Circular No : URA/PB/2021/01-DSG
Our Ref : URA/ADMIN/CIRCULAR/PB_21
Date : 01 Mar 2021

CIRCULAR TO PROFESSIONAL INSTITUTES

Who should know
Qualified persons (QP), building owners, tenants, developers, Public Agencies, contractors, and facility managers

Effective date
07 Jan 2021

COMMON SERVICES TUNNEL (CST) ACT 2018 FOR MARINA BAY COMMON SERVICES TUNNEL AREA

Common Services Tunnel Act

1. The Common Services Tunnel Act 2018 ("CST Act") for Marina Bay Common Services Tunnel Area ("Marina Bay CST Area") (**Appendix 1**) came into operation on 7 Jan 2021.

2. The aims of the CST Act include:

   a. regulating engineering works carried out within the CST protection zone designated within the Marina Bay CST Area to ensure the safe and efficient operation and functioning of the CST and CST ancillary facilities within the Marina Bay CST Area;

   b. regulating the laying of utility services infrastructure within the Marina Bay CST Area;

   c. ensuring that an owner or occupier of land within the Marina Bay CST Area takes reasonable measures to keep and maintain any CST ancillary structure (such as entrances and ventilation shafts) within their land in good and serviceable repair; and

   d. preventing obstruction to any CST ancillary structure.

Please refer to **Appendices 2 and 3** for details of the CST protection zone within the Marina Bay CST Area

URA to administer the CST Act for the Marina Bay CST Area

3. The Urban Redevelopment Authority ("URA") has been appointed as the CST Authority responsible for the administration of the CST Act for the Marina Bay CST Area with effect from 7 January 2021.

4. Authorised Officers from URA have also been appointed to carry out the administration of CST Act for the Marina Bay CST Area.

Works Requiring Approval

5. Prior written approval from the URA is required before:

   a. carrying out any engineering works within the Marina Bay CST protection zone.

   b. laying any utility services infrastructure including roads, drains, sewers etc within CST area.

   c. carrying out any works or activities which may affect CST ancillary structures, including erecting or placing any structure or object across or within any CST ancillary structure.

Application for Development / Engineering Works
(See Appendix 4 for flowchart of works)

6. Applications to obtain written approval for **engineering works within the CST protection zone** (as defined in paragraph 5(a) above) are to be submitted to URA at the BP/ST submission stage to the URA via Corenet.

7. The current process of issuing a CST's Advisory Notes together with the first Written Direction (WD) or Written Permission (WP) at the planning approval stage will continue. The CST's Advisory Notes serve as a guide for the applicant to obtain written approval for engineering works within the CST protection zone.

Application for Other Works and Activities
(See Appendices 5 and 6 for flowcharts of works)

8. Applications to obtain written approval for:

   a. **laying of utilities services infrastructure within the Marina Bay CST Area** (as defined in paragraph 5(b) above) are to be submitted to URA via the LTA Prompt System; and

   b. **activities including non-engineering works that may cause obstruction to CST ancillary structures within the Marina Bay CST Area** (as defined in paragraph 5(c) above) are to be submitted via email: URA_CST_DA@ura.gov.sg.

9. The submission requirements for applications for the Marina Bay CST Area under the CST Act are set out in the CST guidelines. The CST Act and the CST guidelines are available online.

