LVAC Paper No. 12/2023

Local Vessels Advisory Committee

Tung Chung New Town Extension

Purpose

Members are invited to refer to the **Annex** for the marine works and the temporarily re-aligned Tung Chung Buoyed Channel associated with the Tung Chung New Town Extension by the Sustainable Lantau Office, Civil Engineering and Development Department. For any comments, if any, please submit to the Secretariat on or before 22 November 2023.

Marine Department
9 November 2023

Annex

Tung Chung New Town Extension

Purpose

1. The purpose of this paper is to brief members on the latest progress of the reclamation works under Contract No. NL/2017/03, the scope and nature of infrastructure works for Tung Chung New Town Extension (TCNTE) under Contract No. NL/2020/03 as well as the necessity to maintain the temporarily re-aligned Tung Chung Buoyed Channel (TCBC).

Background

2. TCNTE will provide about 62,100 residential flats for a population of about 184,000. It will also provide about 877,000 square metres of gross floor area for office, retail and hotel use. TCNTE is one of the key initiatives to increase land supply to meet the housing and other development needs of the community.

3. The reclamation works under Contract No. NL/2017/03 was substantially completed and the associated Marine Department Notice 106/2022 was terminated in August 2023. We are currently undertaking the construction of infrastructure works under Contract No. NL/2020/03. To facilitate the transportation of precast units of box culverts and excavated materials generated during the construction, it is necessary to provide barging points for loading/unloading purposes and maintain the temporarily re-aligned TCBC in the consideration of working area. The details of arrangement for the temporarily re-aligned TCBC could refer to LVAC Paper No. 6/2017.

Scope of Works

4. The infrastructure works for Contract No. NL/2020/03 commenced in June 2021, including construction of engineering infrastructure, namely drainage works, sewerage works, waterworks, roadworks, common utility tunnels and landscaping works, and construction of associated environmental mitigation works including noise barriers and low-noise road surfacing.

Necessity of Providing Barging Points for Loading/Unloading Purposes for the Proposed Box Culvert Construction Works and Transportation of Fill Materials

5. The precast construction method is adopted for the installation of the proposed box culvert for meeting the works programme. The proposed precast box culvert construction involves the utilization of barging points for transporting precast concrete box culvert segments to the construction site. The unloading process will be facilitated by a crane barge, which assists in unloading the box culvert segments onto the land area for installation. In this project, one loading/unloading point located to the east of the reclamation site and two others to the north were selected (see the 3 baring points coloured green in **Annex 1**). This proposal has already taken into consideration that approximately 2 kilometers of sloping seawall along the eco-shoreline is excluded because the sloping seawall is deemed unsuitable for mooring purpose.

6. Furthermore, the reason for transporting the precast segments by sea at two unloading points at the north (for Loading/Unloading the precast box culvert segments) is that there is lack of suitable and safe land access connecting the eastern and the northern unloading points due to ongoing trench excavation works for common utility tunnels. With the consideration of the site constraints including the excavation works, stockpiling, portions handed-over to the third parties (such as MTR, Housing & EMSD, etc.), it is impractical to adopt the eastern unloading point as sole access for transporting precast concrete box culvert segments. There is only one existing one-way sole land access available for all construction vehicles. To consider road safety at the construction site, the northern unloading point is considered necessary for facilitating the precast unit installation for the box culvert at the northern portion.

7. Another proposed barging point inside the marina will be used to handle the construction and demolition materials generated under NL/2020/03, and transport them by sea route to the Tseung Kwan O Fill Bank for future reuse. (see the barging point coloured purple in **Annex 1**)

Necessity of Maintaining the Temporarily Re-aligned TCBC

8. The working barge required at the barging points is around 70m long, which requires 100m of anchoring to stabilize against the tidal stream to meet safety requirements. Moreover, the maximum weight of precast units was approximately 180 tons and the unloading work involves heavy lifting. Therefore, occupation of a larger working area of 140m is required for safety reason and approximate 8 to 10m buffer zone will be provided within these working area. The tentative operation and maintenance period of the barging points shall be

from October 2023 to end 2026 when the infrastructure works will be substantially completed. To attain sufficient working space for safe operation, the temporarily re-aligned TCBC shall be maintained within the said period.

Way Forward

9. We aim at maintaining the temporarily re-aligned TCBC. After the completion of the construction of infrastructure works under Contract No. NL/2020/03, the original alignment of TCBC will be resumed.

