[0G5J]

By Fax 3929 3483

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SCL - COR - HYD - ENV - 109-2

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SCL-Civil	19 JUN 2009			
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19 June 2009

MTR Corporation Limited
9/F Citylink Plaza
1 Shatin Station Circuit
Shatin New Territories
Hong Kong
(Attn: Mr. Joseph Choi)

copied to Joseph Choi 19/6

Dear Sirs,

Hong Kong – Zhuhai – Macao Bridge
Hong Kong Boundary Crossing Facilities (HKBCF) &
Hong Kong Link Road (HKLR) and
Tuen Mun – Chek Lap Kok Link (TM-CLKL)

Coordination with MTRCL Railway Projects
on Construction and Demolition Materials Management

I refer to your letter dated 2.6.2009 concerning the captioned.

Please find enclosed a table showing the most up-to-date estimated demand of soft public fill and rock fill for the HKBCF, HKLR and TM-CLKL projects. Please note that the actual amount of materials to be required from your projects shall depend on the suitability of the materials and the timing of the availability of the materials, and those will be determined in the detailed design stage of our projects.

Yours faithfully,

(C.M. OR)
for Project Manager / Hong Kong – Zhuhai – Macao Bridge Hong Kong
Highways Department

c.c.
Ove Arup & Partners HK Ltd. (Attn : Mr. Eddie Tsang) 3468 3448
AECOM Asia Co. Ltd. (Attn : Mr. Louis Lau) 2681 3660
SE3, SE5, SE8, SE9, SE10, E5, E16
File HZMB 7/9/1/5

Imported Fill Amount for HKBCF, HKLR and TMCLKL project

Programme 5 (Non-dredged Reclamation)

Year	HKBCF		HKLR		TMCLKL - TBM	
	Imported Fill (million tonne)		Imported Fill (million tonne)		Imported Fill (million tonne)	
	Public Fill	Rock	Public Fill	Rock	Public Fill	Rockfill
2010						
2011	0.45	5.05		0.48		1.25
2012	12.05	1.75	2.5	0.32	3.85	3.46
2013	4.3		0.3		6.09	
2014	0.65					
2015						
Total:	**17.45**	**6.8**	**2.8**	**0.8**	**9.94**	**4.71**

APPENDIX C-1

Hong Kong Boundary Crossing Facilities Reclamation - Estimation of Public Fill Demand

Total Estimated Public Fill Demand

Materials	Estimated Quantities (Bulk Volume in million m³)				
	Reclamation	Seawall	Surcharge	Sub-total	*Total*
Public Fill (Soft Materials)	12.33	–	3.00	15.33	*15.33*
Public Fill (Rock) for Seawall Core	–	2.88	–	2.88	*17.36*
Public Fill (Rock) for replacement of sandfill in Seawall Dredged Trench	–	14.48	–	14.48	

Estimated Public Fill Demand (Yearly)

Materials	Estimated Yearly Demand (Bulk Volume in million m³)						
	2010	2011	2012	2013	2014	Sub-total	*Total*
Public Fill (Soft Materials)	–	1.39	13.68	0.26	–	15.33	*15.33*
Public Fill (Rock) for Seawall Core	–	2.67	0.21	–	–	2.88	*17.36*
Public Fill (Rock) for replacement of sandfill in Seawall Dredged Trench	2.76	11.72	–	–	–	14.48	

Estimated Public Fill Demand (Half-yearly)

Materials	Estimated Half-Yearly Demand (Bulk Volume in million m³)											
	2010		2011		2012		2013		2014		Sub-total	*Total*
	First Half	Second Half	First Half	Second Half	First Half	Second Half	First Half	Second Half	First Half	Second Half		
Public Fill (Soft Materials)	–	–	–	1.39	7.18	6.50	0.26	–	–	–	15.33	*15.33*
Public Fill (Rock) for Seawall Core	–	–	1.29	1.38	0.21	–	–	–	–	–	2.88	*17.36*
Public Fill (Rock) for replacement of sandfill in Seawall Dredged Trench	–	2.76	9.31	2.41	–	–	–	–	–	–	14.48	

Remark:

1. The quantities is estimated based on the latest design arrangement up to 01 Nov 09.
2. The yearly/half-yearly demand is estimated based on the latest anticipated reclamation programme up to 01 Nov 09
3. The exact quantities of public fill demand is still subject to the design refinement throughout detailed desgin period

SA No. 2 to Agreement No. CE54/2001(CE)
Wan Chai Development Phase II
Design and Construction for Trunk Road Tunnel Option

