06	7.7	150	0.36	100	0.02299	0.0209	0.8	0.88	0.8	8.6	1.30	20.02	7.70	0.87	1.00	1	1	0	0	0.9	6.5	5.8
MH-2089	MH-2090	592.62	592.51	11.2	150	0.71	100	0.23661	0.2151	0.8	0.83	0.8	27.5	1.30	29.12	11.20	1.26	1.46	1	1	0	0	1.3	9.5	8.4
MH-2091	MH-2092	589.75	589.64	11.2	150	0.38	100	0.0297	0.027	0.8	0.81	0.8	9.8	1.30	29.12	11.20	1.26	1.46	1	1	0	0	1.3	9.5	8.4
MH-1090	MH-1504	569.13	569.06	7.7	150	0.57	100	0.10967	0.0997	0.8	0.82	0.8	20.7	1.30	20.02	7.70	0.87	1.00	1	1	0	0	0.9	6.5	5.8
MH-1525	MH-1412	575.59	575.63	7.7	150	0.33	194	0.03762	0.0342	0.8	0.84	0.8	12.7	1.30	20.02	7.70	0.87	1.00	1	1	0	0	0.9	6.5	5.8
MH-1531	MH-1532	573.39	573.38	7.8	150	0.22	1000	0.066	0.06	0.8	0.8	0.8	29.8	1.30	20.28	7.80	0.88	1.02	1	1	0	0	0.9	6.6	5.9
MH-1279	MH-180	587.95	587.84	11.2	150	0.54	100	0.0924	0.084	0.8	0.87	0.8	36.1	1.30	29.12	11.20	1.26	1.46	1	1	0	0	1.3	9.5	8.4
MH-2099	MH-1957	578.98	578.87	11.2	150	0.37	100	0.02508	0.0228	0.9	0.91	0.8	8.9	1.40	31.36	11.20	1.26	1.46	1	1	0	0	1.3	10.3	8.4
MH-1173	MH-1543	577.44	577.43	7.8	150	0.14	1000	0.01397	0.0127	1	0.92	1.12	12.5	1.50	23.40	7.80	0.88	1.02	1	1	0	0	0.9	7.8	5.9
MH-2549	MH-1626	583.14	583	14.1	150	0.36	100	0.02288	0.0208	0.8	0.84	0.8	8.6	1.30	36.66	14.10	1.59	1.84	1	1	0	0	1.6	11.9	10.6
MH-2107	MH-1123	588.03	587.92	11.3	150	0.46	100	0.05214	0.0474	0.9	0.96	0.8	12.9	1.40	31.64	11.30	1.27	1.47	1	1	0	0	1.3	10.4	8.5
MH-1548	MH-1549	579.04	578.96	7.9	150	0.22	100	0.0044	0.004	0.8	0.86	0.8	3.9	1.30	20.54	7.90	0.89	1.03	1	1	0	0	0.9	6.7	5.9
MH-1552	MH-1553	582.1	582.09	7.9	150	0.17	1000	0.0308	0.028	1.1	1.18	1.09	13.9	1.60	25.28	7.90	0.89	1.03	1	1	0	0	0.9	8.5	5.9
MH-1554	MH-1555	590.77	590.69	7.9	150	0.4	100	0.03465	0.0315	0.8	0.83	0.8	10.5	1.30	20.54	7.90	0.89	1.03	1	1	0	0	0.9	6.7	5.9
MH-2069	MH-2113	574.85	574.81	11.3	150	0.26	310	0.02904	0.0264	0.8	0.8	0.8	11.1	1.30	29.38	11.30	1.27	1.47	1	1	0	0	1.3	9.5	8.5
MH-1565	MH-1566	569.1	569.15	7.9	150	0.36	157	0.04114	0.0374	0.8	0.8	0.8	13	1.30	20.54	7.90	0.89	1.03	1	1	0	0	0.9	6.7	5.9
MH-1571	MH-1572	583.23	583.15	8	150	0.85	100	0.42405	0.3855	0.8	0.89	0.8	37.1	1.30	20.80	8.00	0.90	1.04	1	1	0	0	0.9	6.8	6.0
MH-1573	MH-1574	572.23	572.16	8	150	0.71	117	0.27269	0.2479	0.8	0.8	0.8	30.1	1.30	20.80	8.00	0.90	1.04	1	1	0	0	0.9	6.8	6.0
MH-2564	MH-2565	590.38	590.35	14.2	217	0.6	533	0.95293	0.8663	2.2	2.41	2.07	47.1	2.77	78.58	14.20	1.74	2.27	1	1	0	0	1.7	34.1	11.6
MH-1579	MH-1580	576.39	576.38	8	150	0.23	1000	0.08426	0.0766	1.3	1.33	1.21	28.8	1.80	28.80	8.00	0.90	1.04	1	1	0	0	0.9	9.8	6.0
MH-1581	MH-1480	595.34	595.26	8	150	0.6	100	0.12705	0.1155	0.8	0.83	0.8	20	1.30	20.80	8.00	0.90	1.04	1	1	0	0	0.9	6.8	6.0
MH-2429	MH-1158	596.99	596.85	14.2	150	0.36	100	0.02321	0.0211	0.9	0.96	0.8	8.6	1.40	39.76	14.20	1.60	1.85	1	1	0	0	1.6	13.1	10.7
MH-1586	MH-1587	585.91	585.83	8	150	0.49	100	0.06523	0.0593	0.9	0.92	0.8	16.2	1.40	22.40	8.00	0.90	1.04	1	1	0	0	0.9	7.4	6.0
MH-1595	MH-295	571.98	571.91	8.1	150	0.39	123	0.04015	0.0365	0.8	0.8	0.8	13.5	1.30	21.06	8.10	0.91	1.05	1	1	0	0	0.9	6.8	6.1
MH-2136	MH-822	584.21	584.1	11.5	400	1.48	100	4.15569	3.7779	0.9	0.94	0.8	32.8	1.65	37.95	11.50	1.73	3.17	1	1	0	0	1.7	15.8	11.5
MH-1600	MH-1601	577.41	577.39	8.1	150	0.18	544	0.01683	0.0153	0.8	0.8	0.8	12.7	1.30	21.06	8.10	0.91	1.05	1	1	0	0	0.9	6.8	6.1
MH-1517	MH-1849	570.95	570.86	11.5	150	0.45	135	0.06908	0.0628	0.8	0.8	0.8	17.7	1.30	29.90	11.50	1.29	1.50	1	1	0	0	1.3	9.7	8.6
MH-2138	MH-2139	590.44	590.49	11.5	150	0.6	245	0.39908	0.3628	1.7	1.65	1.76	42.5	2.20	50.60	11.50	1.29	1.50	1	1	0	0	1.3	20.9	8.6
MH-1604	MH-1130	573.9	573.89	8.1	150	0.19	1000	0.04488	0.0408	1.3	1.31	1.39	15.9	1.80	29.16	8.10	0.91	1.05	1	1	0	0	0.9	9.9	6.1
MH-2263	MH-2055	583.48	583.33	14.3	150	0.78	100	0.32758	0.2978	0.8	0.89	0.8	32.5	1.30	37.18	14.30	1.61	1.86	1	1	0	0	1.6	12.1	10.7
MH-1608	MH-1593	583.28	583.2	8.2	150	0.94	100	0.63228	0.5748	0.8	0.89	0.8	45.9	1.30	21.32	8.20	0.92	1.07	1	1	0	0	0.9	6.9	6.2
MH-1826	MH-1930	588.33	588.21	11.6	150	0.51	100	0.07502	0.0682	0.8	0.81	0.8	15.4	1.30	30.16	11.60	1.31	1.51	1	1	0	0	1.3	9.8	8.7
MH-2586	MH-1789	575.29	575.14	14.3	150	0.37	100	0.0264	0.024	0.8	0.89	0.8	9.2	1.30	37.18	14.30	1.61	1.86	1	1	0	0	1.6	12.1	10.7
MH-2587	MH-2198	592.21	592.06	14.4	150	0.47	100	0.05632	0.0512	0.9	0.94	0.8	13.4	1.40	40.32	14.40	1.62	1.87	1	1	0	0	1.6	13.2	10.8
MH-1382	MH-1274	579.32	579.31	8.2	217	0.63	517	1.10836	1.0076	0.8	0.8	0.8	44.9	1.37	22.42	8.20	1.00	1.31	1	1	0	0	1.0	7.9	6.7
MH-2589	MH-2590	596.68	596.54	14.4	150	0.68	100	0.19657	0.1787	0.8	0.85	0.8	25	1.30	37.44	14.40	1.62	1.87	1	1	0	0	1.6	12.2	10.8
MH-1624	MH-354	578.99	578.91	8.3	150	0.69	100	0.21065	0.1915	0.8	0.84	0.8	25.9	1.30	21.58	8.30	0.93	1.08	1	1	0	0	0.9	7.0	6.2
MH-1625	MH-1351	572.55	572.46	8.3	150	0.45	100	0.05093	0.0463	0.8	0.9	0.8	13.8	1.30	21.58	8.30	0.93	1.08	1	1	0	0	0.9	7.0	6.2
MH-2495	MH-3006	581.18	581.02	16.8	150	0.81	100	0.3718	0.338	0.9	1.05	0.8	39	1.40	47.04	16.80	1.89	2.19	1	1	0	0	1.9	15.5	12.6
MH-2598	MH-2599	573.85	573.71	14.4	150	1.04	100	0.93742	0.8522	0.9	0.96	0.8	57	1.40	40.32	14.40	1.62	1.87	1	1	0	0	1.6	13.2	10.8
MH-2445	MH-695	588.89	589.04	14.5	150	0.63	100	0.15114	0.1374	0.8	0.8	0.83	21.9	1.30	37.70	14.50	1.63	1.89	1	1	0	0	1.6	12.3	10.9
MH-2160	MH-2161	589.52	589.35	26.2	150	0.6	153	0.21791	0.1981	0.8	0.8	0.84	29.1	1.30	68.12	26.20	2.95	3.41	1	1	0	0	2.9	22.1	19.7
MH-1635	MH-1182	580.14	580.06	8.4	150	0.49	100	0.06644	0.0604	0.8	0.82	0.8	15.8	1.30	21.84	8.40	0.95	1.09	1	1	0	0	0.9	7.1	6.3
MH-2164	MH-2165	589.25	589.37	11.7	150	0.44	100	0.04422	0.0402	0.9	0.8	0.96	11.9	1.40	32.76	11.70	1.32	1.52	1	1	0	0	1.3	10.8	8.8
MH-1640	MH-1641	580.81	580.72	8.4	150	0.92	100	0.5786	0.526	0.8	0.89	0.8	43.8	1.30	21.84	8.40	0.95	1.09	1	1	0	0	0.9	7.1	6.3
MH-1642	MH-1525	575.5	575.59	8.4	150	0.45	100	0.0495	0.045	0.8	0.8	0.84	12.6	1.30	21.84	8.40	0.95	1.09	1	1	0	0	0.9	7.1	6.3
MH-2170	MH-2171	590.28	590.16	11.7	150	0.73	100	0.25905	0.2355	0.8	0.85	0.8	28.8	1.30	30.42	11.70	1.32	1.52	1	1	0	0	1.3	9.9	8.8
MH-1360	MH-1647	574.04	573.95	8.4	150	0.65	100	0.16621	0.1511	0.9	0.9	0.8	23	1.40	23.52	8.40	0.95	1.09	1	1	0	0	0.9	7.7	6.3
MH-1648	MH-1649	589.13	589.05	8.4	150	0.48	100	0.05896	0.0536	0.8	0.84	0.8	13.7	1.30	21.84	8.40	0.95	1.09	1	1	0	0	0.9	7.1	6.3
MH-982	MH-1539	588.16	588.07	8.4	150	0.55	100	0.09845	0.0895	0.9	0.93	0.8	17.6	1.40	23.52	8.40	0.95	1.09	1	1	0	0	0.9	7.7	6.3
MH-1652	MH-1653	583.34	583.26	8.5	150	0.78	100	0.31713	0.2883	0.9	0.95	0.8	31.9	1.40	23.80	8.50	0.96	1.11	1	1	0	0	1.0	7.8	6.4
MH-1654	MH-1443	585.9	585.81	8.5	150	0.46	100	0.05302	0.0482	0.9	0.93	0.8	13	1.40	23.80	8.50	0.96	1.11	1	1	0	0	1.0	7.8	6.4
MH-1655	MH-1656	571.25	571.24	8.5	400	0.64	1000	4.15547	3.7777	1.3	1.33	1.22	41.2	2.05	34.85	8.50	1.28	2.34	1	1	0	0	1.3	17.6	8.5
MH-2183	MH-1812	571.24	571.2	11.8	150	0.6	255	0.4213	0.383	0.9	0.8	0.93	44.5	1.40	33.04	11.80	1.33	1.54	1	1	0	0	1.3	10.9	8.9
MH-1794	MH-2185	585.44	585.32	11.8	150	0.59	100	0.12386	0.1126	0.9	0.97	0.8	19.8	1.40	33.04	11.80	1.33	1.54	1	1	0	0	1.3	10.9	8.9
MH-2186	MH-2187	587.21	587.09	11.8	150	0.6	100	0.12716	0.1156	0.9	0.95	0.8	20.1	1.40	33.04	11.80	1.33	1.54	1	1	0	0	1.3	10.9	8.9
MH-1664	MH-1665	577.38	577.37	8.5	150	0.21	1000	0.05654	0.0514	1.3	1.35	1.32	22.6	1.80	30.60	8.50	0.96	1.11	1	1	0	0	1.0	10.4	6.4
MH-2195	MH-2196	574.43	574.31	11.8	150	0.95	100	0.65043	0.5913	0.8	0.89	0.8	46.6	1.30	30.68	11.80	1.33	1.54	1	1	0	0	1.3	10.0	8.9
MH-1214	MH-1671	592.86	592.78	8.6	150	0.45	100	0.05049	0.0459	0.8	0.83	0.8	12.7	1.30	22.36	8.60	0.97	1.12	1	1	0	0	1.0	7.3	6.5
MH-2198	MH-651	591.95	591.85	10.3	150	0.49	100	0.06655	0.0605	0.9	0.91	0.8	14.6	1.40	28.84	10.30	1.16	1.34	1	1	0	0	1.2	9.5	7.7
MH-2504	MH-2627	600.36	600.21	14.5	150	0.44	100	0.04521	0.0411	0.8	0.84	0.8	14.2	1.30	37.70	14.50	1.63	1.89	1	1	0	0	1.6	12.3	10.9

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-110	MH-1627	585.39	585.32	11.9	150	0.6	178	0.26477	0.2407	1	1.07	0.85	31.2	1.50	35.70	11.90	1.34	1.55	1	1	0	0	1.3	11.8	8.9
MH-2199	MH-2200	587.47	587.35	11.9	150	0.36	100	0.02332	0.0212	0.9	0.97	0.8	8.7	1.40	33.32	11.90	1.34	1.55	1	1	0	0	1.3	10.9	8.9
MH-2201	MH-2202	590.19	590.07	11.9	150	0.79	100	0.33627	0.3057	0.8	0.83	0.8	33	1.30	30.94	11.90	1.34	1.55	1	1	0	0	1.3	10.1	8.9
MH-1682	MH-1683	575.48	575.47	8.6	150	0.15	1000	0.01793	0.0163	0.8	0.82	0.81	23.2	1.30	22.36	8.60	0.97	1.12	1	1	0	0	1.0	7.3	6.5
MH-1131	MH-2206	572.66	572.62	11.9	150	0.6	368	0.54637	0.4967	2.6	2.62	2.53	53.9	3.10	73.78	11.90	1.34	1.55	1	1	0	0	1.3	29.7	8.9
MH-1688	MH-1689	590.36	590.28	8.6	150	0.27	100	0.00946	0.0086	0.8	0.83	0.8	5.6	1.30	22.36	8.60	0.97	1.12	1	1	0	0	1.0	7.3	6.5
MH-2208	MH-1696	591.67	591.55	11.9	150	0.65	103	0.17721	0.1611	0.8	0.8	0.8	23.8	1.30	30.94	11.90	1.34	1.55	1	1	0	0	1.3	10.1	8.9
MH-1671	MH-1692	592.76	592.67	8.7	150	0.47	100	0.05577	0.0507	0.8	0.82	0.8	13.3	1.30	22.62	8.70	0.98	1.13	1	1	0	0	1.0	7.4	6.5
MH-1329	MH-357	585.23	585.15	8.7	150	0.52	100	0.07843	0.0713	0.8	0.85	0.8	21.8	1.30	22.62	8.70	0.98	1.13	1	1	0	0	1.0	7.4	6.5
MH-2211	MH-2212	570.06	570.05	11.9	400	0.7	1000	6.36086	5.7826	1.5	1.55	1.47	69.2	2.25	53.55	11.90	1.79	3.28	1	1	0	0	1.8	27.1	11.9
MH-1694	MH-1695	578.53	578.47	8.7	150	0.4	145	0.05049	0.0459	0.8	0.8	0.8	14	1.30	22.62	8.70	0.98	1.13	1	1	0	0	1.0	7.4	6.5
MH-1896	MH-1916	572.84	572.75	11.9	150	0.6	138	0.19261	0.1751	2.5	2.34	2.58	33.1	3.00	71.40	11.90	1.34	1.55	1	1	0	0	1.3	28.8	8.9
MH-1698	MH-64	578.68	578.67	8.8	150	0.18	1000	0.03542	0.0322	1	0.96	1.01	27.9	1.50	26.40	8.80	0.99	1.15	1	1	0	0	1.0	8.8	6.6
MH-2219	MH-1878	574.89	574.87	11.9	271	0.6	866	1.9976	1.816	3.1	3.17	2.98	59.5	3.72	88.56	11.90	1.55	2.24	1	0	1	0	1.6	39.9	10.4
MH-2220	MH-2221	580.24	580.12	11.9	150	0.46	100	0.05401	0.0491	0.8	0.83	0.8	16.2	1.30	30.94	11.90	1.34	1.55	1	1	0	0	1.3	10.1	8.9
MH-1701	MH-1406	576.37	576.29	8.8	150	0.53	100	0.08558	0.0778	0.8	0.85	0.8	18.8	1.30	22.88	8.80	0.99	1.15	1	1	0	0	1.0	7.4	6.6
MH-1902	MH-2651	573.07	573.05	14.7	150	0.26	1000	0.11627	0.1057	1.4	1.27	1.5	26.8	1.90	55.86	14.70	1.65	1.91	1	1	0	0	1.7	19.0	11.0
MH-1568	MH-1704	574.28	574.18	11.9	150	0.6	112	0.14905	0.1355	1.2	1.17	1.23	23.9	1.70	40.46	11.90	1.34	1.55	1	1	0	0	1.3	13.6	8.9
MH-2654	MH-2204	590.2	590.06	14.7	150	0.22	100	0.00451	0.0041	0.8	0.85	0.8	3.9	1.30	38.22	14.70	1.65	1.91	1	1	0	0	1.7	12.4	11.0
MH-1358	MH-1635	580.25	580.16	8.8	150	0.48	100	0.06171	0.0561	0.9	0.91	0.8	14	1.40	24.64	8.80	0.99	1.15	1	1	0	0	1.0	8.1	6.6
MH-3053	MH-3054	580.96	580.79	18.1	150	0.6	105	0.13882	0.1262	0.8	0.8	0.86	23.9	1.30	47.06	18.10	2.04	2.36	1	1	0	0	2.0	15.3	13.6
MH-1710	MH-1711	588.36	588.35	8.8	150	0.22	1000	0.06996	0.0636	0.9	0.84	0.87	25.4	1.40	24.64	8.80	0.99	1.15	1	1	0	0	1.0	8.1	6.6
MH-1714	MH-1715	575.77	575.76	8.8	271	0.6	764	1.63229	1.4839	3.2	3.34	3.15	50.1	3.82	67.25	8.80	1.15	1.66	1	0	1	0	1.1	30.3	7.7
MH-3060	MH-1488	572.38	572.21	17.1	150	0.72	100	0.24134	0.2194	0.9	1	0.8	31	1.40	47.88	17.10	1.92	2.23	1	1	0	0	1.9	15.7	12.8
MH-2070	MH-3061	590.36	590.19	17.1	150	0.48	100	0.05885	0.0535	0.8	0.86	0.8	13.7	1.30	44.46	17.10	1.92	2.23	1	1	0	0	1.9	14.4	12.8
MH-1724	MH-1537	575.55	575.49	8.9	150	0.3	144	0.01881	0.0171	0.8	0.8	0.8	9.4	1.30	23.14	8.90	1.00	1.16	1	1	0	0	1.0	7.5	6.7
MH-1109	MH-1522	572.74	572.72	8.9	175	0.6	436	0.70477	0.6407	2.3	2.32	2.25	46.8	2.83	50.29	8.90	1.03	1.25	1	1	0	0	1.0	20.9	6.9
MH-1587	MH-145	585.83	585.76	9	150	0.47	134	0.07788	0.0708	0.8	0.8	0.8	16.3	1.30	23.40	9.00	1.01	1.17	1	1	0	0	1.0	7.6	6.8
MH-1503	MH-1103	582.24	582.15	9	150	0.54	100	0.09262	0.0842	0.9	0.91	0.8	17.1	1.40	25.20	9.00	1.01	1.17	1	1	0	0	1.0	8.3	6.8
MH-1738	MH-1739	578.29	578.21	9	271	1.38	105	2.39602	2.1782	1	0.8	1.12	47.1	1.62	29.18	9.00	1.18	1.69	1	1	0	0	1.2	11.0	7.8
MH-1740	MH-1741	590.33	590.24	9	150	0.61	100	0.1408	0.128	0.8	0.89	0.8	21.2	1.30	23.40	9.00	1.01	1.17	1	1	0	0	1.0	7.6	6.8
MH-724	MH-1565	569.02	569.1	12.1	150	0.39	157	0.05137	0.0467	0.8	0.8	0.8	14.3	1.30	31.46	12.10	1.36	1.57	1	1	0	0	1.4	10.2	9.1
MH-1745	MH-1746	572.67	572.58	9	150	0.21	100	0.00352	0.0032	0.8	0.89	0.8	4.3	1.30	23.40	9.00	1.01	1.17	1	1	0	0	1.0	7.6	6.8
MH-1752	MH-1753	593.11	593.02	9.1	150	0.62	100	0.14861	0.1351	0.8	0.83	0.8	21.7	1.30	23.66	9.10	1.02	1.18	1	1	0	0	1.0	7.7	6.8
MH-1543	MH-1147	577.43	577.42	9.1	150	0.15	1000	0.01969	0.0179	1.2	1.12	1.34	14.7	1.70	30.94	9.10	1.02	1.18	1	1	0	0	1.0	10.4	6.8
MH-1756	MH-1694	578.59	578.53	9.1	150	0.37	156	0.04213	0.0383	0.8	0.8	0.8	13	1.30	23.66	9.10	1.02	1.18	1	1	0	0	1.0	7.7	6.8
MH-1757	MH-1758	591.98	591.89	9.1	150	0.73	100	0.25927	0.2357	0.8	0.84	0.8	28.8	1.30	23.66	9.10	1.02	1.18	1	1	0	0	1.0	7.7	6.8
MH-2202	MH-2282	590.04	589.92	12.2	150	0.8	100	0.34364	0.3124	0.8	0.84	0.8	36.4	1.30	31.72	12.20	1.37	1.59	1	1	0	0	1.4	10.3	9.2
MH-1481	MH-1284	595.11	595.02	9.1	150	0.61	100	0.13629	0.1239	0.8	0.84	0.8	20.8	1.30	23.66	9.10	1.02	1.18	1	1	0	0	1.0	7.7	6.8
MH-1761	MH-1762	575.08	575.07	9.1	150	0.22	1000	0.06358	0.0578	0.8	0.81	0.82	27.3	1.30	23.66	9.10	1.02	1.18	1	1	0	0	1.0	7.7	6.8
MH-1763	MH-1764	581.98	581.9	9.1	150	0.54	114	0.10857	0.0987	0.8	0.8	0.8	21.4	1.30	23.66	9.10	1.02	1.18	1	1	0	0	1.0	7.7	6.8
MH-2717	MH-960	582.45	582.39	15.1	150	0.6	289	0.50424	0.4584	1.1	0.99	1.3	49.5	1.60	48.32	15.10	1.70	1.97	1	1	0	0	1.7	16.2	11.3
MH-1771	MH-1772	572.69	572.6	9.2	150	0.69	100	0.20405	0.1855	0.8	0.81	0.8	30.6	1.30	23.92	9.20	1.04	1.20	1	1	0	0	1.0	7.8	6.9
MH-2082	MH-2296	574.59	574.47	12.3	271	1.33	100	1.99969	1.8179	0.9	0.95	0.8	36.9	1.52	37.42	12.30	1.61	2.32	1	1	0	0	1.6	14.0	10.7
MH-2297	MH-1991	595.93	595.81	12.3	150	0.29	100	0.0121	0.011	0.8	0.82	0.8	6.3	1.30	31.98	12.30	1.38	1.60	1	1	0	0	1.4	10.4	9.2
MH-1786	MH-1556	574.4	574.31	9.2	150	0.32	100	0.01705	0.0155	0.8	0.81	0.8	7.4	1.30	23.92	9.20	1.04	1.20	1	1	0	0	1.0	7.8	6.9
MH-1789	MH-1631	575.07	574.98	9.3	150	0.43	100	0.04147	0.0377	0.8	0.87	0.8	11.5	1.30	24.18	9.30	1.05	1.21	1	1	0	0	1.0	7.9	7.0
MH-1790	MH-1791	597.83	597.74	9.3	150	0.42	100	0.03784	0.0344	0.9	0.9	0.8	11	1.40	26.04	9.30	1.05	1.21	1	1	0	0	1.0	8.6	7.0
MH-1692	MH-1792	592.64	592.55	9.3	150	0.48	100	0.06182	0.0562	0.8	0.83	0.8	14	1.30	24.18	9.30	1.05	1.21	1	1	0	0	1.0	7.9	7.0
MH-1951	MH-1722	589.78	589.66	12.4	150	0.43	100	0.04147	0.0377	0.8	0.84	0.8	12.6	1.30	32.24	12.40	1.40	1.61	1	1	0	0	1.4	10.5	9.3
MH-1266	MH-1311	586.1	586.01	9.4	150	0.47	100	0.05676	0.0516	0.9	0.94	0.8	13.4	1.40	26.32	9.40	1.06	1.22	1	1	0	0	1.1	8.6	7.1
MH-1795	MH-1796	575.15	575.12	9.4	150	0.38	248	0.08195	0.0745	0.8	0.8	0.8	22.3	1.30	24.44	9.40	1.06	1.22	1	1	0	0	1.1	7.9	7.1
MH-1108	MH-1797	574.44	574.35	9.4	400	1.47	100	4.09134	3.7194	0.8	0.87	0.8	32.7	1.55	29.14	9.40	1.41	2.59	1	1	0	0	1.4	12.0	9.4
MH-1769	MH-1609	588.41	588.39	9.4	150	0.25	527	0.05148	0.0468	0.8	0.8	0.8	17.8	1.30	24.44	9.40	1.06	1.22	1	1	0	0	1.1	7.9	7.1
MH-2319	MH-2001	568.36	568.29	12.5	150	0.29	199	0.0264	0.024	0.8	0.8	0.8	18.5	1.30	32.50	12.50	1.41	1.63	1	1	0	0	1.4	10.6	9.4
MH-2320	MH-2321	588.96	588.84	12.5	150	0.5	100	0.06974	0.0634	0.8	0.86	0.8	14.9	1.30	32.50	12.50	1.41	1.63	1	1	0	0	1.4	10.6	9.4
MH-2322	MH-551	574.82	574.76	13.2	150	0.26	251	0.02431	0.0221	0.8	0.8	0.8	9.9	1.30	34.32	13.20	1.49	1.72	1	1	0	0	1.5	11.2	9.9
MH-1806	MH-1807	595.48	595.57	9.5	150	0.87	100	0.473	0.43	0.8	0.8	0.85	39.3	1.30	24.70	9.50	1.07	1.24	1	1	0	0	1.1	8.0	7.1
MH-1129	MH-2329	579.18	579.3	12.6	150	0.6	103	0.13343	0.1213	1.3	1.53	1.09	22.6	1.80	45.36	12.60	1.42	1.64	1	1	0	0	1.4	15.4	9.5
MH-1437	MH-1816	575.72	575.65	9.5	150	0.6	131	0.1782	0.162	0.9	0.9	0.91	26.1	1.40	26.60	9.50	1.07	1.24	1	1	0	0	1.1	8.7	7.1
MH-2102	MH-2331	593.2	593.07	12.6	150	0.7	100	0.21329	0.1939	0.8	0.87	0.8	26	1.30	32.76	12.60	1.42	1.64	1	1	0	0	1.4	10.6	9.5
MH-1755	MH-2332	584.8	584.68	12.6	400	1.47	100	4.05911	3.6901	0.9	0.96	0.8	32.4	1.65	41.58	12.60	1.89	3.47	1	1	0	0	1.9	17.3	12.6
MH-483	MH-2333	588.83	588.75	17.5	150	0.6	204	0.31427	0.2857	2.1	2	2.27	35.3	2.60	91.00	17.50	1.97	2.28	1	1	0	0	2.0	37.1	13.1
MH-1825	MH-1826	588.43	588.34	9.6	150	0.49	100	0.06699	0.0609	0.8	0.83	0.8	14.6	1.30	24.96	9.60	1.08	1.25	1	1	0	0	1.1	8.1	7.2
MH-3470	MH-2033	594.45	594.66	20.7	217	1.15	100	1.10396	1.0036	0.9	0.8	0.92	36.5	1.47	60.73	20.70	2.54	3.30	1	1	0	0	2.5	21.5	16.9

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-1828	MH-1829	578.66	578.59	9.6	150	0.3	154	0.02035	0.0185	0.8	0.8	0.8	9.4	1.30	24.96	9.60	1.08	1.25	1	1	0	0	1.1	8.1	7.2
MH-1837	MH-1838	575.96	575.87	9.7	150	0.6	112	0.14872	0.1352	0.9	0.86	0.89	24	1.40	27.16	9.70	1.09	1.26	1	1	0	0	1.1	8.9	7.3
MH-502	MH-1839	584.27	584.17	9.7	271	1.44	100	2.63329	2.3939	0.9	0.95	0.8	42.9	1.52	29.51	9.70	1.27	1.83	1	1	0	0	1.3	11.0	8.4
MH-2141	MH-2723	589.64	589.49	15.5	150	0.31	100	0.01419	0.0129	0.8	0.82	0.8	6.8	1.30	40.30	15.50	1.74	2.02	1	1	0	0	1.7	13.1	11.6
MH-1843	MH-1844	583.73	583.64	9.7	150	0.84	100	0.41228	0.3748	0.9	0.91	0.8	36.6	1.40	27.16	9.70	1.09	1.26	1	1	0	0	1.1	8.9	7.3
MH-2774	MH-2775	582.25	582.1	15.5	150	0.54	102	0.09361	0.0851	0.8	0.8	0.8	17.3	1.30	40.30	15.50	1.74	2.02	1	1	0	0	1.7	13.1	11.6
MH-1303	MH-1846	572.43	572.61	18.9	150	0.78	108	0.35783	0.3253	0.8	0.8	0.8	37.3	1.30	49.14	18.90	2.13	2.46	1	1	0	0	2.1	16.0	14.2
MH-1849	MH-1850	570.86	570.79	9.7	150	0.52	125	0.10439	0.0949	0.8	0.8	0.8	21.4	1.30	25.22	9.70	1.09	1.26	1	1	0	0	1.1	8.2	7.3
MH-833	MH-2354	589.89	589.96	7.1	271	1.52	100	3.23631	2.9421	0.9	0.8	0.93	59.6	1.52	21.60	7.10	0.93	1.34	1	1	0	0	0.9	8.1	6.2
MH-1858	MH-1362	574.07	574.02	9.8	400	1.13	212	4.21971	3.8361	0.8	0.83	0.8	37.3	1.55	30.38	9.80	1.47	2.70	1	1	0	0	1.5	12.5	9.8
MH-1859	MH-1496	574.75	574.65	9.8	150	0.41	100	0.03575	0.0325	0.9	0.9	0.8	10.7	1.40	27.44	9.80	1.10	1.28	1	1	0	0	1.1	9.0	7.4
MH-1910	MH-2087	586.6	586.47	12.9	150	0.59	100	0.12397	0.1127	0.9	0.99	0.8	19.8	1.40	36.12	12.90	1.45	1.68	1	1	0	0	1.5	11.9	9.7
MH-958	MH-2371	580.98	580.85	12.9	150	0.38	100	0.02849	0.0259	0.9	0.97	0.8	9.6	1.40	36.12	12.90	1.45	1.68	1	1	0	0	1.5	11.9	9.7
MH-1372	MH-1740	590.55	590.43	12.9	150	0.61	100	0.13343	0.1213	0.9	0.94	0.8	20.6	1.40	36.12	12.90	1.45	1.68	1	1	0	0	1.5	11.9	9.7
MH-2373	MH-2374	571.49	571.47	12.9	175	0.6	439	0.71269	0.6479	0.8	0.8	0.88	47.4	1.33	34.19	12.90	1.50	1.81	1	1	0	0	1.5	11.4	10.0
MH-1122	MH-1499	577.31	577.3	12.9	150	0.22	1000	0.0649	0.059	0.9	0.81	1.08	25.2	1.40	36.12	12.90	1.45	1.68	1	1	0	0	1.5	11.9	9.7
MH-1874	MH-889	587.66	587.68	7.5	175	0.6	439	0.71148	0.6468	1	0.9	1.04	47.1	1.53	22.88	7.50	0.87	1.05	1	1	0	0	0.9	7.8	5.8
MH-2269	MH-808	587.71	587.74	12.9	175	0.6	430	0.68871	0.6261	1.3	1.18	1.35	50.5	1.83	47.09	12.90	1.50	1.81	1	1	0	0	1.5	16.4	10.0
MH-1124	MH-1672	587.68	587.58	10	150	0.48	100	0.06292	0.0572	0.9	0.95	0.8	14.1	1.40	28.00	10.00	1.13	1.30	1	1	0	0	1.1	9.2	7.5
MH-1816	MH-2530	575.65	575.53	15.8	150	0.6	136	0.18612	0.1692	0.9	0.91	0.9	25.2	1.40	44.24	15.80	1.78	2.06	1	1	0	0	1.8	14.5	11.9
MH-1869	MH-1881	586.17	586.07	10	150	0.57	100	0.10956	0.0996	0.9	0.95	0.8	18.7	1.40	28.00	10.00	1.13	1.30	1	1	0	0	1.1	9.2	7.5
MH-1293	MH-1882	573.02	572.92	10	150	0.62	100	0.14498	0.1318	0.8	0.9	0.8	21.4	1.30	26.00	10.00	1.13	1.30	1	1	0	0	1.1	8.4	7.5
MH-590	MH-2385	592.98	593.11	13	217	1.33	100	1.89123	1.7193	0.8	0.8	0.86	48.4	1.37	35.54	13.00	1.59	2.07	1	1	0	0	1.6	12.4	10.6
MH-2386	MH-1688	590.52	590.39	13	150	0.21	100	0.00385	0.0035	0.8	0.84	0.8	3.6	1.30	33.80	13.00	1.46	1.69	1	1	0	0	1.5	11.0	9.8
MH-1889	MH-1716	593.86	594.07	21.1	150	0.61	102	0.13761	0.1251	0.8	0.8	0.8	20.9	1.30	54.86	21.10	2.37	2.75	1	1	0	0	2.4	17.8	15.8
MH-1890	MH-1779	582.42	582.32	10	150	0.63	100	0.15213	0.1383	0.9	0.97	0.8	22	1.40	28.00	10.00	1.13	1.30	1	1	0	0	1.1	9.2	7.5
MH-1894	MH-1652	583.59	583.49	10.1	150	0.77	100	0.30833	0.2803	0.9	0.95	0.8	31.5	1.40	28.28	10.10	1.14	1.31	1	1	0	0	1.1	9.3	7.6
MH-1897	MH-1438	574.6	574.5	10.1	150	0.89	100	0.51997	0.4727	0.8	0.88	0.8	41.4	1.30	26.26	10.10	1.14	1.31	1	1	0	0	1.1	8.5	7.6
MH-1791	MH-2399	597.6	597.47	13	150	0.44	100	0.04444	0.0404	0.9	0.94	0.8	11.9	1.40	36.40	13.00	1.46	1.69	1	1	0	0	1.5	12.0	9.8
MH-1621	MH-2400	575.96	575.86	13.1	150	0.75	132	0.40425	0.3675	0.8	0.84	0.8	40	1.30	34.06	13.10	1.47	1.71	1	1	0	0	1.5	11.1	9.8
MH-1900	MH-1901	591.01	590.91	10.1	150	0.61	100	0.13453	0.1223	0.8	0.87	0.8	20.7	1.30	26.26	10.10	1.14	1.31	1	1	0	0	1.1	8.5	7.6
MH-1904	MH-1905	576.69	576.61	10.1	150	0.33	122	0.02189	0.0199	0.8	0.8	0.8	13.6	1.30	26.26	10.10	1.14	1.31	1	1	0	0	1.1	8.5	7.6
MH-1907	MH-1908	588.65	588.64	10.1	150	0.25	1000	0.10923	0.0993	1.4	1.34	1.43	31.2	1.90	38.38	10.10	1.14	1.31	1	1	0	0	1.1	13.1	7.6
MH-1824	MH-1910	586.89	586.79	10.1	150	0.59	100	0.11935	0.1085	0.9	0.95	0.8	19.4	1.40	28.28	10.10	1.14	1.31	1	1	0	0	1.1	9.3	7.6
MH-3212	MH-2929	595.8	595.62	18	150	0.57	100	0.11033	0.1003	0.8	0.86	0.8	18.7	1.30	46.80	18.00	2.03	2.34	1	1	0	0	2.0	15.2	13.5
MH-1392	MH-2840	584.52	584.68	15.9	150	0.4	100	0.03443	0.0313	0.9	0.8	1.06	10.5	1.40	44.52	15.90	1.79	2.07	1	1	0	0	1.8	14.6	11.9
MH-1792	MH-2827	592.49	592.33	15.9	150	0.5	100	0.07018	0.0638	0.8	0.86	0.8	14.9	1.30	41.34	15.90	1.79	2.07	1	1	0	0	1.8	13.4	11.9
MH-1772	MH-1915	572.59	572.49	10.2	150	0.86	100	0.46453	0.4223	0.8	0.81	0.8	39	1.30	26.52	10.20	1.15	1.33	1	1	0	0	1.1	8.6	7.7
MH-2420	MH-1604	573.91	573.9	13.2	150	0.19	1000	0.04213	0.0383	1.2	1.1	1.31	18.9	1.70	44.88	13.20	1.49	1.72	1	1	0	0	1.5	15.1	9.9
MH-1919	MH-1920	589.33	589.23	10.2	150	0.61	100	0.13651	0.1241	0.8	0.83	0.8	23.4	1.30	26.52	10.20	1.15	1.33	1	1	0	0	1.1	8.6	7.7
MH-3219	MH-3220	568.96	568.78	18	150	0.65	100	0.17017	0.1547	0.9	0.93	0.8	23.2	1.40	50.40	18.00	2.03	2.34	1	1	0	0	2.0	16.6	13.5
MH-1923	MH-1924	581.85	581.75	10.2	175	1.33	100	1.90454	1.7314	0.9	0.93	0.8	66.1	1.43	29.07	10.20	1.19	1.43	1	1	0	0	1.2	9.8	7.9
MH-2438	MH-1222	577.31	577.18	13.3	150	0.54	100	0.0935	0.085	0.8	0.9	0.8	17.2	1.30	34.58	13.30	1.50	1.73	1	1	0	0	1.5	11.2	10.0
MH-264	MH-1934	595.2	595.31	10.3	150	0.51	100	0.07755	0.0705	0.9	0.8	0.93	15.7	1.40	28.84	10.30	1.16	1.34	1	1	0	0	1.2	9.5	7.7
MH-1939	MH-1940	597.44	597.33	10.3	150	0.77	100	0.29997	0.2727	0.8	0.86	0.8	31	1.30	26.78	10.30	1.16	1.34	1	1	0	0	1.2	8.7	7.7
MH-1643	MH-1241	586.81	586.7	10.3	271	1.36	100	2.15391	1.9581	0.9	0.96	0.8	38.4	1.52	31.33	10.30	1.35	1.94	1	1	0	0	1.3	11.7	9.0
MH-1495	MH-1080	576.28	576.18	10.3	150	0.82	100	0.37565	0.3415	0.9	0.95	0.8	34.8	1.40	28.84	10.30	1.16	1.34	1	1	0	0	1.2	9.5	7.7
MH-2063	MH-2870	575.03	574.87	16.1	150	0.93	101	0.61061	0.5551	0.8	0.9	0.8	45.1	1.30	41.86	16.10	1.81	2.10	1	1	0	0	1.8	13.6	12.1
MH-2111	MH-1420	572.47	572.34	13.4	150	0.29	100	0.01111	0.0101	0.9	0.94	0.8	6	1.40	37.52	13.40	1.51	1.74	1	1	0	0	1.5	12.3	10.1
MH-1950	MH-1951	589.92	589.82	10.4	150	0.41	100	0.03663	0.0333	0.8	0.86	0.8	10.8	1.30	27.04	10.40	1.17	1.35	1	1	0	0	1.2	8.8	7.8
MH-1954	MH-1955	573.66	573.65	10.5	150	0.25	1000	0.11352	0.1032	2	1.92	2.11	31.8	2.50	52.50	10.50	1.18	1.37	1	1	0	0	1.2	21.5	7.9
MH-1956	MH-1957	578.98	578.87	10.5	150	0.69	100	0.20328	0.1848	0.9	0.94	0.8	25.4	1.40	29.40	10.50	1.18	1.37	1	1	0	0	1.2	9.7	7.9
MH-1962	MH-1963	586.46	586.41	10.5	150	0.6	205	0.31592	0.2872	2.1	2.17	1.96	35.6	2.60	54.60	10.50	1.18	1.37	1	1	0	0	1.2	22.3	7.9
MH-1976	MH-1977	568.57	568.64	10.6	150	0.6	155	0.22165	0.2015	0.9	0.82	0.9	28	1.40	29.68	10.60	1.19	1.38	1	1	0	0	1.2	9.8	8.0
MH-2324	MH-2262	583.91	583.78	13.5	150	0.76	100	0.29513	0.2683	0.9	0.94	0.8	30.8	1.40	37.80	13.50	1.52	1.76	1	1	0	0	1.5	12.4	10.1
MH-2814	MH-2318	581.62	581.46	16.3	150	0.55	100	0.09834	0.0894	0.9	0.98	0.8	17.6	1.40	45.64	16.30	1.83	2.12	1	1	0	0	1.8	15.0	12.2
MH-2895	MH-2884	571.95	571.83	16.3	150	0.81	143	0.59147	0.5377	0.8	0.8	0.8	48.8	1.30	42.38	16.30	1.83	2.12	1	1	0	0	1.8	13.8	12.2
MH-2896	MH-1898	568.93	568.77	16.3	150	0.59	100	0.11935	0.1085	0.8	0.86	0.8	21.4	1.30	42.38	16.30	1.83	2.12	1	1	0	0	1.8	13.8	12.2
MH-742	MH-1992	581.1	581.06	10.7	150	0.6	255	0.4202	0.382	2.2	2.19	2.11	44.4	2.70	57.78	10.70	1.20	1.39	1	1	0	0	1.2	23.5	8.0
MH-1995	MH-1996	577	576.91	10.7	150	0.6	117	0.15609	0.1419	0.8	0.82	0.81	24.9	1.30	27.82	10.70	1.20	1.39	1	1	0	0	1.2	9.0	8.0
MH-1997	MH-1954	573.67	573.66	10.7	150	0.25	1000	0.10318	0.0938	1.8	1.7	1.92	30.9	2.30	49.22	10.70	1.20	1.39	1	1	0	0	1.2	20.3	8.0
MH-1323	MH-1620	576.12	576.01	10.7	150	0.7	100	0.22033	0.2003	0.8	0.83	0.8	28.9	1.30	27.82	10.70	1.20	1.39	1	1	0	0	1.2	9.0	8.0
MH-2484	MH-1770	573.6	573.46	13.6	150	0.59	100	0.11913	0.1083	0.9	0.97	0.8	19.4	1.40	38.08	13.60	1.53	1.77	1	1	0	0	1.5	12.5	10.2
MH-2006	MH-1544	588.77	588.76	10.7	150	0.13	1000	0.0121	0.011	0.9	0.8	0.96	13.2	1.40	29.96	10.70	1.20	1.39	1	1	0	0	1.2	9.8	8.0
MH-2494	MH-2495	581.57	581.43	13.7	150	0.81	100	0.3663	0.333	0.9	1.06	0.8	34.4	1.40	38.36	13.70	1.54	1.78	1	1	0	0	1.5	12.6	10.3

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-2012	MH-1386	573.92	573.75	16.4	150	0.52	100	0.08184	0.0744	0.9	0.92	0.8	16.1	1.40	45.92	16.40	1.85	2.13	1	1	0	0	1.8	15.1	12.3
MH-2915	MH-2916	589.46	589.44	16.4	150	0.24	1000	0.09086	0.0826	1.3	1.34	1.31	29.6	1.80	59.04	16.40	1.85	2.13	1	1	0	0	1.8	20.0	12.3
MH-2918	MH-2201	590.39	590.23	16.4	150	0.79	100	0.32901	0.2991	0.8	0.88	0.8	32.6	1.30	42.64	16.40	1.85	2.13	1	1	0	0	1.8	13.9	12.3
MH-1977	MH-2027	568.64	568.71	10.8	150	0.6	149	0.20999	0.1909	0.9	0.9	0.98	28.4	1.40	30.24	10.80	1.22	1.41	1	1	0	0	1.2	9.9	8.1
MH-2033	MH-2034	594.78	594.89	10.9	217	1.14	100	1.08724	0.9884	0.8	0.8	0.88	36.2	1.37	29.80	10.90	1.34	1.74	1	1	0	0	1.3	10.4	8.9
MH-2035	MH-2036	578.59	578.52	10.9	150	0.6	162	0.23342	0.2122	0.8	0.8	0.88	30.2	1.30	28.34	10.90	1.23	1.42	1	1	0	0	1.2	9.2	8.2
MH-1665	MH-2512	577.37	577.36	13.6	150	0.22	1000	0.06391	0.0581	1.3	1.32	1.23	19.6	1.80	48.96	13.60	1.53	1.77	1	1	0	0	1.5	16.6	10.2
MH-1584	MH-36	581.43	581.3	12.5	150	0.94	100	0.62161	0.5651	0.9	0.97	0.8	45.5	1.40	35.00	12.50	1.41	1.63	1	1	0	0	1.4	11.5	9.4
MH-2938	MH-2939	579.02	579.1	16.5	150	0.2	216	0.00847	0.0077	0.8	0.8	0.8	7.5	1.30	42.90	16.50	1.86	2.15	1	1	0	0	1.9	13.9	12.4
MH-1497	MH-2051	574.5	574.48	11	150	0.22	1000	0.06435	0.0585	0.8	0.8	0.81	22.9	1.30	28.60	11.00	1.24	1.43	1	1	0	0	1.2	9.3	8.3
MH-1742	MH-2052	588.93	588.82	11	150	0.5	100	0.0704	0.064	0.8	0.81	0.8	14.9	1.30	28.60	11.00	1.24	1.43	1	1	0	0	1.2	9.3	8.3
MH-2053	MH-1932	567.46	567.44	11	175	0.6	462	0.77143	0.7013	2.4	2.34	2.51	54.9	2.93	64.35	11.00	1.28	1.54	1	1	0	0	1.3	26.7	8.5
MH-2520	MH-1837	576.1	575.96	13.9	150	0.6	105	0.1364	0.124	0.8	0.8	0.86	23	1.30	36.14	13.90	1.56	1.81	1	1	0	0	1.6	11.7	10.4
MH-2342	MH-1643	587.11	586.97	14	271	1.35	100	2.07372	1.8852	0.9	1.03	0.8	37.6	1.52	42.59	14.00	1.83	2.64	1	1	0	0	1.8	15.9	12.2
MH-2522	MH-2523	591.95	591.81	14	150	0.63	100	0.15048	0.1368	0.8	0.9	0.8	21.8	1.30	36.40	14.00	1.58	1.82	1	1	0	0	1.6	11.8	10.5
MH-2068	MH-2069	574.86	574.85	11	150	0.16	1000	0.0231	0.021	0.8	0.8	0.8	13	1.30	28.60	11.00	1.24	1.43	1	1	0	0	1.2	9.3	8.3
MH-2528	MH-1874	587.55	587.66	14	175	0.94	130	0.72325	0.6575	0.9	0.8	0.9	40.3	1.43	39.90	14.00	1.63	1.96	1	1	0	0	1.6	13.5	10.9
MH-1139	MH-2433	581.38	581.24	14	150	0.57	100	0.11077	0.1007	0.9	0.98	0.8	18.7	1.40	39.20	14.00	1.58	1.82	1	1	0	0	1.6	12.9	10.5
MH-2437	MH-1272	570.66	570.58	14	150	0.6	165	0.23705	0.2155	0.8	0.82	0.81	40.3	1.30	36.40	14.00	1.58	1.82	1	1	0	0	1.6	11.8	10.5
MH-2075	MH-2076	574.53	574.42	11.1	150	0.22	100	0.00495	0.0045	0.9	0.9	0.8	5.7	1.40	31.08	11.10	1.25	1.44	1	1	0	0	1.2	10.2	8.3
MH-2077	MH-2078	573.14	573.05	11.1	150	0.6	124	0.16775	0.1525	1.6	1.52	1.74	25.5	2.10	46.62	11.10	1.25	1.44	1	1	0	0	1.2	19.4	8.3
MH-115	MH-2079	590.29	590.36	18.9	150	0.35	246	0.0594	0.054	0.8	0.8	0.8	15.3	1.30	49.14	18.90	2.13	2.46	1	1	0	0	2.1	16.0	14.2
MH-2066	MH-2536	566.8	566.66	14	150	0.62	100	0.14344	0.1304	0.8	0.87	0.8	21.3	1.30	36.40	14.00	1.58	1.82	1	1	0	0	1.6	11.8	10.5
MH-1250	MH-1827	571.27	571.26	14	400	0.64	1000	4.10894	3.7354	1.6	1.72	1.48	48.7	2.35	65.80	14.00	2.10	3.86	1	1	0	0	2.1	33.2	14.0
MH-2087	MH-2088	586.31	586.2	11.2	150	0.6	100	0.12925	0.1175	0.9	0.96	0.8	20.3	1.40	31.36	11.20	1.26	1.46	1	1	0	0	1.3	10.3	8.4
MH-1003	MH-1357	580.63	580.52	11.2	150	0.46	100	0.05181	0.0471	0.9	0.95	0.8	12.8	1.40	31.36	11.20	1.26	1.46	1	1	0	0	1.3	10.3	8.4
MH-2548	MH-1756	578.67	578.59	14.1	150	0.33	164	0.03091	0.0281	0.8	0.8	0.8	11.5	1.30	36.66	14.10	1.59	1.84	1	1	0	0	1.6	11.9	10.6
MH-2969	MH-2561	572.1	572	16.6	150	0.6	167	0.2409	0.219	1.7	1.53	1.77	30.6	2.20	73.04	16.60	1.87	2.16	1	1	0	0	1.9	30.2	12.5
MH-2970	MH-2602	577.27	577.2	16.6	150	0.6	241	0.3905	0.355	1.2	1.29	1.16	41.8	1.70	56.44	16.60	1.87	2.16	1	1	0	0	1.9	19.0	12.5
MH-2553	MH-2223	588.75	588.61	14.2	150	0.46	100	0.05423	0.0493	0.8	0.84	0.8	13.1	1.30	36.92	14.20	1.60	1.85	1	1	0	0	1.6	12.0	10.7
MH-2555	MH-2556	589.7	589.61	14.2	150	0.5	143	0.10758	0.0978	0.8	0.8	0.8	19.2	1.30	36.92	14.20	1.60	1.85	1	1	0	0	1.6	12.0	10.7
MH-2101	MH-2102	593.38	593.26	11.3	150	0.69	100	0.20746	0.1886	0.8	0.87	0.8	25.7	1.30	29.38	11.30	1.27	1.47	1	1	0	0	1.3	9.5	8.5
MH-618	MH-1232	587.45	587.34	11.3	150	0.64	100	0.16412	0.1492	0.8	0.83	0.8	22.8	1.30	29.38	11.30	1.27	1.47	1	1	0	0	1.3	9.5	8.5
MH-2104	MH-1586	586.14	586.03	11.3	150	0.48	100	0.05885	0.0535	0.9	0.97	0.8	13.7	1.40	31.64	11.30	1.27	1.47	1	1	0	0	1.3	10.4	8.5
MH-2991	MH-2992	571.38	571.55	16.7	150	0.72	100	0.24772	0.2252	0.9	0.8	1	28.1	1.40	46.76	16.70	1.88	2.17	1	1	0	0	1.9	15.4	12.5
MH-1746	MH-2111	572.58	572.47	11.3	150	0.25	106	0.00704	0.0064	0.9	0.8	0.94	5.7	1.40	31.64	11.30	1.27	1.47	1	1	0	0	1.3	10.4	8.5
MH-2996	MH-2762	592.85	592.68	16.8	150	0.38	100	0.02761	0.0251	0.9	0.98	0.8	9.4	1.40	47.04	16.80	1.89	2.19	1	1	0	0	1.9	15.5	12.6
MH-2570	MH-2571	599.8	599.72	14.3	150	0.31	174	0.02838	0.0258	0.8	0.8	0.8	11.2	1.30	37.18	14.30	1.61	1.86	1	1	0	0	1.6	12.1	10.7
MH-2114	MH-1359	574.4	574.28	11.4	150	0.62	100	0.14872	0.1352	0.9	0.94	0.8	21.7	1.40	31.92	11.40	1.28	1.48	1	1	0	0	1.3	10.5	8.6
MH-2115	MH-675	593.95	594.06	11.5	217	1.28	109	1.82391	1.6581	0.8	0.8	0.82	48	1.37	31.44	11.50	1.41	1.83	1	1	0	0	1.4	11.0	9.4
MH-2116	MH-2117	585.41	585.3	11.4	150	0.92	100	0.57519	0.5229	0.8	0.89	0.8	43.6	1.30	29.64	11.40	1.28	1.48	1	1	0	0	1.3	9.6	8.6
MH-2120	MH-2121	599.2	599.09	11.4	150	0.53	100	0.08591	0.0781	0.8	0.85	0.8	16.5	1.30	29.64	11.40	1.28	1.48	1	1	0	0	1.3	9.6	8.6
MH-2577	MH-2578	597.17	597.02	14.3	150	0.35	100	0.02112	0.0192	0.9	0.93	0.8	8.2	1.40	40.04	14.30	1.61	1.86	1	1	0	0	1.6	13.2	10.7
MH-1458	MH-141	583.64	583.53	11.5	271	1.44	100	2.65793	2.4163	0.8	0.86	0.8	42.9	1.42	32.68	11.50	1.50	2.17	1	1	0	0	1.5	12.1	10.0
MH-2125	MH-115	590.28	590.16	11.4	271	1.45	100	2.73856	2.4896	0.9	0.96	0.8	43.6	1.52	34.68	11.40	1.49	2.15	1	1	0	0	1.5	13.0	9.9
MH-1949	MH-2035	578.7	578.59	11.5	150	0.7	100	0.22561	0.2051	0.8	0.85	0.8	29.4	1.30	29.90	11.50	1.29	1.50	1	1	0	0	1.3	9.7	8.6
MH-2137	MH-132	578.48	578.59	12.2	150	0.6	104	0.13706	0.1246	1.1	1.09	1.01	25.5	1.60	39.04	12.20	1.37	1.59	1	1	0	0	1.4	13.1	9.2
MH-2140	MH-2141	589.77	589.66	11.5	150	0.24	100	0.00693	0.0063	0.8	0.81	0.8	4.8	1.30	29.90	11.50	1.29	1.50	1	1	0	0	1.3	9.7	8.6
MH-2601	MH-895	571.88	571.84	14.4	150	0.18	440	0.01276	0.0116	0.8	0.8	0.8	12.3	1.30	37.44	14.40	1.62	1.87	1	1	0	0	1.6	12.2	10.8
MH-2602	MH-2603	577.2	577.15	14.4	150	0.6	249	0.40766	0.3706	1.1	1.16	1.09	43.2	1.60	46.08	14.40	1.62	1.87	1	1	0	0	1.6	15.4	10.8
MH-2150	MH-2151	576.6	576.48	11.6	175	1.4	100	2.46862	2.2442	0.9	0.94	0.8	76.9	1.43	33.06	11.60	1.35	1.63	1	1	0	0	1.3	11.2	9.0
MH-1838	MH-1436	575.87	575.78	11.6	150	0.6	120	0.16049	0.1459	0.9	0.89	0.9	24.8	1.40	32.48	11.60	1.31	1.51	1	1	0	0	1.3	10.7	8.7
MH-1871	MH-2154	582.5	582.45	11.6	150	0.6	217	0.33781	0.3071	1.3	1.39	1.18	37.2	1.80	41.76	11.60	1.31	1.51	1	1	0	0	1.3	14.2	8.7
MH-2155	MH-1845	589.96	589.87	11.6	150	0.47	133	0.08074	0.0734	0.8	0.8	0.84	17.6	1.30	30.16	11.60	1.31	1.51	1	1	0	0	1.3	9.8	8.7
MH-2278	MH-1049	578.23	578.19	14.5	150	0.6	367	0.54538	0.4958	2.8	2.9	2.74	53.2	3.30	95.70	14.50	1.63	1.89	1	1	0	0	1.6	38.4	10.9
MH-1829	MH-1283	578.59	578.53	11.7	150	0.31	179	0.02739	0.0249	0.8	0.8	0.8	10.6	1.30	30.42	11.70	1.32	1.52	1	1	0	0	1.3	9.9	8.8
MH-2613	MH-2614	593.53	593.45	14.5	150	0.31	183	0.0275	0.025	0.8	0.8	0.8	11	1.30	37.70	14.50	1.63	1.89	1	1	0	0	1.6	12.3	10.9
MH-3034	MH-1138	581.69	581.52	17	150	0.54	100	0.09053	0.0823	0.9	1	0.8	22.5	1.40	47.60	17.00	1.91	2.21	1	1	0	0	1.9	15.6	12.8
MH-695	MH-2617	589.07	589.21	14.7	150	0.3	105	0.01452	0.0132	0.8	0.8	0.8	6.9	1.30	38.22	14.70	1.65	1.91	1	1	0	0	1.7	12.4	11.0
MH-2618	MH-2619	570.66	570.53	14.5	271	1.35	111	2.42121	2.2011	0.8	0.8	0.8	41.3	1.42	41.21	14.50	1.89	2.73	1	1	0	0	1.9	15.2	12.6
MH-2620	MH-296	571.94	571.91	14.5	150	0.12	437	0.0033	0.003	0.8	0.8	0.8	9.1	1.30	37.70	14.50	1.63	1.89	1	1	0	0	1.6	12.3	10.9
MH-2176	MH-2177	576.77	576.75	11.7	400	0.77	545	3.59524	3.2684	0.9	0.93	0.8	37.3	1.65	38.61	11.70	1.76	3.22	1	1	0	0	1.8	16.1	11.7
MH-2178	MH-1891	596.75	596.63	11.7	150	0.44	100	0.04708	0.0428	0.9	0.9	0.8	12.3	1.40	32.76	11.70	1.32	1.52	1	1	0	0	1.3	10.8	8.8
MH-2179	MH-2180	572.85	572.83	11.7	150	0.26	1000	0.11682	0.1062	1.2	1.22	1.09	25.6	1.70	39.78	11.70	1.32	1.52	1	1	0	0	1.3	13.4	8.8
MH-2629	MH-2630	593.57	593.71	14.6	150	0.5	110	0.0792	0.072	0.8	0.8	0.8	18.8	1.30	37.96	14.60	1.64	1.90	1	1	0	0	1.6	12.3	11.0

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-1695	MH-2194	578.47	578.36	11.8	150	0.46	106	0.05764	0.0524	0.8	0.8	0.8	19.2	1.30	30.68	11.80	1.33	1.54	1	1	0	0	1.3	10.0	8.9
MH-2947	MH-3052	569.93	569.76	17.1	175	1.3	100	1.70423	1.5493	0.9	0.94	0.8	62	1.43	48.74	17.10	1.99	2.40	1	1	0	0	2.0	16.5	13.3
MH-2203	MH-2065	567.17	567.05	11.9	150	0.57	100	0.10802	0.0982	0.9	0.91	0.8	18.5	1.40	33.32	11.90	1.34	1.55	1	1	0	0	1.3	10.9	8.9
MH-2207	MH-2142	572.08	572.07	11.9	150	0.23	1000	0.08074	0.0734	0.8	0.8	0.88	28.9	1.30	30.94	11.90	1.34	1.55	1	1	0	0	1.3	10.1	8.9
MH-2657	MH-2658	573.84	573.71	14.7	150	0.78	115	0.37598	0.3418	0.8	0.8	0.8	47.1	1.30	38.22	14.70	1.65	1.91	1	1	0	0	1.7	12.4	11.0
MH-2659	MH-1460	567.26	567.23	14.7	217	0.6	519	0.91685	0.8335	0.9	0.96	0.87	43.7	1.47	43.13	14.70	1.80	2.34	1	1	0	0	1.8	15.3	12.0
MH-2225	MH-2203	567.4	567.28	12	150	0.53	100	0.08679	0.0789	0.9	0.91	0.8	16.6	1.40	33.60	12.00	1.35	1.56	1	1	0	0	1.4	11.0	9.0
MH-2056	MH-2226	583.1	583.01	12	150	0.72	136	0.35684	0.3244	0.8	0.8	0.8	35.3	1.30	31.20	12.00	1.35	1.56	1	1	0	0	1.4	10.1	9.0
MH-1189	MH-2229	577.05	576.93	12	150	0.56	100	0.10285	0.0935	0.9	0.95	0.8	18	1.40	33.60	12.00	1.35	1.56	1	1	0	0	1.4	11.0	9.0
MH-2674	MH-2675	590.92	590.77	14.8	150	0.3	100	0.01298	0.0118	0.8	0.87	0.8	8.8	1.30	38.48	14.80	1.67	1.93	1	1	0	0	1.7	12.5	11.1
MH-2235	MH-2084	582.99	582.88	12	400	1.5	100	4.3241	3.931	0.9	0.96	0.8	33.5	1.65	39.60	12.00	1.80	3.31	1	1	0	0	1.8	16.5	12.0
MH-3082	MH-3083	588.98	588.81	17.2	150	1	103	0.6281	0.571	0.8	0.8	0.8	50.3	1.30	44.72	17.20	1.94	2.24	1	1	0	0	1.9	14.5	12.9
MH-2237	MH-1475	576.34	576.22	12	400	1.42	100	3.62219	3.2929	0.8	0.84	0.8	30.5	1.55	37.20	12.00	1.80	3.31	1	1	0	0	1.8	15.3	12.0
MH-1639	MH-2238	567.52	567.49	12	175	0.6	449	0.73821	0.6711	1.9	1.82	2.06	53.6	2.43	58.20	12.00	1.40	1.68	1	1	0	0	1.4	24.5	9.3
MH-2243	MH-667	581.76	581.73	12.4	217	0.6	561	1.02685	0.9335	2.3	2.42	2.15	43.8	2.87	71.10	12.40	1.52	1.98	1	1	0	0	1.5	30.8	10.1
MH-1564	MH-2252	574.86	574.98	12.1	150	0.54	100	0.09086	0.0826	0.8	0.8	0.84	17	1.30	31.46	12.10	1.36	1.57	1	1	0	0	1.4	10.2	9.1
MH-2255	MH-1950	590.1	589.98	12.1	150	0.39	100	0.03135	0.0285	0.8	0.83	0.8	10	1.30	31.46	12.10	1.36	1.57	1	1	0	0	1.4	10.2	9.1
MH-2262	MH-2263	583.69	583.57	12.1	150	0.78	100	0.31064	0.2824	0.8	0.89	0.8	31.6	1.30	31.46	12.10	1.36	1.57	1	1	0	0	1.4	10.2	9.1
MH-1931	MH-2264	577.38	577.35	12.1	150	0.26	380	0.0374	0.034	0.8	0.8	0.8	15.1	1.30	31.46	12.10	1.36	1.57	1	1	0	0	1.4	10.2	9.1
MH-2265	MH-2266	583.59	583.48	12.1	400	1.44	110	4.25271	3.8661	0.9	0.97	0.8	33.5	1.65	39.93	12.10	1.82	3.33	1	1	0	0	1.8	16.6	12.1
MH-3106	MH-2358	579.43	579.25	17.4	150	0.28	100	0.01045	0.0095	0.8	0.8	0.8	7.8	1.30	45.24	17.40	1.96	2.26	1	1	0	0	2.0	14.7	13.1
MH-2267	MH-1667	585.88	585.76	12.1	150	0.44	100	0.04609	0.0419	0.9	0.91	0.8	12.1	1.40	33.88	12.10	1.36	1.57	1	1	0	0	1.4	11.1	9.1
MH-2268	MH-1109	574.39	574.28	12.1	150	0.52	107	0.08382	0.0762	0.8	0.8	0.8	16.4	1.30	31.46	12.10	1.36	1.57	1	1	0	0	1.4	10.2	9.1
MH-2675	MH-276	590.77	590.67	15.1	150	0.35	149	0.03289	0.0299	0.8	0.8	0.8	10.7	1.30	39.26	15.10	1.70	1.97	1	1	0	0	1.7	12.8	11.3
MH-2271	MH-2272	583.69	583.57	12.1	150	0.88	100	0.49522	0.4502	0.9	0.97	0.8	46.1	1.40	33.88	12.10	1.36	1.57	1	1	0	0	1.4	11.1	9.1
MH-2273	MH-1724	575.65	575.55	12.2	150	0.26	131	0.01166	0.0106	0.8	0.8	0.8	7.3	1.30	31.72	12.20	1.37	1.59	1	1	0	0	1.4	10.3	9.2
MH-2275	MH-2276	570.1	570.09	12.2	400	0.7	1000	6.3151	5.741	1.8	1.83	1.74	70	2.55	62.22	12.20	1.83	3.36	1	1	0	0	1.8	31.4	12.2
MH-2277	MH-2278	578.26	578.23	12.2	150	0.6	361	0.53086	0.4826	3	3.02	2.9	52.7	3.50	85.40	12.20	1.37	1.59	1	1	0	0	1.4	34.1	9.2
MH-2279	MH-1962	586.52	586.46	12.2	150	0.6	203	0.30833	0.2803	2.2	2.19	2.17	34.8	2.70	65.88	12.20	1.37	1.59	1	1	0	0	1.4	26.8	9.2
MH-2718	MH-1768	588.68	588.53	15.1	150	0.41	100	0.03597	0.0327	0.8	0.84	0.8	10.7	1.30	39.26	15.10	1.70	1.97	1	1	0	0	1.7	12.8	11.3
MH-2286	MH-2287	590.32	590.33	12.2	150	0.18	1000	0.0319	0.029	1.2	1.22	1.09	17.7	1.70	41.48	12.20	1.37	1.59	1	1	0	0	1.4	14.0	9.2
MH-2288	MH-2289	584.81	584.69	12.3	150	0.68	100	0.19613	0.1783	0.9	0.95	0.8	25	1.40	34.44	12.30	1.38	1.60	1	1	0	0	1.4	11.3	9.2
MH-2723	MH-2724	589.47	589.32	15.2	150	0.36	100	0.02255	0.0205	0.8	0.81	0.8	8.5	1.30	39.52	15.20	1.71	1.98	1	1	0	0	1.7	12.8	11.4
MH-3121	MH-3122	579.16	579	17.5	150	0.6	105	0.1353	0.123	1.8	1.89	1.63	23.4	2.30	80.50	17.50	1.97	2.28	1	1	0	0	2.0	33.2	13.1
MH-2293	MH-2294	594.17	594.05	12.3	150	0.5	100	0.07051	0.0641	0.8	0.83	0.8	14.9	1.30	31.98	12.30	1.38	1.60	1	1	0	0	1.4	10.4	9.2
MH-2295	MH-139	585.62	585.51	12.3	150	0.6	111	0.14674	0.1334	0.9	0.8	0.93	23.5	1.40	34.44	12.30	1.38	1.60	1	1	0	0	1.4	11.3	9.2
MH-2730	MH-2306	585.41	585.28	15.2	150	0.6	111	0.1463	0.133	0.9	0.8	1.08	21.8	1.40	42.56	15.20	1.71	1.98	1	1	0	0	1.7	14.0	11.4
MH-2407	MH-2731	594.37	594.52	15.2	150	0.61	100	0.13816	0.1256	0.9	0.8	0.93	20.9	1.40	42.56	15.20	1.71	1.98	1	1	0	0	1.7	14.0	11.4
MH-496	MH-2733	581.65	581.51	15.2	150	0.6	109	0.14344	0.1304	1.5	1.32	1.66	23.5	2.00	60.80	15.20	1.71	1.98	1	1	0	0	1.7	20.8	11.4
MH-1714	MH-1307	576.14	576.23	12.3	150	0.6	132	0.18051	0.1641	2.9	3.1	2.72	24.7	3.40	83.64	12.30	1.38	1.60	1	1	0	0	1.4	33.5	9.2
MH-2299	MH-254	579.49	579.37	12.2	150	0.39	100	0.03091	0.0281	0.8	0.88	0.8	10	1.30	31.72	12.20	1.37	1.59	1	1	0	0	1.4	10.3	9.2
MH-1796	MH-2301	575.12	575.1	12.3	150	0.28	660	0.09845	0.0895	0.8	0.8	0.8	23.4	1.30	31.98	12.30	1.38	1.60	1	1	0	0	1.4	10.4	9.2
MH-1453	MH-1328	585.47	585.34	12.4	150	0.49	100	0.06677	0.0607	0.8	0.83	0.8	16	1.30	32.24	12.40	1.40	1.61	1	1	0	0	1.4	10.5	9.3
MH-2027	MH-723	568.71	568.8	12.4	150	0.6	145	0.20361	0.1851	1	0.98	1.02	27.8	1.50	37.20	12.40	1.40	1.61	1	1	0	0	1.4	12.3	9.3
MH-2305	MH-2306	585.68	585.56	12.4	150	0.4	100	0.0341	0.031	0.8	0.8	0.8	10.5	1.30	32.24	12.40	1.40	1.61	1	1	0	0	1.4	10.5	9.3
MH-2311	MH-2312	579.24	579.23	12.4	150	0.14	1000	0.01386	0.0126	1	0.8	1.11	14.1	1.50	37.20	12.40	1.40	1.61	1	1	0	0	1.4	12.3	9.3
MH-1905	MH-2313	576.61	576.6	12.4	150	0.19	1000	0.03982	0.0362	0.8	0.8	0.82	16.5	1.30	32.24	12.40	1.40	1.61	1	1	0	0	1.4	10.5	9.3
MH-2020	MH-2757	593.84	593.68	15.4	150	0.67	100	0.19195	0.1745	0.8	0.84	0.8	24.7	1.30	40.04	15.40	1.73	2.00	1	1	0	0	1.7	13.0	11.6
MH-1454	MH-2316	570.54	570.5	12.5	150	0.6	363	0.53548	0.4868	1	0.94	1.05	49	1.50	37.50	12.50	1.41	1.63	1	1	0	0	1.4	12.4	9.4
MH-2323	MH-2324	584.18	584.06	12.5	150	0.74	100	0.26994	0.2454	0.9	0.93	0.8	29.4	1.40	35.00	12.50	1.41	1.63	1	1	0	0	1.4	11.5	9.4
MH-2325	MH-1235	570.1	570	12.5	150	0.6	121	0.16247	0.1477	0.9	0.8	1.09	25.1	1.40	35.00	12.50	1.41	1.63	1	1	0	0	1.4	11.5	9.4
MH-282	MH-2938	578.96	579.02	17.7	150	0.22	293	0.01661	0.0151	0.8	0.8	0.8	12.3	1.30	46.02	17.70	1.99	2.30	1	1	0	0	2.0	15.0	13.3
MH-1343	MH-3153	587.68	587.5	17.7	150	0.49	100	0.06721	0.0611	0.9	1.06	0.8	14.6	1.40	49.56	17.70	1.99	2.30	1	1	0	0	2.0	16.3	13.3
MH-2245	MH-2199	587.77	587.64	12.6	150	0.33	100	0.01749	0.0159	0.9	0.99	0.8	7.5	1.40	35.28	12.60	1.42	1.64	1	1	0	0	1.4	11.6	9.5
MH-2034	MH-3158	594.97	595.15	17.7	217	1.14	100	1.07558	0.9778	0.8	0.8	0.87	36	1.37	48.39	17.70	2.17	2.82	1	1	0	0	2.2	16.9	14.5
MH-1865	MH-3159	578.06	577.89	17.7	150	0.5	100	0.07007	0.0637	0.9	0.97	0.8	14.9	1.40	49.56	17.70	1.99	2.30	1	1	0	0	2.0	16.3	13.3
MH-2773	MH-1855	583.36	583.2	15.5	150	1.02	100	0.87527	0.7957	0.8	0.87	0.8	54.8	1.30	40.30	15.50	1.74	2.02	1	1	0	0	1.7	13.1	11.6
MH-2200	MH-2014	587.16	587.04	12.6	150	0.39	100	0.03124	0.0284	0.9	0.99	0.8	10	1.40	35.28	12.60	1.42	1.64	1	1	0	0	1.4	11.6	9.5
MH-256	MH-2342	587.46	587.34	12.7	271	1.34	100	2.06107	1.8737	0.9	1.01	0.8	37.5	1.52	38.63	12.70	1.66	2.39	1	1	0	0	1.7	14.4	11.1
MH-2301	MH-2347	575.1	575.03	12.7	150	0.46	196	0.11627	0.1057	0.8	0.8	0.8	20.8	1.30	33.02	12.70	1.43	1.65	1	1	0	0	1.4	10.7	9.5
MH-2349	MH-643	590.26	590.09	17.2	150	0.58	100	0.11594	0.1054	0.8	0.81	0.8	19.2	1.30	44.72	17.20	1.94	2.24	1	1	0	0	1.9	14.5	12.9
MH-2350	MH-2351	582.84	582.71	12.8	150	0.34	100	0.01958	0.0178	0.8	0.83	0.8	8	1.30	33.28	12.80	1.44	1.67	1	1	0	0	1.4	10.8	9.6
MH-2352	MH-2353	571.72	571.59	12.8	150	0.95	100	0.64438	0.5858	0.8	0.86	0.8	53.4	1.30	33.28	12.80	1.44	1.67	1	1	0	0	1.4	10.8	9.6
MH-2282	MH-2355	589.92	589.79	12.8	150	0.8	100	0.35156	0.3196	0.8	0.8	0.8	37.6	1.30	33.28	12.80	1.44	1.67	1	1	0	0	1.4	10.8	9.6
MH-2801	MH-2802	574.41	574.31	15.7	150	0.6	161	0.23122	0.2102	0.8	0.8	0.8	30.1	1.30	40.82	15.70	1.77	2.04	1	1	0	0	1.8	13.3	11.8

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-2358	MH-562	579.25	579.15	12.8	150	0.34	124	0.02519	0.0229	0.8	0.8	0.8	9.2	1.30	33.28	12.80	1.44	1.67	1	1	0	0	1.4	10.8	9.6
MH-2366	MH-1479	575.66	575.57	12.8	150	0.76	141	0.44957	0.4087	0.8	0.8	0.8	41.9	1.30	33.28	12.80	1.44	1.67	1	1	0	0	1.4	10.8	9.6
MH-2722	MH-2418	569.64	569.56	15.7	150	0.6	193	0.29084	0.2644	1.8	1.7	1.88	33.7	2.30	72.22	15.70	1.77	2.04	1	1	0	0	1.8	29.7	11.8
MH-2813	MH-2814	581.95	581.8	15.8	150	0.53	100	0.0858	0.078	0.9	0.94	0.8	16.5	1.40	44.24	15.80	1.78	2.06	1	1	0	0	1.8	14.5	11.9
MH-2175	MH-2815	578.48	578.42	15.8	150	0.6	263	0.43923	0.3993	3.4	3.39	3.41	46.2	3.90	123.24	15.80	1.78	2.06	1	0	1	0	1.8	48.9	11.9
MH-2377	MH-2179	572.86	572.85	12.9	150	0.17	1000	0.02673	0.0243	1.2	1.15	1.22	26.6	1.70	43.86	12.90	1.45	1.68	1	1	0	0	1.5	14.8	9.7
MH-2378	MH-2176	577.07	577.02	12.9	150	0.6	263	0.43945	0.3995	1	1	0.93	43.1	1.50	38.70	12.90	1.45	1.68	1	1	0	0	1.5	12.8	9.7
MH-1572	MH-1258	582.96	582.83	12.9	150	0.85	100	0.43131	0.3921	0.9	0.99	0.8	37.5	1.40	36.12	12.90	1.45	1.68	1	1	0	0	1.5	11.9	9.7
MH-2820	MH-2821	577.93	577.91	15.8	150	0.25	1000	0.10428	0.0948	1.8	1.71	1.98	31.6	2.30	72.68	15.80	1.78	2.06	1	1	0	0	1.8	29.9	11.9
MH-2379	MH-1253	576.24	576.11	13	150	0.23	100	0.00528	0.0048	0.9	0.95	0.8	4.2	1.40	36.40	13.00	1.46	1.69	1	1	0	0	1.5	12.0	9.8
MH-2823	MH-2824	579.19	579.04	15.8	217	1.27	100	1.57575	1.4325	0.9	0.95	0.8	43.9	1.47	46.36	15.80	1.94	2.52	1	1	0	0	1.9	16.4	12.9
MH-2387	MH-1851	580.81	580.79	13	217	0.6	561	1.02619	0.9329	0.9	0.8	0.96	49.6	1.47	38.14	13.00	1.59	2.07	1	1	0	0	1.6	13.5	10.6
MH-2264	MH-1121	577.35	577.32	13	150	0.27	412	0.04818	0.0438	0.8	0.8	0.8	19.6	1.30	33.80	13.00	1.46	1.69	1	1	0	0	1.5	11.0	9.8
MH-2395	MH-2396	580.25	580.11	13	150	0.63	100	0.15653	0.1423	0.9	1	0.8	22.3	1.40	36.40	13.00	1.46	1.69	1	1	0	0	1.5	12.0	9.8
MH-1884	MH-2403	596.03	595.9	13.1	150	0.54	100	0.08998	0.0818	0.9	0.91	0.8	16.9	1.40	36.68	13.10	1.47	1.71	1	1	0	0	1.5	12.0	9.8
MH-2406	MH-2407	594.12	594.25	13.1	150	0.64	100	0.1606	0.146	0.9	0.8	0.92	22.6	1.40	36.68	13.10	1.47	1.71	1	1	0	0	1.5	12.0	9.8
MH-2826	MH-2848	580.65	580.49	16	150	0.72	100	0.23738	0.2158	0.9	1.05	0.8	27.5	1.40	44.80	16.00	1.80	2.08	1	1	0	0	1.8	14.7	12.0
MH-2418	MH-2419	569.56	569.49	13.2	150	0.6	201	0.30481	0.2771	1.9	1.88	1.98	36.5	2.40	63.36	13.20	1.49	1.72	1	1	0	0	1.5	26.0	9.9
MH-141	MH-2425	583.27	583.14	13.2	271	1.46	100	2.77431	2.5221	0.9	1.06	0.8	43.8	1.52	40.15	13.20	1.72	2.49	1	1	0	0	1.7	15.0	11.5
MH-2428	MH-2429	597.28	597.15	13.2	150	0.34	100	0.01958	0.0178	0.9	0.94	0.8	8	1.40	36.96	13.20	1.49	1.72	1	1	0	0	1.5	12.1	9.9
MH-1594	MH-332	582.84	582.71	13.3	150	0.95	100	0.64603	0.5873	0.9	0.97	0.8	46.5	1.40	37.24	13.30	1.50	1.73	1	1	0	0	1.5	12.2	10.0
MH-1656	MH-2432	571.24	571.11	13.3	400	1.46	104	4.17373	3.7943	1.2	1.22	1.16	37.7	1.95	51.87	13.30	2.00	3.67	1	1	0	0	2.0	22.3	13.3
MH-2433	MH-2434	581	580.87	13.3	150	0.59	100	0.12397	0.1127	0.9	1.04	0.8	19.8	1.40	37.24	13.30	1.50	1.73	1	1	0	0	1.5	12.2	10.0
MH-1066	MH-2440	572.18	572.17	13.4	400	0.65	1000	4.41474	4.0134	2.6	2.63	2.51	56.1	3.35	89.78	13.40	2.01	3.69	1	1	0	0	2.0	45.2	13.4
MH-1916	MH-1215	572.75	572.7	13.4	150	0.6	232	0.3696	0.336	2.6	2.58	2.64	39.6	3.10	83.08	13.40	1.51	1.74	1	1	0	0	1.5	33.4	10.1
MH-2090	MH-2441	592.45	592.31	13.4	150	0.72	100	0.24211	0.2201	0.8	0.86	0.8	27.8	1.30	34.84	13.40	1.51	1.74	1	1	0	0	1.5	11.3	10.1
MH-2442	MH-2443	559.29	559.24	13.4	600	1.49	300	20.24748	18.4068	1.1	1.23	0.91	50.1	2.05	54.94	13.40	2.41	6.20	1	1	0	0	2.4	30.8	16.1
MH-2444	MH-2445	588.72	588.86	13.4	150	0.65	100	0.16885	0.1535	0.8	0.8	0.83	23.2	1.30	34.84	13.40	1.51	1.74	1	1	0	0	1.5	11.3	10.1
MH-2880	MH-1023	585.46	585.3	16.2	400	1.46	100	3.94911	3.5901	0.9	1	0.8	31.9	1.65	53.46	16.20	2.43	4.46	1	1	0	0	2.4	22.3	16.2
MH-2092	MH-2447	589.62	589.49	13.4	150	0.41	100	0.0374	0.034	0.8	0.82	0.8	10.9	1.30	34.84	13.40	1.51	1.74	1	1	0	0	1.5	11.3	10.1
MH-1574	MH-1886	572.02	571.89	13.1	150	0.76	100	0.28435	0.2585	0.9	0.94	0.8	33.7	1.40	36.68	13.10	1.47	1.71	1	1	0	0	1.5	12.0	9.8
MH-2883	MH-2611	579.76	579.6	16.2	150	0.66	100	0.1749	0.159	0.9	0.98	0.8	25.8	1.40	45.36	16.20	1.82	2.11	1	1	0	0	1.8	14.9	12.2
MH-2448	MH-2449	593.5	593.49	13.4	600	0.92	1000	19.987	18.17	0.9	0.91	0.85	54.6	1.85	49.58	13.40	2.41	6.20	1	1	0	0	2.4	23.5	16.1
MH-2450	MH-2319	568.41	568.36	13.4	150	0.22	262	0.01441	0.0131	0.8	0.8	0.8	9.2	1.30	34.84	13.40	1.51	1.74	1	1	0	0	1.5	11.3	10.1
MH-2452	MH-2383	571.1	571.05	13.4	150	0.6	292	0.51271	0.4661	1.2	1.25	1.18	51	1.70	45.56	13.40	1.51	1.74	1	1	0	0	1.5	15.3	10.1
MH-1281	MH-2887	578.6	578.71	16.2	150	0.6	155	0.22143	0.2013	3.4	3.58	3.17	35.7	3.90	126.36	16.20	1.82	2.11	1	0	1	0	1.8	50.1	12.2
MH-1597	MH-2456	589.62	589.49	13.5	150	0.56	100	0.10175	0.0925	0.8	0.85	0.8	17.9	1.30	35.10	13.50	1.52	1.76	1	1	0	0	1.5	11.4	10.1
MH-2457	MH-2458	576.65	576.52	13.5	150	0.52	100	0.07997	0.0727	0.9	0.94	0.8	15.9	1.40	37.80	13.50	1.52	1.76	1	1	0	0	1.5	12.4	10.1
MH-1398	MH-2835	577.82	577.66	16.3	150	0.45	100	0.05027	0.0457	0.9	0.92	0.8	12.7	1.40	45.64	16.30	1.83	2.12	1	1	0	0	1.8	15.0	12.2
MH-2468	MH-2225	567.64	567.5	13.5	150	0.47	100	0.05599	0.0509	0.9	0.92	0.8	13.3	1.40	37.80	13.50	1.52	1.76	1	1	0	0	1.5	12.4	10.1
MH-876	MH-2469	569.81	569.73	13.6	150	0.6	172	0.25366	0.2306	1.6	1.63	1.65	31.3	2.10	57.12	13.60	1.53	1.77	1	1	0	0	1.5	23.7	10.2
MH-3288	MH-3289	587.51	587.5	18.4	150	0.22	1000	0.06248	0.0568	0.8	0.8	0.9	26.4	1.30	47.84	18.40	2.07	2.39	1	1	0	0	2.1	15.5	13.8
MH-2908	MH-2909	593.98	593.82	16.3	150	0.49	100	0.06402	0.0582	0.9	0.9	0.8	14.3	1.40	45.64	16.30	1.83	2.12	1	1	0	0	1.8	15.0	12.2
MH-2478	MH-2479	584.51	584.37	13.6	150	0.73	100	0.25399	0.2309	0.9	1.01	0.8	28.5	1.40	38.08	13.60	1.53	1.77	1	1	0	0	1.5	12.5	10.2
MH-109	MH-139	585.39	585.51	13.6	150	0.6	114	0.15224	0.1384	1	1.07	0.93	27.6	1.50	40.80	13.60	1.53	1.77	1	1	0	0	1.5	13.5	10.2
MH-3294	MH-3295	590.01	589.94	18.4	150	0.6	283	0.49038	0.4458	1.2	1.09	1.33	49.8	1.70	62.56	18.40	2.07	2.39	1	1	0	0	2.1	21.1	13.8
MH-2458	MH-1322	576.41	576.27	13.6	150	0.53	100	0.08712	0.0792	0.9	0.91	0.8	16.6	1.40	38.08	13.60	1.53	1.77	1	1	0	0	1.5	12.5	10.2
MH-2488	MH-141	583.79	583.65	13.6	150	0.57	100	0.11121	0.1011	0.9	0.98	0.8	18.8	1.40	38.08	13.60	1.53	1.77	1	1	0	0	1.5	12.5	10.2
MH-2489	MH-2255	590.27	590.13	13.6	150	0.37	100	0.02574	0.0234	0.8	0.83	0.8	9.1	1.30	35.36	13.60	1.53	1.77	1	1	0	0	1.5	11.5	10.2
MH-2920	MH-2921	589.02	588.9	16.4	150	0.44	129	0.06204	0.0564	0.8	0.8	0.8	14.4	1.30	42.64	16.40	1.85	2.13	1	1	0	0	1.8	13.9	12.3
MH-2440	MH-3307	572.17	572.15	18.5	400	0.65	1000	4.44048	4.0368	2.4	2.51	2.35	56.2	3.15	116.55	18.50	2.78	5.10	1	1	0	0	2.8	58.7	18.5
MH-2238	MH-2053	567.49	567.46	13.7	175	0.6	455	0.75383	0.6853	2.2	2.06	2.34	54.5	2.73	74.67	13.70	1.59	1.92	1	1	0	0	1.6	31.1	10.6
MH-2503	MH-2504	600.47	600.36	13.8	150	0.26	126	0.01078	0.0098	0.8	0.8	0.84	9.5	1.30	35.88	13.80	1.55	1.80	1	1	0	0	1.6	11.7	10.4
MH-2321	MH-2505	588.81	588.67	13.8	150	0.51	100	0.07755	0.0705	0.8	0.82	0.8	15.7	1.30	35.88	13.80	1.55	1.80	1	1	0	0	1.6	11.7	10.4
MH-2506	MH-2507	570.36	570.34	13.8	217	0.6	604	1.15071	1.0461	1.4	1.35	1.49	54	1.97	54.29	13.80	1.69	2.20	1	1	0	0	1.7	20.0	11.3
MH-2510	MH-2511	600.05	600.01	13.8	150	0.14	335	0.00418	0.0038	0.8	0.8	0.8	6.3	1.30	35.88	13.80	1.55	1.80	1	1	0	0	1.6	11.7	10.4
MH-2937	MH-1772	572.77	572.6	16.5	150	0.73	100	0.24805	0.2255	0.9	0.97	0.8	32.1	1.40	46.20	16.50	1.86	2.15	1	1	0	0	1.9	15.2	12.4
MH-2313	MH-2463	576.6	576.54	13.9	150	0.33	244	0.05159	0.0469	0.8	0.82	0.8	15.1	1.30	36.14	13.90	1.56	1.81	1	1	0	0	1.6	11.7	10.4
MH-1411	MH-1420	572.05	572.04	13.9	150	0.26	1000	0.12496	0.1136	1	1	1.1	27.3	1.50	41.70	13.90	1.56	1.81	1	1	0	0	1.6	13.8	10.4
MH-2514	MH-2116	585.64	585.5	13.9	150	0.56	100	0.10296	0.0936	0.9	0.9	0.8	18	1.40	38.92	13.90	1.56	1.81	1	1	0	0	1.6	12.8	10.4
MH-1287	MH-3322	569.95	569.76	18.6	271	1.49	100	2.98881	2.7171	0.9	0.9	0.8	45.6	1.52	56.58	18.60	2.43	3.50	1	1	0	0	2.4	21.1	16.2
MH-1749	MH-2518	582.78	582.64	13.9	150	0.44	100	0.04719	0.0429	0.9	0.98	0.8	12.3	1.40	38.92	13.90	1.56	1.81	1	1	0	0	1.6	12.8	10.4
MH-1966	MH-2484	573.9	573.76	13.9	150	0.56	100	0.10362	0.0942	0.9	0.97	0.8	18.1	1.40	38.92	13.90	1.56	1.81	1	1	0	0	1.6	12.8	10.4
MH-2332	MH-2136	584.26	584.21	14	400	1	293	4.12863	3.7533	1.1	1.21	0.94	37.3	1.85	51.80	14.00	2.10	3.86	1	1	0	0	2.1	22.0	14.0
MH-3332	MH-3333	579.01	578.83	18.7	150	0.84	100	0.40645	0.3695	0.9	0.9	0.8	36.3	1.40	52.36	18.70	2.10	2.43	1	1	0	0	2.1	17.2	14.0

