Emission Inventory (Marine Emission)

Source	Source Description	Source ID	Type	Location X (m)	Location Y (m)	Base Elevation (mpd)	Release Height [1] (m)	Point Source Exit Temperature [2] (K)	Point Source Exit velocity [2] (m/s)	Point Source Internal diameter [1] (m)	Area Source Length-X (m)	Area Source Width-Y (m)	Area Source Angle (o)	Emission Rate Nox (g/s)	Emission Rate RSP (g/s)	Emission Rate FSP (g/s)	Remarks
Proposed Marina	**Hotelling**	MARH01	AREA	813569	818484	0	1	---	---	---	130	150	48	1.97E-07	7.87E-09	7.68E-09	
	Cruising (Route A - from/to North)	MARA01	POINT	813631	818434	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	See "Emission factor for Marine Vessel at the Proposed Marina" for the calculation of emission rate.
		MARA02	POINT	813612	818427	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA03	POINT	813593	818421	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA04	POINT	813573	818422	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA05	POINT	813553	818426	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	Adopted in Operational Air Quality Assessment (with Project Scenario) only.
		MARA06	POINT	813535	818436	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA07	POINT	813521	818450	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA08	POINT	813510	818466	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA09	POINT	813505	818485	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA10	POINT	813501	818505	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA11	POINT	813502	818525	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA12	POINT	813502	818548	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA13	POINT	813517	818561	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA14	POINT	813532	818574	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA15	POINT	813547	818587	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA16	POINT	813562	818601	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA17	POINT	813577	818614	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA18	POINT	813592	818627	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA19	POINT	813607	818641	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA20	POINT	813622	818654	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA21	POINT	813635	818669	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA22	POINT	813649	818683	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA23	POINT	813663	818698	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA24	POINT	813676	818713	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA25	POINT	813690	818727	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA26	POINT	813704	818742	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA27	POINT	813717	818756	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA28	POINT	813731	818771	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA29	POINT	813745	818786	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA30	POINT	813758	818800	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA31	POINT	813772	818815	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA32	POINT	813786	818829	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA33	POINT	813799	818844	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA34	POINT	813814	818858	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA35	POINT	813827	818873	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA36	POINT	813841	818887	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA37	POINT	813854	818902	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA38	POINT	813868	818917	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA39	POINT	813882	818931	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA40	POINT	813897	818945	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA41	POINT	813911	818958	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA42	POINT	813925	818972	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA43	POINT	813940	818986	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA44	POINT	813954	819000	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA45	POINT	813969	819014	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA46	POINT	813983	819028	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA47	POINT	813998	819042	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA48	POINT	814012	819056	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA49	POINT	814026	819069	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA50	POINT	814041	819083	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA51	POINT	814055	819097	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA52	POINT	814070	819111	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
		MARA53	POINT	814084	819125	0	1	373	0	0.30	---	---	---	2.01E-03	6.07E-05	5.86E-05	
	Cruising (Route B - from/to South)	MARB01	POINT	813631	818434	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB02	POINT	813612	818427	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB03	POINT	813593	818421	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB04	POINT	813573	818422	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB05	POINT	813553	818426	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB06	POINT	813535	818436	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB07	POINT	813521	818450	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB08	POINT	813510	818466	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB09	POINT	813505	818485	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB10	POINT	813501	818505	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	

Source	Source Description	Source ID	Type	Location X	Location Y	Base Elevation	Release Height [1]	Point Source Exit Temperature [2]	Point Source Exit velocity [2]	Point Source Internal diameter [1]	Area Source Length-X	Area Source Width-Y	Area Source Angle	Emission Rate Nox	Emission Rate RSP	Emission Rate FSP	Remarks
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(m)	(m)	(o)	(g/s)	(g/s)	(g/s)	
		MARB11	POINT	813502	818525	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB12	POINT	813502	818548	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB13	POINT	813487	818534	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB14	POINT	813473	818521	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB15	POINT	813458	818508	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB16	POINT	813443	818494	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB17	POINT	813428	818481	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB18	POINT	813413	818468	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB19	POINT	813398	818455	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB20	POINT	813383	818441	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB21	POINT	813368	818428	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB22	POINT	813353	818415	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB23	POINT	813338	818401	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB24	POINT	813323	818388	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB25	POINT	813308	818375	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB26	POINT	813293	818362	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB27	POINT	813278	818348	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB28	POINT	813263	818335	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB29	POINT	813248	818322	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB30	POINT	813233	818308	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB31	POINT	813218	818295	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB32	POINT	813203	818282	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB33	POINT	813188	818269	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB34	POINT	813174	818255	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB35	POINT	813159	818242	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB36	POINT	813144	818229	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB37	POINT	813129	818215	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB38	POINT	813114	818202	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB39	POINT	813099	818189	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB40	POINT	813084	818176	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB41	POINT	813069	818162	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB42	POINT	813054	818149	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB43	POINT	813039	818136	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB44	POINT	813024	818122	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB45	POINT	813009	818109	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB46	POINT	812994	818096	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB47	POINT	812979	818083	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB48	POINT	812964	818069	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB49	POINT	812949	818056	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB50	POINT	812934	818043	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB51	POINT	812919	818029	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB52	POINT	812904	818016	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB53	POINT	812889	818003	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB54	POINT	812875	817990	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB55	POINT	812860	817976	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB56	POINT	812845	817963	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB57	POINT	812830	817950	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB58	POINT	812815	817936	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB59	POINT	812800	817923	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB60	POINT	812785	817910	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB61	POINT	812768	817899	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB62	POINT	812752	817888	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB63	POINT	812735	817877	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB64	POINT	812718	817865	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB65	POINT	812702	817854	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB66	POINT	812685	817843	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB67	POINT	812668	817832	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB68	POINT	812652	817821	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB69	POINT	812635	817810	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB70	POINT	812618	817799	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB71	POINT	812602	817788	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB72	POINT	812585	817777	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB73	POINT	812568	817766	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB74	POINT	812552	817755	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB75	POINT	812535	817744	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB76	POINT	812519	817732	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	

Source	Source Description	Source ID	Type	Location X (m)	Location Y (m)	Base Elevation (mpd)	Release Height [1] (m)	Point Source Exit Temperature [2] (K)	Point Source Exit velocity [2] (m/s)	Point Source Internal diameter [1] (m)	Area Source Length-X (m)	Area Source Width-Y (m)	Area Source Angle (o)	Emission Rate Nox (g/s)	Emission Rate RSP (g/s)	Emission Rate FSP (g/s)	Remarks
		MARB77	POINT	812502	817721	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB78	POINT	812485	817710	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB79	POINT	812469	817699	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB80	POINT	812452	817688	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB81	POINT	812435	817677	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB82	POINT	812419	817666	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB83	POINT	812402	817655	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB84	POINT	812385	817644	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB85	POINT	812369	817633	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB86	POINT	812352	817622	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB87	POINT	812335	817611	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB88	POINT	812319	817599	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB89	POINT	812302	817588	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB90	POINT	812285	817577	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB91	POINT	812269	817566	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB92	POINT	812252	817555	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB93	POINT	812236	817544	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB94	POINT	812219	817533	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB95	POINT	812202	817522	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB96	POINT	812186	817511	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB97	POINT	812169	817500	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB98	POINT	812152	817489	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB99	POINT	812136	817478	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB100	POINT	812119	817466	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB101	POINT	812102	817455	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB102	POINT	812086	817444	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB103	POINT	812069	817433	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB104	POINT	812052	817422	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB105	POINT	812036	817411	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB106	POINT	812019	817400	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB107	POINT	812002	817389	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB108	POINT	811986	817378	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB109	POINT	811969	817367	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB110	POINT	811953	817356	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB111	POINT	811936	817345	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB112	POINT	811919	817333	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB113	POINT	811903	817322	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB114	POINT	811885	817312	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB115	POINT	811868	817302	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB116	POINT	811850	817293	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB117	POINT	811833	817283	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB118	POINT	811816	817273	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB119	POINT	811798	817263	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB120	POINT	811781	817253	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB121	POINT	811763	817243	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB122	POINT	811746	817233	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB123	POINT	811730	817222	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB124	POINT	811714	817210	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB125	POINT	811697	817199	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB126	POINT	811681	817187	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB127	POINT	811664	817176	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB128	POINT	811648	817164	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB129	POINT	811632	817153	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB130	POINT	811616	817141	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB131	POINT	811599	817129	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB132	POINT	811585	817116	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB133	POINT	811571	817101	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB134	POINT	811557	817087	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB135	POINT	811543	817073	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB136	POINT	811529	817058	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB137	POINT	811515	817044	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB138	POINT	811501	817030	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB139	POINT	811487	817016	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB140	POINT	811473	817001	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB141	POINT	811459	816987	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB142	POINT	811445	816973	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	