Draft Notes of Meeting

Subject:	Coordination Meeting for the possibility to re-use surplus fill material generated from MTR WIL/SIL/SCL projects in WDII	Ref: 60041297/13.2
Meeting Place:	Conference Room, 13/F, North Point Government Office, 333 Java Road, North Point, HK	
Date of Meeting:	4:00 p.m., 2 June 2009, Tuesday	

Present:	Mr Richard Ng	SE/CEDD/HKI&I
	Mr Vincent Kwok	E/CEDD/HKI&I
	Mr Stanley Keung	CM/MTRCL
	Mr Kristian Murfitt	SConE/MTRCL
	Mr Darryl Wong	SDME/MTRCL
	Mr Albert Lam	SConE/MTRCL
	Mr Dennis Chiu	DME1/MTRCL
	Mr Simon Wong	Principal Engineer/AECOM
	Mr H S Lo	Engineer/AECOM

No.	Item	Action
1.0	**Introduction**	
1.1	The members of the meeting introduced themselves respectively.	
1.2	The coordination meeting is to discuss the possibility to re-use of surplus rockfill and public fill generated from WIL/SIL/SCL in Wan Chai Development Phase II (WDII) reclamation contracts	
1.3	AECOM, as the consultant of Civil Engineering and Development Department (CEDD) for the Design and Construction for the WDII - Trunk Road Tunnel Option, briefly introduced the background and scope of the works under the WDII contracts: 1. the major works under WDII included the Wan Chai reclamation works and construction of the Central-Wan Chai Bypass (CWB) Tunnel from Central Reclamation Phase III eastern boundary to the west of ex-PCWA; 2. Owing to the need to maintain the operation of the existing water-front facilities before the reprovisioned ones are operational, reclamation works under WDII will have to be sub-divided into stages. For each stage, the reclamation work will be carried out first, to be followed by the construction of the CWB tunnel box, backfilling to the tunnel and	

No.	Item	Action
	then the reprovisioned utilities above it; 3. The current target commencement date for the proposed works is early 2010 for substantial completion in early 2017.	
2.0	**Programme of WDII Contracts with MTRCL Projects**	
2.1	CEDD advised that WDII Contracts will commence around late 2009 to early 2010 and under the latest construction programme, WDII Contracts would need public fill and rockfill for reclamation/ backfilling / seawall foundation construction starting from June 2010.	
2.2	AECOM further elaborated that owing to the construction sequences to re-provision/ protect/ divert and maintain the existing WCESSP sewage outfall, cross harbour mains, drainage box culverts and cooling mains, the reclamation works in WDII will be divided into at least 9 small areas and fill demand for reclamation work and backfilling work in each of the areas are scattered into different discrete time frames from early 2010 to early 2016.	
2.3	MTRCL briefly described the quantities of generated C&D materials in their proposed projects with a summary table *Preliminary Estimate of Excavated Materials – Status as at: 11 May 2009'* tabled. Currently six projects are planned, namely: 1. WIL (West Island Line); 2. SIL(E) (South Island Line (East)); 3. SCL(EWL) (Shatin to Central Link (East West Line)); 4. SCL(NSL) (Shatin to Central Link (North South Line)); 5. KTE (Kwun Tong Line Extension); 6. XRL (The Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link). The total quantity of generated C&D materials is about 35 million tonnes. MTRCL concerned about the timing of using the C&D materials in WDII. Refer to the preliminary programme in the table, MTRCL mentioned that the C&D materials generated in WIL, SIL(E) and SCL(NSL) may be reusable in WDII Contracts in respect to the programme and location of works.	
2.4	AECOM presented three charts showing the flow of public fill for WDII reclamation works and backfilling to CWB tunnel and the flow of rockfill for seawall foundation needed in each month from Jan 2010 to Dec 2016 . AECOM advised that there are three peak periods requires public fill (end 2010, end 2012/early 2013 and end 2014/early 2015) and rockfill (mid 2010, mid 2012 and early 2014). The charts of WDII preliminary fill demand curves were enclosed to this notes of meeting.	
2.5	AECOM further explained that due to lack of available land for temporary stockpiling, any C&D materials received from MTR Projects shall be delivered directly to WDII site for use and will be unable to stockpile any of the fill materials from MTR projects. MTRCL also advised that stockpiling area for the surplus C&D material generated from their projects is also not available.	