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-2955	MH-2956	594.8	594.64	16.6	150	0.42	100	0.03927	0.0357	0.8	0.81	0.8	11.2	1.30	43.16	16.60	1.87	2.16	1	1	0	0	1.9	14.0	12.5
MH-2526	MH-2527	591.25	591.11	14	150	0.76	100	0.28534	0.2594	0.8	0.85	0.8	30.2	1.30	36.40	14.00	1.58	1.82	1	1	0	0	1.6	11.8	10.5
MH-2486	MH-2960	575.67	575.51	16.6	150	0.33	100	0.01738	0.0158	0.8	0.86	0.8	7.5	1.30	43.16	16.60	1.87	2.16	1	1	0	0	1.9	14.0	12.5
MH-2961	MH-2962	594.75	594.91	16.6	150	0.49	100	0.06358	0.0578	0.9	0.8	0.97	14.2	1.40	46.48	16.60	1.87	2.16	1	1	0	0	1.9	15.3	12.5
MH-2529	MH-2530	575.52	575.38	14	400	1.45	100	3.87123	3.5193	0.8	0.88	0.8	31.6	1.55	43.40	14.00	2.10	3.86	1	1	0	0	2.1	17.8	14.0
MH-2533	MH-2534	575.48	575.34	14	150	0.86	100	0.46035	0.4185	0.8	0.86	0.8	38.8	1.30	36.40	14.00	1.58	1.82	1	1	0	0	1.6	11.8	10.5
MH-2540	MH-2541	590.35	590.36	14.1	150	0.11	1000	0.00693	0.0063	0.9	0.96	0.8	11.9	1.40	39.48	14.10	1.59	1.84	1	1	0	0	1.6	13.0	10.6
MH-2546	MH-2547	587.49	587.45	14.1	400	0.97	296	3.7829	3.439	1.2	1.34	1.08	35.7	1.95	54.99	14.10	2.12	3.89	1	1	0	0	2.1	23.6	14.1
MH-2987	MH-2988	576.67	576.65	16.7	150	0.26	1000	0.12727	0.1157	1.9	1.8	1.93	31.2	2.40	80.16	16.70	1.88	2.17	1	1	0	0	1.9	32.9	12.5
MH-2552	MH-1143	577.67	577.53	14.2	150	0.46	100	0.05148	0.0468	0.9	0.93	0.8	12.8	1.40	39.76	14.20	1.60	1.85	1	1	0	0	1.6	13.1	10.7
MH-2994	MH-2995	587.22	587.06	16.7	150	0.6	105	0.13882	0.1262	1.1	0.8	1.34	28.1	1.60	53.44	16.70	1.88	2.17	1	1	0	0	1.9	17.9	12.5
MH-250	MH-2554	585.34	585.2	14.2	150	0.49	100	0.06534	0.0594	0.9	1.01	0.8	14.4	1.40	39.76	14.20	1.60	1.85	1	1	0	0	1.6	13.1	10.7
MH-2998	MH-2999	576.41	576.24	16.8	217	1.13	100	1.05897	0.9627	0.9	1.08	0.8	35.7	1.47	49.29	16.80	2.06	2.68	1	1	0	0	2.1	17.5	13.7
MH-899	MH-2243	581.78	581.76	14.2	217	0.6	550	0.9988	0.908	2.6	2.77	2.42	48	3.17	89.94	14.20	1.74	2.27	1	1	0	0	1.7	38.7	11.6
MH-2561	MH-2562	572	571.92	14.2	150	0.6	174	0.25564	0.2324	1.9	1.77	2.09	30.6	2.40	68.16	14.20	1.60	1.85	1	1	0	0	1.6	28.0	10.7
MH-2563	MH-1806	595.27	595.41	14.2	150	0.88	100	0.4895	0.445	0.8	0.8	0.86	40.1	1.30	36.92	14.20	1.60	1.85	1	1	0	0	1.6	12.0	10.7
MH-3003	MH-2272	583.71	583.57	16.8	150	0.5	124	0.09152	0.0832	0.8	0.8	0.8	33.4	1.30	43.68	16.80	1.89	2.19	1	1	0	0	1.9	14.2	12.6
MH-2568	MH-2569	593.71	593.56	14.2	150	0.28	100	0.01045	0.0095	0.8	0.86	0.8	5.9	1.30	36.92	14.20	1.60	1.85	1	1	0	0	1.6	12.0	10.7
MH-2578	MH-660	596.86	596.69	16.8	150	0.37	100	0.02519	0.0229	0.9	0.97	0.8	9	1.40	47.04	16.80	1.89	2.19	1	1	0	0	1.9	15.5	12.6
MH-1492	MH-1349	578.35	578.21	14.3	150	0.38	100	0.02981	0.0271	0.8	0.89	0.8	9.8	1.30	37.18	14.30	1.61	1.86	1	1	0	0	1.6	12.1	10.7
MH-2608	MH-1822	572.33	572.17	16.9	150	0.86	109	0.50468	0.4588	0.8	0.8	0.82	44.8	1.30	43.94	16.90	1.90	2.20	1	1	0	0	1.9	14.3	12.7
MH-2579	MH-869	596.26	596.14	12.8	150	0.46	100	0.05148	0.0468	0.9	0.99	0.8	23.4	1.40	35.84	12.80	1.44	1.67	1	1	0	0	1.4	11.8	9.6
MH-2580	MH-2581	583.63	583.49	14.3	150	0.3	100	0.01276	0.0116	0.8	0.8	0.8	6.4	1.30	37.18	14.30	1.61	1.86	1	1	0	0	1.6	12.1	10.7
MH-3379	MH-1625	572.61	572.55	19	150	0.21	320	0.01584	0.0144	0.8	0.8	0.9	11.3	1.30	49.40	19.00	2.14	2.47	1	1	0	0	2.1	16.1	14.3
MH-823	MH-2265	583.61	583.59	14.3	400	0.64	1000	4.22774	3.8434	1.1	1.28	0.97	42.5	1.85	52.91	14.30	2.15	3.94	1	1	0	0	2.1	22.5	14.3
MH-2446	MH-3022	574.88	574.85	16.9	150	0.16	536	0.01155	0.0105	0.8	0.8	0.8	10.1	1.30	43.94	16.90	1.90	2.20	1	1	0	0	1.9	14.3	12.7
MH-3385	MH-3291	584.31	584.11	19.1	150	0.55	100	0.09647	0.0877	0.9	0.97	0.8	17.5	1.40	53.48	19.10	2.15	2.49	1	1	0	0	2.1	17.6	14.3
MH-3023	MH-2901	573.86	573.69	16.9	217	1.52	100	3.26755	2.9705	0.9	0.96	0.8	65.5	1.47	49.58	16.90	2.07	2.70	1	1	0	0	2.1	17.6	13.8
MH-3386	MH-2150	576.93	576.74	19.1	175	1.38	100	2.3155	2.105	0.9	1.04	0.8	74	1.43	54.44	19.10	2.22	2.68	1	1	0	0	2.2	18.4	14.8
MH-38	MH-3024	595.64	595.47	17	150	0.83	100	0.40326	0.3666	0.8	0.8	0.8	39.8	1.30	44.20	17.00	1.91	2.21	1	1	0	0	1.9	14.4	12.8
MH-2399	MH-1070	597.28	597.11	17	150	0.45	100	0.04983	0.0453	0.9	0.99	0.8	12.6	1.40	47.60	17.00	1.91	2.21	1	1	0	0	1.9	15.6	12.8
MH-2594	MH-1897	574.83	574.69	14.4	150	0.89	100	0.50138	0.4558	0.9	0.97	0.8	40.6	1.40	40.32	14.40	1.62	1.87	1	1	0	0	1.6	13.2	10.8
MH-2294	MH-2597	594.01	593.86	14.4	150	0.51	100	0.0781	0.071	0.8	0.84	0.8	15.8	1.30	37.44	14.40	1.62	1.87	1	1	0	0	1.6	12.2	10.8
MH-3026	MH-2998	576.86	576.69	17	217	1.13	100	1.03015	0.9365	0.9	1.08	0.8	35.2	1.47	49.88	17.00	2.08	2.71	1	1	0	0	2.1	17.7	13.9
MH-2076	MH-1048	574.42	574.37	11.8	150	0.21	244	0.01133	0.0103	0.8	0.8	0.8	7.5	1.30	30.68	11.80	1.33	1.54	1	1	0	0	1.3	10.0	8.9
MH-180	MH-3028	587.84	587.82	17	150	0.25	1000	0.10241	0.0931	0.9	0.8	0.95	59.4	1.40	47.60	17.00	1.91	2.21	1	1	0	0	1.9	15.6	12.8
MH-3029	MH-3030	571.62	571.79	17	150	0.26	100	0.0077	0.007	0.9	0.8	0.98	7.9	1.40	47.60	17.00	1.91	2.21	1	1	0	0	1.9	15.6	12.8
MH-2266	MH-2235	583.03	582.99	14.4	400	0.89	414	4.30364	3.9124	1.1	1.25	0.96	40	1.85	53.28	14.40	2.16	3.97	1	1	0	0	2.2	22.7	14.4
MH-3032	MH-3033	577.29	577.18	17	400	1.26	150	3.10563	2.8233	0.8	0.8	0.8	31.9	1.55	52.70	17.00	2.55	4.69	1	1	0	0	2.6	21.7	17.0
MH-2505	MH-1206	588.63	588.49	14.4	150	0.53	100	0.08536	0.0776	0.8	0.84	0.8	18.2	1.30	37.44	14.40	1.62	1.87	1	1	0	0	1.6	12.2	10.8
MH-1915	MH-2608	572.47	572.33	14.5	150	0.88	100	0.48092	0.4372	0.8	0.82	0.8	43.7	1.30	37.70	14.50	1.63	1.89	1	1	0	0	1.6	12.3	10.9
MH-1500	MH-3037	577.29	577.27	17	150	0.24	1000	0.08613	0.0783	1	1.03	0.93	28.3	1.50	51.00	17.00	1.91	2.21	1	1	0	0	1.9	16.9	12.8
MH-3038	MH-2813	582.27	582.1	17	150	0.5	100	0.07249	0.0659	0.8	0.87	0.8	15.2	1.30	44.20	17.00	1.91	2.21	1	1	0	0	1.9	14.4	12.8
MH-2611	MH-2612	579.6	579.49	14.5	150	0.6	133	0.18172	0.1652	0.9	0.8	1.06	24.9	1.40	40.60	14.50	1.63	1.89	1	1	0	0	1.6	13.3	10.9
MH-3406	MH-3407	582.79	582.8	19.2	150	0.14	1000	0.01485	0.0135	0.8	0.89	0.8	15.9	1.30	49.92	19.20	2.16	2.50	1	1	0	0	2.2	16.2	14.4
MH-2479	MH-1332	584.13	583.99	14.5	150	0.74	100	0.26642	0.2422	0.9	1.04	0.8	29.2	1.40	40.60	14.50	1.63	1.89	1	1	0	0	1.6	13.3	10.9
MH-3382	MH-2374	571.76	571.57	19.3	150	1.02	100	0.84799	0.7709	0.9	0.98	0.8	53.9	1.40	54.04	19.30	2.17	2.51	1	1	0	0	2.2	17.8	14.5
MH-3050	MH-1714	575.91	575.87	17.1	175	0.6	441	0.71665	0.6515	3.5	3.69	3.34	47.6	4.03	137.66	17.10	1.99	2.40	1	0	1	0	2.0	66.3	13.3
MH-2623	MH-2624	575.6	575.58	14.5	271	0.6	810	1.78695	1.6245	1.4	1.53	1.22	45.3	2.02	58.61	14.50	1.89	2.73	1	1	0	0	1.9	27.1	12.6
MH-2821	MH-3871	577.91	577.89	23.1	150	0.26	1000	0.12705	0.1155	2.2	1.98	2.34	30.7	2.70	124.74	23.10	2.60	3.01	1	1	0	0	2.6	50.7	17.3
MH-1387	MH-3059	573.5	573.33	17.1	150	0.62	100	0.14696	0.1336	0.9	0.93	0.8	21.6	1.40	47.88	17.10	1.92	2.23	1	1	0	0	1.9	15.7	12.8
MH-1566	MH-2794	569.15	569.32	17.1	150	0.38	100	0.02882	0.0262	0.9	0.8	0.92	11.2	1.40	47.88	17.10	1.92	2.23	1	1	0	0	1.9	15.7	12.8
MH-2638	MH-1302	571.89	571.76	17.1	150	0.6	133	0.18161	0.1651	1.2	0.98	1.36	40.3	1.70	58.14	17.10	1.92	2.23	1	1	0	0	1.9	19.6	12.8
MH-3563	MH-3381	572.55	572.35	20.5	150	1.01	100	0.82005	0.7455	0.9	1.04	0.8	52.9	1.40	57.40	20.50	2.31	2.67	1	1	0	0	2.3	18.9	15.4
MH-2652	MH-2653	579.65	579.5	14.7	150	0.34	100	0.01958	0.0178	0.9	1	0.8	8	1.40	41.16	14.70	1.65	1.91	1	1	0	0	1.7	13.5	11.0
MH-3077	MH-3078	594.44	594.27	17.2	150	0.67	100	0.19085	0.1735	0.9	0.91	0.8	24.6	1.40	48.16	17.20	1.94	2.24	1	1	0	0	1.9	15.8	12.9
MH-3484	MH-3325	586.77	586.6	23.2	150	0.43	139	0.0605	0.055	0.8	0.8	0.8	15.9	1.30	60.32	23.20	2.61	3.02	1	1	0	0	2.6	19.6	17.4
MH-3080	MH-3010	588.54	588.71	17.2	150	0.73	100	0.25641	0.2331	0.9	0.8	1.04	31.7	1.40	48.16	17.20	1.94	2.24	1	1	0	0	1.9	15.8	12.9
MH-2662	MH-2062	575.05	575.04	14.7	150	0.24	1000	0.08855	0.0805	0.9	0.85	0.87	38.9	1.40	41.16	14.70	1.65	1.91	1	1	0	0	1.7	13.5	11.0
MH-1005	MH-686	590.84	590.96	20.6	150	0.6	173	0.2541	0.231	1.9	1.98	1.73	31.2	2.40	98.88	20.60	2.32	2.68	1	1	0	0	2.3	40.6	15.5
MH-398	MH-1091	572.82	572.78	14.8	150	0.6	367	0.54505	0.4955	2.2	2.15	2.29	49.6	2.70	79.92	14.80	1.67	1.93	1	1	0	0	1.7	32.5	11.1
MH-2670	MH-2671	592.69	592.55	14.8	150	0.5	100	0.07183	0.0653	0.9	0.96	0.8	15.1	1.40	41.44	14.80	1.67	1.93	1	1	0	0	1.7	13.6	11.1
MH-2672	MH-1675	595.45	595.6	14.8	150	0.49	100	0.06633	0.0603	0.8	0.8	0.87	14.5	1.30	38.48	14.80	1.67	1.93	1	1	0	0	1.7	12.5	11.1
MH-272	MH-3583	591.07	591.09	20.9	150	0.26	1000	0.12672	0.1152	1.4	1.49	1.36	29.8	1.90	79.42	20.90	2.35	2.72	1	1	0	0	2.4	27.1	15.7
MH-2676	MH-2457	576.95	576.8	14.8	150	0.5	100	0.07183	0.0653	0.9	0.96	0.8	15.1	1.40	41.44	14.80	1.67	1.93	1	1	0	0	1.7	13.6	11.1

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-3097	MH-3098	575.41	575.23	17.3	150	0.38	100	0.02794	0.0254	0.9	0.99	0.8	9.4	1.40	48.44	17.30	1.95	2.25	1	1	0	0	1.9	15.9	13.0
MH-429	MH-669	575.07	574.94	13.2	150	0.43	100	0.04103	0.0373	0.9	0.93	0.8	11.4	1.40	36.96	13.20	1.49	1.72	1	1	0	0	1.5	12.1	9.9
MH-2434	MH-2395	580.6	580.45	14.9	150	0.61	100	0.14102	0.1282	0.9	1.07	0.8	21.2	1.40	41.72	14.90	1.68	1.94	1	1	0	0	1.7	13.7	11.2
MH-2678	MH-252	578.9	578.86	6.8	150	0.6	169	0.24783	0.2253	1.6	1.52	1.71	30.7	2.10	28.56	6.80	0.77	0.89	1	1	0	0	0.8	11.9	5.1
MH-2679	MH-2680	569.11	569.1	14.9	600	0.9	1000	16.96629	15.4239	1.6	1.59	1.53	53.2	2.55	75.99	14.90	2.68	6.89	1	1	0	0	2.7	43.2	17.9
MH-2681	MH-2682	586.8	586.65	14.9	150	0.53	100	0.08635	0.0785	0.9	1.02	0.8	16.5	1.40	41.72	14.90	1.68	1.94	1	1	0	0	1.7	13.7	11.2
MH-2687	MH-2003	595.06	594.91	14.9	150	0.61	100	0.14058	0.1278	0.9	0.92	0.8	21.2	1.40	41.72	14.90	1.68	1.94	1	1	0	0	1.7	13.7	11.2
MH-3108	MH-3001	581.59	581.43	17.4	150	0.66	111	0.19767	0.1797	0.8	0.8	0.8	27.8	1.30	45.24	17.40	1.96	2.26	1	1	0	0	2.0	14.7	13.1
MH-1407	MH-2694	576.26	576.18	15	150	0.44	203	0.10351	0.0941	0.8	0.8	0.8	20.5	1.30	39.00	15.00	1.69	1.95	1	1	0	0	1.7	12.7	11.3
MH-2700	MH-2115	593.79	593.94	15	217	1.32	100	1.83128	1.6648	0.8	0.8	0.82	47.6	1.37	41.01	15.00	1.84	2.39	1	1	0	0	1.8	14.4	12.3
MH-2704	MH-2224	583.05	582.9	15	150	0.61	100	0.14102	0.1282	0.9	1.02	0.8	21.2	1.40	42.00	15.00	1.69	1.95	1	1	0	0	1.7	13.8	11.3
MH-2185	MH-2288	585.11	584.96	15.1	150	0.64	100	0.16456	0.1496	0.9	1.02	0.8	22.9	1.40	42.28	15.10	1.70	1.97	1	1	0	0	1.7	13.9	11.3
MH-2705	MH-2706	571.42	571.4	15.1	150	0.23	1000	0.07612	0.0692	1.3	1.12	1.45	25.7	1.80	54.36	15.10	1.70	1.97	1	1	0	0	1.7	18.4	11.3
MH-2712	MH-1986	583.25	583.1	15.1	150	0.33	100	0.01804	0.0164	0.9	1	0.8	7.7	1.40	42.28	15.10	1.70	1.97	1	1	0	0	1.7	13.9	11.3
MH-2713	MH-2714	589.18	589.03	15.1	150	0.49	100	0.06501	0.0591	0.8	0.84	0.8	14.4	1.30	39.26	15.10	1.70	1.97	1	1	0	0	1.7	12.8	11.3
MH-3126	MH-2721	591.7	591.53	17.5	150	0.5	100	0.06864	0.0624	0.8	0.81	0.8	14.8	1.30	45.50	17.50	1.97	2.28	1	1	0	0	2.0	14.8	13.1
MH-1727	MH-2864	589.6	589.58	17.5	150	0.19	1000	0.03993	0.0363	1.7	1.65	1.8	21.6	2.20	77.00	17.50	1.97	2.28	1	1	0	0	2.0	31.8	13.1
MH-1881	MH-2295	585.8	585.62	17.5	150	0.59	100	0.11891	0.1081	0.9	1.07	0.8	22.1	1.40	49.00	17.50	1.97	2.28	1	1	0	0	2.0	16.1	13.1
MH-2721	MH-2521	591.49	591.34	15.1	150	0.51	100	0.07821	0.0711	0.8	0.83	0.8	15.8	1.30	39.26	15.10	1.70	1.97	1	1	0	0	1.7	12.8	11.3
MH-1765	MH-2286	590.31	590.32	15.2	150	0.19	1000	0.04081	0.0371	1.3	1.39	1.22	19.5	1.80	54.72	15.20	1.71	1.98	1	1	0	0	1.7	18.5	11.4
MH-2469	MH-2722	569.73	569.64	15.2	150	0.6	179	0.26664	0.2424	1.7	1.65	1.7	32.4	2.20	66.88	15.20	1.71	1.98	1	1	0	0	1.7	27.7	11.4
MH-3129	MH-3130	597.58	597.4	17.6	150	0.78	100	0.31966	0.2906	0.8	0.89	0.8	32.1	1.30	45.76	17.60	1.98	2.29	1	1	0	0	2.0	14.9	13.2
MH-2725	MH-2726	595.22	595.07	15.2	150	0.37	100	0.02541	0.0231	0.8	0.82	0.8	9	1.30	39.52	15.20	1.71	1.98	1	1	0	0	1.7	12.8	11.4
MH-2727	MH-2728	580.79	580.86	15.2	150	0.6	253	0.41602	0.3782	3.5	3.67	3.32	48.6	4.00	121.60	15.20	1.71	1.98	1	0	1	0	1.7	48.2	11.4
MH-1797	MH-1858	574.25	574.1	15.2	400	1.47	100	4.09706	3.7246	0.9	0.9	0.8	32.5	1.65	50.16	15.20	2.28	4.19	1	1	0	0	2.3	20.9	15.2
MH-2331	MH-2734	593.03	592.87	15.3	150	0.7	100	0.22198	0.2018	0.8	0.85	0.8	26.6	1.30	39.78	15.30	1.72	1.99	1	1	0	0	1.7	12.9	11.5
MH-1689	MH-2737	590.26	590.1	15.3	150	0.32	100	0.01639	0.0149	0.8	0.82	0.8	7.3	1.30	39.78	15.30	1.72	1.99	1	1	0	0	1.7	12.9	11.5
MH-2742	MH-530	590.75	590.83	15.3	150	0.6	202	0.31042	0.2822	2.1	2.22	2.02	35.7	2.60	79.56	15.30	1.72	1.99	1	1	0	0	1.7	32.4	11.5
MH-3148	MH-275	588.94	588.81	17.6	150	0.6	139	0.19415	0.1765	2.5	2.39	2.65	27.2	3.00	105.60	17.60	1.98	2.29	1	1	0	0	2.0	42.6	13.2
MH-2748	MH-423	575.45	575.36	15.3	150	0.6	170	0.24915	0.2265	1.4	1.21	1.63	37.1	1.90	58.14	15.30	1.72	1.99	1	1	0	0	1.7	19.8	11.5
MH-2755	MH-2756	593.02	593.14	15.4	150	0.64	124	0.20779	0.1889	0.8	0.8	0.81	29	1.30	40.04	15.40	1.73	2.00	1	1	0	0	1.7	13.0	11.6
MH-3068	MH-2293	594.38	594.2	17.7	150	0.48	100	0.05918	0.0538	0.8	0.84	0.8	13.7	1.30	46.02	17.70	1.99	2.30	1	1	0	0	2.0	15.0	13.3
MH-1762	MH-2662	575.07	575.05	15.4	150	0.23	1000	0.07689	0.0699	0.8	0.82	0.85	32	1.30	40.04	15.40	1.73	2.00	1	1	0	0	1.7	13.0	11.6
MH-2768	MH-2769	597.28	597.12	15.4	150	0.32	100	0.0165	0.015	0.9	0.93	0.8	7.4	1.40	43.12	15.40	1.73	2.00	1	1	0	0	1.7	14.2	11.6
MH-2770	MH-2613	593.64	593.53	15.4	150	0.3	137	0.01892	0.0172	0.8	0.8	0.8	9.2	1.30	40.04	15.40	1.73	2.00	1	1	0	0	1.7	13.0	11.6
MH-3150	MH-1595	572.01	571.98	17.8	150	0.22	509	0.03025	0.0275	0.8	0.8	0.8	12.9	1.30	46.28	17.80	2.00	2.32	1	1	0	0	2.0	15.0	13.4
MH-660	MH-2782	596.59	596.43	15.5	150	0.68	100	0.19602	0.1782	0.9	0.9	0.8	25	1.40	43.40	15.50	1.74	2.02	1	1	0	0	1.7	14.3	11.6
MH-2783	MH-2784	573.73	573.72	15.6	150	0.19	1000	0.04334	0.0394	0.9	0.8	0.94	21.5	1.40	43.68	15.60	1.76	2.03	1	1	0	0	1.8	14.3	11.7
MH-2787	MH-2704	583.43	583.27	15.6	150	0.61	100	0.13387	0.1217	0.9	1.02	0.8	20.6	1.40	43.68	15.60	1.76	2.03	1	1	0	0	1.8	14.3	11.7
MH-2792	MH-2793	589.01	588.85	15.6	271	1.32	100	1.94678	1.7698	0.8	0.84	0.8	36.4	1.42	44.34	15.60	2.04	2.94	1	1	0	0	2.0	16.4	13.6
MH-2794	MH-2795	569.44	569.59	15.6	150	0.26	100	0.00825	0.0075	0.8	0.8	0.84	5.2	1.30	40.56	15.60	1.76	2.03	1	1	0	0	1.8	13.2	11.7
MH-1908	MH-2800	588.64	588.62	15.6	150	0.26	1000	0.12166	0.1106	1.5	1.43	1.52	26.4	2.00	62.40	15.60	1.76	2.03	1	1	0	0	1.8	21.4	11.7
MH-2769	MH-2803	596.97	596.81	15.7	150	0.35	100	0.02145	0.0195	0.9	0.95	0.8	8.3	1.40	43.96	15.70	1.77	2.04	1	1	0	0	1.8	14.4	11.8
MH-3211	MH-903	592.65	592.68	18	217	0.6	625	1.21561	1.1051	2.9	2.76	3.03	57.5	3.47	124.81	18.00	2.21	2.87	1	1	0	0	2.2	53.5	14.7
MH-2817	MH-2818	573.21	573.05	15.8	217	1.54	100	3.39273	3.0843	0.9	0.95	0.8	66.9	1.47	46.36	15.80	1.94	2.52	1	1	0	0	1.9	16.4	12.9
MH-1955	MH-2819	573.65	573.63	15.8	150	0.26	1000	0.12606	0.1146	2.3	2.11	2.42	26.9	2.80	88.48	15.80	1.78	2.06	1	1	0	0	1.8	35.9	11.9
MH-2822	MH-1836	589.11	589.02	15.8	271	1.04	177	1.75296	1.5936	1	1.11	0.8	36.8	1.62	51.22	15.80	2.06	2.98	1	1	0	0	2.1	19.3	13.8
MH-2825	MH-2826	581.07	580.91	15.8	150	0.7	100	0.22165	0.2015	0.9	0.99	0.8	26.6	1.40	44.24	15.80	1.78	2.06	1	1	0	0	1.8	14.5	11.9
MH-2827	MH-2145	592.28	592.12	15.8	150	0.52	100	0.08041	0.0731	0.8	0.85	0.8	16	1.30	41.08	15.80	1.78	2.06	1	1	0	0	1.8	13.3	11.9
MH-1205	MH-3225	577.72	577.54	18.1	150	0.74	100	0.26444	0.2404	0.9	1.06	0.8	29.1	1.40	50.68	18.10	2.04	2.36	1	1	0	0	2.0	16.6	13.6
MH-1336	MH-1071	580.28	580.26	15.8	150	0.12	1000	0.00825	0.0075	1.1	0.94	1.29	20.8	1.60	50.56	15.80	1.78	2.06	1	1	0	0	1.8	16.9	11.9
MH-1676	MH-3229	595.8	595.98	18.1	150	0.45	100	0.05038	0.0458	0.8	0.8	0.89	12.7	1.30	47.06	18.10	2.04	2.36	1	1	0	0	2.0	15.3	13.6
MH-2835	MH-2438	577.57	577.41	15.9	150	0.51	100	0.0748	0.068	0.8	0.89	0.8	15.4	1.30	41.34	15.90	1.79	2.07	1	1	0	0	1.8	13.4	11.9
MH-2737	MH-2838	590.08	589.92	15.9	150	0.37	100	0.02464	0.0224	0.8	0.83	0.8	8.9	1.30	41.34	15.90	1.79	2.07	1	1	0	0	1.8	13.4	11.9
MH-2839	MH-383	587.71	587.7	15.9	271	0.6	921	2.23652	2.0332	3	3.15	2.82	65.7	3.62	115.15	15.90	2.08	2.99	1	0	1	0	2.1	51.9	13.8
MH-2841	MH-2842	587.85	587.69	15.9	150	0.43	100	0.04378	0.0398	0.9	1.03	0.8	11.8	1.40	44.52	15.90	1.79	2.07	1	1	0	0	1.8	14.6	11.9
MH-65	MH-1105	580.08	579.98	24.2	150	0.6	230	0.36432	0.3312	1.4	1.17	1.53	38.2	1.90	91.96	24.20	2.72	3.15	1	1	0	0	2.7	31.3	18.2
MH-2844	MH-2845	579.67	579.51	15.9	271	1.39	100	2.31506	2.1046	0.9	1.07	0.8	39.8	1.52	48.37	15.90	2.08	2.99	1	1	0	0	2.1	18.1	13.8
MH-2838	MH-2846	589.88	589.72	16	150	0.4	100	0.03355	0.0305	0.8	0.84	0.8	10.4	1.30	41.60	16.00	1.80	2.08	1	1	0	0	1.8	13.5	12.0
MH-3243	MH-3244	593.34	593.17	18.1	150	0.32	107	0.01716	0.0156	0.8	0.8	0.81	9.1	1.30	47.06	18.10	2.04	2.36	1	1	0	0	2.0	15.3	13.6
MH-3245	MH-3246	571.83	571.78	18.1	150	0.6	376	0.56606	0.5146	2.2	2.18	2.21	50.9	2.70	97.74	18.10	2.04	2.36	1	1	0	0	2.0	39.7	13.6
MH-2854	MH-1494	576.77	576.61	15.9	150	0.81	100	0.36025	0.3275	0.9	1.03	0.8	34.1	1.40	44.52	15.90	1.79	2.07	1	1	0	0	1.8	14.6	11.9
MH-2296	MH-2855	574.38	574.22	16	271	1.36	100	2.14379	1.9489	0.8	0.89	0.8	38.2	1.42	45.47	16.00	2.09	3.01	1	1	0	0	2.1	16.8	13.9
MH-2865	MH-357	585.19	585.02	16.1	271	1.41	100	2.47379	2.2489	0.8	0.82	0.8	53.1	1.42	45.76	16.10	2.10	3.03	1	1	0	0	2.1	16.9	14.0
MH-2757	MH-2101	593.61	593.45	16	150	0.68	100	0.20042	0.1822	0.8	0.87	0.8	25.2	1.30	41.60	16.00	1.80	2.08	1	1	0	0	1.8	13.5	12.0

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-2059	MH-2868	576.01	575.85	16.1	400	1.45	100	3.84131	3.4921	0.8	0.86	0.8	31.5	1.55	49.91	16.10	2.42	4.44	1	1	0	0	2.4	20.5	16.1
MH-2875	MH-1921	574.69	574.52	16.1	150	0.51	100	0.07755	0.0705	0.9	0.99	0.8	15.7	1.40	45.08	16.10	1.81	2.10	1	1	0	0	1.8	14.8	12.1
MH-1077	MH-2713	589.38	589.22	16.1	150	0.47	100	0.05698	0.0518	0.8	0.82	0.8	13.4	1.30	41.86	16.10	1.81	2.10	1	1	0	0	1.8	13.6	12.1
MH-2877	MH-2099	579.25	579.09	16.1	150	0.29	100	0.01221	0.0111	0.9	0.97	0.8	6.4	1.40	45.08	16.10	1.81	2.10	1	1	0	0	1.8	14.8	12.1
MH-3271	MH-1790	598.12	597.94	18.3	150	0.38	100	0.02695	0.0245	0.9	1.01	0.8	9.3	1.40	51.24	18.30	2.06	2.38	1	1	0	0	2.1	16.8	13.7
MH-2113	MH-2881	573.47	573.46	16.2	400	0.62	1000	3.71503	3.3773	1.8	1.89	1.74	47.9	2.55	82.62	16.20	2.43	4.46	1	1	0	0	2.4	41.7	16.2
MH-2802	MH-3275	574.31	574.2	18.3	150	0.6	169	0.2486	0.226	0.8	0.8	0.83	31.9	1.30	47.58	18.30	2.06	2.38	1	1	0	0	2.1	15.5	13.7
MH-2396	MH-3276	579.84	579.66	18.4	150	0.66	100	0.17523	0.1593	0.9	1.07	0.8	23.6	1.40	51.52	18.40	2.07	2.39	1	1	0	0	2.1	16.9	13.8
MH-2884	MH-2352	571.83	571.72	16.2	150	0.83	142	0.62568	0.5688	0.8	0.8	0.86	49.9	1.30	42.12	16.20	1.82	2.11	1	1	0	0	1.8	13.7	12.2
MH-2885	MH-2886	593.93	594.1	16.2	150	0.55	100	0.09603	0.0873	0.9	0.8	0.97	24.1	1.40	45.36	16.20	1.82	2.11	1	1	0	0	1.8	14.9	12.2
MH-1144	MH-2676	577.27	577.11	16.2	150	0.48	100	0.0627	0.057	0.9	0.95	0.8	14.1	1.40	45.36	16.20	1.82	2.11	1	1	0	0	1.8	14.9	12.2
MH-2890	MH-2891	586.54	586.38	16.2	150	0.8	100	0.35233	0.3203	0.9	1.04	0.8	33.8	1.40	45.36	16.20	1.82	2.11	1	1	0	0	1.8	14.9	12.2
MH-2892	MH-2533	575.71	575.54	16.2	150	0.86	100	0.45056	0.4096	0.8	0.89	0.8	38.4	1.30	42.12	16.20	1.82	2.11	1	1	0	0	1.8	13.7	12.2
MH-3291	MH-3292	583.9	583.68	21.8	150	0.56	100	0.10318	0.0938	0.9	1.01	0.8	18.1	1.40	61.04	21.80	2.45	2.84	1	1	0	0	2.5	20.1	16.4
MH-1764	MH-2897	581.9	581.75	16.3	150	0.6	105	0.1386	0.126	0.8	0.8	0.81	24	1.30	42.38	16.30	1.83	2.12	1	1	0	0	1.8	13.8	12.2
MH-2901	MH-2817	573.53	573.37	16.3	217	1.53	100	3.33465	3.0315	0.9	0.96	0.8	66.2	1.47	47.82	16.30	2.00	2.60	1	1	0	0	2.0	16.9	13.3
MH-1697	MH-1317	590.05	590.01	16.3	175	0.6	473	0.80212	0.7292	2.1	2.19	2.02	55.1	2.63	85.58	16.30	1.89	2.29	1	1	0	0	1.9	35.8	12.6
MH-2154	MH-2902	582.45	582.37	16.3	150	0.6	219	0.34408	0.3128	1	1.18	0.85	36.8	1.50	48.90	16.30	1.83	2.12	1	1	0	0	1.8	16.2	12.2
MH-4122	MH-313	579.25	579.03	24.5	150	0.6	112	0.14839	0.1349	1	0.8	1.2	26.2	1.50	73.50	24.50	2.76	3.19	1	1	0	0	2.8	24.4	18.4
MH-342	MH-832	589.6	589.77	17.5	271	1.53	100	3.29769	2.9979	0.9	0.8	0.91	48	1.52	53.24	17.50	2.29	3.30	1	1	0	0	2.3	19.9	15.2
MH-2910	MH-2911	578.5	578.35	16.3	150	0.6	112	0.14751	0.1341	0.8	0.8	0.88	24.6	1.30	42.38	16.30	1.83	2.12	1	1	0	0	1.8	13.8	12.2
MH-2289	MH-2323	584.47	584.31	16.3	150	0.72	100	0.24409	0.2219	0.9	1.02	0.8	27.9	1.40	45.64	16.30	1.83	2.12	1	1	0	0	1.8	15.0	12.2
MH-4024	MH-38	595.89	595.65	24.5	150	0.52	100	0.08184	0.0744	0.9	1.07	0.8	27.5	1.40	68.60	24.50	2.76	3.19	1	1	0	0	2.8	22.5	18.4
MH-2088	MH-1926	585.95	585.79	16.4	150	0.61	100	0.13475	0.1225	0.9	1.04	0.8	22.6	1.40	45.92	16.40	1.85	2.13	1	1	0	0	1.8	15.1	12.3
MH-1984	MH-2219	576.21	576.19	18.5	271	0.6	818	1.81566	1.6506	2	2.07	1.87	45.6	2.62	96.98	18.50	2.42	3.48	1	1	0	0	2.4	44.3	16.1
MH-2554	MH-2917	584.95	584.78	16.4	150	0.51	100	0.07271	0.0661	0.9	1.06	0.8	15.2	1.40	45.92	16.40	1.85	2.13	1	1	0	0	1.8	15.1	12.3
MH-2870	MH-2195	574.69	574.52	16.4	150	0.94	100	0.62337	0.5667	0.9	0.98	0.8	45.6	1.40	45.92	16.40	1.85	2.13	1	1	0	0	1.8	15.1	12.3
MH-3091	MH-4135	583.2	582.95	24.6	150	0.49	100	0.066	0.06	0.9	1.09	0.8	14.5	1.40	68.88	24.60	2.77	3.20	1	1	0	0	2.8	22.6	18.5
MH-2924	MH-2555	589.78	589.7	16.4	150	0.42	206	0.0946	0.086	0.9	0.93	0.8	19.5	1.40	45.92	16.40	1.85	2.13	1	1	0	0	1.8	15.1	12.3
MH-2929	MH-1581	595.53	595.37	16.4	150	0.59	100	0.11891	0.1081	0.8	0.88	0.8	19.4	1.30	42.64	16.40	1.85	2.13	1	1	0	0	1.8	13.9	12.3
MH-3316	MH-2933	588.17	587.98	18.6	150	0.3	100	0.01287	0.0117	0.9	1.07	0.8	6.5	1.40	52.08	18.60	2.09	2.42	1	1	0	0	2.1	17.1	14.0
MH-2933	MH-2356	587.74	587.57	16.5	150	0.35	100	0.02024	0.0184	0.9	1.04	0.8	8.1	1.40	46.20	16.50	1.86	2.15	1	1	0	0	1.9	15.2	12.4
MH-2934	MH-2935	578.12	578.01	16.5	150	0.6	149	0.20999	0.1909	1.1	1.01	1.12	27.1	1.60	52.80	16.50	1.86	2.15	1	1	0	0	1.9	17.7	12.4
MH-2936	MH-643	589.96	589.95	15.5	150	0.16	1000	0.02552	0.0232	0.9	0.95	0.94	19.8	1.40	43.40	15.50	1.74	2.02	1	1	0	0	1.7	14.3	11.6
MH-1197	MH-2937	573.1	572.94	16.5	150	0.72	100	0.23936	0.2176	0.9	0.95	0.8	27.6	1.40	46.20	16.50	1.86	2.15	1	1	0	0	1.9	15.2	12.4
MH-676	MH-3470	594.08	594.15	7.1	217	1.15	100	1.1154	1.014	1	0.8	1.1	47.1	1.57	22.25	7.10	0.87	1.13	1	1	0	0	0.9	8.0	5.8
MH-807	MH-2067	588.44	588.35	9.1	271	1.3	100	1.83381	1.6671	1	1.12	0.8	35.4	1.62	29.50	9.10	1.19	1.71	1	1	0	0	1.2	11.1	7.9
MH-3472	MH-3473	597.11	596.91	19.8	150	0.38	100	0.02794	0.0254	0.9	0.95	0.8	9.4	1.40	55.44	19.80	2.23	2.58	1	1	0	0	2.2	18.2	14.9
MH-2734	MH-2089	592.82	592.65	16.5	150	0.71	100	0.23023	0.2093	0.8	0.86	0.8	27.1	1.30	42.90	16.50	1.86	2.15	1	1	0	0	1.9	13.9	12.4
MH-3338	MH-1041	576.49	576.3	18.7	150	0.48	100	0.06072	0.0552	0.8	0.88	0.8	13.9	1.30	48.62	18.70	2.10	2.43	1	1	0	0	2.1	15.8	14.0
MH-2946	MH-2947	570.23	570.07	16.5	175	1.29	100	1.65121	1.5011	0.9	0.96	0.8	61	1.43	47.03	16.50	1.92	2.31	1	1	0	0	1.9	15.9	12.8
MH-2353	MH-2373	571.59	571.52	16.5	150	0.71	228	0.69333	0.6303	0.8	0.8	0.8	54.4	1.30	42.90	16.50	1.86	2.15	1	1	0	0	1.9	13.9	12.4
MH-2950	MH-2951	579.72	579.56	16.5	150	0.76	100	0.28787	0.2617	0.9	1.02	0.8	30.4	1.40	46.20	16.50	1.86	2.15	1	1	0	0	1.9	15.2	12.4
MH-3033	MH-2176	577.18	576.9	33.2	400	1.37	121	3.14105	2.8555	0.8	0.8	0.8	28.4	1.55	102.92	33.20	4.98	9.15	2	2	0	0	5.0	42.3	33.2
MH-3250	MH-1530	593.22	593.03	18.8	150	0.4	100	0.03245	0.0295	0.8	0.89	0.8	10.2	1.30	48.88	18.80	2.12	2.45	1	1	0	0	2.1	15.9	14.1
MH-3344	MH-3345	581.45	581.29	18.8	800	2.59	116	45.023	40.93	0.8	0.86	0.8	46.5	1.95	73.32	18.80	3.95	13.39	1	1	0	0	3.9	37.9	26.3
MH-2965	MH-2966	592.5	592.33	16.6	150	0.46	100	0.05247	0.0477	0.8	0.88	0.8	12.9	1.30	43.16	16.60	1.87	2.16	1	1	0	0	1.9	14.0	12.5
MH-2972	MH-2973	597.88	597.71	16.6	150	0.47	100	0.05522	0.0502	0.8	0.88	0.8	13.3	1.30	43.16	16.60	1.87	2.16	1	1	0	0	1.9	14.0	12.5
MH-2981	MH-2982	589.42	589.25	16.7	150	0.46	100	0.05203	0.0473	0.8	0.86	0.8	12.9	1.30	43.42	16.70	1.88	2.17	1	1	0	0	1.9	14.1	12.5
MH-2993	MH-2004	572.51	572.36	16.7	150	0.6	114	0.15092	0.1372	1.2	1.21	1.24	22.2	1.70	56.78	16.70	1.88	2.17	1	1	0	0	1.9	19.1	12.5
MH-3366	MH-3367	584.08	583.97	19	217	1.16	171	2.453	2.23	0.8	0.8	0.8	60.2	1.37	51.95	19.00	2.33	3.03	1	1	0	0	2.3	18.2	15.5
MH-3368	MH-2875	574.77	574.69	19	150	0.37	222	0.06468	0.0588	0.9	0.8	0.99	16.5	1.40	53.20	19.00	2.14	2.47	1	1	0	0	2.1	17.5	14.3
MH-2236	MH-1864	594.69	594.5	19	150	0.63	100	0.15576	0.1416	0.8	0.83	0.8	24.4	1.30	49.40	19.00	2.14	2.47	1	1	0	0	2.1	16.1	14.3
MH-766	MH-315	585.68	585.67	16.8	271	0.6	952	2.39734	2.1794	1.1	1.28	0.86	54.8	1.72	57.83	16.80	2.19	3.16	1	1	0	0	2.2	22.0	14.6
MH-2887	MH-2997	578.71	578.82	16.8	150	0.6	149	0.21098	0.1918	2.9	3.17	2.72	28.5	3.40	114.24	16.80	1.89	2.19	1	1	0	0	1.9	45.7	12.6
MH-1807	MH-3373	595.62	595.81	19	150	0.86	100	0.45166	0.4106	0.9	0.8	0.9	38.4	1.40	53.20	19.00	2.14	2.47	1	1	0	0	2.1	17.5	14.3
MH-3000	MH-1978	580.14	579.97	16.8	150	0.95	100	0.64174	0.5834	0.9	0.97	0.8	46.3	1.40	47.04	16.80	1.89	2.19	1	1	0	0	1.9	15.5	12.6
MH-3001	MH-3002	581.43	581.27	16.8	150	0.69	102	0.21549	0.1959	0.8	0.8	0.8	29.4	1.30	43.68	16.80	1.89	2.19	1	1	0	0	1.9	14.2	12.6
MH-3004	MH-3005	594.53	594.7	16.8	150	0.52	100	0.07986	0.0726	0.9	0.8	0.95	15.9	1.40	47.04	16.80	1.89	2.19	1	1	0	0	1.9	15.5	12.6
MH-1813	MH-2452	571.16	571.1	16.8	150	0.6	271	0.45936	0.4176	1.1	1.03	1.25	48.6	1.60	53.76	16.80	1.89	2.19	1	1	0	0	1.9	18.0	12.6
MH-3008	MH-3009	591.96	591.79	16.8	150	0.42	100	0.03894	0.0354	0.8	0.83	0.8	11.2	1.30	43.68	16.80	1.89	2.19	1	1	0	0	1.9	14.2	12.6
MH-3010	MH-3011	588.95	589.1	16.8	150	0.33	114	0.0209	0.019	0.8	0.8	0.8	8.3	1.30	43.68	16.80	1.89	2.19	1	1	0	0	1.9	14.2	12.6
MH-2002	MH-1976	568.33	568.53	20.3	150	0.72	100	0.23848	0.2168	0.8	0.8	0.86	27.6	1.30	52.78	20.30	2.28	2.64	1	1	0	0	2.3	17.2	15.2
MH-3016	MH-2687	595.35	595.18	16.9	150	0.59	100	0.1254	0.114	0.9	0.97	0.8	20	1.40	47.32	16.90	1.90	2.20	1	1	0	0	1.9	15.5	12.7
MH-3021	MH-1725	590.92	590.68	25.8	150	0.62	110	0.16434	0.1494	0.8	0.8	0.8	23.1	1.30	67.08	25.80	2.90	3.36	1	1	0	0	2.9	21.8	19.4

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-3394	MH-1552	582.67	582.47	19.1	150	0.29	100	0.01122	0.0102	0.9	1.01	0.8	6.1	1.40	53.48	19.10	2.15	2.49	1	1	0	0	2.1	17.6	14.3
MH-1344	MH-2559	575.77	575.94	16.9	150	0.28	100	0.01045	0.0095	0.8	0.8	0.89	7.3	1.30	43.94	16.90	1.90	2.20	1	1	0	0	1.9	14.3	12.7
MH-3356	MH-3283	572.36	572.22	19.1	150	0.6	137	0.19118	0.1738	1.2	1.08	1.29	27.7	1.70	64.94	19.10	2.15	2.49	1	1	0	0	2.1	21.9	14.3
MH-2287	MH-2540	590.33	590.35	16.9	150	0.17	1000	0.02739	0.0249	1	1.09	0.96	16	1.50	50.70	16.90	1.90	2.20	1	1	0	0	1.9	16.8	12.7
MH-3169	MH-3397	578.18	578.13	19.1	150	0.6	372	0.55693	0.5063	0.9	0.8	1.02	50.4	1.40	53.48	19.10	2.15	2.49	1	1	0	0	2.1	17.6	14.3
MH-3398	MH-429	575.31	575.21	19.2	150	0.31	184	0.02893	0.0263	0.8	0.8	0.8	10.4	1.30	49.92	19.20	2.16	2.50	1	1	0	0	2.2	16.2	14.4
MH-1731	MH-3383	578.14	578.1	19.2	175	0.6	492	0.85844	0.7804	2.5	2.64	2.26	60.2	3.03	116.16	19.20	2.23	2.69	1	1	0	0	2.2	48.1	14.9
MH-3153	MH-2681	587.21	587.02	19.2	150	0.52	100	0.07678	0.0698	0.9	1.08	0.8	15.6	1.40	53.76	19.20	2.16	2.50	1	1	0	0	2.2	17.7	14.4
MH-3031	MH-2277	578.32	578.26	17	150	0.6	290	0.50732	0.4612	3.1	3.21	3.02	51.2	3.60	122.40	17.00	1.91	2.21	1	0	1	0	1.9	48.8	12.8
MH-959	MH-3410	582.36	582.31	19.2	175	0.6	401	0.62183	0.5653	1.1	1.35	0.89	43.3	1.63	62.40	19.20	2.23	2.69	1	1	0	0	2.2	21.5	14.9
MH-3411	MH-109	585.85	585.66	19.2	150	0.57	100	0.10626	0.0966	0.9	1.09	0.8	18.3	1.40	53.76	19.20	2.16	2.50	1	1	0	0	2.2	17.7	14.4
MH-3716	MH-3563	573.13	572.79	34	150	1	100	0.7832	0.712	1	1.19	0.8	51.6	1.50	102.00	34.00	3.83	4.43	2	2	0	0	3.8	33.8	25.5
MH-1334	MH-1563	574.55	574.72	17	150	0.58	100	0.11858	0.1078	0.8	0.8	0.84	19.4	1.30	44.20	17.00	1.91	2.21	1	1	0	0	1.9	14.4	12.8
MH-2694	MH-2520	576.18	576.1	17	150	0.47	191	0.12078	0.1098	0.8	0.8	0.8	21.8	1.30	44.20	17.00	1.91	2.21	1	1	0	0	1.9	14.4	12.8
MH-481	MH-3039	571.16	571.14	17.1	271	0.6	889	2.08923	1.8993	1.8	1.89	1.75	59.4	2.42	82.80	17.10	2.23	3.22	1	1	0	0	2.2	38.0	14.9
MH-57	MH-3419	580.1	579.91	19.4	217	1.14	100	1.08152	0.9832	0.9	1.04	0.8	36.1	1.47	56.92	19.40	2.38	3.09	1	1	0	0	2.4	20.2	15.8
MH-1641	MH-3000	580.52	580.31	20.6	150	0.93	100	0.60731	0.5521	0.9	1.01	0.8	44.9	1.40	57.68	20.60	2.32	2.68	1	1	0	0	2.3	18.9	15.5
MH-2052	MH-3046	588.8	588.63	17.1	150	0.52	100	0.07953	0.0723	0.8	0.82	0.8	15.9	1.30	44.46	17.10	1.92	2.23	1	1	0	0	1.9	14.4	12.8
MH-3049	MH-2268	574.56	574.39	17.1	150	0.52	100	0.07931	0.0721	0.8	0.89	0.8	17.3	1.30	44.46	17.10	1.92	2.23	1	1	0	0	1.9	14.4	12.8
MH-3055	MH-2428	597.59	597.42	17.1	150	0.31	100	0.0154	0.014	0.9	0.97	0.8	7.1	1.40	47.88	17.10	1.92	2.23	1	1	0	0	1.9	15.7	12.8
MH-5085	MH-4832	599.87	599.75	34.3	500	1.28	300	10.99164	9.9924	1.3	1.7	0.91	46.4	2.15	147.49	34.30	5.66	12.39	2	2	0	0	5.7	79.0	37.7
MH-3931	MH-445	590.5	590.31	23.2	150	0.35	120	0.02728	0.0248	1.1	0.97	1.28	29.8	1.60	74.24	23.20	2.61	3.02	1	1	0	0	2.6	24.8	17.4
MH-1940	MH-2192	597.23	597.06	17.1	150	0.78	100	0.31966	0.2906	0.9	0.91	0.8	32.1	1.40	47.88	17.10	1.92	2.23	1	1	0	0	1.9	15.7	12.8
MH-3227	MH-3822	597.12	596.89	23.2	150	0.39	100	0.03058	0.0278	0.9	1.01	0.8	9.9	1.40	64.96	23.20	2.61	3.02	1	1	0	0	2.6	21.3	17.4
MH-314	MH-2678	579.03	578.9	20.8	150	0.6	163	0.23507	0.2137	1.4	1.2	1.52	30.2	1.90	79.04	20.80	2.34	2.71	1	1	0	0	2.3	26.9	15.6
MH-2956	MH-3068	594.59	594.42	17.2	150	0.45	100	0.04862	0.0442	0.8	0.85	0.8	12.5	1.30	44.72	17.20	1.94	2.24	1	1	0	0	1.9	14.5	12.9
MH-3069	MH-2908	594.26	594.09	17.2	150	0.4	100	0.03245	0.0295	0.8	0.9	0.8	10.2	1.30	44.72	17.20	1.94	2.24	1	1	0	0	1.9	14.5	12.9
MH-3070	MH-3071	590	590.14	15	150	0.42	105	0.04158	0.0378	0.8	0.8	0.8	11.6	1.30	39.00	15.00	1.69	1.95	1	1	0	0	1.7	12.7	11.3
MH-3075	MH-3076	595.55	595.38	17.2	150	0.37	100	0.02662	0.0242	0.9	0.9	0.8	9.2	1.40	48.16	17.20	1.94	2.24	1	1	0	0	1.9	15.8	12.9
MH-3946	MH-3207	592.39	592.63	23.3	150	0.72	100	0.24508	0.2228	0.9	0.8	1.04	28	1.40	65.24	23.30	2.62	3.03	1	1	0	0	2.6	21.4	17.5
MH-2973	MH-1390	597.61	597.43	17.3	150	0.5	100	0.06919	0.0629	0.9	0.91	0.8	14.8	1.40	48.44	17.30	1.95	2.25	1	1	0	0	1.9	15.9	13.0
MH-3090	MH-3091	583.66	583.49	17.3	150	0.4	100	0.03421	0.0311	0.9	1.02	0.8	10.5	1.40	48.44	17.30	1.95	2.25	1	1	0	0	1.9	15.9	13.0
MH-3092	MH-3093	593.63	593.8	17.3	150	0.95	100	0.66341	0.6031	0.9	0.8	0.96	47.1	1.40	48.44	17.30	1.95	2.25	1	1	0	0	1.9	15.9	13.0
MH-3099	MH-1714	578.61	578.43	17.3	150	0.98	100	0.73029	0.6639	0.9	1.03	0.8	49.7	1.40	48.44	17.30	1.95	2.25	1	1	0	0	1.9	15.9	13.0
MH-2339	MH-2526	591.48	591.31	17.3	150	0.75	100	0.2783	0.253	0.8	0.87	0.8	29.9	1.30	44.98	17.30	1.95	2.25	1	1	0	0	1.9	14.6	13.0
MH-2454	MH-3102	571.87	571.73	17.3	150	0.94	128	0.88572	0.8052	0.8	0.8	0.8	59.9	1.30	44.98	17.30	1.95	2.25	1	1	0	0	1.9	14.6	13.0
MH-3104	MH-2377	572.88	572.86	17.4	150	0.11	1000	0.00616	0.0056	1	0.8	1.15	17.2	1.50	52.20	17.40	1.96	2.26	1	1	0	0	2.0	17.3	13.1
MH-3135	MH-3964	586.17	585.94	23.4	150	0.8	100	0.34749	0.3159	1	1.14	0.8	33.5	1.50	70.20	23.40	2.63	3.05	1	1	0	0	2.6	23.3	17.6
MH-718	MH-1218	574.3	574.12	17.4	150	0.54	100	0.09108	0.0828	0.9	0.97	0.8	17	1.40	48.72	17.40	1.96	2.26	1	1	0	0	2.0	16.0	13.1
MH-3848	MH-2823	579.47	579.35	12.6	217	1.26	100	1.55034	1.4094	1	1.19	0.8	43.6	1.57	39.49	12.60	1.54	2.01	1	1	0	0	1.5	14.1	10.3
MH-3123	MH-3092	593.38	593.55	17.5	150	0.97	100	0.69993	0.6363	0.8	0.8	0.87	53.4	1.30	45.50	17.50	1.97	2.28	1	1	0	0	2.0	14.8	13.1
MH-3124	MH-1721	586.42	586.24	17.5	150	0.43	100	0.04301	0.0391	0.9	1.06	0.8	11.7	1.40	49.00	17.50	1.97	2.28	1	1	0	0	2.0	16.1	13.1
MH-3982	MH-3983	575.57	575.55	23.6	150	0.21	1000	0.05962	0.0542	1.4	1.55	1.22	25	1.90	89.68	23.60	2.66	3.07	1	1	0	0	2.7	30.6	17.7
MH-2226	MH-283	582.94	582.76	17.6	150	0.82	100	0.37345	0.3395	0.8	0.87	0.8	34.7	1.30	45.76	17.60	1.98	2.29	1	1	0	0	2.0	14.9	13.2
MH-2534	MH-2594	575.21	575	21.2	150	0.88	100	0.4884	0.444	0.9	0.93	0.8	40	1.40	59.36	21.20	2.39	2.76	1	1	0	0	2.4	19.5	15.9
MH-3131	MH-2007	567.66	567.61	17.6	175	0.6	412	0.6479	0.589	1.4	1.46	1.42	48.2	1.93	67.76	17.60	2.05	2.47	1	1	0	0	2.0	23.8	13.6
MH-3132	MH-3133	595.89	595.72	17.6	150	0.41	100	0.03575	0.0325	0.8	0.89	0.8	10.7	1.30	45.76	17.60	1.98	2.29	1	1	0	0	2.0	14.9	13.2
MH-2868	MH-2529	575.78	575.6	17.6	400	1.45	100	3.8566	3.506	0.8	0.87	0.8	31.5	1.55	54.56	17.60	2.64	4.85	1	1	0	0	2.6	22.4	17.6
MH-2024	MH-117	582.8	582.78	17.6	150	0.1	1000	0.00462	0.0042	0.9	0.8	0.95	28.8	1.40	49.28	17.60	1.98	2.29	1	1	0	0	2.0	16.2	13.2
MH-3134	MH-3135	586.29	586.17	17.6	150	0.68	156	0.3377	0.307	1.3	1.46	1.14	36.2	1.80	63.36	17.60	1.98	2.29	1	1	0	0	2.0	21.5	13.2
MH-3999	MH-3712	571.64	571.44	23.7	150	0.77	118	0.37664	0.3424	0.8	0.8	0.8	35.6	1.30	61.62	23.70	2.67	3.08	1	1	0	0	2.7	20.0	17.8
MH-3037	MH-3140	577.27	577.26	17.6	150	0.26	935	0.10604	0.0964	0.9	0.93	0.8	25.8	1.40	49.28	17.60	1.98	2.29	1	1	0	0	2.0	16.2	13.2
MH-3141	MH-3142	596.28	596.1	17.6	150	0.54	100	0.08998	0.0818	0.8	0.82	0.8	16.9	1.30	45.76	17.60	1.98	2.29	1	1	0	0	2.0	14.9	13.2
MH-3144	MH-3145	579.07	578.9	17.6	175	1.36	100	2.14577	1.9507	0.9	0.98	0.8	70.8	1.43	50.16	17.60	2.05	2.47	1	1	0	0	2.0	17.0	13.6
MH-3146	MH-2918	590.65	590.47	17.6	150	0.78	100	0.31878	0.2898	0.8	0.86	0.8	32	1.30	45.76	17.60	1.98	2.29	1	1	0	0	2.0	14.9	13.2
MH-1853	MH-3029	571.6	571.62	17.6	150	0.13	1000	0.01276	0.0116	0.8	0.89	0.8	8.7	1.30	45.76	17.60	1.98	2.29	1	1	0	0	2.0	14.9	13.2
MH-3147	MH-3026	577.31	577.14	17.6	217	1.11	100	0.99154	0.9014	0.9	1.07	0.8	34.5	1.47	51.64	17.60	2.16	2.81	1	1	0	0	2.2	18.3	14.4
MH-3149	MH-3150	572.03	572.01	17.7	150	0.16	1000	0.02255	0.0205	0.8	0.8	0.8	13.8	1.30	46.02	17.70	1.99	2.30	1	1	0	0	2.0	15.0	13.3
MH-1350	MH-2552	577.97	577.79	17.7	150	0.43	100	0.04257	0.0387	0.9	0.93	0.8	11.6	1.40	49.56	17.70	1.99	2.30	1	1	0	0	2.0	16.3	13.3
MH-3151	MH-3152	595.39	595.21	17.7	150	0.51	100	0.07612	0.0692	0.9	0.93	0.8	15.5	1.40	49.56	17.70	1.99	2.30	1	1	0	0	2.0	16.3	13.3
MH-3154	MH-1282	594.94	594.77	17.7	150	0.45	100	0.04862	0.0442	0.9	0.92	0.8	12.5	1.40	49.56	17.70	1.99	2.30	1	1	0	0	2.0	16.3	13.3
MH-3156	MH-3157	577.46	577.44	17.7	400	0.63	1000	3.05052	2.7732	0.9	0.99	0.82	35.6	1.65	58.41	17.70	2.66	4.88	1	1	0	0	2.7	24.3	17.7
MH-2824	MH-4012	578.68	578.44	23.8	217	1.28	100	1.60611	1.4601	1	1.15	0.8	44.4	1.57	74.59	23.80	2.92	3.80	1	1	0	0	2.9	26.7	19.4
MH-1532	MH-3163	573.38	573.36	17.7	150	0.26	1000	0.1199	0.109	0.9	0.8	1.02	27.4	1.40	49.56	17.70	1.99	2.30	1	1	0	0	2.0	16.3	13.3
MH-3166	MH-3167	572.54	572.52	17.7	150	0.26	1000	0.12441	0.1131	0.8	0.8	0.86	28.1	1.30	46.02	17.70	1.99	2.30	1	1	0	0	2.0	15.0	13.3

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-3168	MH-3169	578.36	578.18	17.8	150	0.9	100	0.53196	0.4836	0.8	0.84	0.8	49.8	1.30	46.28	17.80	2.00	2.32	1	1	0	0	2.0	15.0	13.4
MH-3170	MH-3003	583.88	583.71	17.8	150	0.52	100	0.07964	0.0724	0.9	1.04	0.8	17.7	1.40	49.84	17.80	2.00	2.32	1	1	0	0	2.0	16.4	13.4
MH-3171	MH-3172	578.33	578.31	17.8	150	0.15	1000	0.01848	0.0168	0.9	0.8	0.92	10.4	1.40	49.84	17.80	2.00	2.32	1	1	0	0	2.0	16.4	13.4
MH-1219	MH-578	574.01	573.86	18	150	0.57	114	0.12595	0.1145	0.8	0.8	0.8	20.3	1.30	46.80	18.00	2.03	2.34	1	1	0	0	2.0	15.2	13.5
MH-3174	MH-2577	597.48	597.3	17.8	150	0.32	100	0.01683	0.0153	0.9	0.96	0.8	7.4	1.40	49.84	17.80	2.00	2.32	1	1	0	0	2.0	16.4	13.4
MH-3178	MH-132	578.61	578.59	15	150	0.18	1000	0.03135	0.0285	0.9	0.8	1.01	19.9	1.40	42.00	15.00	1.69	1.95	1	1	0	0	1.7	13.8	11.3
MH-2461	MH-3185	574.4	574.38	17.9	150	0.25	1000	0.10362	0.0942	1	0.8	1.14	30.8	1.50	53.70	17.90	2.01	2.33	1	1	0	0	2.0	17.8	13.4
MH-3187	MH-3188	585.51	585.33	17.9	150	0.82	100	0.37895	0.3445	0.9	1.06	0.8	35	1.40	50.12	17.90	2.01	2.33	1	1	0	0	2.0	16.5	13.4
MH-3189	MH-3190	591.48	591.19	29	150	0.6	100	0.12837	0.1167	0.8	0.8	0.86	20.2	1.30	75.40	29.00	3.26	3.77	1	1	0	0	3.3	24.5	21.8
MH-1394	MH-43	594.46	594.28	17.9	150	0.65	100	0.17391	0.1581	0.9	0.97	0.8	23.5	1.40	50.12	17.90	2.01	2.33	1	1	0	0	2.0	16.5	13.4
MH-2473	MH-1554	591.04	590.8	24	150	0.36	100	0.02409	0.0219	0.8	0.85	0.8	8.8	1.30	62.40	24.00	2.70	3.12	1	1	0	0	2.7	20.3	18.0
MH-3197	MH-2478	584.9	584.72	18	150	0.71	100	0.23661	0.2151	0.9	1.07	0.8	27.5	1.40	50.40	18.00	2.03	2.34	1	1	0	0	2.0	16.6	13.5
MH-3046	MH-3198	588.58	588.4	18	150	0.54	100	0.09009	0.0819	0.8	0.85	0.8	18.7	1.30	46.80	18.00	2.03	2.34	1	1	0	0	2.0	15.2	13.5
MH-3201	MH-3202	580.3	580.12	18	150	0.64	100	0.15796	0.1436	0.9	1.02	0.8	22.4	1.40	50.40	18.00	2.03	2.34	1	1	0	0	2.0	16.6	13.5
MH-4050	MH-3427	611.51	611.27	24	150	0.67	100	0.18799	0.1709	0.9	1.06	0.8	24.4	1.40	67.20	24.00	2.70	3.12	1	1	0	0	2.7	22.1	18.0
MH-3207	MH-3208	592.86	593.04	18	150	0.7	100	0.22429	0.2039	0.9	0.8	1.01	26.8	1.40	50.40	18.00	2.03	2.34	1	1	0	0	2.0	16.6	13.5
MH-2078	MH-1895	573.05	572.91	18	150	0.6	132	0.18128	0.1648	1.9	1.74	2.11	26.3	2.40	86.40	18.00	2.03	2.34	1	1	0	0	2.0	35.5	13.5
MH-3028	MH-3216	587.97	588.15	18	150	0.88	100	0.48257	0.4387	0.8	0.8	0.88	39.7	1.30	46.80	18.00	2.03	2.34	1	1	0	0	2.0	15.2	13.5
MH-3269	MH-2142	572.39	572.15	24.1	150	0.27	100	0.00957	0.0087	0.9	1.01	0.8	5.6	1.40	67.48	24.10	2.71	3.14	1	1	0	0	2.7	22.2	18.1
MH-4065	MH-3075	595.9	595.66	24.1	150	0.31	100	0.01485	0.0135	0.9	0.94	0.8	7	1.40	67.48	24.10	2.71	3.14	1	1	0	0	2.7	22.2	18.1
MH-3221	MH-535	602.67	602.49	18.1	217	1.21	100	1.33936	1.2176	0.9	0.91	0.8	48.7	1.47	53.11	18.10	2.22	2.89	1	1	0	0	2.2	18.8	14.8
MH-3222	MH-2991	571.04	571.22	18	150	0.74	100	0.26213	0.2383	0.9	0.8	0.96	29	1.40	50.40	18.00	2.03	2.34	1	1	0	0	2.0	16.6	13.5
MH-4069	MH-4070	581.5	581.32	24.1	150	0.6	140	0.1958	0.178	0.9	0.92	0.97	29.3	1.40	67.48	24.10	2.71	3.14	1	1	0	0	2.7	22.2	18.1
MH-2897	MH-3108	581.75	581.59	18.1	150	0.62	116	0.1716	0.156	0.8	0.81	0.8	26.2	1.30	47.06	18.10	2.04	2.36	1	1	0	0	2.0	15.3	13.6
MH-3226	MH-3227	597.5	597.32	18.1	150	0.33	100	0.01826	0.0166	0.9	0.97	0.8	7.7	1.40	50.68	18.10	2.04	2.36	1	1	0	0	2.0	16.6	13.6
MH-4073	MH-2658	573.84	573.71	24.2	150	0.63	189	0.3333	0.303	0.8	0.87	0.8	45.9	1.30	62.92	24.20	2.72	3.15	1	1	0	0	2.7	20.4	18.2
MH-3898	MH-4074	598.7	598.46	24.2	150	0.66	100	0.17457	0.1587	0.8	0.85	0.8	23.5	1.30	62.92	24.20	2.72	3.15	1	1	0	0	2.7	20.4	18.2
MH-318	MH-1224	580.77	580.74	18.1	217	0.6	586	1.09945	0.9995	1	1.09	0.83	46.1	1.57	56.73	18.10	2.22	2.89	1	1	0	0	2.2	20.3	14.8
MH-3157	MH-3032	577.44	577.29	18.1	400	1.36	120	3.07835	2.7985	0.8	0.82	0.8	31.7	1.55	56.11	18.10	2.72	4.99	1	1	0	0	2.7	23.1	18.1
MH-1223	MH-3232	576.93	576.75	18.1	150	0.58	100	0.11715	0.1065	0.9	0.97	0.8	19.3	1.40	50.68	18.10	2.04	2.36	1	1	0	0	2.0	16.6	13.6
MH-1785	MH-2618	570.91	570.66	24.2	271	1.4	100	2.37545	2.1595	0.8	0.84	0.8	46.1	1.42	68.78	24.20	3.16	4.56	1	1	0	0	3.2	25.4	21.1
MH-3061	MH-2155	590.14	589.96	18.1	150	0.5	100	0.07183	0.0653	0.8	0.85	0.8	16.7	1.30	47.06	18.10	2.04	2.36	1	1	0	0	2.0	15.3	13.6
MH-3427	MH-3428	611.11	610.92	19.4	150	0.7	100	0.21406	0.1946	0.9	0.96	0.8	37.1	1.40	54.32	19.40	2.18	2.53	1	1	0	0	2.2	17.8	14.6
MH-3545	MH-47	573.06	573.04	24.6	150	0.2	1000	0.05225	0.0475	1.6	1.3	1.86	25.2	2.10	103.32	24.60	2.77	3.20	1	1	0	0	2.8	42.9	18.5
MH-2569	MH-3250	593.5	593.31	18.2	150	0.35	100	0.02134	0.0194	0.8	0.87	0.8	8.3	1.30	47.32	18.20	2.05	2.37	1	1	0	0	2.0	15.4	13.7
MH-1421	MH-4089	571.97	571.75	24.3	150	0.6	111	0.14718	0.1338	1.4	1.21	1.64	23.8	1.90	92.34	24.30	2.73	3.16	1	1	0	0	2.7	31.5	18.2
MH-4092	MH-3527	586.26	586.11	24.3	150	0.33	162	0.03245	0.0295	0.8	0.8	0.8	12.3	1.30	63.18	24.30	2.73	3.16	1	1	0	0	2.7	20.5	18.2
MH-2597	MH-3256	593.83	593.65	18.2	150	0.54	100	0.08877	0.0807	0.8	0.83	0.8	16.8	1.30	47.32	18.20	2.05	2.37	1	1	0	0	2.0	15.4	13.7
MH-3257	MH-3258	581.88	581.69	18.2	150	0.27	100	0.00935	0.0085	0.9	0.96	0.8	12.6	1.40	50.96	18.20	2.05	2.37	1	1	0	0	2.0	16.7	13.7
MH-2419	MH-3259	569.49	569.41	18.2	150	0.6	228	0.36135	0.3285	2.1	1.98	2.28	40	2.60	94.64	18.20	2.05	2.37	1	1	0	0	2.0	38.6	13.7
MH-3261	MH-3262	569.66	569.48	18.2	150	0.54	100	0.09317	0.0847	0.9	1	0.8	17.2	1.40	50.96	18.20	2.05	2.37	1	1	0	0	2.0	16.7	13.7
MH-664	MH-617	587.54	587.48	5.2	150	0.52	100	0.07975	0.0725	0.9	0.91	0.8	17.5	1.40	14.56	5.20	0.59	0.68	1	1	0	0	0.6	4.8	3.9
MH-3268	MH-3269	572.78	572.6	18.3	150	0.21	100	0.00385	0.0035	0.9	0.94	0.8	3.6	1.40	51.24	18.30	2.06	2.38	1	1	0	0	2.1	16.8	13.7
MH-2748	MH-3270	575.45	575.47	18.3	150	0.22	1000	0.07227	0.0657	1	1.21	0.8	28.2	1.50	54.90	18.30	2.06	2.38	1	1	0	0	2.1	18.2	13.7
MH-3277	MH-1281	581.48	581.38	18.4	150	0.31	180	0.0297	0.027	0.8	0.8	0.8	10.5	1.30	47.84	18.40	2.07	2.39	1	1	0	0	2.1	15.5	13.8
MH-3010	MH-3278	588.95	589.14	18.4	150	0.7	100	0.22286	0.2026	0.9	0.8	1.07	26.7	1.40	51.52	18.40	2.07	2.39	1	1	0	0	2.1	16.9	13.8
MH-3282	MH-2672	595.22	595.4	18.4	150	0.52	100	0.07623	0.0693	0.8	0.8	0.85	15.5	1.30	47.84	18.40	2.07	2.39	1	1	0	0	2.1	15.5	13.8
MH-3283	MH-2969	572.22	572.1	18.4	150	0.6	154	0.21956	0.1996	1.4	1.29	1.53	29.4	1.90	69.92	18.40	2.07	2.39	1	1	0	0	2.1	23.8	13.8
MH-4123	MH-4124	587.83	587.58	24.5	150	0.45	100	0.0506	0.046	0.8	0.88	0.8	12.7	1.30	63.70	24.50	2.76	3.19	1	1	0	0	2.8	20.7	18.4
MH-4125	MH-2936	589.99	589.96	24.5	150	0.13	1000	0.01232	0.0112	0.9	0.8	0.95	13.4	1.40	68.60	24.50	2.76	3.19	1	1	0	0	2.8	22.5	18.4
MH-3293	MH-1242	586.37	586.35	18.4	150	0.26	1000	0.12628	0.1148	1	0.91	1.14	27	1.50	55.20	18.40	2.07	2.39	1	1	0	0	2.1	18.3	13.8
MH-4127	MH-4128	598.53	598.28	24.5	150	0.87	100	0.47806	0.4346	0.9	1.08	0.8	39.5	1.40	68.60	24.50	2.76	3.19	1	1	0	0	2.8	22.5	18.4
MH-2803	MH-2782	596.61	596.43	18.4	150	0.38	100	0.02706	0.0246	0.9	1	0.8	9.3	1.40	51.52	18.40	2.07	2.39	1	1	0	0	2.1	16.9	13.8
MH-3071	MH-3299	590.14	590.25	18.5	150	0.31	173	0.02794	0.0254	0.8	0.8	0.8	11.2	1.30	48.10	18.50	2.08	2.41	1	1	0	0	2.1	15.6	13.9
MH-896	MH-3300	571.83	571.67	18.5	150	0.51	111	0.08184	0.0744	0.8	0.8	0.8	23.2	1.30	48.10	18.50	2.08	2.41	1	1	0	0	2.1	15.6	13.9
MH-3303	MH-2841	588.27	588.08	18.5	150	0.38	100	0.02882	0.0262	0.9	1.08	0.8	9.6	1.40	51.80	18.50	2.08	2.41	1	1	0	0	2.1	17.0	13.9
MH-3299	MH-3308	590.25	590.4	18.5	150	0.25	121	0.00924	0.0084	0.8	0.8	0.8	8	1.30	48.10	18.50	2.08	2.41	1	1	0	0	2.1	15.6	13.9
MH-2733	MH-243	581.51	581.37	16.4	150	0.6	117	0.15554	0.1414	1.9	1.66	2.12	30	2.40	78.72	16.40	1.85	2.13	1	1	0	0	1.8	32.3	12.3
MH-3311	MH-3312	580.12	579.93	18.5	150	0.62	100	0.14674	0.1334	0.9	0.91	0.8	21.6	1.40	51.80	18.50	2.08	2.41	1	1	0	0	2.1	17.0	13.9
MH-3313	MH-1397	578.24	578.06	18.6	150	0.36	100	0.02409	0.0219	0.9	0.94	0.8	8.8	1.40	52.08	18.60	2.09	2.42	1	1	0	0	2.1	17.1	14.0
MH-3314	MH-3315	578.02	577.98	18.6	217	0.6	511	0.89573	0.8143	1.7	1.88	1.49	40.8	2.27	84.33	18.60	2.28	2.97	1	1	0	0	2.3	37.1	15.2
MH-2355	MH-341	589.79	589.71	18.6	150	0.6	227	0.35904	0.3264	0.8	0.8	0.81	37.8	1.30	48.36	18.60	2.09	2.42	1	1	0	0	2.1	15.7	14.0
MH-3318	MH-3319	592.82	592.64	18.6	150	0.22	100	0.00473	0.0043	0.8	0.87	0.8	4	1.30	48.36	18.60	2.09	2.42	1	1	0	0	2.1	15.7	14.0
MH-2180	MH-2993	572.69	572.51	18.6	150	0.6	104	0.13706	0.1246	1.2	1.23	1.21	23.1	1.70	63.24	18.60	2.09	2.42	1	1	0	0	2.1	21.3	14.0
MH-3488	MH-1907	588.67	588.65	19.9	150	0.24	1000	0.09119	0.0829	1.3	1.16	1.34	29.5	1.80	71.64	19.90	2.24	2.59	1	1	0	0	2.2	24.3	14.9

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-2384	MH-3323	571.02	570.97	18.6	150	0.6	364	0.53713	0.4883	1.1	1.12	1.02	53.3	1.60	59.52	18.60	2.09	2.42	1	1	0	0	2.1	19.9	14.0
MH-3325	MH-3326	586.6	586.47	18.7	150	0.46	143	0.07832	0.0712	0.8	0.8	0.8	18.8	1.30	48.62	18.70	2.10	2.43	1	1	0	0	2.1	15.8	14.0
MH-3158	MH-2060	595.22	595.4	18.6	217	1.13	100	1.05699	0.9609	0.9	0.8	0.92	35.6	1.47	54.57	18.60	2.28	2.97	1	1	0	0	2.3	19.3	15.2
MH-1632	MH-2460	574.76	574.58	18.7	150	0.49	100	0.06424	0.0584	0.8	0.89	0.8	14.3	1.30	48.62	18.70	2.10	2.43	1	1	0	0	2.1	15.8	14.0
MH-3339	MH-1624	579.21	579.03	18.7	150	0.67	104	0.20097	0.1827	0.8	0.8	0.8	25.4	1.30	48.62	18.70	2.10	2.43	1	1	0	0	2.1	15.8	14.0
MH-358	MH-501	584.53	584.42	10.2	271	1.43	100	2.55838	2.3258	1	1.3	0.8	47.7	1.62	33.07	10.20	1.33	1.92	1	1	0	0	1.3	12.5	8.9
MH-2015	MH-2104	586.49	586.31	18.7	150	0.45	100	0.04983	0.0453	0.9	1.08	0.8	12.6	1.40	52.36	18.70	2.10	2.43	1	1	0	0	2.1	17.2	14.0
MH-3510	MH-3487	581.32	581.12	20.1	150	1.09	100	1.11683	1.0153	0.9	1.01	0.8	62.9	1.40	56.28	20.10	2.26	2.62	1	1	0	0	2.3	18.5	15.1
MH-2252	MH-1885	575.02	575.21	18.8	150	0.51	100	0.07568	0.0688	0.9	0.8	0.95	15.5	1.40	52.64	18.80	2.12	2.45	1	1	0	0	2.1	17.3	14.1
MH-3346	MH-2305	585.87	585.68	18.8	150	0.36	100	0.02321	0.0211	0.9	1.02	0.8	10.1	1.40	52.64	18.80	2.12	2.45	1	1	0	0	2.1	17.3	14.1
MH-3347	MH-3348	572.98	572.96	18.8	150	0.11	1000	0.0066	0.006	0.9	0.8	0.95	7.6	1.40	52.64	18.80	2.12	2.45	1	1	0	0	2.1	17.3	14.1
MH-2782	MH-869	596.3	596.14	16.4	150	0.71	100	0.23122	0.2102	0.9	0.93	0.8	31.3	1.40	45.92	16.40	1.85	2.13	1	1	0	0	1.8	15.1	12.3
MH-1552	MH-3522	582.1	582.12	20.2	150	0.13	1000	0.01254	0.0114	1	1.18	0.8	13.2	1.50	60.60	20.20	2.27	2.63	1	1	0	0	2.3	20.1	15.2
MH-3167	MH-3356	572.52	572.36	18.9	150	0.6	118	0.15752	0.1432	1	0.86	1.08	25.5	1.50	56.70	18.90	2.13	2.46	1	1	0	0	2.1	18.8	14.2
MH-3357	MH-1474	576.73	576.54	18.9	150	0.68	102	0.19998	0.1818	0.8	0.8	0.8	27.6	1.30	49.14	18.90	2.13	2.46	1	1	0	0	2.1	16.0	14.2
MH-3142	MH-3212	596.06	595.86	20.2	150	0.56	100	0.10032	0.0912	0.8	0.84	0.8	17.8	1.30	52.52	20.20	2.27	2.63	1	1	0	0	2.3	17.1	15.2
MH-3527	MH-3528	586.11	585.97	20.2	150	0.4	147	0.05137	0.0467	0.8	0.8	0.8	14.8	1.30	52.52	20.20	2.27	2.63	1	1	0	0	2.3	17.1	15.2
MH-2962	MH-3363	595.09	595.28	19	150	0.45	100	0.0506	0.046	0.9	0.8	0.97	12.7	1.40	53.20	19.00	2.14	2.47	1	1	0	0	2.1	17.5	14.3
MH-5047	MH-4323	586	585.66	33.7	150	0.48	100	0.06116	0.0556	1	1.14	0.8	13.9	1.50	101.10	33.70	3.79	4.39	2	2	0	0	3.8	33.5	25.3
MH-3376	MH-3377	578.36	578.21	19	800	2.5	134	48.50428	44.0948	0.9	0.8	0.91	54	2.05	77.90	19.00	3.99	13.54	1	1	0	0	4.0	46.7	26.6
MH-3381	MH-3382	572.14	571.95	19	150	1.01	100	0.83732	0.7612	0.9	1.01	0.8	53.5	1.40	53.20	19.00	2.14	2.47	1	1	0	0	2.1	17.5	14.3
MH-272	MH-5056	591.07	591.33	33.8	150	0.28	130	0.01452	0.0132	1.1	1.49	0.8	17.1	1.60	108.16	33.80	3.80	4.40	2	2	0	0	3.8	36.2	25.4
MH-3383	MH-3314	578.1	578.06	19	175	0.6	498	0.87472	0.7952	2.1	2.26	1.88	54.3	2.63	99.75	19.00	2.21	2.67	1	1	0	0	2.2	41.7	14.7
MH-530	MH-3384	591.77	591.79	19.1	150	0.13	1000	0.01188	0.0108	0.9	1.07	0.8	8.4	1.40	53.48	19.10	2.15	2.49	1	1	0	0	2.1	17.6	14.3
MH-5058	MH-5059	607.66	607.41	33.8	150	0.6	137	0.18722	0.1702	0.8	0.8	0.84	25.3	1.30	87.88	33.80	3.80	4.40	2	2	0	0	3.8	28.6	25.4
MH-2846	MH-2981	589.67	589.48	19.1	150	0.43	100	0.04312	0.0392	0.8	0.85	0.8	11.7	1.30	49.66	19.10	2.15	2.49	1	1	0	0	2.1	16.1	14.3
MH-3387	MH-3388	591.15	591.35	19.1	150	0.56	100	0.10274	0.0934	0.8	0.8	0.85	18	1.30	49.66	19.10	2.15	2.49	1	1	0	0	2.1	16.1	14.3
MH-35	MH-2387	580.85	580.81	12.4	217	0.74	313	1.01035	0.9185	1	1.19	0.8	45.2	1.57	38.86	12.40	1.52	1.98	1	1	0	0	1.5	13.9	10.1
MH-3534	MH-5003	580.72	580.69	33.9	150	0.23	1000	0.08107	0.0737	1.8	2.21	1.49	26.7	2.30	155.94	33.90	3.81	4.41	2	2	0	0	3.8	64.2	25.4
MH-2556	MH-1919	589.55	589.36	19.1	150	0.59	100	0.11891	0.1081	0.8	0.86	0.8	19.4	1.30	49.66	19.10	2.15	2.49	1	1	0	0	2.1	16.1	14.3
MH-2763	MH-3189	591.68	591.48	20.5	150	0.58	100	0.11209	0.1019	0.8	0.88	0.8	21.1	1.30	53.30	20.50	2.31	2.67	1	1	0	0	2.3	17.3	15.4
MH-3567	MH-3568	576.99	576.94	20.5	175	0.6	435	0.70081	0.6371	1.2	1.21	1.14	46.9	1.73	70.73	20.50	2.38	2.88	1	1	0	0	2.4	24.5	15.9
MH-3571	MH-765	585.83	585.81	20.6	150	0.24	1000	0.09603	0.0873	1.1	0.86	1.29	28.6	1.60	65.92	20.60	2.32	2.68	1	1	0	0	2.3	22.0	15.5
MH-3575	MH-1939	597.7	597.49	20.7	150	0.75	100	0.2761	0.251	0.9	0.94	0.8	29.8	1.40	57.96	20.70	2.33	2.69	1	1	0	0	2.3	19.0	15.5
MH-1960	MH-63	578.73	578.7	19.3	217	0.6	599	1.13597	1.0327	0.9	0.8	0.91	48.2	1.47	56.63	19.30	2.37	3.08	1	1	0	0	2.4	20.1	15.8
MH-3413	MH-2955	595.01	594.82	19.3	150	0.38	100	0.02827	0.0257	0.8	0.81	0.8	9.5	1.30	50.18	19.30	2.17	2.51	1	1	0	0	2.2	16.3	14.5
MH-248	MH-1858	574.32	574.32	7.8	150	0.25	1000	0.11385	0.1035	0.8	0.81	0.83	24.9	1.30	20.28	7.80	0.88	1.02	1	1	0	0	0.9	6.6	5.9
MH-3323	MH-2506	570.97	570.87	34.3	150	0.6	371	0.55528	0.5048	1	1.02	0.9	50.3	1.50	102.90	34.30	3.86	4.46	2	2	0	0	3.9	34.1	25.7
MH-3924	MH-3925	587.2	586.97	23.1	150	0.52	100	0.07953	0.0723	1	1.11	0.8	19.8	1.50	69.30	23.10	2.60	3.01	1	1	0	0	2.6	23.0	17.3
MH-3594	MH-3147	577.79	577.58	20.8	217	1.1	100	0.95304	0.8664	0.9	1.09	0.8	33.8	1.47	61.03	20.80	2.55	3.32	1	1	0	0	2.5	21.6	17.0
MH-3928	MH-3695	592.59	592.8	23.2	150	0.73	110	0.28424	0.2584	0.8	0.8	0.8	34.6	1.30	60.32	23.20	2.61	3.02	1	1	0	0	2.6	19.6	17.4
MH-3912	MH-1112	590.85	590.62	23.2	150	0.52	100	0.0803	0.073	0.8	0.84	0.8	22.6	1.30	60.32	23.20	2.61	3.02	1	1	0	0	2.6	19.6	17.4
MH-3528	MH-3593	585.97	585.85	23.2	150	0.4	184	0.06941	0.0631	0.8	0.8	0.8	21.3	1.30	60.32	23.20	2.61	3.02	1	1	0	0	2.6	19.6	17.4
MH-3936	MH-3132	596.21	595.98	23.2	150	0.36	100	0.02398	0.0218	0.9	1	0.8	8.8	1.40	64.96	23.20	2.61	3.02	1	1	0	0	2.6	21.3	17.4
MH-3940	MH-3941	582.48	582.24	23.2	150	0.65	100	0.16643	0.1513	0.9	1.07	0.8	23	1.40	64.96	23.20	2.61	3.02	1	1	0	0	2.6	21.3	17.4
MH-4504	MH-2819	575.6	575.25	34.6	150	0.68	100	0.19591	0.1781	1	1.16	0.8	25	1.50	103.80	34.60	3.89	4.50	2	2	0	0	3.9	34.4	26.0
MH-2916	MH-5107	589.44	589.41	34.6	150	0.25	1000	0.11143	0.1013	1.1	1.31	0.81	29.3	1.60	110.72	34.60	3.89	4.50	2	2	0	0	3.9	37.0	26.0
MH-3949	MH-220	590.13	589.89	23.3	150	0.98	100	0.56078	0.5098	0.8	0.87	0.8	48.3	1.30	60.58	23.30	2.62	3.03	1	1	0	0	2.6	19.7	17.5
MH-3951	MH-3952	585.28	585.04	23.3	150	0.81	100	0.36091	0.3281	0.9	1.06	0.8	34.2	1.40	65.24	23.30	2.62	3.03	1	1	0	0	2.6	21.4	17.5
MH-845	MH-2349	590.29	590.26	15.3	150	0.34	420	0.10879	0.0989	1	1.1	0.81	22.6	1.50	45.90	15.30	1.72	1.99	1	1	0	0	1.7	15.2	11.5
MH-3953	MH-2730	585.65	585.41	23.4	150	0.59	100	0.12518	0.1138	0.9	1.08	0.8	22.4	1.40	65.52	23.40	2.63	3.05	1	1	0	0	2.6	21.5	17.6
MH-2511	MH-2570	600.01	599.8	23.4	150	0.31	110	0.01661	0.0151	0.8	0.8	0.8	9	1.30	60.84	23.40	2.63	3.05	1	1	0	0	2.6	19.8	17.6
MH-551	MH-247	574.56	574.33	22.3	150	0.53	100	0.08679	0.0789	0.9	1.01	0.8	23.8	1.40	62.44	22.30	2.51	2.90	1	1	0	0	2.5	20.5	16.7
MH-3961	MH-2317	582.02	581.79	23.4	150	0.53	100	0.08613	0.0783	1	1.23	0.8	23.5	1.50	70.20	23.40	2.63	3.05	1	1	0	0	2.6	23.3	17.6
MH-1195	MH-1612	578.42	578.28	23.4	150	0.6	163	0.23518	0.2138	0.8	0.8	0.81	29.1	1.30	60.84	23.40	2.63	3.05	1	1	0	0	2.6	19.8	17.6
MH-2272	MH-1608	583.57	583.37	23.4	150	0.88	115	0.59917	0.5447	0.8	0.8	0.8	45.4	1.30	60.84	23.40	2.63	3.05	1	1	0	0	2.6	19.8	17.6
MH-3634	MH-3635	576.7	576.64	21.1	900	1.76	359	51.45305	46.7755	2.1	2.14	2.16	64.5	3.35	141.37	21.10	4.75	18.16	1	1	0	0	4.7	94.2	31.7
MH-2357	MH-3124	586.91	586.68	23.5	150	0.4	100	0.03421	0.0311	1	1.15	0.8	10.5	1.50	70.50	23.50	2.64	3.06	1	1	0	0	2.6	23.4	17.6
MH-3910	MH-3973	593.69	593.49	23.5	150	0.5	115	0.08107	0.0737	0.8	0.8	0.8	18.5	1.30	61.10	23.50	2.64	3.06	1	1	0	0	2.6	19.9	17.6
MH-966	MH-852	590.32	590.22	23.5	150	0.6	249	0.4092	0.372	1.4	1.29	1.55	46.1	1.90	89.30	23.50	2.64	3.06	1	1	0	0	2.6	30.4	17.6
MH-986	MH-2792	589.23	589.01	23.5	271	1.28	107	1.92357	1.7487	0.8	0.8	0.84	41.2	1.42	66.79	23.50	3.07	4.43	1	1	0	0	3.1	24.7	20.5
MH-3977	MH-3931	590.52	590.5	23.5	150	0.12	1000	0.00869	0.0079	0.9	0.8	0.97	9.4	1.40	65.80	23.50	2.64	3.06	1	1	0	0	2.6	21.6	17.6
MH-5135	MH-4123	588.25	587.9	35	150	0.41	100	0.0374	0.034	0.8	0.9	0.8	10.9	1.30	91.00	35.00	3.94	4.56	2	2	0	0	3.9	29.6	26.3
MH-1476	MH-3344	581.48	581.45	23.6	800	1.12	1000	44.99759	40.9069	0.9	1.03	0.86	57.5	2.05	96.76	23.60	4.96	16.81	1	1	0	0	5.0	58.0	33.0
MH-2298	MH-2170	590.57	590.33	23.6	150	0.67	100	0.19415	0.1765	0.9	0.93	0.8	24.9	1.40	66.08	23.60	2.66	3.07	1	1	0	0	2.7	21.7	17.7