Source	Source Description	Source ID	Type	Location X (m)	Location Y (m)	Base Elevation (mpd)	Release Height [1] (m)	Point Source Exit Temperature [2] (K)	Point Source Exit velocity [2] (m/s)	Point Source Internal diameter [1] (m)	Area Source Length-X (m)	Area Source Width-Y (m)	Area Source Angle (o)	Emission Rate Nox (g/s)	Emission Rate RSP (g/s)	Emission Rate FSP (g/s)	Remarks
		MARB143	POINT	811431	816959	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB144	POINT	811417	816944	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB145	POINT	811403	816930	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB146	POINT	811389	816916	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB147	POINT	811375	816901	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB148	POINT	811361	816887	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB149	POINT	811347	816873	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB150	POINT	811333	816859	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB151	POINT	811319	816844	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB152	POINT	811305	816830	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB153	POINT	811291	816816	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB154	POINT	811277	816802	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB155	POINT	811263	816787	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB156	POINT	811243	816782	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB157	POINT	811223	816779	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB158	POINT	811204	816776	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB159	POINT	811184	816773	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB160	POINT	811164	816770	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB161	POINT	811144	816767	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB162	POINT	811125	816764	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB163	POINT	811105	816761	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB164	POINT	811085	816758	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB165	POINT	811065	816755	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB166	POINT	811045	816752	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB167	POINT	811026	816749	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB168	POINT	811006	816746	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB169	POINT	810986	816744	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB170	POINT	810968	816752	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB171	POINT	810949	816760	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB172	POINT	810931	816767	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB173	POINT	810912	816775	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
		MARB174	POINT	810894	816783	0	1	373	0	0.30	---	---	---	2.02E-03	6.07E-05	5.87E-05	
Passenger Ferry	**Hotelling (Tuen Mun <-> Tung Chung)**	LVH01	POINT	811895	817311	0	1	373	0	0.3	---	---	---	6.57E-03	2.63E-04	2.56E-04	See "Emission factor for Marine Vessel connecting Tuen Mun / Tung Chung / Sha Lo Wan / Tai O" for the calculation of emission rate. Adopted in both Construction Dust Assessment and Operational Air Quality Assessment (with and without Project Scenarios).
	Hotelling (Tuen Mun <-> Tai O)	LVH02	POINT	811895	817311	0	1	373	0	0.3	---	---	---	6.57E-03	2.63E-04	2.56E-04	
	Cruising (Tuen Mun <-> Tung Chung)	LVTC01	POINT	814084	819125	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC02	POINT	814070	819111	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC03	POINT	814055	819097	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC04	POINT	814041	819083	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC05	POINT	814026	819069	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC06	POINT	814012	819056	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC07	POINT	813998	819042	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC08	POINT	813983	819028	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC09	POINT	813969	819014	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC10	POINT	813954	819000	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC11	POINT	813940	818986	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC12	POINT	813925	818972	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC13	POINT	813911	818958	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC14	POINT	813897	818945	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC15	POINT	813882	818931	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC16	POINT	813868	818917	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC17	POINT	813854	818902	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC18	POINT	813841	818887	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC19	POINT	813827	818873	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC20	POINT	813814	818858	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC21	POINT	813799	818844	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC22	POINT	813786	818829	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC23	POINT	813772	818815	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC24	POINT	813758	818800	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC25	POINT	813745	818786	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC26	POINT	813731	818771	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC27	POINT	813717	818756	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC28	POINT	813704	818742	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC29	POINT	813690	818727	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC30	POINT	813676	818713	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC31	POINT	813663	818698	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC32	POINT	813649	818683	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	

Source	Source Description	Source ID	Type	Location X	Location Y	Base Elevation	Release Height [1]	Point Source Exit Temperature [2]	Point Source Exit velocity [2]	Point Source Internal diameter [1]	Area Source Length-X	Area Source Width-Y	Area Source Angle	Emission Rate Nox	Emission Rate RSP	Emission Rate FSP	Remarks
				(m)	(m)	(mpd)	(m)	(K)	(m/s)	(m)	(m)	(m)	(o)	(g/s)	(g/s)	(g/s)	
		LVTC33	POINT	813635	818669	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC34	POINT	813622	818654	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC35	POINT	813607	818641	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC36	POINT	813592	818627	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC37	POINT	813577	818614	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC38	POINT	813562	818601	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC39	POINT	813547	818587	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC40	POINT	813532	818574	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC41	POINT	813517	818561	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC42	POINT	813502	818548	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC43	POINT	813487	818534	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC44	POINT	813473	818521	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC45	POINT	813458	818508	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC46	POINT	813443	818494	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC47	POINT	813428	818481	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC48	POINT	813413	818468	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC49	POINT	813398	818455	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC50	POINT	813383	818441	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC51	POINT	813368	818428	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC52	POINT	813353	818415	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC53	POINT	813338	818401	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC54	POINT	813323	818388	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC55	POINT	813308	818375	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC56	POINT	813293	818362	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC57	POINT	813278	818348	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC58	POINT	813263	818335	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC59	POINT	813248	818322	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC60	POINT	813233	818308	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC61	POINT	813218	818295	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC62	POINT	813203	818282	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC63	POINT	813188	818269	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC64	POINT	813174	818255	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC65	POINT	813159	818242	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC66	POINT	813144	818229	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC67	POINT	813129	818215	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC68	POINT	813114	818202	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC69	POINT	813099	818189	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC70	POINT	813084	818176	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC71	POINT	813069	818162	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC72	POINT	813054	818149	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC73	POINT	813039	818136	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC74	POINT	813024	818122	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC75	POINT	813009	818109	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC76	POINT	812994	818096	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC77	POINT	812979	818083	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC78	POINT	812964	818069	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC79	POINT	812949	818056	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC80	POINT	812934	818043	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC81	POINT	812919	818029	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC82	POINT	812904	818016	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC83	POINT	812889	818003	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC84	POINT	812875	817990	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC85	POINT	812860	817976	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC86	POINT	812845	817963	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC87	POINT	812830	817950	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC88	POINT	812815	817936	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC89	POINT	812800	817923	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC90	POINT	812785	817910	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC91	POINT	812768	817899	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC92	POINT	812752	817888	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC93	POINT	812735	817877	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC94	POINT	812718	817865	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC95	POINT	812702	817854	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC96	POINT	812685	817843	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC97	POINT	812668	817832	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC98	POINT	812652	817821	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	