No.	Item	Action
3.0	**Quality of C&D Materials from MTR projects**	
3.1	CEDD and AECOM stated that the public fill provided from MTR projects shall have particle size less that 200mm for reclamation work in order to allow smooth diaphragm wall construction after reclamation. AECOM further elaborated the construction sequences of reclamation and CWB tunnel to clarify the need to have finer particle size requirement.	
3.2	CEDD and AECOM stated that rockfill of grade 200 is needed for WDII seawall construction, MTRCL responded that about half of the rock generated from MTR projects would have a size below 200mm in general.	
3.3	CEDD advised that delivery of public fill/ rockfill for reclamation and seawall foundation works will be by barges rather that land transportation owing to the congested road condition at Wan Chai North. AECOM further explained that the heavy traffic condition in Hung Hing Road would not allow delivery of fill materials by trucks.	
3.4	CEDD/AECOM asked MTRCL about the type of rock expected to be generated and MTRCL advised that about half of the rock is volcanic rock and half of the rock is granite. CEDD/AECOM raised concerns that volcanic rock may not be acceptable by the maintenance agent for seawall construction.	
3.5	MTRCL requested CEDD/AECOM to provide a quarterly demand table to show the demand of public fill and rockfill so that they can review if the generated C&D materials in MTR projects are available to supply to WDII Contracts.	AECOM
3.6	CEDD/AECOM also requested MTRCL to provide a table to show the generation of public fill and rockfill from MTR projects on quarterly/monthly basis for their information.	MTRCL
3.7	Regarding the arrangement for the WDII contractor to collect the C&D materials from MTR project, MTRCL said that the contractors would make their arrangement if it were commercial viable. MTRCL suggested that WDII contractors could liaise with MTR contractors for the supply and logistic arrangements of C&D materials to WDII contracts.	
3.8	MTRCL commented that the requested quantities of C&D materials from WDII Contracts are rather small in quantities as compared to the generated materials in MTR projects. MTRCL would explore and discuss with other projects to investigate if the materials can be reused by other projects or otherwise the surplus will be likely disposed to Mainland China.	
3.9	CEDD summarized a total of about 1.4Mm3 public fill is required in WDII contracts. Upon MTRCL enquiry, CEDD advised that the construction of CWB tunnel at Causeway Bay typhoon shelter is managed by HyD/MWPMO and MTRCL might liaise with HyD for the use of their surplus C&D materials in HyD Contracts.	
3.10	It is agreed that both AECOM and MTRCL shall keep inform to both parties on any change of public fill/ rock fill demand programme for WDII and C&D materials generated programme for MTR projects for further	AECOM/ MTRCL

No.	Item	Action
	review and coordination.	
4.0	**Next Meeting**	
4.1	To be confirmed.	

APPENDIX C-3

MTR

MTR CORPORATION LIMITED
PROJECTS DIVISION
Minutes of Meeting

Subject: **Discussion on the Potential Disposal of Spoil from New Railway Projects as Fill Material for Central-Wan Chai Bypass** File No.: **SCL-MTM-CM(SCLC)-ENV-001148**	Date of Meeting: **5 October 2009** Time: **17:00 pm** Place: **9B, Citylink**

Purpose of Meeting:

To discuss the possibility of using spoil generated from the coming railway projects as fill material in Central-Wan Chai Bypass (CWB) project

Attendees:

Name	Position	Telephone	Name	Position	Telephone
HyD/MWPMO			MTRCL		
Kelvin Ng	E4/CWB	2762 3570	Stanley Keung	CM – SCL	3929 7333
			Ivan Chau	CM – XRL	2208 3647
AECOM (CWB Consultant)			Albert Lam	SConE – SCL	6401 9440
Kelvin Cheng	PM	2685 6414	Ken Wong	SConE – SIL	9660 8480
Alex Wong	SE	2685 6529	Simon Yeung	ConE I - XRL	2208 3742
			Gilbert Wong	DME I – WIL	3921 3361
			Tommy Leung	ConE II – SCL	3929 7452
			Joe Wong	E III – WIL	3921 3346

Item No.	Description	Action By / Status
1.0	**Update on Spoil Quantity and Fill Requirement**	
1.1	MTRCL tabled a summary (based on 22 June 09 estimate) of spoil generated from the coming new railway projects. (Attachment 1)	Noted
1.2	MTRCL stated that majority of the excavated rock would be grade 700 down. MTRCL remarked that a study was underway on reuse of granite as concrete aggregate. Once the reusing scheme was confirmed, the amount of rock available as fill material would be reduced.	Noted