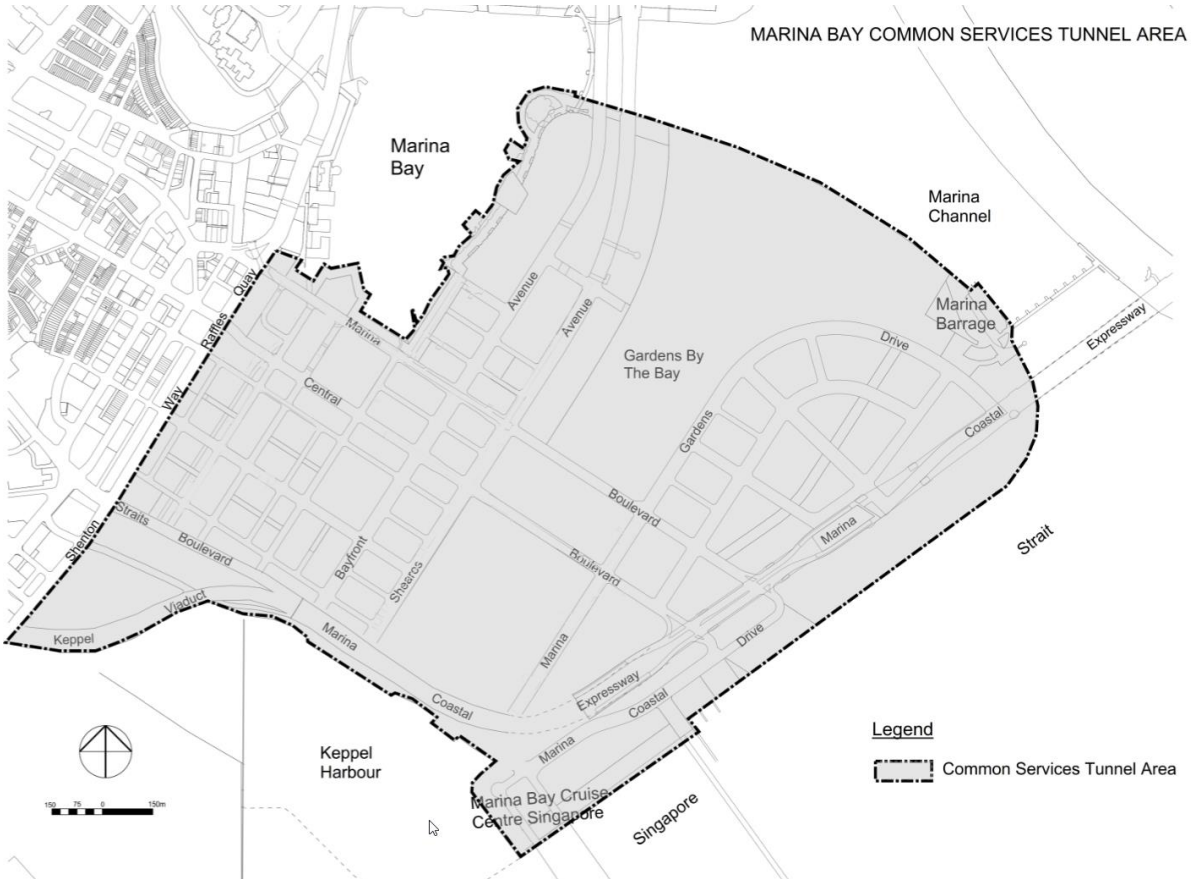
10. I would appreciate it if you could convey the contents of this circular to your members / public licensees. For feedback or enquiries, please email us at URA_CST_DA@ura.gov.sg.

Thank you.