Source	Source Description	Source ID	Type	Location X (m)	Location Y (m)	Base Elevation (mpd)	Release Height [1] (m)	Point Source Exit Temperature [2] (K)	Point Source Exit velocity [2] (m/s)	Point Source Internal diameter [1] (m)	Area Source Length-X (m)	Area Source Width-Y (m)	Area Source Angle (o)	Emission Rate Nox (g/s)	Emission Rate RSP (g/s)	Emission Rate FSP (g/s)	Remarks
		LVTC99	POINT	812635	817810	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC100	POINT	812618	817799	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC101	POINT	812602	817788	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC102	POINT	812585	817777	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC103	POINT	812568	817766	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC104	POINT	812552	817755	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC105	POINT	812535	817744	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC106	POINT	812519	817732	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC107	POINT	812502	817721	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC108	POINT	812485	817710	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC109	POINT	812469	817699	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC110	POINT	812452	817688	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC111	POINT	812435	817677	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC112	POINT	812419	817666	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC113	POINT	812402	817655	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC114	POINT	812385	817644	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC115	POINT	812369	817633	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC116	POINT	812352	817622	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC117	POINT	812335	817611	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC118	POINT	812319	817599	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC119	POINT	812302	817588	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC120	POINT	812285	817577	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC121	POINT	812269	817566	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC122	POINT	812252	817555	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC123	POINT	812236	817544	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC124	POINT	812219	817533	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC125	POINT	812202	817522	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC126	POINT	812186	817511	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC127	POINT	812169	817500	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC128	POINT	812152	817489	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC129	POINT	812136	817478	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC130	POINT	812119	817466	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC131	POINT	812102	817455	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC132	POINT	812086	817444	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC133	POINT	812069	817433	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC134	POINT	812052	817422	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC135	POINT	812036	817411	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC136	POINT	812019	817400	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC137	POINT	812002	817389	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC138	POINT	811986	817378	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC139	POINT	811969	817367	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC140	POINT	811953	817356	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC141	POINT	811936	817345	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC142	POINT	811919	817333	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
		LVTC143	POINT	811903	817322	0	1	373	0	0.30	---	---	---	1.27E-03	3.88E-05	3.75E-05	
	Cruising (Tuen Mun <-> Tai O)	LVTO01	POINT	814084	819125	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO02	POINT	814070	819111	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO03	POINT	814055	819097	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO04	POINT	814041	819083	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO05	POINT	814026	819069	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO06	POINT	814012	819056	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO07	POINT	813998	819042	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO08	POINT	813983	819028	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO09	POINT	813969	819014	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO10	POINT	813954	819000	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO11	POINT	813940	818986	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO12	POINT	813925	818972	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO13	POINT	813911	818958	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO14	POINT	813897	818945	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO15	POINT	813882	818931	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO16	POINT	813868	818917	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO17	POINT	813854	818902	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO18	POINT	813841	818887	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO19	POINT	813827	818873	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO20	POINT	813814	818858	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO21	POINT	813799	818844	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	

Source	Source Description	Source ID	Type	Location X (m)	Location Y (m)	Base Elevation (mpd)	Release Height [1] (m)	Point Source Exit Temperature [2] (K)	Point Source Exit velocity [2] (m/s)	Point Source Internal diameter [1] (m)	Area Source Length-X (m)	Area Source Width-Y (m)	Area Source Angle (o)	Emission Rate Nox (g/s)	Emission Rate RSP (g/s)	Emission Rate FSP (g/s)	Remarks
		LVTO22	POINT	813786	818829	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO23	POINT	813772	818815	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO24	POINT	813758	818800	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO25	POINT	813745	818786	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO26	POINT	813731	818771	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO27	POINT	813717	818756	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO28	POINT	813704	818742	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO29	POINT	813690	818727	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO30	POINT	813676	818713	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO31	POINT	813663	818698	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO32	POINT	813649	818683	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO33	POINT	813635	818669	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO34	POINT	813622	818654	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO35	POINT	813607	818641	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO36	POINT	813592	818627	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO37	POINT	813577	818614	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO38	POINT	813562	818601	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO39	POINT	813547	818587	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO40	POINT	813532	818574	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO41	POINT	813517	818561	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO42	POINT	813502	818548	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO43	POINT	813487	818534	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO44	POINT	813473	818521	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO45	POINT	813458	818508	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO46	POINT	813443	818494	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO47	POINT	813428	818481	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO48	POINT	813413	818468	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO49	POINT	813398	818455	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO50	POINT	813383	818441	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO51	POINT	813368	818428	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO52	POINT	813353	818415	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO53	POINT	813338	818401	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO54	POINT	813323	818388	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO55	POINT	813308	818375	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO56	POINT	813293	818362	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO57	POINT	813278	818348	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO58	POINT	813263	818335	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO59	POINT	813248	818322	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO60	POINT	813233	818308	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO61	POINT	813218	818295	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO62	POINT	813203	818282	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO63	POINT	813188	818269	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO64	POINT	813174	818255	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO65	POINT	813159	818242	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO66	POINT	813144	818229	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO67	POINT	813129	818215	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO68	POINT	813114	818202	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO69	POINT	813099	818189	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO70	POINT	813084	818176	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO71	POINT	813069	818162	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO72	POINT	813054	818149	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO73	POINT	813039	818136	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO74	POINT	813024	818122	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO75	POINT	813009	818109	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO76	POINT	812994	818096	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO77	POINT	812979	818083	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO78	POINT	812964	818069	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO79	POINT	812949	818056	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO80	POINT	812934	818043	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO81	POINT	812919	818029	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO82	POINT	812904	818016	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO83	POINT	812889	818003	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO84	POINT	812875	817990	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO85	POINT	812860	817976	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO86	POINT	812845	817963	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO87	POINT	812830	817950	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	

Source	Source Description	Source ID	Type	Location X (m)	Location Y (m)	Base Elevation (mpd)	Release Height [1] (m)	Point Source Exit Temperature [2] (K)	Point Source Exit velocity [2] (m/s)	Point Source Internal diameter [1] (m)	Area Source Length-X (m)	Area Source Width-Y (m)	Area Source Angle (o)	Emission Rate Nox (g/s)	Emission Rate RSP (g/s)	Emission Rate FSP (g/s)	Remarks
		LVTO88	POINT	812815	817936	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO89	POINT	812800	817923	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO90	POINT	812785	817910	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO91	POINT	812768	817899	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO92	POINT	812752	817888	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO93	POINT	812735	817877	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO94	POINT	812718	817865	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO95	POINT	812702	817854	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO96	POINT	812685	817843	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO97	POINT	812668	817832	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO98	POINT	812652	817821	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO99	POINT	812635	817810	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO100	POINT	812618	817799	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO101	POINT	812602	817788	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO102	POINT	812585	817777	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO103	POINT	812568	817766	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO104	POINT	812552	817755	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO105	POINT	812535	817744	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO106	POINT	812519	817732	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO107	POINT	812502	817721	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO108	POINT	812485	817710	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO109	POINT	812469	817699	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO110	POINT	812452	817688	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO111	POINT	812435	817677	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO112	POINT	812419	817666	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO113	POINT	812402	817655	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO114	POINT	812385	817644	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO115	POINT	812369	817633	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO116	POINT	812352	817622	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO117	POINT	812335	817611	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO118	POINT	812319	817599	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO119	POINT	812302	817588	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO120	POINT	812285	817577	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO121	POINT	812269	817566	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO122	POINT	812252	817555	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO123	POINT	812236	817544	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO124	POINT	812219	817533	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO125	POINT	812202	817522	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO126	POINT	812186	817511	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO127	POINT	812169	817500	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO128	POINT	812152	817489	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO129	POINT	812136	817478	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO130	POINT	812119	817466	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO131	POINT	812102	817455	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO132	POINT	812086	817444	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO133	POINT	812069	817433	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO134	POINT	812052	817422	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO135	POINT	812036	817411	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO136	POINT	812019	817400	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO137	POINT	812002	817389	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO138	POINT	811986	817378	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO139	POINT	811969	817367	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO140	POINT	811953	817356	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO141	POINT	811936	817345	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO142	POINT	811919	817333	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO143	POINT	811903	817322	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO144	POINT	811885	817312	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO145	POINT	811868	817302	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO146	POINT	811850	817293	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO147	POINT	811833	817283	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO148	POINT	811816	817273	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO149	POINT	811798	817263	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO150	POINT	811781	817253	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO151	POINT	811763	817243	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO152	POINT	811746	817233	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO153	POINT	811730	817222	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	