Item No.	Description	Action By / Status
1.3	MTRCL stated that soft materials included both rock and soil excavated by TBM.	Noted
1.4	HyD/MWPMO tabled a fill requirement breakdown for CWB project. (Attachment 2)	Noted
1.5	HyD/MWPMO stated that their rockfill quantity was calculated by assuming grade 400 down would be used. HyD/MWPMO further stated that grade 400 down was the specification requirement for CWB permanent works. However, other grading might be accepted in Package V because only temporary reclamation would be involved and the grading requirement of rockfill would be subject to contractor's design.	Noted
2.0	**Tentative Allocation of Spoil from New Railway Projects**	
2.1	MTRCL identified that WIL and XRL would be able to supply spoil to CWB from 2010 to 2011 whereas SIL, KTE and SCL could be the possible fill sources for CWB after 2011 noting that MTRCL would also supply spoil to Hong Kong-Zhuhai-Macau bridge project which was planned to commence in 2011.	Noted
2.2	MTRCL briefed the current status of WIL and XRL as follows:- WIL 4 advance works contracts were awarded. Shafts excavation would commence shortly and some spoil would be mucked out starting from November 2009. It was envisaged that the proposed barging point at ex-abattoir and PCWA would be operated in around May 2010 and Oct 2010 respectively. Spoil generated before completion of the two barging points would most likely be disposed to local landfill site by land transport. Exact location of the landfill site to be proposed by contractors. XRL The project was under tendering stage. XRL would have 6 barging points. It was envisaged that construction contracts would be awarded starting from December 2009.	Noted
2.3	HyD/MWPMO stated that CWB Package IV was being tendered and would be awarded by the end of 2009. CWB Package V would be tendered in late 2009. HyD/MWPMO envisaged that CWB construction would commence in around April 2010.	Noted
3.0	**Method of Delivery**	
3.1	HyD/MWPMO confirmed that CWB would collect spoil from MTRCL baring points by CWB own barges. CWB would not receive any spoil from land transport due to congested traffic in Central and Wan Chai areas.	Noted
3.2	MTRCL advised CWB to send small barges to collect spoil from ex-abattoir barging point as big barges might encounter maneuvering problem because the barging point would be very close to the existing China Merchants wharf. MTRCL further advised that the high seabed level at ex-abattoir barging point would limit the daily operation period of barges.	Noted

Item No.	Description	Action By / Status
3.3	HyD/MWPMO advised that the fill demand for CWB would not be steady as per the construction program. HyD/MWPMO advised MTRCL to design the barging points to suit CEDD barges for spoil collection as well in order to cater for the time slot without CWB barges. MTRCL reminded that the barging points are also adaptable for loading spoil into the conventional derrick barges, however, protection measures may be required on such barges in view of higher dropping height from the loading ramps, i.e. +10.0mPD at the tipping edge.	Noted
4.0	**Commercial Issues**	
4.1	MTRCL stated that WIL, SIL and KTE were MTR ownership projects whereas XRL and SCL were government projects.	Noted
4.2	MTRCL confirmed that provisions had been included in XRL contracts to control spoil disposal. MTRCL were empowered under contract to instruct contractors to dispose spoil to the specific projects/locations.	Noted
4.3	MTRCL would check any provisions had been included in WIL contracts to control the spoil disposal and would advise in due course.	MTRCL (WIL)
5.0	**AOB**	
5.1	MTRCL stated that as per CEDD requirement, water content of TBM spoil should be controlled to below 25% for delivery to Tai Shan. MTRCL expressed that cement or lime would be added to the wet spoil to reduce moisture content and enquired whether CWB project would have similar requirement. HyD/MWPMO explained that they did not have any specification requirement for temporary fill but they had grading requirement for fill used in permanent works.	Noted
5.2	MTRCL further stated that PS had been added in WIL contracts to control grading and moisture content of spoil to be transported by CEDD. HyD/MWPMO requested MTRCL to provide a copy of the PS for their reference.	MTRCL (WIL)
5.3	It had no objection for HyD/MWPMO to mention in CWB tender document that spoil generated from MTRCL new railway projects would be a possible source of fill materials.	Noted
6.0	**Next Meeting**	
6.1	It was agreed that representatives from WDII & HZM bridge project should be invited for overall coordination in the next meeting. Time and venue to be confirmed.	

Attachment 1 – Spoil generated from MTRC projects (based on 22 June 2009 estimate)

Attachment 2 – Breakdown of C&D materials for individual HyD works package

Spoil Generated from MTRC Projects (based on 22 June)9 estimate)

Attachment 1

Table 1 - Estimate of Soft Materials (tonne)