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-3039	MH-3986	571.14	571.11	23.6	271	0.6	894	2.11211	1.9201	1.6	1.75	1.51	57.7	2.22	104.83	23.60	3.08	4.44	1	1	0	0	3.1	48.3	20.6
MH-3987	MH-3894	584.98	584.74	23.6	150	0.46	100	0.05137	0.0467	0.8	0.89	0.8	14.4	1.30	61.36	23.60	2.66	3.07	1	1	0	0	2.7	19.9	17.7
MH-3997	MH-3998	579.75	579.51	23.7	150	0.39	100	0.03157	0.0287	0.9	1.01	0.8	10.1	1.40	66.36	23.70	2.67	3.08	1	1	0	0	2.7	21.8	17.8
MH-4001	MH-3911	591.41	591.17	23.7	150	0.42	100	0.03806	0.0346	0.8	0.83	0.8	11	1.30	61.62	23.70	2.67	3.08	1	1	0	0	2.7	20.0	17.8
MH-3244	MH-3761	593.17	592.93	23.7	150	0.38	100	0.02915	0.0265	0.8	0.81	0.8	9.7	1.30	61.62	23.70	2.67	3.08	1	1	0	0	2.7	20.0	17.8
MH-4003	MH-3023	574.26	574.03	23.7	217	1.51	100	3.13478	2.8498	0.9	1.01	0.8	63.9	1.47	69.54	23.70	2.90	3.78	1	1	0	0	2.9	24.6	19.4
MH-4004	MH-3277	581.72	581.48	23.7	150	0.28	102	0.01133	0.0103	0.8	0.8	0.8	8.5	1.30	61.62	23.70	2.67	3.08	1	1	0	0	2.7	20.0	17.8
MH-3735	MH-3889	570.3	570.27	35.2	400	0.68	1000	5.53586	5.0326	1.8	1.94	1.65	62.6	2.55	179.52	35.20	5.28	9.70	2	2	0	0	5.3	90.6	35.2
MH-4005	MH-4006	598.2	597.97	23.7	150	0.56	100	0.10087	0.0917	0.9	0.95	0.8	20.3	1.40	66.36	23.70	2.67	3.08	1	1	0	0	2.7	21.8	17.8
MH-3190	MH-3021	591.13	590.92	21.7	150	0.62	100	0.14839	0.1349	0.9	0.92	0.8	24.1	1.40	60.76	21.70	2.44	2.82	1	1	0	0	2.4	20.0	16.3
MH-4007	MH-4008	591.42	591.38	23.7	217	0.6	528	0.94028	0.8548	1.7	1.88	1.56	45.2	2.27	107.46	23.70	2.90	3.78	1	1	0	0	2.9	47.2	19.4
MH-1414	MH-4003	574.71	574.47	23.8	217	1.5	100	3.06009	2.7819	0.9	1.03	0.8	63.1	1.47	69.83	23.80	2.92	3.80	1	1	0	0	2.9	24.7	19.4
MH-4013	MH-4014	589.43	589.19	23.8	150	0.29	100	0.01122	0.0102	0.8	0.83	0.8	6.1	1.30	61.88	23.80	2.68	3.10	1	1	0	0	2.7	20.1	17.9
MH-2385	MH-3902	593.18	593.41	23.9	217	1.33	100	1.87484	1.7044	0.8	0.8	0.88	48.2	1.37	65.34	23.90	2.93	3.81	1	1	0	0	2.9	22.9	19.5
MH-5168	MH-5169	592.11	591.76	35.4	150	0.57	100	0.10978	0.0998	1.1	1.31	0.8	18.6	1.60	113.28	35.40	3.98	4.61	2	2	0	0	4.0	37.9	26.6
MH-4023	MH-4024	596.4	596.16	23.9	150	0.5	100	0.07128	0.0648	0.8	0.89	0.8	15	1.30	62.14	23.90	2.69	3.11	1	1	0	0	2.7	20.2	17.9
MH-4025	MH-4026	579.1	579.13	23.9	271	0.6	885	2.07383	1.8853	2.4	2.18	2.57	49.7	3.02	144.40	23.90	3.12	4.50	1	1	0	0	3.1	65.6	20.8
MH-4029	MH-4030	590.53	590.47	24	175	0.6	405	0.63052	0.5732	3.1	3.25	2.97	47.9	3.63	174.00	24.00	2.79	3.37	1	0	1	0	2.8	71.3	18.6
MH-4030	MH-2564	590.47	590.42	24	175	0.6	421	0.66869	0.6079	2.7	2.97	2.41	45.5	3.23	154.80	24.00	2.79	3.37	1	1	0	0	2.8	63.8	18.6
MH-2714	MH-2444	588.96	588.72	24	150	0.51	100	0.0748	0.068	0.8	0.87	0.8	15.4	1.30	62.40	24.00	2.70	3.12	1	1	0	0	2.7	20.3	18.0
MH-4037	MH-4038	571.61	571.59	24	400	0.61	1000	3.49954	3.1814	1.3	1.44	1.15	41.3	2.05	98.40	24.00	3.60	6.61	1	1	0	0	3.6	49.8	24.0
MH-4039	MH-1579	576.41	576.39	24	150	0.22	1000	0.0693	0.063	1.5	1.66	1.33	26.2	2.00	96.00	24.00	2.70	3.12	1	1	0	0	2.7	32.9	18.0
MH-3906	MH-3487	581.33	581.12	24	150	0.72	112	0.27236	0.2476	0.8	0.87	0.8	29.9	1.30	62.40	24.00	2.70	3.12	1	1	0	0	2.7	20.3	18.0
MH-4044	MH-4045	592.16	591.9	25.4	150	0.85	100	0.43098	0.3918	0.9	0.98	0.8	37.5	1.40	71.12	25.40	2.86	3.31	1	1	0	0	2.9	23.4	19.1
MH-3856	MH-2179	573.22	573.2	24	150	0.23	1000	0.07733	0.0703	1	1.14	0.87	21.2	1.50	72.00	24.00	2.70	3.12	1	1	0	0	2.7	23.9	18.0
MH-4054	MH-1971	588.87	588.84	24.1	150	0.22	1000	0.06567	0.0597	0.9	0.8	1.02	25	1.40	67.48	24.10	2.71	3.14	1	1	0	0	2.7	22.2	18.1
MH-4055	MH-4056	583.05	582.81	24.1	150	0.39	100	0.03014	0.0274	0.9	1.06	0.8	9.8	1.40	67.48	24.10	2.71	3.14	1	1	0	0	2.7	22.2	18.1
MH-764	MH-3535	595.58	595.34	24.1	150	0.82	100	0.37972	0.3452	0.9	1	0.8	35.1	1.40	67.48	24.10	2.71	3.14	1	1	0	0	2.7	22.2	18.1
MH-1318	MH-5210	589.96	589.91	35.9	217	0.6	675	1.39403	1.2673	1.8	1.96	1.61	63.3	2.37	169.95	35.90	4.40	5.73	2	2	0	0	4.4	74.5	29.3
MH-5211	MH-5212	596.75	596.39	35.9	150	0.42	100	0.03938	0.0358	0.9	1.01	0.8	11.2	1.40	100.52	35.90	4.04	4.67	2	2	0	0	4.0	33.0	26.9
MH-2612	MH-3339	579.45	579.21	24.1	150	0.67	100	0.19283	0.1753	1	1.1	0.8	27.1	1.50	72.30	24.10	2.71	3.14	1	1	0	0	2.7	24.0	18.1
MH-3803	MH-4044	592.58	592.34	24.2	150	0.76	100	0.28765	0.2615	0.9	0.99	0.8	30.4	1.40	67.76	24.20	2.72	3.15	1	1	0	0	2.7	22.3	18.2
MH-1846	MH-4079	572.61	572.88	27.4	150	0.78	100	0.32758	0.2978	0.9	0.8	0.92	36.2	1.40	76.72	27.40	3.08	3.57	1	1	0	0	3.1	25.2	20.6
MH-2064	MH-2325	570.19	570.1	24.3	150	0.39	288	0.10923	0.0993	0.8	0.83	0.8	23.4	1.30	63.18	24.30	2.73	3.16	1	1	0	0	2.7	20.5	18.2
MH-4080	MH-4081	582.6	582.36	24.3	150	0.51	100	0.07293	0.0663	0.9	1.03	0.8	15.2	1.40	68.04	24.30	2.73	3.16	1	1	0	0	2.7	22.4	18.2
MH-4082	MH-310	589.07	589.31	24.3	150	0.67	100	0.19448	0.1768	0.8	0.8	0.84	27.9	1.30	63.18	24.30	2.73	3.16	1	1	0	0	2.7	20.5	18.2
MH-4083	MH-3060	572.83	572.58	24.3	150	0.7	100	0.21714	0.1974	0.9	1.09	0.8	26.3	1.40	68.04	24.30	2.73	3.16	1	1	0	0	2.7	22.4	18.2
MH-4086	MH-4087	592.22	591.98	24.3	150	0.3	100	0.01375	0.0125	0.8	0.85	0.8	6.7	1.30	63.18	24.30	2.73	3.16	1	1	0	0	2.7	20.5	18.2
MH-3437	MH-57	580.61	580.41	19.5	150	0.42	100	0.03839	0.0349	0.9	1.03	0.8	11.1	1.40	54.60	19.50	2.19	2.54	1	1	0	0	2.2	17.9	14.6
MH-3658	MH-2965	592.82	592.58	24.3	150	0.42	100	0.0385	0.035	0.8	0.81	0.8	11.1	1.30	63.18	24.30	2.73	3.16	1	1	0	0	2.7	20.5	18.2
MH-4056	MH-3038	582.58	582.33	24.4	150	0.47	100	0.05467	0.0497	0.9	1.03	0.8	13.2	1.40	68.32	24.40	2.75	3.18	1	1	0	0	2.7	22.4	18.3
MH-4102	MH-647	584.01	583.76	24.4	150	0.82	100	0.37972	0.3452	0.9	1.05	0.8	39.2	1.40	68.32	24.40	2.75	3.18	1	1	0	0	2.7	22.4	18.3
MH-4103	MH-3174	597.89	597.64	24.4	150	0.28	100	0.01067	0.0097	0.9	1.03	0.8	5.9	1.40	68.32	24.40	2.75	3.18	1	1	0	0	2.7	22.4	18.3
MH-4106	MH-4107	578.13	578.27	24.4	150	0.6	178	0.26444	0.2404	1	1.04	1.03	35.9	1.50	73.20	24.40	2.75	3.18	1	1	0	0	2.7	24.3	18.3
MH-4012	MH-3455	578.25	578.01	24.4	217	1.28	100	1.64527	1.4957	0.9	0.99	0.8	45	1.47	71.59	24.40	2.99	3.89	1	1	0	0	3.0	25.4	19.9
MH-712	MH-2546	587.52	587.49	24.5	400	0.62	1000	3.75001	3.4091	1.6	1.84	1.34	41.2	2.35	115.15	24.50	3.68	6.75	1	1	0	0	3.7	58.2	24.5
MH-3540	MH-3486	574.36	574.61	24.5	150	0.47	100	0.05621	0.0511	0.8	0.8	0.82	13.3	1.30	63.70	24.50	2.76	3.19	1	1	0	0	2.8	20.7	18.4
MH-145	MH-3197	585.41	585.17	24.5	150	0.7	100	0.22242	0.2022	1	1.15	0.8	26.6	1.50	73.50	24.50	2.76	3.19	1	1	0	0	2.8	24.4	18.4
MH-1965	MH-4121	578.23	578.48	24.5	150	0.79	100	0.33407	0.3037	1	0.8	1.16	32.8	1.50	73.50	24.50	2.76	3.19	1	1	0	0	2.8	24.4	18.4
MH-3941	MH-3541	581.95	581.7	24.5	150	0.67	100	0.18524	0.1684	0.9	1.1	0.8	24.2	1.40	68.60	24.50	2.76	3.19	1	1	0	0	2.8	22.5	18.4
MH-1033	MH-1322	576.52	576.27	24.6	150	0.59	100	0.12232	0.1112	0.8	0.86	0.8	19.7	1.30	63.96	24.60	2.77	3.20	1	1	0	0	2.8	20.8	18.5
MH-4140	MH-4141	582.31	582.07	24.6	150	1.08	100	1.09296	0.9936	0.9	0.93	0.8	62.2	1.40	68.88	24.60	2.77	3.20	1	1	0	0	2.8	22.6	18.5
MH-3486	MH-3334	574.63	574.83	19.9	150	0.33	100	0.01771	0.0161	0.8	0.8	0.82	7.6	1.30	51.74	19.90	2.24	2.59	1	1	0	0	2.2	16.8	14.9
MH-4145	MH-3718	587.47	587.23	24.6	150	0.56	100	0.10252	0.0932	1	1.22	0.8	18	1.50	73.80	24.60	2.77	3.20	1	1	0	0	2.8	24.5	18.5
MH-4150	MH-2474	578.8	578.78	24.6	150	0.2	1000	0.05258	0.0478	1.1	0.8	1.32	22.3	1.60	78.72	24.60	2.77	3.20	1	1	0	0	2.8	26.3	18.5
MH-3615	MH-58	580.38	580.35	17.8	217	0.61	541	1.02982	0.9362	0.9	1.08	0.8	47.8	1.47	52.23	17.80	2.18	2.84	1	1	0	0	2.2	18.5	14.5
MH-4159	MH-4160	586.76	586.52	24.7	150	0.63	100	0.1551	0.141	0.9	1.01	0.8	25.6	1.40	69.16	24.70	2.78	3.22	1	1	0	0	2.8	22.7	18.5
MH-4561	MH-4590	571.32	571.29	33.2	150	0.26	1000	0.1177	0.107	1	0.88	1.05	29.3	1.50	99.60	33.20	3.74	4.32	2	2	0	0	3.7	33.0	24.9
MH-3512	MH-3513	594.09	593.89	20.1	150	0.44	103	0.04642	0.0422	0.8	0.8	0.8	14.4	1.30	52.26	20.10	2.26	2.62	1	1	0	0	2.3	17.0	15.1
MH-3514	MH-3515	583.72	583.52	20.1	150	0.42	100	0.03773	0.0343	0.9	1.02	0.8	19.6	1.40	56.28	20.10	2.26	2.62	1	1	0	0	2.3	18.5	15.1
MH-3516	MH-596	595.17	594.97	20.1	150	0.48	100	0.06094	0.0554	0.9	0.92	0.8	13.9	1.40	56.28	20.10	2.26	2.62	1	1	0	0	2.3	18.5	15.1
MH-3517	MH-3518	591.12	590.98	20.1	150	0.72	142	0.36487	0.3317	0.8	0.8	0.8	35.8	1.30	52.26	20.10	2.26	2.62	1	1	0	0	2.3	17.0	15.1
MH-3523	MH-1491	578.77	578.57	20.2	150	0.32	100	0.01617	0.0147	0.9	0.95	0.8	7.3	1.40	56.56	20.20	2.27	2.63	1	1	0	0	2.3	18.6	15.2
MH-3524	MH-590	592.7	592.9	20.2	217	1.38	100	2.15941	1.9631	0.8	0.8	0.88	52	1.37	55.23	20.20	2.48	3.22	1	1	0	0	2.5	19.3	16.5
MH-3436	MH-1508	588.34	588.32	20.2	150	0.24	1000	0.08778	0.0798	1	0.97	1.1	31.1	1.50	60.60	20.20	2.27	2.63	1	1	0	0	2.3	20.1	15.2

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-3072	MH-791	566.57	566.73	25	150	0.61	163	0.24222	0.2202	0.8	0.8	0.88	31.2	1.30	65.00	25.00	2.81	3.25	1	1	0	0	2.8	21.1	18.8
MH-5039	MH-227	583.59	583.29	33.5	150	0.54	110	0.10197	0.0927	0.9	1	0.84	20	1.40	93.80	33.50	3.77	4.36	2	2	0	0	3.8	30.8	25.1
MH-5040	MH-5041	579.09	578.75	33.5	150	1.12	100	1.32198	1.2018	1.1	1.39	0.8	69.4	1.60	107.20	33.50	3.77	4.36	2	2	0	0	3.8	35.8	25.1
MH-3530	MH-3531	566.36	566.32	20.3	217	0.6	512	0.89826	0.8166	1.8	1.89	1.66	40.5	2.37	96.10	20.30	2.49	3.24	1	1	0	0	2.5	42.1	16.6
MH-5044	MH-5045	585.99	586.33	33.5	400	1.5	100	3.45565	3.1415	1	0.8	1.28	29.2	1.75	117.25	33.50	5.03	9.23	2	2	0	0	5.0	49.4	33.5
MH-3533	MH-3534	580.74	580.72	20.3	150	0.2	1000	0.05027	0.0457	2	1.83	2.21	23.6	2.50	101.50	20.30	2.28	2.64	1	1	0	0	2.3	41.5	15.2
MH-4038	MH-4659	571.59	571.5	33.6	400	0.87	389	3.57489	3.2499	1	1.15	0.85	36.1	1.75	117.60	33.60	5.04	9.26	2	2	0	0	5.0	49.5	33.6
MH-2682	MH-3411	586.35	586.14	20.3	150	0.55	100	0.09603	0.0873	1	1.1	0.8	17.4	1.50	60.90	20.30	2.28	2.64	1	1	0	0	2.3	20.2	15.2
MH-1853	MH-2705	571.44	571.42	20.6	150	0.2	1000	0.0495	0.045	1.1	1.05	1.12	23.1	1.60	65.92	20.60	2.32	2.68	1	1	0	0	2.3	22.0	15.5
MH-3539	MH-3540	574.14	574.34	20.3	150	0.55	100	0.09614	0.0874	0.8	0.8	0.82	17.4	1.30	52.78	20.30	2.28	2.64	1	1	0	0	2.3	17.2	15.2
MH-4839	MH-449	569.66	570.01	35.1	150	0.72	100	0.24508	0.2228	0.9	0.8	1.09	28	1.40	98.28	35.10	3.95	4.57	2	2	0	0	3.9	32.3	26.3
MH-5050	MH-2299	579.92	579.58	33.7	150	0.34	100	0.01936	0.0176	0.8	0.81	0.8	8	1.30	87.62	33.70	3.79	4.39	2	2	0	0	3.8	28.5	25.3
MH-4867	MH-5052	569.03	569.37	33.7	150	0.69	100	0.21208	0.1928	0.9	0.8	1.09	26	1.40	94.36	33.70	3.79	4.39	2	2	0	0	3.8	31.0	25.3
MH-3701	MH-1194	578.81	578.48	33.7	150	0.67	100	0.18843	0.1713	1	1.28	0.8	27.4	1.50	101.10	33.70	3.79	4.39	2	2	0	0	3.8	33.5	25.3
MH-5053	MH-449	570.64	570.3	34	150	0.59	100	0.12056	0.1096	0.8	0.89	0.8	19.5	1.30	88.40	34.00	3.83	4.43	2	2	0	0	3.8	28.7	25.5
MH-557	MH-5055	576.94	577.07	13.3	150	0.28	100	0.0099	0.009	1.1	0.8	1.48	5.7	1.60	42.56	13.30	1.50	1.73	1	1	0	0	1.5	14.2	10.0
MH-276	MH-367	588.81	588.61	33.8	150	0.6	167	0.24046	0.2186	3	2.65	3.36	35.6	3.50	236.60	33.80	3.80	4.40	2	2	0	0	3.8	94.5	25.4
MH-1418	MH-3642	565.54	565.68	33.8	150	0.44	233	0.12232	0.1112	1.4	1.66	1.05	30	1.90	128.44	33.80	3.80	4.40	2	2	0	0	3.8	43.8	25.4
MH-4738	MH-4847	569.5	569.21	33.8	150	0.48	117	0.0759	0.069	0.8	0.8	0.8	19.7	1.30	87.88	33.80	3.80	4.40	2	2	0	0	3.8	28.6	25.4
MH-3569	MH-3570	591.28	591.08	20.6	150	0.4	100	0.03201	0.0291	0.8	0.85	0.8	10.1	1.30	53.56	20.60	2.32	2.68	1	1	0	0	2.3	17.4	15.5
MH-5062	MH-4238	583.64	583.31	33.9	150	0.58	100	0.11374	0.1034	1	1.15	0.8	19	1.50	101.70	33.90	3.81	4.41	2	2	0	0	3.8	33.7	25.4
MH-5064	MH-5065	593.46	593.13	33.9	150	0.79	100	0.3421	0.311	0.8	0.87	0.8	33.2	1.30	88.14	33.90	3.81	4.41	2	2	0	0	3.8	28.6	25.4
MH-5066	MH-5067	590.64	590.3	33.9	150	0.37	100	0.02552	0.0232	0.8	0.83	0.8	9	1.30	88.14	33.90	3.81	4.41	2	2	0	0	3.8	28.6	25.4
MH-5068	MH-5069	591.9	591.56	33.9	150	0.46	100	0.05456	0.0496	0.8	0.84	0.8	13.2	1.30	88.14	33.90	3.81	4.41	2	2	0	0	3.8	28.6	25.4
MH-424	MH-874	575.36	575.22	33.9	150	0.6	256	0.42284	0.3844	1.6	1.63	1.59	42	2.10	142.38	33.90	3.81	4.41	2	2	0	0	3.8	59.1	25.4
MH-3578	MH-3579	589.23	589.2	20.7	150	0.21	1000	0.05632	0.0512	1	0.8	1.13	25.1	1.50	62.10	20.70	2.33	2.69	1	1	0	0	2.3	20.6	15.5
MH-1047	MH-1079	575.99	575.96	34	150	0.17	1000	0.0286	0.026	0.9	0.8	1.02	28.1	1.40	95.20	34.00	3.83	4.43	2	2	0	0	3.8	31.3	25.5
MH-578	MH-4083	573.17	572.92	34.2	150	0.6	134	0.18403	0.1673	1.2	1.49	1	25	1.70	116.28	34.20	3.85	4.45	2	2	0	0	3.8	39.2	25.7
MH-2997	MH-1326	578.82	578.97	20.8	150	0.6	137	0.19063	0.1733	2.4	2.72	2.16	27.4	2.90	120.64	20.80	2.34	2.71	1	1	0	0	2.3	48.8	15.6
MH-3591	MH-3592	575.41	575.21	20.8	150	0.31	100	0.01507	0.0137	0.8	0.84	0.8	10.8	1.30	54.08	20.80	2.34	2.71	1	1	0	0	2.3	17.6	15.6
MH-3593	MH-3571	585.85	585.83	20.8	150	0.23	1000	0.08283	0.0753	0.8	0.8	0.86	27.6	1.30	54.08	20.80	2.34	2.71	1	1	0	0	2.3	17.6	15.6
MH-5083	MH-4338	572.38	572.14	34.3	150	0.6	141	0.19712	0.1792	1.1	0.8	1.35	29.1	1.60	109.76	34.30	3.86	4.46	2	2	0	0	3.9	36.7	25.7
MH-1979	MH-3099	579.18	578.84	34.4	150	0.97	100	0.69652	0.6332	1.1	1.34	0.8	48.4	1.60	110.08	34.40	3.87	4.48	2	2	0	0	3.9	36.8	25.8
MH-5090	MH-673	588.37	588.08	34.4	217	1.06	120	1.06887	0.9717	4	3.97	3.97	40.8	4.57	314.21	34.40	4.22	5.49	2	0	2	0	4.2	153.8	28.1
MH-5100	MH-4029	590.66	590.56	34.5	150	0.6	357	0.52294	0.4754	3.1	3.03	3.25	48.3	3.60	248.40	34.50	3.88	4.49	2	0	2	0	3.9	99.0	25.9
MH-2151	MH-4922	576.08	575.74	34.5	175	1.41	100	2.58214	2.3474	1	1.2	0.8	79.1	1.53	105.23	34.50	4.01	4.84	2	2	0	0	4.0	35.9	26.7
MH-1489	MH-4872	572.17	571.83	34.7	150	0.76	102	0.2992	0.272	0.8	0.82	0.8	34.5	1.30	90.22	34.70	3.90	4.52	2	2	0	0	3.9	29.3	26.0
MH-2614	MH-3637	593.45	593.25	21.1	150	0.41	105	0.03795	0.0345	0.8	0.8	0.8	11.1	1.30	54.86	21.10	2.37	2.75	1	1	0	0	2.4	17.8	15.8
MH-3419	MH-1381	579.65	579.44	21.1	217	1.14	100	1.09604	0.9964	0.9	1.05	0.8	36.3	1.47	61.91	21.10	2.59	3.37	1	1	0	0	2.6	21.9	17.2
MH-4552	MH-5119	569.99	569.95	34.7	400	0.7	1000	6.58812	5.9892	1	1.12	0.87	56.1	1.75	121.45	34.70	5.21	9.56	2	2	0	0	5.2	51.2	34.7
MH-3641	MH-3437	581.05	580.84	21.2	150	0.36	100	0.02288	0.0208	0.9	1.05	0.8	8.6	1.40	59.36	21.20	2.39	2.76	1	1	0	0	2.4	19.5	15.9
MH-3642	MH-3643	565.68	565.7	21.2	150	0.22	1000	0.07216	0.0656	0.9	1.05	0.8	23.5	1.40	59.36	21.20	2.39	2.76	1	1	0	0	2.4	19.5	15.9
MH-4976	MH-4102	584.6	584.25	34.8	150	0.8	100	0.35277	0.3207	1	1.19	0.8	33.8	1.50	104.40	34.80	3.92	4.53	2	2	0	0	3.9	34.6	26.1
MH-3246	MH-3460	571.76	571.67	34.9	175	0.6	388	0.59345	0.5395	2.2	2.21	2.24	46.1	2.73	190.21	34.90	4.06	4.90	2	2	0	0	4.1	79.3	27.0
MH-5138	MH-5139	584.92	584.57	35	150	0.52	100	0.07865	0.0715	1.1	1.3	0.8	15.8	1.60	112.00	35.00	3.94	4.56	2	2	0	0	3.9	37.4	26.3
MH-5144	MH-563	571.24	571.21	35.1	900	1.21	1000	62.05221	56.4111	1.7	1.76	1.57	61.2	2.95	207.09	35.10	7.90	30.22	2	2	0	0	7.9	135.6	52.7
MH-5145	MH-5146	569.84	569.48	35.1	150	0.31	100	0.01474	0.0134	0.9	0.9	0.8	6.9	1.40	98.28	35.10	3.95	4.57	2	2	0	0	3.9	32.3	26.3
MH-4746	MH-2081	575.34	574.99	35.1	271	1.32	100	1.93347	1.7577	0.9	0.98	0.8	36.2	1.52	106.77	35.10	4.59	6.61	2	2	0	0	4.6	39.9	30.6
MH-3983	MH-4528	575.55	575.51	35.1	150	0.24	1000	0.08756	0.0796	1	1.22	0.81	29.6	1.50	105.30	35.10	3.95	4.57	2	2	0	0	3.9	34.9	26.3
MH-5153	MH-3129	598.02	597.67	35.2	150	0.74	100	0.27335	0.2485	0.9	1	0.8	29.6	1.40	98.56	35.20	3.96	4.58	2	2	0	0	4.0	32.4	26.4
MH-5156	MH-5039	583.63	583.59	35.2	150	0.23	1000	0.07854	0.0714	1.4	1.75	1	22.6	1.90	133.76	35.20	3.96	4.58	2	2	0	0	4.0	45.6	26.4
MH-3145	MH-4739	578.32	577.97	35.2	175	1.37	100	2.16612	1.9692	1.1	1.37	0.8	71.2	1.63	114.40	35.20	4.09	4.94	2	2	0	0	4.1	39.4	27.3
MH-5162	MH-3738	580.57	580.22	35.3	175	1.02	100	0.67771	0.6161	1.1	1.36	0.8	37.7	1.63	114.73	35.30	4.10	4.95	2	2	0	0	4.1	39.5	27.4
MH-5163	MH-845	590.33	590.29	35.3	150	0.15	1000	0.01672	0.0152	1	0.8	1.1	18.2	1.50	105.90	35.30	3.97	4.59	2	2	0	0	4.0	35.1	26.5
MH-4008	MH-209	591.38	591.3	35	217	0.65	442	0.98351	0.8941	1.3	1.56	1.09	42.1	1.87	130.69	35.00	4.29	5.58	2	2	0	0	4.3	47.8	28.6
MH-4899	MH-5166	581.05	580.7	35.4	150	0.58	100	0.11506	0.1046	1	1.19	0.8	19.1	1.50	106.20	35.40	3.98	4.61	2	2	0	0	4.0	35.2	26.6
MH-1957	MH-1965	578.59	578.23	35.5	150	0.73	100	0.25113	0.2283	0.9	1.09	0.8	28.4	1.40	99.40	35.50	3.99	4.62	2	2	0	0	4.0	32.7	26.6
MH-5173	MH-4260	583.51	583.67	35.5	150	0.6	224	0.35211	0.3201	1.5	1.79	1.24	39.3	2.00	142.00	35.50	3.99	4.62	2	2	0	0	4.0	48.6	26.6
MH-491	MH-3824	585.31	584.96	35.4	150	0.7	100	0.22231	0.2021	1	1.3	0.8	26.6	1.50	106.20	35.40	3.98	4.61	2	2	0	0	4.0	35.2	26.6
MH-5067	MH-4694	590.27	589.91	35.6	150	0.45	100	0.05016	0.0456	0.8	0.84	0.8	12.7	1.30	92.56	35.60	4.01	4.63	2	2	0	0	4.0	30.1	26.7
MH-5186	MH-5187	593.57	593.21	35.7	150	0.32	100	0.01595	0.0145	0.8	0.88	0.8	7.2	1.30	92.82	35.70	4.02	4.65	2	2	0	0	4.0	30.2	26.8
MH-5188	MH-2598	574.37	574.01	35.7	150	1.03	100	0.8822	0.802	1	1.12	0.8	55.1	1.50	107.10	35.70	4.02	4.65	2	2	0	0	4.0	35.5	26.8
MH-5189	MH-332	582.49	582.45	35.7	150	0.15	1000	0.01903	0.0173	0.9	0.8	1.05	29.6	1.40	99.96	35.70	4.02	4.65	2	2	0	0	4.0	32.8	26.8
MH-5199	MH-5200	593.19	592.84	35.7	150	0.4	100	0.03476	0.0316	0.9	0.98	0.8	10.5	1.40	99.96	35.70	4.02	4.65	2	2	0	0	4.0	32.8	26.8
MH-5201	MH-5202	583.56	583.91	35.7	150	0.94	100	0.61952	0.5632	1	0.8	1.25	45.4	1.50	107.10	35.70	4.02	4.65	2	2	0	0	4.0	35.5	26.8

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-5205	MH-4171	586.44	586.08	35.8	150	0.62	100	0.14553	0.1323	1	1.3	0.8	21.5	1.50	107.40	35.80	4.03	4.66	2	2	0	0	4.0	35.6	26.9
MH-1433	MH-5207	584.75	584.39	35.8	150	0.75	100	0.27973	0.2543	0.9	0.93	0.8	38.7	1.40	100.24	35.80	4.03	4.66	2	2	0	0	4.0	32.9	26.9
MH-5209	MH-4597	591.39	591.03	35.9	150	0.36	100	0.02266	0.0206	0.9	0.92	0.8	8.5	1.40	100.52	35.90	4.04	4.67	2	2	0	0	4.0	33.0	26.9
MH-4964	MH-4228	585.09	584.73	35.9	150	0.45	100	0.04818	0.0438	1.1	1.31	0.8	12.4	1.60	114.88	35.90	4.04	4.67	2	2	0	0	4.0	38.4	26.9
MH-648	MH-5213	583.33	582.97	36	150	0.92	100	0.57343	0.5213	1	1.24	0.8	43.6	1.50	108.00	36.00	4.05	4.69	2	2	0	0	4.1	35.8	27.0
MH-3423	MH-2496	588.71	588.51	19.4	150	0.33	100	0.01837	0.0167	0.9	1.09	0.8	7.7	1.40	54.32	19.40	2.18	2.53	1	1	0	0	2.2	17.8	14.6
MH-3431	MH-1828	578.7	578.66	19.5	150	0.16	465	0.00902	0.0082	0.8	0.8	0.8	8.1	1.30	50.70	19.50	2.19	2.54	1	1	0	0	2.2	16.5	14.6
MH-1247	MH-251	579.95	579.77	19.5	150	0.5	109	0.07986	0.0726	0.8	0.8	0.8	16.1	1.30	50.70	19.50	2.19	2.54	1	1	0	0	2.2	16.5	14.6
MH-3432	MH-2528	587.26	587.45	19.5	175	1.06	102	0.81752	0.7432	0.9	0.8	0.9	41.8	1.43	55.58	19.50	2.27	2.74	1	1	0	0	2.3	18.8	15.1
MH-3435	MH-2275	571.55	571.38	19.5	150	0.99	114	0.93555	0.8505	0.8	0.8	0.8	58	1.30	50.70	19.50	2.19	2.54	1	1	0	0	2.2	16.5	14.6
MH-1711	MH-3436	588.35	588.34	19.5	150	0.23	1000	0.07821	0.0711	0.9	0.87	0.97	27.2	1.40	54.60	19.50	2.19	2.54	1	1	0	0	2.2	17.9	14.6
MH-1823	MH-2895	572.08	571.95	19.5	150	0.79	147	0.55495	0.5045	0.8	0.8	0.8	47.3	1.30	50.70	19.50	2.19	2.54	1	1	0	0	2.2	16.5	14.6
MH-2329	MH-3440	579.3	579.32	19.6	150	0.24	1000	0.09394	0.0854	0.9	1.09	0.8	25.1	1.40	54.88	19.60	2.21	2.55	1	1	0	0	2.2	18.0	14.7
MH-264	MH-1470	595.05	594.86	19.6	150	0.54	100	0.09053	0.0823	0.9	0.95	0.8	16.9	1.40	54.88	19.60	2.21	2.55	1	1	0	0	2.2	18.0	14.7
MH-2603	MH-2378	577.15	577.07	19.6	150	0.6	257	0.42625	0.3875	1	1.09	1	44.5	1.50	58.80	19.60	2.21	2.55	1	1	0	0	2.2	19.5	14.7
MH-3446	MH-2670	593.06	592.86	19.7	150	0.47	100	0.05533	0.0503	0.9	0.99	0.8	13.2	1.40	55.16	19.70	2.22	2.56	1	1	0	0	2.2	18.1	14.8
MH-3447	MH-3172	577.36	577.34	19.7	271	0.6	991	2.72569	2.4779	1.9	2.02	1.77	69.4	2.52	99.33	19.70	2.57	3.71	1	1	0	0	2.6	45.5	17.2
MH-1333	MH-2098	583.43	583.23	19.7	150	0.76	100	0.28545	0.2595	1	1.17	0.8	30.2	1.50	59.10	19.70	2.22	2.56	1	1	0	0	2.2	19.6	14.8
MH-3452	MH-2453	572.1	571.95	19.7	150	0.92	128	0.82467	0.7497	0.8	0.8	0.8	57.8	1.30	51.22	19.70	2.22	2.56	1	1	0	0	2.2	16.6	14.8
MH-3454	MH-3452	572.3	572.1	19.7	150	0.98	104	0.77308	0.7028	0.8	0.8	0.8	56.2	1.30	51.22	19.70	2.22	2.56	1	1	0	0	2.2	16.6	14.8
MH-3455	MH-1983	577.87	577.67	19.7	217	1.29	100	1.67079	1.5189	0.9	0.94	0.8	45.4	1.47	57.80	19.70	2.41	3.14	1	1	0	0	2.4	20.5	16.1
MH-3276	MH-1956	579.31	579.12	19.8	150	0.67	100	0.19338	0.1758	1	1.15	0.8	24.8	1.50	59.40	19.80	2.23	2.58	1	1	0	0	2.2	19.7	14.9
MH-194	MH-495	581.67	581.65	19.8	150	0.24	1000	0.09526	0.0866	1.2	1.11	1.32	25.3	1.70	67.32	19.80	2.23	2.58	1	1	0	0	2.2	22.7	14.9
MH-440	MH-3458	596.31	596.5	18.9	150	0.64	100	0.16005	0.1455	0.9	0.8	0.96	22.5	1.40	52.92	18.90	2.13	2.46	1	1	0	0	2.1	17.4	14.2
MH-3185	MH-1567	574.38	574.36	19.8	150	0.26	1000	0.11924	0.1084	1.1	1.14	1.12	27.1	1.60	63.36	19.80	2.23	2.58	1	1	0	0	2.2	21.2	14.9
MH-3459	MH-2207	572.28	572.08	19.8	150	0.36	100	0.02376	0.0216	0.9	0.96	0.8	18.4	1.40	55.44	19.80	2.23	2.58	1	1	0	0	2.2	18.2	14.9
MH-1553	MH-193	582.09	581.99	19.8	150	0.33	192	0.03762	0.0342	0.9	1.09	0.8	11.8	1.40	55.44	19.80	2.23	2.58	1	1	0	0	2.2	18.2	14.9
MH-3460	MH-3461	571.67	571.62	19.8	175	0.6	410	0.64218	0.5838	2.2	2.24	2.26	50	2.73	107.91	19.80	2.30	2.78	1	1	0	0	2.3	45.0	15.3
MH-2619	MH-1286	570.36	570.16	19.8	271	1.41	100	2.4486	2.226	0.9	0.97	0.8	41	1.52	60.23	19.80	2.59	3.73	1	1	0	0	2.6	22.5	17.2
MH-316	MH-2865	585.4	585.2	19.8	271	1.41	100	2.45729	2.2339	1	1.12	0.8	41.1	1.62	64.19	19.80	2.59	3.73	1	1	0	0	2.6	24.2	17.2
MH-3469	MH-3311	580.43	580.23	19.8	150	0.54	100	0.09163	0.0833	0.9	0.91	0.8	17	1.40	55.44	19.80	2.23	2.58	1	1	0	0	2.2	18.2	14.9
MH-3475	MH-2267	586.19	585.99	19.8	150	0.37	100	0.02475	0.0225	0.8	0.83	0.8	8.9	1.30	51.48	19.80	2.23	2.58	1	1	0	0	2.2	16.7	14.9
MH-3476	MH-1469	594.41	594.61	19.8	150	0.67	100	0.19041	0.1731	0.9	0.8	0.92	24.6	1.40	55.44	19.80	2.23	2.58	1	1	0	0	2.2	18.2	14.9
MH-3477	MH-2180	572.71	572.69	19.9	150	0.11	1000	0.00682	0.0062	1	0.8	1.23	16.5	1.50	59.70	19.90	2.24	2.59	1	1	0	0	2.2	19.8	14.9
MH-3479	MH-3476	594.06	594.25	19.9	150	0.69	100	0.20713	0.1883	0.9	0.8	0.96	25.6	1.40	55.72	19.90	2.24	2.59	1	1	0	0	2.2	18.3	14.9
MH-3480	MH-1852	571.47	571.45	19.9	150	0.12	1000	0.00759	0.0069	0.8	0.8	0.84	12.9	1.30	51.74	19.90	2.24	2.59	1	1	0	0	2.2	16.8	14.9
MH-3483	MH-3484	586.9	586.77	19.9	150	0.37	149	0.03938	0.0358	0.8	0.8	0.8	13.4	1.30	51.74	19.90	2.24	2.59	1	1	0	0	2.2	16.8	14.9
MH-1717	MH-3004	594.24	594.43	19.9	150	0.55	100	0.09394	0.0854	0.8	0.8	0.9	19.7	1.30	51.74	19.90	2.24	2.59	1	1	0	0	2.2	16.8	14.9
MH-3487	MH-1493	580.94	580.74	19.9	150	1.14	100	1.40657	1.2787	0.9	0.98	0.8	72.1	1.40	55.72	19.90	2.24	2.59	1	1	0	0	2.2	18.3	14.9
MH-3491	MH-481	572.52	572.36	20	150	0.98	127	1.10385	1.0035	0.8	0.8	0.8	64.9	1.30	52.00	20.00	2.25	2.60	1	1	0	0	2.3	16.9	15.0
MH-3497	MH-844	590.34	590.33	10	150	0.23	1000	0.07623	0.0693	1.2	1.36	1.08	22	1.70	34.00	10.00	1.13	1.30	1	1	0	0	1.1	11.4	7.5
MH-3498	MH-3499	580.45	580.42	20	217	0.6	548	0.99264	0.9024	1.6	1.82	1.47	48	2.17	86.68	20.00	2.45	3.19	1	1	0	0	2.5	38.2	16.3
MH-3159	MH-1342	577.66	577.46	20	150	0.53	100	0.08316	0.0756	0.9	1.03	0.8	16.2	1.40	56.00	20.00	2.25	2.60	1	1	0	0	2.3	18.4	15.0
MH-2724	MH-3502	589.27	589.07	20	150	0.4	100	0.03267	0.0297	0.8	0.85	0.8	10.2	1.30	52.00	20.00	2.25	2.60	1	1	0	0	2.3	16.9	15.0
MH-1281	MH-2174	578.6	578.52	20	150	0.6	249	0.40777	0.3707	3.5	3.58	3.42	43	4.00	160.00	20.00	2.25	2.60	1	0	1	0	2.3	63.4	15.0
MH-3503	MH-3504	572.53	572.48	20.1	175	0.6	388	0.59158	0.5378	2.7	2.62	2.72	45.2	3.23	129.65	20.10	2.34	2.82	1	1	0	0	2.3	53.4	15.6
MH-3505	MH-850	570.15	570.36	20.1	175	1.17	100	1.12101	1.0191	0.9	0.8	1.01	55.2	1.43	57.29	20.10	2.34	2.82	1	1	0	0	2.3	19.4	15.6
MH-3363	MH-3506	595.44	595.65	20.1	150	0.41	100	0.03498	0.0318	0.9	0.8	0.95	10.6	1.40	56.28	20.10	2.26	2.62	1	1	0	0	2.3	18.5	15.1
MH-526	MH-261	588.55	588.47	20.1	150	0.6	262	0.43637	0.3967	1.7	1.76	1.66	46.3	2.20	88.44	20.10	2.26	2.62	1	1	0	0	2.3	36.6	15.1
MH-3541	MH-2825	581.46	581.26	20.4	150	0.69	100	0.20691	0.1881	0.9	1.04	0.8	25.6	1.40	57.12	20.40	2.30	2.66	1	1	0	0	2.3	18.8	15.3
MH-3544	MH-3545	573.08	573.06	20.4	150	0.18	1000	0.03487	0.0317	1	0.8	1.3	19.4	1.50	61.20	20.40	2.30	2.66	1	1	0	0	2.3	20.3	15.3
MH-3546	MH-2972	598.16	597.96	20.4	150	0.41	100	0.0363	0.033	0.8	0.86	0.8	10.8	1.30	53.04	20.40	2.30	2.66	1	1	0	0	2.3	17.2	15.3
MH-3549	MH-3141	596.34	596.28	20.5	150	0.35	296	0.07909	0.0719	0.8	0.8	0.82	18.6	1.30	53.30	20.50	2.31	2.67	1	1	0	0	2.3	17.3	15.4
MH-3551	MH-3552	591.6	591.58	20.5	150	0.2	1000	0.05082	0.0462	0.9	0.8	0.95	23.2	1.40	57.40	20.50	2.31	2.67	1	1	0	0	2.3	18.9	15.4
MH-3553	MH-3554	587.84	587.82	20.5	150	0.16	1000	0.02167	0.0197	0.9	0.8	1.09	15.7	1.40	57.40	20.50	2.31	2.67	1	1	0	0	2.3	18.9	15.4
MH-3555	MH-3556	590.41	590.39	20.5	150	0.15	1000	0.02002	0.0182	0.9	0.8	0.94	15.4	1.40	57.40	20.50	2.31	2.67	1	1	0	0	2.3	18.9	15.4
MH-3557	MH-3558	586.6	586.39	20.5	150	0.36	100	0.02398	0.0218	0.9	1.1	0.8	8.8	1.40	57.40	20.50	2.31	2.67	1	1	0	0	2.3	18.9	15.4
MH-3559	MH-3560	594.04	593.83	20.5	150	0.69	100	0.21131	0.1921	0.9	0.93	0.8	29.4	1.40	57.40	20.50	2.31	2.67	1	1	0	0	2.3	18.9	15.4
MH-3076	MH-3154	595.27	595.06	20.7	150	0.41	100	0.03729	0.0339	0.9	0.91	0.8	10.9	1.40	57.96	20.70	2.33	2.69	1	1	0	0	2.3	19.0	15.5
MH-3585	MH-3586	590.76	590.55	20.8	150	0.26	100	0.00847	0.0077	0.8	0.86	0.8	5.3	1.30	54.08	20.80	2.34	2.71	1	1	0	0	2.3	17.6	15.6
MH-3006	MH-36	581.02	580.93	20.4	150	0.6	237	0.38071	0.3461	1	0.8	1.18	39.3	1.50	61.20	20.40	2.30	2.66	1	1	0	0	2.3	20.3	15.3
MH-1879	MH-3588	574.86	574.84	20.8	271	0.6	878	2.04303	1.8573	2.7	2.83	2.52	60	3.32	138.15	20.80	2.72	3.92	1	1	0	0	2.7	62.5	18.1
MH-3596	MH-1621	576.21	576.01	20.9	150	0.65	100	0.16819	0.1529	0.9	0.91	0.8	23.1	1.40	58.52	20.90	2.35	2.72	1	1	0	0	2.4	19.2	15.7
MH-3599	MH-2481	579.82	579.61	20.9	150	0.41	100	0.0363	0.033	0.9	1.05	0.8	10.8	1.40	58.52	20.90	2.35	2.72	1	1	0	0	2.4	19.2	15.7
MH-3600	MH-83	590.64	590.47	20.8	150	0.49	122	0.08063	0.0733	0.8	0.8	0.8	16.4	1.30	54.08	20.80	2.34	2.71	1	1	0	0	2.3	17.6	15.6

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-3601	MH-3602	575.67	575.65	20.9	271	0.6	792	1.72568	1.5688	2.3	2.31	2.23	52.1	2.92	122.10	20.90	2.73	3.94	1	1	0	0	2.7	55.5	18.2
MH-3603	MH-3604	593.95	593.86	20.9	150	0.35	225	0.05544	0.0504	0.8	0.8	0.8	15.3	1.30	54.34	20.90	2.35	2.72	1	1	0	0	2.4	17.7	15.7
MH-3612	MH-3613	591.98	591.8	20.9	150	0.6	115	0.15246	0.1386	0.9	0.8	1.03	22.3	1.40	58.52	20.90	2.35	2.72	1	1	0	0	2.4	19.2	15.7
MH-3499	MH-3615	580.42	580.38	20.9	217	0.6	554	1.00881	0.9171	1.3	1.47	1.08	48.4	1.87	78.04	20.90	2.56	3.33	1	1	0	0	2.6	28.5	17.1
MH-3616	MH-3617	591.81	591.6	20.9	150	0.43	100	0.04323	0.0393	0.8	0.82	0.8	11.7	1.30	54.34	20.90	2.35	2.72	1	1	0	0	2.4	17.7	15.7
MH-1470	MH-3282	594.86	595.07	20.9	150	0.53	100	0.0869	0.079	0.9	0.8	0.95	16.6	1.40	58.52	20.90	2.35	2.72	1	1	0	0	2.4	19.2	15.7
MH-2784	MH-3619	573.72	573.7	21	150	0.22	1000	0.0627	0.057	1.1	0.94	1.17	25.2	1.60	67.20	21.00	2.36	2.73	1	1	0	0	2.4	22.5	15.8
MH-1383	MH-553	582.3	582.09	21.3	150	0.86	100	0.45133	0.4103	0.8	0.85	0.8	38.4	1.30	55.38	21.30	2.40	2.77	1	1	0	0	2.4	18.0	16.0
MH-3620	MH-3459	572.65	572.44	21	150	0.29	100	0.01111	0.0101	0.9	0.92	0.8	6.1	1.40	58.80	21.00	2.36	2.73	1	1	0	0	2.4	19.3	15.8
MH-2365	MH-1245	580.22	580.16	21	217	0.78	326	1.30196	1.1836	1.5	1.61	1.33	46.4	2.07	86.81	21.00	2.57	3.35	1	1	0	0	2.6	38.4	17.2
MH-3627	MH-3293	586.39	586.37	21.1	150	0.25	1000	0.11407	0.1037	0.9	0.8	0.91	31.9	1.40	59.08	21.10	2.37	2.75	1	1	0	0	2.4	19.4	15.8
MH-1741	MH-383	590.04	589.83	21.1	150	0.66	100	0.17644	0.1604	0.9	1	0.8	23.7	1.40	59.08	21.10	2.37	2.75	1	1	0	0	2.4	19.4	15.8
MH-3655	MH-1107	574.79	574.58	21.3	400	1.47	100	4.08265	3.7115	0.9	0.94	0.8	32.5	1.65	70.29	21.30	3.20	5.87	1	1	0	0	3.2	29.3	21.3
MH-441	MH-777	585.68	585.6	22.4	150	0.6	291	0.50985	0.4635	2	2.23	1.72	47.5	2.50	112.00	22.40	2.52	2.92	1	1	0	0	2.5	45.8	16.8
MH-3656	MH-2054	570.99	570.81	17.5	150	0.39	100	0.03135	0.0285	0.8	0.84	0.8	12	1.30	45.50	17.50	1.97	2.28	1	1	0	0	2.0	14.8	13.1
MH-3657	MH-3658	593.04	592.83	21.3	150	0.35	100	0.02079	0.0189	0.8	0.82	0.8	8.2	1.30	55.38	21.30	2.40	2.77	1	1	0	0	2.4	18.0	16.0
MH-982	MH-3661	588.28	588.49	21.3	150	0.54	100	0.09174	0.0834	1	0.8	1.12	17.1	1.50	63.90	21.30	2.40	2.77	1	1	0	0	2.4	21.2	16.0
MH-2498	MH-3512	594.28	594.09	21.3	150	0.39	109	0.03465	0.0315	0.8	0.8	0.8	12.1	1.30	55.38	21.30	2.40	2.77	1	1	0	0	2.4	18.0	16.0
MH-3664	MH-3469	580.75	580.54	21.3	150	0.44	100	0.04532	0.0412	0.9	0.92	0.8	12	1.40	59.64	21.30	2.40	2.77	1	1	0	0	2.4	19.6	16.0
MH-2842	MH-3665	587.36	587.15	21.3	150	0.48	100	0.0594	0.054	1	1.12	0.8	13.7	1.50	63.90	21.30	2.40	2.77	1	1	0	0	2.4	21.2	16.0
MH-1483	MH-2744	582.13	581.88	24	150	0.6	100	0.12793	0.1163	0.9	0.96	0.8	20.1	1.40	67.20	24.00	2.70	3.12	1	1	0	0	2.7	22.1	18.0
MH-3292	MH-4461	583.34	583.04	30	150	0.76	100	0.29238	0.2658	1	1.14	0.8	30.6	1.50	90.00	30.00	3.38	3.90	1	1	0	0	3.4	29.8	22.5
MH-2744	MH-1615	581.8	581.73	7.1	150	0.9	100	0.53009	0.4819	0.8	0.88	0.8	41.8	1.30	18.46	7.10	0.80	0.92	1	1	0	0	0.8	6.0	5.3
MH-3834	MH-1366	579.19	579.01	19	150	0.73	100	0.25817	0.2347	1.2	1.61	0.8	32	1.70	64.60	19.00	2.14	2.47	1	1	0	0	2.1	21.8	14.3
MH-2	MH-3834	581.47	580	146.5	150	0.37	100	0.02464	0.0224	1.3	1.89	0.8	8.9	1.80	527.40	146.50	16.48	19.07	5	5	0	0	16.5	178.7	109.9
MH-4786	MH-5627	572.82	572.65	16.5	150	0.63	100	0.15048	0.1368	0.8	0.85	0.8	21.8	1.30	42.90	16.50	1.86	2.15	1	1	0	0	1.9	13.9	12.4
MH-3712	MH-3	570.36	570.27	18.5	1000	2.37	199	71.68194	65.1654	0.9	1.03	0.8	46.5	2.25	83.25	18.50	4.44	18.96	1	1	0	0	4.4	53.2	29.6
MH-3	MH-6698	570.12	570.06	42.5	1000	1.49	700	74.61278	67.8298	0.9	0.95	0.93	55.1	2.25	191.25	42.50	10.20	43.56	2	2	0	0	10.2	122.2	68.0
MH-3671	MH-3	570.76	570.72	34.5	400	0.63	1000	2.93084	2.6644	1	0.97	0.95	35.5	1.75	120.75	34.50	5.18	9.51	2	2	0	0	5.2	50.9	34.5
MH-4027	MH-6556	566.73	566.47	26.6	150	1.05	100	0.96459	0.8769	0.8	0.9	0.8	57.9	1.30	69.16	26.60	2.99	3.46	1	1	0	0	3.0	22.5	20.0
MH-6556	MH-5825	566.18	565.89	29.4	150	1.07	100	1.0351	0.941	0.9	1.08	0.8	60.2	1.40	82.32	29.40	3.31	3.83	1	1	0	0	3.3	27.0	22.1
MH-5825	MH-3430	565.52	564.81	71.5	150	1.1	100	1.19537	1.0867	1	1.17	0.8	65.5	1.50	214.50	71.50	8.04	9.31	3	3	0	0	8.0	71.1	53.6
MH-6114	MH-6528	563.83	563.44	119.5	1100	2.14	300	86.50411	78.6401	1.6	2.37	0.91	47	3.05	728.95	119.50	30.47	143.98	4	4	0	0	30.5	511.5	203.2
MH-3461	MH-6355	571.62	571.48	63.3	175	0.6	446	0.72974	0.6634	2.1	2.26	1.96	48.2	2.63	332.33	63.30	7.36	8.88	3	3	0	0	7.4	138.9	49.1
MH-6381	MH-4	566.66	567.3	63.4	150	0.76	100	0.28479	0.2589	1.1	0.8	1.35	30.2	1.60	202.88	63.40	7.13	8.25	3	3	0	0	7.1	67.8	47.6
MH-6380	MH-5549	564.67	564.17	50	150	0.91	100	0.54296	0.4936	1	1.26	0.8	42.3	1.50	150.00	50.00	5.63	6.51	2	2	0	0	5.6	49.7	37.5
MH-6698	MH-5	568.4	568.36	41.2	1000	1.29	1000	75.10448	68.2768	2.5	2.6	2.37	66.4	3.85	317.24	41.20	9.89	42.23	2	0	2	0	9.9	223.9	65.9
MH-5	MH-6	568.36	568.31	43.8	1000	1.29	1000	75.10448	68.2768	2.2	2.37	2.13	63.9	3.55	310.98	43.80	10.51	44.90	2	0	2	0	10.5	217.0	70.1
MH-6	MH-3052	568.31	568.16	107.9	1000	1.49	700	75.10448	68.2768	1.9	2.13	1.58	56.5	3.25	701.35	107.90	25.90	110.60	4	4	0	0	25.9	482.9	172.6
MH-1933	MH-7	566.59	566.53	58.1	1000	1.29	1000	78.07349	70.9759	2.5	2.71	2.19	76.1	3.85	447.37	58.10	13.94	59.55	2	0	2	0	13.9	315.8	93.0
MH-7	MH-5585	566.53	566.52	15.3	1000	1.29	1000	78.07349	70.9759	2.1	2.19	2.05	76.2	3.45	105.57	15.30	3.67	15.68	1	1	0	0	3.7	73.4	24.5
MH-5585	MH-8	566.52	566.37	148.7	1000	1.3	1000	81.23401	73.8491	2.3	2.05	2.64	75.4	3.65	1085.51	148.70	35.69	152.42	5	0	5	0	35.7	760.6	237.9
MH-8	MH-9	566.37	566.24	134.9	1000	1.3	1000	81.23401	73.8491	2.9	2.64	3.17	73.2	4.25	1146.65	134.90	32.38	138.27	5	0	5	0	32.4	900.5	215.8
MH-9	MH-10	566.24	566.14	100.5	1000	1.3	1000	81.23401	73.8491	3.4	3.17	3.57	69.1	4.75	954.75	100.50	24.12	103.01	4	0	4	0	24.1	751.2	160.8
MH-10	MH-3322	566.14	566.09	44	1000	1.3	1000	81.23401	73.8491	3.7	3.57	3.74	63.7	5.05	444.40	44.00	10.56	45.10	2	0	0	2	10.6	350.0	70.4
MH-3804	MH-11	565.81	565.76	44	1100	1.34	1000	84.9541	77.231	2.3	2.38	2.21	59.6	3.75	330.00	44.00	11.22	53.01	2	0	2	0	11.2	240.7	74.8
MH-11	MH-4885	565.76	565.72	48.5	1100	1.34	1000	84.9541	77.231	2.1	2.21	2.01	53.5	3.55	344.35	48.50	12.37	58.44	2	0	2	0	12.4	248.8	82.5
MH-2536	MH-5093	566.56	566.37	19.7	150	0.63	100	0.15224	0.1384	0.8	0.89	0.8	33.8	1.30	51.22	19.70	2.22	2.56	1	1	0	0	2.2	16.6	14.8
MH-3072	MH-5093	566.57	566.37	28	150	0.67	134	0.27368	0.2488	0.8	0.8	0.8	38	1.30	72.80	28.00	3.15	3.64	1	1	0	0	3.2	23.7	21.0
MH-6187	MH-3397	577.63	577.61	17.9	271	0.6	961	2.45641	2.2331	1.5	1.55	1.41	54.1	2.12	75.93	17.90	2.34	3.37	1	1	0	0	2.3	35.1	15.6
MH-1302	MH-12	571.76	571.66	38.6	150	0.6	374	0.56254	0.5114	1.5	1.36	1.69	54.6	2.00	154.40	38.60	4.34	5.02	2	2	0	0	4.3	52.9	29.0
MH-2818	MH-13	572.95	572.81	13.8	217	1.55	100	3.46808	3.1528	0.9	0.91	0.8	67.7	1.47	40.49	13.80	1.69	2.20	1	1	0	0	1.7	14.3	11.3
MH-13	MH-1249	571.29	571.28	18.7	400	0.63	1000	4.03062	3.6642	2	2.13	1.82	50.5	2.75	102.85	18.70	2.81	5.15	1	1	0	0	2.8	51.9	18.7
MH-12	MH-13	571.66	571.54	44	150	0.6	374	0.56254	0.5114	1.9	1.69	2.13	50.7	2.40	211.20	44.00	4.95	5.73	2	2	0	0	5.0	86.7	33.0
MH-5274	MH-4320	585.76	585.63	20	150	0.95	162	1.0439	0.949	0.8	0.8	0.8	63.4	1.30	52.00	20.00	2.25	2.60	1	1	0	0	2.3	16.9	15.0
MH-5430	MH-5827	588.14	587.73	46.6	150	0.51	115	0.08756	0.0796	0.8	0.8	0.8	21.5	1.30	121.16	46.60	5.24	6.07	2	2	0	0	5.2	39.4	35.0
MH-6833	MH-14	589.53	589.16	111.3	600	1.51	300	21.51864	19.5624	1.5	1.99	0.91	51.9	2.45	545.37	111.30	20.03	51.49	4	4	0	0	20.0	309.1	133.6
MH-14	MH-5013	588.28	588.22	61.5	700	0.99	1000	25.67939	23.3449	1.3	1.7	0.96	53.4	2.35	289.05	61.50	11.99	35.65	3	3	0	0	12.0	170.7	80.0
MH-2148	MH-14	588.62	588.58	40.1	400	0.64	1000	4.16075	3.7825	1.3	0.88	1.7	43.9	2.05	164.41	40.10	6.02	11.05	2	2	0	0	6.0	83.2	40.1
MH-3028	MH-5988	587.82	587.74	42.1	150	0.52	552	0.60115	0.5465	0.9	0.95	0.8	56.6	1.40	117.88	42.10	4.74	5.48	2	2	0	0	4.7	38.7	31.6
MH-973	MH-6484	586.43	586.29	13.9	271	1.53	100	3.26777	2.9707	0.8	0.9	0.8	54.4	1.42	39.50	13.90	1.82	2.62	1	1	0	0	1.8	14.6	12.1
MH-5302	MH-2665	570.22	570.04	18.3	150	0.79	100	0.33715	0.3065	0.9	0.96	0.8	33	1.40	51.24	18.30	2.06	2.38	1	1	0	0	2.1	16.8	13.7
MH-2666	MH-4965	569.52	569.23	29.4	150	0.87	100	0.46618	0.4238	0.9	1.04	0.8	39	1.40	82.32	29.40	3.31	3.83	1	1	0	0	3.3	27.0	22.1
MH-6745	MH-6761	553.86	553.25	183	1200	2.29	303.342	116.06045	105.5095	0.8	0.8	0.8	48.9	2.35	860.10	183.00	49.41	256.27	7	7	0	0	49.4	572.7	329.4
MH-6761	MH-6762	553.25	552.64	186.6	1200	2.29	303.342	116.06045	105.5095	0.8	0.8	0.8	48.9	2.35	877.02	186.60	50.38	261.31	7	7	0	0	50.4	584.0	335.9

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-6743	MH-6672	551.7	551.45	78.6	1200	2.29	303.257	116.06045	105.5095	0.8	0.8	0.8	52	2.35	369.42	78.60	21.22	110.07	3	3	0	0	21.2	246.0	141.5
MH-6559	MH-6753	555.36	555.31	57.6	1200	1.43	1000	110.2981	100.271	3.9	3.9	3.85	69.3	5.45	627.84	57.60	15.55	80.66	2	0	0	2	15.6	536.2	103.7
MH-6753	MH-6560	555.31	555.25	58	1200	1.43	1000	110.64647	100.5877	3.8	3.85	3.81	69.8	5.35	620.60	58.00	15.66	81.22	2	0	0	2	15.7	529.5	104.4
MH-6755	MH-6756	555.07	554.87	200.2	1200	1.44	1000	116.06045	105.5095	3.2	3.41	2.95	69.9	4.75	1901.90	200.20	54.05	280.36	7	0	7	0	54.1	1611.5	360.4
MH-6756	MH-6728	554.87	554.63	248.4	1200	1.44	1000	116.06045	105.5095	2.7	2.95	2.38	69.7	4.25	2111.40	248.40	67.07	347.86	9	0	9	0	67.1	1776.0	447.1
MH-6728	MH-6757	554.63	554.48	147.2	1200	1.44	1000	116.06045	105.5095	2.2	2.38	2.04	69.3	3.75	1104.00	147.20	39.74	206.14	5	0	5	0	39.7	831.6	265.0
MH-6757	MH-6758	554.48	554.29	183.7	1200	1.44	1000	116.06045	105.5095	1.8	2.04	1.62	68.3	3.35	1230.79	183.70	49.60	257.25	7	7	0	0	49.6	905.6	330.7
MH-6758	MH-6759	554.29	554.14	158.3	1200	1.44	1000	116.06045	105.5095	1.4	1.62	1.25	65.9	2.95	933.97	158.30	42.74	221.68	6	6	0	0	42.7	666.4	284.9
MH-6759	MH-6760	554.14	553.87	219.7	1200	1.56	823.294	116.06045	105.5095	1	1.25	0.8	57.1	2.55	1120.47	219.70	59.32	307.67	8	8	0	0	59.3	766.7	395.5
MH-6762	MH-6763	552.64	552.14	150.5	1200	2.29	303.257	116.06045	105.5095	0.8	0.8	0.8	48.9	2.35	707.35	150.50	40.64	210.76	6	6	0	0	40.6	471.0	270.9
MH-6763	MH-6743	552.14	551.7	132.4	1200	2.29	303.257	116.06045	105.5095	0.8	0.8	0.8	48.9	2.35	622.28	132.40	35.75	185.41	5	5	0	0	35.7	414.4	238.3
MH-6672	OF-1	551.45	551.43	7.4	1200	1.81	570.725	117.1016	106.456	0.8	0.8	0.8	52.1	2.35	34.78	7.40	2.00	10.36	1	1	0	0	2.0	23.2	13.3
MH-6568	MH-4	602.8	602.3	49.7	217	1.5	100	3.03754	2.7614	1.2	1.51	0.8	62.8	1.77	175.64	49.70	6.09	7.93	2	2	0	0	6.1	63.8	40.6
MH-4	MH-3	601.44	600.83	60.7	217	1.51	100	3.08935	2.8085	1.2	1.66	0.8	63.4	1.77	214.51	60.70	7.44	9.68	3	3	0	0	7.4	77.9	49.6
MH-6560	MH-6755	555.25	555.07	174.9	1200	1.44	1000	116.06045	105.5095	3.6	3.81	3.41	70	5.15	1801.47	174.90	47.22	244.93	6	0	0	6	47.2	1533.8	314.8
MH-6760	MH-6745	553.87	553.86	3.8	1200	2.29	304.751	116.06045	105.5095	0.8	0.8	0.8	49.4	2.35	17.86	3.80	1.03	5.32	1	1	0	0	1.0	11.9	6.8
MH-3681	MH-3682	566.96	566.75	21.4	150	0.57	100	0.11077	0.1007	1.1	1.45	0.8	18.7	1.60	68.48	21.40	2.41	2.79	1	1	0	0	2.4	22.9	16.1
MH-3683	MH-2812	574.61	574.43	21.5	150	0.6	117.621	0.15708	0.1428	1.5	1.5	1.42	24.8	2.00	86.00	21.50	2.42	2.80	1	1	0	0	2.4	29.5	16.1
MH-2464	MH-3684	594.39	594.6	21.5	150	0.24	100	0.00693	0.0063	0.9	0.8	1.09	4.8	1.40	60.20	21.50	2.42	2.80	1	1	0	0	2.4	19.8	16.1
MH-2302	MH-2830	580.97	580.77	21.5	150	0.6	105.584	0.13926	0.1266	0.8	0.8	0.87	21.2	1.30	55.90	21.50	2.42	2.80	1	1	0	0	2.4	18.2	16.1
MH-3689	MH-3690	575.36	575.14	21.5	150	0.32	100	0.01617	0.0147	1	1.27	0.8	7.3	1.50	64.50	21.50	2.42	2.80	1	1	0	0	2.4	21.4	16.1
MH-3699	MH-3700	587.58	587.45	21.5	150	0.24	165.839	0.01056	0.0096	0.8	0.8	0.8	6.3	1.30	55.90	21.50	2.42	2.80	1	1	0	0	2.4	18.2	16.1
MH-3702	MH-89	565.77	565.75	21.8	150	0.19	1000	0.03817	0.0347	0.9	0.8	1.08	14.9	1.40	61.04	21.80	2.45	2.84	1	1	0	0	2.5	20.1	16.4
MH-3703	MH-2513	586.14	586.12	21.5	150	0.16	1000	0.02233	0.0203	0.9	0.8	0.93	11.4	1.40	60.20	21.50	2.42	2.80	1	1	0	0	2.4	19.8	16.1
MH-3707	MH-3708	588.29	588.08	21.5	150	0.31	105.903	0.01617	0.0147	0.8	0.8	0.8	10.1	1.30	55.90	21.50	2.42	2.80	1	1	0	0	2.4	18.2	16.1
MH-3710	MH-22	599.69	599.67	19.5	150	0.16	1000	0.0242	0.022	1	0.8	1.15	17.1	1.50	58.50	19.50	2.19	2.54	1	1	0	0	2.2	19.4	14.6
MH-3713	MH-3714	581.2	581	21.6	150	0.42	103.947	0.03949	0.0359	0.8	0.8	0.8	11.3	1.30	56.16	21.60	2.43	2.81	1	1	0	0	2.4	18.2	16.2
MH-3264	MH-3715	580.89	580.77	21.6	150	0.33	177.993	0.03344	0.0304	0.8	0.8	0.8	12.4	1.30	56.16	21.60	2.43	2.81	1	1	0	0	2.4	18.2	16.2
MH-3717	MH-738	573.71	573.68	26.1	150	0.19	1000	0.0385	0.035	1.1	0.8	1.48	36	1.60	83.52	26.10	2.94	3.40	1	1	0	0	2.9	27.9	19.6
MH-2525	MH-1252	580.79	580.7	21.7	150	0.29	258.616	0.03586	0.0326	0.8	0.8	0.8	12	1.30	56.42	21.70	2.44	2.82	1	1	0	0	2.4	18.3	16.3
MH-3721	MH-201	599.3	599.04	26.8	150	0.3	100	0.01265	0.0115	0.8	0.87	0.8	6.4	1.30	69.68	26.80	3.02	3.49	1	1	0	0	3.0	22.6	20.1
MH-2749	MH-3105	570.92	570.71	21.7	150	0.6	104.049	0.13442	0.1222	1	0.8	1.23	23	1.50	65.10	21.70	2.44	2.82	1	1	0	0	2.4	21.6	16.3
MH-3722	MH-3723	590.03	590.01	21.7	150	0.12	1000	0.00924	0.0084	1.2	0.8	1.57	11.1	1.70	73.78	21.70	2.44	2.82	1	1	0	0	2.4	24.8	16.3
MH-3329	MH-3724	583.95	583.93	21.7	150	0.18	1000	0.03267	0.0297	1	0.92	0.98	18.9	1.50	65.10	21.70	2.44	2.82	1	1	0	0	2.4	21.6	16.3
MH-999	MH-3725	574.87	574.92	13.6	150	0.6	254.432	0.41998	0.3818	2.2	1.96	2.52	43.9	2.70	73.44	13.60	1.53	1.77	1	1	0	0	1.5	29.8	10.2
MH-3728	MH-135	583.16	583.14	24	150	0.2	1000	0.05203	0.0473	1.2	0.8	1.51	24.9	1.70	81.60	24.00	2.70	3.12	1	1	0	0	2.7	27.5	18.0
MH-3729	MH-3730	587.23	587.21	21.8	150	0.25	1000	0.1133	0.103	1.8	1.67	1.99	26.9	2.30	100.28	21.80	2.45	2.84	1	1	0	0	2.5	41.3	16.4
MH-3731	MH-3732	591.57	591.54	21.8	217	0.6	616.389	1.18888	1.0808	2.3	2.36	2.3	55.4	2.87	125.00	21.80	2.67	3.48	1	1	0	0	2.7	54.1	17.8
MH-3737	MH-2157	590.43	590.41	21.8	150	0.17	1000	0.0264	0.024	1.2	1.08	1.27	15.8	1.70	74.12	21.80	2.45	2.84	1	1	0	0	2.5	25.0	16.4
MH-2047	MH-1570	585.4	585.38	21.9	400	0.63	1000	3.06669	2.7879	1	1.18	0.9	35.9	1.75	76.65	21.90	3.29	6.04	1	1	0	0	3.3	32.3	21.9
MH-3742	MH-3743	561.47	561.44	21.9	271	0.6	953.537	2.40306	2.1846	3.2	2.97	3.39	53.9	3.82	167.36	21.90	2.86	4.12	1	0	1	0	2.9	75.3	19.1
MH-3745	MH-3746	586.88	586.71	21.9	150	0.6	125.079	0.1705	0.155	2.6	2.68	2.59	25.7	3.10	135.78	21.90	2.46	2.85	1	1	0	0	2.5	54.6	16.4
MH-3747	MH-3748	580.89	580.67	21.9	150	0.27	100	0.00924	0.0084	0.8	0.83	0.8	5.5	1.30	56.94	21.90	2.46	2.85	1	1	0	0	2.5	18.5	16.4
MH-3351	MH-1634	580.62	580.79	17.6	150	1.21	100	1.33166	1.2106	0.9	0.8	1.04	67.6	1.40	49.28	17.60	1.98	2.29	1	1	0	0	2.0	16.2	13.2
MH-3753	MH-3700	587.51	587.45	21.9	150	0.28	381.29	0.04796	0.0436	0.8	0.8	0.8	14.6	1.30	56.94	21.90	2.46	2.85	1	1	0	0	2.5	18.5	16.4
MH-1000	MH-289	579.33	579.32	11.9	150	0.22	1000	0.07084	0.0644	1.4	1.54	1.26	20	1.90	45.22	11.90	1.34	1.55	1	1	0	0	1.3	15.4	8.9
MH-3755	MH-1646	599.48	599.46	21.9	150	0.22	1000	0.06259	0.0569	1	0.8	1.16	23.7	1.50	65.70	21.90	2.46	2.85	1	1	0	0	2.5	21.8	16.4
MH-3759	MH-3760	587.88	587.75	21.9	150	0.29	170.406	0.02101	0.0191	0.8	0.8	0.8	8.8	1.30	56.94	21.90	2.46	2.85	1	1	0	0	2.5	18.5	16.4
MH-3763	MH-403	581.97	581.81	18.7	150	0.6	114.123	0.15169	0.1379	1.3	1.44	1.09	24.2	1.80	67.32	18.70	2.10	2.43	1	1	0	0	2.1	22.8	14.0
MH-3725	MH-3766	574.92	575.01	22	150	0.6	243.772	0.396	0.36	2.8	2.52	3.04	42.5	3.30	145.20	22.00	2.48	2.86	1	1	0	0	2.5	58.2	16.5
MH-3770	MH-3359	565.4	565.38	22.2	150	0.15	1000	0.01716	0.0156	1	0.8	1.21	19.8	1.50	66.60	22.20	2.50	2.89	1	1	0	0	2.5	22.1	16.7
MH-1873	MH-3773	581.17	581.19	22	150	0.25	1000	0.1089	0.099	1.1	1.17	1.11	30.5	1.60	70.40	22.00	2.48	2.86	1	1	0	0	2.5	23.5	16.5
MH-3774	MH-3760	587.44	587.42	22	150	0.24	1000	0.09801	0.0891	1.1	1.08	1.13	31.3	1.60	70.40	22.00	2.48	2.86	1	1	0	0	2.5	23.5	16.5
MH-3776	MH-2248	567.48	567.45	22.1	271	0.6	780.929	1.6896	1.536	1.2	1.1	1.23	52.6	1.82	80.49	22.10	2.89	4.16	1	1	0	0	2.9	30.9	19.2
MH-3777	MH-3537	583.77	583.55	22.1	150	0.47	100	0.05764	0.0524	0.8	0.87	0.8	13.5	1.30	57.46	22.10	2.49	2.88	1	1	0	0	2.5	18.7	16.6
MH-157	MH-3779	571.54	571.71	17.2	150	0.38	100	0.02761	0.0251	1	0.8	1.18	9.4	1.50	51.60	17.20	1.94	2.24	1	1	0	0	1.9	17.1	12.9
MH-3784	MH-3785	581.68	581.46	22.1	150	0.4	100	0.03454	0.0314	0.8	0.86	0.8	10.5	1.30	57.46	22.10	2.49	2.88	1	1	0	0	2.5	18.7	16.6
MH-3786	MH-2545	581.34	581.11	23	150	0.52	100	0.07656	0.0696	0.8	0.89	0.8	24	1.30	59.80	23.00	2.59	2.99	1	1	0	0	2.6	19.4	17.3
MH-3468	MH-3787	580.65	580.45	22.1	150	0.47	110.537	0.06369	0.0579	0.8	0.8	0.8	16.3	1.30	57.46	22.10	2.49	2.88	1	1	0	0	2.5	18.7	16.6
MH-2882	MH-104	586.46	586.63	24.3	150	0.6	146.358	0.20581	0.1871	1.6	1.69	1.52	28.1	2.10	102.06	24.30	2.73	3.16	1	1	0	0	2.7	42.4	18.2
MH-3788	MH-457	579.2	579.31	21.2	175	0.84	199.981	0.8404	0.764	0.9	0.8	0.9	46.2	1.43	60.42	21.20	2.46	2.97	1	1	0	0	2.5	20.4	16.4
MH-3789	MH-3790	586.33	586.31	22.2	150	0.15	952.929	0.01738	0.0158	0.9	0.8	1.09	24.4	1.40	62.16	22.20	2.50	2.89	1	1	0	0	2.5	20.4	16.7
MH-3690	MH-3511	574.52	574.3	22.2	150	0.42	100	0.03795	0.0345	1.1	1.42	0.8	11	1.60	71.04	22.20	2.50	2.89	1	1	0	0	2.5	23.8	16.7
MH-2058	MH-3800	594.16	594.18	22.2	150	0.18	1000	0.03234	0.0294	0.9	0.99	0.8	15.5	1.40	62.16	22.20	2.50	2.89	1	1	0	0	2.5	20.4	16.7
MH-3708	MH-3801	588.08	588.05	22.2	150	0.18	651.248	0.02222	0.0202	0.8	0.8	0.9	13.9	1.30	57.72	22.20	2.50	2.89	1	1	0	0	2.5	18.8	16.7

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-3057	MH-2109	587.55	587.32	22.2	150	0.49	100	0.06402	0.0582	0.8	0.86	0.8	14.3	1.30	57.72	22.20	2.50	2.89	1	1	0	0	2.5	18.8	16.7
MH-1524	MH-3369	595.27	595.49	22.2	150	0.99	100	0.59103	0.5373	0.9	0.8	0.93	43.2	1.40	62.16	22.20	2.50	2.89	1	1	0	0	2.5	20.4	16.7
MH-3809	MH-1658	599.62	599.4	22.3	150	0.3	100	0.01364	0.0124	1	1.11	0.8	6.7	1.50	66.90	22.30	2.51	2.90	1	1	0	0	2.5	22.2	16.7
MH-894	MH-497	580.59	580.5	11.3	150	0.62	131.629	0.1991	0.181	0.9	0.95	0.8	27.4	1.40	31.64	11.30	1.27	1.47	1	1	0	0	1.3	10.4	8.5
MH-3810	MH-3811	579.79	579.76	22.3	150	0.24	1000	0.09042	0.0822	1.1	1.04	1.2	30.3	1.60	71.36	22.30	2.51	2.90	1	1	0	0	2.5	23.9	16.7
MH-3816	MH-3817	580.25	580.18	22.3	150	0.29	322.897	0.04631	0.0421	0.8	0.8	0.8	15.4	1.30	57.98	22.30	2.51	2.90	1	1	0	0	2.5	18.8	16.7
MH-3818	MH-1909	579.75	579.53	22.3	150	0.99	100	0.59169	0.5379	0.8	0.8	0.8	43.3	1.30	57.98	22.30	2.51	2.90	1	1	0	0	2.5	18.8	16.7
MH-2471	MH-3821	564.94	565.17	22.3	150	0.3	100	0.01364	0.0124	0.9	0.8	0.99	8	1.40	62.44	22.30	2.51	2.90	1	1	0	0	2.5	20.5	16.7
MH-3825	MH-3584	599.93	599.98	22.4	150	0.31	462.874	0.08316	0.0756	1.3	1.03	1.48	20.3	1.80	80.64	22.40	2.52	2.92	1	1	0	0	2.5	27.3	16.8
MH-3566	MH-2797	581.13	581.11	22.4	150	0.2	1000	0.0484	0.044	1.2	1.07	1.33	16.8	1.70	76.16	22.40	2.52	2.92	1	1	0	0	2.5	25.6	16.8
MH-3831	MH-3832	583.72	583.5	22.5	150	0.47	100	0.05478	0.0498	0.9	1.01	0.8	13.2	1.40	63.00	22.50	2.53	2.93	1	1	0	0	2.5	20.7	16.9
MH-2797	MH-3833	580.56	580.52	22.5	217	0.6	554.23	1.00881	0.9171	1.7	1.81	1.54	44	2.27	102.02	22.50	2.76	3.59	1	1	0	0	2.8	44.8	18.4
MH-3837	MH-3838	583.45	583.43	22.8	150	0.21	1000	0.0594	0.054	0.9	0.8	0.91	18.6	1.40	63.84	22.80	2.57	2.97	1	1	0	0	2.6	21.0	17.1
MH-3839	MH-3840	569.58	569.56	22.5	150	0.13	1000	0.01111	0.0101	1.1	0.8	1.49	12.7	1.60	72.00	22.50	2.53	2.93	1	1	0	0	2.5	24.1	16.9
MH-3766	MH-3847	575.01	575.1	22.6	150	0.6	238.225	0.3828	0.348	3.3	3.04	3.57	41	3.80	171.76	22.60	2.54	2.94	1	0	1	0	2.5	68.2	17.0
MH-3850	MH-3729	587.26	587.23	22.6	150	0.25	1000	0.09834	0.0894	1.5	1.28	1.67	30	2.00	90.40	22.60	2.54	2.94	1	1	0	0	2.5	31.0	17.0
MH-3851	MH-3852	581.73	581.5	22.6	150	0.53	100	0.08745	0.0795	1	1.16	0.8	16.7	1.50	67.80	22.60	2.54	2.94	1	1	0	0	2.5	22.5	17.0
MH-3606	MH-1793	578.88	578.79	22.6	150	0.6	237.74	0.3817	0.347	2.3	2.12	2.4	41	2.80	126.56	22.60	2.54	2.94	1	1	0	0	2.5	51.3	17.0
MH-3859	MH-3274	586.74	586.72	22.7	150	0.18	1000	0.03685	0.0335	0.9	0.86	0.84	18.6	1.40	63.56	22.70	2.55	2.95	1	1	0	0	2.6	20.9	17.0
MH-3860	MH-992	580.76	580.54	22.3	150	0.54	100	0.0935	0.085	0.9	0.96	0.8	21.3	1.40	62.44	22.30	2.51	2.90	1	1	0	0	2.5	20.5	16.7
MH-3863	MH-3713	581.43	581.2	22.7	150	0.38	100	0.02981	0.0271	0.8	0.82	0.8	11.2	1.30	59.02	22.70	2.55	2.95	1	1	0	0	2.6	19.2	17.0
MH-3177	MH-3864	579.23	579.14	22.7	150	0.25	251.049	0.02101	0.0191	0.8	0.8	0.8	10.4	1.30	59.02	22.70	2.55	2.95	1	1	0	0	2.6	19.2	17.0
MH-3865	MH-3866	585.84	585.96	22.7	150	0.6	198.583	0.30041	0.2731	1.8	1.83	1.76	34.4	2.30	104.42	22.70	2.55	2.95	1	1	0	0	2.6	43.0	17.0
MH-3870	MH-207	601.54	601.3	24	150	0.2	100	0.00341	0.0031	0.8	0.83	0.8	3.3	1.30	62.40	24.00	2.70	3.12	1	1	0	0	2.7	20.3	18.0
MH-404	MH-291	581.34	581.21	16.2	150	0.6	130.232	0.1771	0.161	1.3	1.56	1.09	25.9	1.80	58.32	16.20	1.82	2.11	1	1	0	0	1.8	19.8	12.2
MH-3875	MH-3876	586.28	586.26	22.8	150	0.17	1000	0.02728	0.0248	1	1	1.08	16.2	1.50	68.40	22.80	2.57	2.97	1	1	0	0	2.6	22.7	17.1
MH-3877	MH-3878	588.86	588.84	22.8	150	0.24	1000	0.09526	0.0866	0.8	0.8	0.84	29.4	1.30	59.28	22.80	2.57	2.97	1	1	0	0	2.6	19.3	17.1
MH-149	MH-3879	563.84	563.86	21.9	150	0.21	1000	0.06204	0.0564	1	1.25	0.8	19	1.50	65.70	21.90	2.46	2.85	1	1	0	0	2.5	21.8	16.4
MH-3880	MH-3881	563.98	563.77	22.8	150	0.94	107.781	0.69883	0.6353	0.8	0.8	0.8	53.9	1.30	59.28	22.80	2.57	2.97	1	1	0	0	2.6	19.3	17.1
MH-3886	MH-3887	586.27	586.19	22.9	150	0.29	306.245	0.04466	0.0406	0.8	0.8	0.8	16.3	1.30	59.54	22.90	2.58	2.98	1	1	0	0	2.6	19.3	17.2
MH-601	MH-3893	594.85	595.08	22.9	150	0.27	100	0.00935	0.0085	0.9	0.8	1.04	13.9	1.40	64.12	22.90	2.58	2.98	1	1	0	0	2.6	21.1	17.2
MH-2249	MH-2307	567.44	567.41	23	271	0.6	803.274	1.76352	1.6032	1.4	1.28	1.49	55	2.02	92.97	23.00	3.00	4.33	1	1	0	0	3.0	43.1	20.0
MH-2767	MH-3897	584.62	584.74	23	150	0.6	192.285	0.28952	0.2632	1.7	1.93	1.37	43.1	2.20	101.20	23.00	2.59	2.99	1	1	0	0	2.6	41.9	17.3
MH-516	MH-3901	568.97	568.93	23	217	0.6	553.088	1.00573	0.9143	2.7	2.7	2.67	48.8	3.27	150.28	23.00	2.82	3.67	1	1	0	0	2.8	64.6	18.8
MH-3907	MH-321	577.11	576.92	18.3	150	0.81	100	0.3597	0.327	1.1	1.33	0.8	34.1	1.60	58.56	18.30	2.06	2.38	1	1	0	0	2.1	19.6	13.7
MH-3876	MH-3916	586.26	586.24	23.1	150	0.18	1000	0.03465	0.0315	1.1	1.08	1.13	18.7	1.60	73.92	23.10	2.60	3.01	1	1	0	0	2.6	24.7	17.3
MH-4161	MH-4162	591.52	591.71	24.7	150	0.6	129.396	0.17523	0.1593	0.9	0.91	0.94	26.7	1.40	69.16	24.70	2.78	3.22	1	1	0	0	2.8	22.7	18.5
MH-3242	MH-67	578.96	578.72	23.7	150	0.35	100	0.0209	0.019	0.9	0.94	0.8	8.2	1.40	66.36	23.70	2.67	3.08	1	1	0	0	2.7	21.8	17.8
MH-1385	MH-395	585.58	585.56	26.9	150	0.2	1000	0.05203	0.0473	1.3	1.31	1.3	17.4	1.80	96.84	26.90	3.03	3.50	1	1	0	0	3.0	32.8	20.2
MH-3785	MH-2188	581.39	581.15	24.8	150	0.47	100	0.05753	0.0523	0.8	0.87	0.8	15.6	1.30	64.48	24.80	2.79	3.23	1	1	0	0	2.8	21.0	18.6
MH-4172	MH-4173	592.59	592.36	24.8	150	0.47	107.867	0.0627	0.057	0.8	0.8	0.8	21.1	1.30	64.48	24.80	2.79	3.23	1	1	0	0	2.8	21.0	18.6
MH-3930	MH-4174	586.83	586.58	24.9	150	0.61	100	0.13442	0.1222	1	1.25	0.8	20.7	1.50	74.70	24.90	2.80	3.24	1	1	0	0	2.8	24.8	18.7
MH-3968	MH-2878	585.78	585.54	24.9	150	0.52	103.539	0.08393	0.0763	0.8	0.8	0.8	18.1	1.30	64.74	24.90	2.80	3.24	1	1	0	0	2.8	21.0	18.7
MH-754	MH-4177	579.41	579.66	24.6	150	0.21	100	0.00418	0.0038	0.8	0.8	0.81	17.6	1.30	63.96	24.60	2.77	3.20	1	1	0	0	2.8	20.8	18.5
MH-4178	MH-4179	583.22	582.97	24.9	150	0.62	100.17	0.14861	0.1351	0.8	0.8	0.8	21.7	1.30	64.74	24.90	2.80	3.24	1	1	0	0	2.8	21.0	18.7
MH-4182	MH-4183	587.05	587.03	24.9	150	0.19	1000	0.03872	0.0352	0.9	0.8	0.92	15	1.40	69.72	24.90	2.80	3.24	1	1	0	0	2.8	22.9	18.7
MH-4190	MH-4191	581.06	580.81	24.9	150	0.6	100.802	0.13178	0.1198	0.8	0.8	0.82	22.8	1.30	64.74	24.90	2.80	3.24	1	1	0	0	2.8	21.0	18.7
MH-993	MH-95	580.28	580.11	18	150	0.58	100	0.11748	0.1068	0.9	1.02	0.8	19.3	1.40	50.40	18.00	2.03	2.34	1	1	0	0	2.0	16.6	13.5
MH-3162	MH-1296	579.8	579.55	25	150	0.62	100	0.14333	0.1303	1	1.2	0.8	21.3	1.50	75.00	25.00	2.81	3.25	1	1	0	0	2.8	24.9	18.8
MH-4197	MH-864	581	580.75	25.4	150	0.44	101.99	0.04532	0.0412	0.8	0.8	0.8	17	1.30	66.04	25.40	2.86	3.31	1	1	0	0	2.9	21.5	19.1
MH-4203	MH-411	580.58	580.29	29	150	0.26	100	0.00737	0.0067	0.8	0.83	0.8	4.9	1.30	75.40	29.00	3.26	3.77	1	1	0	0	3.3	24.5	21.8
MH-4204	MH-3875	586.31	586.28	25.1	150	0.16	1000	0.02189	0.0199	0.9	0.88	1	14.5	1.40	70.28	25.10	2.82	3.27	1	1	0	0	2.8	23.1	18.8
MH-655	MH-4205	578.33	578.35	15.2	150	0.16	1000	0.02123	0.0193	0.8	0.86	0.8	11.1	1.30	39.52	15.20	1.71	1.98	1	1	0	0	1.7	12.8	11.4
MH-4212	MH-4213	586.36	586.33	25.1	150	0.11	1000	0.00704	0.0064	0.8	0.8	0.81	9.3	1.30	65.26	25.10	2.82	3.27	1	1	0	0	2.8	21.2	18.8
MH-4214	MH-4215	580.07	579.96	25.1	150	0.6	216.022	0.33594	0.3054	0.8	0.8	0.84	36.3	1.30	65.26	25.10	2.82	3.27	1	1	0	0	2.8	21.2	18.8
MH-4216	MH-3576	580.79	580.54	25.1	150	0.26	100	0.00814	0.0074	0.8	0.83	0.8	7.1	1.30	65.26	25.10	2.82	3.27	1	1	0	0	2.8	21.2	18.8
MH-828	MH-4197	581.18	581	25.3	150	0.32	139.499	0.02376	0.0216	0.9	1.06	0.8	11	1.40	70.84	25.30	2.85	3.29	1	1	0	0	2.8	23.3	19.0
MH-4217	MH-4218	577.33	577.08	25.1	150	0.29	100	0.01177	0.0107	0.8	0.87	0.8	6.2	1.30	65.26	25.10	2.82	3.27	1	1	0	0	2.8	21.2	18.8
MH-943	MH-703	579.08	578.88	20.7	150	0.54	106.583	0.09878	0.0898	1.5	1.49	1.53	22.1	2.00	82.80	20.70	2.33	2.69	1	1	0	0	2.3	28.4	15.5
MH-4220	MH-3920	585.76	585.73	25.2	150	0.12	1000	0.00781	0.0071	1	0.8	1.2	10.7	1.50	75.60	25.20	2.84	3.28	1	1	0	0	2.8	25.1	18.9
MH-417	MH-3967	586.22	585.97	25.3	150	0.47	102.596	0.05676	0.0516	0.8	0.8	0.8	15.2	1.30	65.78	25.30	2.85	3.29	1	1	0	0	2.8	21.4	19.0
MH-9	MH-2426	578.13	578.11	8.5	217	0.6	514.527	0.90497	0.8227	2.7	2.79	2.64	45.8	3.27	55.54	8.50	1.04	1.36	1	1	0	0	1.0	23.9	6.9
MH-4230	MH-4231	581.96	581.71	25.4	150	0.61	100	0.13574	0.1234	1	1.23	0.8	20.8	1.50	76.20	25.40	2.86	3.31	1	1	0	0	2.9	25.3	19.1
MH-1212	MH-4234	597.73	597.48	25.4	150	0.78	100	0.32659	0.2969	0.9	1.02	0.8	36.1	1.40	71.12	25.40	2.86	3.31	1	1	0	0	2.9	23.4	19.1
MH-2167	MH-4235	587.27	587.15	25.4	150	0.6	215.506	0.33484	0.3044	3.1	2.52	3.71	38.3	3.60	182.88	25.40	2.86	3.31	1	0	1	0	2.9	72.9	19.1