Source	Source Description	Source ID	Type	Location X (m)	Location Y (m)	Base Elevation (mpd)	Release Height [1] (m)	Point Source Exit Temperature [2] (K)	Point Source Exit velocity [2] (m/s)	Point Source Internal diameter [1] (m)	Area Source Length-X (m)	Area Source Width-Y (m)	Area Source Angle (o)	Emission Rate Nox (g/s)	Emission Rate RSP (g/s)	Emission Rate FSP (g/s)	Remarks
		LVTO154	POINT	811714	817210	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO155	POINT	811697	817199	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO156	POINT	811681	817187	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO157	POINT	811664	817176	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO158	POINT	811648	817164	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO159	POINT	811632	817153	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO160	POINT	811616	817141	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO161	POINT	811599	817129	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO162	POINT	811585	817116	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO163	POINT	811571	817101	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO164	POINT	811557	817087	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO165	POINT	811543	817073	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO166	POINT	811529	817058	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO167	POINT	811515	817044	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO168	POINT	811501	817030	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO169	POINT	811487	817016	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO170	POINT	811473	817001	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO171	POINT	811459	816987	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO172	POINT	811445	816973	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO173	POINT	811431	816959	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO174	POINT	811417	816944	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO175	POINT	811403	816930	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO176	POINT	811389	816916	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO177	POINT	811375	816901	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO178	POINT	811361	816887	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO179	POINT	811347	816873	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO180	POINT	811333	816859	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO181	POINT	811319	816844	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO182	POINT	811305	816830	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO183	POINT	811291	816816	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO184	POINT	811277	816802	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO185	POINT	811263	816787	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO186	POINT	811243	816782	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO187	POINT	811223	816779	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO188	POINT	811204	816776	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO189	POINT	811184	816773	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO190	POINT	811164	816770	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO191	POINT	811144	816767	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO192	POINT	811125	816764	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO193	POINT	811105	816761	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO194	POINT	811085	816758	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO195	POINT	811065	816755	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO196	POINT	811045	816752	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO197	POINT	811026	816749	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO198	POINT	811006	816746	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO199	POINT	810986	816744	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO200	POINT	810968	816752	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO201	POINT	810949	816760	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO202	POINT	810931	816767	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO203	POINT	810912	816775	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	
		LVTO204	POINT	810894	816783	0	1	373	0	0.30	---	---	---	1.26E-03	3.84E-05	3.71E-05	

Note :

[1] Based on site observation, exhaust release height is approximately 1m above water surface and the diamter of exhaust is approximately 0.3m.

[2] No information avaliable for the Exit Temperature and Exit Velocity for marine vessels. Hence, it is assumed that :

- Exit Temperature : 100 oC (i.e. 373K) is assumed (based on EPD's Guidelines on Estimating Height Restriction and Position of Fresh Air Intake Using Gaussian Plume Models)
- Exit Velocity : assumed no vertical dispersion of emission as a conservative approach, hence 0m/s is adopted.

Emission factor for Marine Vessel at the Proposed Marina

Marine Emission

Emission Rate = Engine Power x Loading Factor x Emission Factor

Given

Vessel Type	Engine Type	Engine Power [1]	Loading Factor [2]				Time-In-Mode (minutes) [3]				Emission Factor (g/kWh) [4]		
		(kW)	Maneuvering	Hotelling	Slow Cruise	Fairway Cruise	Maneuvering	Hotelling	Slow Cruise	Fairway Cruise	NOx	RSP	FSP
Route A (from/to North)													
Small Vessel 1 (LOA ≤ 10m)	Main Engine	388	0.14	0.00	0.31	0.88	1.80	5	1.80	0.27	10.00	0.30	0.29
	Generator	7	0.43	0.43	0.43	0.43	1.80	5	1.80	0.27	10.00	0.40	0.39
Small Vessel 2 (LOA ≤ 10m)	Main Engine	522	0.14	0.00	0.31	1.00	1.80	5	1.80	0.24	10.00	0.30	0.29
	Generator	0	0.43	0.43	0.43	0.43	1.80	5	1.80	0.24	10.00	0.40	0.39
Medium Vessel 1 (LOA 10-15m)	Main Engine	895	0.13	0.00	0.29	0.82	1.80	5	1.80	0.27	10.00	0.30	0.29
	Generator	8	0.43	0.43	0.43	0.43	1.80	5	1.80	0.27	10.00	0.40	0.39
Medium Vessel 2 (LOA 10-15m)	Main Engine	998	0.15	0.00	0.33	0.67	1.80	5	1.80	0.38	10.00	0.30	0.29
	Generator	11	0.43	0.43	0.43	0.43	1.80	5	1.80	0.38	10.00	0.40	0.39
Route B (from/to South)													
Small Vessel 1 (LOA ≤ 10m)	Main Engine	388	0.14	0.00	0.31	0.88	1.80	5	1.80	3.05	10.00	0.30	0.29
	Generator	7	0.43	0.43	0.43	0.43	1.80	5	1.80	3.05	10.00	0.40	0.39
Small Vessel 2 (LOA ≤ 10m)	Main Engine	522	0.14	0.00	0.31	1.00	1.80	5	1.80	2.67	10.00	0.30	0.29
	Generator	0	0.43	0.43	0.43	0.43	1.80	5	1.80	2.67	10.00	0.40	0.39
Medium Vessel 1 (LOA 10-15m)	Main Engine	895	0.13	0.00	0.29	0.82	1.80	5	1.80	3.05	10.00	0.30	0.29
	Generator	8	0.43	0.43	0.43	0.43	1.80	5	1.80	3.05	10.00	0.40	0.39
Medium Vessel 2 (LOA 10-15m)	Main Engine	998	0.15	0.00	0.33	0.67	1.80	5	1.80	4.28	10.00	0.30	0.29
	Generator	11	0.43	0.43	0.43	0.43	1.80	5	1.80	4.28	10.00	0.40	0.39

Note:

[1] Engine Power for Main Engine & Auxiliary Engine - Referenced from the specifications of each vessel

[2] Loading Factor for the Main Engine - assuming loading factor = Speed under each Mode / Max. Design Speed. See details in "Calculations of TIM for Marine Vessel at the Proposed Marina".
Loading Factor for the Auxiliary Engine - Referenced from Table 4-10 of the Study on Marine Vessels Emissions Inventory, February 2012

[3] Time-In-Mode for each vessel - Referenced from Table 4-15 of the Study on Marine Vessels Emissions Inventory, February 2012, except Fairway Cruise (see "Calculations of TIM for Marine Vessel at the Proposed Marina")

[4] Emission Factor for the Propulsion Engine & Auxiliary Engine - Referenced from Table 4-16 of the Study on Marine Vessels Emissions Inventory, February 2012