Projects	2010				2011				2012				2013				2014				2015				2016				Total
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	
WIL	-	-	20,360	56,138	57,205	53,617	31,146	21,879	10,023	6,131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	256,497
SIL(E)	-	-	-	159,204	273,139	260,596	210,224	41,559	109,999	63,645	7,374	7,991	-	1,043	-	10,490	11,061	7,741	-	-	-	-	-	-	-	-	-	-	1,159,064
SCL (EWL)	-	-	-	-	-	-	305,212	382,928	416,903	436,345	389,172	410,361	350,772	367,129	327,440	345,267	133,911	139,547	124,817	131,613	72,008	75,366	67,238	-	-	-	-	-	4,476,207
SCL (NSL)	-	-	-	-	-	-	-	-	64,893	67,920	60,577	63,875	159,658	167,104	149,038	157,153	212,706	222,625	198,558	209,368	141,632	148,237	132,212	139,410	11,846	12,398	11,058	11,660	2,341,927
KTE	-	-	-	51,303	117,272	122,740	109,471	115,431	74,164	77,622	69,231	73,000	6,695	7,008	6,250	6,590	-	-	-	-	-	-	-	-	-	-	-	-	836,777
XRL	58,520	204,560	360,720	965,972	1,874,807	1,365,891	2,359,853	1,908,310	1,297,845	1,117,669	982,275	701,574	471,662	541,365	230,384	42,368	-	-	-	-	-	-	-	-	-	-	-	-	14,483,775
Total	58,520	204,560	381,080	1,227,616	2,322,423	1,808,844	3,015,806	2,470,108	1,973,828	1,759,331	1,508,629	1,256,801	988,787	1,083,649	713,112	561,868	357,478	370,312	323,375	340,981	213,640	223,603	199,429	139,410	11,846	12,398	11,058	11,660	23,554,249

Table 2 - Estimate of Rock (tonne)

Projects	2010				2011				2012				2013				2014				2015				2016				Total
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	
WIL	-	-	59,860	165,052	234,128	219,441	127,473	89,545	18,686	11,429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	925,614
SIL(E)	-	-	-	30,720	40,081	268,057	456,256	391,727	402,479	328,267	168,954	103,769	111,101	19,801	11,033	16,260	17,082	11,955	-	-	-	-	-	-	-	-	-	-	2,377,481
SCL (EWL)	-	-	-	-	-	-	-	9,143	51,479	53,880	48,055	50,671	141,308	147,897	131,908	114,325	73,269	76,686	-	-	-	-	-	-	-	-	-	-	898,621
SCL (NSL)	-	-	-	-	-	-	-	-	18,773	19,648	17,524	18,478	46,584	48,757	43,486	45,853	61,880	64,766	57,764	60,909	41,717	43,663	38,942	41,063	3,476	3,639	3,245	3,422	683,590
KTE	-	-	-	25,648	58,627	61,361	54,728	57,707	218,424	228,616	203,895	214,996	32,331	33,839	30,180	31,823	-	-	-	-	-	-	-	-	-	-	-	-	1,252,170
XRL	-	-	206,388	278,305	535,680	551,351	726,461	1,070,720	912,757	901,163	825,698	656,462	464,400	29,160	212,760	123,930	-	-	-	-	-	-	-	-	-	-	-	-	7,495,435
Total	-	-	266,248	498,725	868,717	1,100,211	1,364,917	1,618,842	1,622,597	1,542,987	1,264,126	1,044,376	795,724	279,453	429,387	332,132	152,232	153,407	57,764	60,909	41,717	43,663	38,942	41,063	3,476	3,639	3,245	3,422	13,632,911

Attachment 2

Central - Wan Chai Bypass and Island Eastern Corridor Link
SA3 to Agreement No. CE 5/95 – Design, Tender and Construction Phase
Appendix C2 - Breakdown of C&D Materials **for Individual HyD Works Package - Without Temporary Stockpiling Area**

Table C2.1 - Required and Generated Rockfill

Contract package		Jan - Jun 2010	Jul - Dec 2010	Jan - Jun 2011	Jul - Dec 2011	Jan - Jun 2012	Jul - Dec 2012	Jan - Jun 2013	Jul - Dec 2013	Jan - Jun 2014	Jul - Dec 2014	Jan - Jun 2015	Jul - Dec 2015	Jan - Jun 2016	Jul - Dec 2016	Total
Package I – Central Interchange	Required (from fill bank)															0.000
	Generated (disposal to fill bank)															0.000
Package IV – North Point Reclamation (CEDD Entrusted Works)	Required (from fill bank)	0.173	0.053	0.003												0.229
	Generated (disposal to fill bank)															0.000
Package V – Main Tunnel (Ex-PCWA to EVB)	Required (from fill bank)	0.139	0.004		0.068			0.080	0.027							0.318
	Generated (disposal to fill bank)		0.016	0.098	0.039	0.040	0.015	0.048	0.005	0.019	0.018	0.016		0.029		0.343
Package VI – Island Eastern Corridor Link	Required (from fill bank)															0.000
	Generated (disposal to fill bank)															0.000
Package IX – Reprovisioning of FEHD Whitfield Depot	Required (from fill bank)															0.000
	Generated (disposal to fill bank)															0.000