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-4236	MH-4237	597.64	597.51	25.4	150	0.22	191.893	0.01045	0.0095	0.8	0.8	0.8	6.4	1.30	66.04	25.40	2.86	3.31	1	1	0	0	2.9	21.5	19.1
MH-4239	MH-4240	587.95	587.8	25.4	150	0.21	174.816	0.00759	0.0069	0.8	0.8	0.8	5.3	1.30	66.04	25.40	2.86	3.31	1	1	0	0	2.9	21.5	19.1
MH-3832	MH-4241	583.37	583.12	25.4	150	0.48	100	0.06237	0.0567	0.9	0.92	0.8	14.1	1.40	71.12	25.40	2.86	3.31	1	1	0	0	2.9	23.4	19.1
MH-3650	MH-3536	584.1	583.84	25.5	150	0.59	100	0.12001	0.1091	0.9	0.9	0.8	19.5	1.40	71.40	25.50	2.87	3.32	1	1	0	0	2.9	23.5	19.1
MH-2083	MH-2128	582.15	581.98	25.5	150	0.6	152.43	0.21714	0.1974	1.2	1.31	1.13	27.7	1.70	86.70	25.50	2.87	3.32	1	1	0	0	2.9	29.2	19.1
MH-3337	MH-4246	575.35	575.09	25.5	150	0.64	100	0.16379	0.1489	0.9	0.95	0.8	27.3	1.40	71.40	25.50	2.87	3.32	1	1	0	0	2.9	23.5	19.1
MH-1681	MH-3595	579.83	579.58	25.6	150	0.65	100	0.17314	0.1574	0.8	0.83	0.8	26.4	1.30	66.56	25.60	2.88	3.33	1	1	0	0	2.9	21.6	19.2
MH-4247	MH-4248	564.3	564.07	25.1	175	1.16	112.129	1.2683	1.153	0.8	0.8	0.8	53.4	1.33	66.52	25.10	2.92	3.52	1	1	0	0	2.9	22.3	19.5
MH-3439	MH-4249	577.55	577.52	25.6	150	0.21	1000	0.05467	0.0497	0.8	0.8	0.84	19.5	1.30	66.56	25.60	2.88	3.33	1	1	0	0	2.9	21.6	19.2
MH-2270	MH-101	598.69	598.67	25.6	150	0.25	1000	0.10098	0.0918	1.1	1.31	0.98	24.3	1.60	81.92	25.60	2.88	3.33	1	1	0	0	2.9	27.4	19.2
MH-4250	MH-4251	582.81	582.58	25.6	150	0.6	111.053	0.14674	0.1334	1.1	1.05	1.1	24.2	1.60	81.92	25.60	2.88	3.33	1	1	0	0	2.9	27.4	19.2
MH-3840	MH-187	569.56	569.53	30.1	150	0.16	1000	0.02178	0.0198	1.9	1.49	2.32	23.9	2.40	144.48	30.10	3.39	3.92	2	2	0	0	3.4	59.3	22.6
MH-3714	MH-4253	580.38	580.34	25.6	217	0.6	588.62	1.10572	1.0052	1.2	1.35	1.04	46.4	1.77	90.47	25.60	3.14	4.08	1	1	0	0	3.1	32.9	20.9
MH-2926	MH-4257	586.09	586.02	25.6	175	0.6	393.647	0.60522	0.5502	1.1	1.12	1.03	42.6	1.63	83.20	25.60	2.98	3.59	1	1	0	0	3.0	28.6	19.8
MH-4265	MH-4036	585.3	585.28	25.7	150	0.1	1000	0.00528	0.0048	1	0.8	1.25	8.8	1.50	77.10	25.70	2.89	3.35	1	1	0	0	2.9	25.6	19.3
MH-4267	MH-4268	587.54	587.51	25.7	271	0.6	850.292	1.93446	1.7586	1.1	1.18	1.08	47.8	1.72	88.46	25.70	3.36	4.84	1	1	0	0	3.4	33.7	22.4
MH-4270	MH-2047	586.18	586.02	25.7	150	0.32	164.503	0.02838	0.0258	0.8	0.8	0.8	10.1	1.30	66.82	25.70	2.89	3.35	1	1	0	0	2.9	21.7	19.3
MH-2736	MH-4271	574.87	574.62	25.7	150	0.9	100	0.52635	0.4785	1	1.15	0.8	41.6	1.50	77.10	25.70	2.89	3.35	1	1	0	0	2.9	25.6	19.3
MH-4277	MH-3707	588.53	588.29	25.8	150	0.26	106.305	0.00836	0.0076	0.8	0.8	0.8	6.6	1.30	67.08	25.80	2.90	3.36	1	1	0	0	2.9	21.8	19.4
MH-3041	MH-4278	575.17	575.13	25.8	217	0.6	625.9	1.22001	1.1091	2.3	2.65	1.89	49.7	2.87	147.94	25.80	3.16	4.12	1	1	0	0	3.2	64.1	21.1
MH-907	MH-480	600.11	600.13	21.4	150	0.19	1000	0.03949	0.0359	1.3	1.26	1.43	17.8	1.80	77.04	21.40	2.41	2.79	1	1	0	0	2.4	26.1	16.1
MH-4279	MH-4280	577.79	577.76	27	271	0.6	846.956	1.92302	1.7482	2.3	2.35	2.19	58	2.92	157.73	27.00	3.53	5.08	1	1	0	0	3.5	71.7	23.5
MH-375	MH-4285	576.86	577.09	29.8	150	0.6	129.997	0.17666	0.1606	1.1	1.24	1.03	26.6	1.60	95.36	29.80	3.35	3.88	1	1	0	0	3.4	31.9	22.4
MH-4288	MH-469	576.37	576.35	16.5	150	0.18	1000	0.03751	0.0341	1	0.8	1.12	20.9	1.50	49.50	16.50	1.86	2.15	1	1	0	0	1.9	16.4	12.4
MH-1819	MH-2336	568.83	568.69	25.9	150	0.6	182.052	0.27203	0.2473	1.9	2.02	1.88	32.4	2.40	124.32	25.90	2.91	3.37	1	1	0	0	2.9	51.0	19.4
MH-4289	MH-351	596.43	596.17	26.7	150	0.31	100	0.01419	0.0129	0.8	0.83	0.8	6.8	1.30	69.42	26.70	3.00	3.48	1	1	0	0	3.0	22.6	20.0
MH-3180	MH-4158	584.46	584.2	25.9	150	0.82	100	0.37862	0.3442	0.8	0.87	0.8	35	1.30	67.34	25.90	2.91	3.37	1	1	0	0	2.9	21.9	19.4
MH-4291	MH-3850	587.28	587.26	25.9	150	0.24	1000	0.08668	0.0788	1	0.8	1.28	28.1	1.50	77.70	25.90	2.91	3.37	1	1	0	0	2.9	25.8	19.4
MH-204	MH-3818	579.87	579.75	12	150	0.97	100	0.53284	0.4844	0.9	0.9	0.8	46.2	1.40	33.60	12.00	1.35	1.56	1	1	0	0	1.4	11.0	9.0
MH-2740	MH-2152	601.86	601.71	26	150	0.43	177.706	0.08525	0.0775	1	1.12	0.93	18	1.50	78.00	26.00	2.93	3.38	1	1	0	0	2.9	25.9	19.5
MH-3927	MH-4297	581.22	581.47	26	150	0.6	101.114	0.13266	0.1206	0.8	0.8	0.8	20.5	1.30	67.60	26.00	2.93	3.38	1	1	0	0	2.9	22.0	19.5
MH-2863	MH-4298	597.85	598.08	26	150	0.31	112.504	0.0176	0.016	0.8	0.8	0.8	7.7	1.30	67.60	26.00	2.93	3.38	1	1	0	0	2.9	22.0	19.5
MH-4300	MH-4301	585.35	585.09	26	150	0.44	100	0.04521	0.0411	0.9	0.97	0.8	12	1.40	72.80	26.00	2.93	3.38	1	1	0	0	2.9	23.9	19.5
MH-4114	MH-1802	588.89	588.63	26	150	0.57	100	0.10978	0.0998	1.1	1.38	0.8	18.6	1.60	83.20	26.00	2.93	3.38	1	1	0	0	2.9	27.8	19.5
MH-3204	MH-4230	582.66	582.39	26.1	150	0.59	100	0.12144	0.1104	1.1	1.39	0.8	19.6	1.60	83.52	26.10	2.94	3.40	1	1	0	0	2.9	27.9	19.6
MH-4308	MH-2843	600.29	600.54	26.1	150	0.6	106.081	0.13981	0.1271	0.9	0.99	0.8	21.2	1.40	73.08	26.10	2.94	3.40	1	1	0	0	2.9	24.0	19.6
MH-3390	MH-1706	583.53	583.27	26.2	150	0.42	100	0.03949	0.0359	0.9	0.91	0.8	11.2	1.40	73.36	26.20	2.95	3.41	1	1	0	0	2.9	24.1	19.7
MH-3101	MH-3464	580	579.98	26.2	150	0.17	1000	0.02838	0.0258	0.9	0.85	0.87	12.8	1.40	73.36	26.20	2.95	3.41	1	1	0	0	2.9	24.1	19.7
MH-4312	MH-401	574.28	574.57	28.1	175	0.95	100	0.67045	0.6095	1	0.8	1.28	38.4	1.53	85.71	28.10	3.27	3.94	1	1	0	0	3.3	29.3	21.8
MH-39	MH-505	590.69	590.46	23.1	150	0.4	100	0.03443	0.0313	0.8	0.87	0.8	16.9	1.30	60.06	23.10	2.60	3.01	1	1	0	0	2.6	19.5	17.3
MH-4313	MH-4097	579.4	579.66	25.8	150	0.64	100	0.1573	0.143	0.9	0.8	0.95	22.3	1.40	72.24	25.80	2.90	3.36	1	1	0	0	2.9	23.7	19.4
MH-4314	MH-4315	567.95	567.76	26.2	150	0.27	139.893	0.01408	0.0128	0.8	0.8	0.8	9.8	1.30	68.12	26.20	2.95	3.41	1	1	0	0	2.9	22.1	19.7
MH-52	MH-4316	599.77	599.56	21.2	150	0.86	100	0.44858	0.4078	0.9	0.99	0.8	38.3	1.40	59.36	21.20	2.39	2.76	1	1	0	0	2.4	19.5	15.9
MH-2467	MH-4190	581.32	581.06	26.2	150	0.59	100	0.11979	0.1089	0.9	0.91	0.8	21.6	1.40	73.36	26.20	2.95	3.41	1	1	0	0	2.9	24.1	19.7
MH-216	MH-225	600.89	600.64	26.2	150	0.6	103.605	0.13695	0.1245	0.8	0.81	0.8	20.9	1.30	68.12	26.20	2.95	3.41	1	1	0	0	2.9	22.1	19.7
MH-2259	MH-377	564.91	564.67	24	150	0.42	100	0.04004	0.0364	0.9	1.02	0.8	11.3	1.40	67.20	24.00	2.70	3.12	1	1	0	0	2.7	22.1	18.0
MH-3453	MH-4117	570.37	570.11	26.3	150	0.65	100	0.16731	0.1521	1.1	1.46	0.8	23.1	1.60	84.16	26.30	2.96	3.42	1	1	0	0	3.0	28.1	19.7
MH-4325	MH-2292	586.46	586.2	26.3	150	0.29	100	0.01199	0.0109	0.9	0.96	0.8	6.3	1.40	73.64	26.30	2.96	3.42	1	1	0	0	3.0	24.2	19.7
MH-4326	MH-4327	579.64	579.9	26.3	150	0.72	100	0.23837	0.2167	1.2	0.8	1.51	39.1	1.70	89.42	26.30	2.96	3.42	1	1	0	0	3.0	30.1	19.7
MH-1899	MH-4328	582.37	582.35	26.3	150	0.26	1000	0.12639	0.1149	1.9	1.68	2.09	28.3	2.40	126.24	26.30	2.96	3.42	1	1	0	0	3.0	51.8	19.7
MH-4331	MH-3847	577.65	577.4	26.5	150	0.6	108.047	0.14245	0.1295	1	0.8	1.27	21.4	1.50	79.50	26.50	2.98	3.45	1	1	0	0	3.0	26.4	19.9
MH-3748	MH-3485	580.64	580.38	26.4	150	0.37	100	0.02662	0.0242	0.8	0.83	0.8	9.2	1.30	68.64	26.40	2.97	3.44	1	1	0	0	3.0	22.3	19.8
MH-4332	MH-4333	581.95	581.8	26.4	150	0.6	175.763	0.2596	0.236	1.6	1.46	1.79	30.9	2.10	110.88	26.40	2.97	3.44	1	1	0	0	3.0	46.1	19.8
MH-4334	MH-4335	586.47	586.44	26.4	150	0.14	845.261	0.01243	0.0113	0.8	0.8	0.8	12.2	1.30	68.64	26.40	2.97	3.44	1	1	0	0	3.0	22.3	19.8
MH-4213	MH-4204	586.33	586.31	26.4	150	0.13	1000	0.01276	0.0116	0.8	0.81	0.88	12.2	1.30	68.64	26.40	2.97	3.44	1	1	0	0	3.0	22.3	19.8
MH-4051	MH-4340	591.74	592	26.5	150	0.34	100	0.01925	0.0175	0.8	0.8	0.83	7.9	1.30	68.90	26.50	2.98	3.45	1	1	0	0	3.0	22.4	19.9
MH-374	MH-4343	582.79	582.89	26.4	150	0.25	253.037	0.02178	0.0198	0.8	0.8	0.8	9.4	1.30	68.64	26.40	2.97	3.44	1	1	0	0	3.0	22.3	19.8
MH-4349	MH-3969	586.92	586.68	26.5	150	0.32	109.107	0.01815	0.0165	0.8	0.8	0.8	9.2	1.30	68.90	26.50	2.98	3.45	1	1	0	0	3.0	22.4	19.9
MH-4351	MH-4352	586.42	586.39	26.5	150	0.25	1000	0.11088	0.1008	0.8	0.8	0.8	25.5	1.30	68.90	26.50	2.98	3.45	1	1	0	0	3.0	22.4	19.9
MH-1687	MH-411	580.02	579.99	29	150	0.17	1000	0.02618	0.0238	1	0.8	1.1	16.5	1.50	87.00	29.00	3.26	3.77	1	1	0	0	3.3	28.9	21.8
MH-4353	MH-1345	571.45	571.43	26.5	150	0.24	1000	0.08602	0.0782	0.9	0.8	0.96	26.9	1.40	74.20	26.50	2.98	3.45	1	1	0	0	3.0	24.4	19.9
MH-4354	MH-4084	585.87	585.85	26.6	150	0.2	1000	0.04917	0.0447	1	0.98	1.02	21.8	1.50	79.80	26.60	2.99	3.46	1	1	0	0	3.0	26.5	20.0
MH-512	MH-4093	602.23	602.31	30.8	150	0.6	354.325	0.5159	0.469	2.1	1.95	2.15	47.8	2.60	160.16	30.80	3.47	4.01	2	2	0	0	3.5	65.3	23.1
MH-2127	MH-3942	585.04	584.91	26.7	150	0.6	203.565	0.31405	0.2855	1.5	1.66	1.36	35.4	2.00	106.80	26.70	3.00	3.48	1	1	0	0	3.0	36.6	20.0
MH-4360	MH-364	565.07	564.92	21.5	150	0.6	143.517	0.20108	0.1828	2.5	2.63	2.36	26.4	3.00	129.00	21.50	2.42	2.80	1	1	0	0	2.4	52.0	16.1

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-4361	MH-4362	575.14	574.87	26.7	150	0.53	100	0.08316	0.0756	1.1	1.44	0.8	16.2	1.60	85.44	26.70	3.00	3.48	1	1	0	0	3.0	28.6	20.0
MH-1289	MH-46	597.39	597.15	31.9	271	1.32	132.212	2.82194	2.5654	0.8	0.8	0.8	45.7	1.42	90.66	31.90	4.17	6.01	2	2	0	0	4.2	33.5	27.8
MH-3732	MH-4368	591.54	591.5	26.8	217	0.6	620.581	1.20241	1.0931	2.3	2.3	2.22	56	2.87	153.67	26.80	3.28	4.27	1	1	0	0	3.3	66.5	21.9
MH-3081	MH-1708	586.31	586.58	26.8	150	0.62	100	0.14564	0.1324	0.9	0.8	0.93	21.5	1.40	75.04	26.80	3.02	3.49	1	1	0	0	3.0	24.7	20.1
MH-4371	MH-351	594.6	594.45	27.7	150	0.6	181.917	0.2717	0.247	2.3	2.12	2.52	32.6	2.80	155.12	27.70	3.12	3.61	1	1	0	0	3.1	62.9	20.8
MH-4372	MH-4373	587.34	587.19	26.8	150	0.6	187.351	0.27863	0.2533	0.9	0.89	0.82	33.4	1.40	75.04	26.80	3.02	3.49	1	1	0	0	3.0	24.7	20.1
MH-4375	MH-197	584.29	584.1	26.8	150	0.45	147.519	0.07722	0.0702	0.8	0.8	0.8	23.4	1.30	69.68	26.80	3.02	3.49	1	1	0	0	3.0	22.6	20.1
MH-4376	MH-4377	595.96	595.69	26.8	217	1.38	100	2.13774	1.9434	0.9	1.08	0.8	51.7	1.47	78.63	26.80	3.28	4.27	1	1	0	0	3.3	27.8	21.9
MH-4095	MH-4378	592.41	592.38	26.8	150	0.26	1000	0.12023	0.1093	1.5	1.32	1.59	27.5	2.00	107.20	26.80	3.02	3.49	1	1	0	0	3.0	36.7	20.1
MH-4382	MH-3509	586.57	586.55	26.8	150	0.19	1000	0.04026	0.0366	0.9	0.89	0.91	19.4	1.40	75.04	26.80	3.02	3.49	1	1	0	0	3.0	24.7	20.1
MH-4383	MH-4384	590.78	590.52	26.9	150	0.5	100	0.07139	0.0649	0.8	0.88	0.8	15	1.30	69.94	26.90	3.03	3.50	1	1	0	0	3.0	22.7	20.2
MH-4057	MH-2830	580.94	580.83	26.9	150	0.3	239.617	0.0352	0.032	0.8	0.8	0.8	11.7	1.30	69.94	26.90	3.03	3.50	1	1	0	0	3.0	22.7	20.2
MH-4395	MH-4396	569.14	569.08	26.9	175	0.6	438.571	0.71126	0.6466	1.3	0.8	1.7	51.7	1.83	98.19	26.90	3.13	3.77	1	1	0	0	3.1	34.3	20.8
MH-4401	MH-3929	588.12	587.93	19.9	150	0.44	100	0.04422	0.0402	1	1.1	0.8	11.9	1.50	59.70	19.90	2.24	2.59	1	1	0	0	2.2	19.8	14.9
MH-4404	MH-3389	584.14	583.87	27	150	0.27	100	0.00935	0.0085	0.9	0.92	0.8	5.6	1.40	75.60	27.00	3.04	3.51	1	1	0	0	3.0	24.8	20.3
MH-4405	MH-4406	591.91	591.88	27	150	0.16	1000	0.02222	0.0202	1	0.8	1.13	17.4	1.50	81.00	27.00	3.04	3.51	1	1	0	0	3.0	26.9	20.3
MH-4407	MH-4408	563.39	563.2	27	150	0.6	141.896	0.19844	0.1804	0.8	0.8	0.81	26.2	1.30	70.20	27.00	3.04	3.51	1	1	0	0	3.0	22.8	20.3
MH-4413	MH-1760	579.26	579.23	26.8	150	0.15	1000	0.01716	0.0156	1	0.8	1.11	10	1.50	80.40	26.80	3.02	3.49	1	1	0	0	3.0	26.7	20.1
MH-4415	MH-4416	592.61	592.58	27.1	150	0.19	1000	0.03861	0.0351	1	0.8	1.2	19.7	1.50	81.30	27.10	3.05	3.53	1	1	0	0	3.0	27.0	20.3
MH-4420	MH-4421	584.28	584.01	27.1	150	0.44	100	0.04576	0.0416	1.1	1.38	0.8	12.1	1.60	86.72	27.10	3.05	3.53	1	1	0	0	3.0	29.0	20.3
MH-4425	MH-2592	593.11	593.08	27.2	150	0.22	1000	0.06248	0.0568	0.9	0.86	0.85	19.5	1.40	76.16	27.20	3.06	3.54	1	1	0	0	3.1	25.0	20.4
MH-4430	MH-211	571.6	571.39	27.2	150	0.73	133.066	0.36674	0.3334	0.9	0.96	0.8	35.6	1.40	76.16	27.20	3.06	3.54	1	1	0	0	3.1	25.0	20.4
MH-4179	MH-4436	581.7	581.53	27.2	150	0.6	159.952	0.22847	0.2077	2	2.07	1.95	28.5	2.50	136.00	27.20	3.06	3.54	1	1	0	0	3.1	55.6	20.4
MH-4438	MH-4250	583.08	582.81	27.2	150	0.6	100.368	0.12925	0.1175	1	1.04	1.05	22.6	1.50	81.60	27.20	3.06	3.54	1	1	0	0	3.1	27.1	20.4
MH-4439	MH-3648	589.93	589.9	27.2	150	0.22	1000	0.06754	0.0614	2.3	2.44	2.16	26.3	2.80	152.32	27.20	3.06	3.54	1	1	0	0	3.1	61.7	20.4
MH-522	MH-71	603	602.73	27.2	150	0.51	100	0.07359	0.0669	0.9	1.02	0.8	18.3	1.40	76.16	27.20	3.06	3.54	1	1	0	0	3.1	25.0	20.4
MH-4131	MH-4440	561.62	561.59	27.2	271	0.6	879.438	2.05029	1.8639	1.6	1.38	1.73	62	2.22	120.82	27.20	3.55	5.12	1	1	0	0	3.6	55.7	23.7
MH-149	MH-4445	563.49	563.35	28.4	150	0.6	195.566	0.29513	0.2683	1.9	1.59	2.22	34.7	2.40	136.32	28.40	3.20	3.70	1	1	0	0	3.2	55.9	21.3
MH-4447	MH-3	591.92	591.67	30	150	0.45	119.307	0.06325	0.0575	0.8	0.8	0.8	14.5	1.30	78.00	30.00	3.38	3.90	1	1	0	0	3.4	25.3	22.5
MH-3116	MH-4278	575.46	575.19	27.3	150	0.32	102.595	0.01639	0.0149	1.6	1.36	1.89	13.2	2.10	114.66	27.30	3.07	3.55	1	1	0	0	3.1	47.6	20.5
MH-2871	MH-4450	573.12	572.85	27.3	150	0.45	100	0.05115	0.0465	1.1	1.48	0.8	12.8	1.60	87.36	27.30	3.07	3.55	1	1	0	0	3.1	29.2	20.5
MH-4451	MH-113	590.17	589.98	31.7	150	0.6	163.102	0.23463	0.2133	1.1	0.8	1.34	29	1.60	101.44	31.70	3.57	4.13	2	2	0	0	3.6	33.9	23.8
MH-1713	MH-4453	590.04	589.91	27.4	150	0.3	198.343	0.02816	0.0256	0.8	0.8	0.8	10.3	1.30	71.24	27.40	3.08	3.57	1	1	0	0	3.1	23.1	20.6
MH-4136	MH-2633	584.3	584.02	27.4	150	0.39	100	0.03003	0.0273	0.8	0.8	0.8	9.9	1.30	71.24	27.40	3.08	3.57	1	1	0	0	3.1	23.1	20.6
MH-4456	MH-4457	581.93	582.2	27.4	150	0.25	100	0.00715	0.0065	0.9	0.8	1.03	4.9	1.40	76.72	27.40	3.08	3.57	1	1	0	0	3.1	25.2	20.6
MH-4458	MH-2746	586.87	586.75	27.4	150	0.6	226.663	0.35827	0.3257	0.9	0.9	0.9	39.1	1.40	76.72	27.40	3.08	3.57	1	1	0	0	3.1	25.2	20.6
MH-4459	MH-3777	584.11	583.84	27.5	150	0.45	100	0.04818	0.0438	0.9	0.91	0.8	12.4	1.40	77.00	27.50	3.09	3.58	1	1	0	0	3.1	25.3	20.6
MH-93	MH-8	594.07	593.95	27.9	150	0.6	227.454	0.35981	0.3271	1.1	1.25	1.04	37.9	1.60	89.28	27.90	3.14	3.63	1	1	0	0	3.1	29.8	20.9
MH-474	MH-679	594.98	594.78	27.5	150	0.6	138.411	0.19305	0.1755	1.5	1.25	1.68	28.1	2.00	110.00	27.50	3.09	3.58	1	1	0	0	3.1	37.7	20.6
MH-3362	MH-1004	563.18	563.14	16.3	175	0.6	452.258	0.74558	0.6778	4.5	4.77	4.29	54.6	5.03	163.82	16.30	1.89	2.29	1	0	0	1	1.9	75.9	12.6
MH-4466	MH-4467	586.97	586.93	27.5	217	0.6	699.276	1.5004	1.364	0.9	0.96	0.92	56.3	1.47	80.69	27.50	3.37	4.39	1	1	0	0	3.4	28.6	22.5
MH-550	MH-4472	576.52	576.59	15.8	150	0.6	262.18	0.43791	0.3981	3.2	3.26	3.18	45.1	3.70	116.92	15.80	1.78	2.06	1	0	1	0	1.8	46.5	11.9
MH-4476	MH-3186	581.57	581.29	27.6	150	0.29	100	0.01166	0.0106	0.8	0.89	0.8	6.2	1.30	71.76	27.60	3.11	3.59	1	1	0	0	3.1	23.3	20.7
MH-4478	MH-4479	603.05	602.82	27.6	150	0.67	119.464	0.23067	0.2097	0.8	0.8	0.8	31.4	1.30	71.76	27.60	3.11	3.59	1	1	0	0	3.1	23.3	20.7
MH-2308	MH-4482	567.39	567.36	27.6	271	0.6	829.542	1.85691	1.6881	1.7	1.65	1.77	58.1	2.32	128.12	27.60	3.61	5.20	1	1	0	0	3.6	58.9	24.0
MH-4483	MH-4484	589.1	588.82	27.6	150	0.47	100	0.05489	0.0499	0.9	1.02	0.8	13.2	1.40	77.28	27.60	3.11	3.59	1	1	0	0	3.1	25.4	20.7
MH-602	MH-2464	594.67	594.39	27.6	150	0.61	100	0.13849	0.1259	0.9	0.98	0.8	21	1.40	77.28	27.60	3.11	3.59	1	1	0	0	3.1	25.4	20.7
MH-4489	MH-4267	588.32	588.04	27.7	150	0.64	100	0.16522	0.1502	0.9	1.05	0.8	22.9	1.40	77.56	27.70	3.12	3.61	1	1	0	0	3.1	25.5	20.8
MH-401	MH-998	574.57	574.8	25.7	175	0.91	109.077	0.64031	0.5821	1.6	1.28	1.93	41.5	2.13	109.23	25.70	2.99	3.61	1	1	0	0	3.0	46.4	19.9
MH-4490	MH-4491	559.88	559.76	27.7	150	0.6	235.281	0.37631	0.3421	1	0.8	1.3	39	1.50	83.10	27.70	3.12	3.61	1	1	0	0	3.1	27.6	20.8
MH-2074	MH-1510	578.07	578.02	27.7	217	0.6	547.008	0.99055	0.9005	2.4	2.51	2.35	52.3	2.97	164.37	27.70	3.39	4.42	1	1	0	0	3.4	71.0	22.6
MH-4492	MH-4439	590.45	590.42	27.7	150	0.15	1000	0.01749	0.0159	1.8	1.56	1.95	10.1	2.30	127.42	27.70	3.12	3.61	1	1	0	0	3.1	52.5	20.8
MH-3878	MH-4484	588.84	588.81	27.7	150	0.25	1000	0.10791	0.0981	0.8	0.84	0.81	25.2	1.30	72.02	27.70	3.12	3.61	1	1	0	0	3.1	23.4	20.8
MH-4502	MH-891	579.1	579.07	27.8	150	0.11	1000	0.00605	0.0055	0.9	0.8	1.08	7.5	1.40	77.84	27.80	3.13	3.62	1	1	0	0	3.1	25.6	20.9
MH-4453	MH-4483	589.6	589.32	27.8	150	0.42	100	0.03894	0.0354	1	1.11	0.8	11.2	1.50	83.40	27.80	3.13	3.62	1	1	0	0	3.1	27.7	20.9
MH-4508	MH-4156	587.77	587.73	27.8	150	0.2	814.408	0.03773	0.0343	0.8	0.8	0.8	18.6	1.30	72.28	27.80	3.13	3.62	1	1	0	0	3.1	23.5	20.9
MH-3224	MH-4510	570.32	570.35	27.9	150	0.18	1000	0.03201	0.0291	1	1.07	0.87	18.6	1.50	83.70	27.90	3.14	3.63	1	1	0	0	3.1	27.8	20.9
MH-4518	MH-133	602.07	601.78	29.1	150	0.58	100	0.1155	0.105	1	1.11	0.8	19.1	1.50	87.30	29.10	3.27	3.79	1	1	0	0	3.3	28.9	21.8
MH-4522	MH-4523	593.96	593.98	27.9	150	0.25	1000	0.10384	0.0944	1.1	1.33	0.8	25.4	1.60	89.28	27.90	3.14	3.63	1	1	0	0	3.1	29.8	20.9
MH-772	MH-665	596.19	595.91	28	150	0.47	100	0.0561	0.051	0.9	1.03	0.8	14.8	1.40	78.40	28.00	3.15	3.64	1	1	0	0	3.2	25.8	21.0
MH-804	MH-443	591.55	591.69	28	150	0.6	192.003	0.28831	0.2621	1.9	1.77	2.11	40.9	2.40	134.40	28.00	3.15	3.64	1	1	0	0	3.2	55.2	21.0
MH-4527	MH-4360	565.31	565.07	27.7	150	0.6	111.993	0.14828	0.1348	2.3	2.04	2.63	25.4	2.80	155.12	27.70	3.12	3.61	1	1	0	0	3.1	62.9	20.8
MH-4533	MH-4492	590.48	590.45	28.1	150	0.11	1000	0.00715	0.0065	1.2	0.8	1.56	10.2	1.70	95.54	28.10	3.16	3.66	1	1	0	0	3.2	32.2	21.1
MH-292	MH-4534	580.95	580.98	31	150	0.11	1000	0.00627	0.0057	1.1	1.35	0.8	17.5	1.60	99.20	31.00	3.49	4.04	2	2	0	0	3.5	33.2	23.3
MH-4535	MH-3420	583	582.71	28.1	150	0.79	100	0.32978	0.2998	1.1	1.39	0.8	32.6	1.60	89.92	28.10	3.16	3.66	1	1	0	0	3.2	30.1	21.1

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-4537	MH-4538	586.78	586.5	28.2	271	1.43	100	2.59391	2.3581	1.1	1.32	0.8	42.3	1.72	97.06	28.20	3.68	5.31	1	1	0	0	3.7	37.0	24.6
MH-4539	MH-1693	579.15	579.12	28.2	150	0.16	1000	0.02167	0.0197	0.8	0.8	0.87	14.8	1.30	73.32	28.20	3.17	3.67	1	1	0	0	3.2	23.8	21.2
MH-4541	MH-3984	585.14	585.11	28.2	150	0.25	1000	0.10494	0.0954	0.9	0.99	0.87	31.1	1.40	78.96	28.20	3.17	3.67	1	1	0	0	3.2	25.9	21.2
MH-4544	MH-4545	578.3	578.27	28.2	150	0.2	1000	0.04851	0.0441	0.9	0.8	1.06	22.8	1.40	78.96	28.20	3.17	3.67	1	1	0	0	3.2	25.9	21.2
MH-4546	MH-4508	587.84	587.77	28.2	150	0.23	387.669	0.02464	0.0224	0.8	0.8	0.8	14.3	1.30	73.32	28.20	3.17	3.67	1	1	0	0	3.2	23.8	21.2
MH-4548	MH-4549	567.51	567.3	28.2	150	0.48	133.112	0.08503	0.0773	0.8	0.8	0.8	20.2	1.30	73.32	28.20	3.17	3.67	1	1	0	0	3.2	23.8	21.2
MH-4550	MH-4129	591.66	591.61	28.2	217	0.6	599.719	1.13828	1.0348	2.5	2.52	2.43	54	3.07	172.98	28.20	3.46	4.50	1	1	0	0	3.5	74.6	23.0
MH-338	MH-93	594.44	594.27	33	150	0.6	191.51	0.28699	0.2609	1.1	1.2	1.05	32.8	1.60	105.60	33.00	3.71	4.30	2	2	0	0	3.7	35.3	24.8
MH-4562	MH-4563	582.81	582.79	28.4	150	0.2	1000	0.04939	0.0449	0.9	0.8	0.99	23.2	1.40	79.52	28.40	3.20	3.70	1	1	0	0	3.2	26.1	21.3
MH-4566	MH-509	593.75	593.79	23.2	271	0.74	570.72	2.5069	2.279	0.8	0.8	0.8	64.2	1.42	65.93	23.20	3.03	4.37	1	1	0	0	3.0	24.3	20.2
MH-3715	MH-2439	580.77	580.66	28.4	150	0.3	272.232	0.04092	0.0372	0.8	0.8	0.8	13.5	1.30	73.84	28.40	3.20	3.70	1	1	0	0	3.2	24.0	21.3
MH-4576	MH-4577	566.8	566.52	28.5	150	0.87	100	0.47179	0.4289	0.8	0.85	0.8	39.3	1.30	74.10	28.50	3.21	3.71	1	1	0	0	3.2	24.1	21.4
MH-4174	MH-2771	586.02	585.74	28.6	150	0.68	100	0.20196	0.1836	1.1	1.36	0.8	25.3	1.60	91.52	28.60	3.22	3.72	1	1	0	0	3.2	30.6	21.5
MH-509	MH-152	593.79	593.81	15	271	0.66	766.418	2.44882	2.2262	0.8	0.8	0.82	62.4	1.42	42.63	15.00	1.96	2.82	1	1	0	0	2.0	15.7	13.1
MH-4067	MH-4579	576.2	576.17	32	150	0.23	1000	0.08217	0.0747	1.2	1.06	1.29	27	1.70	108.80	32.00	3.60	4.17	2	2	0	0	3.6	36.6	24.0
MH-3760	MH-4240	587.42	587.39	28.6	150	0.26	1000	0.12826	0.1166	1.2	1.13	1.21	28.3	1.70	97.24	28.60	3.22	3.72	1	1	0	0	3.2	32.7	21.5
MH-1547	MH-3120	582.72	582.45	28.6	150	0.6	108.302	0.14278	0.1298	0.9	0.96	0.83	23.4	1.40	80.08	28.60	3.22	3.72	1	1	0	0	3.2	26.3	21.5
MH-4587	MH-4588	576.31	576.28	28.7	150	0.12	1000	0.01001	0.0091	1.1	0.8	1.36	7.7	1.60	91.84	28.70	3.23	3.74	1	1	0	0	3.2	30.7	21.5
MH-3633	MH-3013	584.22	584.19	28.7	150	0.2	1000	0.05291	0.0481	1.1	1.34	0.94	18.4	1.60	91.84	28.70	3.23	3.74	1	1	0	0	3.2	30.7	21.5
MH-1925	MH-3700	586.68	586.97	28.7	150	0.6	100.38	0.13057	0.1187	1.4	1.53	1.29	22.5	1.90	109.06	28.70	3.23	3.74	1	1	0	0	3.2	37.2	21.5
MH-18	MH-4592	587.05	586.76	28.7	400	1.91	100	10.51512	9.5592	0.8	0.8	0.8	53.5	1.55	88.97	28.70	4.31	7.91	1	1	0	0	4.3	36.6	28.7
MH-4594	MH-2246	580.88	580.74	28.7	150	0.6	201.1	0.30503	0.2773	2.6	2.74	2.45	34.1	3.10	177.94	28.70	3.23	3.74	1	1	0	0	3.2	71.6	21.5
MH-4595	MH-3874	570.76	570.73	28.7	150	0.16	1000	0.02519	0.0229	0.9	0.8	1.04	16.6	1.40	80.36	28.70	3.23	3.74	1	1	0	0	3.2	26.4	21.5
MH-270	MH-771	596.72	596.43	28.7	150	0.41	100	0.03586	0.0326	0.9	1.04	0.8	10.7	1.40	80.36	28.70	3.23	3.74	1	1	0	0	3.2	26.4	21.5
MH-4599	MH-2584	576.34	576.05	28.8	150	0.34	100	0.01947	0.0177	0.8	0.83	0.8	10.3	1.30	74.88	28.80	3.24	3.75	1	1	0	0	3.2	24.3	21.6
MH-4396	MH-515	569.08	569.05	15	175	0.6	441.672	0.71896	0.6536	2.2	1.7	2.67	52	2.73	81.75	15.00	1.74	2.10	1	1	0	0	1.7	34.1	11.6
MH-4604	MH-3947	580.78	580.51	28.8	150	0.26	108.388	0.00924	0.0084	0.8	0.8	0.8	7	1.30	74.88	28.80	3.24	3.75	1	1	0	0	3.2	24.3	21.6
MH-4606	MH-4607	578.36	578.65	28.8	150	0.53	100	0.0836	0.076	1	0.8	1.23	16.3	1.50	86.40	28.80	3.24	3.75	1	1	0	0	3.2	28.7	21.6
MH-3297	MH-4608	601.77	601.51	28.9	150	0.79	114.909	0.40557	0.3687	1	1.15	0.8	36.9	1.50	86.70	28.90	3.25	3.76	1	1	0	0	3.3	28.8	21.7
MH-4609	MH-4610	586.8	586.77	28.9	150	0.17	1000	0.0264	0.024	0.9	0.8	0.92	12.4	1.40	80.92	28.90	3.25	3.76	1	1	0	0	3.3	26.6	21.7
MH-3864	MH-3788	579.14	578.99	27.4	150	0.31	193.073	0.03223	0.0293	0.9	0.8	1.03	25.8	1.40	76.72	27.40	3.08	3.57	1	1	0	0	3.1	25.2	20.6
MH-416	MH-601	595.14	594.85	29	150	0.57	100	0.11044	0.1004	0.9	1.04	0.8	21.1	1.40	81.20	29.00	3.26	3.77	1	1	0	0	3.3	26.7	21.8
MH-4613	MH-1569	586.12	585.86	29	150	0.48	113.307	0.06776	0.0616	0.8	0.8	0.8	14.8	1.30	75.40	29.00	3.26	3.77	1	1	0	0	3.3	24.5	21.8
MH-362	MH-4618	568.18	568.07	29.1	150	0.6	261.833	0.43703	0.3973	0.9	0.8	1.01	42.9	1.40	81.48	29.10	3.27	3.79	1	1	0	0	3.3	26.8	21.8
MH-4538	MH-4619	586.05	585.76	29.1	271	1.44	100	2.65221	2.4111	1	1.24	0.8	42.8	1.62	94.34	29.10	3.80	5.48	1	1	0	0	3.8	35.6	25.3
MH-4621	MH-4622	580.65	580.57	29.1	150	0.24	355.909	0.02508	0.0228	0.8	0.8	0.8	12.5	1.30	75.66	29.10	3.27	3.79	1	1	0	0	3.3	24.6	21.8
MH-4623	MH-4624	593.28	593.25	29.1	150	0.14	1000	0.0154	0.014	0.8	0.8	0.84	14.2	1.30	75.66	29.10	3.27	3.79	1	1	0	0	3.3	24.6	21.8
MH-666	MH-415	595.67	595.38	29.1	150	0.52	100	0.07909	0.0719	0.9	1.04	0.8	17.8	1.40	81.48	29.10	3.27	3.79	1	1	0	0	3.3	26.8	21.8
MH-4518	MH-4628	602.39	602.68	29.1	150	0.51	100	0.07469	0.0679	1	0.8	1.12	15.4	1.50	87.30	29.10	3.27	3.79	1	1	0	0	3.3	28.9	21.8
MH-4629	MH-3681	567.91	567.62	29.2	150	0.49	100	0.06556	0.0596	1.3	1.74	0.8	14.4	1.80	105.12	29.20	3.29	3.80	1	1	0	0	3.3	35.6	21.9
MH-4630	MH-52	600.37	599.96	40.9	150	0.25	100	0.00682	0.0062	0.9	0.93	0.8	4.7	1.40	114.52	40.90	4.60	5.32	2	2	0	0	4.6	37.6	30.7
MH-466	MH-4566	593.71	593.75	27.4	271	0.66	781.645	2.58775	2.3525	0.8	0.8	0.8	65.9	1.42	77.87	27.40	3.58	5.16	1	1	0	0	3.6	28.8	23.9
MH-151	MH-81	593.82	593.86	27.4	271	0.68	699.114	2.37138	2.1558	0.8	0.8	0.82	63.8	1.42	77.87	27.40	3.58	5.16	1	1	0	0	3.6	28.8	23.9
MH-4635	MH-3632	585.35	585.05	29.3	150	0.31	100	0.01419	0.0129	0.8	0.89	0.8	6.9	1.30	76.18	29.30	3.30	3.81	1	1	0	0	3.3	24.8	22.0
MH-3985	MH-311	585.09	584.88	31.4	150	0.6	154.68	0.22165	0.2015	1.7	1.43	2.03	30.6	2.20	138.16	31.40	3.53	4.09	2	2	0	0	3.5	57.1	23.6
MH-2491	MH-2850	600.59	600.63	29.3	150	0.27	624.23	0.07898	0.0718	0.8	0.8	0.8	26.1	1.30	76.18	29.30	3.30	3.81	1	1	0	0	3.3	24.8	22.0
MH-54	MH-465	593.67	593.7	16.1	271	0.75	584.844	2.68906	2.4446	0.8	0.8	0.81	54.5	1.42	45.76	16.10	2.10	3.03	1	1	0	0	2.1	16.9	14.0
MH-4579	MH-477	576.17	576.15	25.7	150	0.24	1000	0.08778	0.0798	1.4	1.29	1.49	30	1.90	97.66	25.70	2.89	3.35	1	1	0	0	2.9	33.3	19.3
MH-4643	MH-473	595.25	594.98	29.3	150	0.6	111.619	0.14762	0.1342	1	0.8	1.25	24.9	1.50	87.90	29.30	3.30	3.81	1	1	0	0	3.3	29.1	22.0
MH-4368	MH-4646	591.5	591.45	29.3	217	0.6	626.172	1.22012	1.1092	2.1	2.22	2.08	56.7	2.67	156.29	29.30	3.59	4.67	1	1	0	0	3.6	68.0	23.9
MH-3723	MH-2369	590.01	589.98	29.4	150	0.15	1000	0.02002	0.0182	2.1	1.57	2.59	14.6	2.60	152.88	29.40	3.31	3.83	1	1	0	0	3.3	62.3	22.1
MH-4647	MH-4648	564.83	564.64	29.4	150	0.6	155.275	0.22297	0.2027	1	1.08	0.88	28.1	1.50	88.20	29.40	3.31	3.83	1	1	0	0	3.3	29.2	22.1
MH-4650	MH-4651	589.61	589.32	29.4	150	0.51	100	0.07568	0.0688	0.9	0.91	0.8	15.5	1.40	82.32	29.40	3.31	3.83	1	1	0	0	3.3	27.0	22.1
MH-3945	MH-4652	585.78	585.75	29.4	271	0.6	979.333	2.58786	2.3526	2.5	2.53	2.43	73.6	3.12	183.51	29.40	3.84	5.54	1	1	0	0	3.8	83.2	25.6
MH-4658	MH-75	599.18	598.92	29.5	150	0.41	113.843	0.04301	0.0391	0.8	0.8	0.8	15.3	1.30	76.70	29.50	3.32	3.84	1	1	0	0	3.3	24.9	22.1
MH-4661	MH-4662	578.8	578.78	29.5	150	0.2	1000	0.05093	0.0463	0.8	0.8	0.82	23.6	1.30	76.70	29.50	3.32	3.84	1	1	0	0	3.3	24.9	22.1
MH-1446	MH-4664	576.09	576.21	50.4	175	0.6	417.893	0.66055	0.6005	1.8	1.73	1.97	49	2.33	234.36	50.40	5.86	7.07	2	2	0	0	5.9	98.9	39.1
MH-4667	MH-4668	593.99	593.96	29.6	400	0.6	1000	3.32563	3.0233	1.1	1.38	0.9	38.6	1.85	109.52	29.60	4.44	8.16	1	1	0	0	4.4	46.6	29.6
MH-2391	MH-4669	580.7	580.41	29.5	150	0.61	100	0.13486	0.1226	1	1.11	0.8	20.7	1.50	88.50	29.50	3.32	3.84	1	1	0	0	3.3	29.3	22.1
MH-4671	MH-3810	579.82	579.79	29.5	150	0.22	1000	0.06468	0.0588	0.9	0.8	1.04	25.8	1.40	82.60	29.50	3.32	3.84	1	1	0	0	3.3	27.1	22.1
MH-4652	MH-4672	585.75	585.72	29.5	271	0.6	983.832	2.62174	2.3834	2.4	2.43	2.32	73.4	3.02	178.24	29.50	3.85	5.55	1	1	0	0	3.9	80.9	25.7
MH-1914	MH-4677	586	586.29	29.6	150	0.54	100	0.09042	0.0822	0.8	0.8	0.88	16.9	1.30	76.96	29.60	3.33	3.85	1	1	0	0	3.3	25.0	22.2
MH-506	MH-463	590.23	590.1	12.6	150	0.5	100	0.07051	0.0641	0.9	1.03	0.8	14.9	1.40	35.28	12.60	1.42	1.64	1	1	0	0	1.4	11.6	9.5
MH-4678	MH-337	594.89	594.85	29.6	150	0.28	757.13	0.11517	0.1047	0.9	1.09	0.8	24.9	1.40	82.88	29.60	3.33	3.85	1	1	0	0	3.3	27.2	22.2
MH-4237	MH-269	597.26	596.96	29.6	150	0.31	100	0.01397	0.0127	0.9	1.05	0.8	8.6	1.40	82.88	29.60	3.33	3.85	1	1	0	0	3.3	27.2	22.2

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-330	MH-225	600.3	600.55	25.3	150	0.66	100	0.17688	0.1608	0.8	0.8	0.89	26.2	1.30	65.78	25.30	2.85	3.29	1	1	0	0	2.8	21.4	19.0
MH-42	MH-10	578.26	578.2	29.2	175	0.6	493.138	0.86207	0.7837	2.8	2.89	2.76	54	3.33	194.18	29.20	3.39	4.10	1	1	0	0	3.4	79.9	22.6
MH-3495	MH-4681	583.48	583.78	29.7	150	0.48	100	0.06193	0.0563	0.8	0.8	0.81	14	1.30	77.22	29.70	3.34	3.87	1	1	0	0	3.3	25.1	22.3
MH-4683	MH-4684	594.74	594.55	27.9	150	0.6	141.926	0.19844	0.1804	0.9	0.8	0.91	26.2	1.40	78.12	27.90	3.14	3.63	1	1	0	0	3.1	25.7	20.9
MH-680	MH-4371	594.78	594.6	29.7	150	0.6	165.654	0.23859	0.2169	1.9	1.68	2.12	31	2.40	142.56	29.70	3.34	3.87	1	1	0	0	3.3	58.5	22.3
MH-4685	MH-3649	584.78	584.48	29.7	150	0.54	100	0.09295	0.0845	0.8	0.89	0.8	17.2	1.30	77.22	29.70	3.34	3.87	1	1	0	0	3.3	25.1	22.3
MH-4689	MH-4382	586.6	586.57	29.8	150	0.16	1000	0.02079	0.0189	0.8	0.8	0.89	15.9	1.30	77.48	29.80	3.35	3.88	1	1	0	0	3.4	25.2	22.4
MH-158	MH-4692	571.54	571.78	28.5	150	0.56	117.043	0.1243	0.113	0.8	0.8	0.8	23	1.30	74.10	28.50	3.21	3.71	1	1	0	0	3.2	24.1	21.4
MH-934	MH-4588	576.13	576.01	12.6	150	0.6	106.592	0.14047	0.1277	1.6	1.52	1.63	24.1	2.10	52.92	12.60	1.42	1.64	1	1	0	0	1.4	22.0	9.5
MH-4697	MH-4698	595.92	595.95	29.9	150	0.2	1000	0.04851	0.0441	0.8	0.87	0.8	16.8	1.30	77.74	29.90	3.36	3.89	1	1	0	0	3.4	25.3	22.4
MH-4705	MH-3507	581.3	581.04	30	150	0.36	113.785	0.02695	0.0245	0.8	0.8	0.81	11.1	1.30	78.00	30.00	3.38	3.90	1	1	0	0	3.4	25.3	22.5
MH-4710	MH-4711	586.59	586.29	30	150	0.6	100	0.12595	0.1145	0.9	0.94	0.8	29.8	1.40	84.00	30.00	3.38	3.90	1	1	0	0	3.4	27.6	22.5
MH-2572	MH-3087	602.09	602.15	30	150	0.31	517.333	0.10263	0.0933	0.8	0.8	0.8	28.2	1.30	78.00	30.00	3.38	3.90	1	1	0	0	3.4	25.3	22.5
MH-4607	MH-4717	579.08	579.28	30	150	0.39	150.867	0.05126	0.0466	0.8	0.8	0.8	13.4	1.30	78.00	30.00	3.38	3.90	1	1	0	0	3.4	25.3	22.5
MH-4720	MH-4721	581.75	582.06	30.1	150	1.08	100	1.09164	0.9924	1.2	0.8	1.55	62.1	1.70	102.34	30.10	3.39	3.92	2	2	0	0	3.4	34.5	22.6
MH-2542	MH-631	600.67	600.4	29.6	150	0.67	110.612	0.21769	0.1979	1	1.24	0.8	26.7	1.50	88.80	29.60	3.33	3.85	1	1	0	0	3.3	29.4	22.2
MH-3548	MH-4728	592.49	592.26	30.1	150	0.28	127.749	0.0143	0.013	0.8	0.8	0.8	7	1.30	78.26	30.10	3.39	3.92	2	2	0	0	3.4	25.4	22.6
MH-4729	MH-4730	582.72	582.47	30.1	150	0.6	118.608	0.15873	0.1443	1.2	1.15	1.26	25.6	1.70	102.34	30.10	3.39	3.92	2	2	0	0	3.4	34.5	22.6
MH-4740	MH-4741	583.99	583.69	30.2	150	0.67	100	0.18843	0.1713	1.1	1.35	0.8	24.5	1.60	96.64	30.20	3.40	3.93	2	2	0	0	3.4	32.3	22.7
MH-2214	MH-3230	576.37	576.07	30.2	150	0.54	100	0.08998	0.0818	0.8	0.89	0.8	16.9	1.30	78.52	30.20	3.40	3.93	2	2	0	0	3.4	25.5	22.7
MH-4743	MH-4744	600.88	600.58	30.2	150	0.93	100	0.60709	0.5519	1	1.26	0.8	44.9	1.50	90.60	30.20	3.40	3.93	2	2	0	0	3.4	30.0	22.7
MH-4753	MH-437	586.14	586.32	32.8	150	0.6	178.902	0.26565	0.2415	2.1	2.01	2.23	32.2	2.60	170.56	32.80	3.69	4.27	2	2	0	0	3.7	69.5	24.6
MH-4754	MH-4316	599.97	599.56	41.1	150	0.3	100	0.01364	0.0124	0.9	0.91	0.8	6.7	1.40	115.08	41.10	4.62	5.35	2	2	0	0	4.6	37.8	30.8
MH-4755	MH-3441	598.44	598.41	30.4	150	0.21	1000	0.05533	0.0503	0.9	0.8	1.08	23.3	1.40	85.12	30.40	3.42	3.96	2	2	0	0	3.4	28.0	22.8
MH-4085	MH-4756	585.82	585.59	30.4	150	0.45	132.863	0.06974	0.0634	0.9	1.05	0.8	21.3	1.40	85.12	30.40	3.42	3.96	2	2	0	0	3.4	28.0	22.8
MH-4757	MH-4354	585.9	585.87	30.4	150	0.17	1000	0.0275	0.025	0.9	0.8	0.98	17.9	1.40	85.12	30.40	3.42	3.96	2	2	0	0	3.4	28.0	22.8
MH-4759	MH-4541	585.17	585.14	30.4	150	0.23	1000	0.07876	0.0716	0.9	0.8	0.99	27.9	1.40	85.12	30.40	3.42	3.96	2	2	0	0	3.4	28.0	22.8
MH-4762	MH-4763	580.8	580.56	30.4	150	0.36	128.509	0.03278	0.0298	0.8	0.8	0.8	12.6	1.30	79.04	30.40	3.42	3.96	2	2	0	0	3.4	25.7	22.8
MH-4053	MH-3981	594.65	594.87	30.8	150	0.3	144.687	0.02024	0.0184	0.8	0.8	0.8	8.4	1.30	80.08	30.80	3.47	4.01	2	2	0	0	3.5	26.0	23.1
MH-1760	MH-4769	578.72	578.52	29	150	0.6	146.187	0.20559	0.1869	1.8	1.62	1.98	29.2	2.30	133.40	29.00	3.26	3.77	1	1	0	0	3.3	55.0	21.8
MH-184	MH-2557	580.94	580.88	38.7	217	0.6	657.216	1.3266	1.206	3.9	4.21	3.69	62	4.47	345.75	38.70	4.74	6.17	2	0	2	0	4.7	169.9	31.6
MH-4775	MH-3683	574.64	574.61	30.6	150	0.26	1000	0.12672	0.1152	1.3	1.18	1.5	28.5	1.80	110.16	30.60	3.44	3.98	2	2	0	0	3.4	37.3	23.0
MH-4776	MH-4098	580.96	580.72	30.6	400	1.39	124.815	4.46688	4.0608	0.8	0.8	0.8	38.7	1.55	94.86	30.60	4.59	8.43	2	2	0	0	4.6	39.0	30.6
MH-4777	MH-4778	558.76	558.45	30.6	150	0.92	100	0.57013	0.5183	1	1.29	0.8	43.4	1.50	91.80	30.60	3.44	3.98	2	2	0	0	3.4	30.4	23.0
MH-4788	MH-4157	579.78	579.59	30.6	150	0.6	168.004	0.24607	0.2237	1.7	1.66	1.76	31.2	2.20	134.64	30.60	3.44	3.98	2	2	0	0	3.4	55.7	23.0
MH-4790	MH-3618	588.38	588.08	30.6	150	0.31	100	0.01419	0.0129	0.8	0.84	0.8	7.8	1.30	79.56	30.60	3.44	3.98	2	2	0	0	3.4	25.9	23.0
MH-4791	MH-4651	589.18	589.07	30.7	150	0.6	290.199	0.50875	0.4625	1	0.94	1.05	47.4	1.50	92.10	30.70	3.45	4.00	2	2	0	0	3.5	30.5	23.0
MH-4792	MH-2234	598.88	598.73	16.5	150	1	109.184	0.9009	0.819	1.1	1.35	0.8	56.4	1.60	52.80	16.50	1.86	2.15	1	1	0	0	1.9	17.7	12.4
MH-4795	MH-4134	564.19	563.98	30.6	150	0.6	139.104	0.19415	0.1765	2.6	2.31	2.85	28.1	3.10	189.72	30.60	3.44	3.98	2	2	0	0	3.4	76.3	23.0
MH-2493	MH-2128	581.56	581.53	30.7	150	0.19	1000	0.03982	0.0362	1.4	1.25	1.59	25.3	1.90	116.66	30.70	3.45	4.00	2	2	0	0	3.5	39.8	23.0
MH-4797	MH-828	581.75	581.44	30.7	150	0.27	100	0.00891	0.0081	1	1.14	0.8	5.4	1.50	92.10	30.70	3.45	4.00	2	2	0	0	3.5	30.5	23.0
MH-4802	MH-4803	579.32	579.15	27.3	150	0.6	160.473	0.22968	0.2088	1.3	1.23	1.38	28.6	1.80	98.28	27.30	3.07	3.55	1	1	0	0	3.1	33.3	20.5
MH-4807	MH-20	602.96	602.64	32	150	0.3	100	0.01309	0.0119	0.9	1.07	0.8	7.7	1.40	89.60	32.00	3.60	4.17	2	2	0	0	3.6	29.4	24.0
MH-4810	MH-4811	597.51	597.27	30.8	150	0.87	126.122	0.65769	0.5979	0.9	0.91	0.82	51.2	1.40	86.24	30.80	3.47	4.01	2	2	0	0	3.5	28.3	23.1
MH-2906	MH-1909	579.39	579.36	30.8	150	0.19	1000	0.04136	0.0376	0.9	0.8	0.97	30.2	1.40	86.24	30.80	3.47	4.01	2	2	0	0	3.5	28.3	23.1
MH-4137	MH-437	586.52	586.32	28.5	150	0.6	141.383	0.19756	0.1796	2.3	2.45	2.23	29.4	2.80	159.60	28.50	3.21	3.71	1	1	0	0	3.2	64.7	21.4
MH-4820	MH-4821	568.86	568.81	31.1	217	0.6	572.067	1.05776	0.9616	2.9	2.92	2.98	45.2	3.47	215.65	31.10	3.81	4.96	2	2	0	0	3.8	92.5	25.4
MH-4822	MH-3607	572.34	572.04	30.1	150	0.27	100	0.00902	0.0082	1	1.13	0.8	5.5	1.50	90.30	30.10	3.39	3.92	2	2	0	0	3.4	29.9	22.6
MH-4823	MH-343	580.79	580.48	30.9	150	0.26	100	0.00803	0.0073	0.8	0.89	0.8	5.2	1.30	80.34	30.90	3.48	4.02	2	2	0	0	3.5	26.1	23.2
MH-4825	MH-4826	588.96	588.89	30.9	175	0.6	428.194	0.68497	0.6227	1	1.04	1.02	54.1	1.53	94.25	30.90	3.59	4.33	2	2	0	0	3.6	32.2	23.9
MH-4563	MH-4829	582.79	582.75	30.9	150	0.23	1000	0.07865	0.0715	1.1	0.99	1.14	28.9	1.60	98.88	30.90	3.48	4.02	2	2	0	0	3.5	33.1	23.2
MH-4669	MH-1519	580.33	580.02	31	150	0.73	100	0.25817	0.2347	0.8	0.87	0.8	32.5	1.30	80.60	31.00	3.49	4.04	2	2	0	0	3.5	26.2	23.3
MH-4523	MH-2057	593.98	594.05	31	150	0.3	480.54	0.07898	0.0718	0.8	0.8	0.8	25.6	1.30	80.60	31.00	3.49	4.04	2	2	0	0	3.5	26.2	23.3
MH-4834	MH-4835	588.15	588.12	31	150	0.18	1000	0.03245	0.0295	1	0.8	1.1	24.3	1.50	93.00	31.00	3.49	4.04	2	2	0	0	3.5	30.8	23.3
MH-2604	MH-389	599.31	599.63	31	150	0.71	100	0.23386	0.2126	0.9	0.8	0.98	29.8	1.40	86.80	31.00	3.49	4.04	2	2	0	0	3.5	28.5	23.3
MH-4841	MH-4606	577.46	577.77	31.1	150	0.58	100	0.1166	0.106	1.1	0.8	1.39	22.7	1.60	99.52	31.10	3.50	4.05	2	2	0	0	3.5	33.3	23.3
MH-123	MH-2862	597.06	596.95	31.2	150	0.6	287.306	0.50094	0.4554	1.6	1.74	1.38	51.1	2.10	131.04	31.20	3.51	4.06	2	2	0	0	3.5	54.4	23.4
MH-4763	MH-776	580.56	580.36	32	150	0.4	156.523	0.0572	0.052	0.8	0.8	0.8	14.2	1.30	83.20	32.00	3.60	4.17	2	2	0	0	3.6	27.0	24.0
MH-4848	MH-4849	590.48	590.17	31.2	150	0.67	100	0.19404	0.1764	0.9	0.98	0.8	24.9	1.40	87.36	31.20	3.51	4.06	2	2	0	0	3.5	28.7	23.4
MH-4850	MH-4851	564.47	564.33	31.7	150	0.38	226.724	0.07568	0.0688	1	0.8	1.24	20.4	1.50	95.10	31.70	3.57	4.13	2	2	0	0	3.6	31.5	23.8
MH-3847	MH-4855	575.1	575.3	31.2	150	0.6	158.265	0.22473	0.2043	3.5	3.57	3.35	34.8	4.00	249.60	31.20	3.51	4.06	2	0	2	0	3.5	98.9	23.4
MH-4191	MH-4858	580.81	580.53	31.3	150	0.6	111.759	0.14784	0.1344	0.9	0.82	0.9	21.9	1.40	87.64	31.30	3.52	4.07	2	2	0	0	3.5	28.8	23.5
MH-4861	MH-1395	581.6	581.52	14.1	150	0.6	175.697	0.2596	0.236	3.7	3.9	3.59	31.5	4.20	118.44	14.10	1.59	1.84	1	0	1	0	1.6	55.3	10.6
MH-2376	MH-2862	596.87	596.95	31.4	150	0.6	362.391	0.53427	0.4857	1.2	1.02	1.38	52.7	1.70	106.76	31.40	3.53	4.09	2	2	0	0	3.5	35.9	23.6
MH-4865	MH-4866	593.21	592.89	31.4	150	0.36	100	0.02354	0.0214	1.1	1.32	0.8	8.7	1.60	100.48	31.40	3.53	4.09	2	2	0	0	3.5	33.6	23.6

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-4868	MH-4459	584.53	584.22	31.4	150	0.43	100	0.04202	0.0382	0.9	0.9	0.8	11.6	1.40	87.92	31.40	3.53	4.09	2	2	0	0	3.5	28.9	23.6
MH-4043	MH-4438	583.11	583.08	31.4	150	0.25	1000	0.10967	0.0997	1.2	1.33	1.04	26.2	1.70	106.76	31.40	3.53	4.09	2	2	0	0	3.5	35.9	23.6
MH-4873	MH-611	583.64	583.61	31.4	150	0.21	1000	0.06149	0.0559	1.9	2.06	1.81	18.9	2.40	150.72	31.40	3.53	4.09	2	2	0	0	3.5	61.9	23.6
MH-3963	MH-4878	562.31	561.99	31.5	150	0.67	100	0.19327	0.1757	1	1.28	0.8	24.8	1.50	94.50	31.50	3.54	4.10	2	2	0	0	3.5	31.3	23.6
MH-4880	MH-3859	586.77	586.74	31.5	150	0.16	1000	0.02453	0.0223	0.8	0.8	0.86	16.1	1.30	81.90	31.50	3.54	4.10	2	2	0	0	3.5	26.6	23.6
MH-4881	MH-4267	588.36	588.04	31.5	150	0.58	100	0.11649	0.1059	0.8	0.89	0.8	19.2	1.30	81.90	31.50	3.54	4.10	2	2	0	0	3.5	26.6	23.6
MH-4883	MH-157	571.33	571.3	33.3	150	0.17	1000	0.02618	0.0238	0.9	0.8	1.05	20.6	1.40	93.24	33.30	3.75	4.33	2	2	0	0	3.7	30.6	25.0
MH-4886	MH-4111	572.76	572.72	31.6	150	0.19	1000	0.0385	0.035	1.2	0.8	1.53	19.9	1.70	107.44	31.60	3.56	4.11	2	2	0	0	3.6	36.2	23.7
MH-190	MH-4889	564.55	564.83	28.6	150	0.38	100	0.02816	0.0256	0.9	0.8	1.09	18.4	1.40	80.08	28.60	3.22	3.72	1	1	0	0	3.2	26.3	21.5
MH-4892	MH-4893	586.26	585.93	32.3	150	0.34	100	0.01914	0.0174	0.9	1.03	0.8	14.3	1.40	90.44	32.30	3.63	4.20	2	2	0	0	3.6	29.7	24.2
MH-2	MH-4894	589.09	589.1	18.6	400	0.65	1000	4.46809	4.0619	1	1.2	0.8	56.6	1.75	65.10	18.60	2.79	5.13	1	1	0	0	2.8	27.4	18.6
MH-4901	MH-10	580.1	580.06	36.7	150	0.15	1000	0.01672	0.0152	0.9	0.8	0.92	9.9	1.40	102.76	36.70	4.13	4.78	2	2	0	0	4.1	33.8	27.5
MH-13	MH-4902	599.1	599.42	31.7	150	0.28	100	0.01089	0.0099	0.9	0.8	0.92	6	1.40	88.76	31.70	3.57	4.13	2	2	0	0	3.6	29.2	23.8
MH-3359	MH-4905	565.38	565.35	31.3	150	0.23	1000	0.0781	0.071	1.4	1.21	1.63	28.6	1.90	118.94	31.30	3.52	4.07	2	2	0	0	3.5	40.5	23.5
MH-3916	MH-3304	586.24	586.2	31.7	150	0.19	1000	0.0429	0.039	1.2	1.13	1.24	27.6	1.70	107.78	31.70	3.57	4.13	2	2	0	0	3.6	36.3	23.8
MH-3897	MH-311	584.74	584.88	27.1	150	0.6	186.744	0.27731	0.2521	1.7	1.37	2.03	32.7	2.20	119.24	27.10	3.05	3.53	1	1	0	0	3.0	49.3	20.3
MH-3409	MH-4046	591.11	591.27	15.7	150	0.64	100	0.15994	0.1454	0.8	0.8	0.89	25.1	1.30	40.82	15.70	1.77	2.04	1	1	0	0	1.8	13.3	11.8
MH-4914	MH-3962	563.7	563.38	31.7	150	0.54	100	0.08987	0.0817	1.1	1.3	0.8	16.9	1.60	101.44	31.70	3.57	4.13	2	2	0	0	3.6	33.9	23.8
MH-4421	MH-4477	583.29	582.97	31.8	150	0.48	100	0.06006	0.0546	1.2	1.52	0.8	13.8	1.70	108.12	31.80	3.58	4.14	2	2	0	0	3.6	36.4	23.9
MH-4918	MH-4919	590.14	589.82	31.8	150	0.43	100	0.04279	0.0389	1	1.28	0.8	11.7	1.50	95.40	31.80	3.58	4.14	2	2	0	0	3.6	31.6	23.9
MH-3065	MH-3443	571.32	571.05	31.8	150	0.7	119.613	0.27874	0.2534	0.8	0.8	0.8	32.8	1.30	82.68	31.80	3.58	4.14	2	2	0	0	3.6	26.9	23.9
MH-4923	MH-1116	579.02	578.91	31.8	150	0.6	282.41	0.48829	0.4439	3.9	4.03	3.7	46.1	4.40	279.84	31.80	3.58	4.14	2	0	2	0	3.6	129.4	23.9
MH-4183	MH-4610	585.68	585.65	31.9	271	0.6	994.617	2.77706	2.5246	2	2.15	1.93	59.7	2.62	167.22	31.90	4.17	6.01	2	2	0	0	4.2	76.4	27.8
MH-4926	MH-4791	589.37	589.18	31.9	150	0.6	164.022	0.23606	0.2146	0.9	0.82	0.94	40.1	1.40	89.32	31.90	3.59	4.15	2	2	0	0	3.6	29.3	23.9
MH-4928	MH-4929	590.89	590.57	32	150	0.51	100	0.07359	0.0669	1	1.29	0.8	15.3	1.50	96.00	32.00	3.60	4.17	2	2	0	0	3.6	31.8	24.0
MH-4938	MH-3737	590.46	590.43	32.2	150	0.13	1000	0.0121	0.011	0.9	0.8	1.08	12.7	1.40	90.16	32.20	3.62	4.19	2	2	0	0	3.6	29.6	24.2
MH-776	MH-2948	577.72	577.61	29	150	0.6	262.434	0.43846	0.3986	3.5	3.43	3.53	45.3	4.00	232.00	29.00	3.26	3.77	1	0	1	0	3.3	91.9	21.8
MH-784	MH-4943	598.04	598.24	20	150	0.98	100	0.72809	0.6619	1.3	0.8	1.73	49.6	1.80	72.00	20.00	2.25	2.60	1	1	0	0	2.3	24.4	15.0
MH-4944	MH-4945	573.51	573.19	32.2	150	0.98	100	0.72402	0.6582	1	1.21	0.8	49.4	1.50	96.60	32.20	3.62	4.19	2	2	0	0	3.6	32.0	24.2
MH-1061	MH-4948	559.26	559.2	32.3	217	0.6	529.764	0.94457	0.8587	1	0.98	1.05	42.6	1.57	101.23	32.30	3.96	5.15	2	2	0	0	4.0	36.2	26.4
MH-4950	MH-4881	588.77	588.44	32.3	150	0.52	100	0.07942	0.0722	0.9	1.02	0.8	15.9	1.40	90.44	32.30	3.63	4.20	2	2	0	0	3.6	29.7	24.2
MH-4662	MH-4954	578.78	578.74	32.3	150	0.23	1000	0.08261	0.0751	0.8	0.82	0.82	26.9	1.30	83.98	32.30	3.63	4.20	2	2	0	0	3.6	27.3	24.2
MH-3421	MH-4956	582.11	581.97	32.4	150	0.6	227.267	0.35937	0.3267	1	0.8	1.13	39.4	1.50	97.20	32.40	3.65	4.22	2	2	0	0	3.6	32.2	24.3
MH-4957	MH-4958	576.78	576.75	32.4	150	0.17	1000	0.02574	0.0234	1	0.8	1.3	20.4	1.50	97.20	32.40	3.65	4.22	2	2	0	0	3.6	32.2	24.3
MH-4959	MH-2760	600.73	600.7	32.4	150	0.16	1000	0.02112	0.0192	0.9	0.8	1.03	15.3	1.40	90.72	32.40	3.65	4.22	2	2	0	0	3.6	29.8	24.3
MH-3724	MH-4960	583.93	583.9	32.4	150	0.2	1000	0.05247	0.0477	1	0.98	1.07	23.7	1.50	97.20	32.40	3.65	4.22	2	2	0	0	3.6	32.2	24.3
MH-4646	MH-4961	591.45	591.4	32.4	217	0.6	633.392	1.24454	1.1314	2	2.08	1.86	57.4	2.57	166.34	32.40	3.97	5.17	2	2	0	0	4.0	72.5	26.5
MH-2337	MH-4965	568.62	568.46	32.4	150	0.6	196.445	0.29656	0.2696	1.7	1.8	1.57	34.9	2.20	142.56	32.40	3.65	4.22	2	2	0	0	3.6	59.0	24.3
MH-294	MH-4972	590.77	591.01	32.5	150	0.26	135.792	0.01221	0.0111	0.8	0.8	0.8	8	1.30	84.50	32.50	3.66	4.23	2	2	0	0	3.7	27.5	24.4
MH-3934	MH-3624	584.23	584.19	32.5	150	0.24	1000	0.09174	0.0834	1.8	1.72	1.96	28.7	2.30	149.50	32.50	3.66	4.23	2	2	0	0	3.7	61.6	24.4
MH-4973	MH-479	600.17	600.13	32	150	0.13	1000	0.01144	0.0104	1.1	0.8	1.43	14.1	1.60	102.40	32.00	3.60	4.17	2	2	0	0	3.6	34.2	24.0
MH-4974	MH-4975	562.93	562.89	40.2	1100	1.36	1000	92.08892	83.7172	1.4	1.53	1.28	55	2.85	229.14	40.20	10.25	48.43	2	2	0	0	10.3	158.4	68.3
MH-4980	MH-4267	587.58	587.54	32.6	271	0.6	766.846	1.64175	1.4925	1.1	1.1	1.18	52.7	1.72	112.21	32.60	4.26	6.14	2	2	0	0	4.3	42.7	28.4
MH-2247	MH-2796	580.65	580.59	32.6	217	0.6	529.199	0.94314	0.8574	2.2	2.36	1.99	46.2	2.77	180.41	32.60	4.00	5.20	2	2	0	0	4.0	78.3	26.6
MH-4984	MH-2779	582.86	582.54	32.6	150	0.93	100	0.59334	0.5394	0.9	0.94	0.8	48.3	1.40	91.28	32.60	3.67	4.24	2	2	0	0	3.7	30.0	24.5
MH-4985	MH-1699	579.33	579.09	32.7	150	0.6	133.39	0.1826	0.166	1.2	1.19	1.21	26.7	1.70	111.18	32.70	3.68	4.26	2	2	0	0	3.7	37.4	24.5
MH-4986	MH-2837	576.89	576.86	32.7	150	0.24	1000	0.09295	0.0845	2	1.8	2.25	26	2.50	163.50	32.70	3.68	4.26	2	2	0	0	3.7	66.9	24.5
MH-3763	MH-4989	581.97	582.01	34.4	150	0.12	1000	0.01001	0.0091	1.1	1.44	0.8	16.6	1.60	110.08	34.40	3.87	4.48	2	2	0	0	3.9	36.8	25.8
MH-4990	MH-4991	567.27	567.23	32.7	271	0.6	890.744	2.10221	1.9111	2.8	2.55	2.96	61.8	3.42	223.73	32.70	4.27	6.16	2	2	0	0	4.3	101.1	28.5
MH-4994	MH-4848	590.98	590.65	32.8	150	0.66	100	0.17809	0.1619	0.9	0.98	0.8	23.8	1.40	91.84	32.80	3.69	4.27	2	2	0	0	3.7	30.2	24.6
MH-6	MH-2455	579.44	579.4	40.4	700	1.01	1000	28.62244	26.0204	0.9	0.86	0.9	55.7	1.95	157.56	40.40	7.88	23.42	2	2	0	0	7.9	79.0	52.5
MH-4016	MH-2945	587.6	587.53	32.8	150	0.19	483.275	0.01859	0.0169	0.8	0.8	0.8	11.1	1.30	85.28	32.80	3.69	4.27	2	2	0	0	3.7	27.7	24.6
MH-4998	MH-2872	563.05	562.92	30.7	150	0.6	229.378	0.36366	0.3306	2.9	3.17	2.67	40.1	3.40	208.76	30.70	3.45	4.00	2	2	0	0	3.5	83.5	23.0
MH-5001	MH-5002	587.58	587.26	32.9	150	0.25	100.815	0.0077	0.007	0.8	0.8	0.8	7.3	1.30	85.54	32.90	3.70	4.28	2	2	0	0	3.7	27.8	24.7
MH-5006	MH-2168	587.64	587.31	32.9	150	0.27	100	0.00957	0.0087	1	1.21	0.8	5.6	1.50	98.70	32.90	3.70	4.28	2	2	0	0	3.7	32.7	24.7
MH-5009	MH-4858	580.51	580.18	33	600	2.28	100	22.05621	20.0511	0.8	0.85	0.8	45.5	1.75	115.50	33.00	5.94	15.27	2	2	0	0	5.9	54.0	39.6
MH-4651	MH-4825	589.05	588.96	33	175	0.6	397.675	0.61446	0.5586	1	1.05	1.04	47.9	1.53	100.65	33.00	3.84	4.63	2	2	0	0	3.8	34.4	25.6
MH-4610	MH-2410	585.52	585.48	33	400	0.62	1000	2.84361	2.5851	1.8	1.93	1.62	40.4	2.55	168.30	33.00	4.95	9.09	2	2	0	0	5.0	85.0	33.0
MH-4271	MH-5014	574.2	573.87	33	150	0.92	100	0.56617	0.5147	1	1.22	0.8	43.3	1.50	99.00	33.00	3.71	4.30	2	2	0	0	3.7	32.8	24.8
MH-5015	MH-4537	587.75	587.42	33.1	150	0.46	100	0.05379	0.0489	1.1	1.39	0.8	13.1	1.60	105.92	33.10	3.72	4.31	2	2	0	0	3.7	35.4	24.8
MH-2197	MH-5016	580.09	580.06	33.1	150	0.17	1000	0.02882	0.0262	0.8	0.8	0.81	16.6	1.30	86.06	33.10	3.72	4.31	2	2	0	0	3.7	28.0	24.8
MH-4684	MH-5017	594.59	594.87	28.5	217	1.19	100	1.26984	1.1544	1.1	0.8	1.3	39.2	1.67	95.02	28.50	3.49	4.55	1	1	0	0	3.5	34.3	23.3
MH-5018	MH-4647	565.11	564.83	33.1	150	0.6	115.99	0.15466	0.1406	1	0.99	1.08	26.5	1.50	99.30	33.10	3.72	4.31	2	2	0	0	3.7	32.9	24.8
MH-3919	MH-5019	564.51	564.47	32.4	150	0.26	1000	0.12518	0.1138	1.5	1.26	1.66	28.6	2.00	129.60	32.40	3.65	4.22	2	2	0	0	3.6	44.4	24.3
MH-4061	MH-5020	591.3	590.96	33.2	217	1.2	100	1.29745	1.1795	0.9	1.09	0.8	46.8	1.47	97.41	33.20	4.07	5.30	2	2	0	0	4.1	34.5	27.1

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-3887	MH-4613	586.19	586.12	33.2	150	0.28	452.1	0.05687	0.0517	0.8	0.8	0.8	16.9	1.30	86.32	33.20	3.74	4.32	2	2	0	0	3.7	28.0	24.9
MH-5219	MH-906	600.04	600	36	150	0.14	1000	0.01353	0.0123	1.1	0.8	1.38	17.7	1.60	115.20	36.00	4.05	4.69	2	2	0	0	4.1	38.5	27.0
MH-3763	MH-5220	582.61	582.96	34.4	150	0.28	100	0.01012	0.0092	1	0.8	1.12	5.8	1.50	103.20	34.40	3.87	4.48	2	2	0	0	3.9	34.2	25.8
MH-1728	MH-5221	579.76	579.84	35.8	175	0.6	422.556	0.67133	0.6103	1	1.07	0.98	45.6	1.53	109.19	35.80	4.16	5.02	2	2	0	0	4.2	37.3	27.7
MH-4257	MH-395	584.46	584.54	31.2	175	0.6	393.91	0.60555	0.5505	2.4	2.59	2.29	42.6	2.93	182.52	31.20	3.63	4.38	2	2	0	0	3.6	75.7	24.2
MH-5225	MH-1083	576.61	576.39	23.8	150	0.6	106.712	0.14069	0.1279	1.7	0.8	2.63	23.5	2.20	104.72	23.80	2.68	3.10	1	1	0	0	2.7	43.3	17.9
MH-5227	MH-2184	603.15	603.42	36.9	150	0.6	133.285	0.18238	0.1658	2	1.83	2.24	27.1	2.50	184.50	36.90	4.15	4.80	2	2	0	0	4.2	75.5	27.7
MH-5232	MH-4270	586.26	586.18	36.2	150	0.2	467.927	0.02145	0.0195	0.8	0.8	0.8	10.7	1.30	94.12	36.20	4.07	4.71	2	2	0	0	4.1	30.6	27.2
MH-4112	MH-5244	572.56	572.3	36.3	150	0.6	140.567	0.19635	0.1785	1.7	1.6	1.71	27.7	2.20	159.72	36.30	4.08	4.72	2	2	0	0	4.1	66.1	27.2
MH-5245	MH-5246	573.6	573.27	36.3	150	1.04	111.456	0.80784	0.7344	1.2	1.56	0.8	51.9	1.70	123.42	36.30	4.08	4.72	2	2	0	0	4.1	41.6	27.2
MH-1888	MH-4051	591.6	591.57	36.4	150	0.18	1000	0.03641	0.0331	0.9	0.8	0.97	21.1	1.40	101.92	36.40	4.10	4.74	2	2	0	0	4.1	33.5	27.3
MH-5250	MH-4112	572.6	572.56	36.4	150	0.17	1000	0.02629	0.0239	1.2	0.8	1.6	21	1.70	123.76	36.40	4.10	4.74	2	2	0	0	4.1	41.7	27.3
MH-4240	MH-4268	587.39	587.07	36.4	150	0.6	112.04	0.14828	0.1348	1.4	1.21	1.64	25.6	1.90	138.32	36.40	4.10	4.74	2	2	0	0	4.1	47.1	27.3
MH-5251	MH-5252	592.72	592.64	36.4	175	0.6	460.874	0.76824	0.6984	1.3	1.17	1.37	56.7	1.83	132.86	36.40	4.23	5.11	2	2	0	0	4.2	46.4	28.2
MH-5253	MH-4072	585.6	585.24	36.5	150	0.49	100	0.06754	0.0614	1.2	1.53	0.8	14.6	1.70	124.10	36.50	4.11	4.75	2	2	0	0	4.1	41.8	27.4
MH-5254	MH-4740	584.9	584.54	36.5	150	0.6	100	0.12606	0.1146	1.1	1.38	0.8	20	1.60	116.80	36.50	4.11	4.75	2	2	0	0	4.1	39.0	27.4
MH-5256	MH-5257	591.8	591.84	36.5	150	0.24	1000	0.09504	0.0864	1	0.94	0.98	24.8	1.50	109.50	36.50	4.11	4.75	2	2	0	0	4.1	36.3	27.4
MH-5258	MH-1542	572.83	572.46	36.5	150	0.38	100	0.02695	0.0245	1.1	1.38	0.8	10.8	1.60	116.80	36.50	4.11	4.75	2	2	0	0	4.1	39.0	27.4
MH-5262	MH-1633	581.57	581.21	36.6	150	1.2	100	1.25697	1.1427	1	1.21	0.8	65.4	1.50	109.80	36.60	4.12	4.76	2	2	0	0	4.1	36.4	27.5
MH-735	MH-5270	589.35	588.95	39.9	600	2.23	100	20.12604	18.2964	0.8	0.86	0.8	43.3	1.75	139.65	39.90	7.18	18.46	2	2	0	0	7.2	65.3	47.9
MH-4436	MH-4923	581.38	581.21	36.7	150	0.6	221.297	0.34793	0.3163	2	2.1	1.84	37.1	2.50	183.50	36.70	4.13	4.78	2	2	0	0	4.1	75.0	27.5
MH-5272	MH-1570	585.36	585.33	36.8	150	0.23	1000	0.07502	0.0682	1	0.8	1.2	20.9	1.50	110.40	36.80	4.14	4.79	2	2	0	0	4.1	36.6	27.6
MH-1719	MH-3482	597.69	597.38	36.4	150	0.6	116.626	0.15565	0.1415	1.4	0.98	1.77	22.6	1.90	138.32	36.40	4.10	4.74	2	2	0	0	4.1	47.1	27.3
MH-2370	MH-4439	589.97	589.93	36.8	150	0.18	1000	0.03685	0.0335	2.7	2.88	2.44	20.8	3.20	235.52	36.80	4.14	4.79	2	2	0	0	4.1	94.6	27.6
MH-5280	MH-5281	577.81	577.78	30.7	150	0.11	1000	0.00638	0.0058	1.1	0.8	1.48	9.7	1.60	98.24	30.70	3.45	4.00	2	2	0	0	3.5	32.8	23.0
MH-2257	MH-2735	575.98	575.61	36.9	150	0.86	100	0.45958	0.4178	1.1	1.36	0.8	38.8	1.60	118.08	36.90	4.15	4.80	2	2	0	0	4.2	39.5	27.7
MH-4545	MH-5287	578.27	578.24	36.9	150	0.23	1000	0.07557	0.0687	1	1.06	1.01	27.5	1.50	110.70	36.90	4.15	4.80	2	2	0	0	4.2	36.7	27.7
MH-5289	MH-3683	575.68	575.31	37	150	0.32	100	0.01595	0.0145	1.2	1.54	0.8	7.2	1.70	125.80	37.00	4.16	4.82	2	2	0	0	4.2	42.4	27.8
MH-4826	MH-5290	588.89	588.81	36.9	175	0.6	482.548	0.82995	0.7545	1	1.02	0.95	52.6	1.53	112.55	36.90	4.29	5.18	2	2	0	0	4.3	38.4	28.6
MH-1365	MH-5291	580.55	580.91	35.8	150	0.27	100.817	0.00924	0.0084	0.8	0.8	0.8	11.1	1.30	93.08	35.80	4.03	4.66	2	2	0	0	4.0	30.2	26.9
MH-148	MH-5294	569.41	569.71	29.6	150	0.41	100	0.03641	0.0331	1.1	0.8	1.46	23.4	1.60	94.72	29.60	3.33	3.85	1	1	0	0	3.3	31.7	22.2
MH-1590	MH-4113	590.69	590.31	37	150	0.52	100	0.08206	0.0746	1.2	1.52	0.8	16.1	1.70	125.80	37.00	4.16	4.82	2	2	0	0	4.2	42.4	27.8
MH-45	MH-5297	597	596.68	31.9	400	1.42	100	2.84383	2.5853	0.8	0.81	0.8	26.4	1.55	98.89	31.90	4.79	8.79	2	2	0	0	4.8	40.7	31.9
MH-2465	MH-1523	594.05	594.42	37.1	217	1.37	100	2.13477	1.9407	1.1	0.8	1.43	59.2	1.67	123.69	37.10	4.55	5.92	2	2	0	0	4.5	44.6	30.3
MH-5298	MH-3284	586.28	586.24	37.1	150	0.16	1000	0.022	0.02	1.1	0.8	1.4	17.1	1.60	118.72	37.10	4.17	4.83	2	2	0	0	4.2	39.7	27.8
MH-631	MH-4308	599.97	599.76	37.2	150	0.6	178.094	0.26411	0.2401	1.4	1.23	1.52	44.8	1.90	141.36	37.20	4.19	4.84	2	2	0	0	4.2	48.2	27.9
MH-5294	MH-3739	570.37	570.68	31	150	0.33	100	0.01793	0.0163	1.2	0.8	1.58	7.7	1.70	105.40	31.00	3.49	4.04	2	2	0	0	3.5	35.5	23.3
MH-3901	MH-4820	568.93	568.86	37.5	217	0.6	563.41	1.03389	0.9399	2.8	2.67	2.92	49.7	3.37	252.53	37.50	4.60	5.98	2	2	0	0	4.6	108.4	30.6
MH-5305	MH-804	592.89	592.52	37.5	150	0.66	100	0.17688	0.1608	0.8	0.82	0.8	23.7	1.30	97.50	37.50	4.22	4.88	2	2	0	0	4.2	31.7	28.1
MH-3237	MH-5307	601.15	600.78	37.6	150	0.66	100	0.17919	0.1629	0.9	0.92	0.8	23.9	1.40	105.28	37.60	4.23	4.89	2	2	0	0	4.2	34.6	28.2
MH-4851	MH-5309	564.77	565.14	37.6	150	0.39	100	0.03179	0.0289	0.8	0.8	0.85	10.1	1.30	97.76	37.60	4.23	4.89	2	2	0	0	4.2	31.8	28.2
MH-5310	MH-2963	587.9	588.28	37.6	400	1.6	100	5.46029	4.9639	1	0.8	1.27	37.7	1.75	131.60	37.60	5.64	10.36	2	2	0	0	5.6	55.4	37.6
MH-1117	MH-5311	578.41	578.35	20.2	175	0.6	387.174	0.59059	0.5369	3.7	4.1	3.36	41.9	4.23	170.69	20.20	2.35	2.83	1	0	1	0	2.3	81.5	15.7
MH-3537	MH-4984	583.38	583	37.7	150	0.92	100	0.58036	0.5276	0.9	0.97	0.8	43.8	1.40	105.56	37.70	4.24	4.91	2	2	0	0	4.2	34.7	28.3
MH-4234	MH-1743	597.48	597.3	37.7	150	0.6	216.702	0.33759	0.3069	0.9	0.8	1.02	37.3	1.40	105.56	37.70	4.24	4.91	2	2	0	0	4.2	34.7	28.3
MH-5318	MH-2493	581.59	581.56	37.8	150	0.16	1000	0.02343	0.0213	1	0.8	1.25	16.6	1.50	113.40	37.80	4.25	4.92	2	2	0	0	4.3	37.6	28.4
MH-5319	MH-1830	565.83	565.46	37.8	150	0.97	100	0.70235	0.6385	0.9	0.92	0.8	48.6	1.40	105.84	37.80	4.25	4.92	2	2	0	0	4.3	34.8	28.4
MH-5320	MH-345	594.66	594.62	33.1	450	0.74	1000	7.66271	6.9661	2.6	2.65	2.64	72.6	3.40	225.08	33.10	5.21	10.47	2	2	0	0	5.2	117.6	34.8
MH-5322	MH-321	575.34	575.3	40	150	0.2	1000	0.0484	0.044	2.3	2.17	2.43	32.7	2.80	224.00	40.00	4.50	5.21	2	2	0	0	4.5	90.8	30.0
MH-5324	MH-2957	581.57	581.94	37.9	150	0.36	100	0.02387	0.0217	1.2	0.8	1.57	16	1.70	128.86	37.90	4.26	4.93	2	2	0	0	4.3	43.4	28.4
MH-4866	MH-4447	592.3	591.92	37.9	150	0.44	100	0.04455	0.0405	1.1	1.39	0.8	13.9	1.60	121.28	37.90	4.26	4.93	2	2	0	0	4.3	40.5	28.4
MH-5336	MH-5337	588	587.68	38	150	0.6	118.944	0.15928	0.1448	1.1	0.8	1.33	25.4	1.60	121.60	38.00	4.28	4.95	2	2	0	0	4.3	40.7	28.5
MH-3991	MH-5338	592.51	592.47	38	150	0.21	1000	0.05544	0.0504	0.9	0.8	0.91	24	1.40	106.40	38.00	4.28	4.95	2	2	0	0	4.3	35.0	28.5
MH-4450	MH-4353	571.83	571.45	38.1	150	0.5	100	0.07007	0.0637	1.3	1.82	0.8	21.5	1.80	137.16	38.10	4.29	4.96	2	2	0	0	4.3	46.5	28.6
MH-5343	MH-4372	587.47	587.34	38.2	150	0.36	274.143	0.07469	0.0679	0.8	0.8	0.89	25.3	1.30	99.32	38.20	4.30	4.97	2	2	0	0	4.3	32.3	28.7
MH-70	MH-3825	599.52	599.93	41.7	150	0.55	100	0.09427	0.0857	0.9	0.8	1.03	17.3	1.40	116.76	41.70	4.69	5.43	2	2	0	0	4.7	38.4	31.3
MH-4162	MH-3547	591.71	592.05	38.3	150	0.6	112.228	0.14861	0.1351	0.9	0.94	0.94	24.5	1.40	107.24	38.30	4.31	4.99	2	2	0	0	4.3	35.2	28.7
MH-5348	MH-3111	593.78	593.4	38.3	150	0.45	100	0.0495	0.045	1	1.24	0.8	12.6	1.50	114.90	38.30	4.31	4.99	2	2	0	0	4.3	38.1	28.7
MH-5311	MH-5351	577.87	577.78	38.3	175	0.6	425.092	0.67749	0.6159	3.3	3.84	2.81	46.5	3.83	293.00	38.30	4.45	5.37	2	0	2	0	4.5	119.7	29.7
MH-5352	MH-49	595.93	595.55	38.3	150	0.25	100	0.00715	0.0065	0.8	0.85	0.8	6.3	1.30	99.58	38.30	4.31	4.99	2	2	0	0	4.3	32.4	28.7
MH-366	MH-3051	563.73	563.46	39.3	150	0.49	145.682	0.10296	0.0936	0.8	0.8	0.8	18.9	1.30	102.18	39.30	4.42	5.12	2	2	0	0	4.4	33.2	29.5
MH-5354	MH-5355	585.33	584.95	38.4	150	0.8	100	0.35013	0.3183	1.3	1.85	0.8	33.7	1.80	138.24	38.40	4.32	5.00	2	2	0	0	4.3	46.8	28.8
MH-5356	MH-2074	579.89	579.84	34.9	150	0.17	691.085	0.01804	0.0164	0.8	0.8	0.8	9.8	1.30	90.74	34.90	3.93	4.54	2	2	0	0	3.9	29.5	26.2
MH-5357	MH-3017	565	564.91	30.7	150	0.6	367.332	0.54571	0.4961	1	0.8	1.15	49.7	1.50	92.10	30.70	3.45	4.00	2	2	0	0	3.5	30.5	23.0
MH-4327	MH-5358	580.61	580.99	38.4	150	0.68	100	0.19723	0.1793	1.3	0.8	1.75	25	1.80	138.24	38.40	4.32	5.00	2	2	0	0	4.3	46.8	28.8