Detailed Emission Rate

Vessel Type	Engine Type	Emission Rate (kg/hour)											
		Maneuvering			Hotelling			Slow Cruise			Fairway Cruise		
		NOx	RSP	FSP	NOx	RSP	FSP	NOx	RSP	FSP	NOx	RSP	FSP
Route A (from/to North)													
Small Vessel 1 (LOA ≤ 10m)	Main Engine	1.64E-02	4.91E-04	4.75E-04	0.00E+00	0.00E+00	0.00E+00	3.64E-02	1.09E-03	1.05E-03	1.53E-02	4.60E-04	4.45E-04
	Generator	8.39E-04	3.35E-05	3.27E-05	2.33E-03	9.32E-05	9.08E-05	8.39E-04	3.35E-05	3.27E-05	1.26E-04	5.05E-06	4.93E-06
Small Vessel 2 (LOA ≤ 10m)	Main Engine	2.20E-02	6.61E-04	6.39E-04	0.00E+00	0.00E+00	0.00E+00	4.90E-02	1.47E-03	1.42E-03	2.07E-02	6.20E-04	5.99E-04
	Generator	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Medium Vessel 1 (LOA 10-15m)	Main Engine	3.55E-02	1.07E-03	1.03E-03	0.00E+00	0.00E+00	0.00E+00	7.90E-02	2.37E-03	2.29E-03	3.33E-02	1.00E-03	9.66E-04
	Generator	9.68E-04	3.87E-05	3.77E-05	2.69E-03	1.08E-04	1.05E-04	9.68E-04	3.87E-05	3.77E-05	1.46E-04	5.83E-06	5.68E-06
Medium Vessel 2 (LOA 10-15m)	Main Engine	4.49E-02	1.35E-03	1.30E-03	0.00E+00	0.00E+00	0.00E+00	9.98E-02	2.99E-03	2.89E-03	4.21E-02	1.26E-03	1.22E-03
	Generator	1.42E-03	5.68E-05	5.53E-05	3.94E-03	1.58E-04	1.54E-04	1.42E-03	5.68E-05	5.53E-05	2.99E-04	1.20E-05	1.17E-05
Route B (from/to South)													
Small Vessel 1 (LOA ≤ 10m)	Main Engine	1.64E-02	4.91E-04	4.75E-04	0.00E+00	0.00E+00	0.00E+00	3.64E-02	1.09E-03	1.05E-03	1.73E-01	5.18E-03	5.01E-03
	Generator	8.39E-04	3.35E-05	3.27E-05	2.33E-03	9.32E-05	9.08E-05	8.39E-04	3.35E-05	3.27E-05	1.42E-03	5.69E-05	5.55E-05
Small Vessel 2 (LOA ≤ 10m)	Main Engine	2.20E-02	6.61E-04	6.39E-04	0.00E+00	0.00E+00	0.00E+00	4.90E-02	1.47E-03	1.42E-03	2.33E-01	6.98E-03	6.74E-03
	Generator	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Medium Vessel 1 (LOA 10-15m)	Main Engine	3.55E-02	1.07E-03	1.03E-03	0.00E+00	0.00E+00	0.00E+00	7.90E-02	2.37E-03	2.29E-03	3.75E-01	1.13E-02	1.09E-02
	Generator	9.68E-04	3.87E-05	3.77E-05	2.69E-03	1.08E-04	1.05E-04	9.68E-04	3.87E-05	3.77E-05	1.64E-03	6.57E-05	6.40E-05
Medium Vessel 2 (LOA 10-15m)	Main Engine	4.49E-02	1.35E-03	1.30E-03	0.00E+00	0.00E+00	0.00E+00	9.98E-02	2.99E-03	2.89E-03	4.74E-01	1.42E-02	1.38E-02
	Generator	1.42E-03	5.68E-05	5.53E-05	3.94E-03	1.58E-04	1.54E-04	1.42E-03	5.68E-05	5.53E-05	3.37E-03	1.35E-04	1.31E-04

Summary (for each type of vessel)

Vessel Type	Engine Type	Emission Rate (kg/hour)											
		Maneuvering			Hotelling			Slow Cruise			Fairway Cruise		
		NOx	RSP	FSP	NOx	RSP	FSP	NOx	RSP	FSP	NOx	RSP	FSP
Route A (from/to North)													
Small Vessel [5]	Main Engine	1.92E-02	5.76E-04	5.57E-04	0.00E+00	0.00E+00	0.00E+00	4.27E-02	1.28E-03	1.24E-03	1.80E-02	5.40E-04	5.22E-04
	Generator	4.19E-04	1.68E-05	1.64E-05	1.16E-03	4.66E-05	4.54E-05	4.19E-04	1.68E-05	1.64E-05	6.32E-05	2.53E-06	2.46E-06
Medium Vessel [6]	Main Engine	4.02E-02	1.21E-03	1.17E-03	0.00E+00	0.00E+00	0.00E+00	8.94E-02	2.68E-03	2.59E-03	3.77E-02	1.13E-03	1.09E-03
	Generator	1.19E-03	4.77E-05	4.65E-05	3.31E-03	1.33E-04	1.29E-04	1.19E-03	4.77E-05	4.65E-05	2.23E-04	8.90E-06	8.68E-06
Route B (from/to South)													
Small Vessel	Main Engine	1.92E-02	5.76E-04	5.57E-04	0.00E+00	0.00E+00	0.00E+00	4.27E-02	1.28E-03	1.24E-03	2.03E-01	6.08E-03	5.88E-03
	Generator	4.19E-04	1.68E-05	1.64E-05	1.16E-03	4.66E-05	4.54E-05	4.19E-04	1.68E-05	1.64E-05	7.11E-04	2.85E-05	2.77E-05
Medium Vessel	Main Engine	4.02E-02	1.21E-03	1.17E-03	0.00E+00	0.00E+00	0.00E+00	8.94E-02	2.68E-03	2.59E-03	4.25E-01	1.27E-02	1.23E-02
	Generator	1.19E-03	4.77E-05	4.65E-05	3.31E-03	1.33E-04	1.29E-04	1.19E-03	4.77E-05	4.65E-05	2.51E-03	1.00E-04	9.77E-05

Note:

[5] No information on the fleet mix of Small Vessel 1 and Small Vessel 2. Hence, average emission rate from Small Vessel 1 and Small Vessel 2 is adopted.

[6] No information on the fleet mix of Medium Vessel 1 and Medium Vessel 2. Hence, average emission rate from Medium Vessel 1 and Medium Vessel 2 is adopted.

Summary (for the Proposed Marina)

Given

No. of Small Vessel =	40	no.
No. of Medium Vessel =	45	no.
No. of Vessel Movement =	6	per hour (it is assumed that three vessles are travelling towards north, and three towards south as a reasonable assumption)

Vessel Type	Engine Type	Emission Rate (kg/hour)											
		Maneuvering			Hotelling			Slow Cruise			Fairway Cruise		
		NOx	RSP	FSP	NOx	RSP	FSP	NOx	RSP	FSP	NOx	RSP	FSP
Route A (from/to North)													
Overall [5]	Main Engine	9.10E-02	2.73E-03	2.64E-03	0.00E+00	0.00E+00	0.00E+00	2.02E-01	6.07E-03	5.86E-03	8.53E-02	2.56E-03	2.47E-03
	Generator	2.49E-03	9.95E-05	9.70E-05	6.91E-03	2.76E-04	2.69E-04	2.49E-03	9.95E-05	9.70E-05	4.43E-04	1.77E-05	1.73E-05
Route B (from/to South)													
Overall [5]	Main Engine	9.10E-02	2.73E-03	2.64E-03	0.00E+00	0.00E+00	0.00E+00	2.02E-01	6.07E-03	5.86E-03	9.61E-01	2.88E-02	2.79E-02
	Generator	2.49E-03	9.95E-05	9.70E-05	6.91E-03	2.76E-04	2.69E-04	2.49E-03	9.95E-05	9.70E-05	4.98E-03	1.99E-04	1.94E-04

Note:

[5] According to the current available information, there are 40 and 45 numbers of small and medium vessels respectively. Hence, the weighted average emission rate is adopted for the assessment.

Emission factor for Marine Vessel connecting Tuen Mun / Tung Chung / Sha Lo Wan / Tai O

Marine Emission

Emission Rate = Engine Power x Loading Factor x Emission Factor

Given

Vessel Type	Engine Type	Engine Power [1]	Loading Factor [2]				Time-In-Mode (minutes) [3]				Emission Factor (g/kWh) [4]		
		(kW)	Maneuvering	Hotelling	Slow Cruise	Fairway Cruise	Maneuvering	Hotelling	Slow Cruise	Fairway Cruise	NOx	RSP	FSP
Tuen Mun <-> Tung Chung													
Ferry	Main Engine	643	0.28	0.00	0.63	1.00	1.80	5	1.80	4.13	10.00	0.30	0.29
	Auxiliary Engine	66	0.43	0.43	0.43	0.43	1.80	5	1.80	4.13	10.00	0.40	0.39
Tuen Mun <-> Tai O													
Ferry	Main Engine	643	0.28	0.00	0.63	1.00	1.80	5	1.80	6.54	10.00	0.30	0.29
	Auxiliary Engine	66	0.43	0.43	0.43	0.43	1.80	5	1.80	6.54	10.00	0.40	0.39

Note:

[1] Engine Power for Main Engine & Auxiliary Engine - for vessel type "Others" (Referenced from Tables 4-5 & 4-6 of the Study on Marine Vessels Emissions Inventory, February 2012)