Table C2.3 - Required and Generated Public Fill

Contract package		Jan - Jun 2010	Jul - Dec 2010	Jan - Jun 2011	Jul - Dec 2011	Jan - Jun 2012	Jul - Dec 2012	Jan - Jun 2013	Jul - Dec 2013	Jan - Jun 2014	Jul - Dec 2014	Jan - Jun 2015	Jul - Dec 2015	Jan - Jun 2016	Jul - Dec 2016	Total
Package I - Central Interchange	Required (from fill bank)				0.001	0.001	0.001	0.001								0.0040
	Generated (disposal to fill bank)		0.029	0.029	0.029	0.029		0.002								0.1160
	C&D waste (Disposal to landfill)							0.0002								0.0002
Package IV – North Point Reclamation (CEDD Entrusted Works)	Required (from fill bank)	0.126	0.118	0.151												0.395
	Generated (disposal to fill bank)															0.000
	C&D waste (Disposal to landfill)															0.000
Package V – Main Tunnel (Ex-PCWA to EVB)			0.215	0.023	0.012	0.54	0	0.225	0.031	0.266	0	0.114	0.051	0.157		
	Required (from fill bank)	~~[illegible]~~	0.017	~~0.012~~	~~0.107~~		~~0.176~~	~~0.232~~	~~0.206~~		~~0.075~~	~~0.077~~	~~0.26~~			~~1.848~~ 1.452
	Generated (disposal to fill bank)		0.064	0.234	0.016	0.145	0.041	0.037	0.064	0.452	0.266	0.163	0.002	0.043		1.527
	C&D waste (Disposal to landfill)															0.000
Package VI – Island Eastern Corridor Link	Required (from fill bank)				0.029				0.038							0.067
	Generated (disposal to fill bank)			0.159				0.024	0.064	0.008	0.005			0.007	0.018	0.285
	C&D waste (Disposal to landfill)									0.0008	0.0005			0.0007	0.0018	0.0038
Package IX – Reprovisioning of FEHD Whitfield Depot	Required (from fill bank)															0.000
	Generated (disposal to fill bank)		0.040													0.040
	C&D waste (Disposal to landfill)															0.000

Total · 1.814

Table C2.4 - Dredged Marine Deposit

Contract package		Jan - Jun 2010	Jul - Dec 2010	Jan - Jun 2011	Jul - Dec 2011	Jan - Jun 2012	Jul - Dec 2012	Jan - Jun 2013	Jul - Dec 2013	Jan - Jun 2014	Jul - Dec 2014	Jan - Jun 2015	Jul - Dec 2015	Jan - Jun 2016	Jul - Dec 2016	Total
Package I - Central Interchange	Contaminated															0.000
	Uncontaminated															0.000
Package IV – North Point Reclamation (CEDD Entrusted Works)	Contaminated	0.243														0.243
	Uncontaminated	0.210														0.210
Package V – Main Tunnel (Ex-PCWA to EVB)	Contaminated	0.110	0.007	0.004	0.048			0.189								0.358
	Uncontaminated	0.067	0.003	0.002	0.031			0.063								0.166
Package VI – Island Eastern Corridor Link	Contaminated															0.000
	Uncontaminated															0.000
Package IX – Reprovisioning of FEHD Whitfield Depot	Contaminated															0.000
	Uncontaminated															0.000

Table C2.5 - Summary of overall C&D material situation

Contract package		Soft Inert C&D (incl. Grade III or IV rock) (m^3)	Grade II or better rock (m^3)	Artificial hard material (Broken concrete and asphalt) (m^3)	C&D waste to landfill (m^3)
Package I – Central Interchange	Generated (disposal off-site)	116,000	0	1,800	200
	Required (from fill bank)	4,000	0	0	0
Package IV – North Point Reclamation (CEDD Entrusted Works)	Generated (disposal off-site)	0	0	0	0
	Required (from fill bank)	395,000	229,000	0	0
Package V – Main Tunnel (Ex PCWA to EVB)	Generated (disposal off-site)	1,527,000	343,000	0	0
	Required (from fill bank)	1,348,000	318,000	0	0
Package VI – Island Eastern Corridor Link	Generated (disposal off-site)	247,000	0	34,200	3,800
	Required (from fill bank)	67,000	0	0	0
Package IX – Reprovisioning of FEHD Whitfield Depot	Generated (disposal off-site)	40,000	0	0	0
	Required (from fill bank)	0	0	0	0
Total Generated to be disposed off-site		1,930,000	343,000	36,000	4,000
Total import from Fill Bank		1,814,000	547,000	0	0