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-4315	MH-4548	567.76	567.51	38.4	150	0.37	155.058	0.04246	0.0386	0.8	0.8	0.8	15	1.30	99.84	38.40	4.32	5.00	2	2	0	0	4.3	32.4	28.8
MH-5361	MH-108	600.34	599.95	38.5	150	0.4	100	0.03245	0.0295	1	1.23	0.8	12.7	1.50	115.50	38.50	4.33	5.01	2	2	0	0	4.3	38.3	28.9
MH-4034	MH-387	585.37	585.08	35.5	150	0.6	119.696	0.16049	0.1459	1.9	1.87	1.83	24.9	2.40	170.40	35.50	3.99	4.62	2	2	0	0	4.0	69.9	26.6
MH-4728	MH-4928	591.76	591.38	38.5	150	0.42	100	0.03982	0.0362	1	1.29	0.8	11.3	1.50	115.50	38.50	4.33	5.01	2	2	0	0	4.3	38.3	28.9
MH-4624	MH-4129	593.25	593.21	38.6	150	0.18	1000	0.03344	0.0304	0.9	0.84	0.9	13.9	1.40	108.08	38.60	4.34	5.02	2	2	0	0	4.3	35.5	29.0
MH-5366	MH-5367	608.77	608.38	38.6	150	0.75	100	0.27852	0.2532	1	1.27	0.8	29.9	1.50	115.80	38.60	4.34	5.02	2	2	0	0	4.3	38.4	29.0
MH-5368	MH-5369	579.12	579.36	38.7	150	0.46	167.075	0.09691	0.0881	0.8	0.8	0.8	20.6	1.30	100.62	38.70	4.35	5.04	2	2	0	0	4.4	32.7	29.0
MH-4249	MH-1804	577.52	577.33	38.8	150	0.41	202.436	0.07997	0.0727	1.1	0.84	1.42	17.3	1.60	124.16	38.80	4.37	5.05	2	2	0	0	4.4	41.5	29.1
MH-4721	MH-5372	582.8	583.19	38.7	150	1.03	100	0.87934	0.7994	1.3	0.8	1.71	55	1.80	139.32	38.70	4.35	5.04	2	2	0	0	4.4	47.2	29.0
MH-2158	MH-2668	591.03	591.23	38.8	150	0.36	197.576	0.05346	0.0486	0.8	0.8	0.8	14.1	1.30	100.88	38.80	4.37	5.05	2	2	0	0	4.4	32.8	29.1
MH-5378	MH-5017	595.76	595.38	38.7	217	1.19	100	1.23596	1.1236	1.1	1.31	0.8	38.6	1.67	129.03	38.70	4.74	6.17	2	2	0	0	4.7	46.5	31.6
MH-5379	MH-4300	585.91	585.52	38.8	150	0.36	100	0.02365	0.0215	0.9	1.09	0.8	8.7	1.40	108.64	38.80	4.37	5.05	2	2	0	0	4.4	35.7	29.1
MH-5380	MH-431	564.12	564.08	38.1	150	0.18	1000	0.03663	0.0333	1	0.8	1.2	14.6	1.50	114.30	38.10	4.29	4.96	2	2	0	0	4.3	37.9	28.6
MH-5383	MH-5384	569.73	569.82	38.9	175	0.6	414.684	0.65318	0.5938	1.4	1.2	1.51	49.1	1.93	149.77	38.90	4.52	5.46	2	2	0	0	4.5	52.6	30.1
MH-5386	MH-5206	591.79	591.72	38.9	217	0.6	554.661	1.00991	0.9181	2.6	2.54	2.64	49.8	3.17	246.39	38.90	4.77	6.21	2	2	0	0	4.8	106.1	31.8
MH-5387	MH-5388	569.71	569.32	38.9	217	1.15	100	1.10429	1.0039	1.1	1.32	0.8	36.5	1.67	129.69	38.90	4.77	6.21	2	2	0	0	4.8	46.8	31.8
MH-5389	MH-4109	586.51	586.77	38.9	150	0.46	152.266	0.08382	0.0762	0.8	0.8	0.8	19.9	1.30	101.14	38.90	4.38	5.06	2	2	0	0	4.4	32.9	29.2
MH-5390	MH-4489	588.96	588.57	38.9	150	0.62	100	0.1485	0.135	1.1	1.34	0.8	21.7	1.60	124.48	38.90	4.38	5.06	2	2	0	0	4.4	41.6	29.2
MH-5391	MH-4672	587.47	587.36	38.9	150	0.32	347.776	0.06864	0.0624	0.8	0.8	0.8	17.1	1.30	101.14	38.90	4.38	5.06	2	2	0	0	4.4	32.9	29.2
MH-4956	MH-1513	581.97	581.63	39	150	0.8	114.271	0.42152	0.3832	1	1.13	0.8	37.7	1.50	117.00	39.00	4.39	5.08	2	2	0	0	4.4	38.8	29.3
MH-5393	MH-5394	588.31	587.92	39	150	0.74	100	0.26851	0.2441	1	1.2	0.8	29.3	1.50	117.00	39.00	4.39	5.08	2	2	0	0	4.4	38.8	29.3
MH-5395	MH-606	571.54	571.17	39	150	0.22	105.324	0.00495	0.0045	0.8	0.8	0.8	4.1	1.30	101.40	39.00	4.39	5.08	2	2	0	0	4.4	32.9	29.3
MH-5388	MH-5396	568.82	568.43	39	217	1.2	100	1.29789	1.1799	1	1.3	0.8	39.7	1.57	122.23	39.00	4.78	6.22	2	2	0	0	4.8	43.7	31.9
MH-2361	MH-5397	571.22	570.83	39	175	1.07	100	0.80938	0.7358	1	1.22	0.8	41.4	1.53	118.95	39.00	4.53	5.47	2	2	0	0	4.5	40.6	30.2
MH-5398	MH-5399	597.07	596.72	38.2	150	1.02	109.742	1.01266	0.9206	0.8	0.8	0.8	60.3	1.30	99.32	38.20	4.30	4.97	2	2	0	0	4.3	32.3	28.7
MH-5400	MH-4678	594.92	594.89	39.1	150	0.24	1000	0.09031	0.0821	0.9	0.8	1.09	28.4	1.40	109.48	39.10	4.40	5.09	2	2	0	0	4.4	36.0	29.3
MH-239	MH-4975	563.81	563.44	38.5	150	0.6	104.731	0.13519	0.1229	1.4	1.18	1.68	20.8	1.90	146.30	38.50	4.33	5.01	2	2	0	0	4.3	49.9	28.9
MH-4268	MH-3944	586.95	586.9	39.1	271	0.6	892.312	2.10441	1.9131	1.6	1.64	1.5	58.6	2.22	173.68	39.10	5.11	7.36	2	2	0	0	5.1	80.0	34.1
MH-80	MH-13	598.74	598.7	39.1	150	0.22	1000	0.06809	0.0619	1	0.9	1.2	26	1.50	117.30	39.10	4.40	5.09	2	2	0	0	4.4	38.9	29.3
MH-4672	MH-4183	585.72	585.68	39.2	271	0.6	990.892	2.71601	2.4691	2.2	2.32	2.15	71.3	2.82	221.17	39.20	5.12	7.38	2	2	0	0	5.1	100.7	34.1
MH-3811	MH-5413	579.76	579.72	39.3	150	0.26	1000	0.12243	0.1113	1.1	1.2	1.08	27.9	1.60	125.76	39.30	4.42	5.12	2	2	0	0	4.4	42.0	29.5
MH-5414	MH-735	589.8	589.42	38.7	600	2.19	100	18.86984	17.1544	0.9	0.92	0.8	41.9	1.85	143.19	38.70	6.97	17.90	2	2	0	0	7.0	68.0	46.4
MH-5417	MH-5418	578.08	577.6	47.8	150	0.29	100	0.01166	0.0106	1	1.22	0.8	6.2	1.50	143.40	47.80	5.38	6.22	2	2	0	0	5.4	47.6	35.9
MH-5419	MH-3776	567.53	567.48	39.4	271	0.6	762.335	1.62646	1.4786	0.9	0.8	1.1	50.9	1.52	119.85	39.40	5.15	7.42	2	2	0	0	5.1	44.8	34.3
MH-5422	MH-5423	570.18	570.14	39.5	150	0.14	1000	0.0132	0.012	0.9	0.8	0.98	10.9	1.40	110.60	39.50	4.44	5.14	2	2	0	0	4.4	36.3	29.6
MH-5424	MH-5425	605.4	605.01	39.5	150	0.43	100	0.04389	0.0399	0.9	1.04	0.8	11.8	1.40	110.60	39.50	4.44	5.14	2	2	0	0	4.4	36.3	29.6
MH-688	MH-5426	596.56	596.6	39.5	150	0.26	1000	0.12177	0.1107	1.7	1.46	2.01	31.9	2.20	173.80	39.50	4.44	5.14	2	2	0	0	4.4	71.9	29.6
MH-5427	MH-186	577.77	577.38	39.5	150	0.27	100	0.0088	0.008	1.1	1.4	0.8	5.4	1.60	126.40	39.50	4.44	5.14	2	2	0	0	4.4	42.3	29.6
MH-5429	MH-5366	609.63	609.23	39.6	150	0.67	100	0.18645	0.1695	1	1.22	0.8	24.3	1.50	118.80	39.60	4.46	5.15	2	2	0	0	4.5	39.4	29.7
MH-5431	MH-5432	580.3	579.9	39.6	150	1.01	100	0.81103	0.7373	1	1.28	0.8	52.6	1.50	118.80	39.60	4.46	5.15	2	2	0	0	4.5	39.4	29.7
MH-3943	MH-3179	584.8	584.62	39.7	150	0.6	217.08	0.33847	0.3077	1.1	1.22	0.91	37.1	1.60	127.04	39.70	4.47	5.17	2	2	0	0	4.5	42.5	29.8
MH-5433	MH-5434	601.51	601.11	39.7	150	1.09	100	1.15049	1.0459	0.8	0.81	0.8	64	1.30	103.22	39.70	4.47	5.17	2	2	0	0	4.5	33.5	29.8
MH-5435	MH-5073	583.79	583.39	39.7	150	0.99	100	0.75086	0.6826	0.8	0.88	0.8	61.1	1.30	103.22	39.70	4.47	5.17	2	2	0	0	4.5	33.5	29.8
MH-5141	MH-5253	586.73	586.33	39.8	150	0.43	100	0.04081	0.0371	1.2	1.57	0.8	11.4	1.70	135.32	39.80	4.48	5.18	2	2	0	0	4.5	45.6	29.9
MH-5441	MH-5442	586.44	586.37	39.8	150	0.15	580.679	0.01045	0.0095	0.8	0.8	0.8	10.5	1.30	103.48	39.80	4.48	5.18	2	2	0	0	4.5	33.6	29.9
MH-3255	MH-4777	559.65	559.25	39.8	150	0.88	100	0.49159	0.4469	1	1.12	0.8	40.1	1.50	119.40	39.80	4.48	5.18	2	2	0	0	4.5	39.6	29.9
MH-5444	MH-5445	589.95	589.91	39.8	150	0.19	1000	0.03817	0.0347	0.9	0.8	0.93	14.9	1.40	111.44	39.80	4.48	5.18	2	2	0	0	4.5	36.6	29.9
MH-5449	MH-5167	584.34	584.3	39.9	150	0.15	1000	0.01804	0.0164	1	0.8	1.23	15.2	1.50	119.70	39.90	4.49	5.19	2	2	0	0	4.5	39.7	29.9
MH-5450	MH-1589	591.73	591.48	39.9	150	0.37	161.865	0.04301	0.0391	0.9	0.8	0.93	14.1	1.40	111.72	39.90	4.49	5.19	2	2	0	0	4.5	36.7	29.9
MH-16	MH-3	591.2	591.61	40.5	150	0.8	100	0.35926	0.3266	0.8	0.8	0.86	34.1	1.30	105.30	40.50	4.56	5.27	2	2	0	0	4.6	34.2	30.4
MH-5442	MH-3886	586.37	586.27	39.9	150	0.24	391.264	0.02915	0.0265	0.8	0.8	0.8	13.6	1.30	103.74	39.90	4.49	5.19	2	2	0	0	4.5	33.7	29.9
MH-5022	MH-4064	562.33	562.29	39.6	271	0.6	991.392	2.72217	2.4747	1.4	1.38	1.44	59.6	2.02	160.06	39.60	5.17	7.46	2	2	0	0	5.2	74.1	34.5
MH-2789	MH-1212	597.98	597.73	40	150	0.41	161.685	0.06193	0.0563	0.9	0.8	1.02	25.1	1.40	112.00	40.00	4.50	5.21	2	2	0	0	4.5	36.8	30.0
MH-5297	MH-5458	596.93	597.33	40	150	0.44	100	0.04708	0.0428	0.9	0.8	0.97	12.3	1.40	112.00	40.00	4.50	5.21	2	2	0	0	4.5	36.8	30.0
MH-5246	MH-5459	572.54	572.14	40	150	1.12	100	0.93973	0.8543	1.2	1.53	0.8	55.6	1.70	136.00	40.00	4.50	5.21	2	2	0	0	4.5	45.8	30.0
MH-5464	MH-3801	588.52	588.15	40.1	150	0.38	107.272	0.02948	0.0268	0.8	0.8	0.8	9.8	1.30	104.26	40.10	4.51	5.22	2	2	0	0	4.5	33.9	30.1
MH-5465	MH-1899	583.66	583.26	40.1	150	0.29	100	0.01188	0.0108	0.8	0.86	0.8	6.2	1.30	104.26	40.10	4.51	5.22	2	2	0	0	4.5	33.9	30.1
MH-3660	MH-5466	583.72	583.32	40.1	150	0.75	100	0.27665	0.2515	1	1.16	0.8	29.8	1.50	120.30	40.10	4.51	5.22	2	2	0	0	4.5	39.9	30.1
MH-5338	MH-4094	592.47	592.43	40.1	150	0.23	1000	0.08206	0.0746	1	0.91	1.14	27.8	1.50	120.30	40.10	4.51	5.22	2	2	0	0	4.5	39.9	30.1
MH-5469	MH-3161	580.98	580.67	30.1	150	0.55	100	0.09493	0.0863	1	1.29	0.8	17.4	1.50	90.30	30.10	3.39	3.92	2	2	0	0	3.4	29.9	22.6
MH-5470	MH-5133	589.7	589.29	40.2	150	0.34	100	0.01914	0.0174	1.1	1.32	0.8	7.9	1.60	128.64	40.20	4.52	5.23	2	2	0	0	4.5	43.0	30.2
MH-176	MH-96	580.24	580.1	13.5	150	0.4	100	0.03267	0.0297	1	1.18	0.8	11.7	1.50	40.50	13.50	1.52	1.76	1	1	0	0	1.5	13.4	10.1
MH-5471	MH-1512	581.46	581.4	40.2	400	0.75	628.361	3.99707	3.6337	0.8	0.9	0.8	41.9	1.55	124.62	40.20	6.03	11.08	2	2	0	0	6.0	51.2	40.2
MH-5475	MH-3064	571.88	571.48	40.2	150	0.71	100	0.23496	0.2136	0.9	0.94	0.8	30.5	1.40	112.56	40.20	4.52	5.23	2	2	0	0	4.5	37.0	30.2
MH-5477	MH-3833	580.83	580.59	40.3	150	0.28	163.141	0.01793	0.0163	1.2	0.8	1.54	10.5	1.70	137.02	40.30	4.53	5.25	2	2	0	0	4.5	46.1	30.2

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-1181	MH-4995	589.86	590.05	19.1	150	0.36	100	0.02321	0.0211	1.1	0.8	1.39	10.6	1.60	61.12	19.10	2.15	2.49	1	1	0	0	2.1	20.4	14.3
MH-4333	MH-5478	581.55	581.51	40.3	400	0.62	1000	3.59128	3.2648	1.4	1.79	1.1	50.1	2.15	173.29	40.30	6.05	11.11	2	2	0	0	6.0	87.6	40.3
MH-5479	MH-2108	577.7	577.65	40.3	271	0.6	898.787	2.13334	1.9394	1.3	1.62	0.97	51.4	1.92	154.83	40.30	5.27	7.59	2	2	0	0	5.3	59.8	35.1
MH-5481	MH-5482	580	579.86	65.8	150	0.26	470.624	0.05016	0.0456	0.8	0.8	0.8	17.5	1.30	171.08	65.80	7.40	8.56	3	3	0	0	7.4	55.6	49.4
MH-5214	MH-4594	581.09	580.88	40.3	150	0.6	191.835	0.28677	0.2607	2.9	3.1	2.74	33.6	3.40	274.04	40.30	4.53	5.25	2	2	0	0	4.5	109.6	30.2
MH-4730	MH-5190	582.47	582.18	40.3	150	0.6	139.346	0.19448	0.1768	1.3	1.26	1.38	28.3	1.80	145.08	40.30	4.53	5.25	2	2	0	0	4.5	49.2	30.2
MH-5483	MH-5484	585.84	585.49	40.3	400	1.82	114.73	10.75811	9.7801	0.9	0.8	0.95	68.7	1.65	132.99	40.30	6.05	11.11	2	2	0	0	6.0	55.4	40.3
MH-4986	MH-5485	576.89	576.93	40.3	150	0.22	1000	0.07359	0.0669	1.7	1.8	1.63	26.5	2.20	177.32	40.30	4.53	5.25	2	2	0	0	4.5	73.3	30.2
MH-5487	MH-3611	591.36	591.47	40.4	150	0.6	356.7	0.5214	0.474	1.2	0.88	1.48	48.2	1.70	137.36	40.40	4.55	5.26	2	2	0	0	4.5	46.3	30.3
MH-5492	MH-4775	574.68	574.64	40.3	150	0.24	1000	0.08591	0.0781	1	0.8	1.18	30	1.50	120.90	40.30	4.53	5.25	2	2	0	0	4.5	40.1	30.2
MH-5493	MH-5494	592.97	592.86	40.5	150	0.6	353.33	0.51359	0.4669	0.9	0.8	0.96	47.7	1.40	113.40	40.50	4.56	5.27	2	2	0	0	4.6	37.3	30.4
MH-5499	MH-5500	580.2	579.98	66.1	150	0.26	297.465	0.0286	0.026	0.8	0.8	0.8	14.4	1.30	171.86	66.10	7.44	8.60	3	3	0	0	7.4	55.8	49.6
MH-5501	MH-4375	584.56	584.29	40.6	150	0.43	145.782	0.06347	0.0577	0.8	0.8	0.8	16	1.30	105.56	40.60	4.57	5.28	2	2	0	0	4.6	34.3	30.5
MH-5505	MH-5506	572.88	572.47	40.6	150	0.65	100	0.17193	0.1563	1	1.23	0.8	23.4	1.50	121.80	40.60	4.57	5.28	2	2	0	0	4.6	40.4	30.5
MH-1842	MH-4148	575.19	574.99	40.7	150	0.6	194.16	0.2926	0.266	3.3	3.09	3.46	34.2	3.80	309.32	40.70	4.58	5.30	2	0	2	0	4.6	122.9	30.5
MH-5511	MH-165	578.22	577.82	40.7	150	0.28	100	0.01034	0.0094	1	1.14	0.8	5.9	1.50	122.10	40.70	4.58	5.30	2	2	0	0	4.6	40.5	30.5
MH-5484	MH-5512	585.64	586.05	40.7	400	1.61	100	5.56215	5.0565	1.2	0.8	1.57	38.1	1.95	158.73	40.70	6.11	11.22	2	2	0	0	6.1	68.1	40.7
MH-4118	MH-5515	567.6	567.56	40.7	1000	1.3	1000	79.29933	72.0903	1.5	1.59	1.44	66.4	2.85	231.99	40.70	9.77	41.72	2	2	0	0	9.8	156.1	65.1
MH-5516	MH-5517	564.94	564.54	40.8	150	0.8	102.164	0.3663	0.333	0.8	0.8	0.8	41.6	1.30	106.08	40.80	4.59	5.31	2	2	0	0	4.6	34.5	30.6
MH-5520	MH-4472	576.61	576.59	20.1	150	0.25	1000	0.11099	0.1009	2.9	2.58	3.18	40.4	3.40	136.68	20.10	2.26	2.62	1	1	0	0	2.3	54.7	15.1
MH-5523	MH-2719	592.39	591.99	40.8	150	0.37	101.39	0.02563	0.0233	0.8	0.8	0.8	11.9	1.30	106.08	40.80	4.59	5.31	2	2	0	0	4.6	34.5	30.6
MH-750	MH-793	588.78	588.81	23.3	150	0.25	1000	0.10659	0.0969	1.3	0.95	1.75	26.3	1.80	83.88	23.30	2.62	3.03	1	1	0	0	2.6	28.4	17.5
MH-4247	MH-709	564.3	564.63	39.6	175	1.07	117.495	1.01816	0.9256	0.8	0.8	0.84	55.3	1.33	104.94	39.60	4.60	5.56	2	2	0	0	4.6	35.1	30.7
MH-4960	MH-2971	583.9	583.86	40.9	150	0.23	1000	0.08184	0.0744	1.3	1.07	1.46	27.2	1.80	147.24	40.90	4.60	5.32	2	2	0	0	4.6	49.9	30.7
MH-5528	MH-4576	567.26	566.85	41	150	0.81	100	0.36685	0.3335	0.8	0.88	0.8	34.5	1.30	106.60	41.00	4.61	5.34	2	2	0	0	4.6	34.6	30.8
MH-5529	MH-5530	590.65	590.25	41	600	2.17	100	18.40245	16.7295	0.9	1.08	0.8	47.8	1.85	151.70	41.00	7.38	18.97	2	2	0	0	7.4	72.1	49.2
MH-5534	MH-5535	599.02	598.71	41.1	217	1.1	130.21	1.33397	1.2127	1.2	0.8	1.58	46.4	1.77	145.25	41.10	5.04	6.56	2	2	0	0	5.0	52.8	33.6
MH-5536	MH-5398	597.29	597.07	41.1	150	0.83	185.721	0.97273	0.8843	0.8	0.8	0.8	64.9	1.30	106.86	41.10	4.62	5.35	2	2	0	0	4.6	34.7	30.8
MH-4622	MH-1142	580.57	580.37	41.1	150	0.34	210.48	0.0462	0.042	0.8	0.8	0.8	17.6	1.30	106.86	41.10	4.62	5.35	2	2	0	0	4.6	34.7	30.8
MH-5541	MH-5542	576.19	576.6	41.2	150	0.24	100	0.00605	0.0055	0.8	0.8	0.88	8.5	1.30	107.12	41.20	4.64	5.36	2	2	0	0	4.6	34.8	30.9
MH-5543	MH-1524	595.61	595.2	41.2	217	1.26	100	1.52405	1.3855	0.9	0.97	0.8	43.2	1.47	120.88	41.20	5.05	6.57	2	2	0	0	5.0	42.8	33.7
MH-5544	MH-5545	599.09	599.13	41.2	150	0.19	1000	0.03949	0.0359	1.2	1.7	0.8	17	1.70	140.08	41.20	4.64	5.36	2	2	0	0	4.6	47.2	30.9
MH-567	MH-5546	576.6	576.65	45.5	150	0.26	1000	0.11847	0.1077	1.4	1.92	0.8	40.9	1.90	172.90	45.50	5.12	5.92	2	2	0	0	5.1	58.9	34.1
MH-5033	MH-5549	562.88	562.8	41.3	217	0.6	522.61	0.92576	0.8416	2.4	2.75	2.1	46	2.97	245.07	41.30	5.06	6.59	2	2	0	0	5.1	105.9	33.7
MH-5550	MH-5245	574.68	574.36	41.3	150	0.82	126.205	0.50842	0.4622	1.3	1.77	0.8	42.1	1.80	148.68	41.30	4.65	5.38	2	2	0	0	4.6	50.4	31.0
MH-2032	MH-5558	577	577.04	41.5	150	0.14	1000	0.01386	0.0126	1.2	1.59	0.8	12.6	1.70	141.10	41.50	4.67	5.40	2	2	0	0	4.7	47.5	31.1
MH-1668	MH-1952	573.97	573.73	41.5	150	0.6	167.193	0.2409	0.219	1.5	1.11	1.83	29.5	2.00	166.00	41.50	4.67	5.40	2	2	0	0	4.7	56.8	31.1
MH-4654	MH-5560	582.47	582.1	41.6	150	0.35	113.062	0.02475	0.0225	0.8	0.8	0.8	9.1	1.30	108.16	41.60	4.68	5.41	2	2	0	0	4.7	35.1	31.2
MH-5562	MH-5563	571.48	571.44	41.9	150	0.24	1000	0.09273	0.0843	0.9	0.8	0.97	25.1	1.40	117.32	41.90	4.71	5.45	2	2	0	0	4.7	38.5	31.4
MH-5565	MH-5566	588.91	588.86	41.7	150	0.25	1000	0.09867	0.0897	1.4	0.8	2.03	30.3	1.90	158.46	41.70	4.69	5.43	2	2	0	0	4.7	54.0	31.3
MH-3682	MH-5569	566.34	565.92	41.7	150	0.65	100	0.16676	0.1516	1	1.21	0.8	31	1.50	125.10	41.70	4.69	5.43	2	2	0	0	4.7	41.5	31.3
MH-3787	MH-5570	580.45	580.05	41.7	150	0.52	103.16	0.08173	0.0743	0.8	0.8	0.8	18.4	1.30	108.42	41.70	4.69	5.43	2	2	0	0	4.7	35.2	31.3
MH-5571	MH-5572	565.5	565.45	41.8	400	0.63	1000	3.04546	2.7686	1.6	1.71	1.54	42.1	2.35	196.46	41.80	6.27	11.52	2	2	0	0	6.3	99.2	41.8
MH-403	MH-5577	582.1	582.51	41.6	150	0.25	100	0.0077	0.007	1	0.8	1.17	5.1	1.50	124.80	41.60	4.68	5.41	2	2	0	0	4.7	41.4	31.2
MH-5578	MH-5579	578.76	578.37	41.9	400	1.51	107.711	4.88983	4.4453	0.9	0.8	0.93	40.3	1.65	138.27	41.90	6.29	11.55	2	2	0	0	6.3	57.6	41.9
MH-5583	MH-5584	565.75	565.5	42	150	0.6	166.48	0.2398	0.218	1.1	1.12	1.11	34.2	1.60	134.40	42.00	4.73	5.47	2	2	0	0	4.7	44.9	31.5
MH-4929	MH-5390	589.92	589.5	42.1	150	0.57	100	0.11165	0.1015	1.1	1.45	0.8	18.8	1.60	134.72	42.10	4.74	5.48	2	2	0	0	4.7	45.0	31.6
MH-5586	MH-5587	592.38	591.96	42.1	150	0.63	100	0.15664	0.1424	0.8	0.85	0.8	22.3	1.30	109.46	42.10	4.74	5.48	2	2	0	0	4.7	35.6	31.6
MH-5589	MH-5322	575.38	575.34	42.1	150	0.15	1000	0.01771	0.0161	1.5	0.8	2.17	17.4	2.00	168.40	42.10	4.74	5.48	2	2	0	0	4.7	57.7	31.6
MH-5593	MH-5594	578.45	578.33	42.2	150	0.23	367.588	0.02343	0.0213	1.1	0.8	1.41	14.1	1.60	135.04	42.20	4.75	5.49	2	2	0	0	4.7	45.1	31.7
MH-3740	MH-5562	571.9	571.48	42.2	150	0.45	100	0.05115	0.0465	0.9	1.03	0.8	20.8	1.40	118.16	42.20	4.75	5.49	2	2	0	0	4.7	38.8	31.7
MH-5596	MH-301	570.54	570.37	21.1	150	0.6	125.16	0.17061	0.1551	1.5	1.49	1.51	25.5	2.00	84.40	21.10	2.37	2.75	1	1	0	0	2.4	28.9	15.8
MH-5601	MH-5516	565.37	564.94	42.3	150	0.76	100	0.29249	0.2659	1	1.18	0.8	35.3	1.50	126.90	42.30	4.76	5.51	2	2	0	0	4.8	42.1	31.7
MH-5604	MH-5018	565.15	565.11	42.3	150	0.23	1000	0.0803	0.073	0.9	0.8	0.99	25	1.40	118.44	42.30	4.76	5.51	2	2	0	0	4.8	38.9	31.7
MH-1037	MH-721	613.13	613.43	30.1	150	0.43	100	0.04312	0.0392	1	0.8	1.17	14.4	1.50	90.30	30.10	3.39	3.92	2	2	0	0	3.4	29.9	22.6
MH-5605	MH-5606	593.49	593.45	42.3	150	0.19	1000	0.03916	0.0356	1	0.8	1.22	22.7	1.50	126.90	42.30	4.76	5.51	2	2	0	0	4.8	42.1	31.7
MH-5257	MH-4406	591.84	591.88	42.3	150	0.2	1000	0.05291	0.0481	1.1	0.98	1.13	24.7	1.60	135.36	42.30	4.76	5.51	2	2	0	0	4.8	45.3	31.7
MH-5566	MH-2167	588.86	588.82	42.4	150	0.26	1000	0.1177	0.107	1.5	2.03	0.97	26.3	2.00	169.60	42.40	4.77	5.52	2	2	0	0	4.8	58.1	31.8
MH-5612	MH-5613	573.46	573.88	42.4	150	0.49	100	0.06369	0.0579	1	0.8	1.24	14.2	1.50	127.20	42.40	4.77	5.52	2	2	0	0	4.8	42.2	31.8
MH-5614	MH-327	562.67	562.55	42.9	150	0.6	358.779	0.52624	0.4784	1.8	1.98	1.63	48.4	2.30	197.34	42.90	4.83	5.58	2	2	0	0	4.8	81.3	32.2
MH-4569	MH-15	591.33	591.2	39.5	150	0.29	306.058	0.0429	0.039	1.1	1.38	0.8	13.4	1.60	126.40	39.50	4.44	5.14	2	2	0	0	4.4	42.3	29.6
MH-3790	MH-4619	586.31	585.89	42.5	150	0.74	100	0.26499	0.2409	0.9	1.09	0.8	29.1	1.40	119.00	42.50	4.78	5.53	2	2	0	0	4.8	39.1	31.9
MH-5617	MH-5618	593.41	593.36	42.5	150	0.16	1000	0.02255	0.0205	0.8	0.8	0.87	16.1	1.30	110.50	42.50	4.78	5.53	2	2	0	0	4.8	35.9	31.9
MH-5619	MH-1841	575.5	575.25	42.5	150	0.6	169.403	0.24453	0.2223	2.5	2.07	2.91	31.6	3.00	255.00	42.50	4.78	5.53	2	2	0	0	4.8	102.8	31.9
MH-5624	MH-5625	593.14	592.71	42.6	150	0.53	100	0.08514	0.0774	0.8	0.84	0.8	16.4	1.30	110.76	42.60	4.79	5.54	2	2	0	0	4.8	36.0	32.0

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-5626	MH-3728	583.54	583.16	42.6	150	0.38	111.168	0.03179	0.0289	0.8	0.8	0.8	16.1	1.30	110.76	42.60	4.79	5.54	2	2	0	0	4.8	36.0	32.0
MH-5628	MH-4149	577.24	577.19	42.7	150	0.19	1000	0.03784	0.0344	1.1	0.8	1.4	14.8	1.60	136.64	42.70	4.80	5.56	2	2	0	0	4.8	45.7	32.0
MH-1078	MH-5629	613.84	614.03	19	150	0.27	100	0.00858	0.0078	0.8	0.8	0.83	8.8	1.30	49.40	19.00	2.14	2.47	1	1	0	0	2.1	16.1	14.3
MH-5512	MH-5310	586.82	587.24	42.7	400	1.6	100	5.52035	5.0185	1.1	0.8	1.46	38	1.85	157.99	42.70	6.41	11.77	2	2	0	0	6.4	67.2	42.7
MH-5633	MH-5634	578.48	578.44	42.8	150	0.15	1000	0.02035	0.0185	1.1	0.8	1.5	16.2	1.60	136.96	42.80	4.82	5.57	2	2	0	0	4.8	45.8	32.1
MH-5638	MH-169	572.77	572.34	42.8	150	0.33	100	0.01727	0.0157	1.2	1.55	0.8	11.4	1.70	145.52	42.80	4.82	5.57	2	2	0	0	4.8	49.0	32.1
MH-5640	MH-4562	583.24	582.81	42.9	150	0.37	100	0.02541	0.0231	0.9	0.94	0.8	15	1.40	120.12	42.90	4.83	5.58	2	2	0	0	4.8	39.5	32.2
MH-5355	MH-5642	583.18	582.75	42.9	150	0.89	100	0.5214	0.474	1.7	2.57	0.8	41.4	2.20	188.76	42.90	4.83	5.58	2	2	0	0	4.8	78.1	32.2
MH-4440	MH-5643	561.59	561.54	42.9	271	0.6	896.066	2.12212	1.9292	1.9	1.73	2.06	64	2.52	216.30	42.90	5.60	8.08	2	2	0	0	5.6	99.0	37.4
MH-5645	MH-5646	596.71	597.14	42.9	150	0.4	100	0.03333	0.0303	0.9	0.8	0.92	17.7	1.40	120.12	42.90	4.83	5.58	2	2	0	0	4.8	39.5	32.2
MH-4047	MH-5256	591.56	591.8	42.9	150	0.48	180.54	0.12287	0.1117	0.9	0.8	0.94	22.3	1.40	120.12	42.90	4.83	5.58	2	2	0	0	4.8	39.5	32.2
MH-5351	MH-5648	577.78	577.51	42	175	0.88	156.301	0.72127	0.6557	2.5	2.81	2.22	49.7	3.03	254.10	42.00	4.88	5.89	2	2	0	0	4.9	105.2	32.6
MH-5649	MH-5650	590.9	590.47	43	150	0.41	100	0.03597	0.0327	0.9	0.98	0.8	10.7	1.40	120.40	43.00	4.84	5.60	2	2	0	0	4.8	39.6	32.3
MH-5651	MH-5624	593.61	593.18	43	150	0.42	100	0.03795	0.0345	0.9	1.09	0.8	11	1.40	120.40	43.00	4.84	5.60	2	2	0	0	4.8	39.6	32.3
MH-5652	MH-5653	588.91	588.48	43	150	0.75	100	0.28072	0.2552	1.2	1.61	0.8	30	1.70	146.20	43.00	4.84	5.60	2	2	0	0	4.8	49.2	32.3
MH-5642	MH-5431	581.21	580.78	43	150	0.96	100	0.68563	0.6233	1.6	2.34	0.8	48	2.10	180.60	43.00	4.84	5.60	2	2	0	0	4.8	75.0	32.3
MH-5656	MH-3547	592.47	592.05	43.1	150	0.6	101.928	0.132	0.12	0.9	0.86	0.94	22.8	1.40	120.68	43.10	4.85	5.61	2	2	0	0	4.8	39.6	32.3
MH-5657	MH-1999	570.03	569.6	43.1	175	1.36	100	2.14313	1.9483	1	1.17	0.8	70.7	1.53	131.46	43.10	5.01	6.05	2	2	0	0	5.0	44.9	33.4
MH-956	MH-2856	570.11	570.21	23.3	150	0.6	232.019	0.36916	0.3356	1.6	1.42	1.68	39.6	2.10	97.86	23.30	2.62	3.03	1	1	0	0	2.6	40.7	17.5
MH-656	MH-549	576.42	576.48	19.2	150	0.6	354.868	0.51733	0.4703	3	2.77	3.31	51.5	3.50	134.40	19.20	2.16	2.50	1	1	0	0	2.2	53.7	14.4
MH-5662	MH-5663	577.54	577.49	43.2	150	0.23	1000	0.07733	0.0703	1.7	1.64	1.78	23.7	2.20	190.08	43.20	4.86	5.62	2	2	0	0	4.9	78.6	32.4
MH-4456	MH-4197	581.43	581	43.2	150	0.31	100	0.01463	0.0133	1	1.3	0.8	10	1.50	129.60	43.20	4.86	5.62	2	2	0	0	4.9	43.0	32.4
MH-5671	MH-4945	573.09	573.05	43.3	150	0.26	1000	0.1199	0.109	0.9	0.8	0.94	26.5	1.40	121.24	43.30	4.87	5.64	2	2	0	0	4.9	39.8	32.5
MH-5673	MH-5674	606.5	606.39	43.3	175	0.6	390.194	0.5973	0.543	0.9	0.83	0.9	46	1.43	123.41	43.30	5.03	6.07	2	2	0	0	5.0	41.7	33.6
MH-225	MH-5675	600.64	601.18	54.3	150	0.36	100	0.02332	0.0212	1	0.8	1.15	8.7	1.50	162.90	54.30	6.11	7.07	2	2	0	0	6.1	54.0	40.7
MH-5663	MH-5676	577.49	577.06	43.5	150	0.6	100.053	0.12848	0.1168	2	1.78	2.25	33.4	2.50	217.50	43.50	4.89	5.66	2	2	0	0	4.9	89.0	32.6
MH-5572	MH-5677	565.45	565.41	43.5	400	0.64	1000	3.11839	2.8349	1.4	1.54	1.21	37.1	2.15	187.05	43.50	6.53	11.99	2	2	0	0	6.5	94.6	43.5
MH-5680	MH-962	566.44	566.12	45.4	150	0.45	144.09	0.07843	0.0713	0.8	0.8	0.8	16.5	1.30	118.04	45.40	5.11	5.91	2	2	0	0	5.1	38.4	34.1
MH-3445	MH-3209	587.28	587.72	43.6	150	0.35	100	0.02112	0.0192	0.8	0.8	0.85	13.1	1.30	113.36	43.60	4.91	5.68	2	2	0	0	4.9	36.8	32.7
MH-5687	MH-5571	565.67	565.62	43.6	271	0.6	964.084	2.47313	2.2483	1.5	1.3	1.71	56.5	2.12	184.95	43.60	5.70	8.21	2	2	0	0	5.7	85.4	38.0
MH-3465	MH-1728	577.4	577.27	44	150	0.6	356.263	0.52052	0.4732	3.5	3.45	3.58	48.1	4.00	352.00	44.00	4.95	5.73	2	0	2	0	5.0	139.5	33.0
MH-5691	MH-5692	583.47	583.2	43.7	271	1.25	165.009	4.11873	3.7443	1	1.28	0.8	59.6	1.62	141.68	43.70	5.71	8.23	2	2	0	0	5.7	53.5	38.1
MH-5693	MH-3364	577.92	577.7	43.8	150	0.6	195.516	0.29502	0.2682	1.1	0.86	1.39	34.4	1.60	140.16	43.80	4.93	5.70	2	2	0	0	4.9	46.9	32.9
MH-4577	MH-5319	566.4	565.96	43.8	150	0.93	100	0.58872	0.5352	0.9	0.92	0.8	44.2	1.40	122.64	43.80	4.93	5.70	2	2	0	0	4.9	40.3	32.9
MH-5695	MH-5696	594.15	594.19	43.9	600	0.86	1000	14.00608	12.7328	2	2.08	1.97	55.1	2.95	259.01	43.90	7.90	20.31	2	2	0	0	7.9	148.3	52.7
MH-5699	MH-239	563.85	563.81	40	150	0.2	1000	0.04983	0.0453	1	0.8	1.18	21.5	1.50	120.00	40.00	4.50	5.21	2	2	0	0	4.5	39.8	30.0
MH-5701	MH-5702	582.35	582.25	43.6	175	0.6	412.928	0.64911	0.5901	4	3.4	4.56	45.8	4.53	394.58	43.60	5.07	6.12	2	0	2	0	5.1	186.0	33.8
MH-5653	MH-5703	587.89	587.83	44	217	0.6	649.029	1.29789	1.1799	1.1	1.32	0.95	59.8	1.67	146.70	44.00	5.39	7.02	2	2	0	0	5.4	52.9	35.9
MH-872	MH-754	579.76	579.41	40.7	150	0.69	116.068	0.25003	0.2273	0.9	1	0.8	31.1	1.40	113.96	40.70	4.58	5.30	2	2	0	0	4.6	37.4	30.5
MH-4878	MH-5024	561.25	560.81	44	150	0.74	100	0.26092	0.2372	1.2	1.55	0.8	28.9	1.70	149.60	44.00	4.95	5.73	2	2	0	0	5.0	50.4	33.0
MH-5028	MH-998	575.74	575.42	44.1	150	0.6	138.453	0.19316	0.1756	1.5	1.67	1.33	25.8	2.00	176.40	44.10	4.96	5.74	2	2	0	0	5.0	60.4	33.1
MH-1136	MH-5708	575.8	575.41	39.8	175	1.32	100	1.85911	1.6901	1.7	2.58	0.8	65.2	2.23	177.11	39.80	4.63	5.58	2	2	0	0	4.6	75.0	30.8
MH-5413	MH-4985	579.72	579.33	44.1	150	0.6	112.087	0.14839	0.1349	1.1	1.08	1.19	24.8	1.60	141.12	44.10	4.96	5.74	2	2	0	0	5.0	47.2	33.1
MH-5709	MH-5710	593.8	593.9	44.1	400	0.84	466.105	3.12653	2.8423	1	0.83	1.1	34.1	1.75	154.35	44.10	6.62	12.15	2	2	0	0	6.6	65.0	44.1
MH-4285	MH-4841	577.09	577.46	44.2	150	0.6	120.587	0.16192	0.1472	0.9	1.03	0.8	25.1	1.40	123.76	44.20	4.97	5.75	2	2	0	0	5.0	40.7	33.2
MH-5425	MH-5719	604.56	604.11	44.2	150	0.54	100	0.09174	0.0834	1	1.25	0.8	17.1	1.50	132.60	44.20	4.97	5.75	2	2	0	0	5.0	44.0	33.2
MH-5724	MH-3263	581.46	581.02	44.3	150	0.31	100	0.01507	0.0137	0.9	0.92	0.8	8.7	1.40	124.04	44.30	4.98	5.77	2	2	0	0	5.0	40.7	33.2
MH-5423	MH-955	570.14	570.02	44.3	150	0.23	357.461	0.02332	0.0212	1.2	0.98	1.5	26.6	1.70	150.62	44.30	4.98	5.77	2	2	0	0	5.0	50.7	33.2
MH-5728	MH-5729	578.51	578.07	44.4	150	1.24	100	1.44815	1.3165	1.4	1.94	0.8	71	1.90	168.72	44.40	5.00	5.78	2	2	0	0	5.0	57.5	33.3
MH-5731	MH-319	582.83	582.69	44.4	150	0.6	301.098	0.53878	0.4898	0.8	0.8	0.84	49.2	1.30	115.44	44.40	5.00	5.78	2	2	0	0	5.0	37.5	33.3
MH-2025	MH-5732	582.67	583.11	44.4	150	0.45	100	0.04994	0.0454	0.8	0.8	0.82	12.6	1.30	115.44	44.40	5.00	5.78	2	2	0	0	5.0	37.5	33.3
MH-5735	MH-5021	563.57	563.24	44.4	175	1.19	132.084	1.88892	1.7172	0.8	0.8	0.8	73.3	1.33	117.66	44.40	5.16	6.23	2	2	0	0	5.2	39.4	34.4
MH-4958	MH-5736	576.75	576.71	44.4	150	0.23	1000	0.07942	0.0722	1.3	1.3	1.38	27.3	1.80	159.84	44.40	5.00	5.78	2	2	0	0	5.0	54.2	33.3
MH-5737	MH-5738	580.18	580.09	34.2	150	0.6	377.5	0.57013	0.5183	1.7	1.46	1.89	51.2	2.20	150.48	34.20	3.85	4.45	2	2	0	0	3.8	62.2	25.7
MH-5741	MH-149	563.8	563.49	43.7	150	0.6	142.473	0.19932	0.1812	1.2	0.8	1.59	30.4	1.70	148.58	43.70	4.92	5.69	2	2	0	0	4.9	50.0	32.8
MH-386	MH-407	587.23	586.79	44.5	150	0.84	100	0.41866	0.3806	1.2	1.69	0.8	42	1.70	151.30	44.50	5.01	5.79	2	2	0	0	5.0	50.9	33.4
MH-408	MH-5484	586.38	585.89	49.3	150	0.91	100	0.54989	0.4999	1	1.2	0.8	42.6	1.50	147.90	49.30	5.55	6.42	2	2	0	0	5.5	49.0	37.0
MH-292	MH-893	580.95	580.68	37.4	150	0.6	137.002	0.19096	0.1736	1.1	1.35	0.87	26.9	1.60	119.68	37.40	4.21	4.87	2	2	0	0	4.2	40.0	28.1
MH-5506	MH-5193	572.05	571.61	44.7	150	0.7	100	0.22165	0.2015	1	1.22	0.8	26.6	1.50	134.10	44.70	5.03	5.82	2	2	0	0	5.0	44.5	33.5
MH-5177	MH-245	581.5	581.31	18.9	150	0.7	100	0.21967	0.1997	1	1.16	0.8	29	1.50	56.70	18.90	2.13	2.46	1	1	0	0	2.1	18.8	14.2
MH-5745	MH-2046	585.7	585.66	44.7	150	0.23	1000	0.07414	0.0674	1	0.8	1.26	20.7	1.50	134.10	44.70	5.03	5.82	2	2	0	0	5.0	44.5	33.5
MH-4549	MH-4027	567.3	566.83	49.1	150	0.6	104.011	0.13871	0.1261	0.8	0.8	0.8	21.1	1.30	127.66	49.10	5.52	6.39	2	2	0	0	5.5	41.5	36.8
MH-5746	MH-5397	567.18	567.13	44.8	271	0.6	918.742	2.22673	2.0243	4	3.6	4.41	53	4.62	414.04	44.80	5.85	8.44	2	0	2	0	5.9	212.2	39.0
MH-716	MH-5748	575.89	575.99	43.7	175	0.6	436.466	0.70576	0.6416	1.2	0.96	1.43	52.4	1.73	150.77	43.70	5.08	6.13	2	2	0	0	5.1	52.3	33.9
MH-5103	MH-5749	591.21	590.87	44.8	150	0.6	129.739	0.176	0.16	1	1.13	0.88	24.4	1.50	134.40	44.80	5.04	5.83	2	2	0	0	5.0	44.6	33.6

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-5287	MH-5750	578.24	578.19	44.8	150	0.25	1000	0.1034	0.094	1	1.01	0.95	26.8	1.50	134.40	44.80	5.04	5.83	2	2	0	0	5.0	44.6	33.6
MH-5751	MH-5752	557.92	557.84	44.9	217	0.6	612.41	1.17645	1.0695	1.2	0.8	1.61	56.8	1.77	158.68	44.90	5.50	7.16	2	2	0	0	5.5	57.7	36.7
MH-4308	MH-4792	599.76	599.43	44.9	150	0.91	134.588	0.84788	0.7708	1.2	1.52	0.8	56.2	1.70	152.66	44.90	5.05	5.84	2	2	0	0	5.1	51.4	33.7
MH-5753	MH-4053	593.7	593.35	45.3	150	0.6	129.311	0.17501	0.1591	1.4	0.8	2.1	27.1	1.90	172.14	45.30	5.10	5.90	2	2	0	0	5.1	58.7	34.0
MH-5754	MH-555	580.55	580.28	45.6	150	0.43	168.45	0.07898	0.0718	0.8	0.8	0.82	21.8	1.30	118.56	45.60	5.13	5.94	2	2	0	0	5.1	38.5	34.2
MH-5367	MH-5755	607.85	607.39	45	150	0.81	100	0.36003	0.3273	1.1	1.34	0.8	34.1	1.60	144.00	45.00	5.06	5.86	2	2	0	0	5.1	48.1	33.8
MH-614	MH-5758	564.96	565.29	43.5	150	0.49	133.505	0.08943	0.0813	0.8	0.8	0.8	17.4	1.30	113.10	43.50	4.89	5.66	2	2	0	0	4.9	36.8	32.6
MH-5229	MH-5626	584	583.54	45	150	0.3	100	0.01364	0.0124	0.8	0.83	0.8	8.8	1.30	117.00	45.00	5.06	5.86	2	2	0	0	5.1	38.0	33.8
MH-2502	MH-5759	578.3	578.64	45	150	0.6	133.088	0.18216	0.1656	1.2	1.27	1.11	27.3	1.70	153.00	45.00	5.06	5.86	2	2	0	0	5.1	51.5	33.8
MH-5337	MH-2166	587.68	587.35	45	150	0.6	136.709	0.18711	0.1701	1.8	1.33	2.35	26.9	2.30	207.00	45.00	5.06	5.86	2	2	0	0	5.1	85.3	33.8
MH-362	MH-5761	568.18	568.63	45	150	0.85	100	0.42724	0.3884	1	0.8	1.2	42.7	1.50	135.00	45.00	5.06	5.86	2	2	0	0	5.1	44.8	33.8
MH-3625	MH-4619	585	585.46	45.1	271	1.48	100	2.93293	2.6663	1	0.8	1.11	45.1	1.62	146.21	45.10	5.89	8.49	2	2	0	0	5.9	55.2	39.3
MH-2990	MH-5656	592.52	592.47	45.2	150	0.24	1000	0.08734	0.0794	1.1	1.26	0.86	24.7	1.60	144.64	45.20	5.09	5.88	2	2	0	0	5.1	48.4	33.9
MH-5587	MH-5767	591.52	591.06	45.2	150	0.67	100	0.19305	0.1755	1	1.25	0.8	29.5	1.50	135.60	45.20	5.09	5.88	2	2	0	0	5.1	45.0	33.9
MH-709	MH-5768	564.66	564.96	44.4	150	0.48	146.299	0.09603	0.0873	0.8	0.84	0.8	31.5	1.30	115.44	44.40	5.00	5.78	2	2	0	0	5.0	37.5	33.3
MH-5771	MH-1750	578.37	578.27	45.2	175	0.6	467.114	0.78573	0.7143	3	3.07	2.9	57.3	3.53	318.66	45.20	5.25	6.34	2	0	2	0	5.3	130.7	35.0
MH-4472	MH-394	577.93	578.18	45.8	150	0.6	187.35	0.27863	0.2533	1.7	1.83	1.6	32.3	2.20	201.52	45.80	5.15	5.96	2	2	0	0	5.2	83.3	34.4
MH-5774	MH-4430	571.81	571.6	45.3	150	0.6	210.479	0.32373	0.2943	1	1.12	0.96	36.6	1.50	135.90	45.30	5.10	5.90	2	2	0	0	5.1	45.1	34.0
MH-4278	MH-5777	575.13	574.82	45.4	217	1.03	149.667	1.25037	1.1367	1.3	1.89	0.8	50.4	1.87	169.52	45.40	5.56	7.24	2	2	0	0	5.6	62.0	37.1
MH-4362	MH-5025	573.83	573.37	45.5	150	0.58	100	0.11209	0.1019	1.3	1.84	0.8	18.8	1.80	163.80	45.50	5.12	5.92	2	2	0	0	5.1	55.5	34.1
MH-5779	MH-5780	568.21	567.75	45.5	150	0.83	100	0.39831	0.3621	1	1.17	0.8	36	1.50	136.50	45.50	5.12	5.92	2	2	0	0	5.1	45.3	34.1
MH-5781	MH-4161	591.21	591.52	45.5	150	0.6	147.436	0.20779	0.1889	0.9	0.82	0.91	28.7	1.40	127.40	45.50	5.12	5.92	2	2	0	0	5.1	41.9	34.1
MH-5785	MH-1084	578.42	578.27	53.8	217	0.82	374.665	2.02136	1.8376	0.8	0.8	0.8	61.3	1.37	147.09	53.80	6.59	8.58	2	2	0	0	6.6	51.5	44.0
MH-5494	MH-5251	592.83	592.72	45.6	175	0.6	418.333	0.66132	0.6012	1.1	0.96	1.17	51.7	1.63	148.20	45.60	5.30	6.40	2	2	0	0	5.3	51.0	35.3
MH-1744	MH-123	597.26	597.06	45.7	150	0.6	229.408	0.36377	0.3307	1.4	1.14	1.74	44.4	1.90	173.66	45.70	5.14	5.95	2	2	0	0	5.1	59.2	34.3
MH-5787	MH-5788	580.67	580.3	45.7	150	0.36	125.096	0.03102	0.0282	0.8	0.8	0.8	14.1	1.30	118.82	45.70	5.14	5.95	2	2	0	0	5.1	38.6	34.3
MH-5794	MH-1605	580.66	580.48	45.8	150	0.33	248.45	0.04928	0.0448	0.8	0.8	0.8	15.6	1.30	119.08	45.80	5.15	5.96	2	2	0	0	5.2	38.7	34.4
MH-5749	MH-5652	590.18	589.72	45.9	150	0.71	100	0.23551	0.2141	1.2	1.57	0.8	27.4	1.70	156.06	45.90	5.16	5.97	2	2	0	0	5.2	52.5	34.4
MH-5797	MH-4247	564.6	564.32	45.9	150	0.45	166.535	0.0913	0.083	0.8	0.8	0.8	35	1.30	119.34	45.90	5.16	5.97	2	2	0	0	5.2	38.8	34.4
MH-5798	MH-4253	580.12	580.07	46	150	0.18	1000	0.03278	0.0298	1.1	0.8	1.37	25.1	1.60	147.20	46.00	5.18	5.99	2	2	0	0	5.2	49.2	34.5
MH-5801	MH-5751	558.38	557.92	46.1	217	1.14	100	1.08031	0.9821	0.9	1.08	0.8	47.7	1.47	135.26	46.10	5.65	7.35	2	2	0	0	5.6	47.9	37.7
MH-5696	MH-5804	594.19	594.24	46.2	600	0.86	1000	13.94987	12.6817	1.9	1.97	1.84	56.6	2.85	263.34	46.20	8.32	21.37	2	2	0	0	8.3	150.5	55.4
MH-5806	MH-5807	606.88	607.16	28.2	150	0.88	100	0.48455	0.4405	1.1	0.8	1.36	44.1	1.60	90.24	28.20	3.17	3.67	1	1	0	0	3.2	30.2	21.2
MH-2210	MH-3625	583.88	583.92	46.3	400	0.63	1000	3.05206	2.7746	1.4	0.99	1.75	36.5	2.15	199.09	46.30	6.95	12.76	2	2	0	0	6.9	100.7	46.3
MH-4335	MH-5026	586.44	586.39	46.4	150	0.16	1000	0.02387	0.0217	0.9	0.8	0.93	16	1.40	129.92	46.40	5.22	6.04	2	2	0	0	5.2	42.7	34.8
MH-5808	MH-5809	588.82	588.36	46.4	150	0.33	100	0.01727	0.0157	1.1	1.44	0.8	7.5	1.60	148.48	46.40	5.22	6.04	2	2	0	0	5.2	49.6	34.8
MH-5810	MH-5501	584.96	584.56	46.4	150	0.42	116.941	0.04697	0.0427	0.8	0.8	0.8	14.2	1.30	120.64	46.40	5.22	6.04	2	2	0	0	5.2	39.2	34.8
MH-23	MH-5814	580.1	580.53	45.1	150	0.29	104.806	0.01177	0.0107	0.8	0.8	0.8	6.3	1.30	117.26	45.10	5.07	5.87	2	2	0	0	5.1	38.1	33.8
MH-5824	MH-839	586.69	586.44	24.6	150	1.16	100	1.07129	0.9739	0.9	0.92	0.8	59.8	1.40	68.88	24.60	2.77	3.20	1	1	0	0	2.8	22.6	18.5
MH-5825	MH-5826	565.85	566.39	55.9	150	0.6	103.545	0.13376	0.1216	0.8	0.84	0.8	20.7	1.30	145.34	55.90	6.29	7.28	2	2	0	0	6.3	47.2	41.9
MH-5828	MH-340	572.73	572.26	46.7	150	0.39	100	0.03003	0.0273	1.2	1.66	0.8	9.8	1.70	158.78	46.70	5.25	6.08	2	2	0	0	5.3	53.5	35.0
MH-5830	MH-5789	613.49	613.12	37.3	150	0.32	100	0.01639	0.0149	0.8	0.82	0.8	7.3	1.30	96.98	37.30	4.20	4.86	2	2	0	0	4.2	31.5	28.0
MH-4479	MH-5832	602.82	602.46	46.8	150	0.69	131.462	0.29491	0.2681	0.8	0.8	0.8	35.9	1.30	121.68	46.80	5.27	6.09	2	2	0	0	5.3	39.5	35.1
MH-4991	MH-5746	567.23	567.18	46.8	271	0.6	903.581	2.15743	1.9613	3.3	2.96	3.6	61.9	3.92	367.01	46.80	6.11	8.81	2	0	2	0	6.1	165.1	40.8
MH-5834	MH-5695	594.1	594.15	46.9	600	0.86	1000	14.08154	12.8014	1.9	1.79	2.08	47.7	2.85	267.33	46.90	8.44	21.70	2	2	0	0	8.4	152.8	56.3
MH-4608	MH-4308	600.95	600.48	46.9	150	0.85	100	0.42592	0.3872	1.1	1.36	0.8	37.2	1.60	150.08	46.90	5.28	6.10	2	2	0	0	5.3	50.2	35.2
MH-5835	MH-5836	592.22	591.75	46.9	150	0.55	100	0.09834	0.0894	1	1.14	0.8	17.6	1.50	140.70	46.90	5.28	6.10	2	2	0	0	5.3	46.7	35.2
MH-5837	MH-5838	582.36	581.89	46.9	150	0.85	100	0.44066	0.4006	0.9	0.97	0.8	37.9	1.40	131.32	46.90	5.28	6.10	2	2	0	0	5.3	43.1	35.2
MH-5839	MH-5840	585.79	586.27	47.1	150	0.71	100	0.23155	0.2105	1.2	0.8	1.59	27.2	1.70	160.14	47.10	5.30	6.13	2	2	0	0	5.3	53.9	35.3
MH-5841	MH-1337	596.01	596.24	47.2	150	0.29	206.853	0.02662	0.0242	0.8	0.8	0.8	10.1	1.30	122.72	47.20	5.31	6.14	2	2	0	0	5.3	39.9	35.4
MH-5842	MH-737	574.59	574.3	29.2	217	1.2	100	1.29987	1.1817	0.9	1.01	0.8	50.9	1.47	85.67	29.20	3.58	4.66	1	1	0	0	3.6	30.3	23.9
MH-5843	MH-4835	588.67	588.43	47.3	150	0.36	193.318	0.04895	0.0445	0.8	0.8	0.8	13.5	1.30	122.98	47.30	5.32	6.16	2	2	0	0	5.3	40.0	35.5
MH-5845	MH-161	570.08	569.61	47.3	150	0.8	100	0.35871	0.3261	1.2	1.62	0.8	39.1	1.70	160.82	47.30	5.32	6.16	2	2	0	0	5.3	54.2	35.5
MH-5846	MH-401	575.54	575.07	46.5	150	0.36	100	0.02222	0.0202	1.1	1.33	0.8	8.4	1.60	148.80	46.50	5.23	6.05	2	2	0	0	5.2	49.7	34.9
MH-5849	MH-2359	577.69	577.22	47.4	150	0.3	100	0.01386	0.0126	1.2	1.6	0.8	6.8	1.70	161.16	47.40	5.33	6.17	2	2	0	0	5.3	54.3	35.6
MH-4510	MH-5851	570.35	570.4	47.5	150	0.14	1000	0.01507	0.0137	0.8	0.87	0.8	14	1.30	123.50	47.50	5.34	6.18	2	2	0	0	5.3	40.1	35.6
MH-5854	MH-337	594.49	594.44	47.5	150	0.26	1000	0.11693	0.1063	1	0.8	1.2	32.1	1.50	142.50	47.50	5.34	6.18	2	2	0	0	5.3	47.3	35.6
MH-5563	MH-539	571.44	570.97	47.3	150	0.6	102.023	0.13211	0.1201	0.9	0.97	0.86	22.8	1.40	132.44	47.30	5.32	6.16	2	2	0	0	5.3	43.5	35.5
MH-2780	MH-5858	604.23	604.71	48.2	150	0.53	100	0.08635	0.0785	1	0.8	1.16	16.5	1.50	144.60	48.20	5.42	6.27	2	2	0	0	5.4	48.0	36.2
MH-5758	MH-5859	565.29	565.63	49.5	150	0.36	142.581	0.03674	0.0334	0.8	0.8	0.8	14.8	1.30	128.70	49.50	5.57	6.44	2	2	0	0	5.6	41.8	37.1
MH-1944	MH-1800	579.22	579.01	47.7	150	0.6	228.774	0.36245	0.3295	2	2.09	1.96	39.5	2.50	238.50	47.70	5.37	6.21	2	2	0	0	5.4	97.5	35.8
MH-5862	MH-2959	580.44	580.91	47.8	150	0.38	100	0.02893	0.0263	1	0.8	1.27	9.7	1.50	143.40	47.80	5.38	6.22	2	2	0	0	5.4	47.6	35.9
MH-638	MH-5863	599.29	599.37	47.8	150	0.25	564.545	0.04939	0.0449	1	1.19	0.8	30	1.50	143.40	47.80	5.38	6.22	2	2	0	0	5.4	47.6	35.9
MH-5865	MH-1736	562.72	562.46	47.8	150	0.6	187.887	0.27984	0.2544	1	0.8	1.2	34.5	1.50	143.40	47.80	5.38	6.22	2	2	0	0	5.4	47.6	35.9
MH-2184	MH-3035	603.42	603.83	48.9	150	0.6	119.845	0.16071	0.1461	1.8	2.24	1.3	25.3	2.30	224.94	48.90	5.50	6.36	2	2	0	0	5.5	92.7	36.7

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-5866	MH-5867	607.86	607.46	47.9	150	0.6	118.138	0.15796	0.1436	1	0.8	1.21	22.8	1.50	143.70	47.90	5.39	6.23	2	2	0	0	5.4	47.7	35.9
MH-5074	MH-5871	582.96	582.54	86.9	150	0.86	203.67	1.0043	0.913	0.8	0.8	0.8	64.4	1.30	225.94	86.90	9.78	11.31	3	3	0	0	9.8	73.4	65.2
MH-5873	MH-3647	588.98	589.03	48	400	0.67	1000	5.06902	4.6082	1.1	0.85	1.42	49.4	1.85	177.60	48.00	7.20	13.23	2	2	0	0	7.2	75.6	48.0
MH-5874	MH-5875	576.05	576	48.1	150	0.19	1000	0.03817	0.0347	1.1	0.8	1.35	21	1.60	153.92	48.10	5.41	6.26	2	2	0	0	5.4	51.5	36.1
MH-3014	MH-5876	582.05	581.71	53.2	150	0.6	160.592	0.23254	0.2114	3.3	2.85	3.81	30.3	3.80	404.32	53.20	5.99	6.92	2	0	2	0	6.0	160.7	39.9
MH-5878	MH-749	587.97	588.17	26	150	0.63	124.577	0.19327	0.1757	1.2	0.8	1.55	27.9	1.70	88.40	26.00	2.93	3.38	1	1	0	0	2.9	29.8	19.5
MH-5613	MH-5118	574.32	574.8	48.2	150	0.38	100	0.02871	0.0261	1.1	0.8	1.38	9.6	1.60	154.24	48.20	5.42	6.27	2	2	0	0	5.4	51.6	36.2
MH-2169	MH-5126	587.09	586.62	48.3	150	0.44	103.442	0.04917	0.0447	0.8	0.8	0.8	15.4	1.30	125.58	48.30	5.43	6.29	2	2	0	0	5.4	40.8	36.2
MH-5883	MH-5884	602.73	603.05	48.4	150	0.44	154.961	0.07766	0.0706	0.8	0.8	0.8	16.5	1.30	125.84	48.40	5.45	6.30	2	2	0	0	5.4	40.9	36.3
MH-3663	MH-4683	594.83	594.74	47.3	150	0.29	526.204	0.08173	0.0743	0.8	0.8	0.8	24.8	1.30	122.98	47.30	5.32	6.16	2	2	0	0	5.3	40.0	35.5
MH-5885	MH-287	581.95	581.48	47	150	0.71	100	0.22957	0.2087	1.1	1.39	0.8	27.1	1.60	150.40	47.00	5.29	6.12	2	2	0	0	5.3	50.3	35.3
MH-549	MH-5886	578.99	579.07	48.9	150	0.25	601.353	0.05753	0.0523	0.8	0.8	0.8	17	1.30	127.14	48.90	5.50	6.36	2	2	0	0	5.5	41.3	36.7
MH-5887	MH-5888	572.97	572.48	48.5	400	1.87	100	9.76085	8.8735	0.9	0.96	0.8	51.4	1.65	160.05	48.50	7.28	13.37	2	2	0	0	7.3	66.7	48.5
MH-5890	MH-5891	586.49	586.4	48.6	150	0.14	511.612	0.00715	0.0065	0.8	0.8	0.8	7.9	1.30	126.36	48.60	5.47	6.33	2	2	0	0	5.5	41.1	36.5
MH-455	MH-5893	597.27	597.1	44.9	217	0.8	269.461	1.11309	1.0119	1.4	1.55	1.33	41.7	1.97	176.64	44.90	5.50	7.16	2	2	0	0	5.5	65.0	36.7
MH-539	MH-5596	570.97	570.54	48.6	150	0.6	112.483	0.14905	0.1355	1.2	0.86	1.49	24.4	1.70	165.24	48.60	5.47	6.33	2	2	0	0	5.5	55.6	36.5
MH-4835	MH-5290	588.12	588.07	48.6	150	0.25	1000	0.11385	0.1035	1.4	1.1	1.71	27.4	1.90	184.68	48.60	5.47	6.33	2	2	0	0	5.5	62.9	36.5
MH-5875	MH-5897	576	575.95	48.7	150	0.22	1000	0.06886	0.0626	1.4	1.35	1.53	23.9	1.90	185.06	48.70	5.48	6.34	2	2	0	0	5.5	63.1	36.5
MH-5898	MH-1810	583.3	582.97	48.7	150	0.33	146.662	0.02717	0.0247	0.8	0.8	0.8	9.7	1.30	126.62	48.70	5.48	6.34	2	2	0	0	5.5	41.1	36.5
MH-760	MH-5900	600.77	600.82	48.2	150	0.2	1000	0.05247	0.0477	1.4	2.04	0.8	38.9	1.90	183.16	48.20	5.42	6.27	2	2	0	0	5.4	62.4	36.2
MH-5902	MH-2668	591.7	591.23	48.8	150	0.36	104.215	0.02365	0.0215	0.8	0.8	0.8	11.8	1.30	126.88	48.80	5.49	6.35	2	2	0	0	5.5	41.2	36.6
MH-5904	MH-4383	591.35	590.86	48.8	150	0.45	100	0.04796	0.0436	0.9	0.93	0.8	12.4	1.40	136.64	48.80	5.49	6.35	2	2	0	0	5.5	44.9	36.6
MH-432	MH-5614	562.75	562.67	24	150	0.6	271.992	0.46365	0.4215	2.3	2.53	1.98	49.3	2.80	134.40	24.00	2.70	3.12	1	1	0	0	2.7	54.5	18.0
MH-5908	MH-5909	574.62	574.4	48.9	150	0.32	222.409	0.04015	0.0365	0.8	0.8	0.8	12.4	1.30	127.14	48.90	5.50	6.36	2	2	0	0	5.5	41.3	36.7
MH-5910	MH-5022	562.55	562.42	49.9	175	0.6	402.774	0.62645	0.5695	1.4	1.35	1.38	50	1.93	192.12	49.90	5.80	7.00	2	2	0	0	5.8	67.4	38.7
MH-4097	MH-5911	579.81	580.3	49.1	150	0.36	100	0.02288	0.0208	0.8	0.8	0.83	8.6	1.30	127.66	49.10	5.52	6.39	2	2	0	0	5.5	41.5	36.8
MH-460	MH-2702	604.93	605.42	49.1	150	0.44	100	0.04499	0.0409	1	0.8	1.21	15.1	1.50	147.30	49.10	5.52	6.39	2	2	0	0	5.5	48.8	36.8
MH-620	MH-1804	577.26	577.21	43.2	271	0.6	806.146	1.77463	1.6133	1.8	2.12	1.42	51.5	2.42	209.17	43.20	5.64	8.13	2	2	0	0	5.6	95.9	37.6
MH-5915	MH-103	587.04	586.99	54.2	150	0.2	1000	0.05104	0.0464	1	0.8	1.16	18.6	1.50	162.60	54.20	6.10	7.05	2	2	0	0	6.1	53.9	40.7
MH-5916	MH-471	612.07	612.57	50.1	150	0.77	100	0.30778	0.2798	1.1	0.8	1.31	31.4	1.60	160.32	50.10	5.64	6.52	2	2	0	0	5.6	53.6	37.6
MH-5918	MH-5919	594.65	594.47	79.3	175	0.6	450.748	0.74173	0.6743	1.1	0.8	1.36	48.7	1.63	257.73	79.30	9.22	11.13	3	3	0	0	9.2	88.7	61.5
MH-5920	MH-5921	590.75	590.26	49.3	150	0.37	100	0.02552	0.0232	0.9	0.99	0.8	9	1.40	138.04	49.30	5.55	6.42	2	2	0	0	5.5	45.3	37.0
MH-3374	MH-5923	591.79	592.28	49	400	1.51	100	3.56851	3.2441	1.1	0.8	1.36	29.7	1.85	181.30	49.00	7.35	13.50	2	2	0	0	7.4	77.1	49.0
MH-1700	MH-1510	579.02	578.67	52.9	150	0.6	151.292	0.21483	0.1953	1.5	1.3	1.76	27.5	2.00	211.60	52.90	5.95	6.89	2	2	0	0	6.0	72.5	39.7
MH-3430	MH-5924	564.81	565.22	49.4	150	0.41	121.072	0.04576	0.0416	0.8	0.8	0.8	12.3	1.30	128.44	49.40	5.56	6.43	2	2	0	0	5.6	41.7	37.1
MH-4235	MH-3405	587.03	586.98	49.5	271	0.6	951.37	2.39129	2.1739	3.2	3.71	2.69	65.1	3.82	378.28	49.50	6.47	9.32	2	0	2	0	6.5	170.3	43.1
MH-2941	MH-211	570.12	569.99	49.5	150	0.6	377.818	0.57079	0.5189	1.5	0.8	2.21	51.2	2.00	198.00	49.50	5.57	6.44	2	2	0	0	5.6	67.8	37.1
MH-843	MH-5926	602.64	603.03	48.4	150	0.52	123.379	0.10109	0.0919	0.8	0.84	0.8	26.8	1.30	125.84	48.40	5.45	6.30	2	2	0	0	5.4	40.9	36.3
MH-1659	MH-11	598.68	598.14	54	150	0.46	100	0.05302	0.0482	1.1	1.35	0.8	16.2	1.60	172.80	54.00	6.08	7.03	2	2	0	0	6.1	57.8	40.5
MH-5891	MH-5232	586.4	586.26	49.6	150	0.2	352.838	0.01463	0.0133	0.8	0.8	0.8	10.1	1.30	128.96	49.60	5.58	6.46	2	2	0	0	5.6	41.9	37.2
MH-5027	MH-2747	586.36	586.31	49.6	150	0.22	1000	0.06336	0.0576	1.2	1.08	1.26	33.4	1.70	168.64	49.60	5.58	6.46	2	2	0	0	5.6	56.8	37.2
MH-5929	MH-289	579.14	579.09	49.7	150	0.14	1000	0.01606	0.0146	1.1	0.8	1.49	19.3	1.60	159.04	49.70	5.59	6.47	2	2	0	0	5.6	53.2	37.3
MH-5930	MH-2197	580.45	580.09	48.8	150	0.3	137.643	0.01859	0.0169	0.8	0.8	0.8	11.9	1.30	126.88	48.80	5.49	6.35	2	2	0	0	5.5	41.2	36.6
MH-5761	MH-5931	569.02	569.52	49.7	150	0.81	100	0.36949	0.3359	1	0.8	1.25	34.6	1.50	149.10	49.70	5.59	6.47	2	2	0	0	5.6	49.4	37.3
MH-5759	MH-5368	578.64	579.12	49.7	150	0.6	103.11	0.13332	0.1212	1	1.11	0.8	24.2	1.50	149.10	49.70	5.59	6.47	2	2	0	0	5.6	49.4	37.3
MH-5937	MH-4178	583.66	583.22	49.8	150	0.51	113.212	0.088	0.08	0.8	0.8	0.8	20.7	1.30	129.48	49.80	5.60	6.48	2	2	0	0	5.6	42.1	37.4
MH-5939	MH-2158	589.69	589.88	25.5	150	0.6	136.492	0.19019	0.1729	1.9	1.77	1.95	27.3	2.40	122.40	25.50	2.87	3.32	1	1	0	0	2.9	50.2	19.1
MH-5941	MH-94	594.12	594.09	35.5	150	0.19	1000	0.03938	0.0358	1	0.8	1.23	23.8	1.50	106.50	35.50	3.99	4.62	2	2	0	0	4.0	35.3	26.6
MH-5942	MH-5469	582.07	581.47	59.9	150	0.31	100	0.01518	0.0138	1.3	1.73	0.8	7.1	1.80	215.64	59.90	6.74	7.80	2	2	0	0	6.7	73.1	44.9
MH-3051	MH-1927	563.25	562.89	49.2	150	0.6	133.311	0.18249	0.1659	1.1	1	1.13	26.9	1.60	157.44	49.20	5.54	6.40	2	2	0	0	5.5	52.6	36.9
MH-5943	MH-5944	567.88	567.4	50.1	150	0.6	103.174	0.13343	0.1213	1.6	0.8	2.45	25.3	2.10	210.42	50.10	5.64	6.52	2	2	0	0	5.6	87.4	37.6
MH-5945	MH-992	581.04	580.54	49.8	150	0.31	100	0.01386	0.0126	0.9	0.98	0.8	15.5	1.40	139.44	49.80	5.60	6.48	2	2	0	0	5.6	45.8	37.4
MH-5946	MH-940	596.08	596.13	50.1	400	0.64	1000	4.28912	3.8992	1.1	1.1	1.03	44.9	1.85	185.37	50.10	7.52	13.81	2	2	0	0	7.5	78.9	50.1
MH-4297	MH-5324	581.47	581.57	50.2	150	0.29	536.448	0.08283	0.0753	0.8	0.8	0.8	22.4	1.30	130.52	50.20	5.65	6.53	2	2	0	0	5.6	42.4	37.7
MH-3298	MH-4788	580.1	579.78	50.2	150	0.6	152.796	0.2178	0.198	1.6	1.56	1.66	29.5	2.10	210.84	50.20	5.65	6.53	2	2	0	0	5.6	87.6	37.7
MH-4416	MH-2989	592.58	592.53	50.3	150	0.21	1000	0.05346	0.0486	1.3	1.2	1.36	22.4	1.80	181.08	50.30	5.66	6.55	2	2	0	0	5.7	61.4	37.7
MH-3228	MH-5952	587.53	587.1	50.3	150	0.6	116.748	0.15587	0.1417	1.4	1.24	1.54	25.5	1.90	191.14	50.30	5.66	6.55	2	2	0	0	5.7	65.1	37.7
MH-19	MH-5072	602.5	602.04	45.5	150	0.44	100	0.04686	0.0426	0.9	0.94	0.8	12.2	1.40	127.40	45.50	5.12	5.92	2	2	0	0	5.1	41.9	34.1
MH-5955	MH-335	599.67	599.19	50.8	150	0.3	105.552	0.0143	0.013	0.9	0.8	0.98	9.6	1.40	142.24	50.80	5.72	6.61	2	2	0	0	5.7	46.7	38.1
MH-1953	MH-5887	573.47	572.97	50.8	400	1.85	101.982	9.70662	8.8242	1.2	1.51	0.96	57.7	1.95	198.12	50.80	7.62	14.00	2	2	0	0	7.6	85.1	50.8
MH-5963	MH-5106	588.12	587.91	51	150	0.41	249.917	0.11033	0.1003	0.8	0.8	0.8	22.3	1.30	132.60	51.00	5.74	6.64	2	2	0	0	5.7	43.1	38.3
MH-5964	MH-5965	588.31	587.89	51.1	150	0.35	121.529	0.02651	0.0241	0.8	0.8	0.85	12.7	1.30	132.86	51.10	5.75	6.65	2	2	0	0	5.7	43.2	38.3
MH-4253	MH-6	580	579.93	46.2	217	0.6	607.673	1.16215	1.0565	1.1	1.37	0.86	48.1	1.67	154.03	46.20	5.66	7.37	2	2	0	0	5.7	55.6	37.7
MH-5967	MH-161	570.12	569.61	51.2	150	0.46	100	0.05247	0.0477	1.4	1.96	0.8	27.6	1.90	194.56	51.20	5.76	6.66	2	2	0	0	5.8	66.3	38.4
MH-5968	MH-4361	576.29	575.77	51.3	150	0.43	100	0.04257	0.0387	1.4	1.93	0.8	11.6	1.90	194.94	51.30	5.77	6.68	2	2	0	0	5.8	66.4	38.5

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-5952	MH-3945	587.1	586.73	51.3	150	0.6	138.439	0.19305	0.1755	1.6	1.54	1.7	25.8	2.10	215.46	51.30	5.77	6.68	2	2	0	0	5.8	89.5	38.5
MH-5970	MH-655	577.09	577.04	51.7	150	0.21	1000	0.05918	0.0538	2.2	2.24	2.15	18.5	2.70	279.18	51.70	5.82	6.73	2	2	0	0	5.8	113.5	38.8
MH-5049	MH-5810	585.46	584.96	51.4	150	0.38	103.579	0.02926	0.0266	0.8	0.8	0.8	11.7	1.30	133.64	51.40	5.78	6.69	2	2	0	0	5.8	43.4	38.6
MH-5974	MH-5975	599.72	599.21	51.4	150	0.64	100	0.16247	0.1477	1.1	1.49	0.8	22.7	1.60	164.48	51.40	5.78	6.69	2	2	0	0	5.8	55.0	38.6
MH-2583	MH-5976	573.54	573.46	51.5	217	0.6	676.696	1.40217	1.2747	1	1.1	0.83	61.4	1.57	161.40	51.50	6.31	8.22	2	2	0	0	6.3	57.7	42.1
MH-5978	MH-736	590.06	589.84	22.4	175	1.19	100	1.20109	1.0919	1	1.22	0.8	51.1	1.53	68.32	22.40	2.60	3.14	1	1	0	0	2.6	23.3	17.4
MH-5560	MH-5979	582.04	581.52	51.6	150	0.43	100	0.04389	0.0399	0.8	0.86	0.8	14.1	1.30	134.16	51.60	5.81	6.72	2	2	0	0	5.8	43.6	38.7
MH-4115	MH-5983	563.57	563.06	51.7	150	1.04	100	0.93346	0.8486	0.8	0.81	0.8	56.8	1.30	134.42	51.70	5.82	6.73	2	2	0	0	5.8	43.7	38.8
MH-1801	MH-4803	578.97	578.76	51.7	150	0.6	242.441	0.3927	0.357	1.8	1.93	1.76	40	2.30	237.82	51.70	5.82	6.73	2	2	0	0	5.8	98.0	38.8
MH-849	MH-5662	577.59	577.54	51.8	150	0.14	1000	0.01386	0.0126	1.2	0.8	1.64	18.3	1.70	176.12	51.80	5.83	6.74	2	2	0	0	5.8	59.3	38.9
MH-4855	MH-5987	575.3	575.68	52	150	0.6	136.008	0.18612	0.1692	3.3	3.35	3.32	27.7	3.80	395.20	52.00	5.85	6.77	2	0	2	0	5.9	157.0	39.0
MH-2459	MH-15	590.58	590.53	53.1	150	0.1	1000	0.00462	0.0042	1.1	0.8	1.47	21	1.60	169.92	53.10	5.97	6.91	2	2	0	0	6.0	56.8	39.8
MH-5897	MH-5619	575.95	575.5	52.2	150	0.6	113.871	0.15125	0.1375	1.8	1.53	2.07	27	2.30	240.12	52.20	5.87	6.79	2	2	0	0	5.9	98.9	39.2
MH-5989	MH-5835	593.08	592.56	52.2	150	0.45	100	0.04785	0.0435	0.9	0.94	0.8	12.4	1.40	146.16	52.20	5.87	6.79	2	2	0	0	5.9	48.0	39.2
MH-5466	MH-5837	583.05	582.52	52.2	150	0.8	100	0.34672	0.3152	0.9	1.07	0.8	33.5	1.40	146.16	52.20	5.87	6.79	2	2	0	0	5.9	48.0	39.2
MH-897	MH-5992	600.94	601	52.3	150	0.17	862.487	0.02244	0.0204	1.2	1.54	0.8	13.1	1.70	177.82	52.30	5.88	6.81	2	2	0	0	5.9	59.9	39.2
MH-5708	MH-5995	573.84	573.31	52.4	175	1.33	100	1.91224	1.7384	1.6	2.37	0.8	66.2	2.13	222.70	52.40	6.09	7.35	2	2	0	0	6.1	94.7	40.6
MH-5997	MH-4420	585.39	584.86	52.5	150	0.37	100	0.0264	0.024	1.4	1.93	0.8	9.2	1.90	199.50	52.50	5.91	6.83	2	2	0	0	5.9	68.0	39.4
MH-4316	MH-78	599.31	598.79	52.6	150	0.88	100	0.48202	0.4382	0.9	1.05	0.8	39.7	1.40	147.28	52.60	5.92	6.85	2	2	0	0	5.9	48.4	39.5
MH-5650	MH-4650	590.24	589.72	52.6	150	0.46	100	0.0539	0.049	0.9	1.02	0.8	13.1	1.40	147.28	52.60	5.92	6.85	2	2	0	0	5.9	48.4	39.5
MH-5297	MH-2732	596.66	596.13	52.7	400	1.43	100	2.91005	2.6455	0.8	0.83	0.8	26.7	1.55	163.37	52.70	7.91	14.52	2	2	0	0	7.9	67.2	52.7
MH-5618	MH-4550	593.36	593.31	52.7	150	0.19	1000	0.04004	0.0364	0.9	0.87	0.94	15.2	1.40	147.56	52.70	5.93	6.86	2	2	0	0	5.9	48.5	39.5
MH-6003	MH-6004	605.22	604.69	52.9	150	0.4	100	0.03377	0.0307	1.1	1.33	0.8	10.4	1.60	169.28	52.90	5.95	6.89	2	2	0	0	6.0	56.6	39.7
MH-6006	MH-4407	563.92	563.39	53	150	0.57	100	0.10824	0.0984	1.2	1.52	0.8	23.6	1.70	180.20	53.00	5.96	6.90	2	2	0	0	6.0	60.7	39.8
MH-6009	MH-6010	576.45	576.4	53.6	800	1.06	1000	32.69046	29.7186	3.3	3.51	3.03	50	4.45	477.04	53.60	11.26	38.18	2	0	2	0	11.3	344.0	75.0
MH-2645	MH-569	601.94	601.99	53.5	150	0.24	1000	0.09724	0.0884	0.9	0.91	0.86	25.5	1.40	149.80	53.50	6.02	6.96	2	2	0	0	6.0	49.2	40.1
MH-5244	MH-5475	572.3	571.88	53.1	150	0.64	124.271	0.2145	0.195	1.3	1.71	0.94	29	1.80	191.16	53.10	5.97	6.91	2	2	0	0	6.0	64.8	39.8
MH-6012	MH-4130	562.21	561.75	53.1	175	1.01	114.072	0.76736	0.6976	1.2	1.03	1.39	40.9	1.73	183.20	53.10	6.17	7.45	2	2	0	0	6.2	63.5	41.2
MH-4851	MH-5741	564.33	563.8	53.1	150	0.62	100	0.14608	0.1328	1	1.24	0.8	25.3	1.50	159.30	53.10	5.97	6.91	2	2	0	0	6.0	52.8	39.8
MH-4484	MH-6013	588.37	587.84	53.1	150	0.66	100	0.18062	0.1642	1	1.25	0.8	24	1.50	159.30	53.10	5.97	6.91	2	2	0	0	6.0	52.8	39.8
MH-2753	MH-5057	580.49	579.98	53.3	150	0.31	105.866	0.0154	0.014	0.8	0.8	0.8	12.9	1.30	138.58	53.30	6.00	6.94	2	2	0	0	6.0	45.0	40.0
MH-212	MH-5387	569.92	569.71	53.3	217	0.8	252.635	0.98131	0.8921	1.8	2.21	1.32	39.9	2.37	252.32	53.30	6.53	8.50	2	2	0	0	6.5	110.6	43.5
MH-5134	MH-6018	578.32	578.04	52	150	0.6	191.528	0.28864	0.2624	2.5	2.57	2.49	35.3	3.00	312.00	52.00	5.85	6.77	2	2	0	0	5.9	125.8	39.0
MH-6022	MH-4425	593.16	593.11	53.5	150	0.19	1000	0.04444	0.0404	0.8	0.8	0.86	21.2	1.30	139.10	53.50	6.02	6.96	2	2	0	0	6.0	45.2	40.1
MH-4040	MH-6025	581.56	580.97	60.2	217	1.12	100.364	1.01794	0.9254	4.2	4.35	4.12	49.4	4.77	573.95	60.20	7.38	9.60	3	0	3	0	7.4	279.0	49.2
MH-6028	MH-6029	580.98	580.61	74.7	150	0.43	199.917	0.09691	0.0881	0.8	0.8	0.8	19	1.30	194.22	74.70	8.40	9.72	3	3	0	0	8.4	63.1	56.0
MH-5826	MH-5152	566.39	566.92	53.7	150	0.54	100	0.09328	0.0848	0.8	0.8	0.86	20.4	1.30	139.62	53.70	6.04	6.99	2	2	0	0	6.0	45.4	40.3
MH-6032	MH-399	569.97	569.95	23.5	150	0.17	1000	0.02794	0.0254	1.4	0.8	1.91	17.9	1.90	89.30	23.50	2.64	3.06	1	1	0	0	2.6	30.4	17.6
MH-6035	MH-6036	565.51	564.97	53.8	150	0.44	100	0.04686	0.0426	1.1	1.38	0.8	12.3	1.60	172.16	53.80	6.05	7.00	2	2	0	0	6.1	57.6	40.4
MH-5485	MH-2031	576.93	576.98	53.9	150	0.19	1000	0.03894	0.0354	1.6	1.63	1.5	21.6	2.10	226.38	53.90	6.06	7.02	2	2	0	0	6.1	94.0	40.4
MH-5549	MH-2573	562.8	562.7	54.2	217	0.6	538.598	0.96921	0.8811	1.7	2.1	1.21	48.5	2.27	245.74	54.20	6.64	8.65	2	2	0	0	6.6	108.0	44.3
MH-6037	MH-2588	600.22	599.68	53.9	150	0.26	100	0.00792	0.0072	1	1.26	0.8	5.2	1.50	161.70	53.90	6.06	7.02	2	2	0	0	6.1	53.6	40.4
MH-6038	MH-18	587.59	587.05	54	400	1.58	100	5.27472	4.7952	1.1	1.36	0.8	50.7	1.85	199.80	54.00	8.10	14.88	2	2	0	0	8.1	85.0	54.0
MH-5194	MH-5931	570.51	569.97	54	150	0.76	100	0.29282	0.2662	1	1.26	0.8	30.6	1.50	162.00	54.00	6.08	7.03	2	2	0	0	6.1	53.7	40.5
MH-6039	MH-5262	582.52	581.98	54	150	1.19	100	1.19295	1.0845	1.1	1.45	0.8	63.5	1.60	172.80	54.00	6.08	7.03	2	2	0	0	6.1	57.8	40.5
MH-2732	MH-2646	594.11	594.05	54.1	400	0.64	1000	3.23356	2.9396	2.5	2.82	2.17	45.3	3.25	351.65	54.10	8.12	14.91	2	2	0	0	8.1	177.1	54.1
MH-6040	MH-6041	588.39	588.67	54.1	150	0.6	189.912	0.28446	0.2586	1.3	1.8	0.8	41.8	1.80	194.76	54.10	6.09	7.04	2	2	0	0	6.1	66.0	40.6
MH-355	MH-6042	606.38	606.26	50.8	175	0.6	413.623	0.65087	0.5917	3.7	3.62	3.86	57.3	4.23	429.26	50.80	5.91	7.13	2	0	2	0	5.9	204.9	39.4
MH-4778	MH-4091	557.59	557.05	54.2	150	0.94	100	0.6226	0.566	1.2	1.66	0.8	45.5	1.70	184.28	54.20	6.10	7.05	2	2	0	0	6.1	62.1	40.7
MH-5768	MH-6044	564.96	565.33	54.2	150	0.4	149.798	0.0528	0.048	0.8	0.8	0.8	16.3	1.30	140.92	54.20	6.10	7.05	2	2	0	0	6.1	45.8	40.7
MH-6045	MH-6040	588.24	588.39	54.2	150	0.6	353.849	0.5148	0.468	1.8	1.76	1.8	49.6	2.30	249.32	54.20	6.10	7.05	2	2	0	0	6.1	102.7	40.7
MH-5101	MH-6046	576.9	576.95	54.3	150	0.17	1000	0.02904	0.0264	1.3	1.73	0.8	13	1.80	195.48	54.30	6.11	7.07	2	2	0	0	6.1	66.2	40.7
MH-6047	MH-5797	564.93	564.6	54.4	150	0.36	164.035	0.04026	0.0366	0.8	0.8	0.8	15.2	1.30	141.44	54.40	6.12	7.08	2	2	0	0	6.1	46.0	40.8
MH-364	MH-6048	563.79	563.59	53.4	150	0.6	270.304	0.45826	0.4166	3.9	3.49	4.22	49.6	4.40	469.92	53.40	6.01	6.95	2	0	2	0	6.0	217.3	40.1
MH-3935	MH-905	589.8	590.21	41.7	150	0.7	100	0.21472	0.1952	1	0.8	1.3	26.1	1.50	125.10	41.70	4.69	5.43	2	2	0	0	4.7	41.5	31.3
MH-6049	MH-703	578.94	578.88	56.8	150	0.16	1000	0.02552	0.0232	1.2	0.8	1.53	20	1.70	193.12	56.80	6.39	7.39	2	2	0	0	6.4	65.0	42.6
MH-6051	MH-4371	596.47	595.93	54.6	150	0.35	100	0.02079	0.0189	0.8	0.9	0.8	8.2	1.30	141.96	54.60	6.14	7.11	2	2	0	0	6.1	46.1	41.0
MH-5120	MH-5378	596.83	596.27	55.6	217	1.17	100	1.16952	1.0632	1.1	1.4	0.8	37.6	1.67	185.37	55.60	6.81	8.87	2	2	0	0	6.8	66.9	45.4
MH-2499	MH-715	575.77	575.84	33.3	175	0.6	456.457	0.75636	0.6876	1	1.06	1.01	49.4	1.53	101.57	33.30	3.87	4.67	2	2	0	0	3.9	34.7	25.8
MH-6053	MH-5318	582.14	581.59	54.6	150	0.28	100	0.01045	0.0095	0.9	1.01	0.8	10.2	1.40	152.88	54.60	6.14	7.11	2	2	0	0	6.1	50.2	41.0
MH-6054	MH-2292	585.3	585.22	54.6	150	0.15	654.256	0.01034	0.0094	1.3	0.8	1.78	15.6	1.80	196.56	54.60	6.14	7.11	2	2	0	0	6.1	66.6	41.0
MH-113	MH-5487	590.52	591.02	50.1	150	0.98	100	0.57464	0.5224	1	0.8	1.22	42.6	1.50	150.30	50.10	5.64	6.52	2	2	0	0	5.6	49.8	37.6
MH-6055	MH-4643	595.8	595.25	54.7	150	0.59	100	0.11869	0.1079	0.8	0.87	0.8	22.1	1.30	142.22	54.70	6.15	7.12	2	2	0	0	6.2	46.2	41.0
MH-5703	MH-5394	587.83	587.74	54.7	217	0.6	658.18	1.33023	1.2093	0.9	0.95	0.91	52.8	1.47	160.49	54.70	6.70	8.73	2	2	0	0	6.7	56.8	44.7
MH-5014	MH-5077	573.22	572.67	54.8	150	0.94	100	0.62634	0.5694	1.1	1.45	0.8	45.7	1.60	175.36	54.80	6.17	7.13	2	2	0	0	6.2	58.6	41.1

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-6060	MH-473	595.98	595.43	54.9	150	0.39	100	0.03168	0.0288	0.8	0.82	0.8	10.1	1.30	142.74	54.90	6.18	7.15	2	2	0	0	6.2	46.4	41.2
MH-6063	MH-818	584.98	585.52	54.5	150	0.88	100	0.49247	0.4477	1	0.8	1.25	47.7	1.50	163.50	54.50	6.13	7.09	2	2	0	0	6.1	54.2	40.9
MH-5579	MH-5729	578.37	577.82	55	400	1.55	100	4.9258	4.478	0.9	0.93	0.8	43.5	1.65	181.50	55.00	8.25	15.16	2	2	0	0	8.3	75.6	55.0
MH-6066	MH-163	574.08	574.03	55.2	150	0.19	1000	0.04378	0.0398	1.1	0.8	1.32	24.1	1.60	176.64	55.20	6.21	7.18	2	2	0	0	6.2	59.1	41.4
MH-6067	MH-679	596.21	595.66	55.2	150	0.38	100	0.02706	0.0246	0.8	0.89	0.8	9.3	1.30	143.52	55.20	6.21	7.18	2	2	0	0	6.2	46.6	41.4
MH-5570	MH-5728	580.05	579.65	55.4	150	0.5	138.549	0.10296	0.0936	0.8	0.8	0.8	18.7	1.30	144.04	55.40	6.23	7.21	2	2	0	0	6.2	46.8	41.6
MH-6071	MH-6006	565.2	564.64	55.5	150	0.43	100	0.04092	0.0372	1.1	1.35	0.8	11.4	1.60	177.60	55.50	6.24	7.22	2	2	0	0	6.2	59.4	41.6
MH-451	MH-511	601.93	602.08	31	271	1.06	215.363	2.36203	2.1473	1.4	0.8	1.97	44.3	2.02	125.30	31.00	4.05	5.84	2	2	0	0	4.1	58.0	27.0
MH-6072	MH-6073	592.94	593.5	55.6	150	0.62	100	0.14784	0.1344	0.9	0.8	1.03	21.6	1.40	155.68	55.60	6.26	7.24	2	2	0	0	6.3	51.1	41.7
MH-6074	MH-5866	608.43	607.86	56.4	150	0.58	100	0.11407	0.1037	1.1	1.32	0.8	22.4	1.60	180.48	56.40	6.35	7.34	2	2	0	0	6.3	60.3	42.3
MH-5944	MH-6076	567.4	567.03	55.7	150	0.6	151.374	0.21505	0.1955	3.2	2.45	3.9	31.9	3.70	412.18	55.70	6.27	7.25	2	0	2	0	6.3	164.0	41.8
MH-6078	MH-375	577.84	577.3	54.4	150	0.34	100	0.01925	0.0175	1.3	1.78	0.8	7.9	1.80	195.84	54.40	6.12	7.08	2	2	0	0	6.1	66.4	40.8
MH-6079	MH-427	579.4	579.35	55.2	150	0.15	1000	0.01903	0.0173	1.2	0.8	1.56	18	1.70	187.68	55.20	6.21	7.18	2	2	0	0	6.2	63.2	41.4
MH-4378	MH-5386	592.38	591.86	56.4	150	0.6	107.819	0.14212	0.1292	2.1	1.59	2.54	24.1	2.60	293.28	56.40	6.35	7.34	2	2	0	0	6.3	119.6	42.3
MH-327	MH-189	563.38	563.72	34.1	150	0.55	100	0.09889	0.0899	1.2	0.8	1.63	17.7	1.70	115.94	34.10	3.84	4.44	2	2	0	0	3.8	39.0	25.6
MH-302	MH-187	569.9	569.53	47.5	150	0.65	128.126	0.23661	0.2151	2.2	1.98	2.32	31.1	2.70	256.50	47.50	5.34	6.18	2	2	0	0	5.3	104.3	35.6
MH-6048	MH-89	563.59	563.44	54.5	150	0.6	364.724	0.53955	0.4905	3.8	4.22	3.39	49.3	4.30	468.70	54.50	6.13	7.09	2	0	2	0	6.1	217.7	40.9
MH-6004	MH-460	604.69	604.93	56.9	150	0.38	234.635	0.07469	0.0679	0.8	0.8	0.8	17	1.30	147.94	56.90	6.40	7.41	2	2	0	0	6.4	48.1	42.7
MH-5780	MH-4027	567.39	566.83	56.4	150	0.85	100	0.44517	0.4047	1	1.16	0.8	38.2	1.50	169.20	56.40	6.35	7.34	2	2	0	0	6.3	56.1	42.3
MH-4280	MH-5479	577.76	577.7	55.7	271	0.6	864.958	1.99221	1.8111	1.9	2.19	1.62	59	2.52	280.84	55.70	7.28	10.49	2	2	0	0	7.3	128.5	48.5
MH-4943	MH-6094	599.17	599.74	57.1	150	0.89	100	0.51029	0.4639	1	0.8	1.18	40.9	1.50	171.30	57.10	6.42	7.43	2	2	0	0	6.4	56.8	42.8
MH-3375	MH-5529	591.53	591.14	57.1	400	1.34	145.732	3.70348	3.3668	0.8	0.8	0.8	31.5	1.55	177.01	57.10	8.57	15.74	2	2	0	0	8.6	72.8	57.1
MH-6096	MH-6097	593.67	593.38	29.8	217	1.4	100	2.288	2.08	1.2	1.6	0.8	53.7	1.77	105.31	29.80	3.65	4.75	1	1	0	0	3.7	38.3	24.3
MH-6098	MH-4569	591.39	591.33	57.5	150	0.17	1000	0.02706	0.0246	1.1	0.8	1.38	14.7	1.60	184.00	57.50	6.47	7.48	2	2	0	0	6.5	61.5	43.1
MH-6099	MH-615	592.14	592.27	57.2	175	0.6	421.06	0.66759	0.6069	1.6	1.8	1.37	50.8	2.13	243.10	57.20	6.65	8.02	2	2	0	0	6.6	103.3	44.3
MH-6100	MH-6101	584.08	584.65	57.3	150	0.96	100	0.67045	0.6095	0.8	0.8	0.89	58	1.30	148.98	57.30	6.45	7.46	2	2	0	0	6.4	48.4	43.0
MH-6103	MH-8	593.7	593.64	59	150	0.24	1000	0.08976	0.0816	1.1	0.8	1.35	37.5	1.60	188.80	59.00	6.64	7.68	2	2	0	0	6.6	63.1	44.3
MH-6106	MH-3429	564.99	564.73	57.6	150	0.34	220.368	0.04895	0.0445	0.8	0.8	0.8	19.7	1.30	149.76	57.60	6.48	7.50	2	2	0	0	6.5	48.7	43.2
MH-3457	MH-4130	561.81	561.7	57.7	217	0.6	527.805	0.93962	0.8542	1.4	1.34	1.39	47.9	1.97	226.99	57.70	7.07	9.20	2	2	0	0	7.1	83.5	47.1
MH-6107	MH-6108	609.6	609.23	57.7	150	0.6	155.446	0.2233	0.203	0.9	0.82	1.05	34.5	1.40	161.56	57.70	6.49	7.51	2	2	0	0	6.5	53.1	43.3
MH-6119	MH-5081	599.91	599.77	57.9	175	0.6	424.611	0.67628	0.6148	2.4	2.84	1.92	49.1	2.93	338.72	57.90	6.73	8.12	2	2	0	0	6.7	140.5	44.9
MH-391	MH-5032	563.11	562.99	58.1	175	0.6	490.139	0.85294	0.7754	3.8	4.27	3.32	53.6	4.33	502.57	58.10	6.75	8.15	2	0	2	0	6.8	238.9	45.0
MH-6121	MH-1060	559.87	559.52	34.5	150	0.62	100	0.14311	0.1301	0.9	0.91	0.8	25	1.40	96.60	34.50	3.88	4.49	2	2	0	0	3.9	31.7	25.9
MH-915	MH-1914	585.41	585.37	27.9	217	0.6	612.607	1.17755	1.0705	1.6	1.75	1.36	54.8	2.17	120.92	27.90	3.42	4.45	1	1	0	0	3.4	53.3	22.8
MH-470	MH-6123	576.34	576.63	58.2	150	0.33	198.945	0.03707	0.0337	1	1.13	0.8	20.5	1.50	174.60	58.20	6.55	7.58	2	2	0	0	6.5	57.9	43.7
MH-4954	MH-5479	578.74	578.64	58.4	150	0.31	569.285	0.11693	0.1063	0.8	0.82	0.8	24.1	1.30	151.84	58.40	6.57	7.60	2	2	0	0	6.6	49.3	43.8
MH-6125	MH-6126	575.91	575.32	58.4	150	0.93	100	0.5896	0.536	1.2	1.6	0.8	44.2	1.70	198.56	58.40	6.57	7.60	2	2	0	0	6.6	66.9	43.8
MH-6128	MH-4775	575.61	575.02	58.5	150	0.36	100	0.02277	0.0207	1.4	1.97	0.8	8.6	1.90	222.30	58.50	6.58	7.61	2	2	0	0	6.6	75.7	43.9
MH-6129	MH-3710	600.27	599.69	58.5	150	0.3	100	0.01364	0.0124	1	1.24	0.8	10.8	1.50	175.50	58.50	6.58	7.61	2	2	0	0	6.6	58.2	43.9
MH-6101	MH-5839	584.74	585.33	58.7	150	0.85	100	0.42537	0.3867	1	0.8	1.27	37.2	1.50	176.10	58.70	6.60	7.64	2	2	0	0	6.6	58.4	44.0
MH-5569	MH-6133	565.8	565.74	58.7	271	0.6	920.171	2.23355	2.0305	1	0.8	1.15	66.5	1.62	190.31	58.70	7.67	11.05	2	2	0	0	7.7	71.8	51.1
MH-5094	MH-5601	566.2	565.69	58.7	150	0.6	115.282	0.15356	0.1396	0.8	0.8	0.85	22.4	1.30	152.62	58.70	6.60	7.64	2	2	0	0	6.6	49.6	44.0
MH-6134	MH-5673	606.71	606.52	58.5	150	0.6	312.175	0.57068	0.5188	0.8	0.8	0.83	51.2	1.30	152.10	58.50	6.58	7.61	2	2	0	0	6.6	49.4	43.9
MH-6137	MH-5184	562.31	561.73	58.9	217	1.27	100	1.5961	1.451	1.3	1.77	0.8	50.6	1.87	219.93	58.90	7.22	9.40	2	2	0	0	7.2	80.4	48.1
MH-6138	MH-4821	570.39	570.19	60.2	900	2.05	300	73.02801	66.3891	1	1.18	0.91	57.2	2.25	270.90	60.20	13.55	51.82	3	3	0	0	13.5	169.4	90.3
MH-1928	MH-5910	562.81	562.57	58.7	150	0.6	240.94	0.38918	0.3538	1.3	1.26	1.35	39.8	1.80	211.32	58.70	6.60	7.64	2	2	0	0	6.6	71.6	44.0
MH-6141	MH-4826	589.73	589.14	59.1	150	0.59	100	0.12188	0.1108	1	1.29	0.8	19.7	1.50	177.30	59.10	6.65	7.69	2	2	0	0	6.6	58.8	44.3
MH-6142	MH-6143	585.38	585.93	59.1	150	0.68	106.116	0.20988	0.1908	0.9	0.8	0.94	29.3	1.40	165.48	59.10	6.65	7.69	2	2	0	0	6.6	54.4	44.3
MH-4849	MH-4791	589.9	589.31	59.2	150	0.7	100	0.21538	0.1958	0.9	1.07	0.8	26.2	1.40	165.76	59.20	6.66	7.71	2	2	0	0	6.7	54.5	44.4
MH-6145	MH-1150	600.68	600.09	59.2	150	0.41	100	0.03663	0.0333	1.1	1.33	0.8	10.8	1.60	189.44	59.20	6.66	7.71	2	2	0	0	6.7	63.3	44.4
MH-6146	MH-4436	581.44	581.38	59.4	150	0.21	1000	0.06182	0.0562	1.5	0.8	2.1	30.3	2.00	237.60	59.40	6.68	7.73	2	2	0	0	6.7	81.4	44.6
MH-1666	MH-455	598.28	597.86	55.5	150	0.6	130.504	0.17776	0.1616	1.1	1.24	1.02	24.5	1.60	177.60	55.50	6.24	7.22	2	2	0	0	6.2	59.4	41.6
MH-6147	MH-6148	591.5	591.43	59.4	400	0.66	884.936	3.96231	3.6021	1.6	1.98	1.15	43	2.35	279.18	59.40	8.91	16.37	2	2	0	0	8.9	141.0	59.4
MH-6149	MH-470	576.28	576.34	56.7	150	0.25	1000	0.099	0.09	1.5	1.9	1.13	26.3	2.00	226.80	56.70	6.38	7.38	2	2	0	0	6.4	77.7	42.5
MH-6150	MH-4179	581.76	581.7	59.4	150	0.18	1000	0.03564	0.0324	1.4	0.8	2.07	23.3	1.90	225.72	59.40	6.68	7.73	2	2	0	0	6.7	76.9	44.6
MH-5148	MH-6152	573.14	572.55	59.6	150	0.78	100	0.31273	0.2843	1.8	2.76	0.8	31.7	2.30	274.16	59.60	6.71	7.76	2	2	0	0	6.7	112.9	44.7
MH-2646	MH-4667	594.05	593.99	59.7	400	0.6	1000	3.27679	2.9789	1.8	2.17	1.38	45.2	2.55	304.47	59.70	8.96	16.45	2	2	0	0	9.0	153.7	59.7
MH-6153	MH-5528	567.93	567.33	59.7	150	0.68	100	0.19569	0.1779	0.9	0.91	0.8	25	1.40	167.16	59.70	6.72	7.77	2	2	0	0	6.7	54.9	44.8
MH-6156	MH-522	603.8	603.22	59.8	150	0.37	103.95	0.02651	0.0241	0.8	0.8	0.8	9.3	1.30	155.48	59.80	6.73	7.78	2	2	0	0	6.7	50.5	44.9
MH-793	MH-2327	588.81	588.87	59.8	150	0.19	1000	0.04312	0.0392	1.3	1.75	0.92	24.6	1.80	215.28	59.80	6.73	7.78	2	2	0	0	6.7	72.9	44.9
MH-72	MH-6157	602.73	603.33	59.8	150	0.31	100	0.01518	0.0138	0.8	0.8	0.84	7.1	1.30	155.48	59.80	6.73	7.78	2	2	0	0	6.7	50.5	44.9
MH-6143	MH-5389	585.93	586.51	59.9	150	0.6	103.837	0.1342	0.122	0.9	0.94	0.8	25.2	1.40	167.72	59.90	6.74	7.80	2	2	0	0	6.7	55.1	44.9
MH-6159	MH-5578	579.36	578.76	60	400	1.55	100	4.85309	4.4119	0.8	0.81	0.8	40.2	1.55	186.00	60.00	9.00	16.54	2	2	0	0	9.0	76.5	60.0
MH-6160	MH-5735	563.94	563.57	60	175	1.05	163.637	1.53879	1.3989	0.8	0.8	0.8	68.3	1.33	159.00	60.00	6.98	8.42	2	2	0	0	7.0	53.2	46.5
MH-5788	MH-6161	580.3	580.05	80.8	150	0.33	318.269	0.06501	0.0591	0.8	0.8	0.8	16.5	1.30	210.08	80.80	9.09	10.52	3	3	0	0	9.1	68.3	60.6