[2] Loading Factor for the Main Engine - assuming loading factor = Speed under each Mode / Max. Design Speed. See details in "Calculations of TIM for Marine Vessel at the Proposed Marina".
Loading Factor for the Auxiliary Engine - Referenced from Table 4-10 of the Study on Marine Vessels Emissions Inventory, February 2012

[3] Time-In-Mode for each vessel - Referenced from Table 4-15 of the Study on Marine Vessels Emissions Inventory, February 2012, except Fairway Cruise (see "Calculations of TIM for Marine Vessel connecting Tuen Mun / Tung Chung / Sha Lo Wan / Tai O")

[4] Emission Factor for the Propulsion Engine & Auxiliary Engine - Referenced from Table 4-16 of the Study on Marine Vessels Emissions Inventory, February 2012

Detailed Emission Rate

Vessel Type	Engine Type	Emission Rate (kg/hour)											
		Maneuvering			Hotelling			Slow Cruise			Fairway Cruise		
		NOx	RSP	FSP	NOx	RSP	FSP	NOx	RSP	FSP	NOx	RSP	FSP
Tuen Mun <-> Tung Chung													
Ferry	Main Engine	5.43E-02	1.63E-03	1.57E-03	0.00E+00	0.00E+00	0.00E+00	1.21E-01	3.62E-03	3.50E-03	4.43E-01	1.33E-02	1.28E-02
	Auxiliary Engine	8.51E-03	3.41E-04	3.32E-04	2.37E-02	9.46E-04	9.22E-04	8.51E-03	3.41E-04	3.32E-04	1.95E-02	7.81E-04	7.62E-04
Tuen Mun <-> Tai O													
Ferry	Main Engine	5.43E-02	1.63E-03	1.57E-03	0.00E+00	0.00E+00	0.00E+00	1.21E-01	3.62E-03	3.50E-03	7.01E-01	2.10E-02	2.03E-02
	Auxiliary Engine	8.51E-03	3.41E-04	3.32E-04	2.37E-02	9.46E-04	9.22E-04	8.51E-03	3.41E-04	3.32E-04	3.09E-02	1.24E-03	1.21E-03

Calculations of TIM for Marine Vessel at the Proposed Marina

Vessel Type	Length of Sailing Route [1]	Design Speed [2]	Speed under various Mode (m/s) [3]				Time-In-Mode (minutes) [4]				Distance Travelled under various Mode (m)			
	(m)	(m/s)	Maneuvering	Hotelling	Slow Cruise	Fairway Cruise	Maneuvering	Hotelling	Slow Cruise	Fairway Cruise	Maneuvering	Hotelling	Slow Cruise	Fairway Cruise
Route A (from/to North)														
Small Vessel 1 (LOA ≤ 10m)	1040	16.46	2.31	0.00	5.14	14.40	1.80	5	1.80	0.27	250	0	556	234
Small Vessel 2 (LOA ≤ 10m)	1040	16.46	2.31	0.00	5.14	16.46	1.80	5	1.80	0.24	250	0	556	234
Medium Vessel 1 (LOA 10-15m)	1040	17.49	2.31	0.00	5.14	14.40	1.80	5	1.80	0.27	250	0	556	234
Medium Vessel 2 (LOA 10-15m)	1040	15.43	2.31	0.00	5.14	10.29	1.80	5	1.80	0.38	250	0	556	234
Route B (from/to South)														
Small Vessel 1 (LOA ≤ 10m)	3445	16.46	2.31	0.00	5.14	14.40	1.80	5	1.80	3.05	250	0	556	2639
Small Vessel 2 (LOA ≤ 10m)	3445	16.46	2.31	0.00	5.14	16.46	1.80	5	1.80	2.67	250	0	556	2639
Medium Vessel 1 (LOA 10-15m)	3445	17.49	2.31	0.00	5.14	14.40	1.80	5	1.80	3.05	250	0	556	2639
Medium Vessel 2 (LOA 10-15m)	3445	15.43	2.31	0.00	5.14	10.29	1.80	5	1.80	4.28	250	0	556	2639

Note:

[1] Length of sailing route within 500m assessment area.

[2] Referenced from the specification of each vessel.

[3] With reference to EPD's study on marine vessel (2012), the average speeds in Maneuvering / Slow Cruise modes are 4.5 and 10 knots respectively (i.e. 2.31 and 5.14 m/s). For fairway cruise mode, since no information is avaliable for Small Vessel 2, the maximum design speed is adopted as a conservative approach.

[4] TIMs for Maneuvering / Slow Cruise modes are referenced to EPD's Study on Marine Vessel (2012). TIM for Hotelling is based on site observation. TIM for fairway cruise is estimated based on the length of sailing route.

Calculations of TIM for Marine Vessel connecting Tuen Mun / Tung Chung / Sha Lo Wan / Tai O

Vessel Type	Length of Sailing Route [1]	Design Speed [2]	Speed under various Mode (m/s) [3]				Time-In-Mode (minutes) [4]				Distance Travelled under various Mode (m)			
	(m)	(m/s)	Maneuvering	Hotelling	Slow Cruise	Fairway Cruise	Maneuvering	Hotelling	Slow Cruise	Fairway Cruise	Maneuvering	Hotelling	Slow Cruise	Fairway Cruise
Tuen Mun <-> Tung Chung														
Ferry	2845	8.23	2.31	0.00	5.14	8.23	1.80	5	1.80	4.13	250	0	556	2039
Tuen Mun <-> Tai O														
Ferry	4035	8.23	2.31	0.00	5.14	8.23	1.80	5	1.80	6.54	250	0	556	3229

Note:

[1] Length of sailing route within 500m assessment area.

[2] According to the operator, the sailing distance and time between Tuen Mun and Tung Chung are about 10km and about 25 minutes respectively. Assuming the ferry will be sailing under its maximum speed after the maneuvering and slow cruise mode, it is estimated that the maximum speed will be approximately 16 knots (i.e. 8.23 m/s).