APPENDIX C-4

MMHJV

Mott MacDonald– Meinhardt – Hyder Joint Venture

4/F, Wah Ming Centre
421 Queen's Road West
Hong Kong
Tel: 2858 0738
Fax: 2559 1613

Our Ref: KMY/SCI/JAS/0884/91096.209/dc

2 June 2009

See Distribution List

6/13/5

Dear Sir/ Madam,

Agreement No. CE 58/2006 (HY)
Central Kowloon Route and Widening of Gascoigne Road Flyover – Investigation
Disposal of Construction and Demolition Materials

We are the Consultants appointed by Highways Department under the captioned Agreement to carry out investigation and preliminary design for the Central Kowloon Route (CKR). CKR is a dual 3-lane trunk road about 4.7km long with about 3.9km in tunnel connecting West Kowloon with the proposed Kai Tak Development and future Trunk Road T2.

The construction works are scheduled to commence in early 2012 for completion in end of 2016. Various construction activities such as cut-and-cover tunnel, drill-and-blast tunnel, foundation works, temporary reclamation, viaducts, depressed road, etc will be carried out. The attached layout plan shows the preferred alignment of CKR.

As the project involves a variety of works that requires excavation and filling, there would be considerable generation of construction and demolition (C&D) materials and imported materials that needs to be handled. The overall generated soft materials, rock materials and broken concrete is approximate 1,180,000m^3, 1,000,000m^3 and 45,000m^3 respectively.

After considering our stockpile areas and the possibility of re-using the generated C&D materials on the filling works of our project, there is still a certain amount of surplus C&D materials to be disposed. As we understand there are several large scale government and railways projects will be implemented in a similar time frame, we would like to see if the construction works undertaken by your department can accept our surplus C&D materials. The breakdown of our surplus C&D materials generated and imported fill required from 2012 to 2016 is attached for your reference.

It would be grateful if you could reply us on or before 10 June. We are pleased to provide any further information if required. Please feel free to contact our Jason Wong at tel. no. 2859-5420 if you have any queries.

Yours faithfully
for and on behalf of MMHJV

Simon Illingworth
Project Manager

Encl.

c.c. CE/MW1-3, HyD (Attn: Mr. Martin Kwan – w/encl.)
Mott MacDonald (Attn: Dr. H.T. Cheng – w/encl.)
Hyder (Attn: Mr. Dickson Law – w/encl.)

Distn: SCI JAS IC

L:\HIGHWAYS\91096\Correspondence\Registered\KMY.SCI.JAS.0884.91096.209 (Distribution).doc

Central Kowloon Route - Estimated Quantities of C&D Materials

Surplus Fill Generation from CKR project

Central Kowloon Route (Hong Kong Section)							Total in million (tonnes)
C&D Materials generation	2011	2012	2013	2014	2015	2016	
Inert C&D materials (including soil, fill, Grade IV or V rock)	0.00	0.16	0.68	0.78	0.76	0.00	
Dredged spoil	0.00	0.17	0.08	0.08	0.00	0.00	
Grade III or above rock	0.00	0.08	0.48	1.48	0.36	0.02	
Broken Concrete	0.00	0.03	0.02	0.02	0.05	0.00	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

million tonnes

For Disposal

Imported Fill Required from CKR project

Central Kowloon Route (Hong Kong Section)							Total in million (tonnes)
Fill Required	2011	2012	2013	2014	2015	2016	
General fill (Grade IV or V rock)	0.00	0.23	0.15	0.22	0.20	0.00	
Rock Fill (Grade II and III) and artificial hard material	0.00	0.05	0.03	0.03	0.00	0.00	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

million tonnes.

200 mm
400 mm
Require import near end of project

APPENDIX C-5

CL-Civil	29 JUN 2009			
ile No. Spoil Disposal & INT/orders				
me	Initial	Action	Copy	Info
anley Keung				
mry Young				
il Smith				
ert Lam				
Ng				
omas Li				
y Ng				
on				
mmy Leung				
my Hui				
m Au				
ench Yu				
seph Yau				

8/6

WAYS DEPARTMENT
WAY DEVELOPMENT OFFICE
R, HO MAN TIN GOVERNMENT OFFICES
HAU STREET, HOMANTIN, KOWLOON, HONG KONG
http://www.hyd.gov.hk

Urgent by Fax 25591613
路政署
鐵路拓展處
香港九龍何文田忠孝街八十八號
何文田政府合署一座
網址 http://www.hyd.gov.hk

(2MHD) in RD 6/13/5
KMY/SCL/JAS/0884/91096.209/dc
電 話 Tel. :2762 4034
圖文傳真 Fax :2714 5297