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-6165	MH-6166	564.75	564.14	60.2	150	0.47	100	0.05489	0.0499	1.1	1.42	0.8	13.2	1.60	192.64	60.20	6.77	7.84	3	3	0	0	6.8	64.4	45.2
MH-5675	MH-6167	601.53	602.13	60.3	150	0.28	100	0.01056	0.0096	0.9	0.8	0.93	5.9	1.40	168.84	60.30	6.78	7.85	3	3	0	0	6.8	55.5	45.2
MH-5445	MH-3877	589.47	588.86	60.7	150	0.49	100	0.06512	0.0592	1.1	1.37	0.8	22	1.60	194.24	60.70	6.83	7.90	3	3	0	0	6.8	64.9	45.5
MH-5290	MH-5653	588.01	587.89	60.8	217	0.6	543.177	0.98065	0.8915	1.5	1.71	1.32	53.2	2.07	251.35	60.80	7.45	9.70	3	3	0	0	7.5	111.2	49.7
MH-6180	MH-719	595.34	594.73	61	150	0.44	100	0.04741	0.0431	0.8	0.88	0.8	12.3	1.30	158.60	61.00	6.86	7.94	3	3	0	0	6.9	51.5	45.8
MH-6183	MH-5583	566.28	565.75	61	150	0.6	116.192	0.15499	0.1409	1	0.82	1.12	27	1.50	183.00	61.00	6.86	7.94	3	3	0	0	6.9	60.7	45.8
MH-5965	MH-4291	587.89	587.28	61	150	0.49	100	0.06666	0.0606	0.8	0.85	0.8	21.4	1.30	158.60	61.00	6.86	7.94	3	3	0	0	6.9	51.5	45.8
MH-6185	MH-5102	576.34	576.28	61.1	150	0.18	1000	0.03685	0.0335	1.5	0.8	2.17	20.2	2.00	244.40	61.10	6.87	7.95	3	3	0	0	6.9	83.7	45.8
MH-6126	MH-4944	574.53	573.92	61.2	150	0.95	100	0.65901	0.5991	1.2	1.59	0.8	47	1.70	208.08	61.20	6.89	7.97	3	3	0	0	6.9	70.1	45.9
MH-5129	MH-3155	577.56	577.21	35.1	600	2.3	100	22.68178	20.6198	1.2	1.69	0.8	46.2	2.15	150.93	35.10	6.32	16.24	2	2	0	0	6.3	84.9	42.1
MH-6190	MH-4104	588.44	587.82	61.7	150	0.56	100	0.10428	0.0948	0.8	0.86	0.8	21.3	1.30	160.42	61.70	6.94	8.03	3	3	0	0	6.9	52.1	46.3
MH-6133	MH-5687	565.74	565.67	61.8	271	0.6	951.344	2.39272	2.1752	1.2	1.15	1.3	66.9	1.82	225.08	61.80	8.07	11.64	3	3	0	0	8.1	86.4	53.8
MH-337	MH-6192	594.85	595.36	61.8	150	0.39	119.942	0.03685	0.0335	0.8	0.8	0.8	11.1	1.30	160.68	61.80	6.95	8.04	3	3	0	0	7.0	52.2	46.4
MH-101	MH-6193	598.29	598.35	61.9	150	0.13	1000	0.01298	0.0118	1.1	1.35	0.8	20.6	1.60	198.08	61.90	6.96	8.06	3	3	0	0	7.0	66.2	46.4
MH-969	MH-6194	592.37	592.77	42	150	0.6	104.66	0.13805	0.1255	1.8	1.47	2.12	24.2	2.30	193.20	42.00	4.73	5.47	2	2	0	0	4.7	79.6	31.5
MH-6195	MH-5731	583.16	582.83	62	150	0.68	189.948	0.45067	0.4097	0.8	0.8	0.8	47.2	1.30	161.20	62.00	6.98	8.07	3	3	0	0	7.0	52.4	46.5
MH-6074	MH-6196	608.95	609.17	61.8	150	0.34	284.043	0.06446	0.0586	0.8	0.8	0.8	16.2	1.30	160.68	61.80	6.95	8.04	3	3	0	0	7.0	52.2	46.4
MH-5372	MH-6197	584.1	584.63	62.1	150	0.91	117.654	0.70136	0.6376	1.3	0.8	1.86	49.6	1.80	223.56	62.10	6.99	8.08	3	3	0	0	7.0	75.8	46.6
MH-6198	MH-6199	596.36	596.68	31.8	271	1.5	100	3.0459	2.769	1.5	0.8	2.1	46	2.12	134.90	31.80	4.15	5.99	2	2	0	0	4.2	62.3	27.7
MH-5648	MH-619	577.51	577.38	63.5	175	0.6	468.488	0.78914	0.7174	2.2	2.22	2.1	50.8	2.73	346.08	63.50	7.38	8.91	3	3	0	0	7.4	144.2	49.2
MH-6200	MH-5897	576.05	575.95	62.2	150	0.23	641.509	0.04378	0.0398	1.2	0.8	1.53	20.5	1.70	211.48	62.20	7.00	8.10	3	3	0	0	7.0	71.2	46.7
MH-6203	MH-4873	583.7	583.64	62.3	150	0.18	1000	0.03641	0.0331	1.4	0.8	2.06	20.2	1.90	236.74	62.30	7.01	8.11	3	3	0	0	7.0	80.7	46.7
MH-1217	MH-6207	562.16	561.83	32.7	150	0.48	100	0.06072	0.0552	1	1.14	0.8	13.9	1.50	98.10	32.70	3.68	4.26	2	2	0	0	3.7	32.5	24.5
MH-5755	MH-6208	606.7	606.06	63.7	150	0.85	100	0.43846	0.3986	1.1	1.5	0.8	37.8	1.60	203.84	63.70	7.17	8.29	3	3	0	0	7.2	68.1	47.8
MH-6210	MH-5569	566.48	565.85	63.2	217	1.34	100	1.94403	1.7673	0.9	1.07	0.8	55.9	1.47	185.43	63.20	7.75	10.08	3	3	0	0	7.7	65.7	51.6
MH-2430	MH-5541	576.05	576.19	63	150	0.22	462.724	0.02574	0.0234	0.8	0.8	0.8	11	1.30	163.80	63.00	7.09	8.20	3	3	0	0	7.1	53.2	47.3
MH-6211	MH-6212	589.43	590.06	63	150	0.67	100	0.18799	0.1709	0.9	0.8	1.06	27.4	1.40	176.40	63.00	7.09	8.20	3	3	0	0	7.1	57.9	47.3
MH-6207	MH-5063	561.47	560.84	63	150	0.66	100	0.17919	0.1629	1	1.16	0.8	23.9	1.50	189.00	63.00	7.09	8.20	3	3	0	0	7.1	62.7	47.3
MH-5482	MH-6215	579.86	579.43	57.3	150	0.49	131.246	0.08789	0.0799	0.9	0.8	1.06	20.5	1.40	160.44	57.30	6.45	7.46	2	2	0	0	6.4	52.7	43.0
MH-6218	MH-5446	602.33	602.03	63.2	150	0.4	207.076	0.07744	0.0704	0.8	0.8	0.8	17.1	1.30	164.32	63.20	7.11	8.23	3	3	0	0	7.1	53.4	47.4
MH-6219	MH-505	590.65	590.46	63.7	150	0.21	339.198	0.01518	0.0138	0.8	0.8	0.8	15.8	1.30	165.62	63.70	7.17	8.29	3	3	0	0	7.2	53.8	47.8
MH-5500	MH-6220	579.98	579.84	58.3	150	0.28	405.537	0.05445	0.0495	0.8	0.8	0.8	15.6	1.30	151.58	58.30	6.56	7.59	2	2	0	0	6.6	49.3	43.7
MH-5840	MH-5927	587.06	587.69	63.3	150	0.56	100	0.1012	0.092	1.5	0.8	2.16	17.9	2.00	253.20	63.30	7.12	8.24	3	3	0	0	7.1	86.7	47.5
MH-6221	MH-1	589.95	589.32	64.9	150	0.34	103.328	0.01969	0.0179	1	0.8	1.22	8	1.50	194.70	64.90	7.30	8.45	3	3	0	0	7.3	64.6	48.7
MH-1720	MH-6222	597.77	598.41	63.4	150	0.57	100	0.11176	0.1016	0.9	0.8	0.95	21.7	1.40	177.52	63.40	7.13	8.25	3	3	0	0	7.1	58.3	47.6
MH-6223	MH-471	613.71	613.08	63.8	150	0.69	100	0.21164	0.1924	1.1	1.33	0.8	25.9	1.60	204.16	63.80	7.18	8.30	3	3	0	0	7.2	68.3	47.9
MH-1084	MH-6224	576.13	576.06	63.3	271	0.6	932.717	2.29207	2.0837	2.5	2.89	2.07	54.9	3.12	395.12	63.30	8.27	11.92	3	3	0	0	8.3	179.1	55.1
MH-2830	MH-5771	578.51	578.37	63.6	175	0.6	456.07	0.75537	0.6867	3.1	3.1	3.07	54.9	3.63	461.10	63.60	7.39	8.92	3	0	3	0	7.4	188.8	49.3
MH-4408	MH-6012	563.11	562.47	63.6	150	0.73	100	0.25157	0.2287	0.9	0.9	0.8	28.4	1.40	178.08	63.60	7.16	8.28	3	3	0	0	7.2	58.5	47.7
MH-5584	MH-6227	565.5	565.22	63.7	150	0.6	225.599	0.35618	0.3238	1	1.11	0.94	44.5	1.50	191.10	63.70	7.17	8.29	3	3	0	0	7.2	63.4	47.8
MH-6229	MH-6230	578.11	578.55	63.8	150	0.6	142.162	0.19888	0.1808	1.2	1.64	0.8	29.1	1.70	216.92	63.80	7.18	8.30	3	3	0	0	7.2	73.0	47.9
MH-6231	MH-6232	598.64	598	63.8	150	0.85	100	0.44143	0.4013	0.9	0.92	0.8	38	1.40	178.64	63.80	7.18	8.30	3	3	0	0	7.2	58.7	47.9
MH-4678	MH-6233	595.18	595.72	63.9	150	0.27	118.525	0.01111	0.0101	0.8	0.8	0.8	6.2	1.30	166.14	63.90	7.19	8.32	3	3	0	0	7.2	54.0	47.9
MH-6013	MH-3790	587.24	586.6	64	150	0.7	100	0.22319	0.2029	1.1	1.4	0.8	26.7	1.60	204.80	64.00	7.20	8.33	3	3	0	0	7.2	68.5	48.0
MH-6010	MH-6234	575.01	574.94	65.1	800	1.06	1000	32.97569	29.9779	4	4.43	3.59	50.6	5.15	670.53	65.10	13.67	46.38	3	0	0	3	13.7	481.6	91.1
MH-6236	MH-6237	591.95	591.8	61.9	175	0.6	402.309	0.62535	0.5685	1.9	1.34	2.39	43.5	2.43	300.22	61.90	7.20	8.68	3	3	0	0	7.2	126.2	48.0
MH-6238	MH-463	590.33	590.09	64	150	0.23	257.713	0.01617	0.0147	0.8	0.8	0.82	13.6	1.30	166.40	64.00	7.20	8.33	3	3	0	0	7.2	54.1	48.0
MH-6239	MH-5883	602.92	602.3	63.5	150	0.62	102.444	0.14542	0.1322	1.5	1.76	1.23	28	2.00	254.00	63.50	7.14	8.27	3	3	0	0	7.1	87.0	47.6
MH-4698	MH-6240	595.95	596.59	64.1	150	0.33	100	0.01837	0.0167	1.1	0.8	1.35	14.2	1.60	205.12	64.10	7.21	8.34	3	3	0	0	7.2	68.6	48.1
MH-6244	MH-6245	592.99	592.81	36.6	150	0.6	203.323	0.31361	0.2851	3.7	4.07	3.28	36.4	4.20	307.44	36.60	4.12	4.76	2	0	2	0	4.1	143.5	27.5
MH-6248	MH-6183	566.34	566.28	64.5	150	0.22	1000	0.06226	0.0566	0.8	0.8	0.82	23.4	1.30	167.70	64.50	7.26	8.40	3	3	0	0	7.3	54.5	48.4
MH-2964	MH-114	589.12	589.52	39.6	400	1.59	100	5.38934	4.8994	1.2	0.8	1.55	37.5	1.95	154.44	39.60	5.94	10.91	2	2	0	0	5.9	66.3	39.6
MH-5995	MH-6250	572.19	571.55	64.7	175	1.34	100	1.99155	1.8105	1.4	1.92	0.8	67.8	1.93	249.10	64.70	7.52	9.08	3	3	0	0	7.5	87.4	50.1
MH-5928	MH-5354	587.03	586.38	64.7	150	0.63	100	0.15158	0.1378	1.3	1.8	0.8	21.9	1.80	232.92	64.70	7.28	8.42	3	3	0	0	7.3	78.9	48.5
MH-167	MH-4280	579.11	579.05	59.1	150	0.18	1000	0.03146	0.0286	1	0.89	1.02	13.5	1.50	177.30	59.10	6.65	7.69	2	2	0	0	6.6	58.8	44.3
MH-4628	MH-6251	602.68	602.94	64.8	150	0.28	242.749	0.0286	0.026	1	1.12	0.8	13.8	1.50	194.40	64.80	7.29	8.43	3	3	0	0	7.3	64.5	48.6
MH-4894	MH-6252	589.1	589.51	64.8	400	1.27	160.654	4.39978	3.9998	0.8	0.8	0.8	47.3	1.55	200.88	64.80	9.72	17.86	3	3	0	0	9.7	82.6	64.8
MH-5750	MH-2108	578.19	577.63	64.8	150	0.6	115.223	0.15345	0.1395	1	0.95	1.12	22.4	1.50	194.40	64.80	7.29	8.43	3	3	0	0	7.3	64.5	48.6
MH-6254	MH-6012	562.49	562.24	64.9	150	0.6	251.643	0.41382	0.3762	0.9	0.8	1.03	41.4	1.40	181.72	64.90	7.30	8.45	3	3	0	0	7.3	59.7	48.7
MH-6073	MH-4522	593.5	593.96	64.9	150	0.52	141.189	0.1199	0.109	1.2	1.03	1.33	22.2	1.70	220.66	64.90	7.30	8.45	3	3	0	0	7.3	74.3	48.7
MH-4445	MH-4998	563.35	563.05	62.9	150	0.6	211.853	0.3267	0.297	2.7	2.22	3.17	37.5	3.20	402.56	62.90	7.08	8.19	3	3	0	0	7.1	161.6	47.2
MH-2837	MH-6255	576.86	576.3	65	150	0.6	116.302	0.15521	0.1411	2.7	2.25	3.06	26.7	3.20	416.00	65.00	7.31	8.46	3	3	0	0	7.3	167.0	48.8
MH-6250	MH-5657	571.05	570.39	65.2	175	1.36	100	2.07636	1.8876	1.1	1.3	0.8	69.4	1.63	211.90	65.20	7.58	9.15	3	3	0	0	7.6	73.0	50.5
MH-2958	MH-5885	583.19	582.54	65.3	150	0.64	100	0.15807	0.1437	0.8	0.82	0.8	22.4	1.30	169.78	65.30	7.35	8.50	3	3	0	0	7.3	55.2	49.0
MH-6260	MH-6261	560.61	560.23	65.3	150	0.6	172.867	0.25443	0.2313	0.9	0.8	0.95	39.9	1.40	182.84	65.30	7.35	8.50	3	3	0	0	7.3	60.1	49.0

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-4377	MH-6096	595.12	594.47	65.4	217	1.39	100	2.22728	2.0248	1.1	1.36	0.8	52.9	1.67	218.04	65.40	8.01	10.43	3	3	0	0	8.0	78.6	53.4
MH-5975	MH-4810	598.27	597.61	65.5	150	0.71	100	0.23265	0.2115	1.3	1.74	0.8	27.3	1.80	235.80	65.50	7.37	8.53	3	3	0	0	7.4	79.9	49.1
MH-6264	MH-631	600.04	599.97	66.2	150	0.16	1000	0.02079	0.0189	1	0.8	1.23	22.5	1.50	198.60	66.20	7.45	8.62	3	3	0	0	7.4	65.9	49.7
MH-4373	MH-4458	587.19	586.87	65.6	150	0.6	202.113	0.3069	0.279	0.9	0.82	0.9	36.5	1.40	183.68	65.60	7.38	8.54	3	3	0	0	7.4	60.3	49.2
MH-5517	MH-3880	564.54	563.98	65.7	150	0.85	117.311	0.53933	0.4903	0.8	0.8	0.8	49.1	1.30	170.82	65.70	7.39	8.55	3	3	0	0	7.4	55.5	49.3
MH-6266	MH-5774	572.32	571.81	65.7	150	0.6	131.011	0.18106	0.1646	1	0.8	1.12	30.9	1.50	197.10	65.70	7.39	8.55	3	3	0	0	7.4	65.4	49.3
MH-6270	MH-6271	587.21	587.53	67.1	150	0.36	209.06	0.05368	0.0488	1.1	1.42	0.8	24.2	1.60	214.72	67.10	7.55	8.73	3	3	0	0	7.5	71.8	50.3
MH-749	MH-6272	588.17	588.24	66.6	150	0.17	1000	0.02772	0.0252	1.2	1.55	0.8	21.1	1.70	226.44	66.60	7.49	8.67	3	3	0	0	7.5	76.2	50.0
MH-107	MH-6273	599.95	600.62	66.1	150	0.44	100	0.04422	0.0402	1	0.8	1.25	11.9	1.50	198.30	66.10	7.44	8.60	3	3	0	0	7.4	65.8	49.6
MH-5979	MH-6028	581.52	580.98	66.2	150	0.46	122.227	0.06677	0.0607	0.8	0.8	0.8	17.4	1.30	172.12	66.20	7.45	8.62	3	3	0	0	7.4	55.9	49.7
MH-6275	MH-6276	609.41	609.88	46.6	150	0.83	100	0.40205	0.3655	1.6	0.8	2.38	40	2.10	195.72	46.60	5.24	6.07	2	2	0	0	5.2	81.3	35.0
MH-6278	MH-5515	569.49	569.03	66.3	175	1.11	143.641	1.60424	1.4584	0.8	0.8	0.8	63.2	1.33	175.70	66.30	7.71	9.30	3	3	0	0	7.7	58.8	51.4
MH-6279	MH-3755	600.15	599.48	66.4	150	0.4	100	0.03344	0.0304	0.9	1.05	0.8	17	1.40	185.92	66.40	7.47	8.64	3	3	0	0	7.5	61.1	49.8
MH-5809	MH-4538	587.29	586.62	66.6	150	0.42	100	0.0407	0.037	1.3	1.87	0.8	11.4	1.80	239.76	66.60	7.49	8.67	3	3	0	0	7.5	81.2	50.0
MH-6284	MH-4518	602.22	602.07	66.7	150	0.21	461.486	0.02299	0.0209	1	0.8	1.11	16.2	1.50	200.10	66.70	7.50	8.68	3	3	0	0	7.5	66.4	50.0
MH-6230	MH-5862	578.55	579.22	66.8	150	0.57	100	0.10626	0.0966	1.4	0.8	2.01	23.5	1.90	253.84	66.80	7.52	8.69	3	3	0	0	7.5	86.5	50.1
MH-6287	MH-6107	609.66	609.6	66.8	150	0.25	1000	0.11209	0.1019	0.8	0.8	0.82	29.9	1.30	173.68	66.80	7.52	8.69	3	3	0	0	7.5	56.4	50.1
MH-6288	MH-39	590.99	590.69	66.7	150	0.24	224.032	0.01639	0.0149	0.8	0.8	0.87	9.7	1.30	173.42	66.70	7.50	8.68	3	3	0	0	7.5	56.4	50.0
MH-5252	MH-5386	592.64	592.51	67	175	0.6	485.279	0.83831	0.7621	1.6	1.37	1.87	53	2.13	284.75	67.00	7.79	9.40	3	3	0	0	7.8	121.0	51.9
MH-6289	MH-3456	562.1	561.92	67.1	150	0.6	379.016	0.57365	0.5215	1.4	1.44	1.33	54.3	1.90	254.98	67.10	7.55	8.73	3	3	0	0	7.5	86.9	50.3
MH-6290	MH-597	563.73	563.05	68.1	150	0.41	100	0.03718	0.0338	0.9	1.06	0.8	10.9	1.40	190.68	68.10	7.66	8.86	3	3	0	0	7.7	62.6	51.1
MH-6292	MH-3935	590.47	589.8	67.4	150	0.79	100	0.32956	0.2996	0.8	0.88	0.8	32.6	1.30	175.24	67.40	7.58	8.77	3	3	0	0	7.6	56.9	50.6
MH-3700	MH-6293	586.97	587.03	67.6	150	0.21	1000	0.05995	0.0545	1	1.29	0.8	22.3	1.50	202.80	67.60	7.61	8.80	3	3	0	0	7.6	67.3	50.7
MH-6166	MH-5172	563.52	562.84	67.7	150	0.66	100	0.18282	0.1662	1.1	1.43	0.8	24.1	1.60	216.64	67.70	7.62	8.81	3	3	0	0	7.6	72.4	50.8
MH-5987	MH-6149	575.68	576.28	67.8	150	0.6	112.986	0.14982	0.1362	2.6	3.32	1.9	25	3.10	420.36	67.80	7.63	8.83	3	3	0	0	7.6	169.1	50.9
MH-6296	MH-2480	571.48	571.41	67.9	150	0.23	1000	0.07601	0.0691	1	0.8	1.28	32.8	1.50	203.70	67.90	7.64	8.84	3	3	0	0	7.6	67.5	50.9
MH-6297	MH-6298	576.92	576.76	67.9	175	0.6	410.649	0.64416	0.5856	1	0.8	1.14	50.4	1.53	207.10	67.90	7.89	9.53	3	3	0	0	7.9	70.7	52.6
MH-6299	MH-6300	603.44	603.2	68.1	150	0.6	276.34	0.47322	0.4302	0.9	0.8	1	45.2	1.40	190.68	68.10	7.66	8.86	3	3	0	0	7.7	62.6	51.1
MH-5888	MH-6301	572.37	571.68	68.3	400	1.87	100	9.82674	8.9334	0.9	0.91	0.8	58.1	1.65	225.39	68.30	10.25	18.82	3	3	0	0	10.2	93.9	68.3
MH-5594	MH-4331	578.33	577.65	68.4	150	0.52	100	0.07832	0.0712	1.1	1.41	0.8	20	1.60	218.88	68.40	7.70	8.90	3	3	0	0	7.7	73.2	51.3
MH-6304	MH-3595	580.22	579.58	68.6	150	0.27	106.554	0.00957	0.0087	0.8	0.8	0.8	16.6	1.30	178.36	68.60	7.72	8.93	3	3	0	0	7.7	58.0	51.5
MH-6306	MH-3966	579.36	578.67	68.7	150	0.4	100	0.03476	0.0316	0.8	0.84	0.8	17	1.30	178.62	68.70	7.73	8.94	3	3	0	0	7.7	58.0	51.5
MH-3647	MH-85	589.89	590.07	47.9	150	0.6	265.973	0.44715	0.4065	1.1	0.81	1.44	43.6	1.60	153.28	47.90	5.39	6.23	2	2	0	0	5.4	51.2	35.9
MH-6307	MH-6308	586.25	586.81	70.3	150	0.36	125.335	0.02948	0.0268	1.1	1.39	0.8	24.4	1.60	224.96	70.30	7.91	9.15	3	3	0	0	7.9	75.2	52.7
MH-5838	MH-5009	581.69	581	68.9	150	0.9	100	0.5302	0.482	0.9	0.99	0.8	41.8	1.40	192.92	68.90	7.75	8.97	3	3	0	0	7.8	63.4	51.7
MH-6309	MH-5164	602.68	603.37	68.9	150	0.63	100	0.15433	0.1403	0.8	0.8	0.82	27.3	1.30	179.14	68.90	7.75	8.97	3	3	0	0	7.8	58.2	51.7
MH-6018	MH-775	578.04	577.87	39.6	150	0.6	220.491	0.34584	0.3144	2.9	2.49	3.29	38.5	3.40	269.28	39.60	4.46	5.15	2	2	0	0	4.5	107.7	29.7
MH-4592	MH-5483	586.53	585.84	69	400	1.91	100	10.64547	9.6777	0.9	1.03	0.8	60.6	1.65	227.70	69.00	10.35	19.02	3	3	0	0	10.4	94.8	69.0
MH-940	MH-6311	596.13	596.19	69	400	0.63	1000	3.84758	3.4978	0.9	1.03	0.83	51.8	1.65	227.70	69.00	10.35	19.02	3	3	0	0	10.4	94.8	69.0
MH-2389	MH-3372	580.88	580.19	69.3	150	0.7	100	0.21813	0.1983	1.1	1.47	0.8	26.3	1.60	221.76	69.30	7.80	9.02	3	3	0	0	7.8	74.1	52.0
MH-1448	MH-6289	562.39	562.1	69.3	150	0.6	239.42	0.38555	0.3505	1.4	1.44	1.44	48.1	1.90	263.34	69.30	7.80	9.02	3	3	0	0	7.8	89.7	52.0
MH-6313	MH-6160	564.41	563.96	69.3	150	1	156.445	1.22738	1.1158	0.8	0.8	0.8	69.5	1.30	180.18	69.30	7.80	9.02	3	3	0	0	7.8	58.5	52.0
MH-1805	MH-2364	576.99	576.29	69.4	271	1.31	100	1.89739	1.7249	1.1	1.48	0.8	35.9	1.72	238.87	69.40	9.07	13.07	3	3	0	0	9.1	91.0	60.4
MH-1338	MH-6244	596.09	596.04	44.3	150	0.15	1000	0.02024	0.0184	0.9	0.8	1.02	10.9	1.40	124.04	44.30	4.98	5.77	2	2	0	0	5.0	40.7	33.2
MH-6318	MH-1953	574.88	574.18	69.8	400	1.7	100	6.78436	6.1676	1	1.28	0.8	42.3	1.75	244.30	69.80	10.47	19.24	3	3	0	0	10.5	102.9	69.8
MH-6319	MH-6283	565.67	566.23	69.8	150	0.6	125.149	0.17061	0.1551	1.5	2.27	0.8	49.3	2.00	279.20	69.80	7.85	9.09	3	3	0	0	7.9	95.6	52.4
MH-5921	MH-4825	589.93	589.23	69.8	150	0.45	100	0.04807	0.0437	1	1.13	0.8	12.4	1.50	209.40	69.80	7.85	9.09	3	3	0	0	7.9	69.4	52.4
MH-5804	MH-5946	594.24	594.31	70	600	0.86	1000	13.78553	12.5323	2.3	1.84	2.67	57.2	3.25	455.00	70.00	12.60	32.38	3	3	0	0	12.6	261.6	84.0
MH-3646	MH-2112	563.68	562.98	70.1	150	1.06	100	1.02091	0.9281	1.1	1.34	0.8	59.8	1.60	224.32	70.10	7.89	9.12	3	3	0	0	7.9	75.0	52.6
MH-6321	MH-4279	579.39	579.32	70.3	150	0.16	1000	0.02079	0.0189	0.9	0.8	0.94	11	1.40	196.84	70.30	7.91	9.15	3	3	0	0	7.9	64.7	52.7
MH-6298	MH-1136	576.76	576.6	69.5	175	0.6	450.121	0.74019	0.6729	1.5	1.14	1.78	48.6	2.03	281.48	69.50	8.08	9.75	3	3	0	0	8.1	120.2	53.9
MH-5307	MH-6323	600.4	599.69	70.4	150	0.75	100	0.28204	0.2564	1	1.18	0.8	30	1.50	211.20	70.40	7.92	9.16	3	3	0	0	7.9	70.0	52.8
MH-1511	MH-4803	577.96	577.89	42.5	217	0.6	629.374	1.23068	1.1188	2.5	2.42	2.57	50.8	3.07	260.70	42.50	5.21	6.78	2	2	0	0	5.2	112.5	34.7
MH-4149	MH-6234	574.86	574.57	70.8	150	0.6	238.249	0.38291	0.3481	4.2	3.73	4.62	39.4	4.70	665.52	70.80	7.97	9.22	3	0	3	0	8.0	304.1	53.1
MH-5926	MH-6326	603.03	603.74	71.3	150	0.35	100	0.02035	0.0185	0.8	0.8	0.87	13.9	1.30	185.38	71.30	8.02	9.28	3	3	0	0	8.0	60.2	53.5
MH-2501	MH-5671	573.8	573.09	71.5	150	0.48	100	0.06292	0.0572	1.3	1.72	0.8	23.6	1.80	257.40	71.50	8.04	9.31	3	3	0	0	8.0	87.2	53.6
MH-6328	MH-3296	603.25	602.49	76.3	150	0.44	100	0.04587	0.0417	1	1.23	0.8	12.1	1.50	228.90	76.30	8.58	9.93	3	3	0	0	8.6	75.9	57.2
MH-744	MH-3296	602.88	602.49	38.7	150	0.67	100	0.18909	0.1719	1.3	1.81	0.8	24.5	1.80	139.32	38.70	4.35	5.04	2	2	0	0	4.4	47.2	29.0
MH-6329	MH-6278	570.23	569.51	71.6	150	0.71	100	0.23397	0.2127	0.8	0.87	0.8	45.1	1.30	186.16	71.60	8.06	9.32	3	3	0	0	8.1	60.5	53.7
MH-2381	MH-2382	586.27	586.36	13	150	0.6	158.23	0.22462	0.2042	1.9	1.94	1.83	29.5	2.40	62.40	13.00	1.46	1.69	1	1	0	0	1.5	25.6	9.8
MH-3272	MH-4040	581.77	581.63	24.4	150	0.6	173.411	0.25531	0.2321	4.1	3.89	4.35	30.6	4.60	224.48	24.40	2.75	3.18	1	0	1	0	2.7	103.0	18.3
MH-2879	MH-4034	585.41	585.37	35.4	150	0.25	1000	0.10659	0.0969	1.3	0.8	1.87	27.3	1.80	127.44	35.40	3.98	4.61	2	2	0	0	4.0	43.2	26.6
MH-135	MH-4043	583.14	583.11	26.7	150	0.24	1000	0.09372	0.0852	1.4	1.51	1.33	29.4	1.90	101.46	26.70	3.00	3.48	1	1	0	0	3.0	34.6	20.0
MH-2388	MH-2389	581.69	581.56	13	150	0.66	100	0.18095	0.1645	0.9	1	0.8	24	1.40	36.40	13.00	1.46	1.69	1	1	0	0	1.5	12.0	9.8
MH-2836	MH-2837	577.69	577.67	20.9	150	0.19	1000	0.04147	0.0377	1.4	1.45	1.44	15.5	1.90	79.42	20.90	2.35	2.72	1	1	0	0	2.4	27.1	15.7

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-2397	MH-757	580.28	580.15	13	150	0.2	101.052	0.00319	0.0029	0.8	0.8	0.8	3.3	1.30	33.80	13.00	1.46	1.69	1	1	0	0	1.5	11.0	9.8
MH-3730	MH-3745	587.21	586.88	35.4	150	0.6	107.567	0.14179	0.1289	2.3	1.99	2.68	24.1	2.80	198.24	35.40	3.98	4.61	2	2	0	0	4.0	80.4	26.6
MH-2843	MH-2490	600.54	600.57	15.9	150	0.35	433.322	0.12232	0.1112	0.8	0.8	0.8	24.5	1.30	41.34	15.90	1.79	2.07	1	1	0	0	1.8	13.4	11.9
MH-2410	MH-1102	585.48	585.47	13.1	400	0.62	1000	2.86506	2.6046	1.6	1.62	1.52	39.9	2.35	61.57	13.10	1.97	3.61	1	1	0	0	2.0	31.1	13.1
MH-1990	MH-34	581.03	580.88	15.5	150	0.26	100	0.00814	0.0074	0.9	0.93	0.8	5.2	1.40	43.40	15.50	1.74	2.02	1	1	0	0	1.7	14.3	11.6
MH-3236	MH-3237	601.45	601.27	18.1	150	0.62	100	0.13926	0.1266	0.8	0.82	0.8	21	1.30	47.06	18.10	2.04	2.36	1	1	0	0	2.0	15.3	13.6
MH-2426	MH-2073	578.11	578.09	13.2	217	0.6	533.327	0.95414	0.8674	2.6	2.64	2.57	46.8	3.17	83.61	13.20	1.62	2.11	1	1	0	0	1.6	36.0	10.8
MH-2430	MH-2431	573.65	573.64	13.2	800	1.07	1000	34.3035	31.185	2.6	2.55	2.56	68.2	3.75	99.00	13.20	2.77	9.40	1	0	1	0	2.8	63.9	18.5
MH-4075	MH-4076	583.05	583.02	24.5	150	0.14	1000	0.01551	0.0141	0.9	0.8	0.93	9.6	1.40	68.60	24.50	2.76	3.19	1	1	0	0	2.8	22.5	18.4
MH-2872	MH-431	562.92	562.85	16.1	150	0.6	241.719	0.39105	0.3555	2.6	2.67	2.44	42.9	3.10	99.82	16.10	1.81	2.10	1	1	0	0	1.8	40.2	12.1
MH-2873	MH-2874	587.71	587.7	16.1	150	0.25	1000	0.11099	0.1009	0.8	0.8	0.84	26.5	1.30	41.86	16.10	1.81	2.10	1	1	0	0	1.8	13.6	12.1
MH-410	MH-1	589.05	589.07	17.2	400	0.65	1000	4.50285	4.0935	1.3	1.47	1.22	57	2.05	70.52	17.20	2.58	4.74	1	1	0	0	2.6	35.7	17.2
MH-2464	MH-2465	594.25	594.11	13.5	150	0.63	100	0.15268	0.1388	0.9	0.94	0.8	33.2	1.40	37.80	13.50	1.52	1.76	1	1	0	0	1.5	12.4	10.1
MH-2593	MH-5096	592.88	592.52	36	150	0.55	100	0.09801	0.0891	0.8	0.87	0.8	17.6	1.30	93.60	36.00	4.05	4.69	2	2	0	0	4.1	30.4	27.0
MH-3284	MH-2348	586.24	586.22	18.4	150	0.2	1000	0.04862	0.0442	1.3	1.4	1.19	21.1	1.80	66.24	18.40	2.07	2.39	1	1	0	0	2.1	22.4	13.8
MH-2905	MH-2906	579.53	579.39	16.3	150	0.37	115.44	0.03014	0.0274	0.8	0.8	0.8	16.1	1.30	42.38	16.30	1.83	2.12	1	1	0	0	1.8	13.8	12.2
MH-2110	MH-1709	587.12	586.87	24.4	150	0.57	100	0.10813	0.0983	0.8	0.85	0.8	18.5	1.30	63.44	24.40	2.75	3.18	1	1	0	0	2.7	20.6	18.3
MH-2480	MH-2360	571.41	571.4	13.6	150	0.25	1000	0.10109	0.0919	1.3	1.28	1.34	43.9	1.80	48.96	13.60	1.53	1.77	1	1	0	0	1.5	16.6	10.2
MH-3296	MH-3297	602.3	602.12	18.4	150	0.73	100	0.25168	0.2288	0.9	0.99	0.8	28.4	1.40	51.52	18.40	2.07	2.39	1	1	0	0	2.1	16.9	13.8
MH-3025	MH-1295	578.84	578.82	18.4	150	0.2	1000	0.05104	0.0464	1.4	1.29	1.5	23.8	1.90	69.92	18.40	2.07	2.39	1	1	0	0	2.1	23.8	13.8
MH-1935	MH-2292	585.24	585.22	19.5	150	0.25	1000	0.1089	0.099	1.9	1.94	1.78	26.4	2.40	93.60	19.50	2.19	2.54	1	1	0	0	2.2	38.4	14.6
MH-3327	MH-3434	581.3	581.1	19.5	150	0.35	100	0.02167	0.0197	0.8	0.86	0.8	9.5	1.30	50.70	19.50	2.19	2.54	1	1	0	0	2.2	16.5	14.6
MH-340	MH-2919	572.12	572.14	16.4	150	0.13	1000	0.01023	0.0093	0.9	0.94	0.8	12.2	1.40	45.92	16.40	1.85	2.13	1	1	0	0	1.8	15.1	12.3
MH-2304	MH-1967	575.93	575.91	13.7	271	0.6	851.958	1.94095	1.7645	0.8	0.8	0.82	52.9	1.42	38.94	13.70	1.79	2.58	1	1	0	0	1.8	14.4	11.9
MH-2499	MH-2430	573.67	573.65	14.4	800	1.07	1000	34.26291	31.1481	2.5	2.53	2.55	67.9	3.65	105.12	14.40	3.02	10.26	1	0	1	0	3.0	67.6	20.2
MH-2500	MH-2501	574.86	574.72	13.7	150	0.41	100	0.03575	0.0325	0.8	0.87	0.8	10.7	1.30	35.62	13.70	1.54	1.78	1	1	0	0	1.5	11.6	10.3
MH-704	MH-1759	578.83	578.8	3.7	150	0.6	126.192	0.17281	0.1571	1.6	1.58	1.55	25.6	2.10	15.54	3.70	0.42	0.48	1	1	0	0	0.4	6.5	2.8
MH-394	MH-2502	578.18	578.3	18.9	150	0.6	151.654	0.2156	0.196	1.4	1.6	1.27	30.4	1.90	71.82	18.90	2.13	2.46	1	1	0	0	2.1	24.5	14.2
MH-2508	MH-376	576.78	576.86	11.6	150	0.6	145.955	0.20515	0.1865	1.2	1.23	1.24	27.9	1.70	39.44	11.60	1.31	1.51	1	1	0	0	1.3	13.3	8.7
MH-2516	MH-2517	582.1	582.09	13.9	150	0.26	1000	0.12023	0.1093	0.9	0.8	1	28	1.40	38.92	13.90	1.56	1.81	1	1	0	0	1.6	12.8	10.4
MH-2519	MH-1969	578.7	578.65	13.9	150	0.6	275.421	0.47102	0.4282	2.7	2.63	2.75	49.5	3.20	88.96	13.90	1.56	1.81	1	1	0	0	1.6	35.7	10.4
MH-2948	MH-2949	577.61	577.55	16.5	150	0.6	266.569	0.44869	0.4079	3.5	3.53	3.55	46.2	4.00	132.00	16.50	1.86	2.15	1	0	1	0	1.9	52.3	12.4
MH-5021	MH-5022	563.24	563	33.4	175	1.17	143.915	2.04237	1.8567	0.8	0.8	0.8	73.2	1.33	88.51	33.40	3.88	4.69	2	2	0	0	3.9	29.6	25.9
MH-2545	MH-246	581.11	581.1	13.7	150	0.24	1000	0.09526	0.0866	0.9	0.8	1.01	33.5	1.40	38.36	13.70	1.54	1.78	1	1	0	0	1.5	12.6	10.3
MH-556	MH-3351	580.3	580.37	7	150	1.22	100	1.35454	1.2314	0.9	0.8	1.04	68.4	1.40	19.60	7.00	0.79	0.91	1	1	0	0	0.8	6.4	5.3
MH-2989	MH-2990	592.53	592.52	16.7	150	0.22	1000	0.0627	0.057	1.3	1.36	1.26	25.4	1.80	60.12	16.70	1.88	2.17	1	1	0	0	1.9	20.4	12.5
MH-3	MH-2551	591.67	591.81	13.9	150	0.74	100	0.27357	0.2487	0.8	0.8	0.84	29.6	1.30	36.14	13.90	1.56	1.81	1	1	0	0	1.6	11.7	10.4
MH-3354	MH-3355	591.44	591.25	18.9	150	0.43	100	0.04213	0.0383	0.8	0.87	0.8	11.6	1.30	49.14	18.90	2.13	2.46	1	1	0	0	2.1	16.0	14.2
MH-169	MH-339	572.34	572.26	14.2	150	0.4	181.881	0.06556	0.0596	0.8	0.8	0.8	15.5	1.30	36.92	14.20	1.60	1.85	1	1	0	0	1.6	12.0	10.7
MH-187	MH-516	569.53	569.42	20.5	150	0.6	186.212	0.2761	0.251	2.3	2.32	2.32	32.1	2.80	114.80	20.50	2.31	2.67	1	1	0	0	2.3	46.5	15.4
MH-2363	MH-2572	602.08	602.09	14.3	150	0.26	965.887	0.12386	0.1126	0.8	0.8	0.8	27	1.30	37.18	14.30	1.61	1.86	1	1	0	0	1.6	12.1	10.7
MH-2573	MH-597	562.7	562.67	17.2	217	0.6	568.639	1.04841	0.9531	1.2	1.21	1.11	50.7	1.77	60.78	17.20	2.11	2.74	1	1	0	0	2.1	22.1	14.1
MH-2584	MH-716	576.05	575.91	15.1	150	0.41	109.599	0.04147	0.0377	0.9	0.8	0.96	29.1	1.40	42.28	15.10	1.70	1.97	1	1	0	0	1.7	13.9	11.3
MH-1646	MH-2588	599.46	599.34	14.4	150	0.6	119.813	0.16071	0.1461	1.1	1.16	1.14	23.1	1.60	46.08	14.40	1.62	1.87	1	1	0	0	1.6	15.4	10.8
MH-1913	MH-2606	579.27	579.13	14.4	150	0.52	100	0.08008	0.0728	0.8	0.87	0.8	16	1.30	37.44	14.40	1.62	1.87	1	1	0	0	1.6	12.2	10.8
MH-3042	MH-3043	581.05	580.94	17	150	0.3	154.934	0.02244	0.0204	0.8	0.8	0.8	9.8	1.30	44.20	17.00	1.91	2.21	1	1	0	0	1.9	14.4	12.8
MH-5063	MH-3254	560.67	560.33	33.9	150	0.78	100	0.32582	0.2962	0.9	0.97	0.8	32.4	1.40	94.92	33.90	3.81	4.41	2	2	0	0	3.8	31.2	25.4
MH-3414	MH-2940	570.74	570.55	19.3	150	0.33	100	0.01815	0.0165	1	1.11	0.8	7.7	1.50	57.90	19.30	2.17	2.51	1	1	0	0	2.2	19.2	14.5
MH-5072	MH-72	602.04	602.38	34	150	0.57	100	0.10989	0.0999	1	0.8	1.15	18.7	1.50	102.00	34.00	3.83	4.43	2	2	0	0	3.8	33.8	25.5
MH-2628	MH-2314	580.83	580.68	14.5	150	0.22	100	0.00506	0.0046	0.8	0.81	0.8	4.2	1.30	37.70	14.50	1.63	1.89	1	1	0	0	1.6	12.3	10.9
MH-3056	MH-3057	587.78	587.61	17.1	150	0.28	100	0.011	0.01	0.8	0.83	0.8	6	1.30	44.46	17.10	1.92	2.23	1	1	0	0	1.9	14.4	12.8
MH-2633	MH-135	583.97	583.85	12.1	150	0.42	100	0.03916	0.0356	0.8	0.85	0.8	11.2	1.30	31.46	12.10	1.36	1.57	1	1	0	0	1.4	10.2	9.1
MH-2641	MH-2642	578.36	578.21	14.6	150	0.72	100	0.24684	0.2244	0.9	1.04	0.8	28.1	1.40	40.88	14.60	1.64	1.90	1	1	0	0	1.6	13.4	11.0
MH-3064	MH-3065	571.48	571.32	17.2	150	0.72	106.739	0.25828	0.2348	0.8	0.8	0.8	31.9	1.30	44.72	17.20	1.94	2.24	1	1	0	0	1.9	14.5	12.9
MH-738	MH-2582	573.62	573.56	36.8	217	0.6	664.36	1.35223	1.2293	1.3	1.48	1.22	61.9	1.87	137.41	36.80	4.51	5.87	2	2	0	0	4.5	50.3	30.1
MH-2431	MH-2664	573.64	573.62	14.8	800	1.07	1000	34.32517	31.2047	2.6	2.56	2.58	68.7	3.75	111.00	14.80	3.11	10.54	1	0	1	0	3.1	71.6	20.7
MH-2665	MH-2666	569.75	569.77	14.8	150	0.15	1000	0.01925	0.0175	0.9	1.09	0.8	13.8	1.40	41.44	14.80	1.67	1.93	1	1	0	0	1.7	13.6	11.1
MH-3087	MH-3088	602.15	602.24	17.3	150	0.42	187.516	0.0792	0.072	0.8	0.8	0.8	21	1.30	44.98	17.30	1.95	2.25	1	1	0	0	1.9	14.6	13.0
MH-3576	MH-3577	580.54	580.38	20.7	150	0.32	129.364	0.02134	0.0194	0.8	0.8	0.8	10	1.30	53.82	20.70	2.33	2.69	1	1	0	0	2.3	17.5	15.5
MH-5096	MH-5097	592.03	591.69	34.5	150	0.59	100	0.1254	0.114	1	1.29	0.8	20	1.50	103.50	34.50	3.88	4.49	2	2	0	0	3.9	34.3	25.9
MH-3105	MH-1980	570.71	570.56	17.4	150	0.6	114.269	0.15191	0.1381	1.4	1.23	1.57	24	1.90	66.12	17.40	1.96	2.26	1	1	0	0	2.0	22.5	13.1
MH-3956	MH-3957	584.83	584.6	23.4	150	0.28	100	0.0099	0.009	0.8	0.84	0.8	5.7	1.30	60.84	23.40	2.63	3.05	1	1	0	0	2.6	19.8	17.6
MH-826	MH-3223	570.28	570.3	23.4	150	0.21	1000	0.05676	0.0516	1.3	1.44	1.23	32.3	1.80	84.24	23.40	2.63	3.05	1	1	0	0	2.6	28.5	17.6
MH-3962	MH-3963	563.03	562.79	23.4	150	0.61	100	0.13772	0.1252	1	1.15	0.8	20.9	1.50	70.20	23.40	2.63	3.05	1	1	0	0	2.6	23.3	17.6
MH-4218	MH-2213	576.93	576.58	34.6	150	0.42	100	0.04004	0.0364	0.9	0.95	0.8	13	1.40	96.88	34.60	3.89	4.50	2	2	0	0	3.9	31.8	26.0

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-5113	MH-3934	584.26	584.23	34.7	150	0.21	1000	0.05995	0.0545	1.6	1.53	1.72	25.2	2.10	145.74	34.70	3.90	4.52	2	2	0	0	3.9	60.5	26.0
MH-2129	MH-2029	581.46	581.35	21	150	0.6	190.334	0.28556	0.2596	1.7	1.51	1.88	33.1	2.20	92.40	21.00	2.36	2.73	1	1	0	0	2.4	38.2	15.8
MH-5126	MH-4351	586.62	586.42	34.9	150	0.44	171.734	0.08283	0.0753	0.8	0.8	0.8	24.1	1.30	90.74	34.90	3.93	4.54	2	2	0	0	3.9	29.5	26.2
MH-2738	MH-2739	582.94	582.96	15.3	150	0.1	1000	0.00484	0.0044	0.9	0.97	0.8	9.9	1.40	42.84	15.30	1.72	1.99	1	1	0	0	1.7	14.1	11.5
MH-3992	MH-771	596.66	596.42	23.6	150	0.26	100.081	0.00836	0.0076	0.8	0.8	0.81	9.6	1.30	61.36	23.60	2.66	3.07	1	1	0	0	2.7	19.9	17.7
MH-1346	MH-2749	571.07	570.92	15.4	150	0.56	100	0.10384	0.0944	1	1.18	0.8	21	1.50	46.20	15.40	1.73	2.00	1	1	0	0	1.7	15.3	11.6
MH-2758	MH-2759	574.52	574.37	15.4	150	0.36	100	0.02332	0.0212	1	1.2	0.8	8.7	1.50	46.20	15.40	1.73	2.00	1	1	0	0	1.7	15.3	11.6
MH-2760	MH-2761	600.7	600.69	15.4	150	0.18	1000	0.03311	0.0301	1.1	1.03	1.15	18.9	1.60	49.28	15.40	1.73	2.00	1	1	0	0	1.7	16.5	11.6
MH-3160	MH-3056	587.99	587.81	17.7	150	0.22	100	0.00506	0.0046	0.8	0.85	0.8	4.2	1.30	46.02	17.70	1.99	2.30	1	1	0	0	2.0	15.0	13.3
MH-395	MH-2767	584.56	584.62	20.4	150	0.6	366.084	0.54274	0.4934	2.1	2.29	1.93	49.5	2.60	106.08	20.40	2.30	2.66	1	1	0	0	2.3	43.2	15.3
MH-2771	MH-2772	585.45	585.3	15.5	150	0.73	100	0.25597	0.2327	0.9	1.08	0.8	28.6	1.40	43.40	15.50	1.74	2.02	1	1	0	0	1.7	14.3	11.6
MH-3173	MH-1943	579.35	579.27	17.8	150	0.6	210.058	0.32285	0.2935	2	1.96	2.04	36.2	2.50	89.00	17.80	2.00	2.32	1	1	0	0	2.0	36.4	13.4
MH-1831	MH-3175	565.27	565.09	17.8	150	1	100	0.80575	0.7325	0.8	0.86	0.8	52.4	1.30	46.28	17.80	2.00	2.32	1	1	0	0	2.0	15.0	13.4
MH-2778	MH-2566	601.4	601.42	15.5	150	0.16	1000	0.0231	0.021	1	1.05	0.93	15.4	1.50	46.50	15.50	1.74	2.02	1	1	0	0	1.7	15.4	11.6
MH-2779	MH-2246	582.54	582.4	15.5	150	0.9	110.397	0.60038	0.5458	0.8	0.8	0.8	45.2	1.30	40.30	15.50	1.74	2.02	1	1	0	0	1.7	13.1	11.6
MH-3186	MH-3042	581.23	581.05	17.9	150	0.33	100	0.01793	0.0163	0.8	0.86	0.8	8.5	1.30	46.54	17.90	2.01	2.33	1	1	0	0	2.0	15.1	13.4
MH-4036	MH-2816	585.28	585.25	24	150	0.13	1000	0.01254	0.0114	1.5	1.25	1.67	15.4	2.00	96.00	24.00	2.70	3.12	1	1	0	0	2.7	32.9	18.0
MH-3206	MH-521	603.4	603.22	18	150	0.4	100	0.03399	0.0309	0.8	0.83	0.8	11.4	1.30	46.80	18.00	2.03	2.34	1	1	0	0	2.0	15.2	13.5
MH-2812	MH-163	574.43	574.31	15.8	150	0.6	128.8	0.17391	0.1581	1.2	1.42	1.04	24.2	1.70	53.72	15.80	1.78	2.06	1	1	0	0	1.8	18.1	11.9
MH-5176	MH-3633	584.26	584.22	35.5	150	0.16	1000	0.02112	0.0192	1.1	0.8	1.34	17.3	1.60	113.60	35.50	3.99	4.62	2	2	0	0	4.0	38.0	26.6
MH-2517	MH-5177	582.09	581.8	35.5	150	0.6	122.993	0.16621	0.1511	0.9	1	0.86	23.5	1.40	99.40	35.50	3.99	4.62	2	2	0	0	4.0	32.7	26.6
MH-2816	MH-1935	585.25	585.24	15.8	150	0.15	1000	0.01892	0.0172	1.8	1.67	1.94	25.2	2.30	72.68	15.80	1.78	2.06	1	1	0	0	1.8	29.9	11.9
MH-5179	MH-10	580.24	580.19	30.6	150	0.17	602.602	0.01496	0.0136	0.8	0.8	0.8	8.7	1.30	79.56	30.60	3.44	3.98	2	2	0	0	3.4	25.9	23.0
MH-3434	MH-4057	581.1	580.94	24.1	150	0.33	149.948	0.02816	0.0256	0.8	0.8	0.8	11.2	1.30	62.66	24.10	2.71	3.14	1	1	0	0	2.7	20.4	18.1
MH-3223	MH-3224	570.3	570.32	18.1	150	0.2	1000	0.04631	0.0421	1.1	1.23	1.07	23.4	1.60	57.92	18.10	2.04	2.36	1	1	0	0	2.0	19.4	13.6
MH-2874	MH-3228	587.7	587.53	18.1	150	0.6	106.183	0.14003	0.1273	1	0.84	1.24	23.5	1.50	54.30	18.10	2.04	2.36	1	1	0	0	2.0	18.0	13.6
MH-4072	MH-3494	584.7	584.46	24.2	150	0.53	100	0.08547	0.0777	1.1	1.33	0.8	16.5	1.60	77.44	24.20	2.72	3.15	1	1	0	0	2.7	25.9	18.2
MH-891	MH-3242	579.07	578.96	18.1	150	0.26	161.234	0.01507	0.0137	1	1.08	0.94	8.1	1.50	54.30	18.10	2.04	2.36	1	1	0	0	2.0	18.0	13.6
MH-3247	MH-3248	580.49	580.47	18.2	150	0.14	1000	0.01463	0.0133	0.9	0.8	1.04	14.2	1.40	50.96	18.20	2.05	2.37	1	1	0	0	2.0	16.7	13.7
MH-2856	MH-2857	571.1	571.25	16	150	0.26	100	0.00781	0.0071	0.8	0.8	0.89	5.1	1.30	41.60	16.00	1.80	2.08	1	1	0	0	1.8	13.5	12.0
MH-2860	MH-2861	581.77	581.61	16	150	0.28	100	0.01078	0.0098	0.8	0.86	0.8	6	1.30	41.60	16.00	1.80	2.08	1	1	0	0	1.8	13.5	12.0
MH-2862	MH-2863	597.53	597.69	16	150	0.37	100	0.02662	0.0242	0.9	0.8	0.96	9.2	1.40	44.80	16.00	1.80	2.08	1	1	0	0	1.8	14.7	12.0
MH-4472	MH-5215	578.97	579.3	36	150	0.4	109.857	0.0374	0.034	0.8	0.8	0.8	11	1.30	93.60	36.00	4.05	4.69	2	2	0	0	4.1	30.4	27.0
MH-404	MH-5216	581.34	581.37	35.3	150	0.12	1000	0.00814	0.0074	1.2	1.56	0.8	17.1	1.70	120.02	35.30	3.97	4.59	2	2	0	0	4.0	40.4	26.5
MH-5217	MH-864	581.1	580.75	34.9	150	0.27	100	0.00869	0.0079	0.8	0.84	0.8	13.4	1.30	90.74	34.90	3.93	4.54	2	2	0	0	3.9	29.5	26.2
MH-758	MH-871	579.95	579.92	4.9	150	0.6	166.579	0.24002	0.2182	0.9	1	0.86	30.1	1.40	13.72	4.90	0.55	0.64	1	1	0	0	0.6	4.5	3.7
MH-4090	MH-4091	556.07	555.99	24.3	1100	2.25	300	105.10665	95.5515	1	1.16	0.91	69.3	2.45	119.07	24.30	6.20	29.28	1	1	0	0	6.2	79.2	41.3
MH-4094	MH-4095	592.43	592.41	24.3	150	0.25	1000	0.099	0.09	1.2	1.14	1.32	30.6	1.70	82.62	24.30	2.73	3.16	1	1	0	0	2.7	27.8	18.2
MH-2878	MH-2879	585.54	585.41	16.1	150	0.51	124.26	0.09449	0.0859	0.8	0.8	0.8	24.4	1.30	41.86	16.10	1.81	2.10	1	1	0	0	1.8	13.6	12.1
MH-2382	MH-2882	586.36	586.46	16.2	150	0.6	151.554	0.21538	0.1958	1.8	1.83	1.69	28.7	2.30	74.52	16.20	1.82	2.11	1	1	0	0	1.8	30.7	12.2
MH-2747	MH-3304	586.31	586.2	19.6	150	0.7	184.265	0.48675	0.4425	1.2	1.26	1.24	43.2	1.70	66.64	19.60	2.21	2.55	1	1	0	0	2.2	22.4	14.7
MH-4111	MH-4112	572.72	572.56	24.5	150	0.52	150.196	0.1276	0.116	1.6	1.53	1.6	24.4	2.10	102.90	24.50	2.76	3.19	1	1	0	0	2.8	42.7	18.4
MH-2899	MH-2900	563.28	563.27	9.2	150	0.09	1000	0.00385	0.0035	0.8	0.8	0.9	16.1	1.30	23.92	9.20	1.04	1.20	1	1	0	0	1.0	7.8	6.9
MH-2022	MH-3298	580.23	580.1	18.4	150	0.6	142.77	0.19987	0.1817	1.6	1.6	1.56	28	2.10	77.28	18.40	2.07	2.39	1	1	0	0	2.1	32.1	13.8
MH-3290	MH-4126	563.88	563.95	24.5	150	0.31	328.003	0.05951	0.0541	0.8	0.8	0.8	17.2	1.30	63.70	24.50	2.76	3.19	1	1	0	0	2.8	20.7	18.4
MH-67	MH-2914	578.26	578.27	11.6	150	0.1	1000	0.00528	0.0048	1	1.26	0.8	12.9	1.50	34.80	11.60	1.31	1.51	1	1	0	0	1.3	11.5	8.7
MH-3317	MH-1774	600.45	600.43	18.6	150	0.11	1000	0.00616	0.0056	0.9	0.8	1.07	22.9	1.40	52.08	18.60	2.09	2.42	1	1	0	0	2.1	17.1	14.0
MH-4148	MH-4149	574.99	574.86	24.6	150	0.6	204.021	0.31504	0.2864	3.6	3.46	3.73	37.8	4.10	201.72	24.60	2.77	3.20	1	0	1	0	2.8	94.6	18.5
MH-2940	MH-2941	570.28	570.12	16.5	150	0.54	100	0.08822	0.0802	0.9	1.07	0.8	36.6	1.40	46.20	16.50	1.86	2.15	1	1	0	0	1.9	15.2	12.4
MH-4156	MH-3774	587.73	587.71	24.7	150	0.2	1000	0.04796	0.0436	0.8	0.8	0.81	16.7	1.30	64.22	24.70	2.78	3.22	1	1	0	0	2.8	20.9	18.5
MH-2513	MH-2046	585.45	585.41	16.5	400	0.84	447.927	2.94778	2.6798	1.3	1.35	1.26	38	2.05	67.65	16.50	2.48	4.55	1	1	0	0	2.5	34.2	16.5
MH-1570	MH-2943	585.08	585.06	16.5	400	0.64	1000	3.21904	2.9264	1.1	1.2	0.99	36.4	1.85	61.05	16.50	2.48	4.55	1	1	0	0	2.5	26.0	16.5
MH-2642	MH-1094	577.94	577.78	16.5	150	0.73	100	0.25982	0.2362	0.9	1.07	0.8	28.9	1.40	46.20	16.50	1.86	2.15	1	1	0	0	1.9	15.2	12.4
MH-2945	MH-2309	587.53	587.48	16.5	150	0.25	315.507	0.02684	0.0244	0.8	0.8	0.83	14.6	1.30	42.90	16.50	1.86	2.15	1	1	0	0	1.9	13.9	12.4
MH-2963	MH-2964	588.75	588.91	16.6	400	1.59	100	5.41662	4.9242	0.9	0.8	1.01	37.6	1.65	54.78	16.60	2.49	4.57	1	1	0	0	2.5	22.8	16.6
MH-3349	MH-3350	604.81	604.9	18.7	150	0.6	205.754	0.31845	0.2895	2.5	2.7	2.22	37.7	3.00	112.20	18.70	2.10	2.43	1	1	0	0	2.1	45.3	14.0
MH-2971	MH-2210	583.86	583.84	16.6	150	0.24	1000	0.0946	0.086	1.4	1.46	1.27	23.4	1.90	63.08	16.60	1.87	2.16	1	1	0	0	1.9	21.5	12.5
MH-865	MH-1365	580.66	580.55	10.5	150	0.48	100	0.05896	0.0536	0.8	0.88	0.8	15.5	1.30	27.30	10.50	1.18	1.37	1	1	0	0	1.2	8.9	7.9
MH-3369	MH-3370	595.62	595.81	19	150	0.99	100	0.58344	0.5304	0.9	0.8	1.09	43	1.40	53.20	19.00	2.14	2.47	1	1	0	0	2.1	17.5	14.3
MH-3372	MH-203	580.16	579.97	19	150	0.7	100	0.22385	0.2035	0.8	0.83	0.8	37.1	1.30	49.40	19.00	2.14	2.47	1	1	0	0	2.1	16.1	14.3
MH-710	MH-614	564.67	564.76	8.8	175	1.08	100	0.83138	0.7558	0.9	0.8	0.97	53.3	1.43	25.08	8.80	1.02	1.23	1	1	0	0	1.0	8.5	6.8
MH-3378	MH-374	582.43	582.42	19.3	150	0.18	1000	0.03135	0.0285	1	0.8	1.17	21.2	1.50	57.90	19.30	2.17	2.51	1	1	0	0	2.2	19.2	14.5
MH-3392	MH-4802	579.55	579.32	33.7	150	0.6	146.328	0.20581	0.1871	1.1	0.98	1.23	28.6	1.60	107.84	33.70	3.79	4.39	2	2	0	0	3.8	36.1	25.3
MH-5051	MH-1216	562.41	562.47	33.7	217	0.6	584.873	1.0989	0.999	0.9	0.91	0.8	47.4	1.47	98.88	33.70	4.13	5.38	2	2	0	0	4.1	35.0	27.5
MH-3012	MH-2778	601.38	601.4	16.9	150	0.18	1000	0.03212	0.0292	1.1	1.13	1.05	17.6	1.60	54.08	16.90	1.90	2.20	1	1	0	0	1.9	18.1	12.7

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-3391	MH-3392	579.71	579.55	19.1	150	0.6	120.76	0.16225	0.1475	1	0.97	0.98	26.2	1.50	57.30	19.10	2.15	2.49	1	1	0	0	2.1	19.0	14.3
MH-1175	MH-3025	578.86	578.84	17	150	0.19	1000	0.04136	0.0376	1.2	1.09	1.29	20.2	1.70	57.80	17.00	1.91	2.21	1	1	0	0	1.9	19.5	12.8
MH-3405	MH-1802	586.98	586.96	19.2	271	0.6	953.52	2.40438	2.1858	2.5	2.69	2.35	61.4	3.12	119.85	19.20	2.51	3.62	1	1	0	0	2.5	54.3	16.7
MH-322	MH-3041	575.29	575.23	15.1	150	0.6	252.716	0.41624	0.3784	2.5	2.43	2.65	41.6	3.00	90.60	15.10	1.70	1.97	1	1	0	0	1.7	36.5	11.3
MH-3420	MH-3421	582.31	582.11	19.4	150	0.8	100	0.34474	0.3134	1	1.21	0.8	37.5	1.50	58.20	19.40	2.18	2.53	1	1	0	0	2.2	19.3	14.6
MH-3866	MH-4753	585.96	586.14	34.2	150	0.6	189.578	0.2838	0.258	1.9	1.76	2.01	33.3	2.40	164.16	34.20	3.85	4.45	2	2	0	0	3.8	67.4	25.7
MH-2900	MH-3051	563.27	563.25	17.1	150	0.18	1000	0.03663	0.0333	1	0.9	1	22.6	1.50	51.30	17.10	1.92	2.23	1	1	0	0	1.9	17.0	12.8
MH-3773	MH-3923	581.19	581.21	23.1	150	0.2	1000	0.05258	0.0478	1	1.11	0.8	26.3	1.50	69.30	23.10	2.60	3.01	1	1	0	0	2.6	23.0	17.3
MH-4961	MH-4060	591.4	591.34	34.3	217	0.6	640.465	1.26852	1.1532	1.7	1.86	1.5	56	2.27	155.52	34.30	4.20	5.47	2	2	0	0	4.2	68.3	28.0
MH-323	MH-3935	589.48	589.72	23.4	150	0.92	100	0.57926	0.5266	0.8	0.8	0.88	43.8	1.30	60.84	23.40	2.63	3.05	1	1	0	0	2.6	19.8	17.6
MH-2310	MH-3774	587.47	587.44	23.2	150	0.19	1000	0.04136	0.0376	1	0.92	1.08	24.7	1.50	69.60	23.20	2.61	3.02	1	1	0	0	2.6	23.1	17.4
MH-3938	MH-3939	591.73	591.5	23.2	400	1.54	100	4.81723	4.3793	0.8	0.83	0.8	35.3	1.55	71.92	23.20	3.48	6.39	1	1	0	0	3.5	29.6	23.2
MH-2720	MH-5103	591.54	591.21	34.6	150	0.6	103.801	0.13706	0.1246	1.1	1.14	1.13	24.1	1.60	110.72	34.60	3.89	4.50	2	2	0	0	3.9	37.0	26.0
MH-3248	MH-3714	580.47	580.45	23.4	150	0.16	1000	0.02354	0.0214	1.2	1.04	1.35	23.6	1.70	79.56	23.40	2.63	3.05	1	1	0	0	2.6	26.8	17.6
MH-3100	MH-3101	580.02	580	17.3	150	0.15	1000	0.01859	0.0169	0.8	0.8	0.85	14.1	1.30	44.98	17.30	1.95	2.25	1	1	0	0	1.9	14.6	13.0
MH-1445	MH-3965	576.85	576.87	25.7	150	0.14	1000	0.01562	0.0142	0.8	0.9	0.8	9.6	1.30	66.82	25.70	2.89	3.35	1	1	0	0	2.9	21.7	19.3
MH-3644	MH-4535	583.93	583.58	34.7	150	0.77	100	0.29997	0.2727	1.2	1.52	0.8	31	1.70	117.98	34.70	3.90	4.52	2	2	0	0	3.9	39.7	26.0
MH-3969	MH-3970	586.68	586.47	23.5	150	0.38	109.15	0.03003	0.0273	0.8	0.8	0.83	11.5	1.30	61.10	23.50	2.64	3.06	1	1	0	0	2.6	19.9	17.6
MH-3110	MH-2256	577.03	576.86	17.4	150	0.84	100	0.40667	0.3697	0.9	1.07	0.8	36.3	1.40	48.72	17.40	1.96	2.26	1	1	0	0	2.0	16.0	13.1
MH-3111	MH-3112	593.21	592.96	24.7	150	0.5	100	0.07095	0.0645	0.9	0.99	0.8	15	1.40	69.16	24.70	2.78	3.22	1	1	0	0	2.8	22.7	18.5
MH-3624	MH-3625	584.19	584.17	21.1	150	0.25	1000	0.10329	0.0939	1.9	1.96	1.75	24.5	2.40	101.28	21.10	2.37	2.75	1	1	0	0	2.4	41.6	15.8
MH-2761	MH-2542	600.69	600.67	17.4	150	0.19	1000	0.03971	0.0361	1.2	1.15	1.24	24.6	1.70	59.16	17.40	1.96	2.26	1	1	0	0	2.0	19.9	13.1
MH-1513	MH-3114	581.38	581.23	17.5	400	1.42	117.429	4.43729	4.0339	0.8	0.8	0.8	38.3	1.55	54.25	17.50	2.63	4.82	1	1	0	0	2.6	22.3	17.5
MH-3115	MH-3116	575.48	575.46	17.5	150	0.12	1000	0.00781	0.0071	1.1	0.8	1.36	8	1.60	56.00	17.50	1.97	2.28	1	1	0	0	2.0	18.7	13.1
MH-4000	MH-2466	581.89	581.65	23.7	150	0.56	100	0.10164	0.0924	0.8	0.88	0.8	17.9	1.30	61.62	23.70	2.67	3.08	1	1	0	0	2.7	20.0	17.8
MH-5159	MH-5160	601.29	601.37	35.3	150	0.25	412.303	0.03652	0.0332	0.8	0.8	0.8	18	1.30	91.78	35.30	3.97	4.59	2	2	0	0	4.0	29.8	26.5
MH-2949	MH-3464	577.55	577.46	24.1	150	0.6	272.837	0.46288	0.4208	3.5	3.55	3.39	48.3	4.00	192.80	24.10	2.71	3.14	1	0	1	0	2.7	76.4	18.1
MH-31	MH-5101	576.21	576.25	35.4	150	0.25	1000	0.1056	0.096	2.6	2.87	2.38	26	3.10	219.48	35.40	3.98	4.61	2	2	0	0	4.0	88.3	26.6
MH-4032	MH-1810	582.59	582.57	24	150	0.16	1000	0.02486	0.0226	1	0.8	1.2	19.1	1.50	72.00	24.00	2.70	3.12	1	1	0	0	2.7	23.9	18.0
MH-3179	MH-3180	584.62	584.46	17.8	150	0.78	111.706	0.36179	0.3289	0.9	0.91	0.87	37.6	1.40	49.84	17.80	2.00	2.32	1	1	0	0	2.0	16.4	13.4
MH-4046	MH-4047	591.35	591.56	24	150	0.6	110.906	0.14652	0.1332	0.8	0.81	0.8	21.8	1.30	62.40	24.00	2.70	3.12	1	1	0	0	2.7	20.3	18.0
MH-5184	MH-5185	561.73	561.48	35.7	217	1.13	142.716	1.68883	1.5353	0.8	0.8	0.8	61.2	1.37	97.60	35.70	4.38	5.69	2	2	0	0	4.4	34.2	29.2
MH-5191	MH-5192	579.46	579.45	14.2	150	0.15	1000	0.0198	0.018	0.9	0.8	1.05	14.2	1.40	39.76	14.20	1.60	1.85	1	1	0	0	1.6	13.1	10.7
MH-4060	MH-4061	591.34	591.3	24.1	217	0.66	505.113	1.28557	1.1687	1.3	1.5	1.09	49.5	1.87	89.99	24.10	2.95	3.84	1	1	0	0	3.0	32.9	19.7
MH-983	MH-196	579.88	579.82	5.5	150	0.45	100	0.0484	0.044	0.9	0.96	0.8	16.4	1.40	15.40	5.50	0.62	0.72	1	1	0	0	0.6	5.1	4.1
MH-4084	MH-4085	585.85	585.82	24.3	150	0.22	1000	0.06446	0.0586	1	1.02	1.05	19.6	1.50	72.90	24.30	2.73	3.16	1	1	0	0	2.7	24.2	18.2
MH-3429	MH-3430	564.73	564.57	19.4	150	0.6	125.379	0.17105	0.1555	0.9	0.8	1.04	36.1	1.40	54.32	19.40	2.18	2.53	1	1	0	0	2.2	17.8	14.6
MH-4098	MH-2752	580.72	580.52	24.4	400	1.43	119.936	4.62715	4.2065	0.8	0.8	0.8	39.1	1.55	75.64	24.40	3.66	6.72	1	1	0	0	3.7	31.1	24.4
MH-4099	MH-3784	581.99	581.75	24.4	150	0.33	100	0.01782	0.0162	0.8	0.88	0.8	7.6	1.30	63.44	24.40	2.75	3.18	1	1	0	0	2.7	20.6	18.3
MH-2616	MH-4100	584.32	584.08	24.4	150	0.78	100	0.31713	0.2883	0.9	0.91	0.8	31.9	1.40	68.32	24.40	2.75	3.18	1	1	0	0	2.7	22.4	18.3
MH-3263	MH-3264	581.02	580.89	18.3	150	0.33	141.335	0.02794	0.0254	0.8	0.8	0.8	10.6	1.30	47.58	18.30	2.06	2.38	1	1	0	0	2.1	15.5	13.7
MH-3441	MH-111	598.41	598.25	19.6	150	0.6	124.063	0.16841	0.1531	1.2	1.08	1.4	23.7	1.70	66.64	19.60	2.21	2.55	1	1	0	0	2.2	22.4	14.7
MH-3442	MH-583	566	565.82	19.3	150	0.4	105.661	0.03531	0.0321	1	0.8	1.21	17.7	1.50	57.90	19.30	2.17	2.51	1	1	0	0	2.2	19.2	14.5
MH-4109	MH-4110	586.77	587.01	24.4	150	0.43	100	0.04279	0.0389	0.9	0.8	0.94	15	1.40	68.32	24.40	2.75	3.18	1	1	0	0	2.7	22.4	18.3
MH-611	MH-3272	581.88	581.77	18.3	150	0.6	164.913	0.23738	0.2158	3.7	3.54	3.89	30.5	4.20	153.72	18.30	2.06	2.38	1	0	1	0	2.1	71.7	13.7
MH-3274	MH-2747	586.72	586.7	18.3	150	0.19	1000	0.04455	0.0405	0.9	0.84	0.86	16.1	1.40	51.24	18.30	2.06	2.38	1	1	0	0	2.1	16.8	13.7
MH-3881	MH-4115	563.77	563.57	24.5	150	0.92	124.014	0.77627	0.7057	0.8	0.8	0.81	58.2	1.30	63.70	24.50	2.76	3.19	1	1	0	0	2.8	20.7	18.4
MH-4117	MH-4118	569.48	569.24	24.5	150	0.67	100	0.18491	0.1681	1.1	1.43	0.8	24.2	1.60	78.40	24.50	2.76	3.19	1	1	0	0	2.8	26.2	18.4
MH-366	MH-3290	563.73	563.88	18.7	150	0.49	122.437	0.08151	0.0741	0.8	0.8	0.8	18.4	1.30	48.62	18.70	2.10	2.43	1	1	0	0	2.1	15.8	14.0
MH-4130	MH-4131	561.65	561.62	24.5	271	0.6	870.281	2.01399	1.8309	1.4	1.39	1.38	60.7	2.02	99.03	24.50	3.20	4.61	1	1	0	0	3.2	45.9	21.3
MH-3957	MH-4136	584.55	584.3	24.6	150	0.35	100	0.01991	0.0181	0.8	0.85	0.8	8	1.30	63.96	24.60	2.77	3.20	1	1	0	0	2.8	20.8	18.5
MH-2153	MH-3305	601.48	601.19	29.3	150	0.55	100	0.09416	0.0856	0.9	0.92	0.8	17.3	1.40	82.04	29.30	3.30	3.81	1	1	0	0	3.3	27.0	22.0
MH-216	MH-207	600.91	601.2	29.4	150	0.34	100	0.01969	0.0179	0.9	0.8	0.9	11	1.40	82.32	29.40	3.31	3.83	1	1	0	0	3.3	27.0	22.1
MH-920	MH-1364	580.3	580.38	7.7	150	0.51	100	0.07557	0.0687	0.9	0.8	0.91	21	1.40	21.56	7.70	0.87	1.00	1	1	0	0	0.9	7.1	5.8
MH-4158	MH-3536	584.09	583.84	24.7	150	0.83	100	0.38918	0.3538	0.9	0.91	0.8	35.5	1.40	69.16	24.70	2.78	3.22	1	1	0	0	2.8	22.7	18.5
MH-3489	MH-3057	587.81	587.61	19.9	150	0.43	100	0.04191	0.0381	0.8	0.9	0.8	11.6	1.30	51.74	19.90	2.24	2.59	1	1	0	0	2.2	16.8	14.9
MH-2861	MH-3327	581.55	581.36	18.7	150	0.32	100	0.01606	0.0146	0.8	0.86	0.8	7.2	1.30	48.62	18.70	2.10	2.43	1	1	0	0	2.1	15.8	14.0
MH-3328	MH-3329	583.97	583.95	18.7	150	0.15	1000	0.02013	0.0183	0.9	0.8	0.92	15	1.40	52.36	18.70	2.10	2.43	1	1	0	0	2.1	17.2	14.0
MH-3330	MH-3331	579.64	579.46	18.7	217	1.32	100	1.81841	1.6531	0.9	0.92	0.8	47.4	1.47	54.87	18.70	2.29	2.98	1	1	0	0	2.3	19.4	15.3
MH-5026	MH-5027	586.39	586.36	33.3	150	0.18	1000	0.03674	0.0334	1	0.93	1.08	20.5	1.50	99.90	33.30	3.75	4.33	2	2	0	0	3.7	33.1	25.0
MH-3231	MH-3337	575.68	575.5	18.7	150	0.61	100	0.13717	0.1247	0.8	0.9	0.8	20.9	1.30	48.62	18.70	2.10	2.43	1	1	0	0	2.1	15.8	14.0
MH-5030	MH-1135	578.21	577.88	33.3	150	1.08	100	1.07085	0.9735	0.9	0.99	0.8	61.4	1.40	93.24	33.30	3.75	4.33	2	2	0	0	3.7	30.6	25.0
MH-5032	MH-5033	562.95	562.88	33.4	217	0.6	509.167	0.89188	0.8108	3	3.32	2.75	44.6	3.57	238.28	33.40	4.09	5.33	2	0	2	0	4.1	102.0	27.3
MH-3509	MH-3304	586.55	586.53	20.1	150	0.2	1000	0.04928	0.0448	0.9	0.91	0.92	16.9	1.40	56.28	20.10	2.26	2.62	1	1	0	0	2.3	18.5	15.1
MH-4905	MH-4527	565.35	565.31	33.8	150	0.26	1000	0.11561	0.1051	1.8	1.63	2.04	27.4	2.30	155.48	33.80	3.80	4.40	2	2	0	0	3.8	64.0	25.4

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-2147	MH-1811	582.42	582.38	33.4	150	0.18	1000	0.03223	0.0293	1.3	1.11	1.52	24.1	1.80	120.24	33.40	3.76	4.35	2	2	0	0	3.8	40.7	25.1
MH-5036	MH-3926	580.07	580.41	33.5	150	0.67	100	0.19041	0.1731	1	0.8	1.11	24.6	1.50	100.50	33.50	3.77	4.36	2	2	0	0	3.8	33.3	25.1
MH-162	MH-147	569.56	569.41	15.1	150	0.85	100	0.43483	0.3953	0.8	0.84	0.8	37.6	1.30	39.26	15.10	1.70	1.97	1	1	0	0	1.7	12.8	11.3
MH-3532	MH-3395	586.04	586.16	20.3	150	0.6	171.972	0.25278	0.2298	2.2	2.31	2.12	31.2	2.70	109.62	20.30	2.28	2.64	1	1	0	0	2.3	44.6	15.2
MH-5048	MH-5049	585.72	585.46	33.7	150	0.28	127.4	0.01331	0.0121	0.8	0.8	0.8	8.6	1.30	87.62	33.70	3.79	4.39	2	2	0	0	3.8	28.5	25.3
MH-77	MH-201	598.79	598.97	18.8	150	0.74	100	0.26059	0.2369	0.8	0.8	0.86	31.6	1.30	48.88	18.80	2.12	2.45	1	1	0	0	2.1	15.9	14.1
MH-3374	MH-3375	591.72	591.53	19	400	1.52	100	3.61174	3.2834	0.8	0.87	0.8	34.6	1.55	58.90	19.00	2.85	5.24	1	1	0	0	2.9	24.2	19.0
MH-2606	MH-2974	578.84	578.65	19	150	0.54	100	0.08954	0.0814	0.9	1.09	0.8	16.9	1.40	53.20	19.00	2.14	2.47	1	1	0	0	2.1	17.5	14.3
MH-3393	MH-2215	579.46	579.44	19.1	150	0.15	1000	0.01958	0.0178	0.9	0.8	0.92	15.5	1.40	53.48	19.10	2.15	2.49	1	1	0	0	2.1	17.6	14.3
MH-3565	MH-3566	581.15	581.13	20.5	150	0.19	1000	0.03839	0.0349	0.9	0.8	1.07	19.1	1.40	57.40	20.50	2.31	2.67	1	1	0	0	2.3	18.9	15.4
MH-5073	MH-5074	583.39	582.96	122	150	0.74	284.671	0.89419	0.8129	0.8	0.8	0.8	66.6	1.30	317.20	122.00	13.73	15.88	5	5	0	0	13.7	103.1	91.5
MH-4328	MH-3014	582.35	582.05	34	150	0.6	114.22	0.1518	0.138	2.5	2.09	2.85	26.7	3.00	204.00	34.00	3.83	4.43	2	2	0	0	3.8	82.3	25.5
MH-584	MH-391	565.8	565.79	16.7	150	0.23	1000	0.07887	0.0717	1.4	1.24	1.62	21.4	1.90	63.46	16.70	1.88	2.17	1	1	0	0	1.9	21.6	12.5
MH-1396	MH-5076	581.48	581.29	34.1	150	0.6	179.342	0.26653	0.2423	3.6	3.7	3.41	31.9	4.10	279.62	34.10	3.84	4.44	2	0	2	0	3.8	131.1	25.6
MH-5077	MH-2360	572.28	571.93	34.1	150	0.96	100	0.66858	0.6078	1	1.19	0.8	47.3	1.50	102.30	34.10	3.84	4.44	2	2	0	0	3.8	33.9	25.6
MH-3580	MH-68	578.24	578.26	22.9	150	0.18	1000	0.03113	0.0283	1.1	0.92	1.26	19.4	1.60	73.28	22.90	2.58	2.98	1	1	0	0	2.6	24.5	17.2
MH-5087	MH-4652	587.64	587.5	34.3	150	0.24	237.402	0.01705	0.0155	0.8	0.8	0.8	8.2	1.30	89.18	34.30	3.86	4.46	2	2	0	0	3.9	29.0	25.7
MH-5089	MH-616	593.21	592.87	34.4	150	0.7	100	0.2189	0.199	1	1.23	0.8	26.4	1.50	103.20	34.40	3.87	4.48	2	2	0	0	3.9	34.2	25.8
MH-3929	MH-3930	587.51	587.28	23.2	150	0.54	100	0.08877	0.0807	1	1.22	0.8	16.8	1.50	69.60	23.20	2.61	3.02	1	1	0	0	2.6	23.1	17.4
MH-3933	MH-3934	585.38	585.15	23.2	150	0.32	100	0.01639	0.0149	0.9	1.01	0.8	7.3	1.40	64.96	23.20	2.61	3.02	1	1	0	0	2.6	21.3	17.4
MH-5093	MH-5094	566.37	566.2	34.4	150	0.33	211.588	0.04389	0.0399	0.8	0.8	0.8	18.5	1.30	89.44	34.40	3.87	4.48	2	2	0	0	3.9	29.1	25.8
MH-5101	MH-5102	576.25	576.28	34.5	150	0.21	1000	0.06105	0.0555	2.3	2.38	2.17	26.4	2.80	193.20	34.50	3.88	4.49	2	2	0	0	3.9	78.3	25.9
MH-3942	MH-3943	584.91	584.8	23.2	150	0.6	210.257	0.32318	0.2938	1.3	1.36	1.22	36.3	1.80	83.52	23.20	2.61	3.02	1	1	0	0	2.6	28.3	17.4
MH-3944	MH-3945	586.9	586.88	23.3	271	0.6	895.836	2.1197	1.927	1.5	1.5	1.43	50.3	2.12	98.84	23.30	3.04	4.39	1	1	0	0	3.0	45.6	20.3
MH-3947	MH-919	580.51	580.29	22.6	150	0.33	100.039	0.0187	0.017	0.8	0.8	0.8	7.8	1.30	58.76	22.60	2.54	2.94	1	1	0	0	2.5	19.1	17.0
MH-2414	MH-1686	580.32	580.11	21	150	0.33	100	0.01837	0.0167	0.8	0.86	0.8	8.6	1.30	54.60	21.00	2.36	2.73	1	1	0	0	2.4	17.7	15.8
MH-3950	MH-270	597.12	596.96	23.3	150	0.23	144.45	0.00836	0.0076	0.8	0.8	0.8	5.5	1.30	60.58	23.30	2.62	3.03	1	1	0	0	2.6	19.7	17.5
MH-3175	MH-3645	564.88	564.53	34.7	150	1.03	100	0.88407	0.8037	0.9	1.01	0.8	55.1	1.40	97.16	34.70	3.90	4.52	2	2	0	0	3.9	31.9	26.0
MH-3966	MH-620	578.67	578.65	23.7	150	0.21	1000	0.06149	0.0559	0.8	0.8	0.85	18.9	1.30	61.62	23.70	2.67	3.08	1	1	0	0	2.7	20.0	17.8
MH-3971	MH-665	596.14	595.91	23.5	150	0.31	100	0.01452	0.0132	0.8	0.87	0.8	11.3	1.30	61.10	23.50	2.64	3.06	1	1	0	0	2.6	19.9	17.6
MH-416	MH-3972	595.37	595.61	23.5	150	0.32	100	0.01584	0.0144	0.9	0.8	0.95	7.2	1.40	65.80	23.50	2.64	3.06	1	1	0	0	2.6	21.6	17.6
MH-5133	MH-5015	588.69	588.34	35	150	0.41	100	0.03619	0.0329	1.1	1.41	0.8	10.8	1.60	112.00	35.00	3.94	4.56	2	2	0	0	3.9	37.4	26.3
MH-4769	MH-5134	578.52	578.32	35	150	0.6	169.412	0.24838	0.2258	2.3	1.98	2.57	31.8	2.80	196.00	35.00	3.94	4.56	2	2	0	0	3.9	79.4	26.3
MH-5140	MH-5141	587.85	587.5	35	150	0.31	100	0.01474	0.0134	1.1	1.37	0.8	7	1.60	112.00	35.00	3.94	4.56	2	2	0	0	3.9	37.4	26.3
MH-3984	MH-3985	585.11	585.09	23.6	150	0.26	1000	0.12276	0.1116	1.2	0.87	1.43	30.5	1.70	80.24	23.60	2.66	3.07	1	1	0	0	2.7	27.0	17.7
MH-2242	MH-3217	569.71	569.73	23.6	150	0.19	1000	0.0418	0.038	1.5	1.63	1.33	21.3	2.00	94.40	23.60	2.66	3.07	1	1	0	0	2.7	32.3	17.7
MH-3990	MH-3991	592.55	592.51	23.6	150	0.2	712.102	0.03355	0.0305	0.8	0.8	0.8	18.6	1.30	61.36	23.60	2.66	3.07	1	1	0	0	2.7	19.9	17.7
MH-4002	MH-2615	584.76	584.58	23.7	150	0.67	128.007	0.25806	0.2346	0.8	0.8	0.82	32.1	1.30	61.62	23.70	2.67	3.08	1	1	0	0	2.7	20.0	17.8
MH-4011	MH-373	582.7	582.69	13	150	0.13	1000	0.01276	0.0116	0.8	0.8	0.89	11.2	1.30	33.80	13.00	1.46	1.69	1	1	0	0	1.5	11.0	9.8
MH-3305	MH-215	601.03	600.9	12.3	150	0.56	100	0.10318	0.0938	0.9	0.96	0.8	24.5	1.40	34.44	12.30	1.38	1.60	1	1	0	0	1.4	11.3	9.2
MH-4015	MH-4016	587.67	587.6	23.8	150	0.17	327.053	0.00792	0.0072	0.8	0.8	0.8	8.6	1.30	61.88	23.80	2.68	3.10	1	1	0	0	2.7	20.1	17.9
MH-5167	MH-5113	584.3	584.26	35.4	150	0.19	1000	0.03784	0.0344	1.4	1.23	1.53	20.2	1.90	134.52	35.40	3.98	4.61	2	2	0	0	4.0	45.8	26.6
MH-5172	MH-4130	562.71	562.36	35.5	150	0.74	100	0.26796	0.2436	0.9	0.93	0.8	29.3	1.40	99.40	35.50	3.99	4.62	2	2	0	0	4.0	32.7	26.6
MH-4033	MH-4034	586.68	586.44	24	150	0.42	100	0.03872	0.0352	0.9	1.04	0.8	11.1	1.40	67.20	24.00	2.70	3.12	1	1	0	0	2.7	22.1	18.0
MH-3390	MH-4035	583.64	583.88	24	150	0.25	100	0.00715	0.0065	0.8	0.8	0.89	4.9	1.30	62.40	24.00	2.70	3.12	1	1	0	0	2.7	20.3	18.0
MH-3577	MH-3816	580.38	580.25	24	150	0.32	185.566	0.03355	0.0305	0.8	0.8	0.8	13.1	1.30	62.40	24.00	2.70	3.12	1	1	0	0	2.7	20.3	18.0
MH-2720	MH-4051	591.54	591.57	24.1	150	0.22	1000	0.07172	0.0652	1.1	1.14	0.97	23.6	1.60	77.12	24.10	2.71	3.14	1	1	0	0	2.7	25.8	18.1
MH-4052	MH-4053	593.16	593.35	29.1	150	0.6	152.796	0.21791	0.1981	2.6	3.13	2.1	29.2	3.10	180.42	29.10	3.27	3.79	1	1	0	0	3.3	72.6	21.8
MH-5206	MH-4550	591.72	591.66	35.8	217	0.6	581.939	1.08669	0.9879	2.6	2.64	2.52	52.3	3.17	226.76	35.80	4.39	5.71	2	2	0	0	4.4	97.7	29.2
MH-1659	MH-4062	599.22	599.46	24.1	150	0.27	100	0.00902	0.0082	1	0.8	1.11	5.5	1.50	72.30	24.10	2.71	3.14	1	1	0	0	2.7	24.0	18.1
MH-1296	MH-2641	578.82	578.59	35.9	150	0.6	154.714	0.22176	0.2016	1.2	1.53	0.81	28	1.70	122.06	35.90	4.04	4.67	2	2	0	0	4.0	41.1	26.9
MH-3495	MH-2738	582.92	582.94	24.2	150	0.14	1000	0.01331	0.0121	1.2	1.36	0.97	20.1	1.70	82.28	24.20	2.72	3.15	1	1	0	0	2.7	27.7	18.2
MH-3433	MH-1435	571.75	571.56	19.5	217	1.3	100	1.716	1.56	1	1.24	0.8	46	1.57	61.11	19.50	2.39	3.11	1	1	0	0	2.4	21.9	15.9
MH-4093	MH-2631	602.79	602.81	23.4	150	0.18	1000	0.03234	0.0294	1.4	1.68	1.14	13.7	1.90	88.92	23.40	2.63	3.05	1	1	0	0	2.6	30.3	17.6
MH-3444	MH-3445	587.26	587.28	19.7	150	0.18	1000	0.03575	0.0325	0.9	1.04	0.8	19.3	1.40	55.16	19.70	2.22	2.56	1	1	0	0	2.2	18.1	14.8
MH-27	MH-2558	598.49	598.25	24.4	150	0.47	100	0.05786	0.0526	0.9	1.01	0.8	13.6	1.40	68.32	24.40	2.75	3.18	1	1	0	0	2.7	22.4	18.3
MH-4101	MH-3763	582.83	582.61	21.9	150	0.59	100	0.12155	0.1105	1	1.2	0.8	19.6	1.50	65.70	21.90	2.46	2.85	1	1	0	0	2.5	21.8	16.4
MH-2913	MH-3453	571.23	571.03	19.7	150	0.61	100	0.14036	0.1276	1.1	1.34	0.8	21.1	1.60	63.04	19.70	2.22	2.56	1	1	0	0	2.2	21.1	14.8
MH-3456	MH-3457	561.89	561.85	19.7	175	0.6	493.866	0.86427	0.7857	1.3	1.33	1.34	53.9	1.83	71.91	19.70	2.29	2.76	1	1	0	0	2.3	25.1	15.3
MH-3970	MH-417	586.47	586.22	24.5	150	0.44	100	0.04466	0.0406	0.8	0.83	0.8	13.1	1.30	63.70	24.50	2.76	3.19	1	1	0	0	2.8	20.7	18.4
MH-3467	MH-3468	580.84	580.65	19.8	150	0.44	108.417	0.0517	0.047	0.8	0.8	0.8	14.5	1.30	51.48	19.80	2.23	2.58	1	1	0	0	2.2	16.7	14.9
MH-4129	MH-3731	591.61	591.57	24.5	217	0.6	613.558	1.18063	1.0733	2.4	2.43	2.36	55	2.97	145.38	24.50	3.00	3.91	1	1	0	0	3.0	62.8	20.0
MH-4132	MH-4133	602.23	602.15	24.5	150	0.27	296.991	0.03014	0.0274	0.8	0.8	0.8	11.2	1.30	63.70	24.50	2.76	3.19	1	1	0	0	2.8	20.7	18.4
MH-4134	MH-363	563.98	563.88	15.5	150	0.6	159.631	0.2277	0.207	3.1	2.85	3.4	29.6	3.60	111.60	15.50	1.74	2.02	1	0	1	0	1.7	44.5	11.6
MH-2451	MH-3865	585.72	585.84	24.6	150	0.6	202.999	0.31295	0.2845	1.8	1.8	1.83	35.6	2.30	113.16	24.60	2.77	3.20	1	1	0	0	2.8	46.6	18.5