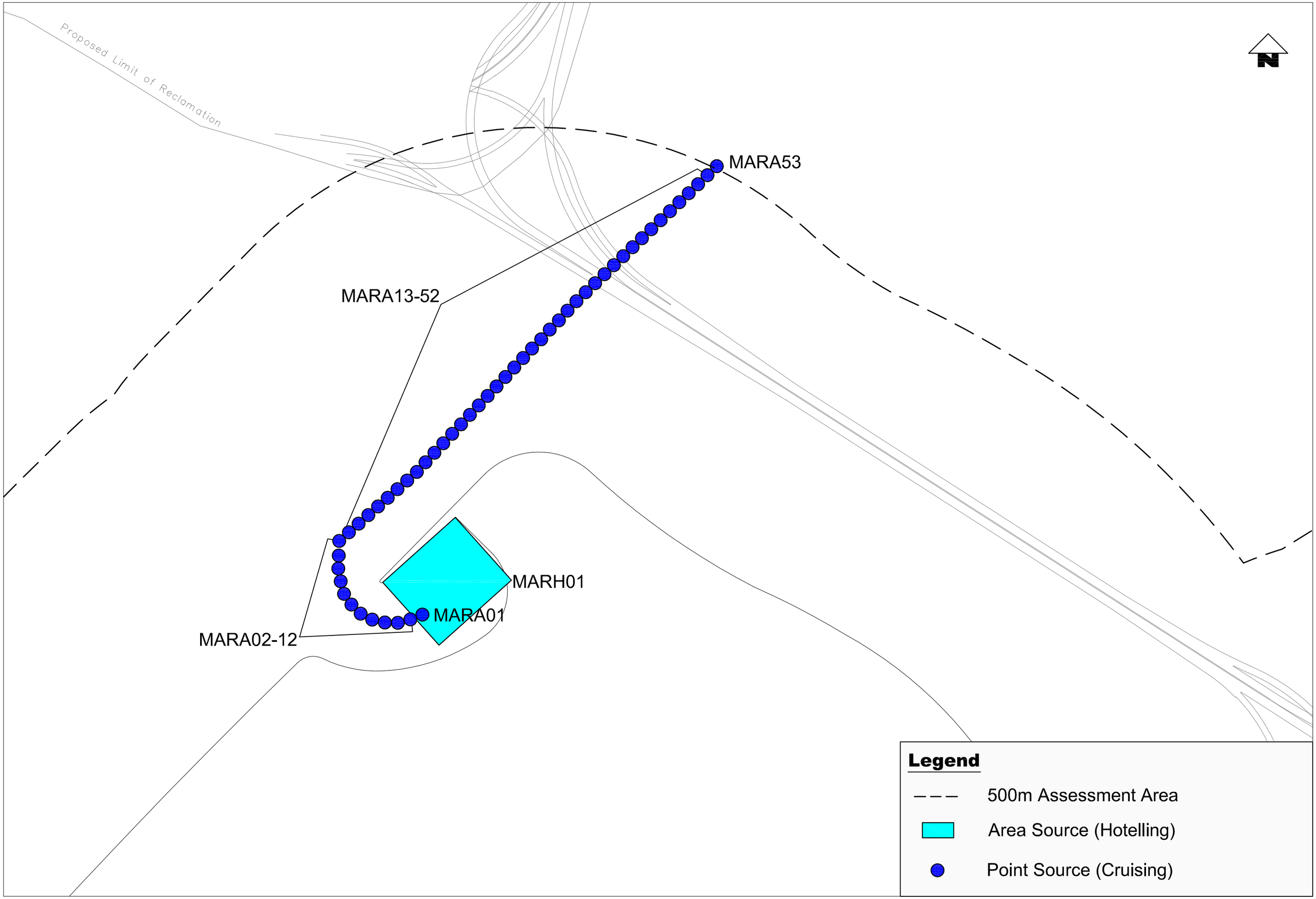
[3] With reference to EPD's study on marine vessel (2012), the average speeds in Maneuvering / Slow Cruise modes are 4.5 and 10 knots respectively (i.e. 2.31 and 5.14 m/s). For fairway cruise mode, since no information is avaliable, the respective maximum design speed of each vessel is adopted as a conservative approach.

[4] TIMs for Maneuvering / Slow Cruise modes are referenced to EPD's Study on Marine Vessel (2012). TIM for Hotelling is based on site observation. TIM for fairway cruise is estimated based on the length of sailing route.

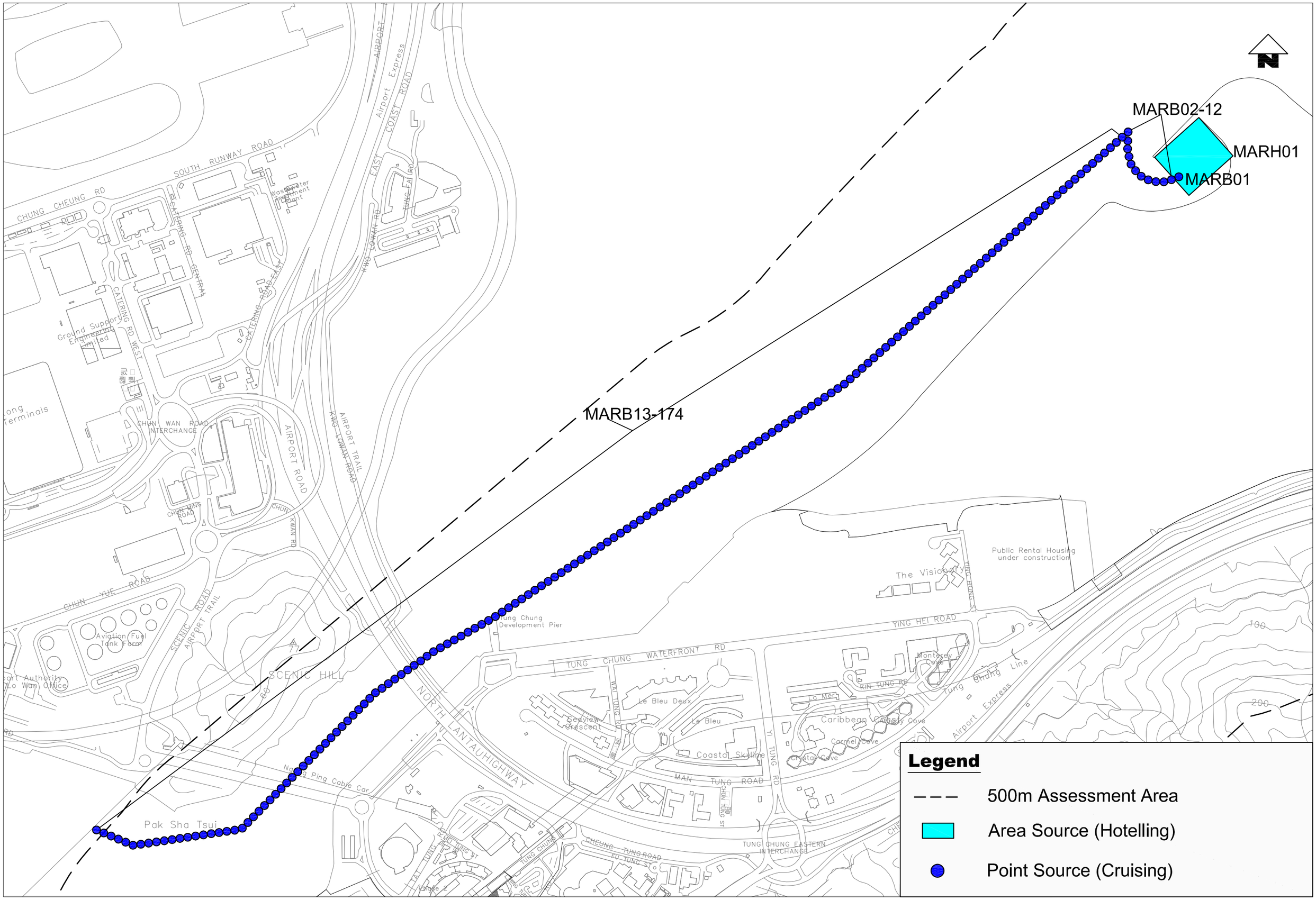
Passenger Ferry Schedule (Tuen Mun <-> Tung Chung <-> Sha Lo Wan <-> Tai O)

Hour		Number of Hotelling / Cruising Activity per hour												Number of Activitiy Adopted in this Assessment			
		Tuen Mun <--> Tung Chung						Tuen Mun <-> Tung Chung <-> Sha Lo Wan <-> Tai O						Tuen Mun <--> Tung Chung		Tuen Mun <-> Tung Chung <-> Sha Lo Wan <-> Tai O	
Start	End	Monday to Friday		Saturday		Sunday and Public Holidays		Monday to Friday		Saturday		Sunday and Public Holidays					
		Hotelling	Cruising	Hotelling	Cruising	Hotelling	Cruising	Hotelling	Cruising	Hotelling	Cruising	Hotelling	Cruising	Hotelling	Cruising	Hotelling	Cruising
0	1																
1	2																
2	3																
3	4																
4	5																
5	6																
6	7																
7	8	1	2	1	2	1	2							1	2		
8	9	1	2	1	2							1	1	1	2	1	1
9	10							1	1	1	1	1	1			1	1
10	11							1	1	1	1	1	1			1	1
11	12							1	1	1	1	1	1			1	1
12	13											1	1			1	1
13	14																
14	15							1	1	1	1	1	1			1	1
15	16									1	1	1	1			1	1
16	17	1	2							1	1	1	1	1	2	1	1
17	18							1	1	1	1	1	1			1	1
18	19							1	1	1	1	1	1			1	1
19	20	1	2	1	2	1	2							1	2		
20	21																
21	22																
22	23																
23	24																