S/F: NTK 2201-Col-HyD-Gov-0060

GM-SCLKTE	16 JUN 2009		
	Copy	Action	Info
PM-SCLKTE			✓
DM-KTE			
DM-EWL	✓	✓	
DM-NSL			
DM-EBM			
CM-KTE/TUNNEL			
CM-SCL-EWL			
CM-SCL-NSL			

16 June 2009

Mott MacDonald - Meinhardt - Hyder Joint Venture
4/F, Wah Ming Centre,
421 Queen's Road West,
Hong Kong
(Attn: Simon Illingworth)

Dear Sirs,

Central Kowloon Route and Widening of Gascoigne Road Flyover - Investigation
Disposal of Construction and Demolition Materials

I refer to your letter dated 2 June 2009 and received by this office on 8 June 2009.

Currently, the MTRCL is planning to implement a number of railway projects in the near future including West Island Line (WIL), South Island Line (East) (SIL(E)), Shatin to Central Link (SCL), Kwun Tong Line Extension (KTE) and Express Rail Link (XRL). It is estimated by MTRCL that during the construction of these railway projects from 2010 to 2016, there will mainly be surplus construction and demolition (C&D) materials generated, comprising about 22.8 million and 12.2 million tonnes of soft and rock materials respectively and requiring offsite disposal. In this connection, MTRCL advised that none of these railway projects is able to take up and make use of the spoil from the CKR project.

Given that imported fill will be required by the CKR project from 2012 to 2015, opportunity exists that the majority of these imported fill could be supplied from the railway projects on Kowloon side such as SCL, KTE and XRL if programmes match. Further discussions between MTRCL and the Government could be arranged to explore such arrangement during subsequent detailed design stage.

Lastly, I enclosed herewith a copy of the preliminary estimate of C&D materials generated from the various MTRCL railway projects for your information.

Project Manager (Civil)		
Received on: 16 JUN 2009		
File Ref: CPM/CV MW/Spoil Disp.		
Classification	Reply Needed By	Encl. (Y/N)
S/C/R/U	(N/A)	
	For Action	For Info
Original		
Copy		CM-CLKC (SK)
Copy		
Copy		
Circulate		

29 JUN 2009

Yours faithfully,

(Antony N F WAN)
for Chief Engineer/Railway Development 1-3
Railway Development Office, Highways Department

Encl.
c.c. CE/MW1-3, HyD (Attn: Mr. Martin KWAN) – w/e Fax: 2714 5198
MTRCL (Attn: Mr. Joseph CHOI) – w/o Fax: 2363 3541
CE/RD1-1, CE/RD2-1, CE/RD2-3

APPENDIX C-7

02-MAR-2008 16:26 FROM + 852 2714 0113 TO 27145297

MEMO

Urgent by Fax

From	Chief Engineer/Fill Management	*To*	GE/RD(2), HyD
Ref.	(07DPY-01) *in* FM PF/COM/00 Pt.	*(Attn :*	Mr Raymond W F Ho)
Tel. No.	2762 5555	*Your Ref.*	*in*
Fax No.	2714 0113	*dated*	*Fax No.* 2714 5297
Date	3 March 2009	*Total Pages*	1

HIGHWAYS DEPARTMENT RAILWAY DEVELOPMENT OFFICE
- 4 MAR 2009
RECEIVED

Disposal of Surplus Excavated Materials from MTRC Projects

We are preparing a tender for the contract of handling C&D material from 2010 to 2012. As previously discussed, part of the surplus public fill generated from the MTRC projects are proposed to be collected by our contractor at the barging points to be provided under the MTRC projects. Would you please let us have the locations of the proposed barging points, which can provide adequate berthing length and water depth for our contractor's vessels as previously specified, for our incorporation into our tender.

2. Also, for planning purpose, we need to know the yearly breakdown of the surplus public fill that will be required to be collected from the different barging points of the MTRC projects. In this connection, we understand that you will keep liaising with the HZMB Hong Kong Project Management Office with a view to maximising reuse of surplus public fill among different projects under the management of RDO and HZMB Hong Kong Project Management Office.

3. As the preparation of the tender documents is under a very tight programme, your reply by **Friday 13 March 2009** will be highly appreciated.

(Joseph C S Chan)
Chief Engineer/Fill Management
Civil Engineering and Development Department

c.c. Internal
SE/P3
SE/P4
SE/S1

WHK/EL/

CE/RD 1-1
CE/RD 1-2
CE/RD 2-1
CE/RD 2-3

Separate copy. Pls let me have your update by 11-3-2009

→ SE/SCW 3

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

BU Date
Remark :
Attachment Not Scanned ☐
EDMS No. 2CE7

TOTAL P.01