Advice Sought

10. All relevant stakeholders were invited to attend the Marine Management Liaison Group (MMLG) consultation meeting held on 5 October 2023 regarding consultation on the proposed marine works under Contract No. NL/2020/03 and the notes of meeting were sent to those stakeholders via email. No adverse comments to the proposal were received. Members are invited to express their view on this paper.

Sustainable Development Office
Civil Engineering and Development
November 2023

Annex 1

	HK 1980 Grid Coordinates		WGS 84 Geodetic Coordinates	
Points	Grid Easting	Grid Northing	Latitude	Longitude
A	812971.2899m	818082.6715m	N022°18'092	E113°57'047
B	813069.8996m	817987.0492m	N022°18'040	E113°57'105
C	813318.0877m	818449.9807m	N022°18'291	E113°57'249
D	813421.7251m	818349.3308m	N022°18'237	E113°57'309
E	814515.3439m	818205.9965m	N022°18'160	E113°57'946
F	814665.7848m	818248.5009m	N022°18'183	E113°58'034
G	814646.5608m	817880.0706m	N022°17'983	E113°58'023
H	814812.2278m	817925.4954m	N022°18'008	E113°58'119
MB1	813909.7550m	818840.1290m	N022°18'503	E113°57'593
MB2	813069.0180m	818186.1760m	N022°18'148	E113°57'104
TC4	813368.3090m	818503.1730m	N022°18'320	E113°57'278
TC5	812689.1130m	817944.9740m	N022°18'017	E113°56'883
TC6	812769.7160m	817869.1830m	N022°17'976	E113°56'930
WEATHER 8	813289.4230m	818578.9590m	N022°18'361	E113°57'232
J	813565.4321m	818483.9506m	N022°18'186	E113°57'236
K	813681.8342m	818584.4797m	N022°18'219	E113°57'276
L	813739.6825m	818527.3369m	N022°18'200	E113°57'297
M	813761.0266m	818463.4163m	N022°18'179	E113°57'304
N	813729.4535m	818403.8803m	N022°18'160	E113°57'293
P	813622.7513m	818355.2028m	N022°18'144	E113°57'256
Q	813553.0863m	818360.3174m	N022°18'146	E113°57'231
R	813488.5361m	818361.9048m	N022°18'146	E113°57'209

NOTES :

1. COORDINATES ARE RELATED TO HON KONG METRIC GRID (1980).
2. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SPECIFIED.

Proposed MDN

MDN 2018 No.70

Barging Point for Transportation of the Construction and Demolition Materials

Barging Point for Loading and Unloading of Precast Segments of Box Culvert No. 4

Barging Point for Loading and Unloading of Precast Segments of Box Culvert No. 3

Barging Point for Loading and Unloading of Precast Segments of Seawater Intake Box Culvert

MDN No. 70 OF 2018

MB1 MB2 TC4 TC5 TC6 WEATHER 8

A B C D E F G H J K L M N P Q R

813000 E 814000 E 815000 E 818000 N 817000 N

TUNG CHUNG 東涌 TAI HO WAN 大嶼灣 TAI HO 大嶼 PAK MONG 白芒 NGAU KWU LONG 牛牯塱 TIN LIU 田寮 TAI HO SAN TSUEN 大嶼新村 POR KAI SHAN 麥髻山 TUNG CHUNG LINE 東涌綫 AIRPORT EXPRESS 機場快綫 NORTH LANTAU HIGHWAY 北大嶼山公路 CHEUNG TUNG ROAD 欣澳路 Ferry Pier 渡輪碼頭 Seaview Crescent 海堤灣畔 Coastal Skyline 藍天海岸 Caribbean Coast 映灣園 Century Link 東環 Fu Tung Estate 富東邨 Yu Tung Court 裕東苑 AREA 58 DCM 3A RECLAMATION AREA HKBCF

CONTRACT NO. NL/2020/03
TUNG CHUNG NEW TOWN EXTENSION – MAJOR INFRASTRUCTURE WORKS IN TUNG CHUNG EAST

TITLE

Proposed MDN Layout Plan

Build King

DRG. NO.

SCALE	DATE OF DRAWING ISSUE
1:12,000(A3)	19–APR–2023
DIMENSIONS ARE IN METRES	COPYRIGHT RESERVED