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-3490	MH-2607	567.48	567.68	19.9	150	0.28	100	0.01078	0.0098	0.9	0.8	0.94	6	1.40	55.72	19.90	2.24	2.59	1	1	0	0	2.2	18.3	14.9
MH-3494	MH-3203	584.01	583.81	20	150	0.55	100	0.09812	0.0892	1	1.25	0.8	17.6	1.50	60.00	20.00	2.25	2.60	1	1	0	0	2.3	19.9	15.0
MH-1706	MH-3495	582.9	582.92	20	150	0.23	1000	0.08338	0.0758	1.3	1.16	1.36	29.2	1.80	72.00	20.00	2.25	2.60	1	1	0	0	2.3	24.4	15.0
MH-4157	MH-3500	579.59	579.46	24.7	150	0.6	181.673	0.27115	0.2465	1.8	1.76	1.87	32.8	2.30	113.62	24.70	2.78	3.22	1	1	0	0	2.8	46.8	18.5
MH-3833	MH-3714	580.52	580.38	24.7	217	0.91	179.734	1.03554	0.9414	1.4	1.54	1.35	45.7	1.97	97.17	24.70	3.03	3.94	1	1	0	0	3.0	35.8	20.2
MH-3500	MH-3173	579.46	579.35	20	150	0.6	197.483	0.29843	0.2713	1.9	1.87	1.96	34.7	2.40	96.00	20.00	2.25	2.60	1	1	0	0	2.3	39.4	15.0
MH-5023	MH-4000	582.3	581.97	33.2	150	0.54	100	0.08855	0.0805	0.9	1	0.8	16.8	1.40	92.96	33.20	3.74	4.32	2	2	0	0	3.7	30.5	24.9
MH-5024	MH-4490	560.21	559.88	33.2	150	0.78	100	0.319	0.29	1.1	1.4	0.8	37.4	1.60	106.24	33.20	3.74	4.32	2	2	0	0	3.7	35.5	24.9
MH-4919	MH-4950	589.32	588.99	33.2	150	0.48	100	0.05896	0.0536	1	1.29	0.8	13.7	1.50	99.60	33.20	3.74	4.32	2	2	0	0	3.7	33.0	24.9
MH-3507	MH-3467	581.04	580.84	20.1	150	0.43	100	0.04114	0.0374	0.8	0.81	0.8	13	1.30	52.26	20.10	2.26	2.62	1	1	0	0	2.3	17.0	15.1
MH-3508	MH-753	579.01	579.21	19.9	150	0.74	100	0.26466	0.2406	0.9	0.8	1	29.1	1.40	55.72	19.90	2.24	2.59	1	1	0	0	2.2	18.3	14.9
MH-5025	MH-3433	572.52	572.19	33.2	217	1.29	100	1.69664	1.5424	1.2	1.59	0.8	45.7	1.77	117.33	33.20	4.07	5.30	2	2	0	0	4.1	42.6	27.1
MH-4588	MH-5028	576.01	575.74	33.7	150	0.6	126.216	0.17281	0.1571	1.7	1.63	1.67	26.1	2.20	148.28	33.70	3.79	4.39	2	2	0	0	3.8	61.3	25.3
MH-3852	MH-2898	581.03	580.7	33.3	150	0.56	100	0.10428	0.0948	1	1.27	0.8	18.2	1.50	99.90	33.30	3.75	4.33	2	2	0	0	3.7	33.1	25.0
MH-4241	MH-5023	582.83	582.5	33.3	150	0.51	100	0.07348	0.0668	0.9	1.09	0.8	15.3	1.40	93.24	33.30	3.75	4.33	2	2	0	0	3.7	30.6	25.0
MH-5019	MH-4795	564.47	564.19	33.4	150	0.6	119.472	0.16016	0.1456	2	1.66	2.31	25.7	2.50	167.00	33.40	3.76	4.35	2	2	0	0	3.8	68.3	25.1
MH-3667	MH-3648	590.63	590.59	33.5	150	0.15	1000	0.01727	0.0157	1.3	1.09	1.47	10	1.80	120.60	33.50	3.77	4.36	2	2	0	0	3.8	40.9	25.1
MH-3817	MH-1277	580.18	579.9	33.5	150	0.46	120.598	0.06787	0.0617	0.8	0.8	0.8	19.4	1.30	87.10	33.50	3.77	4.36	2	2	0	0	3.8	28.3	25.1
MH-3801	MH-2873	588.05	587.71	33.6	150	0.49	100	0.0638	0.058	0.8	0.9	0.8	22.7	1.30	87.36	33.60	3.78	4.37	2	2	0	0	3.8	28.4	25.2
MH-3114	MH-4776	581.23	580.96	33.7	400	1.38	126.835	4.45071	4.0461	0.8	0.8	0.8	38.3	1.55	104.47	33.70	5.06	9.29	2	2	0	0	5.1	42.9	33.7
MH-312	MH-5046	586.12	586.23	38.8	150	0.25	348.28	0.02915	0.0265	0.8	0.8	0.8	13.9	1.30	100.88	38.80	4.37	5.05	2	2	0	0	4.4	32.8	29.1
MH-5057	MH-1276	579.98	579.91	33.8	150	0.27	490.98	0.05709	0.0519	0.8	0.8	0.8	19.5	1.30	87.88	33.80	3.80	4.40	2	2	0	0	3.8	28.6	25.4
MH-3584	MH-906	599.98	600	20.7	150	0.22	1000	0.0715	0.065	1.4	1.48	1.38	23.2	1.90	78.66	20.70	2.33	2.69	1	1	0	0	2.3	26.8	15.5
MH-5075	MH-4372	587.6	587.34	34	150	0.6	131.424	0.18073	0.1643	0.9	0.89	0.89	29.2	1.40	95.20	34.00	3.83	4.43	2	2	0	0	3.8	31.3	25.5
MH-437	MH-3444	587.23	587.26	38.8	150	0.2	1000	0.05302	0.0482	1.2	1.33	1.04	17.5	1.70	131.92	38.80	4.37	5.05	2	2	0	0	4.4	44.4	29.1
MH-4756	MH-3985	585.59	585.56	34.5	150	0.23	1000	0.08382	0.0762	0.9	0.8	0.96	22.1	1.40	96.60	34.50	3.88	4.49	2	2	0	0	3.9	31.7	25.9
MH-5081	MH-5082	599.77	599.67	36.7	175	0.64	366.112	0.71181	0.6471	1.7	1.92	1.41	47.1	2.23	163.32	36.70	4.27	5.15	2	2	0	0	4.3	69.1	28.4
MH-760	MH-451	600.77	600.67	39.4	150	0.6	364.182	0.53845	0.4895	2.1	2.04	2.19	49.2	2.60	204.88	39.40	4.43	5.13	2	2	0	0	4.4	83.5	29.6
MH-5086	MH-4328	583.97	583.63	34.3	150	0.29	100	0.01155	0.0105	0.8	0.86	0.8	6.2	1.30	89.18	34.30	3.86	4.46	2	2	0	0	3.9	29.0	25.7
MH-2409	MH-239	564.35	564.18	24.1	150	0.4	143.616	0.05203	0.0473	0.8	0.8	0.8	13.4	1.30	62.66	24.10	2.71	3.14	1	1	0	0	2.7	20.4	18.1
MH-3611	MH-804	591.47	591.55	20.9	150	0.6	282.529	0.48851	0.4441	1.6	1.48	1.77	50.1	2.10	87.78	20.90	2.35	2.72	1	1	0	0	2.4	36.5	15.7
MH-568	MH-3041	576.58	576.5	38.5	175	0.6	470.484	0.7942	0.722	1.6	1.92	1.36	51	2.13	163.63	38.50	4.48	5.40	2	2	0	0	4.5	69.6	29.8
MH-3618	MH-3489	588.08	587.91	21	150	0.32	123.637	0.01969	0.0179	0.8	0.8	0.8	8.2	1.30	54.60	21.00	2.36	2.73	1	1	0	0	2.4	17.7	15.8
MH-5104	MH-4974	563.66	563.63	34.8	400	0.65	1000	4.6079	4.189	1.6	1.76	1.53	46	2.35	163.56	34.80	5.22	9.59	2	2	0	0	5.2	82.6	34.8
MH-5106	MH-5075	587.91	587.6	34.6	150	0.6	109.37	0.14421	0.1311	0.8	0.8	0.89	24.6	1.30	89.96	34.60	3.89	4.50	2	2	0	0	3.9	29.2	26.0
MH-727	MH-812	580.36	580.35	8	150	0.15	1000	0.01705	0.0155	0.9	1.03	0.83	12.5	1.40	22.40	8.00	0.90	1.04	1	1	0	0	0.9	7.4	6.0
MH-5109	MH-477	576.44	576.15	34.7	150	0.38	120.426	0.03542	0.0322	1.1	0.8	1.49	21.8	1.60	111.04	34.70	3.90	4.52	2	2	0	0	3.9	37.1	26.0
MH-703	MH-5114	579.61	579.94	33.6	150	0.42	100	0.0385	0.035	0.8	0.8	0.84	11.1	1.30	87.36	33.60	3.78	4.37	2	2	0	0	3.8	28.4	25.2
MH-5016	MH-2426	580.06	580.02	34.7	150	0.2	850.116	0.03916	0.0356	0.8	0.81	0.8	14.7	1.30	90.22	34.70	3.90	4.52	2	2	0	0	3.9	29.3	26.0
MH-4231	MH-4098	581.32	580.97	34.8	150	0.63	100	0.15147	0.1377	1	1.19	0.8	21.9	1.50	104.40	34.80	3.92	4.53	2	2	0	0	3.9	34.6	26.1
MH-91	MH-5120	597.6	597.43	71.1	217	0.68	422.435	1.13003	1.0273	0.8	0.82	0.8	44.7	1.37	194.39	71.10	8.71	11.34	3	3	0	0	8.7	68.1	58.1
MH-5121	MH-5122	588.49	588.84	34.8	400	1.57	100	5.11049	4.6459	0.9	0.8	0.92	36.5	1.65	114.84	34.80	5.22	9.59	2	2	0	0	5.2	47.8	34.8
MH-335	MH-79	599.19	598.84	35	150	0.42	100	0.03982	0.0362	0.9	0.98	0.8	13.2	1.40	98.00	35.00	3.94	4.56	2	2	0	0	3.9	32.2	26.3
MH-5152	MH-3490	566.98	567.33	35.2	150	0.42	100	0.03795	0.0345	0.9	0.8	0.95	11	1.40	98.56	35.20	3.96	4.58	2	2	0	0	4.0	32.4	26.4
MH-4803	MH-4279	577.84	577.79	36.6	271	0.6	834.074	1.87451	1.7041	2.5	2.57	2.35	56.7	3.12	228.46	36.60	4.78	6.89	2	2	0	0	4.8	103.6	31.9
MH-1803	MH-4537	586.95	586.78	35.2	271	1.1	204.639	2.52483	2.2953	1.7	2.1	1.32	47.7	2.32	163.40	35.20	4.60	6.63	2	2	0	0	4.6	75.1	30.7
MH-3788	MH-619	578.97	578.68	28.9	175	1.1	100	0.9042	0.822	0.9	1.03	0.8	43.9	1.43	82.37	28.90	3.36	4.05	1	1	0	0	3.4	27.9	22.4
MH-4741	MH-5170	583.54	583.19	35.4	150	0.76	100	0.28798	0.2618	0.9	0.94	0.8	30.4	1.40	99.12	35.40	3.98	4.61	2	2	0	0	4.0	32.6	26.6
MH-5180	MH-468	571.24	570.91	35.5	150	0.21	105.632	0.00462	0.0042	0.8	0.8	0.8	4	1.30	92.30	35.50	3.99	4.62	2	2	0	0	4.0	30.0	26.6
MH-5190	MH-4332	582.18	581.95	35.7	150	0.6	160.916	0.23232	0.2112	1.4	1.38	1.46	30.5	1.90	135.66	35.70	4.02	4.65	2	2	0	0	4.0	46.2	26.8
MH-5193	MH-5194	571.33	570.98	35.7	150	0.73	100	0.25586	0.2326	0.9	1.07	0.8	28.6	1.40	99.96	35.70	4.02	4.65	2	2	0	0	4.0	32.8	26.8
MH-5203	MH-327	562.3	562.52	35.3	175	0.85	160.151	0.64493	0.5863	1.5	1.4	1.63	38.9	2.03	142.97	35.30	4.10	4.95	2	2	0	0	4.1	61.0	27.4
MH-4301	MH-2209	584.84	584.48	35.9	150	0.54	100	0.08921	0.0811	0.9	1.06	0.8	16.8	1.40	100.52	35.90	4.04	4.67	2	2	0	0	4.0	33.0	26.9
MH-5076	MH-5214	581.29	581.09	36	150	0.6	182.996	0.27401	0.2491	3.3	3.41	3.1	32.6	3.80	273.60	36.00	4.05	4.69	2	0	2	0	4.1	108.7	27.0
MH-3438	MH-3439	577.74	577.55	19.6	150	0.4	100	0.03377	0.0307	0.8	0.84	0.8	16.3	1.30	50.96	19.60	2.21	2.55	1	1	0	0	2.2	16.6	14.7
MH-3443	MH-826	571.05	570.92	19.7	150	0.65	152.848	0.29117	0.2647	0.8	0.8	0.8	32.2	1.30	51.22	19.70	2.22	2.56	1	1	0	0	2.2	16.6	14.8
MH-3449	MH-149	564.4	564.29	20.9	150	0.28	188.395	0.02134	0.0194	0.8	0.8	0.8	8.9	1.30	54.34	20.90	2.35	2.72	1	1	0	0	2.4	17.7	15.7
MH-1774	MH-329	600.43	600.23	31.8	150	0.6	158.141	0.2244	0.204	1	1.07	0.87	28.2	1.50	95.40	31.80	3.58	4.14	2	2	0	0	3.6	31.6	23.9
MH-3464	MH-3465	577.46	577.4	19.8	150	0.6	287.199	0.50061	0.4551	3.4	3.39	3.45	50.5	3.90	154.44	19.80	2.23	2.58	1	0	1	0	2.2	61.3	14.9
MH-3471	MH-893	580.86	580.75	10.2	150	0.18	100	0.0022	0.002	0.9	0.91	0.8	2.8	1.40	28.56	10.20	1.15	1.33	1	1	0	0	1.1	9.4	7.7
MH-3474	MH-2905	579.73	579.53	19.8	150	0.32	100	0.01672	0.0152	0.8	0.81	0.8	9.1	1.30	51.48	19.80	2.23	2.58	1	1	0	0	2.2	16.7	14.9
MH-3482	MH-455	597.31	597.27	22.7	217	0.6	523.982	0.92939	0.8449	1.7	1.77	1.55	43.5	2.27	102.92	22.70	2.78	3.62	1	1	0	0	2.8	45.2	18.5
MH-3485	MH-427	580.31	580.11	20.5	150	0.42	100	0.03938	0.0358	0.8	0.86	0.8	11.2	1.30	53.30	20.50	2.31	2.67	1	1	0	0	2.3	17.3	15.4
MH-3511	MH-1690	573.78	573.58	20.1	150	0.48	100	0.06193	0.0563	1.1	1.32	0.8	14	1.60	64.32	20.10	2.26	2.62	1	1	0	0	2.3	21.5	15.1
MH-813	MH-757	580.2	580.03	18.9	150	0.68	110.852	0.2299	0.209	1	0.97	0.93	29.7	1.50	56.70	18.90	2.13	2.46	1	1	0	0	2.1	18.8	14.2

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-3536	MH-3537	583.75	583.55	20.3	150	0.89	100	0.5159	0.469	0.8	0.89	0.8	41.2	1.30	52.78	20.30	2.28	2.64	1	1	0	0	2.3	17.2	15.2
MH-3538	MH-2047	585.75	585.65	20.3	150	0.2	193.529	0.00759	0.0069	1	0.8	1.18	5.4	1.50	60.90	20.30	2.28	2.64	1	1	0	0	2.3	20.2	15.2
MH-3587	MH-583	565.84	565.82	21	150	0.17	1000	0.02651	0.0241	1	0.8	1.21	19.9	1.50	63.00	21.00	2.36	2.73	1	1	0	0	2.4	20.9	15.8
MH-3589	MH-1925	587.54	587.41	20.8	150	0.22	164.446	0.00781	0.0071	0.8	0.8	0.8	5.4	1.30	54.08	20.80	2.34	2.71	1	1	0	0	2.3	17.6	15.6
MH-3297	MH-2362	601.77	601.96	20.8	150	0.6	109.137	0.14388	0.1308	1	1.15	0.92	31.3	1.50	62.40	20.80	2.34	2.71	1	1	0	0	2.3	20.7	15.6
MH-3595	MH-457	579.58	579.43	20.2	150	0.61	137.617	0.19987	0.1817	0.8	0.8	0.8	26.2	1.30	52.52	20.20	2.27	2.63	1	1	0	0	2.3	17.1	15.2
MH-3632	MH-3633	584.97	584.76	21.1	150	0.35	100	0.02178	0.0198	0.8	0.89	0.8	8.3	1.30	54.86	21.10	2.37	2.75	1	1	0	0	2.4	17.8	15.8
MH-24	MH-919	580.04	580.07	26	150	0.25	1000	0.10439	0.0949	0.9	0.86	1.02	26.3	1.40	72.80	26.00	2.93	3.38	1	1	0	0	2.9	23.9	19.5
MH-2772	MH-3644	584.87	584.65	21.2	150	0.74	100	0.26862	0.2442	1	1.23	0.8	29.3	1.50	63.60	21.20	2.39	2.76	1	1	0	0	2.4	21.1	15.9
MH-3645	MH-3646	564.43	564.22	21.2	150	1.05	100	0.95678	0.8698	0.8	0.9	0.8	57.6	1.30	55.12	21.20	2.39	2.76	1	1	0	0	2.4	17.9	15.9
MH-410	MH-3647	589.05	589.03	21.2	400	0.65	1000	4.6046	4.186	1.4	1.47	1.42	57.2	2.15	91.16	21.20	3.18	5.84	1	1	0	0	3.2	46.1	21.2
MH-3648	MH-2158	589.9	589.88	21.2	150	0.24	1000	0.0968	0.088	2.1	2.16	1.95	27.6	2.60	110.24	21.20	2.39	2.76	1	1	0	0	2.4	44.9	15.9
MH-3649	MH-3650	584.41	584.2	21.2	150	0.57	100	0.11055	0.1005	0.8	0.86	0.8	18.7	1.30	55.12	21.20	2.39	2.76	1	1	0	0	2.4	17.9	15.9
MH-3654	MH-567	577.89	577.72	16.2	150	0.95	100	0.65505	0.5955	1	1.16	0.8	46.8	1.50	48.60	16.20	1.82	2.11	1	1	0	0	1.8	16.1	12.2
MH-3659	MH-3660	584.3	584.09	21.3	150	0.71	100	0.23551	0.2141	0.9	1.05	0.8	27.4	1.40	59.64	21.30	2.40	2.77	1	1	0	0	2.4	19.6	16.0
MH-3662	MH-3663	594.87	594.83	23.9	150	0.2	542.507	0.02299	0.0209	0.8	0.8	0.8	17.2	1.30	62.14	23.90	2.69	3.11	1	1	0	0	2.7	20.2	17.9
MH-3666	MH-3667	590.65	590.63	21.3	150	0.12	1000	0.00847	0.0077	0.9	0.8	1.09	10.5	1.40	59.64	21.30	2.40	2.77	1	1	0	0	2.4	19.6	16.0
MH-1277	MH-3391	579.9	579.71	21.3	150	0.6	109.884	0.14487	0.1317	0.9	0.8	0.97	23.9	1.40	59.64	21.30	2.40	2.77	1	1	0	0	2.4	19.6	16.0
MH-6330	MH-6331	596.7	596.63	70.3	150	0.26	1000	0.1265	0.115	1.1	0.8	1.36	27.3	1.60	224.96	70.30	7.91	9.15	3	3	0	0	7.9	75.2	52.7
MH-5676	MH-6125	577.06	576.7	71.9	150	0.68	203.53	0.5005	0.455	1.5	2.25	0.8	44.5	2.00	287.60	71.90	8.09	9.36	3	3	0	0	8.1	98.5	53.9
MH-5643	MH-3742	561.54	561.47	72.1	271	0.6	933.833	2.29944	2.0904	2.5	2.06	2.97	63.4	3.12	450.05	72.10	9.42	13.58	3	3	0	0	9.4	204.0	62.8
MH-5619	MH-6334	575.5	576.05	72.2	150	0.41	130.241	0.05016	0.0456	1.4	2.07	0.8	21.9	1.90	274.36	72.20	8.12	9.40	3	3	0	0	8.1	93.5	54.2
MH-3125	MH-2000	570.18	569.45	72.5	271	1.32	100	1.93545	1.7595	1.2	1.56	0.8	36.3	1.82	264.05	72.50	9.47	13.65	3	3	0	0	9.5	101.3	63.1
MH-6339	MH-5794	581.31	580.66	72.7	150	0.35	111.378	0.02376	0.0216	0.8	0.8	0.8	11.9	1.30	189.02	72.70	8.18	9.46	3	3	0	0	8.2	61.4	54.5
MH-5836	MH-836	591.46	590.73	73.1	150	0.62	100	0.14355	0.1305	0.9	1.09	0.8	24.9	1.40	204.68	73.10	8.22	9.51	3	3	0	0	8.2	67.2	54.8
MH-6342	MH-4235	589.24	589.15	73.3	271	0.6	878.658	2.04765	1.8615	1.7	1.8	1.59	50.9	2.32	340.26	73.30	9.58	13.80	3	3	0	0	9.6	156.4	63.8
MH-6350	MH-451	600.1	600.54	73.6	271	1.23	165.203	2.92677	2.6607	1.5	0.8	2.19	48	2.12	312.21	73.60	9.62	13.86	3	3	0	0	9.6	144.2	64.1
MH-6323	MH-6231	599.51	598.76	74.2	150	0.8	100	0.35904	0.3264	0.9	0.98	0.8	34.1	1.40	207.76	74.20	8.35	9.66	3	3	0	0	8.3	68.3	55.7
MH-825	MH-4810	597.83	597.51	74.3	150	0.6	231.379	0.36784	0.3344	1.1	1.25	0.91	45	1.60	237.76	74.30	8.36	9.67	3	3	0	0	8.4	79.5	55.7
MH-4664	MH-655	576.21	576.33	48.8	175	0.6	401.099	0.62227	0.5657	2.4	1.97	2.84	47.5	2.93	285.48	48.80	5.67	6.85	2	2	0	0	5.7	118.4	37.8
MH-5702	MH-4040	582.25	581.61	74.2	175	0.98	115.699	0.72721	0.6611	4.5	4.56	4.35	39.8	5.03	745.71	74.20	8.63	10.41	3	0	0	3	8.6	345.3	57.5
MH-4376	MH-6358	596.24	596.99	75.7	217	1.26	100	1.53725	1.3975	1.2	0.8	1.6	43.4	1.77	267.52	75.70	9.28	12.08	3	3	0	0	9.3	97.2	61.8
MH-287	MH-6361	580.41	579.64	77.1	150	0.71	100	0.23617	0.2147	1.3	1.87	0.8	27.4	1.80	277.56	77.10	8.67	10.04	3	3	0	0	8.7	94.0	57.8
MH-5396	MH-6210	567.51	566.75	75.6	217	1.28	100	1.64692	1.4972	1.3	1.72	0.8	45	1.87	282.29	75.60	9.26	12.06	3	3	0	0	9.3	103.3	61.8
MH-6364	MH-2233	598.61	598.09	75.8	150	0.38	147.204	0.04466	0.0406	1.3	0.8	1.72	12.4	1.80	272.88	75.80	8.53	9.87	3	3	0	0	8.5	92.5	56.9
MH-6227	MH-6365	565.22	564.9	75.9	150	0.66	237.282	0.56595	0.5145	0.9	0.94	0.8	54.7	1.40	212.52	75.90	8.54	9.88	3	3	0	0	8.5	69.8	56.9
MH-6367	MH-70	599.97	599.52	81.1	150	0.27	178.976	0.01716	0.0156	0.8	0.8	0.8	7.9	1.30	210.86	81.10	9.12	10.56	3	3	0	0	9.1	68.5	60.8
MH-6369	MH-6063	585.37	584.98	76.1	150	0.44	193.83	0.10186	0.0926	0.8	0.8	0.8	35.6	1.30	197.86	76.10	8.56	9.91	3	3	0	0	8.6	64.3	57.1
MH-5983	MH-6370	562.99	562.86	76.7	217	0.6	589.591	1.10858	1.0078	0.9	0.8	0.92	46.6	1.47	225.04	76.70	9.40	12.23	3	3	0	0	9.4	79.7	62.7
MH-6372	MH-6373	604.5	604.64	39.1	150	0.6	269.251	0.45562	0.4142	2.3	1.69	2.85	46.5	2.80	218.96	39.10	4.40	5.09	2	2	0	0	4.4	88.8	29.3
MH-6365	MH-6313	564.9	564.41	77	150	0.86	157.047	0.86889	0.7899	0.8	0.8	0.8	64.5	1.30	200.20	77.00	8.66	10.02	3	3	0	0	8.7	65.1	57.8
MH-6376	MH-3860	581.7	580.93	77.3	150	0.51	100	0.07293	0.0663	1.2	1.54	0.8	15.2	1.70	262.82	77.30	8.70	10.06	3	3	0	0	8.7	88.5	58.0
MH-6377	MH-6378	598.81	598.95	77.4	217	0.6	567.22	1.04445	0.9495	0.8	0.89	0.8	52.3	1.37	211.61	77.40	9.49	12.35	3	3	0	0	9.5	74.1	63.2
MH-4093	MH-6379	602.31	602.61	77.4	150	0.6	261.482	0.43626	0.3966	2.1	2.15	2.01	47.8	2.60	402.48	77.40	8.71	10.07	3	3	0	0	8.7	164.1	58.1
MH-6148	MH-768	591.43	590.65	78	400	1.48	100	4.11785	3.7435	1	1.15	0.8	32.6	1.75	273.00	78.00	11.70	21.50	3	3	0	0	11.7	115.0	78.0
MH-4173	MH-6388	592.36	592.22	78.6	150	0.31	562.625	0.11484	0.1044	0.8	0.8	0.8	23.8	1.30	204.36	78.60	8.84	10.23	3	3	0	0	8.8	66.4	59.0
MH-6389	MH-323	588.41	588.33	78.7	150	0.19	1000	0.04345	0.0395	1.4	0.8	1.96	34.6	1.90	299.06	78.70	8.85	10.24	3	3	0	0	8.9	101.9	59.0
MH-2210	MH-4333	583.34	582.54	79.9	400	1.48	100	3.27514	2.9774	1.2	1.52	0.8	28.4	1.95	311.61	79.90	11.99	22.02	3	3	0	0	12.0	133.8	79.9
MH-6379	MH-5227	602.61	603.15	80.1	150	0.6	149.216	0.21098	0.1918	1.9	2.01	1.83	36.4	2.40	384.48	80.10	9.01	10.43	3	3	0	0	9.0	157.8	60.1
MH-90	MH-3361	563.36	563.22	57.4	175	0.6	402.132	0.62502	0.5682	4	3.44	4.48	48	4.53	519.47	57.40	6.67	8.05	2	0	2	0	6.7	244.9	44.5
MH-4133	MH-5974	601.22	600.42	80.2	150	0.55	100	0.09823	0.0893	1.3	1.73	0.8	17.6	1.80	288.72	80.20	9.02	10.44	3	3	0	0	9.0	97.8	60.2
MH-5736	MH-5520	576.71	576.61	101.1	150	0.24	1000	0.09779	0.0889	2	1.38	2.58	32.4	2.50	505.50	101.10	11.37	13.16	4	4	0	0	11.4	206.7	75.8
MH-6232	MH-4376	597.11	596.3	80.3	150	0.89	100	0.50941	0.4631	1.2	1.7	0.8	40.9	1.70	273.02	80.30	9.03	10.45	3	3	0	0	9.0	91.9	60.2
MH-6401	MH-6038	589.21	588.41	80.8	150	0.42	100	0.03971	0.0361	1	1.11	0.8	11.3	1.50	242.40	80.80	9.09	10.52	3	3	0	0	9.1	80.4	60.6
MH-246	MH-6402	581.1	580.52	76.1	150	0.72	130.876	0.33682	0.3062	0.9	1.01	0.8	40.4	1.40	213.08	76.10	8.56	9.91	3	3	0	0	8.6	70.0	57.1
MH-6403	MH-5419	568.01	567.63	81.1	175	0.94	211.556	1.45717	1.3247	0.8	0.8	0.8	63.7	1.33	214.92	81.10	9.43	11.38	3	3	0	0	9.4	71.9	62.9
MH-6406	MH-5381	595.98	595.5	81.4	150	0.6	170.511	0.25025	0.2275	1.3	0.8	1.8	34.9	1.80	293.04	81.40	9.16	10.60	3	3	0	0	9.2	99.3	61.1
MH-4482	MH-4990	567.36	567.27	81.4	271	0.6	873.04	2.02378	1.8398	2.2	1.77	2.55	60.4	2.82	459.26	81.40	10.63	15.33	3	3	0	0	10.6	209.1	70.9
MH-6409	MH-4669	581.22	580.41	81.5	150	0.56	100	0.09955	0.0905	1.4	2.03	0.8	17.7	1.90	309.70	81.50	9.17	10.61	3	3	0	0	9.2	105.5	61.1
MH-6301	MH-6138	571.68	570.89	82.4	400	1.86	103.273	9.89769	8.9979	1	0.8	1.18	52	1.75	288.40	82.40	12.36	22.71	3	3	0	0	12.4	121.5	82.4
MH-756	MH-6410	594.76	595.13	39.6	150	0.6	109.101	0.14377	0.1307	3.6	3.05	4.18	25.1	4.10	324.72	39.60	4.46	5.15	2	0	2	0	4.5	152.3	29.7
MH-4100	MH-6195	583.98	583.16	81.7	150	0.82	100	0.38489	0.3499	0.9	0.9	0.8	40.1	1.40	228.76	81.70	9.19	10.63	3	3	0	0	9.2	75.2	61.3
MH-6411	MH-6223	614.48	614.24	75.7	150	0.31	317.802	0.05423	0.0493	0.8	0.8	0.8	15.1	1.30	196.82	75.70	8.52	9.85	3	3	0	0	8.5	64.0	56.8
MH-4064	MH-6370	561.86	561.98	83.2	1100	1.54	750	94.62871	86.0261	1	1.04	0.92	56.1	2.45	407.68	83.20	21.22	100.24	3	3	0	0	21.2	271.2	141.4
MH-5394	MH-4980	587.69	587.58	82.2	271	0.6	760.179	1.62041	1.4731	1	0.91	1.1	50.3	1.62	266.49	82.20	10.74	15.48	3	3	0	0	10.7	100.6	71.6

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-6412	MH-6159	580.1	579.36	82.2	400	1.48	111.672	4.79083	4.3553	0.8	0.8	0.81	39.9	1.55	254.82	82.20	12.33	22.65	3	3	0	0	12.3	104.8	82.2
MH-6300	MH-4743	602.16	601.34	82.3	150	0.91	100	0.54472	0.4952	1.4	2.03	0.8	42.4	1.90	312.74	82.30	9.26	10.71	3	3	0	0	9.3	106.6	61.7
MH-6413	MH-1101	586.51	586.42	82.4	150	0.19	1000	0.03982	0.0362	0.8	0.8	0.85	18.3	1.30	214.24	82.40	9.27	10.73	3	3	0	0	9.3	69.6	61.8
MH-6414	MH-5865	563.54	562.72	82.5	150	0.53	100	0.08514	0.0774	0.9	1.08	0.8	25.1	1.40	231.00	82.50	9.28	10.74	3	3	0	0	9.3	75.9	61.9
MH-6415	MH-5883	601.48	602.3	82.5	150	0.76	100	0.28292	0.2572	1	0.8	1.23	42.6	1.50	247.50	82.50	9.28	10.74	3	3	0	0	9.3	82.1	61.9
MH-6416	MH-4090	557.97	557.37	82.6	150	1.08	139.461	1.50447	1.3677	0.8	0.8	0.8	77.5	1.30	214.76	82.60	9.29	10.75	3	3	0	0	9.3	69.8	62.0
MH-385	MH-6418	588.13	588.94	81.4	150	0.51	100	0.07502	0.0682	1.3	0.8	1.72	27.5	1.80	293.04	81.40	9.16	10.60	3	3	0	0	9.2	99.3	61.1
MH-6199	MH-6350	597.98	598.81	82.9	271	1.49	100	2.99013	2.7183	1.4	0.8	2.09	45.6	2.02	335.08	82.90	10.83	15.61	3	3	0	0	10.8	155.2	72.2
MH-5097	MH-5393	589.54	588.71	83	150	0.68	100	0.198	0.18	1.9	2.95	0.8	25.1	2.40	398.40	83.00	9.34	10.80	3	3	0	0	9.3	163.5	62.3
MH-6421	MH-6422	584.7	583.96	73.6	150	1.1	100	1.16358	1.0578	1.3	1.74	0.8	64.4	1.80	264.96	73.60	8.28	9.58	3	3	0	0	8.3	89.8	55.2
MH-3355	MH-6141	591.05	590.22	83.1	150	0.5	100	0.07073	0.0643	0.9	1	0.8	15	1.40	232.68	83.10	9.35	10.82	3	3	0	0	9.3	76.4	62.3
MH-6424	MH-3788	579.87	579.23	84.9	150	0.29	131.665	0.01628	0.0148	0.8	0.8	0.8	7.5	1.30	220.74	84.90	9.55	11.05	3	3	0	0	9.6	71.7	63.7
MH-6425	MH-6426	562.24	561.62	83.6	150	0.83	133.978	0.59279	0.5389	0.8	0.8	0.8	46.1	1.30	217.36	83.60	9.41	10.88	3	3	0	0	9.4	70.6	62.7
MH-17	MH-5121	587.05	587.89	83.7	400	1.57	100	5.15515	4.6865	1.1	0.8	1.4	50.4	1.85	309.69	83.70	12.56	23.07	3	3	0	0	12.6	131.8	83.7
MH-4064	MH-5203	561.46	561.37	83.3	1100	1.38	1000	98.52458	89.5678	1.4	1.44	1.4	60.9	2.85	474.81	83.30	21.24	100.36	3	3	0	0	21.2	328.2	141.6
MH-555	MH-3330	580.22	579.64	83.7	217	1.1	146.519	1.55793	1.4163	0.9	0.82	0.92	51.3	1.47	245.58	83.70	10.26	13.35	3	3	0	0	10.3	87.0	68.4
MH-5674	MH-6429	606.39	606.26	24.2	175	0.85	194.08	0.83732	0.7612	0.9	0.9	0.8	51.1	1.43	68.97	24.20	2.81	3.40	1	1	0	0	2.8	23.3	18.8
MH-5447	MH-2645	601.64	601.94	31.2	150	0.6	104.459	0.13486	0.1226	1	1.18	0.91	23.9	1.50	93.60	31.20	3.51	4.06	2	2	0	0	3.5	31.0	23.4
MH-1084	MH-6430	578.34	579.18	83.9	150	0.52	100	0.07953	0.0723	0.9	0.8	1.01	15.9	1.40	234.92	83.90	9.44	10.92	3	3	0	0	9.4	77.2	62.9
MH-962	MH-6262	565.21	565.36	83.5	217	0.6	569.506	1.05061	0.9551	1.2	1.65	0.83	53.9	1.77	295.09	83.50	10.23	13.32	3	3	0	0	10.2	107.2	68.2
MH-6437	MH-6239	603.01	602.92	85.5	150	0.22	1000	0.06765	0.0615	1.3	0.8	1.76	23.5	1.80	307.80	85.50	9.62	11.13	3	3	0	0	9.6	104.3	64.1
MH-6439	MH-6309	601.9	602.68	85.6	150	0.7	109.873	0.2497	0.227	0.9	1.01	0.8	37.4	1.40	239.68	85.60	9.63	11.14	3	3	0	0	9.6	78.7	64.2
MH-6440	MH-345	597.58	596.74	84.1	175	1.28	100	1.61194	1.4654	1.3	1.81	0.8	60.1	1.83	306.97	84.10	9.78	11.80	3	3	0	0	9.8	107.2	65.2
MH-5117	MH-4312	573.26	573.17	87.5	900	1.21	1000	61.98764	56.3524	2.1	2.92	1.19	67	3.35	586.25	87.50	19.69	75.32	3	3	0	0	19.7	390.6	131.3
MH-6402	MH-5737	580.52	580.18	87.9	150	0.6	263.135	0.44022	0.4002	1.1	0.8	1.46	50.1	1.60	281.28	87.90	9.89	11.44	3	3	0	0	9.9	94.0	65.9
MH-6449	MH-6318	576.23	575.35	87.9	400	1.69	100	6.65368	6.0488	1.2	1.6	0.8	41.9	1.95	342.81	87.90	13.19	24.23	3	3	0	0	13.2	147.2	87.9
MH-6450	MH-5978	591.37	590.48	88	175	1.17	100	1.12167	1.0197	1	1.24	0.8	49.3	1.53	268.40	88.00	10.23	12.35	3	3	0	0	10.2	91.7	68.2
MH-6452	MH-6453	575.01	574.22	88.1	150	0.63	110.983	0.17754	0.1614	0.8	0.8	0.8	28	1.30	229.06	88.10	9.91	11.47	3	3	0	0	9.9	74.4	66.1
MH-5710	MH-6454	593.9	593.99	88.5	400	0.62	1000	2.92292	2.6572	1.5	1.1	1.81	38.2	2.25	398.25	88.50	13.28	24.39	3	3	0	0	13.3	201.3	88.5
MH-5432	MH-5030	579.29	578.4	89.3	150	1.05	100	0.95238	0.8658	1.1	1.41	0.8	57.5	1.60	285.76	89.30	10.05	11.62	3	3	0	0	10.0	95.5	67.0
MH-2551	MH-6072	591.85	592.74	89.5	150	0.71	100	0.22968	0.2088	0.9	0.8	1	27.1	1.40	250.60	89.50	10.07	11.65	3	3	0	0	10.1	82.3	67.1
MH-5752	MH-6457	557.84	557.71	89.5	217	0.6	646.684	1.28997	1.1727	1.8	1.61	1.94	51.7	2.37	423.69	89.50	10.97	14.28	3	3	0	0	11.0	185.7	73.1
MH-3370	MH-2375	596.1	596.83	89.5	150	0.91	122.051	0.55935	0.5085	1	0.8	1.25	43	1.50	268.50	89.50	10.07	11.65	3	3	0	0	10.1	89.0	67.1
MH-206	MH-1288	597.97	597.45	85.3	271	1.22	162.389	2.7599	2.509	1.1	1.36	0.81	49.8	1.72	293.60	85.30	11.14	16.06	3	3	0	0	11.1	111.8	74.3
MH-6459	MH-6369	586.27	585.37	89.6	150	0.39	100	0.0308	0.028	1	1.11	0.8	15	1.50	268.80	89.60	10.08	11.66	3	3	0	0	10.1	89.1	67.2
MH-5784	MH-4710	587.62	586.72	90.2	150	0.52	100	0.07689	0.0699	1.3	1.83	0.8	15.6	1.80	324.72	90.20	10.15	11.74	4	4	0	0	10.1	110.0	67.7
MH-6454	MH-773	594.12	594.21	90.5	271	0.6	993.052	2.74054	2.4914	2.1	1.81	2.35	62	2.72	492.50	90.50	11.82	17.04	4	4	0	0	11.8	224.6	78.8
MH-2664	MH-6463	573.62	573.53	90.5	800	1.07	1000	34.37588	31.2508	2.6	2.58	2.67	70.6	3.75	678.75	90.50	19.01	64.47	4	0	4	0	19.0	437.8	126.7
MH-4491	MH-4090	556.61	556.31	90.7	1100	2.24	300	103.52991	94.1181	2.2	3.5	0.91	51.9	3.65	662.11	90.70	23.13	109.28	4	0	4	0	23.1	480.7	154.2
MH-5281	MH-2836	577.78	577.69	90.7	150	0.14	1000	0.01595	0.0145	1.5	1.48	1.45	15.3	2.00	362.80	90.70	10.20	11.81	4	4	0	0	10.2	124.2	68.0
MH-6465	MH-1519	580.93	580.02	90.7	150	0.38	100	0.0297	0.027	1.2	1.65	0.8	22.1	1.70	308.38	90.70	10.20	11.81	4	4	0	0	10.2	103.8	68.0
MH-3018	MH-6466	564.87	565.81	98.4	150	0.48	104.559	0.06204	0.0564	0.9	1.05	0.8	29	1.40	275.52	98.40	11.07	12.81	4	4	0	0	11.1	90.5	73.8
MH-4945	MH-1815	572.51	571.6	90.9	150	1.04	100	0.9207	0.837	1.1	1.48	0.8	56.4	1.60	290.88	90.90	10.23	11.83	4	4	0	0	10.2	97.2	68.2
MH-4792	MH-6467	598.88	598.97	90.9	150	0.15	1000	0.01936	0.0176	1.1	1.35	0.8	36.4	1.60	290.88	90.90	10.23	11.83	4	4	0	0	10.2	97.2	68.2
MH-6468	MH-2159	577	576.94	67.6	150	0.13	1000	0.01232	0.0112	1	0.8	1.18	13.2	1.50	202.80	67.60	7.61	8.80	3	3	0	0	7.6	67.3	50.7
MH-5535	MH-6358	598.71	597.79	91.9	217	1.24	100	1.45288	1.3208	1.2	1.58	0.8	42.1	1.77	324.77	91.90	11.26	14.66	4	4	0	0	11.3	118.0	75.1
MH-6439	MH-6415	601.9	601.48	92.1	150	0.66	215.287	0.46948	0.4268	0.9	1.01	0.8	48.3	1.40	257.88	92.10	10.36	11.99	4	4	0	0	10.4	84.7	69.1
MH-5082	MH-5267	599.67	599.1	57.3	175	1.06	100	0.77781	0.7071	1.1	1.41	0.8	40.6	1.63	186.23	57.30	6.66	8.04	2	2	0	0	6.7	64.1	44.4
MH-5185	MH-6472	561.48	560.71	92.4	217	1.41	120.31	3.16107	2.8737	0.8	0.8	0.8	66	1.37	252.62	92.40	11.32	14.74	4	4	0	0	11.3	88.5	75.5
MH-6474	MH-6372	603.85	604.5	92.8	150	0.8	143.841	0.55968	0.5088	1.2	0.8	1.69	45.1	1.70	315.52	92.80	10.44	12.08	4	4	0	0	10.4	106.2	69.6
MH-6099	MH-6450	592.14	591.37	92.9	175	1.07	120.791	1.0384	0.944	1.5	1.8	1.24	53.8	2.03	376.25	92.90	10.80	13.03	4	4	0	0	10.8	160.6	72.0
MH-719	MH-6432	593.35	592.69	94.2	150	0.6	143.894	0.20163	0.1833	1.7	2.18	1.14	29.8	2.20	414.48	94.20	10.60	12.26	4	4	0	0	10.6	171.4	70.7
MH-6480	MH-6481	575.94	575.07	94.2	150	0.77	107.638	0.33187	0.3017	0.8	0.8	0.8	41.1	1.30	244.92	94.20	10.60	12.26	4	4	0	0	10.6	79.6	70.7
MH-684	MH-6482	609.15	609.95	94.2	150	0.6	117.889	0.15752	0.1432	1.2	1.47	0.9	29.5	1.70	320.28	94.20	10.60	12.26	4	4	0	0	10.6	107.8	70.7
MH-6076	MH-1814	567.03	566.57	94.8	150	0.6	206.625	0.32032	0.2912	4.9	3.9	5.88	35.2	5.40	1023.84	94.80	10.67	12.34	4	0	0	4	10.7	456.9	71.1
MH-5719	MH-843	603.63	602.68	95.1	150	0.63	100	0.14938	0.1358	1	1.29	0.8	21.8	1.50	285.30	95.10	10.70	12.38	4	4	0	0	10.7	94.6	71.3
MH-6263	MH-6137	563.93	563.02	95	150	0.6	104.418	0.13486	0.1226	1	0.8	1.14	20.8	1.50	285.00	95.00	10.69	12.37	4	4	0	0	10.7	94.5	71.3
MH-6486	MH-355	607.2	606.4	98.2	150	0.6	123.927	0.16808	0.1528	2.2	0.8	3.62	32.2	2.70	530.28	98.20	11.05	12.78	4	4	0	0	11.0	215.5	73.7
MH-390	MH-6487	599.81	600.76	95.4	150	0.59	100	0.12386	0.1126	1.1	0.8	1.31	21.9	1.60	305.28	95.40	10.73	12.42	4	4	0	0	10.7	102.1	71.6
MH-16	MH-1419	590.52	590.18	86.6	150	0.6	254.812	0.42086	0.3826	1.4	1.48	1.41	43.9	1.90	329.08	86.60	9.74	11.27	3	3	0	0	9.7	112.1	65.0
MH-3939	MH-4384	591.22	590.27	95.6	400	1.55	100	4.87685	4.4335	0.9	1.08	0.8	35.6	1.65	315.48	95.60	14.34	26.35	4	4	0	0	14.3	131.4	95.6
MH-5459	MH-6278	570.47	569.51	95.8	150	1.2	100	1.2738	1.158	1.6	2.47	0.8	65.9	2.10	402.36	95.80	10.78	12.47	4	4	0	0	10.8	167.2	71.9
MH-4858	MH-4313	579.91	578.95	95.8	600	2.29	100	22.22319	20.2029	0.9	1.07	0.8	45.6	1.85	354.46	95.80	17.24	44.32	4	4	0	0	17.2	168.4	115.0
MH-124	MH-70	598	598.96	95.3	150	0.6	100	0.1287	0.117	1.1	0.8	1.36	22	1.60	304.96	95.30	10.72	12.40	4	4	0	0	10.7	102.0	71.5
MH-5606	MH-1747	593.45	593.35	96.1	150	0.24	1000	0.08723	0.0793	1.8	1.22	2.32	29.4	2.30	442.06	96.10	10.81	12.51	4	4	0	0	10.8	182.1	72.1

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-6493	MH-5320	594.75	594.66	96.4	450	0.73	1000	7.52455	6.8405	2.9	3.2	2.65	69.2	3.70	713.36	96.40	15.18	30.51	4	0	4	0	15.2	372.9	101.2
MH-5923	MH-5709	592.83	593.8	96.8	400	1.49	100	3.37876	3.0716	0.8	0.8	0.83	28.8	1.55	300.08	96.80	14.52	26.68	4	4	0	0	14.5	123.4	96.8
MH-6494	MH-6495	602.06	601.09	97	175	1.23	100	1.3453	1.223	1.5	2.27	0.8	54.4	2.03	392.85	97.00	11.28	13.61	4	4	0	0	11.3	167.7	75.2
MH-755	MH-6496	594.38	593.41	96.9	150	0.99	100	0.75922	0.6902	2.1	3.5	0.8	50.7	2.60	503.88	96.90	10.90	12.61	4	4	0	0	10.9	205.4	72.7
MH-2108	MH-1952	575.62	574.63	98.3	271	1.44	100	2.6235	2.385	1.9	3	0.8	42.5	2.52	495.63	98.30	12.84	18.51	4	4	0	0	12.8	226.8	85.6
MH-5474	MH-6500	561.72	560.74	97.8	150	0.72	100	0.24277	0.2207	1.1	1.33	0.8	40.9	1.60	312.96	97.80	11.00	12.73	4	4	0	0	11.0	104.6	73.4
MH-6501	MH-6494	604.51	603.53	97.8	175	1.19	100	1.20582	1.0962	1.5	2.28	0.8	51.3	2.03	396.09	97.80	11.37	13.72	4	4	0	0	11.4	169.1	75.8
MH-4677	MH-6502	586.37	587.35	97.8	150	0.47	100	0.05797	0.0527	1.4	0.8	1.97	13.6	1.90	371.64	97.80	11.00	12.73	4	4	0	0	11.0	126.6	73.4
MH-5634	MH-6504	578.44	578.34	98.1	150	0.19	1000	0.04323	0.0393	1.4	1.5	1.35	18.2	1.90	372.78	98.10	11.04	12.77	4	4	0	0	11.0	127.0	73.6
MH-5648	MH-6505	577.54	577.63	98.3	150	0.17	1000	0.03091	0.0281	1.5	2.22	0.8	32.4	2.00	393.20	98.30	11.06	12.79	4	4	0	0	11.1	134.7	73.7
MH-743	MH-6506	603.41	604.35	97.9	150	0.6	104.073	0.13442	0.1222	1	1.27	0.8	23.5	1.50	293.70	97.90	11.01	12.74	4	4	0	0	11.0	97.4	73.4
MH-6508	MH-5051	561.98	562.41	98.5	217	0.87	229.693	1.21561	1.1051	1	1.05	0.91	44.6	1.57	308.70	98.50	12.07	15.71	4	4	0	0	12.1	110.4	80.5
MH-6208	MH-6510	604.6	605.55	98.4	150	0.79	103.599	0.34903	0.3173	1.5	2.26	0.8	50.6	2.00	393.60	98.40	11.07	12.81	4	4	0	0	11.1	134.8	73.8
MH-6511	MH-3818	580.74	579.75	99	150	0.45	100	0.04785	0.0435	1	1.19	0.8	30.1	1.50	297.00	99.00	11.14	12.89	4	4	0	0	11.1	98.5	74.3
MH-6512	MH-151	594.94	593.94	99.9	150	0.47	100	0.05522	0.0502	1.2	1.61	0.8	25.6	1.70	339.66	99.90	11.24	13.00	4	4	0	0	11.2	114.4	74.9
MH-6482	MH-6515	609.95	610.05	99.3	150	0.22	1000	0.07106	0.0646	0.8	0.9	0.8	24.4	1.30	258.18	99.30	11.17	12.93	4	4	0	0	11.2	83.9	74.5
MH-5832	MH-759	602.46	602.03	52.8	150	0.77	120.695	0.38643	0.3513	0.8	0.8	0.8	42.4	1.30	137.28	52.80	5.94	6.87	2	2	0	0	5.9	44.6	39.6
MH-6495	MH-6440	599.58	598.59	99.8	175	1.25	100	1.46289	1.3299	1.6	2.31	0.8	57	2.13	424.15	99.80	11.60	14.00	4	4	0	0	11.6	180.3	77.3
MH-730	MH-5159	600.79	601.29	50.4	150	0.6	100.143	0.1287	0.117	1.5	2.17	0.8	24.7	2.00	201.60	50.40	5.67	6.56	2	2	0	0	5.7	69.0	37.8
MH-6410	MH-6516	595.13	595.23	100.4	150	0.23	1000	0.08239	0.0749	2.5	4.18	0.8	24.7	3.00	602.40	100.40	11.30	13.07	4	4	0	0	11.3	243.0	75.3
MH-3350	MH-6518	604.9	605.48	100.6	150	0.6	175.123	0.2585	0.235	2	2.22	1.77	33.3	2.50	503.00	100.60	11.32	13.09	4	4	0	0	11.3	205.7	75.5
MH-6520	MH-6299	604.46	603.44	101.5	150	0.77	100	0.30217	0.2747	0.9	1.03	0.8	40.7	1.40	284.20	101.50	11.42	13.21	4	4	0	0	11.4	93.4	76.1
MH-6523	MH-6524	599.29	598.26	103.1	150	0.92	100	0.58564	0.5324	1.4	2.09	0.8	52.2	1.90	391.78	103.10	11.60	13.42	4	4	0	0	11.6	133.5	77.3
MH-6255	MH-6010	576.3	575.66	103.1	150	0.6	160.22	0.22913	0.2083	3.7	3.06	4.43	28.6	4.20	866.04	103.10	11.60	13.42	4	0	4	0	11.6	404.1	77.3
MH-6453	MH-5245	574.22	573.6	104.6	150	0.6	167.73	0.24178	0.2198	1.2	0.8	1.56	43.4	1.70	355.64	104.60	11.77	13.61	4	4	0	0	11.8	119.8	78.5
MH-6481	MH-5550	575.07	574.68	104.7	150	0.6	271.579	0.46178	0.4198	1.3	0.8	1.77	45.6	1.80	376.92	104.70	11.78	13.63	4	4	0	0	11.8	127.7	78.5
MH-3743	MH-6528	560.61	560.51	104.7	1100	1.38	1000	101.77695	92.5245	3.6	3.39	3.84	70.2	5.05	1057.47	104.70	26.70	126.15	4	0	0	4	26.7	866.9	178.0
MH-5729	MH-6449	577.82	577.03	105.2	400	1.51	133.94	6.47867	5.8897	0.8	0.8	0.8	42.8	1.55	326.12	105.20	15.78	28.99	4	4	0	0	15.8	134.1	105.2
MH-2588	MH-73	599.1	598.05	105.3	150	0.66	100	0.17886	0.1626	1.1	1.38	0.8	26.2	1.60	336.96	105.30	11.85	13.71	4	4	0	0	11.8	112.7	79.0
MH-2431	MH-6533	576.05	576.72	105.6	150	0.22	156.581	0.00748	0.0068	0.8	0.8	0.8	5.3	1.30	274.56	105.60	11.88	13.75	4	4	0	0	11.9	89.2	79.2
MH-6535	MH-5305	593.98	592.92	106.3	150	0.49	100	0.06446	0.0586	1.1	1.46	0.8	14.3	1.60	340.16	106.30	11.96	13.84	4	4	0	0	12.0	113.7	79.7
MH-6415	MH-798	601.45	601.23	105.8	175	0.6	487.922	0.84612	0.7692	1.2	0.8	1.63	53.3	1.73	365.01	105.80	12.30	14.84	4	4	0	0	12.3	126.6	82.0
MH-6261	MH-2097	560.23	559.57	106.9	150	0.78	162.678	0.60698	0.5518	0.9	0.95	0.8	50.9	1.40	299.32	106.90	12.03	13.91	4	4	0	0	12.0	98.3	80.2
MH-6518	MH-6537	605.48	606.44	107.4	150	0.6	111.359	0.14729	0.1339	1.3	1.77	0.8	27.3	1.80	386.64	107.40	12.08	13.98	4	4	0	0	12.1	131.0	80.6
MH-6538	MH-6474	602.23	603.39	115.4	150	0.96	100	0.67925	0.6175	1	0.8	1.27	47.7	1.50	346.20	115.40	12.98	15.02	4	4	0	0	13.0	114.8	86.6
MH-81	MH-4697	594	595.09	109	150	0.48	100	0.0616	0.056	1.2	0.8	1.7	18.6	1.70	370.60	109.00	12.26	14.19	4	4	0	0	12.3	124.8	81.8
MH-6540	MH-443	591.8	591.69	108.2	150	0.23	1000	0.08448	0.0768	1.5	0.8	2.11	29.9	2.00	432.80	108.20	12.17	14.08	4	4	0	0	12.2	148.2	81.2
MH-6541	MH-407	587.86	586.79	107.3	150	0.41	100	0.03531	0.0321	1.5	2.12	0.8	27.6	2.00	429.20	107.30	12.07	13.97	4	4	0	0	12.1	147.0	80.5
MH-6542	MH-5916	609.51	610.64	113.3	150	0.94	100	0.6237	0.567	1.5	0.8	2.23	45.6	2.00	453.20	113.30	12.75	14.75	4	4	0	0	12.7	155.2	85.0
MH-6524	MH-5536	598.26	597.29	109.6	150	0.96	112.869	0.80828	0.7348	0.8	0.8	0.8	61.4	1.30	284.96	109.60	12.33	14.27	4	4	0	0	12.3	92.6	82.2
MH-6544	MH-5970	577.2	577.09	110	150	0.17	1000	0.02596	0.0236	1.5	0.8	2.24	18.6	2.00	440.00	110.00	12.38	14.32	4	4	0	0	12.4	150.7	82.5
MH-6194	MH-6546	592.77	592.88	110.5	150	0.23	1000	0.08217	0.0747	1.5	2.12	0.8	24.5	2.00	442.00	110.50	12.43	14.38	4	4	0	0	12.4	151.4	82.9
MH-6547	MH-6548	603.72	604.49	110.9	175	1.18	143.476	2.17613	1.9783	0.8	0.84	0.8	76.3	1.33	293.89	110.90	12.89	15.56	4	4	0	0	12.9	98.3	85.9
MH-1170	MH-6493	594.86	594.75	111.3	450	0.73	1000	7.3381	6.671	3.4	3.58	3.2	65.5	4.20	934.92	111.30	17.53	35.22	4	0	4	0	17.5	555.8	116.9
MH-5426	MH-5645	596.6	596.71	111.2	150	0.22	1000	0.07062	0.0642	1.4	2.01	0.8	28.3	1.90	422.56	111.20	12.51	14.47	4	4	0	0	12.5	144.0	83.4
MH-6472	MH-6550	560.65	560.26	111.5	271	1.05	282.583	3.48007	3.1637	0.8	0.8	0.8	61.2	1.42	316.88	111.50	14.57	21.00	4	4	0	0	14.6	117.0	97.1
MH-963	MH-6137	563.74	563.29	45	217	1.22	100	1.37115	1.2465	2	3.11	0.8	40.9	2.57	231.03	45.00	5.51	7.18	2	2	0	0	5.5	100.7	36.8
MH-6552	MH-940	597.73	596.61	112.2	150	0.8	100	0.35376	0.3216	1.5	2.14	0.8	33.8	2.00	448.80	112.20	12.62	14.60	4	4	0	0	12.6	153.7	84.2
MH-1815	MH-5397	565.61	565.5	112.4	1100	1.34	1000	83.52069	75.9279	5.5	5.84	5.21	64.3	6.95	1562.36	112.40	28.66	135.43	4	0	0	4	28.7	1394.9	191.1
MH-6553	MH-3236	602.59	601.47	112.6	150	0.51	100	0.07447	0.0677	1.3	1.75	0.8	15.4	1.80	405.36	112.60	12.67	14.66	4	4	0	0	12.7	137.4	84.5
MH-2664	MH-6554	576.05	576.82	112.6	150	0.26	145.927	0.01254	0.0114	0.8	0.8	0.8	6.7	1.30	292.76	112.60	12.67	14.66	4	4	0	0	12.7	95.1	84.5
MH-6555	MH-2740	603.3	602.18	112.7	150	0.42	100	0.0407	0.037	1.2	1.6	0.8	11.4	1.70	383.18	112.70	12.68	14.67	4	4	0	0	12.7	129.0	84.5
MH-902	MH-5691	583.6	583.47	113	271	0.6	882.794	2.06459	1.8769	2.1	2.85	1.28	60.7	2.72	614.95	113.00	14.76	21.28	4	4	0	0	14.8	280.4	98.4
MH-5919	MH-773	594.43	594.26	84.4	217	0.6	506.008	0.88429	0.8039	1.9	1.36	2.35	56	2.47	416.43	84.40	10.34	13.46	3	3	0	0	10.3	182.0	69.0
MH-6041	MH-6557	588.67	589.82	114.6	150	0.62	100	0.14465	0.1315	0.8	0.8	0.87	28	1.30	297.96	114.60	12.89	14.92	4	4	0	0	12.9	96.8	86.0
MH-6558	MH-5311	578.01	577.9	115.2	150	0.18	1000	0.03454	0.0314	2.3	0.8	3.84	29.1	2.80	645.12	115.20	12.96	14.99	4	4	0	0	13.0	261.5	86.4
MH-4384	MH-6038	589.34	588.16	117.8	400	1.56	100	5.07177	4.6107	1.3	1.73	0.8	36.3	2.05	482.98	117.80	17.67	32.47	4	4	0	0	17.7	244.4	117.8
MH-688	MH-11	597.22	598.14	111	150	0.51	120.998	0.09526	0.0866	0.8	0.8	0.8	17.8	1.30	288.60	111.00	12.49	14.45	4	4	0	0	12.5	93.8	83.3
MH-5434	MH-5534	600.25	599.09	116.3	150	1.12	100	1.27468	1.1588	1.2	1.66	0.8	68	1.70	395.42	116.30	13.08	15.14	4	4	0	0	13.1	133.1	87.2
MH-6563	MH-783	597.98	597.73	116.7	175	0.6	470.441	0.79431	0.7221	0.9	0.8	1.07	51	1.43	332.60	116.70	13.57	16.37	4	4	0	0	13.6	112.5	90.4
MH-6388	MH-5414	591.55	590.37	117.9	150	0.77	100	0.30954	0.2814	1.1	1.47	0.8	31.5	1.60	377.28	117.90	13.26	15.35	4	4	0	0	13.3	126.1	88.4
MH-6222	MH-5544	598.41	599.09	118.2	150	0.41	171.978	0.0682	0.062	1.3	0.95	1.7	18	1.80	425.52	118.20	13.30	15.39	4	4	0	0	13.3	144.2	88.7
MH-6550	MH-6564	560.26	559.82	118.6	271	1.11	270.144	4.11543	3.7413	0.8	0.8	0.8	67.3	1.42	337.06	118.60	15.50	22.33	4	4	0	0	15.5	124.5	103.3
MH-6548	MH-6566	604.49	605.68	118.8	175	1.33	100	1.87396	1.7036	1.1	0.8	1.45	74.3	1.63	386.10	118.80	13.81	16.67	4	4	0	0	13.8	132.9	92.1
MH-319	MH-5701	582.66	582.35	119.1	175	0.6	385.606	0.5874	0.534	2.1	0.84	3.4	46.1	2.63	625.28	119.10	13.85	16.71	4	4	0	0	13.8	261.3	92.3

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-6392	MH-1057	598.68	598.31	70.9	150	0.37	192.643	0.05445	0.0495	0.8	0.8	0.8	18.9	1.30	184.34	70.90	7.98	9.23	3	3	0	0	8.0	59.9	53.2
MH-1001	MH-783	595.87	596.48	61.8	175	1.28	100	1.60622	1.4602	1.6	0.8	2.32	60	2.13	262.65	61.80	7.18	8.67	3	3	0	0	7.2	111.6	47.9
MH-6571	MH-6552	600.03	599.07	120.9	150	0.65	125.526	0.22484	0.2044	0.8	0.8	0.8	27.5	1.30	314.34	120.90	13.60	15.74	5	5	0	0	13.6	102.1	90.7
MH-636	MH-881	599.18	597.93	125.1	175	1.14	100	1.02333	0.9303	1.6	2.43	0.8	46.9	2.13	531.68	125.10	14.54	17.55	5	5	0	0	14.5	226.0	97.0
MH-5043	MH-6573	599.98	601.21	123	150	0.75	100	0.27929	0.2539	1.4	0.8	2.03	35	1.90	467.40	123.00	13.84	16.01	5	5	0	0	13.8	159.3	92.3
MH-6378	MH-6575	599.01	600.25	123.7	150	1	100	0.80696	0.7336	1.1	0.8	1.45	52.4	1.60	395.84	123.70	13.92	16.10	5	5	0	0	13.9	132.3	92.8
MH-6500	MH-6517	560.74	560.4	122.3	150	0.6	357.322	0.52547	0.4777	2.2	0.8	3.54	48.4	2.70	660.42	122.30	13.76	15.92	5	5	0	0	13.8	268.4	91.7
MH-4248	MH-5104	564.03	563.85	123.5	217	0.6	666.231	1.36048	1.2368	1.3	0.8	1.76	53.7	1.87	461.15	123.50	15.13	19.70	5	5	0	0	15.1	168.7	100.9
MH-6208	MH-512	604.57	603.35	122.3	175	1.31	100	1.77716	1.6156	1.5	2.26	0.8	63.5	2.03	495.32	122.30	14.22	17.16	5	5	0	0	14.2	211.5	94.8
MH-6578	MH-1384	585.72	585.59	125.1	150	0.19	1000	0.03916	0.0356	1.1	0.8	1.35	19.5	1.60	400.32	125.10	14.07	16.28	5	5	0	0	14.1	133.8	93.8
MH-6579	MH-688	596.05	596.56	67.3	150	0.67	132.68	0.26631	0.2421	1.1	0.8	1.46	34.2	1.60	215.36	67.30	7.57	8.76	3	3	0	0	7.6	72.0	50.5
MH-6580	MH-4467	584.63	585.89	126	217	1.28	100	1.60677	1.4607	1.4	0.8	1.97	52.1	1.97	495.68	126.00	15.44	20.10	5	5	0	0	15.4	182.4	102.9
MH-5369	MH-6581	579.36	579.77	41.2	150	0.51	100	0.07821	0.0711	0.9	0.8	0.95	17.9	1.40	115.36	41.20	4.64	5.36	2	2	0	0	4.6	37.9	30.9
MH-6582	MH-3606	581.01	580.21	127.3	150	0.34	158.426	0.03212	0.0292	0.8	0.8	0.8	10.7	1.30	330.98	127.30	14.32	16.57	5	5	0	0	14.3	107.5	95.5
MH-6583	MH-1116	578.62	578.49	127.4	150	0.18	1000	0.03256	0.0296	2.5	0.8	4.12	35.3	3.00	764.40	127.40	14.33	16.58	5	5	0	0	14.3	308.3	95.6
MH-6108	MH-355	609.23	608.67	130.1	150	0.6	235.868	0.37752	0.3432	1.2	1.05	1.35	39	1.70	442.34	130.10	14.64	16.93	5	5	0	0	14.6	148.9	97.6
MH-839	MH-6585	585.53	585.66	129.3	150	0.19	1000	0.04026	0.0366	1.3	1.71	0.8	25.8	1.80	465.48	129.30	14.55	16.83	5	5	0	0	14.5	157.7	97.0
MH-6587	MH-4002	586.07	584.76	130.5	150	0.66	100	0.18293	0.1663	1.7	2.54	0.8	28.7	2.20	574.20	130.50	14.68	16.99	5	5	0	0	14.7	237.5	97.9
MH-5042	MH-1974	600.28	598.98	129.7	150	0.38	100	0.02717	0.0247	1.1	1.42	0.8	10.7	1.60	415.04	129.70	14.59	16.88	5	5	0	0	14.6	138.8	97.3
MH-6588	MH-5089	594.94	593.64	130.6	150	0.61	100	0.13299	0.1209	1.3	1.88	0.8	20.6	1.80	470.16	130.60	14.69	17.00	5	5	0	0	14.7	159.3	98.0
MH-5893	MH-5543	597.1	595.78	131.5	217	1.16	100	1.13201	1.0291	1.1	1.33	0.8	36.9	1.67	438.42	131.50	16.12	20.98	5	5	0	0	16.1	158.1	107.4
MH-825	MH-6591	598.28	599.6	132	150	0.55	100	0.09944	0.0904	1.4	0.8	2.09	17.7	1.90	501.60	132.00	14.85	17.18	5	5	0	0	14.9	170.9	99.0
MH-6592	MH-5754	581.53	580.55	97.4	150	0.4	100	0.03311	0.0301	1.7	2.56	0.8	14	2.20	428.56	97.40	10.96	12.68	4	4	0	0	11.0	177.3	73.1
MH-4215	MH-6297	578.28	576.95	133.2	150	0.9	100	0.5324	0.484	1.7	2.52	0.8	41.9	2.20	586.08	133.20	14.99	17.34	5	5	0	0	15.0	242.4	99.9
MH-6036	MH-6254	563.84	562.49	134.4	150	0.7	100	0.21923	0.1993	1.4	1.93	0.8	35.8	1.90	510.72	134.40	15.12	17.49	5	5	0	0	15.1	174.0	100.8
MH-6595	MH-2788	599.64	598.29	134.5	150	0.4	100	0.03245	0.0295	1.8	2.81	0.8	10.2	2.30	618.70	134.50	15.13	17.51	5	5	0	0	15.1	254.9	100.9
MH-6152	MH-6596	569.16	567.81	134.7	150	0.91	100	0.5588	0.508	2.5	4.18	0.8	43	3.00	808.20	134.70	15.15	17.53	5	5	0	0	15.2	326.0	101.0
MH-6569	MH-6371	606.47	607.81	134.8	150	0.76	100	0.28446	0.2586	1.8	0.8	2.73	30.2	2.30	620.08	134.80	15.17	17.55	5	5	0	0	15.2	255.4	101.1
MH-5530	MH-5414	590.25	589.8	136	600	1.44	307.47	18.46537	16.7867	0.9	0.8	0.92	48.1	1.85	503.20	136.00	24.48	62.91	5	5	0	0	24.5	239.0	163.2
MH-3430	MH-4975	564.55	563.42	140	175	1.08	123.834	1.10517	1.0047	1.4	1.04	1.68	50.3	1.93	539.00	140.00	16.28	19.64	5	5	0	0	16.3	189.2	108.5
MH-6597	MH-4923	579.16	579.02	136.6	150	0.23	1000	0.077	0.07	2.4	0.8	4.03	37.1	2.90	792.28	136.60	15.37	17.78	5	5	0	0	15.4	320.3	102.5
MH-5165	MH-729	603.52	602.16	135.7	150	0.62	100	0.14894	0.1354	1	1.25	0.8	21.7	1.50	407.10	135.70	15.27	17.66	5	5	0	0	15.3	135.0	101.8
MH-729	MH-6119	600.4	599.93	128.7	150	0.6	273.034	0.46541	0.4231	2.7	2.56	2.84	44.7	3.20	823.68	128.70	14.48	16.75	5	5	0	0	14.5	330.7	96.5
MH-3155	MH-1968	577.01	575.6	140.7	600	2.3	100	22.83721	20.7611	0.9	1	0.8	46.3	1.85	520.59	140.70	25.33	65.09	5	5	0	0	25.3	247.3	168.8
MH-6599	MH-6319	568.52	567.14	138.1	150	0.68	100	0.19778	0.1798	1.1	1.34	0.8	25.1	1.60	441.92	138.10	15.54	17.98	5	5	0	0	15.5	147.7	103.6
MH-6600	MH-5459	572.8	571.9	138.5	150	0.6	155.003	0.22231	0.2021	0.9	0.8	1.04	28.1	1.40	387.80	138.50	15.58	18.03	5	5	0	0	15.6	127.4	103.9
MH-6602	MH-92	598.53	597.69	119.1	150	0.47	140.353	0.08514	0.0774	0.8	0.8	0.8	23.2	1.30	309.66	119.10	13.40	15.50	4	4	0	0	13.4	100.6	89.3
MH-6605	MH-4755	599.84	598.44	140.5	150	0.38	100	0.02706	0.0246	1.9	2.92	0.8	15.7	2.40	674.40	140.50	15.81	18.29	5	5	0	0	15.8	276.8	105.4
MH-2000	MH-4118	567.74	567.6	140.9	1000	1.3	1000	79.07251	71.8841	1.7	1.78	1.59	70.1	3.05	859.49	140.90	33.82	144.42	5	5	0	0	33.8	585.4	225.4
MH-6042	MH-6501	606.26	605.98	142.4	175	0.6	523.443	0.96888	0.8808	2.3	3.86	0.8	58.7	2.83	804.56	142.40	16.55	19.98	5	5	0	0	16.6	334.5	110.4
MH-5397	MH-4618	565.5	565.34	153.4	1100	1.35	1000	86.61675	78.7425	4	5.21	2.79	60.2	5.45	1672.06	153.40	39.12	184.82	6	0	0	6	39.1	1374.5	260.8
MH-747	MH-6606	600.93	599.51	142.9	150	0.45	100	0.04906	0.0446	1.3	1.87	0.8	12.5	1.80	514.44	142.90	16.08	18.60	5	5	0	0	16.1	174.3	107.2
MH-6609	MH-6610	599.28	598.68	60	150	0.36	100	0.02343	0.0213	2.3	3.82	0.8	15.1	2.80	336.00	60.00	6.75	7.81	2	2	0	0	6.8	136.2	45.0
MH-798	MH-6611	602.09	603.54	145	150	0.53	100	0.08426	0.0766	1.2	0.8	1.5	16.3	1.70	493.00	145.00	16.31	18.87	5	5	0	0	16.3	166.0	108.8
MH-6617	MH-76	600.42	598.92	149.3	150	0.36	100	0.0231	0.021	1.9	3.09	0.8	13.4	2.40	716.64	149.30	16.80	19.43	5	5	0	0	16.8	294.1	112.0
MH-6618	MH-5246	573.69	572.54	150.4	150	0.46	131.395	0.07249	0.0659	1.2	0.8	1.53	38.8	1.70	511.36	150.40	16.92	19.58	6	6	0	0	16.9	172.2	112.8
MH-6566	MH-6542	606.32	607.84	151.2	175	1.25	100	1.44474	1.3134	1.6	0.8	2.45	56.6	2.13	642.60	151.20	17.58	21.21	6	6	0	0	17.6	273.2	117.2
MH-1514	MH-3938	593.13	591.76	136.6	400	1.52	100	4.60966	4.1906	1	1.22	0.8	34.6	1.75	478.10	136.60	20.49	37.65	5	5	0	0	20.5	201.4	136.6
MH-6619	MH-4658	600.71	599.18	152.6	150	0.38	100	0.0286	0.026	1.9	3.08	0.8	11.3	2.40	732.48	152.60	17.17	19.86	6	6	0	0	17.2	300.6	114.5
MH-304	MH-6620	600.62	599.09	152.8	150	0.36	100	0.02288	0.0208	1.4	2	0.8	8.6	1.90	580.64	152.80	17.19	19.89	6	6	0	0	17.2	197.9	114.6
MH-2030	MH-6	580.74	579.44	149.7	700	2.28	115.246	27.42916	24.9356	1.4	2.01	0.86	55.1	2.45	733.53	149.70	29.19	86.77	5	5	0	0	29.2	434.9	194.6
MH-6623	MH-3456	564.02	562.45	156.7	150	0.64	100	0.16247	0.1477	1.1	1.42	0.8	22.7	1.60	501.44	156.70	17.63	20.40	6	6	0	0	17.6	167.6	117.5
MH-346	MH-5946	594.62	594.46	164.8	450	0.76	1000	9.37365	8.5215	2.7	2.64	2.67	61.1	3.50	1153.60	164.80	25.96	52.15	6	6	0	0	26.0	602.9	173.0
MH-6626	MH-6627	586.89	588.59	169.9	150	0.66	100	0.17875	0.1625	1	0.8	1.25	45.1	1.50	509.70	169.90	19.11	22.11	6	6	0	0	19.1	169.0	127.4
MH-4352	MH-5478	583.69	582.06	162.5	150	0.77	100	0.3014	0.274	2.2	3.51	0.8	31.1	2.70	877.50	162.50	18.28	21.15	6	6	0	0	18.3	356.7	121.9
MH-2124	MH-2291	580.37	579.93	44	271	1.25	100	1.5994	1.454	2	3.1	0.8	47.5	2.62	230.65	44.00	5.75	8.29	2	2	0	0	5.7	105.4	38.3
MH-6463	MH-5117	573.43	573.26	175	900	1.21	1000	61.83947	56.2177	2.8	2.67	2.92	73.1	4.05	1417.50	175.00	39.38	150.65	6	0	6	0	39.4	1070.0	262.5
MH-881	MH-6377	597.84	598.76	169.3	271	1.31	184.211	4.49196	4.0836	0.8	0.8	0.89	61.9	1.42	481.15	169.30	22.12	31.88	6	6	0	0	22.1	177.7	147.5
MH-5446	MH-6638	600.61	599.92	68.9	150	0.59	100	0.12551	0.1141	1.5	2.21	0.8	23.8	2.00	275.60	68.90	7.75	8.97	3	3	0	0	7.8	94.4	51.7
MH-5677	MH-5104	565.41	563.66	205.6	400	1.39	117.813	3.21607	2.9237	1.5	1.21	1.76	42.7	2.25	925.20	205.60	30.84	56.66	7	7	0	0	30.8	467.6	205.6
MH-6639	MH-509	595.66	593.91	175.3	150	0.35	100	0.02134	0.0194	1.5	2.27	0.8	19.3	2.00	701.20	175.30	19.72	22.82	6	6	0	0	19.7	240.1	131.5
MH-6644	MH-4566	595.63	593.87	176.2	150	0.4	100	0.03223	0.0293	1.6	2.34	0.8	25.1	2.10	740.04	176.20	19.82	22.93	6	6	0	0	19.8	307.4	132.2
MH-6645	MH-6391	595.5	597.27	177	150	0.64	100	0.16291	0.1481	1	0.8	1.2	22.7	1.50	531.00	177.00	19.91	23.04	6	6	0	0	19.9	176.1	132.8
MH-6596	MH-1814	566.96	565.72	194.2	1000	2.69	155.702	82.1095	74.645	3.3	0.8	5.88	58	4.65	1806.06	194.20	46.61	199.06	7	0	7	0	46.6	1420.6	310.7
MH-6646	MH-1523	596.89	595.11	177.6	150	0.22	100	0.00451	0.0041	1.2	1.6	0.8	3.9	1.70	603.84	177.60	19.98	23.12	6	6	0	0	20.0	203.3	133.2

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-6649	MH-466	595.62	593.83	178.4	150	0.5	100	0.07018	0.0638	1.7	2.51	0.8	26.7	2.20	784.96	178.40	20.07	23.22	6	6	0	0	20.1	324.7	133.8
MH-5170	MH-5692	582.74	582.56	178.7	600	0.9	1000	17.31829	15.7439	1	0.8	1.12	58.6	1.95	696.93	178.70	32.17	82.67	6	6	0	0	32.2	335.5	214.4
MH-6504	MH-6009	578.34	577.1	179.9	150	0.46	145.427	0.08118	0.0738	2.4	1.35	3.51	16.8	2.90	1043.42	179.90	20.24	23.42	6	6	0	0	20.2	421.8	134.9
MH-6651	MH-902	586.76	585.77	182.6	150	0.62	185.014	0.31559	0.2869	0.8	0.8	0.8	34.4	1.30	474.76	182.60	20.54	23.77	7	7	0	0	20.5	154.3	137.0
MH-6426	MH-6416	559.85	557.97	188.6	150	1.06	100	1.00551	0.9141	1.7	2.57	0.8	70.5	2.20	829.84	188.60	21.22	24.55	7	7	0	0	21.2	343.2	141.5
MH-4257	MH-2943	583.93	583.75	189.2	700	0.98	1000	23.7831	21.621	2.3	2.59	2	54.7	3.35	1267.64	189.20	36.89	109.67	7	7	0	0	36.9	771.1	246.0
MH-6652	MH-4466	588.57	587.04	190.2	150	0.6	124.678	0.16962	0.1542	0.9	0.8	0.96	36.8	1.40	532.56	190.20	21.40	24.76	7	7	0	0	21.4	175.0	142.7
MH-2943	MH-2030	583.75	581.95	200.4	700	2.3	111.795	27.05769	24.5979	1.4	2	0.8	41.6	2.45	981.96	200.40	39.08	116.16	7	7	0	0	39.1	582.2	260.5
MH-4975	MH-6370	562.49	561.98	189.3	1100	2.02	367.907	93.41387	84.9217	1.3	1.68	0.92	56.3	2.75	1041.15	189.30	48.27	228.08	7	7	0	0	48.3	713.7	321.8
MH-6580	MH-5691	584.63	583.52	194.3	217	1.08	175.476	1.87286	1.7026	1	0.8	1.28	51.9	1.57	608.94	194.30	23.81	30.99	7	7	0	0	23.8	217.8	158.7
MH-4711	MH-6045	586.29	588.24	196.1	150	0.99	100.601	0.59972	0.5452	1.3	0.8	1.76	43.6	1.80	705.96	196.10	22.06	25.52	7	7	0	0	22.1	239.2	147.1
MH-6653	MH-6421	587.62	585.64	197.8	150	1.01	100	0.84029	0.7639	1.5	2.15	0.8	53.6	2.00	791.20	197.80	22.25	25.75	7	7	0	0	22.3	271.0	148.4
MH-6654	MH-6425	564.23	562.24	198.8	150	0.54	100	0.09108	0.0828	1.7	2.64	0.8	33.2	2.20	874.72	198.80	22.37	25.88	7	7	0	0	22.4	361.8	149.1
MH-4744	MH-636	600.55	599.18	225.5	175	0.87	164.62	0.72787	0.6617	1.6	0.8	2.43	48.1	2.13	958.38	225.50	26.21	31.64	8	8	0	0	26.2	407.4	174.8
MH-111	MH-54	596.17	593.79	238.3	150	0.74	100	0.26807	0.2437	2.1	3.48	0.8	29.3	2.60	1239.16	238.30	26.81	31.02	8	8	0	0	26.8	505.2	178.7
MH-5871	MH-235	581.22	580.05	117.1	150	1.15	100	1.06403	0.9673	1.5	2.12	0.8	59.6	2.00	468.40	117.10	13.17	15.24	4	4	0	0	13.2	160.4	87.8
MH-768	MH-6645	590.9	593.38	247.8	150	0.8	100	0.34826	0.3166	1.9	0.8	2.92	33.6	2.40	1189.44	247.80	27.88	32.25	9	9	0	0	27.9	488.1	185.9
MH-5484	MH-5170	585.49	582.94	255.1	400	2.13	100	16.94814	15.4074	0.9	0.95	0.8	69.8	1.65	841.83	255.10	38.27	70.31	9	9	0	0	38.3	350.6	255.1
MH-6662	MH-4466	589.88	587.2	267.3	150	1.06	100	1.02542	0.9322	2.2	3.51	0.8	59.9	2.70	1443.42	267.30	30.07	34.79	9	9	0	0	30.1	586.7	200.5
MH-5515	MH-6596	567.56	566.96	377.6	1000	1.58	632.142	81.03843	73.6713	1.1	1.44	0.8	59	2.45	1850.24	377.60	90.62	387.04	13	13	0	0	90.6	1206.4	604.2
MH-5203	MH-3743	561.37	560.61	333.8	1100	1.92	438.583	99.308	90.28	2.4	1.4	3.39	63.7	3.85	2570.26	333.80	85.12	402.18	12	0	12	0	85.1	1882.7	567.5
MH-6671	MH-6403	572	568.04	396.9	150	0.96	100	0.68024	0.6184	2.8	4.79	0.8	55.1	3.30	2619.54	396.90	44.65	51.66	14	14	0	0	44.7	1049.7	297.7
MH-5692	MH-5009	582.56	580.51	420.4	600	1.74	204.911	21.50148	19.5468	1	1.12	0.85	51.7	1.95	1639.56	420.40	75.67	194.48	15	15	0	0	75.7	789.3	504.5
MH-6673	MH-2241	569.28	569.7	41.6	150	0.6	100.255	0.12903	0.1173	2.3	2.8	1.78	23.2	2.80	232.96	41.60	4.68	5.41	2	2	0	0	4.7	94.4	31.2
MH-6487	MH-6675	601.28	602.25	96.8	150	0.49	100	0.06358	0.0578	0.8	0.8	0.8	14.2	1.30	251.68	96.80	10.89	12.60	4	4	0	0	10.9	81.8	72.6
MH-5447	MH-6119	601.64	601.22	54.3	150	0.6	128.861	0.17402	0.1582	1.4	1.18	1.56	24.2	1.90	206.34	54.30	6.11	7.07	2	2	0	0	6.1	70.3	40.7
MH-569	MH-4907	601.99	602.02	32.5	150	0.24	1000	0.09152	0.0832	0.8	0.86	0.83	28.3	1.30	84.50	32.50	3.66	4.23	2	2	0	0	3.7	27.5	24.4
MH-4907	MH-5330	602.02	602.05	27.7	150	0.2	1000	0.05016	0.0456	0.8	0.83	0.8	24.3	1.30	72.02	27.70	3.12	3.61	1	1	0	0	3.1	23.4	20.8
MH-205	MH-6676	598.59	598.86	38.7	217	1.05	141.639	1.26137	1.1467	1.6	0.8	2.33	46.5	2.17	167.73	38.70	4.74	6.17	2	2	0	0	4.7	74.0	31.6
MH-6676	MH-897	600.39	600.87	48.1	217	1.13	100	1.03719	0.9429	1.2	0.8	1.54	35.3	1.77	169.99	48.10	5.89	7.67	2	2	0	0	5.9	61.8	39.3
MH-6638	MH-6676	599.92	598.93	131.9	150	0.6	132.983	0.18205	0.1655	1.6	0.8	2.33	24.9	2.10	553.98	131.90	14.84	17.17	5	5	0	0	14.8	230.1	98.9
MH-6677	MH-6526	602.39	602.73	55.9	150	0.43	166.494	0.07535	0.0685	0.8	0.8	0.8	20.2	1.30	145.34	55.90	6.29	7.28	2	2	0	0	6.3	47.2	41.9
MH-6677	MH-6439	602.39	601.9	55.5	150	0.6	114.026	0.15147	0.1377	0.9	0.8	1.01	33.9	1.40	155.40	55.50	6.24	7.22	2	2	0	0	6.2	51.1	41.6
MH-6549	MH-6678	602.6	601.85	75.7	150	0.29	100	0.01221	0.0111	1.1	1.41	0.8	6.3	1.60	242.24	75.70	8.52	9.85	3	3	0	0	8.5	81.0	56.8
MH-6678	MH-2398	601.56	601.2	35.7	150	0.68	100	0.19822	0.1802	0.9	1.09	0.8	25.1	1.40	99.96	35.70	4.02	4.65	2	2	0	0	4.0	32.8	26.8
MH-5072	MH-6678	602.02	601.85	17.1	150	0.65	100	0.17039	0.1549	0.8	0.82	0.8	23.3	1.30	44.46	17.10	1.92	2.23	1	1	0	0	1.9	14.4	12.8
MH-6610	MH-3441	598.68	598.41	91.9	150	0.35	338.271	0.08954	0.0814	0.9	0.8	1.08	23	1.40	257.32	91.90	10.34	11.96	4	4	0	0	10.3	84.5	68.9
MH-6579	MH-5543	596.05	595.68	76.1	150	0.62	202.86	0.34463	0.3133	0.9	0.8	0.97	36.5	1.40	213.08	76.10	8.56	9.91	3	3	0	0	8.6	70.0	57.1
MH-53	MH-1514	593.53	593.51	20.2	400	0.65	1000	4.48624	4.0784	0.8	0.81	0.83	44.3	1.55	62.62	20.20	3.03	5.57	1	1	0	0	3.0	25.7	20.2
MH-1975	MH-1666	598.88	598.73	15	150	0.44	100	0.04466	0.0406	0.8	0.84	0.8	11.9	1.30	39.00	15.00	1.69	1.95	1	1	0	0	1.7	12.7	11.3
MH-78	MH-3482	598.56	598.35	21.4	150	0.99	100	0.76274	0.6934	0.9	1.02	0.8	50.8	1.40	59.92	21.40	2.41	2.79	1	1	0	0	2.4	19.7	16.1
MH-6097	MH-6237	593.32	593.29	28.9	271	0.6	937.402	2.32364	2.1124	0.8	0.8	0.8	53.5	1.42	82.13	28.90	3.78	5.44	1	1	0	0	3.8	30.3	25.2
MH-6237	MH-6147	591.57	591.5	73.1	400	0.62	1000	3.81656	3.4696	2.2	2.39	1.98	50	2.95	431.29	73.10	10.97	20.15	3	3	0	0	11.0	217.4	73.1
MH-755	MH-6267	597.08	597.74	65.8	150	0.89	100	0.51612	0.4692	1.3	0.8	1.86	41.2	1.80	236.88	65.80	7.40	8.56	3	3	0	0	7.4	80.3	49.4
MH-756	MH-755	594.76	594.38	42.9	150	0.65	112.317	0.19745	0.1795	3.3	3.05	3.5	41	3.80	326.04	42.90	4.83	5.58	2	0	2	0	4.8	129.6	32.2
MH-6198	MH-6311	596.23	596.19	38.7	400	0.63	1000	3.08066	2.8006	0.8	0.8	0.83	49.2	1.55	119.97	38.70	5.81	10.67	2	2	0	0	5.8	49.3	38.7
MH-6099	MH-6680	593.09	593.55	91.7	150	0.6	201.552	0.30591	0.2781	0.8	0.87	0.8	34.2	1.30	238.42	91.70	10.32	11.94	4	4	0	0	10.3	77.5	68.8
MH-6680	MH-6681	593.55	593.7	102.6	150	0.26	684.784	0.07964	0.0724	0.8	0.8	0.8	28.9	1.30	266.76	102.60	11.54	13.35	4	4	0	0	11.5	86.7	77.0
MH-5625	MH-5586	592.66	592.43	23.2	150	0.59	100	0.12551	0.1141	0.8	0.86	0.8	20	1.30	60.32	23.20	2.61	3.02	1	1	0	0	2.6	19.6	17.4
MH-5767	MH-6292	591.06	590.55	53.2	150	0.74	103.118	0.27324	0.2484	0.8	0.8	0.8	29.7	1.30	138.32	53.20	5.99	6.92	2	2	0	0	6.0	44.9	39.9
MH-6568	MH-6547	603.51	603.67	16.9	217	1.48	100	2.87991	2.6181	0.8	0.8	0.84	61	1.37	46.20	16.90	2.07	2.70	1	1	0	0	2.1	16.2	13.8
MH-6547	MH-6569	603.78	604.89	111.1	150	0.93	100	0.5885	0.535	1.6	0.8	2.37	44.2	2.10	466.62	111.10	12.50	14.46	4	4	0	0	12.5	193.9	83.3
MH-843	MH-6538	602.64	602.23	40.4	150	0.77	100	0.30921	0.2811	0.8	0.84	0.8	31.5	1.30	105.04	40.40	4.55	5.26	2	2	0	0	4.5	34.1	30.3
MH-6538	MH-5433	602.17	601.52	65.2	150	1.08	100	1.07085	0.9735	0.8	0.86	0.8	61.4	1.30	169.52	65.20	7.34	8.49	3	3	0	0	7.3	55.1	48.9
MH-5807	MH-6188	607.72	608.32	59.2	150	0.84	100	0.41569	0.3779	1	0.8	1.29	36.8	1.50	177.60	59.20	6.66	7.71	2	2	0	0	6.7	58.9	44.4
MH-6188	MH-684	608.81	609.15	55	150	0.66	160.708	0.32098	0.2918	1.1	0.8	1.47	34	1.60	176.00	55.00	6.19	7.16	2	2	0	0	6.2	58.8	41.3
MH-3349	MH-6373	604.81	604.64	39.5	150	0.6	236.024	0.37796	0.3436	2.8	2.7	2.85	43.2	3.30	260.70	39.50	4.44	5.14	2	2	0	0	4.4	104.5	29.6
MH-5399	MH-6331	595.31	595.23	50.7	217	0.6	678.017	1.40712	1.2792	2.4	2.15	2.68	54.9	2.97	300.85	50.70	6.21	8.09	2	2	0	0	6.2	130.0	41.4
MH-6331	MH-881	595.18	595.05	99.6	271	0.6	760.164	1.62041	1.4731	3.1	2.68	3.59	44.8	3.72	741.22	99.60	13.01	18.75	4	0	4	0	13.0	333.9	86.8
MH-5381	MH-5399	595.5	595.37	29.5	150	0.6	229.349	0.36366	0.3306	2	1.8	2.15	42.9	2.50	147.50	29.50	3.32	3.84	1	1	0	0	3.3	60.3	22.1
MH-6134	MH-5806	606.71	606.88	28.2	150	0.74	166.977	0.52283	0.4753	0.8	0.8	0.8	50.1	1.30	73.32	28.20	3.17	3.67	1	1	0	0	3.2	23.8	21.2
MH-6276	MH-5789	611.45	612.07	62.2	150	0.5	100	0.07117	0.0647	1.3	0.8	1.85	15	1.80	223.92	62.20	7.00	8.10	3	3	0	0	7.0	75.9	46.7
MH-6479	MH-6682	591.02	590.14	87.6	150	0.55	100	0.09757	0.0887	1.4	2.08	0.8	17.6	1.90	332.88	87.60	9.86	11.40	3	3	0	0	9.9	113.4	65.7
MH-6682	MH-385	588.9	588.13	77.2	150	0.72	100	0.23749	0.2159	1.4	2.05	0.8	34.1	1.90	293.36	77.20	8.69	10.05	3	3	0	0	8.7	100.0	57.9
MH-4996	MH-836	591	590.73	26.9	150	0.39	100	0.03113	0.0283	0.9	1.03	0.8	18.7	1.40	75.32	26.90	3.03	3.50	1	1	0	0	3.0	24.7	20.2