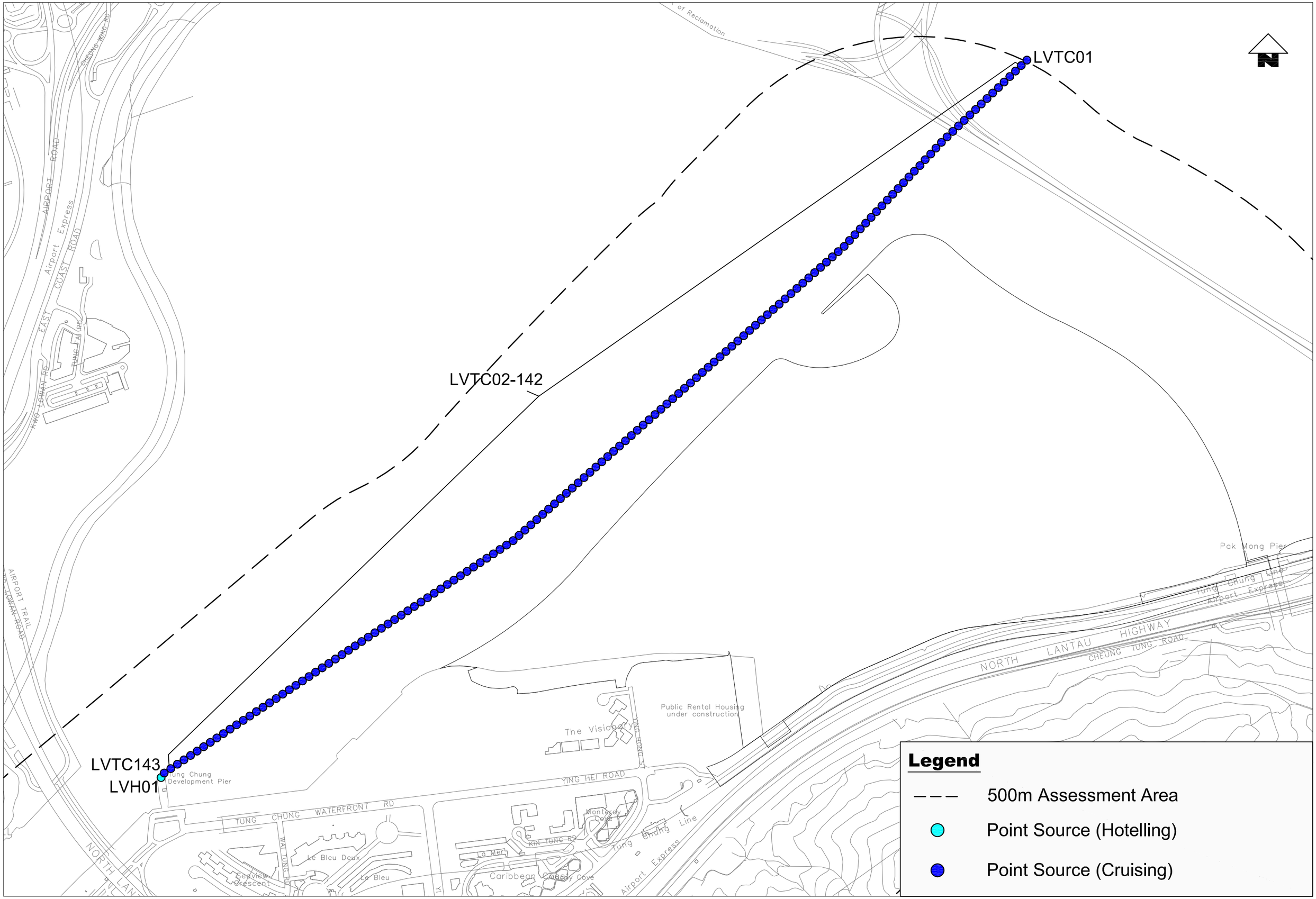
Note: Referenced from the Opertor's website (http://www.fortuneferry.com.hk/timetable.php)



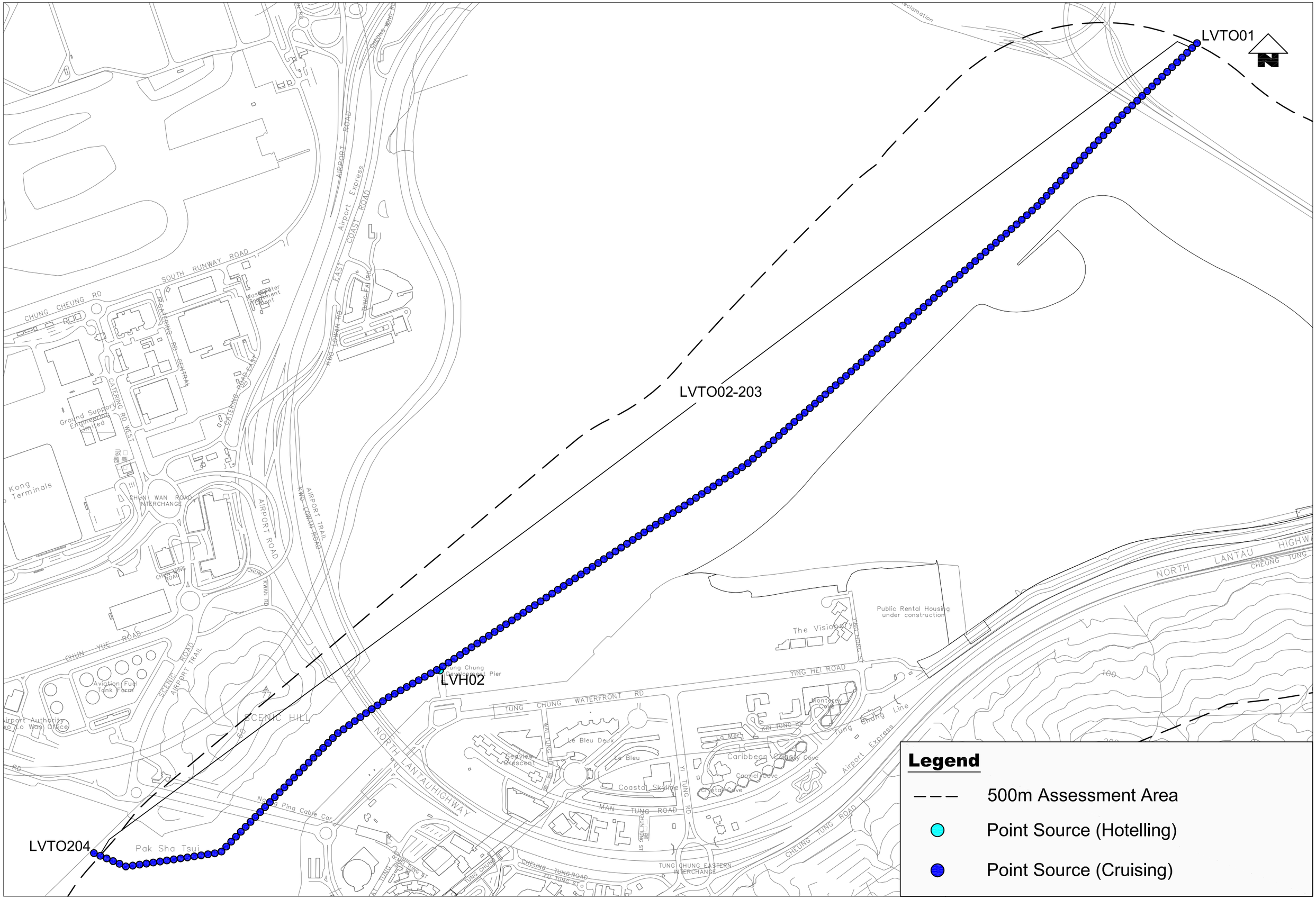
Locations of Marine Emission Source - Proposed Marina (Route A - from/to North)



Locations of Marine Emission Source - Planned Marina (Route B - from/to South)



Locations of Marine Emission Source - Existing Local Vessel (Tuen Mun <--> Tung Chung)



Locations of Marine Emission Source - Existing Local Vessel (Tuen Mun <--> Tai O)