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-4893	MH-818	585.93	585.89	41.2	150	0.2	1000	0.04895	0.0445	0.8	0.8	0.87	16.9	1.30	107.12	41.20	4.64	5.36	2	2	0	0	4.6	34.8	30.9
MH-989	MH-6307	586.01	586.25	24.3	150	0.82	100	0.38467	0.3497	1.1	0.8	1.39	40.5	1.60	77.76	24.30	2.73	3.16	1	1	0	0	2.7	26.0	18.2
MH-6307	MH-5892	586.84	586.95	25.1	150	0.6	213.263	0.32978	0.2998	0.8	0.8	0.8	35.8	1.30	65.26	25.10	2.82	3.27	1	1	0	0	2.8	21.2	18.8
MH-5892	MH-6270	586.95	587.21	25.5	150	0.77	100	0.30217	0.2747	1.1	0.8	1.42	35.1	1.60	81.60	25.50	2.87	3.32	1	1	0	0	2.9	27.3	19.1
MH-6270	MH-5878	587.8	587.97	25	150	0.6	154.68	0.22165	0.2015	0.8	0.83	0.8	28	1.30	65.00	25.00	2.81	3.25	1	1	0	0	2.8	21.1	18.8
MH-5998	MH-6626	587.43	586.89	53.9	150	1.01	100	0.82346	0.7486	1	1.21	0.8	60.8	1.50	161.70	53.90	6.06	7.02	2	2	0	0	6.1	53.6	40.4
MH-6626	MH-5824	586.89	586.69	23	150	1.1	111.99	1.03686	0.9426	0.9	0.8	0.92	65	1.40	64.40	23.00	2.59	2.99	1	1	0	0	2.6	21.2	17.3
MH-902	MH-6422	583.65	583.9	163.5	217	0.6	664.705	1.35366	1.2306	1.8	2.85	0.8	55.7	2.37	774.01	163.50	20.04	26.08	6	6	0	0	20.0	339.2	133.6
MH-5998	MH-323	587.85	588.33	76.1	150	0.8	158.754	0.64273	0.5843	1.4	0.8	1.96	49.3	1.90	289.18	76.10	8.56	9.91	3	3	0	0	8.6	98.5	57.1
MH-4104	MH-5998	587.82	587.59	24.5	150	0.6	106.866	0.14091	0.1281	0.9	0.8	1.06	21.3	1.40	68.60	24.50	2.76	3.19	1	1	0	0	2.8	22.5	18.4
MH-4926	MH-6211	589.37	589.43	8.2	150	0.6	150.118	0.21263	0.1933	0.8	0.82	0.8	29	1.30	21.32	8.20	0.92	1.07	1	1	0	0	0.9	6.9	6.2
MH-5020	MH-6683	590.96	590.69	52	217	0.99	193.201	1.53879	1.3989	0.8	0.8	0.89	47.2	1.37	142.17	52.00	6.37	8.29	2	2	0	0	6.4	49.8	42.5
MH-6683	MH-6684	590.64	590.54	81.9	271	0.6	797.673	1.74449	1.5859	0.9	0.89	0.94	45.7	1.52	249.14	81.90	10.70	15.42	3	3	0	0	10.7	93.1	71.3
MH-6684	MH-6685	589.35	589.27	74.4	271	0.6	859.906	1.97296	1.7936	2	2.13	1.96	58.7	2.62	390.00	74.40	9.72	14.01	3	3	0	0	9.7	178.2	64.8
MH-6685	MH-6342	589.27	589.24	24	271	0.6	874.017	2.02895	1.8445	1.9	1.96	1.8	59.4	2.52	121.01	24.00	3.14	4.52	1	1	0	0	3.1	55.4	20.9
MH-5939	MH-6684	589.69	589.47	32.7	150	0.6	148.131	0.209	0.19	1.9	1.77	2.13	27	2.40	156.96	32.70	3.68	4.26	2	2	0	0	3.7	64.4	24.5
MH-3408	MH-6683	590.83	590.76	9.2	150	0.6	140.307	0.19591	0.1781	0.9	0.82	0.89	26	1.40	25.76	9.20	1.04	1.20	1	1	0	0	1.0	8.5	6.9
MH-3532	MH-3945	586.04	585.9	25.2	150	0.6	177.703	0.26334	0.2394	2.4	2.31	2.53	41.9	2.90	146.16	25.20	2.84	3.28	1	1	0	0	2.8	59.1	18.9
MH-616	MH-3112	592.3	592.51	52	150	0.6	243.412	0.39512	0.3592	1.3	1.37	1.25	41	1.80	187.20	52.00	5.85	6.77	2	2	0	0	5.9	63.4	39.0
MH-3112	MH-6432	592.51	592.69	33	150	0.6	182.863	0.27368	0.2488	1.2	1.25	1.14	36.8	1.70	112.20	33.00	3.71	4.30	2	2	0	0	3.7	37.8	24.8
MH-5293	MH-5876	585.07	584.73	34.2	150	0.29	100	0.01155	0.0105	0.8	0.87	0.8	6.2	1.30	88.92	34.20	3.85	4.45	2	2	0	0	3.8	28.9	25.7
MH-5876	MH-4861	581.71	581.6	20	150	0.6	173.432	0.25542	0.2322	3.9	3.81	3.9	31.2	4.40	176.00	20.00	2.25	2.60	1	0	1	0	2.3	81.4	15.0
MH-5221	MH-5738	579.84	580.07	91.4	175	0.6	407.972	0.63833	0.5803	1.4	0.98	1.89	48.2	1.93	351.89	91.40	10.63	12.82	4	4	0	0	10.6	123.5	70.8
MH-343	MH-727	580.37	580.36	10.1	150	0.14	1000	0.01397	0.0127	1	0.91	1.03	11.7	1.50	30.30	10.10	1.14	1.31	1	1	0	0	1.1	10.0	7.6
MH-4313	MH-3508	578.83	578.56	26.7	600	2.29	100	22.39743	20.3613	0.9	0.92	0.8	53	1.85	98.79	26.70	4.81	12.35	1	1	0	0	4.8	46.9	32.0
MH-3508	MH-5129	578.56	578.44	34.5	600	1.55	290.807	22.67287	20.6117	0.8	0.8	0.8	53.2	1.75	120.75	34.50	6.21	15.96	2	2	0	0	6.2	56.5	41.4
MH-195	MH-1034	579.82	579.76	10.6	150	0.37	189.343	0.05687	0.0517	0.8	0.81	0.8	14.5	1.30	27.56	10.60	1.19	1.38	1	1	0	0	1.2	9.0	8.0
MH-2974	MH-3580	578.46	578.35	10.4	150	0.55	100	0.09746	0.0886	0.9	1	0.8	17.6	1.40	29.12	10.40	1.17	1.35	1	1	0	0	1.2	9.6	7.8
MH-3580	MH-2975	578.24	578.11	12.9	150	0.6	104.278	0.13464	0.1224	0.9	0.92	0.86	20.8	1.40	36.12	12.90	1.45	1.68	1	1	0	0	1.5	11.9	9.7
MH-6641	MH-6025	582.2	581.03	177.5	150	0.6	152.414	0.21703	0.1973	2.5	0.8	4.12	34.9	3.00	1065.00	177.50	19.97	23.10	6	6	0	0	20.0	429.5	133.1
MH-6025	MH-184	580.97	580.94	15.7	217	0.6	644.625	1.28282	1.1662	4.2	4.12	4.21	60	4.77	149.68	15.70	1.92	2.50	1	0	1	0	1.9	72.8	12.8
MH-374	MH-4076	582.42	582.4	20.2	150	0.22	1000	0.07227	0.0657	1.4	1.17	1.56	26.7	1.90	76.76	20.20	2.27	2.63	1	1	0	0	2.3	26.2	15.2
MH-4076	MH-3838	582.4	582.37	20.9	150	0.24	1000	0.09548	0.0868	1.8	1.56	1.96	26.6	2.30	96.14	20.90	2.35	2.72	1	1	0	0	2.4	39.6	15.7
MH-3838	MH-611	582.37	581.88	61	150	0.6	123.848	0.16797	0.1527	2.7	1.96	3.54	27.4	3.20	390.40	61.00	6.86	7.94	3	3	0	0	6.9	156.8	45.8
MH-5192	MH-4769	579.45	579.44	14.1	150	0.17	1000	0.02684	0.0244	1.1	1.05	1.07	12.5	1.60	45.12	14.10	1.59	1.84	1	1	0	0	1.6	15.1	10.6
MH-3331	MH-5785	578.7	578.42	28.2	217	1.32	100	1.84602	1.6782	1.2	1.56	0.8	60	1.77	99.66	28.20	3.46	4.50	1	1	0	0	3.5	36.2	23.0
MH-6581	MH-6687	579.77	580	48	150	0.33	207.142	0.03938	0.0358	0.9	0.95	0.8	14.7	1.40	134.40	48.00	5.40	6.25	2	2	0	0	5.4	44.2	36.0
MH-2455	MH-6688	576.61	576.53	80.4	800	1.06	1000	32.51919	29.5629	3.6	3.59	3.55	59.6	4.75	763.80	80.40	16.88	57.28	3	0	3	0	16.9	549.7	112.6
MH-6688	MH-6009	576.53	576.45	76.5	800	1.06	1000	32.56473	29.6043	3.5	3.55	3.51	57.6	4.65	711.45	76.50	16.07	54.50	3	0	3	0	16.1	512.4	107.1
MH-6234	MH-6689	573.92	573.82	100.9	800	1.07	1000	33.43505	30.3955	4.2	4.62	3.78	63.8	5.35	1079.63	100.90	21.19	71.88	4	0	0	4	21.2	774.7	141.3
MH-6689	MH-2499	573.82	573.67	151.1	800	1.07	1000	33.47619	30.4329	3.2	3.78	2.53	66	4.35	1314.57	151.10	31.73	107.64	6	0	6	0	31.7	948.5	211.5
MH-1445	MH-5748	576.05	575.99	25.4	175	0.6	433.798	0.69894	0.6354	1.6	1.67	1.43	50.9	2.13	107.95	25.40	2.95	3.56	1	1	0	0	3.0	45.9	19.7
MH-6197	MH-2415	585.3	585.5	50.5	150	0.6	248.511	0.40722	0.3702	1.5	1.19	1.71	41	2.00	202.00	50.50	5.68	6.57	2	2	0	0	5.7	69.2	37.9
MH-4312	MH-6691	573.17	573.15	21.8	900	1.21	1000	62.74972	57.0452	1.1	1.19	0.99	58.1	2.35	102.46	21.80	4.91	18.77	1	1	0	0	4.9	64.6	32.7
MH-6691	MH-6692	572.46	572.1	110.4	900	1.97	300	62.83101	57.1191	1.3	1.67	0.91	52.5	2.55	563.04	110.40	24.84	95.04	4	4	0	0	24.8	360.4	165.6
MH-3605	MH-6161	579.04	578.98	8.9	150	0.6	167.173	0.2409	0.219	1.8	1.81	1.86	33	2.30	40.94	8.90	1.00	1.16	1	1	0	0	1.0	16.9	6.7
MH-6161	MH-3606	578.98	578.88	20.8	150	0.6	211.013	0.32483	0.2953	2	1.86	2.12	38.1	2.50	104.00	20.80	2.34	2.71	1	1	0	0	2.3	42.5	15.6
MH-3605	MH-6220	579.04	579.2	25.7	150	0.6	154.137	0.22055	0.2005	1.6	1.81	1.44	29.5	2.10	107.94	25.70	2.89	3.35	1	1	0	0	2.9	44.8	19.3
MH-6220	MH-6215	579.2	579.43	24.2	150	0.6	107.211	0.14135	0.1285	1.2	1.44	1.06	25.9	1.70	82.28	24.20	2.72	3.15	1	1	0	0	2.7	27.7	18.2
MH-6215	MH-2215	579.43	579.44	16.2	150	0.18	1000	0.0352	0.032	1	1.06	0.92	20.5	1.50	48.60	16.20	1.82	2.11	1	1	0	0	1.8	16.1	12.2
MH-186	MH-5418	576.59	576.49	16.1	150	0.6	174.506	0.2574	0.234	1.7	1.59	1.91	31.9	2.20	70.84	16.10	1.81	2.10	1	1	0	0	1.8	29.3	12.1
MH-5418	MH-165	576.49	576.41	15.4	150	0.6	189.013	0.28248	0.2568	2.1	1.91	2.2	33.2	2.60	80.08	15.40	1.73	2.00	1	1	0	0	1.7	32.6	11.6
MH-4477	MH-4653	582.75	582.65	9.8	150	0.5	100	0.0693	0.063	0.9	1.02	0.8	14.8	1.40	27.44	9.80	1.10	1.28	1	1	0	0	1.1	9.0	7.4
MH-4653	MH-3851	582.26	582.08	17.8	150	0.51	100	0.07568	0.0688	1	1.2	0.8	15.5	1.50	53.40	17.80	2.00	2.32	1	1	0	0	2.0	17.7	13.4
MH-1866	MH-6693	580.7	580.52	21.5	150	0.6	120.102	0.16115	0.1465	1.6	1.58	1.65	25.1	2.10	90.30	21.50	2.42	2.80	1	1	0	0	2.4	37.5	16.1
MH-6693	MH-2021	580.52	580.31	26.9	150	0.6	129.875	0.17633	0.1603	1.6	1.65	1.61	26.2	2.10	112.98	26.90	3.03	3.50	1	1	0	0	3.0	46.9	20.2
MH-5228	MH-4654	582.75	582.47	28.8	150	0.29	100	0.01232	0.0112	0.8	0.87	0.8	8.1	1.30	74.88	28.80	3.24	3.75	1	1	0	0	3.2	24.3	21.6
MH-5951	MH-197	584.43	584.11	32.9	150	0.32	100	0.01639	0.0149	0.8	0.89	0.8	18.6	1.30	85.54	32.90	3.70	4.28	2	2	0	0	3.7	27.8	24.7
MH-5781	MH-5020	591.21	591.03	23.1	150	0.65	129.924	0.23078	0.2098	0.8	0.82	0.8	28	1.30	60.06	23.10	2.60	3.01	1	1	0	0	2.6	19.5	17.3
MH-2856	MH-826	570.21	570.28	15.2	150	0.6	225.603	0.35618	0.3238	1.6	1.68	1.44	38.9	2.10	63.84	15.20	1.71	1.98	1	1	0	0	1.7	26.5	11.4
MH-6694	MH-1999	567.81	567.75	56.9	1000	1.29	1000	74.90681	68.0971	1.9	2.06	1.82	72.4	3.25	369.85	56.90	13.66	58.32	2	2	0	0	13.7	254.6	91.0
MH-5383	MH-6694	569.73	569.62	47.6	175	0.6	428.857	0.6864	0.624	1.1	1.2	1.08	46.2	1.63	154.70	47.60	5.53	6.68	2	2	0	0	5.5	53.3	36.9
MH-3252	MH-4692	571.83	571.78	17.6	150	0.37	352.793	0.11847	0.1077	0.8	0.8	0.8	22.9	1.30	45.76	17.60	1.98	2.29	1	1	0	0	2.0	14.9	13.2
MH-3874	MH-606	570.73	570.71	22.8	150	0.18	1000	0.033	0.03	1.2	1.04	1.26	23.9	1.70	77.52	22.80	2.57	2.97	1	1	0	0	2.6	26.1	17.1
MH-606	MH-157	571.14	571.3	21.5	150	0.6	135.423	0.18535	0.1685	0.9	0.83	1.05	25.1	1.40	60.20	21.50	2.42	2.80	1	1	0	0	2.4	19.8	16.1

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-5384	MH-468	569.82	569.93	44.3	175	0.6	410.91	0.6446	0.586	1.6	1.51	1.75	47.9	2.13	188.28	44.30	5.15	6.21	2	2	0	0	5.1	80.0	34.3
MH-468	MH-606	570.61	570.71	15.6	150	0.6	160.329	0.22935	0.2085	1.2	1.09	1.26	28.6	1.70	53.04	15.60	1.76	2.03	1	1	0	0	1.8	17.9	11.7
MH-5909	MH-5976	573.81	573.56	25.4	150	0.55	100	0.09603	0.0873	1.1	1.39	0.8	21.1	1.60	81.28	25.40	2.86	3.31	1	1	0	0	2.9	27.2	19.1
MH-5777	MH-5842	574.82	574.79	21.1	217	0.6	645.011	1.28337	1.1667	0.8	0.8	0.81	50.7	1.37	57.69	21.10	2.59	3.37	1	1	0	0	2.6	20.2	17.2
MH-5693	MH-6229	577.92	578.11	32.1	150	0.6	172.491	0.25377	0.2307	1.3	0.86	1.64	32.2	1.80	115.56	32.10	3.61	4.18	2	2	0	0	3.6	39.2	24.1
MH-6361	MH-5676	579.04	578.51	53.2	150	0.78	100	0.31317	0.2847	1.1	1.4	0.8	31.7	1.60	170.24	53.20	5.99	6.92	2	2	0	0	6.0	56.9	39.9
MH-4326	MH-5036	579.64	579.9	25.8	150	0.7	100	0.21505	0.1955	0.9	0.8	0.97	38.3	1.40	72.24	25.80	2.90	3.36	1	1	0	0	2.9	23.7	19.4
MH-5612	MH-5505	573.43	573.31	12.4	150	0.52	100	0.0792	0.072	0.8	0.83	0.8	15.9	1.30	32.24	12.40	1.40	1.61	1	1	0	0	1.4	10.5	9.3
MH-3501	MH-2095	569.07	568.96	18.1	150	0.6	168.487	0.24552	0.2232	2.3	2.41	2.14	30.7	2.80	101.36	18.10	2.04	2.36	1	1	0	0	2.0	41.1	13.6
MH-4965	MH-5779	568.46	568.21	43.5	150	0.65	173.524	0.34309	0.3119	1.4	1.57	1.17	37.6	1.90	165.30	43.50	4.89	5.66	2	2	0	0	4.9	56.3	32.6
MH-4618	MH-6695	565.34	565.32	22.4	1100	1.35	1000	87.10053	79.1823	2.7	2.79	2.53	52.4	4.15	185.92	22.40	5.71	26.99	1	0	1	0	5.7	151.2	38.1
MH-6695	MH-6696	565.32	564.75	173.7	1100	2.14	302.557	87.19722	79.2702	1.7	2.53	0.91	47.3	3.15	1094.31	173.70	44.29	209.28	6	6	0	0	44.3	773.0	295.3
MH-6696	MH-4974	563.85	563.55	91.4	1100	2.14	300	87.43702	79.4882	1.4	1.81	0.91	47.3	2.85	520.98	91.40	23.31	110.12	4	4	0	0	23.3	360.1	155.4
MH-4491	MH-6517	559.31	559.45	92.1	1100	1.65	652.955	103.03216	93.6656	2.2	0.8	3.54	58.1	3.65	672.33	92.10	23.49	110.97	4	0	4	0	23.5	488.1	156.6
MH-3608	MH-6673	571.47	571.28	19.3	150	0.37	100	0.02508	0.0228	0.9	0.96	0.8	9	1.40	54.04	19.30	2.17	2.51	1	1	0	0	2.2	17.8	14.5
MH-3501	MH-6673	569.07	569.28	25.2	150	0.6	120.933	0.16258	0.1478	2.6	2.41	2.8	27.5	3.10	156.24	25.20	2.84	3.28	1	1	0	0	2.8	62.9	18.9
MH-3018	MH-613	564.84	564.81	16.1	175	0.6	435.383	0.7029	0.639	1	1.05	0.93	47.7	1.53	49.11	16.10	1.87	2.26	1	1	0	0	1.9	16.8	12.5
MH-6262	MH-6718	565.42	565.75	100.5	150	0.38	307.275	0.10351	0.0941	0.8	0.83	0.8	24.7	1.30	261.30	100.50	11.31	13.08	4	4	0	0	11.3	84.9	75.4
MH-6319	MH-6262	565.67	565.42	90.2	150	0.6	368.208	0.79156	0.7196	1.5	2.27	0.83	64.6	2.00	360.80	90.20	10.15	11.74	4	4	0	0	10.1	123.6	67.7
MH-4091	MH-6746	555.99	555.94	41.5	1100	1.38	1000	105.78337	96.1667	1.2	0.91	1.45	72.2	2.65	219.95	41.50	10.58	50.00	2	2	0	0	10.6	149.4	70.6
MH-6746	MH-6747	555.94	555.9	46.2	1100	1.38	1000	105.89326	96.2666	1.7	1.45	2.04	70.6	3.15	291.06	46.20	11.78	55.66	2	2	0	0	11.8	205.6	78.5
MH-6747	MH-6748	555.9	555.87	32.8	1100	1.38	1000	106.07058	96.4278	2.2	2.04	2.46	68.6	3.65	239.44	32.80	8.36	39.52	2	0	2	0	8.4	173.8	55.8
MH-6748	MH-6457	555.87	555.83	37.9	1100	1.39	1000	106.23921	96.5811	2.7	2.46	2.94	65.9	4.15	314.57	37.90	9.66	45.66	2	0	2	0	9.7	255.8	64.4
MH-6457	MH-6749	555.73	555.69	39.7	1200	1.42	1000	107.72872	97.9352	3	2.94	3.04	67.1	4.55	361.27	39.70	10.72	55.60	2	0	2	0	10.7	305.3	71.5
MH-6749	MH-6750	555.69	555.64	48.2	1200	1.42	1000	107.94916	98.1356	3.1	3.04	3.17	67.3	4.65	448.26	48.20	13.01	67.50	2	0	2	0	13.0	379.3	86.8
MH-6750	MH-6751	555.64	555.57	65.6	1200	1.42	1000	108.1509	98.319	3.3	3.17	3.34	67.5	4.85	636.32	65.60	17.71	91.87	3	0	3	0	17.7	539.9	118.1
MH-6751	MH-6752	555.57	555.46	113.7	1200	1.43	1000	108.67329	98.7939	3.5	3.34	3.64	68	5.05	1148.37	113.70	30.70	159.23	4	0	0	4	30.7	976.6	204.7
MH-6752	MH-6559	555.46	555.36	96	1200	1.43	1000	109.36926	99.4266	3.8	3.64	3.9	68.7	5.35	1027.20	96.00	25.92	134.44	4	0	0	4	25.9	876.4	172.8
MH-6564	MH-6754	559.82	559.53	80.7	271	1.11	279.46	4.59778	4.1798	0.8	0.8	0.8	71.8	1.42	229.35	80.70	10.54	15.20	3	3	0	0	10.5	84.7	70.3
MH-6754	MH-6560	559.53	559.18	97	271	1.12	279.46	4.82768	4.3888	0.8	0.8	0.8	69.8	1.42	275.67	97.00	12.67	18.27	4	4	0	0	12.7	101.8	84.5
MH-351	MH-2732	594.45	594.36	17.8	150	0.6	193.548	0.29161	0.2651	2.7	2.52	2.82	33.2	3.20	113.92	17.80	2.00	2.32	1	1	0	0	2.0	45.7	13.4
MH-6508	MH-5185	561.98	561.48	50.7	217	1.22	100	1.36983	1.2453	0.9	1.05	0.8	58.5	1.47	148.75	50.70	6.21	8.09	2	2	0	0	6.2	52.7	41.4
MH-4948	MH-5801	559.2	558.66	54.3	217	1.12	101.336	1.01585	0.9235	0.9	1.05	0.8	35	1.47	159.32	54.30	6.65	8.66	2	2	0	0	6.7	56.4	44.4
MH-5267	MH-205	599.09	598.63	45.6	175	1.07	100	0.81037	0.7367	0.8	0.81	0.8	41.4	1.33	120.84	45.60	5.30	6.40	2	2	0	0	5.3	40.4	35.3
MH-6635	MH-6783	599.58	601.07	149	150	0.51	100	0.07403	0.0673	1.1	0.8	1.47	15.3	1.60	476.80	149.00	16.76	19.39	5	5	0	0	16.8	159.4	111.8
MH-6625	MH-6784	598.76	598.48	40.1	150	0.6	143.623	0.20119	0.1829	0.9	0.8	1.02	34.7	1.40	112.28	40.10	4.51	5.22	2	2	0	0	4.5	36.9	30.1
MH-6784	MH-1082	598.48	598.24	57.2	150	0.6	245.921	0.40128	0.3648	1.1	1.02	1.15	48.5	1.60	183.04	57.20	6.44	7.45	2	2	0	0	6.4	61.2	42.9
MH-6635	MH-6784	599.07	598.7	37.3	150	0.63	100	0.15312	0.1392	1.1	1.31	0.8	22	1.60	119.36	37.30	4.20	4.86	2	2	0	0	4.2	39.9	28.0
MH-6606	MH-1082	599.04	598.6	44.2	150	0.59	100	0.1199	0.109	1	1.27	0.8	19.5	1.50	132.60	44.20	4.97	5.75	2	2	0	0	5.0	44.0	33.2
MH-6620	MH-206	598.99	598.66	34	150	0.48	100	0.06193	0.0563	0.8	0.9	0.8	14	1.30	88.40	34.00	3.83	4.43	2	2	0	0	3.8	28.7	25.5
MH-4568	MH-4668	592.46	593.06	60.2	400	1.39	100	3.36127	3.0557	1.3	0.8	1.81	33.2	2.05	246.82	60.20	9.03	16.59	3	3	0	0	9.0	124.9	60.2
MH-6612	MH-6785	593.21	593.54	61.8	150	0.71	182.29	0.51095	0.4645	0.9	0.8	0.93	44.3	1.40	173.04	61.80	6.95	8.04	3	3	0	0	7.0	56.8	46.4
MH-7	MH-6785	593.59	593.54	12.8	150	0.6	275.227	0.47058	0.4278	1.2	1.4	0.93	46	1.70	43.52	12.80	1.44	1.67	1	1	0	0	1.4	14.7	9.6
MH-6612	MH-6787	592.32	592.05	26.5	150	0.93	100	0.60148	0.5468	1.2	1.69	0.8	44.7	1.70	90.10	26.50	2.98	3.45	1	1	0	0	3.0	30.3	19.9
MH-6787	MH-6788	592.02	591.72	30.3	150	0.96	100	0.66814	0.6074	0.8	0.83	0.8	47.3	1.30	78.78	30.30	3.41	3.94	2	2	0	0	3.4	25.6	22.7
MH-6788	MH-6789	591.47	591.3	27.4	400	1.23	164.34	4.12478	3.7498	0.8	0.8	0.8	34.6	1.55	84.94	27.40	4.11	7.55	1	1	0	0	4.1	34.9	27.4
MH-6398	MH-6790	589.75	589.95	19.6	400	1.48	100.499	4.18319	3.8029	0.8	0.81	0.8	37.3	1.55	60.76	19.60	2.94	5.40	1	1	0	0	2.9	25.0	19.6
MH-6790	MH-293	590.2	590.77	60.4	150	0.35	105.891	0.02365	0.0215	0.8	0.8	0.8	8.8	1.30	157.04	60.40	6.80	7.86	3	3	0	0	6.8	51.0	45.3
MH-6789	MH-6790	590.25	589.95	30	400	1.48	100	4.14689	3.7699	1.3	1.85	0.8	37	2.05	123.00	30.00	4.50	8.27	1	1	0	0	4.5	62.2	30.0
MH-49	MH-6192	595.55	595.36	18.6	150	0.32	100.238	0.01628	0.0148	0.8	0.8	0.8	9.6	1.30	48.36	18.60	2.09	2.42	1	1	0	0	2.1	15.7	14.0
MH-6788	MH-6791	591.47	592.18	90.1	400	1.29	125.713	3.41077	3.1007	0.8	0.8	0.8	35.1	1.55	279.31	90.10	13.52	24.83	4	4	0	0	13.5	114.8	90.1
MH-6791	MH-4568	592.18	592.46	34.3	400	1.28	125.713	3.38041	3.0731	0.8	0.8	0.8	33.3	1.55	106.33	34.30	5.15	9.45	2	2	0	0	5.1	43.7	34.3
MH-6398	MH-6252	589.75	589.51	24.3	400	1.49	100	4.28945	3.8995	0.8	0.81	0.8	37.8	1.55	75.33	24.30	3.65	6.70	1	1	0	0	3.6	31.0	24.3
MH-410	MH-463	589.97	590.09	11.4	150	0.55	100	0.09383	0.0853	0.8	0.8	0.82	17.3	1.30	29.64	11.40	1.28	1.48	1	1	0	0	1.3	9.6	8.6
MH-5873	MH-5122	588.98	588.84	40.9	400	1.08	278.657	5.09322	4.6302	0.9	0.85	0.92	41.4	1.65	134.97	40.90	6.14	11.27	2	2	0	0	6.1	56.2	40.9
MH-85	MH-1419	590.07	590.18	27.9	150	0.6	259.163	0.43076	0.3916	1.4	1.44	1.41	44.9	1.90	106.02	27.90	3.14	3.63	1	1	0	0	3.1	36.1	20.9
MH-2233	MH-2234	598.65	598.66	6.3	217	0.6	520.41	0.92004	0.8364	1	1.1	0.8	40.5	1.57	19.74	6.30	0.77	1.00	1	1	0	0	0.8	7.1	5.1
MH-6244	MH-4052	592.99	593.16	28.5	150	0.6	164.602	0.23694	0.2154	3.6	4.07	3.13	32.4	4.10	233.70	28.50	3.21	3.71	1	0	1	0	3.2	109.6	21.4
MH-1154	MH-6793	592.3	592.17	32.6	150	0.6	261.404	0.43604	0.3964	2.8	3.12	2.48	47.4	3.30	215.16	32.60	3.67	4.24	2	2	0	0	3.7	86.2	24.5
MH-6793	MH-6236	592.17	591.98	56.8	150	0.6	288.984	0.50545	0.4595	1.9	2.48	1.34	47.2	2.40	272.64	56.80	6.39	7.39	2	2	0	0	6.4	111.9	42.6
MH-6792	MH-6793	593.75	593.7	46.8	150	0.19	1000	0.04213	0.0383	0.9	0.8	0.94	15.6	1.40	131.04	46.80	5.27	6.09	2	2	0	0	5.3	43.0	35.1
MH-638	MH-6267	599.29	598.8	48.3	150	0.86	100	0.46189	0.4199	1	1.19	0.8	38.9	1.50	144.90	48.30	5.43	6.29	2	2	0	0	5.4	48.1	36.2
MH-6496	MH-6237	593.39	593.21	85.2	175	0.6	480.168	0.82302	0.7482	0.9	0.8	0.98	52.3	1.43	242.82	85.20	9.90	11.95	3	3	0	0	9.9	82.1	66.0
MH-113	MH-768	590.27	590.58	31.2	400	1.52	100	4.54201	4.1291	0.8	0.8	0.87	34.3	1.55	96.72	31.20	4.68	8.60	2	2	0	0	4.7	39.8	31.2
MH-6311	MH-6794	596.47	597.04	57	150	0.97	100	0.69828	0.6348	0.8	0.8	0.87	48.4	1.30	148.20	57.00	6.41	7.42	2	2	0	0	6.4	48.2	42.8

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-6794	MH-4811	597.11	597.27	15.5	150	0.96	100	0.67716	0.6156	0.8	0.8	0.82	47.7	1.30	40.30	15.50	1.74	2.02	1	1	0	0	1.7	13.1	11.6
MH-2184	MH-267	604.86	605.1	48	150	0.2	198.497	0.00803	0.0073	0.8	0.8	0.8	5.6	1.30	124.80	48.00	5.40	6.25	2	2	0	0	5.4	40.6	36.0
MH-5867	MH-5674	607.19	606.51	67.6	150	0.7	100	0.21758	0.1978	1.1	1.48	0.8	26.3	1.60	216.32	67.60	7.61	8.80	3	3	0	0	7.6	72.3	50.7
MH-6429	MH-6208	606.26	606.03	80.1	175	0.69	353.249	0.88583	0.8053	0.8	0.8	0.8	51.8	1.33	212.27	80.10	9.31	11.24	3	3	0	0	9.3	71.0	62.1
MH-6004	MH-6379	604.27	603.82	44.9	150	0.63	100	0.15686	0.1426	1	1.22	0.8	22.3	1.50	134.70	44.90	5.05	5.84	2	2	0	0	5.1	44.7	33.7
MH-5834	MH-6795	594.1	593.6	88.1	600	1.65	176.394	14.22729	12.9339	1.3	1.79	0.8	38.6	2.25	396.45	88.10	15.86	40.76	3	3	0	0	15.9	223.5	105.7
MH-6795	MH-6796	592.91	592.1	81.1	600	2.03	100	14.4573	13.143	1.1	1.49	0.8	36.4	2.05	332.51	81.10	14.60	37.52	3	3	0	0	14.6	186.3	97.3
MH-6796	MH-5529	591.92	590.94	98.5	600	2.04	100	14.61273	13.2843	0.9	0.98	0.8	36.6	1.85	364.45	98.50	17.73	45.57	4	4	0	0	17.7	173.1	118.2
MH-6797	MH-61	585.66	585.55	11.1	600	2.25	100	21.06412	19.1492	0.9	1.05	0.8	55.1	1.85	41.07	11.10	2.00	5.13	1	1	0	0	2.0	19.5	13.3
MH-4711	MH-6797	586.26	586.08	27.1	175	0.93	149.284	0.82632	0.7512	0.9	0.8	1.05	44	1.43	77.24	27.10	3.15	3.80	1	1	0	0	3.2	26.1	21.0
MH-6798	MH-6797	586.01	585.91	10.1	600	2.23	100	20.23318	18.3938	0.8	0.89	0.8	44.6	1.75	35.35	10.10	1.82	4.67	1	1	0	0	1.8	16.5	12.1
MH-6799	MH-6798	586.3	586.1	19.9	600	2.23	100	20.22878	18.3898	0.9	0.98	0.8	43.9	1.85	73.63	19.90	3.58	9.21	1	1	0	0	3.6	35.0	23.9
MH-6800	MH-6799	587.16	586.47	68.2	600	2.23	100	20.20084	18.3644	1.1	1.41	0.8	43.4	2.05	279.62	68.20	12.28	31.55	3	3	0	0	12.3	156.7	81.8
MH-5270	MH-6801	588.55	588.11	44.8	600	2.23	100	20.16762	18.3342	1	1.2	0.8	43.4	1.95	174.72	44.80	8.06	20.72	2	2	0	0	8.1	84.1	53.8
MH-6801	MH-6800	587.95	587.77	17.9	600	2.23	100	20.17697	18.3427	0.9	0.96	0.8	43.9	1.85	66.23	17.90	3.22	8.28	1	1	0	0	3.2	31.5	21.5
MH-62	MH-6802	584.87	584.81	55.9	700	0.97	1000	22.35849	20.3259	1.4	1.38	1.49	58.8	2.45	273.91	55.90	10.90	32.40	2	2	0	0	10.9	162.4	72.7
MH-6802	MH-6804	584.81	584.74	74.8	700	0.97	1000	22.45529	20.4139	1.6	1.49	1.64	56.5	2.65	396.44	74.80	14.59	43.36	3	3	0	0	14.6	236.8	97.2
MH-6804	MH-6805	584.74	584.7	38.5	700	0.97	1000	22.51271	20.4661	1.7	1.64	1.72	48.9	2.75	211.75	38.50	7.51	22.32	2	2	0	0	7.5	126.9	50.1
MH-6805	MH-4257	584.7	583.93	111.5	700	1.98	146.208	22.5467	20.497	2.2	1.72	2.59	52.5	3.25	724.75	111.50	21.74	64.63	4	4	0	0	21.7	439.9	145.0
MH-6528	MH-6806	560.51	560.47	34.4	1100	1.38	1000	101.93458	92.6678	3.7	3.84	3.46	67.9	5.15	354.32	34.40	8.77	41.45	2	0	0	2	8.8	290.7	58.5
MH-6806	MH-6517	560.47	560.4	78.1	1100	1.38	1000	102.31793	93.0163	3	3.46	2.6	59.8	4.45	695.09	78.10	19.92	94.10	3	0	3	0	19.9	567.0	132.8
MH-4648	MH-6806	564.34	564.08	25.3	150	0.74	100	0.26961	0.2451	1	1.18	0.8	29.4	1.50	75.90	25.30	2.85	3.29	1	1	0	0	2.8	25.2	19.0
MH-6100	MH-6807	584.08	583.52	119.2	150	0.84	214.519	0.96459	0.8769	0.8	0.8	0.83	66.2	1.30	309.92	119.20	13.41	15.52	4	4	0	0	13.4	100.7	89.4
MH-6807	MH-6039	583.52	583.17	35.7	150	1.17	100	1.14334	1.0394	0.8	0.83	0.8	62	1.30	92.82	35.70	4.02	4.65	2	2	0	0	4.0	30.2	26.8
MH-31	MH-6812	576.21	575.46	76.3	150	0.6	100.473	0.12958	0.1178	2.6	2.87	2.23	32.9	3.10	473.06	76.30	8.58	9.93	3	3	0	0	8.6	190.4	57.2
MH-6812	MH-6434	575.33	575.32	8.8	271	0.6	971.631	2.52681	2.2971	2.2	2.23	2.08	68.6	2.82	49.65	8.80	1.15	1.66	1	1	0	0	1.1	22.6	7.7
MH-6224	MH-6812	576.06	575.33	76	271	1.37	104.911	2.36874	2.1534	2.2	2.07	2.23	57.4	2.82	428.79	76.00	9.93	14.31	3	3	0	0	9.9	195.2	66.2
MH-1968	MH-6813	575.47	574.84	159.7	700	1.66	254.177	24.816	22.56	1.1	0.83	1.46	52	2.15	686.71	159.70	31.14	92.57	6	6	0	0	31.1	401.7	207.6
MH-6813	MH-6463	574.84	574.82	24.4	700	1.01	1000	27.40705	24.9155	1.5	1.46	1.48	53.2	2.55	124.44	24.40	4.76	14.14	1	1	0	0	4.8	74.1	31.7
MH-6434	MH-6813	575.32	575.27	51	271	0.6	975.032	2.55453	2.3223	1.8	2.08	1.46	58	2.42	246.94	51.00	6.66	9.60	2	2	0	0	6.7	113.2	44.4
MH-6692	MH-6815	571.39	571.05	102	900	1.98	300	62.99546	57.2686	1.3	1.62	0.91	52.6	2.55	520.20	102.00	22.95	87.81	4	4	0	0	23.0	332.9	153.0
MH-6815	MH-6138	570.79	570.66	39.1	900	1.98	300	63.09182	57.3562	1	1.18	0.91	52.6	2.25	175.95	39.10	8.80	33.66	2	2	0	0	8.8	110.0	58.7
MH-4821	MH-6816	568.02	567.93	90.2	1000	1.29	1000	74.11756	67.3796	2.8	2.98	2.58	72.3	4.15	748.66	90.20	21.65	92.46	4	0	4	0	21.6	587.7	144.3
MH-6816	MH-6817	567.93	567.89	42.8	1000	1.29	1000	74.14528	67.4048	2.5	2.58	2.4	72.4	3.85	329.56	42.80	10.27	43.87	2	0	2	0	10.3	232.6	68.5
MH-6817	MH-6694	567.89	567.81	79.5	1000	1.29	1000	74.16277	67.4207	2.2	2.4	2.06	72.4	3.55	564.45	79.50	19.08	81.49	3	0	3	0	19.1	393.9	127.2
MH-147	MH-6818	569.39	569.22	48.4	150	0.6	281.469	0.48587	0.4417	0.9	0.82	0.88	54	1.40	135.52	48.40	5.45	6.30	2	2	0	0	5.4	44.5	36.3
MH-6818	MH-4395	569.22	569.17	18.5	150	0.64	349.971	0.66429	0.6039	0.8	0.88	0.8	55.2	1.30	48.10	18.50	2.08	2.41	1	1	0	0	2.1	15.6	13.9
MH-2	MH-6377	599.1	598.9	19.5	217	1.52	100	3.19561	2.9051	0.9	1.08	0.8	64.6	1.47	57.21	19.50	2.39	3.11	1	1	0	0	2.4	20.3	15.9
MH-3230	MH-3231	575.96	575.78	18.1	150	0.58	100	0.11726	0.1066	0.9	0.9	0.8	19.3	1.40	50.68	18.10	2.04	2.36	1	1	0	0	2.0	16.6	13.6
MH-655	MH-656	576.36	576.42	24.1	150	0.6	359.574	0.528	0.48	2.8	2.84	2.77	48.6	3.30	159.06	24.10	2.71	3.14	1	1	0	0	2.7	63.7	18.1
MH-759	MH-760	602.03	601.88	41.3	150	0.6	269.842	0.45716	0.4156	0.9	0.8	0.94	44.2	1.40	115.64	41.30	4.65	5.38	2	2	0	0	4.6	38.0	31.0
MH-848	MH-849	577.6	577.59	0.7	150	0.3	100	0.01265	0.0115	0.8	0.81	0.8	8.9	1.30	1.82	0.70	0.08	0.09	1	1	0	0	0.1	0.6	0.5
MH-291	MH-292	581.21	581.14	9.7	150	0.6	132.272	0.18018	0.1638	1.1	1.09	1.16	24.7	1.60	31.04	9.70	1.09	1.26	1	1	0	0	1.1	10.4	7.3
MH-133	MH-3012	601.36	601.38	23.5	150	0.19	1000	0.03949	0.0359	1.2	1.22	1.13	21.6	1.70	79.90	23.50	2.64	3.06	1	1	0	0	2.6	26.9	17.6
MH-31	MH-32	578.28	578.28	0	150	0.16	(N/A)	0.02101	0.0191	0.8	0.8	0.8	9.6	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-51	MH-52	599.96	599.92	12.3	150	0.6	258.957	0.43021	0.3911	0.8	0.8	0.85	42.5	1.30	31.98	12.30	1.38	1.60	1	1	0	0	1.4	10.4	9.2
MH-715	MH-716	575.84	575.89	22.3	175	0.6	453.993	0.75009	0.6819	1	1.01	0.96	53.9	1.53	68.02	22.30	2.59	3.13	1	1	0	0	2.6	23.2	17.3
MH-775	MH-776	577.87	577.72	32.7	150	0.6	232.332	0.36993	0.3363	3.4	3.29	3.43	42.2	3.90	255.06	32.70	3.68	4.26	2	0	2	0	3.7	101.2	24.5
MH-2439	MH-1969	580.66	580.6	13.3	150	0.34	203.265	0.04631	0.0421	0.8	0.8	0.8	13.2	1.30	34.58	13.30	1.50	1.73	1	1	0	0	1.5	11.2	10.0
MH-147	MH-148	569.39	569.41	20.8	150	0.19	1000	0.0418	0.038	0.8	0.82	0.8	42	1.30	54.08	20.80	2.34	2.71	1	1	0	0	2.3	17.6	15.6
MH-161	MH-162	569.61	569.56	9.5	150	0.64	211.483	0.42097	0.3827	0.8	0.8	0.84	41.1	1.30	24.70	9.50	1.07	1.24	1	1	0	0	1.1	8.0	7.1
MH-203	MH-204	579.97	579.87	14	150	0.86	137.44	0.52756	0.4796	0.9	0.8	0.9	45.4	1.40	39.20	14.00	1.58	1.82	1	1	0	0	1.6	12.9	10.5
MH-207	MH-208	601.3	601.3	0	150	0.1	(N/A)	0.00517	0.0047	0.8	0.8	0.8	5	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-293	MH-294	590.77	590.77	0	150	0.2	(N/A)	0.0165	0.015	0.8	0.8	0.8	9.3	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-301	MH-302	570.37	570.17	26.1	150	0.6	130.281	0.17732	0.1612	1.6	1.51	1.71	24.5	2.10	109.62	26.10	2.94	3.40	1	1	0	0	2.9	45.5	19.6
MH-329	MH-330	600.23	600.3	8.5	150	0.6	136.231	0.18986	0.1726	0.8	0.86	0.8	25.5	1.30	22.10	8.50	0.96	1.11	1	1	0	0	1.0	7.2	6.4
MH-1093	MH-1094	577.22	577.22	4.1	150	0.26	1000	0.11902	0.1082	1.3	1.33	1.36	40.3	1.80	14.76	4.10	0.46	0.53	1	1	0	0	0.5	5.0	3.1
MH-389	MH-390	599.81	599.81	0.1	150	0.6	(N/A)	0.13442	0.1222	0.8	0.8	0.8	21.2	1.30	0.26	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-1150	MH-21	600.06	600.02	4	150	0.49	100	0.06402	0.0582	0.8	0.84	0.8	18.9	1.30	10.40	4.00	0.45	0.52	1	1	0	0	0.5	3.4	3.0
MH-437	MH-438	587.75	587.76	0.1	150	0.19	(N/A)	0.00748	0.0068	0.8	0.8	0.8	5.5	1.30	0.26	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-2292	MH-2126	585.22	585.1	12.3	150	0.6	103.857	0.13706	0.1246	1.8	1.78	1.75	28	2.30	56.58	12.30	1.38	1.60	1	1	0	0	1.4	23.3	9.2
MH-479	MH-480	600.13	600.13	0.1	150	0.15	(N/A)	0.01903	0.0173	1.4	1.43	1.43	18.2	1.90	0.38	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-93	MH-94	594.07	594.09	15.6	150	0.19	1000	0.0451	0.041	1.2	1.25	1.23	34	1.70	53.04	15.60	1.76	2.03	1	1	0	0	1.8	17.9	11.7
MH-509	MH-510	593.91	593.91	0.1	150	0.14	(N/A)	0.01617	0.0147	0.8	0.8	0.8	31.1	1.30	0.26	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-511	MH-512	602.08	602.1	24.6	271	0.6	943.645	2.3463	2.133	2	1.97	1.95	53.5	2.62	128.95	24.60	3.21	4.63	1	1	0	0	3.2	58.9	21.4

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-515	MH-516	569.05	569.01	15.5	175	0.6	443.29	0.72281	0.6571	2.7	2.67	2.7	47.9	3.23	99.98	15.50	1.80	2.17	1	1	0	0	1.8	41.2	12.0
MH-1862	MH-1863	586.21	586.2	9.8	150	0.22	1000	0.06666	0.0606	1.1	1.2	1.07	19.3	1.60	31.36	9.80	1.10	1.28	1	1	0	0	1.1	10.5	7.4
MH-3358	MH-3359	565.55	565.38	19.4	150	0.41	114.465	0.04147	0.0377	1	0.8	1.21	19	1.50	58.20	19.40	2.18	2.53	1	1	0	0	2.2	19.3	14.6
MH-555	MH-556	580.22	580.23	12	217	0.6	669.563	1.37335	1.2485	0.8	0.82	0.8	53.6	1.37	32.81	12.00	1.47	1.91	1	1	0	0	1.5	11.5	9.8
MH-567	MH-568	576.58	576.58	0.2	175	0.6	466.622	0.78408	0.7128	1.9	1.92	1.92	56.2	2.43	0.97	0.20	0.02	0.03	1	1	0	0	0.0	0.4	0.2
MH-1811	MH-1899	582.38	582.37	10.1	150	0.25	1000	0.10582	0.0962	1.6	1.52	1.68	32	2.10	42.42	10.10	1.14	1.31	1	1	0	0	1.1	17.6	7.6
MH-601	MH-602	594.85	594.84	0.2	150	0.6	100	0.13024	0.1184	0.8	0.8	0.8	20.8	1.30	0.52	0.20	0.02	0.03	1	1	0	0	0.0	0.2	0.2
MH-1	MH-2	589.07	589.09	14.2	400	0.65	1000	4.46809	4.0619	1.2	1.22	1.2	56.8	1.95	55.38	14.20	2.13	3.91	1	1	0	0	2.1	23.8	14.2
MH-615	MH-616	592.27	592.27	0.2	175	0.6	418.001	0.66055	0.6005	1.4	1.37	1.37	48.9	1.93	0.77	0.20	0.02	0.03	1	1	0	0	0.0	0.3	0.2
MH-1364	MH-1365	580.49	580.55	7.7	150	0.47	119.814	0.07326	0.0666	0.8	0.8	0.8	15.6	1.30	20.02	7.70	0.87	1.00	1	1	0	0	0.9	6.5	5.8
MH-9	MH-10	578.13	578.16	17.3	217	0.6	514.527	0.90497	0.8227	2.8	2.79	2.76	44.8	3.37	116.50	17.30	2.12	2.76	1	1	0	0	2.1	50.0	14.1
MH-11	MH-12	598.14	598.14	0	150	0.19	(N/A)	0.04213	0.0383	0.8	0.8	0.8	18.8	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-635	MH-636	600.84	600.84	0.2	150	0.63	100	0.15301	0.1391	0.8	0.8	0.8	22.6	1.30	0.52	0.20	0.02	0.03	1	1	0	0	0.0	0.2	0.2
MH-17	MH-18	587.05	587.05	0	400	1.36	(N/A)	5.24029	4.7639	0.8	0.8	0.8	59.8	1.55	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-21	MH-22	600.02	600.01	4.8	150	0.22	1000	0.06996	0.0636	0.8	0.8	0.8	19.3	1.30	12.48	4.80	0.54	0.62	1	1	0	0	0.5	4.1	3.6
MH-23	MH-24	580.04	580.04	0	150	0.25	(N/A)	0.10956	0.0996	0.9	0.86	0.86	21.5	1.40	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-27	MH-28	598.7	598.7	0	150	0.19	(N/A)	0.03795	0.0345	0.8	0.8	0.8	12.8	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-45	MH-46	597.02	597.02	0	400	0.62	(N/A)	2.8314	2.574	0.8	0.8	0.8	31.1	1.55	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-53	MH-54	593.53	593.54	7.6	400	0.63	1000	2.95966	2.6906	0.8	0.81	0.8	49.7	1.55	23.56	7.60	1.14	2.09	1	1	0	0	1.1	9.7	7.6
MH-1435	MH-3125	570.29	570.18	17.5	271	1.12	153.773	1.88848	1.7168	1.8	2.01	1.56	41	2.42	84.74	17.50	2.29	3.30	1	1	0	0	2.3	38.9	15.2
MH-61	MH-62	585.55	585.54	8.2	600	0.92	1000	21.06588	19.1508	0.8	0.8	0.81	55.1	1.75	28.70	8.20	1.48	3.79	1	1	0	0	1.5	13.4	9.8
MH-1967	MH-1968	575.91	575.9	10.2	271	0.6	855.355	1.95371	1.7761	0.8	0.82	0.83	46.5	1.42	28.99	10.20	1.33	1.92	1	1	0	0	1.3	10.7	8.9
MH-67	MH-68	578.26	578.26	0	150	0.17	(N/A)	0.02882	0.0262	1.3	1.26	1.26	16.4	1.80	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-69	MH-70	599.52	599.52	0	150	0.11	(N/A)	0.00671	0.0061	0.8	0.8	0.8	5.6	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-703	MH-704	578.88	578.83	6.4	150	0.6	124.689	0.16962	0.1542	1.6	1.53	1.58	25.3	2.10	26.88	6.40	0.72	0.83	1	1	0	0	0.7	11.2	4.8
MH-71	MH-72	602.73	602.73	0	150	0.23	(N/A)	0.08492	0.0772	0.8	0.8	0.8	18.9	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-79	MH-80	598.84	598.84	0	150	0.19	(N/A)	0.0418	0.038	0.8	0.8	0.8	13.4	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-81	MH-82	593.86	593.88	14.4	271	0.6	934.651	2.30461	2.0951	0.8	0.82	0.8	63.1	1.42	40.92	14.40	1.88	2.71	1	1	0	0	1.9	15.1	12.5
MH-7	MH-8	593.59	593.64	12.4	150	0.6	275.227	0.47058	0.4278	1.4	1.4	1.35	47.4	1.90	47.12	12.40	1.40	1.61	1	1	0	0	1.4	16.1	9.3
MH-111	MH-112	598.85	598.85	0	150	0.24	(N/A)	0.09141	0.0831	0.8	0.8	0.8	19.6	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-113	MH-114	589.73	589.52	24.7	400	1.5	117.563	5.36602	4.8782	1.4	1.34	1.55	42.3	2.15	106.21	24.70	3.71	6.81	1	1	0	0	3.7	53.7	24.7
MH-133	MH-134	601.78	601.78	0	150	0.09	(N/A)	0.00308	0.0028	0.8	0.8	0.8	3.8	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-151	MH-152	593.82	593.81	15.4	271	0.6	958.48	2.44343	2.2213	0.8	0.8	0.82	64	1.42	43.77	15.40	2.01	2.90	1	1	0	0	2.0	16.2	13.4
MH-165	MH-166	576.41	576.41	0	150	0.6	(N/A)	0.29964	0.2724	2.2	2.2	2.2	34	2.70	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-189	MH-190	564.52	564.55	26.2	150	0.23	1000	0.08426	0.0766	0.8	0.83	0.8	22.1	1.30	68.12	26.20	2.95	3.41	1	1	0	0	2.9	22.1	19.7
MH-881	MH-882	597.95	597.95	0.9	150	0.19	1000	0.0418	0.038	0.8	0.81	0.8	14	1.30	2.34	0.90	0.10	0.12	1	1	0	0	0.1	0.8	0.7
MH-2109	MH-2110	587.28	587.17	11.3	150	0.5	100	0.07139	0.0649	0.8	0.85	0.8	15	1.30	29.38	11.30	1.27	1.47	1	1	0	0	1.3	9.5	8.5
MH-205	MH-206	598.54	598.48	45.9	271	0.6	889.915	2.09374	1.9034	0.8	0.8	0.85	51	1.42	130.45	45.90	6.00	8.64	2	2	0	0	6.0	48.2	40.0
MH-893	MH-894	580.68	580.59	12.7	150	0.6	140.916	0.1969	0.179	0.9	0.87	0.95	27.2	1.40	35.56	12.70	1.43	1.65	1	1	0	0	1.4	11.7	9.5
MH-897	MH-898	601.16	601.18	9.6	217	0.6	545.349	0.98593	0.8963	1.3	1.25	1.26	42.5	1.87	35.85	9.60	1.18	1.53	1	1	0	0	1.2	13.1	7.8
MH-211	MH-212	569.92	569.92	0	217	0.6	(N/A)	0.94897	0.8627	2.2	2.21	2.21	39.4	2.77	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-477	MH-934	576.15	576.13	18.3	150	0.26	1000	0.1265	0.115	1.5	1.49	1.52	27.6	2.00	73.20	18.30	2.06	2.38	1	1	0	0	2.1	25.1	13.7
MH-289	MH-943	579.09	579.08	11.1	150	0.24	1000	0.09053	0.0823	1.5	1.49	1.49	22.9	2.00	44.40	11.10	1.25	1.44	1	1	0	0	1.2	15.2	8.3
MH-1658	MH-1659	599.31	599.22	8.5	150	0.37	100	0.02574	0.0234	0.8	0.89	0.8	9.1	1.30	22.10	8.50	0.96	1.11	1	1	0	0	1.0	7.2	6.4
MH-245	MH-246	581.31	581.1	24.1	150	0.67	115.061	0.22671	0.2061	0.9	0.8	1.01	32.5	1.40	67.48	24.10	2.71	3.14	1	1	0	0	2.7	22.2	18.1
MH-962	MH-963	565.21	565.1	69.4	217	0.6	640.768	1.26929	1.1539	1.7	1.65	1.74	51.1	2.27	314.66	69.40	8.50	11.07	3	3	0	0	8.5	138.3	56.7
MH-641	MH-983	579.97	579.97	8.5	150	0.2	1000	0.04565	0.0415	0.9	0.89	0.87	16	1.40	23.80	8.50	0.96	1.11	1	1	0	0	1.0	7.8	6.4
MH-992	MH-993	580.54	580.5	13.7	150	0.37	364.219	0.1133	0.103	0.8	0.8	0.8	22.2	1.30	35.62	13.70	1.54	1.78	1	1	0	0	1.5	11.6	10.3
MH-1060	MH-1061	559.52	559.33	27.4	150	0.6	138.806	0.1936	0.176	0.9	0.8	0.98	25.8	1.40	76.72	27.40	3.08	3.57	1	1	0	0	3.1	25.2	20.6
MH-321	MH-322	575.3	575.29	0.1	150	0.6	(N/A)	0.41349	0.3759	2.4	2.43	2.43	43.1	2.90	0.58	0.10	0.01	0.01	1	1	0	0	0.0	0.2	0.1
MH-335	MH-336	599.25	599.25	0.1	150	0.15	(N/A)	0.0165	0.015	0.9	0.91	0.91	8.6	1.40	0.28	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-337	MH-338	594.44	594.44	0.1	150	0.6	(N/A)	0.27907	0.2537	1.2	1.2	1.2	32.7	1.70	0.34	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-339	MH-340	572.12	572.12	0.1	150	0.19	(N/A)	0.04367	0.0397	0.9	0.94	0.94	13.7	1.40	0.28	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-4097	MH-23	579.81	580	19.6	150	0.59	100	0.12595	0.1145	0.8	0.8	0.9	20	1.30	50.96	19.60	2.21	2.55	1	1	0	0	2.2	16.6	14.7
MH-1101	MH-1102	586.42	586.42	4.1	150	0.2	1000	0.04543	0.0413	0.8	0.85	0.82	15.5	1.30	10.66	4.10	0.46	0.53	1	1	0	0	0.5	3.5	3.1
MH-1773	MH-1774	600.79	600.7	9.2	150	0.69	100	0.21098	0.1918	0.9	0.9	0.8	25.9	1.40	25.76	9.20	1.04	1.20	1	1	0	0	1.0	8.5	6.9
MH-373	MH-374	582.69	582.68	11	150	0.14	1000	0.01584	0.0144	0.9	0.89	0.9	9.7	1.40	30.80	11.00	1.24	1.43	1	1	0	0	1.2	10.1	8.3
MH-393	MH-394	578.98	578.98	0.1	150	0.09	(N/A)	0.00385	0.0035	0.8	0.8	0.8	4.3	1.30	0.26	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-14	MH-2270	598.7	598.69	12.1	150	0.24	1000	0.09009	0.0819	1.3	1.2	1.31	28.7	1.80	43.56	12.10	1.36	1.57	1	1	0	0	1.4	14.8	9.1
MH-976	MH-1154	592.59	592.3	72.1	150	0.6	242.797	0.39358	0.3578	3.3	3.51	3.12	43	3.80	547.96	72.10	8.11	9.38	3	0	3	0	8.1	217.7	54.1
MH-431	MH-432	562.85	562.75	25.4	150	0.6	261.554	0.43637	0.3967	2.5	2.44	2.53	45.8	3.00	152.40	25.40	2.86	3.31	1	1	0	0	2.9	61.5	19.1
MH-469	MH-470	576.35	576.34	12.1	150	0.2	1000	0.04631	0.0421	1.1	1.12	1.13	26.1	1.60	38.72	12.10	1.36	1.57	1	1	0	0	1.4	12.9	9.1
MH-1276	MH-1277	579.91	579.9	6.1	150	0.29	484.839	0.07051	0.0641	0.8	0.8	0.8	21.9	1.30	15.86	6.10	0.69	0.79	1	1	0	0	0.7	5.2	4.6
MH-521	MH-522	603.22	603.22	0.1	150	0.35	(N/A)	0.03839	0.0349	0.8	0.8	0.8	11.8	1.30	0.26	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-549	MH-550	576.48	576.52	12.4	150	0.6	264.435	0.4433	0.403	3.3	3.31	3.26	48.2	3.80	94.24	12.40	1.40	1.61	1	0	1	0	1.4	37.4	9.3

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-3	MH-2	599.98	599.37	60.5	217	1.51	100	3.15689	2.8699	1.2	1.66	0.8	64.2	1.77	213.81	60.50	7.41	9.65	3	3	0	0	7.4	77.7	49.4
MH-1234	MH-1913	579.44	579.34	10.2	150	0.51	100	0.07315	0.0665	0.8	0.84	0.8	15.2	1.30	26.52	10.20	1.15	1.33	1	1	0	0	1.1	8.6	7.7
MH-1914	MH-62	585.37	585.35	10.2	217	0.6	643.215	1.27787	1.1617	1.4	1.36	1.38	49.6	1.97	40.13	10.20	1.25	1.63	1	1	0	0	1.3	14.8	8.3
MH-6142	MH-2767	585.38	585.21	28.4	150	0.6	168.265	0.24651	0.2241	1.1	0.8	1.35	29.9	1.60	90.88	28.40	3.20	3.70	1	1	0	0	3.2	30.4	21.3
MH-1345	MH-1346	571.43	571.42	6.5	150	0.24	1000	0.0979	0.089	0.9	0.96	0.83	22.9	1.40	18.20	6.50	0.73	0.85	1	1	0	0	0.7	6.0	4.9
MH-2398	MH-1773	601.02	600.89	13	150	0.69	100	0.20691	0.1881	0.9	0.98	0.8	25.6	1.40	36.40	13.00	1.46	1.69	1	1	0	0	1.5	12.0	9.8
MH-5	MH-6	580.05	580.05	0	150	0	(N/A)	0	0	0.8	0.8	0.8	0	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-13	MH-14	598.7	598.7	0	150	0.23	(N/A)	0.07887	0.0717	1.2	1.2	1.2	28	1.70	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-15	MH-16	590.53	590.52	12.9	150	0.2	1000	0.04752	0.0432	1.5	1.47	1.48	39.5	2.00	51.60	12.90	1.45	1.68	1	1	0	0	1.5	17.7	9.7
MH-19	MH-20	602.64	602.64	0	150	0.14	(N/A)	0.01309	0.0119	0.8	0.8	0.8	7.7	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-679	MH-680	594.78	594.78	0.3	150	0.6	159.934	0.22847	0.2077	1.7	1.68	1.68	29.7	2.20	1.32	0.30	0.03	0.04	1	1	0	0	0.0	0.5	0.2
MH-1989	MH-1990	581.27	581.16	10.7	150	0.23	100	0.0055	0.005	0.9	0.92	0.8	4.3	1.40	29.96	10.70	1.20	1.39	1	1	0	0	1.2	9.8	8.0
MH-41	MH-42	580.37	580.36	3.7	150	0.21	1000	0.06017	0.0547	0.8	0.81	0.81	17.7	1.30	9.62	3.70	0.42	0.48	1	1	0	0	0.4	3.1	2.8
MH-687	MH-688	597.22	597.22	0.3	150	0.17	1000	0.03091	0.0281	0.8	0.8	0.8	11.6	1.30	0.78	0.30	0.03	0.04	1	1	0	0	0.0	0.3	0.2
MH-49	MH-50	595.55	595.55	0	150	0.1	(N/A)	0.00429	0.0039	0.8	0.8	0.8	7.6	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-2029	MH-2030	581.35	581.29	11.3	150	0.6	195.028	0.29414	0.2674	1.9	1.88	2.01	33.4	2.40	54.24	11.30	1.27	1.47	1	1	0	0	1.3	22.3	8.5
MH-735	MH-736	589.74	589.79	25.9	217	0.69	439.387	1.22496	1.1136	0.8	0.86	0.8	47	1.37	70.81	25.90	3.17	4.13	1	1	0	0	3.2	24.8	21.2
MH-73	MH-74	598.05	598.04	0	150	0.6	(N/A)	0.18931	0.1721	0.8	0.8	0.8	25.7	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-75	MH-76	598.92	598.92	0	150	0.2	(N/A)	0.05324	0.0484	0.8	0.8	0.8	17.9	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-77	MH-78	598.79	598.73	10.7	150	0.6	179.497	0.26686	0.2426	0.8	0.8	0.86	31.4	1.30	27.82	10.70	1.20	1.39	1	1	0	0	1.2	9.0	8.0
MH-757	MH-758	580.03	579.95	13	150	0.6	165.635	0.23848	0.2168	1	0.93	1	30.1	1.50	39.00	13.00	1.46	1.69	1	1	0	0	1.5	12.9	9.8
MH-89	MH-90	563.42	563.36	22.5	175	0.6	395.894	0.61028	0.5548	3.4	3.39	3.44	46.1	3.93	176.63	22.50	2.62	3.16	1	0	1	0	2.6	72.0	17.4
MH-91	MH-92	597.66	597.69	21	150	0.25	1000	0.09834	0.0894	0.8	0.82	0.8	26.5	1.30	54.60	21.00	2.36	2.73	1	1	0	0	2.4	17.7	15.8
MH-1523	MH-1524	595.05	595.12	7.7	217	1.37	100	2.12586	1.9326	0.8	0.8	0.88	52	1.37	21.05	7.70	0.94	1.23	1	1	0	0	0.9	7.4	6.3
MH-2057	MH-2058	594.05	594.16	11	150	0.47	103.294	0.05753	0.0523	0.9	0.8	0.99	18	1.40	30.80	11.00	1.24	1.43	1	1	0	0	1.2	10.1	8.3
MH-783	MH-784	597.99	598.01	12.6	175	0.6	453.919	0.74987	0.6817	0.8	0.81	0.8	48.9	1.33	33.39	12.60	1.46	1.77	1	1	0	0	1.5	11.2	9.8
MH-95	MH-96	580.06	580.1	13.2	150	0.28	281.424	0.03476	0.0316	0.8	0.85	0.8	18.4	1.30	34.32	13.20	1.49	1.72	1	1	0	0	1.5	11.2	9.9
MH-101	MH-102	598.29	598.29	0	150	0.26	(N/A)	0.11627	0.1057	1.3	1.35	1.35	30.5	1.80	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-103	MH-104	586.99	586.99	0	150	0.21	(N/A)	0.05522	0.0502	1.2	1.16	1.16	15.4	1.70	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-107	MH-108	599.95	599.95	0	150	0.19	(N/A)	0.04224	0.0384	0.8	0.8	0.8	13.5	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-123	MH-124	598	598	0	150	0.6	(N/A)	0.132	0.12	0.8	0.8	0.8	21	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-1577	MH-1578	580.97	581.04	8	150	0.6	104.812	0.13629	0.1239	1.4	1.47	1.35	22.7	1.90	30.40	8.00	0.90	1.04	1	1	0	0	0.9	10.4	6.0
MH-1605	MH-1606	580.48	580.45	8.1	150	0.31	320.27	0.05819	0.0529	0.8	0.8	0.8	15.6	1.30	21.06	8.10	0.91	1.05	1	1	0	0	0.9	6.8	6.1
MH-157	MH-158	571.54	571.54	0	150	0.26	(N/A)	0.12738	0.1158	0.8	0.8	0.8	23.1	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-3265	MH-3266	592.05	592.03	18.3	150	0.14	1000	0.0143	0.013	0.8	0.8	0.82	9.2	1.30	47.58	18.30	2.06	2.38	1	1	0	0	2.1	15.5	13.7
MH-163	MH-164	574.55	574.55	0	150	0.09	(N/A)	0.00319	0.0029	0.8	0.8	0.8	4	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-169	MH-170	572.34	572.34	0	150	0.09	(N/A)	0.00341	0.0031	0.8	0.8	0.8	15.4	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-175	MH-176	580.62	580.61	12.2	150	0.16	1000	0.0253	0.023	0.8	0.8	0.81	12.1	1.30	31.72	12.20	1.37	1.59	1	1	0	0	1.4	10.3	9.2
MH-185	MH-186	576.59	576.59	0	150	0.6	(N/A)	0.24211	0.2201	1.6	1.59	1.59	30.7	2.10	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-195	MH-196	579.82	579.82	5.5	150	0.2	1000	0.0506	0.046	0.8	0.81	0.8	17.1	1.30	14.30	5.50	0.62	0.72	1	1	0	0	0.6	4.6	4.1
MH-197	MH-198	584.1	584.11	0	150	0.11	(N/A)	0.00682	0.0062	0.8	0.8	0.8	29.8	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-201	MH-202	599.03	599.04	0	150	0.09	(N/A)	0.00396	0.0036	0.8	0.8	0.8	4.4	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-215	MH-216	600.9	600.89	13.1	150	0.25	1000	0.10846	0.0986	0.8	0.8	0.81	26	1.30	34.06	13.10	1.47	1.71	1	1	0	0	1.5	11.1	9.8
MH-163	MH-1668	574.03	573.97	8.5	150	0.6	158.3	0.22484	0.2044	1.2	1.32	1.11	29.6	1.70	28.90	8.50	0.96	1.11	1	1	0	0	1.0	9.7	6.4
MH-955	MH-956	570.02	570.11	21.5	150	0.6	234.546	0.37466	0.3406	1.5	1.5	1.42	41	2.00	86.00	21.50	2.42	2.80	1	1	0	0	2.4	29.5	16.1
MH-1578	MH-1872	581.04	581.16	11.7	150	0.6	100.428	0.12947	0.1177	1.3	1.35	1.2	22.2	1.80	42.12	11.70	1.32	1.52	1	1	0	0	1.3	14.3	8.8
MH-1680	MH-1681	579.95	579.87	8.6	150	0.64	100	0.16346	0.1486	0.8	0.8	0.8	22.8	1.30	22.36	8.60	0.97	1.12	1	1	0	0	1.0	7.3	6.5
MH-235	MH-236	580.05	580.05	0	150	0.08	(N/A)	0.0022	0.002	0.8	0.8	0.8	18.9	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-443	MH-969	592.2	592.37	21.7	150	0.6	130.616	0.17809	0.1619	1.5	1.6	1.47	24.5	2.00	86.80	21.70	2.44	2.82	1	1	0	0	2.4	29.7	16.3
MH-2188	MH-2189	581.15	581.03	11.8	150	0.5	106.078	0.07667	0.0697	0.8	0.8	0.8	17.9	1.30	30.68	11.80	1.33	1.54	1	1	0	0	1.3	10.0	8.9
MH-818	MH-989	585.91	586.01	23.7	150	0.6	249.693	0.40975	0.3725	0.8	0.85	0.8	41.1	1.30	61.62	23.70	2.67	3.08	1	1	0	0	2.7	20.0	17.8
MH-1712	MH-1713	590.13	590.04	8.8	150	0.33	100	0.01859	0.0169	0.9	0.9	0.8	9.3	1.40	24.64	8.80	0.99	1.15	1	1	0	0	1.0	8.1	6.6
MH-269	MH-270	596.96	596.96	0	150	0.2	(N/A)	0.02035	0.0185	0.8	0.8	0.8	9.3	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-2631	MH-2632	602.81	602.82	14.6	150	0.14	1000	0.01386	0.0126	1	1.14	0.8	14	1.50	43.80	14.60	1.64	1.90	1	1	0	0	1.6	14.5	11.0
MH-303	MH-304	601.82	601.82	0	150	0.12	(N/A)	0.00792	0.0072	0.8	0.8	0.8	6	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-898	MH-798	601.18	601.19	8.4	217	0.6	541.437	0.97647	0.8877	1.4	1.26	1.63	46.6	1.97	33.05	8.40	1.03	1.34	1	1	0	0	1.0	12.2	6.9
MH-311	MH-312	586.12	586.12	0	150	0.23	(N/A)	0.04961	0.0451	0.8	0.8	0.8	14.5	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-319	MH-320	582.73	582.73	0	150	0.16	(N/A)	0.02079	0.0189	0.8	0.8	0.8	9.6	1.30	0.00	0.00	0.00	0.00	1	1	0	0	0.0	0.0	0.0
MH-345	MH-346	594.62	594.62	0.1	450	0.76	(N/A)	9.33009	8.4819	2.6	2.64	2.64	73.7	3.40	0.68	0.10	0.02	0.03	1	1	0	0	0.0	0.4	0.1
MH-1116	MH-1117	578.49	578.43	21.7	150	0.6	371.163	0.55451	0.5041	4.1	4.12	4.1	50.2	4.60	199.64	21.70	2.44	2.82	1	0	1	0	2.4	91.6	16.3
MH-2283	MH-497	580.62	580.5	12.1	150	0.16	102.86	0.00165	0.0015	0.8	0.8	0.8	15	1.30	31.46	12.10	1.36	1.57	1	1	0	0	1.4	10.2	9.1
MH-363	MH-364	563.88	563.79	14.4	150	0.6	166.085	0.23925	0.2175	3.4	3.4	3.49	38.2	3.90	112.32	14.40	1.62	1.87	1	0	1	0	1.6	44.6	10.8
MH-1142	MH-41	580.37	580.37	5.2	150	0.21	1000	0.05918	0.0538	0.8	0.8	0.81	21.1	1.30	13.52	5.20	0.59	0.68	1	1	0	0	0.6	4.4	3.9
MH-375	MH-376	576.86	576.86	0.1	150	0.6	(N/A)	0.2024	0.184	1.2	1.24	1.24	27.6	1.70	0.34	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-1810	MH-1811	582.57	582.56	9.5	150	0.22	1000	0.06908	0.0628	1.3	1.2	1.35	19.6	1.80	34.20	9.50	1.07	1.24	1	1	0	0	1.1	11.6	7.1

Upstream Node	Downstream Node	Upstream Invert Elevation (m)	Downstream Invert Elevation (m)	Length (m)	Section Size	Ultimate Velocity (m/s) (2041)	Constructed Slope (1/S)in %	Design Capacity (Ml/d)	Total Flow (Ml/d)	Average Pipe Cover (m)	Upstream Cover (m)	Downstream Cover (m)	Normal Depth / Rise (d/D) (%)	Depth of Excavation	Timbering in sq. M.	Dewatering	PCC Bedding (Cu. M.)	Transportation of earth	Manholes	2.0 m dia	2.2 m dia	2.5 m dia	Bedding in Cum	Rifilling in trenches	Road restoration
MH-385	MH-386	588.13	588.12	0.1	150	0.7	(N/A)	0.38489	0.3499	0.8	0.8	0.8	37.6	1.30	0.26	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-387	MH-388	585.08	584.89	24	150	0.6	126.064	0.17248	0.1568	1.9	1.83	2.02	25.8	2.40	115.20	24.00	2.70	3.12	1	1	0	0	2.7	47.3	18.0
MH-2189	MH-2302	581.03	580.97	12.4	150	0.44	190.286	0.09845	0.0895	0.8	0.8	0.8	20.9	1.30	32.24	12.40	1.40	1.61	1	1	0	0	1.4	10.5	9.3
MH-395	MH-396	586.05	586.05	0.1	150	0.08	(N/A)	0.00286	0.0026	0.8	0.8	0.8	3.7	1.30	0.26	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-793	MH-1181	589.76	589.86	14.5	150	0.37	144.794	0.0396	0.036	0.8	0.8	0.8	11.7	1.30	37.70	14.50	1.63	1.89	1	1	0	0	1.6	12.3	10.9
MH-403	MH-404	581.81	581.72	10.7	150	0.6	121.918	0.16423	0.1493	1.1	1.09	1.18	23.4	1.60	34.24	10.70	1.20	1.39	1	1	0	0	1.2	11.4	8.0
MH-407	MH-408	586.79	586.78	0.1	150	0.81	(N/A)	0.49599	0.4509	0.8	0.8	0.8	42.5	1.30	0.26	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-411	MH-412	579.99	579.98	8.7	150	0.19	1000	0.03795	0.0345	1.1	1.1	1.11	18.4	1.60	27.84	8.70	0.98	1.13	1	1	0	0	1.0	9.3	6.5
MH-415	MH-416	595.38	595.37	0.1	150	0.4	(N/A)	0.08613	0.0783	0.8	0.8	0.8	18.2	1.30	0.26	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-74	MH-1212	598	597.95	5.3	150	0.73	100	0.25674	0.2334	0.8	0.85	0.8	28.7	1.30	13.78	5.30	0.60	0.69	1	1	0	0	0.6	4.5	4.0
MH-417	MH-418	586.22	586.22	0.1	150	0.1	(N/A)	0.00572	0.0052	0.8	0.8	0.8	14.3	1.30	0.26	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-1251	MH-1252	578.62	578.6	5.8	150	0.6	359.067	0.52679	0.4789	2.9	2.85	2.9	53.7	3.40	39.44	5.80	0.65	0.75	1	1	0	0	0.7	15.8	4.4
MH-1256	MH-1257	564.7	564.75	4.9	150	0.41	100	0.03509	0.0319	0.8	0.8	0.86	10.6	1.30	12.74	4.90	0.55	0.64	1	1	0	0	0.6	4.1	3.7
MH-465	MH-466	593.7	593.71	13.9	271	0.6	988.028	2.67355	2.4305	0.8	0.81	0.8	62.6	1.42	39.50	13.90	1.82	2.62	1	1	0	0	1.8	14.6	12.1
MH-473	MH-474	594.98	594.98	0.1	150	0.6	(N/A)	0.18634	0.1694	1.2	1.25	1.25	26.6	1.70	0.34	0.10	0.01	0.01	1	1	0	0	0.0	0.1	0.1
MH-2362	MH-2363	601.96	602.08	12.8	150	0.6	104.93	0.13541	0.1231	0.9	0.92	0.8	22.8	1.40	35.84	12.80	1.44	1.67	1	1	0	0	1.4	11.8	9.6
MH-505	MH-506	590.46	590.44	16.9	150	0.21	1000	0.06083	0.0553	0.8	0.8	0.82	18.8	1.30	43.94	16.90	1.90	2.20	1	1	0	0	1.9	14.3	12.7
MH-1295	MH-1296	578.82	578.82	6.2	150	0.21	1000	0.05588	0.0508	1.5	1.5	1.53	27.5	2.00	24.80	6.20	0.70	0.81	1	1	0	0	0.7	8.5	4.7
MH-597	MH-1304	562.67	562.65	16.1	217	0.6	584.782	1.09483	0.9953	1.1	1.11	1.14	51.1	1.67	53.68	16.10	1.97	2.57	1	1	0	0	2.0	19.4	13.2
MH-1946	MH-377	564.54	564.53	11.9	150	0.2	1000	0.05324	0.0484	0.9	0.8	0.94	26.8	1.40	33.32	11.90	1.34	1.55	1	1	0	0	1.3	10.9	8.9
MH-583	MH-584	565.82	565.8	17.8	150	0.22	1000	0.06809	0.0619	1.2	1.21	1.24	24.9	1.70	60.52	17.80	2.00	2.32	1	1	0	0	2.0	20.4	13.4
MH-613	MH-614	564.81	564.76	12	175	0.73	261.069	0.715	0.65	1	0.93	0.97	45.7	1.53	36.60	12.00	1.40	1.68	1	1	0	0	1.4	12.5	9.3
MH-619	MH-620	577.28	577.26	11.4	271	0.6	784.307	1.70038	1.5458	2.1	2.1	2.12	52.5	2.72	62.04	11.40	1.49	2.15	1	1	0	0	1.5	28.3	9.9
MH-1728	MH-2455	577.02	577.01	13.7	400	0.63	1000	3.87926	3.5266	3.6	3.58	3.59	40.5	4.35	119.19	13.70	2.06	3.78	1	0	1	0	2.1	68.1	13.7
MH-1445	MH-1446	576.05	576.09	18	175	0.6	424.089	0.67485	0.6135	1.7	1.67	1.73	50.1	2.23	80.10	18.00	2.09	2.53	1	1	0	0	2.1	33.9	14.0
MH-1447	MH-1448	562.42	562.39	7.2	150	0.6	219.33	0.34507	0.3137	1.4	1.38	1.44	39.1	1.90	27.36	7.20	0.81	0.94	1	1	0	0	0.8	9.3	5.4
MH-2466	MH-2467	581.56	581.42	13.5	150	0.57	100	0.11033	0.1003	0.8	0.9	0.8	18.7	1.30	35.10	13.50	1.52	1.76	1	1	0	0	1.5	11.4	10.1
MH-665	MH-666	595.91	595.9	0.3	150	0.51	100	0.07425	0.0675	0.8	0.8	0.8	15.6	1.30	0.78	0.30	0.03	0.04	1	1	0	0	0.0	0.3	0.2
MH-2025	MH-2026	582.3	582.23	10.8	150	0.6	146.639	0.20636	0.1876	1.1	1.17	1.11	27.9	1.60	34.56	10.80	1.22	1.41	1	1	0	0	1.2	11.6	8.1
MH-3607	MH-3608	571.86	571.64	21.6	150	0.33	100	0.01793	0.0163	0.9	0.99	0.8	7.7	1.40	60.48	21.60	2.43	2.81	1	1	0	0	2.4	19.9	16.2
MH-2261	MH-2123	580.78	580.72	41	217	0.6	702.082	1.51492	1.3772	3.1	3.23	3.04	57.3	3.67	300.69	41.00	5.02	6.54	2	0	2	0	5.0	128.6	33.5
MH-709	MH-710	564.63	564.67	18.5	175	0.6	494.004	0.86471	0.7861	0.8	0.84	0.8	55.9	1.33	49.03	18.50	2.15	2.60	1	1	0	0	2.2	16.4	14.3
MH-729	MH-730	600.4	600.79	55.3	150	0.6	144.865	0.20328	0.1848	2.4	2.56	2.17	37.3	2.90	320.74	55.30	6.22	7.20	2	2	0	0	6.2	129.7	41.5
MH-1510	MH-1511	578.02	577.96	35.8	217	0.6	625.228	1.21704	1.1064	2.4	2.35	2.42	56.3	2.97	212.44	35.80	4.39	5.71	2	2	0	0	4.4	91.8	29.2
MH-1512	MH-1513	581.4	581.38	7.6	400	0.95	335.608	4.00917	3.6447	0.8	0.8	0.8	38.4	1.55	23.56	7.60	1.14	2.09	1	1	0	0	1.1	9.7	7.6
MH-737	MH-738	574.3	574.27	16.2	217	0.6	651.321	1.30603	1.1873	0.8	0.8	0.82	51	1.37	44.29	16.20	1.99	2.58	1	1	0	0	2.0	15.5	13.2
MH-743	MH-744	603.41	603.1	38.3	150	0.6	121.633	0.16368	0.1488	1.4	1.27	1.59	23.3	1.90	145.54	38.30	4.31	4.99	2	2	0	0	4.3	49.6	28.7
MH-3254	MH-3255	560.15	559.97	18.2	150	0.84	100	0.41613	0.3783	0.9	0.98	0.8	36.8	1.40	50.96	18.20	2.05	2.37	1	1	0	0	2.0	16.7	13.7
MH-749	MH-750	588.6	588.78	18.9	150	0.6	103.857	0.13706	0.1246	1	1.12	0.95	21	1.50	56.70	18.90	2.13	2.46	1	1	0	0	2.1	18.8	14.2
MH-753	MH-754	579.36	579.41	10	150	0.6	176.149	0.26037	0.2367	0.8	0.85	0.8	31	1.30	26.00	10.00	1.13	1.30	1	1	0	0	1.1	8.4	7.5
MH-771	MH-772	596.42	596.42	0.4	150	0.46	100	0.05159	0.0469	0.8	0.81	0.8	13	1.30	1.04	0.40	0.05	0.05	1	1	0	0	0.0	0.3	0.3
MH-1541	MH-1542	572.47	572.46	7.8	150	0.12	1000	0.00814	0.0074	0.8	0.8	0.8	10.7	1.30	20.28	7.80	0.88	1.02	1	1	0	0	0.9	6.6	5.9
MH-1546	MH-1547	582.79	582.72	7.8	150	0.6	105.079	0.13563	0.1233	1	1.02	0.96	22.7	1.50	23.40	7.80	0.88	1.02	1	1	0	0	0.9	7.8	5.9
MH-2097	MH-1061	559.57	559.51	11.2	150	0.8	171.085	0.71929	0.6539	0.8	0.8	0.8	53.1	1.30	29.12	11.20	1.26	1.46	1	1	0	0	1.3	9.5	8.4
MH-1257	MH-3285	564.81	564.99	17.7	150	0.25	100	0.00781	0.0071	0.9	0.8	0.96	5.1	1.40	49.56	17.70	1.99	2.30	1	1	0	0	2.0	16.3	13.3
MH-2112	MH-1216	562.65	562.54	11.3	150	1.07	100	1.06469	0.9679	1	1.13	0.8	61.2	1.50	33.90	11.30	1.27	1.47	1	1	0	0	1.3	11.2	8.5
MH-812	MH-813	580.35	580.33	13.8	150	0.15	1000	0.01914	0.0174	0.8	0.83	0.83	10.5	1.30	35.88	13.80	1.55	1.80	1	1	0	0	1.6	11.7	10.4
MH-828	MH-829	581.18	581.19	7	150	0.12	1000	0.00847	0.0077	1	1.06	1.04	9	1.50	21.00	7.00	0.79	0.91	1	1	0	0	0.8	7.0	5.3
MH-2566	MH-2567	601.42	601.43	14.2	150	0.15	1000	0.0165	0.015	0.9	0.93	0.8	13.1	1.40	39.76	14.20	1.60	1.85	1	1	0	0	1.6	13.1	10.7
MH-864	MH-865	580.75	580.74	9.2	150	0.21	1000	0.05654	0.0514	0.8	0.8	0.8	17.8	1.30	23.92	9.20	1.04	1.20	1	1	0	0	1.0	7.8	6.9
MH-2582	MH-2583	573.56	573.54	14.3	217	0.6	668.728	1.36939	1.2449	1.2	1.22	1.1	62.6	1.77	50.54	14.30	1.75	2.28	1	1	0	0	1.8	18.4	11.7
MH-871	MH-872	579.92	579.89	4.9	150	0.6	167.511	0.24145	0.2195	0.9	0.86	0.88	29.5	1.40	13.72	4.90	0.55	0.64	1	1	0	0	0.6	4.5	3.7
MH-1646	MH-107	599.82	599.91	8.4	150	0.54	100	0.09053	0.0823	0.8	0.8	0.85	16.9	1.30	21.84	8.40	0.95	1.09	1	1	0	0	0.9	7.1	6.3
MH-2157	MH-2158	590.41	590.4	11.6	150	0.18	1000	0.03267	0.0297	1.4	1.27	1.44	13.8	1.90	44.08	11.60	1.31	1.51	1	1	0	0	1.3	15.0	8.7
MH-2166	MH-2167	587.35	587.27	11.7	150	0.6	143.682	0.2013	0.183	2.4	2.35	2.52	32	2.90	67.86	11.70	1.32	1.52	1	1	0	0	1.3	27.4	8.8
MH-905	MH-836	590.63	590.73	14	150	0.6	137.126	0.19118	0.1738	0.8	0.88	0.8	25.6	1.30	36.40	14.00	1.58	1.82	1	1	0	0	1.6	11.8	10.5
MH-906	MH-907	600.11	600.11	1.2	150	0.2	1000	0.05005	0.0455	1.3	1.27	1.26	15.4	1.80	4.32	1.20	0.14	0.16	1	1	0	0	0.1	1.5	0.9
MH-839	MH-915	585.46	585.41	31.5	217	0.6	605.043	1.15412	1.0492	1.7	1.71	1.75	54.2	2.27	142.82	31.50	3.86	5.02	2	2	0	0	3.9	62.8	25.7
MH-757	MH-2173	580.03	580.04	11.7	150	0.09	1000	0.00385	0.0035	0.9	0.93	0.8	26.1	1.40	32.76	11.70	1.32	1.52	1	1	0	0	1.3	10.8	8.8
MH-1669	MH-1670	582.44	582.43	8.6	150	0.14	1000	0.01617	0.0147	0.9	0.8	0.93	12.6	1.40	24.08	8.60	0.97	1.12	1	1	0	0	1.0	7.9	6.5
MH-919	MH-920	580.29	580.3	13.7	150	0.23	1000	0.07821	0.0711	0.8	0.8	0.8	21.1	1.30	35.62	13.70	1.54	1.78	1	1	0	0	1.5	11.6	10.3
MH-412	MH-641	579.98	579.97	6.3	150	0.19	1000	0.04059	0.0369	1	1.11	0.89	19	1.50	18.90	6.30	0.71	0.82	1	1	0	0	0.7	6.3	4.7
MH-1880	MH-2604	599.2	599.31	14.4	150	0.66	127.56	0.23793	0.2163	0.8	0.8	0.8	28.4	1.30	37.44	14.40	1.62	1.87	1	1	0	0	1.6	12.2	10.8
MH-2607	MH-1425	567.82	567.97	14.4	150	0.21	100	0.00407	0.0037	0.8	0.8	0.89	3.7	1.30	37.44	14.40	1.62	1.87	1	1	0	0	1.6	12.2	10.8
MH-1686	MH-1687	580.11	580.02	9.1	150	0.35	103.179	0.02255	0.0205	0.8	0.8	0.8	12	1.30	23.66	9.10	1.02	1.18	1	1	0	0	1.0	7.7	6.8