LER SENG ANN
GROUP DIRECTOR (DEVELOPMENT SERVICES)
for CHIEF EXECUTIVE OFFICER
URBAN REDEVELOPMENT AUTHORITY

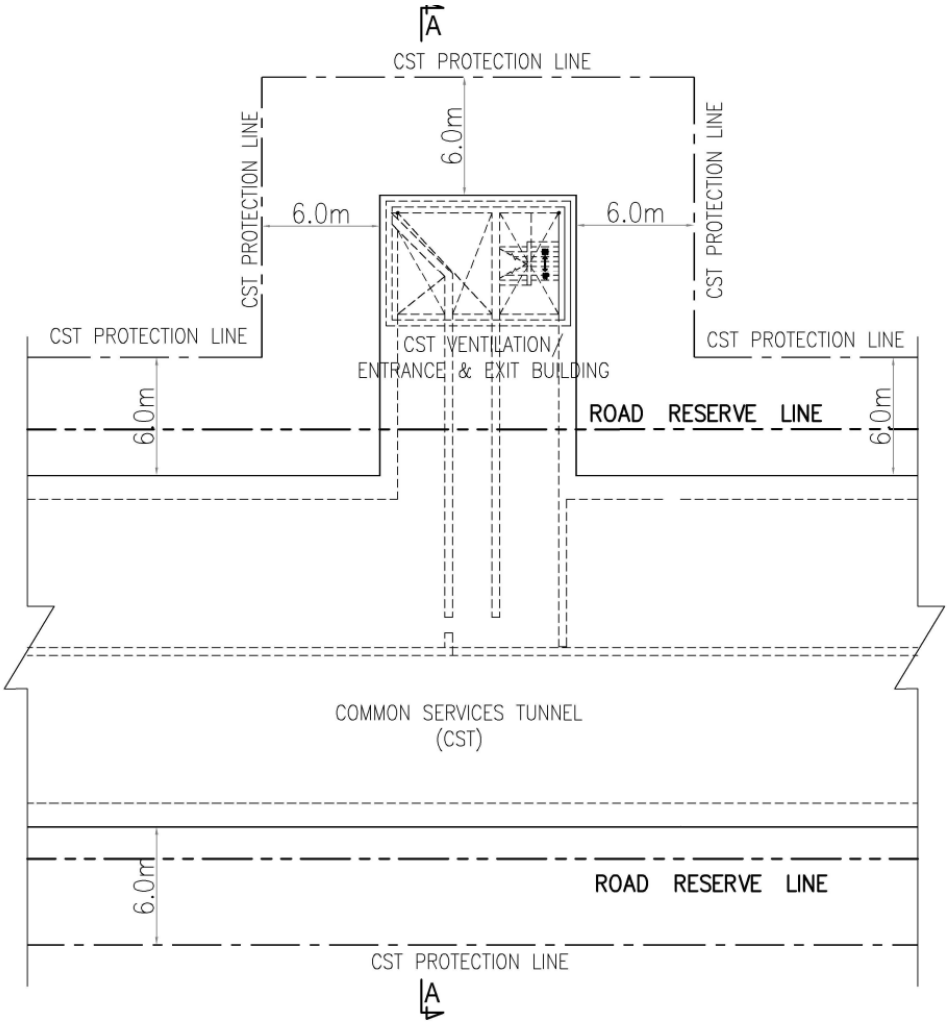
Appendix 1

MARINA BAY COMMON SERVICES TUNNEL AREA



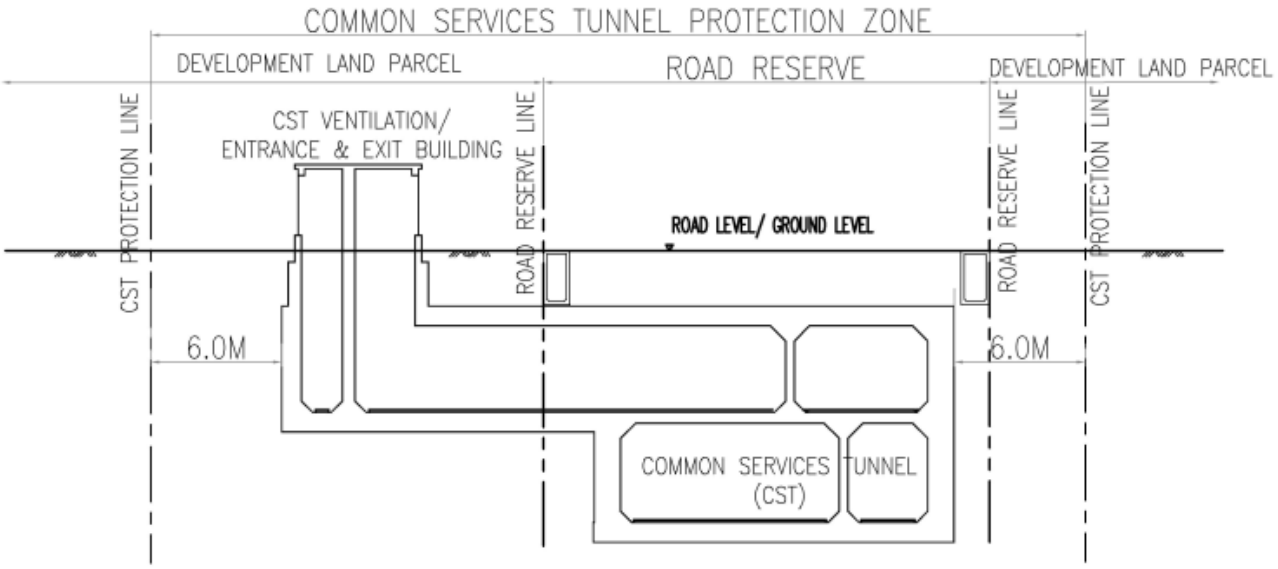
Appendix 2

COMMON SERVICES TUNNEL PROTECTION ZONE

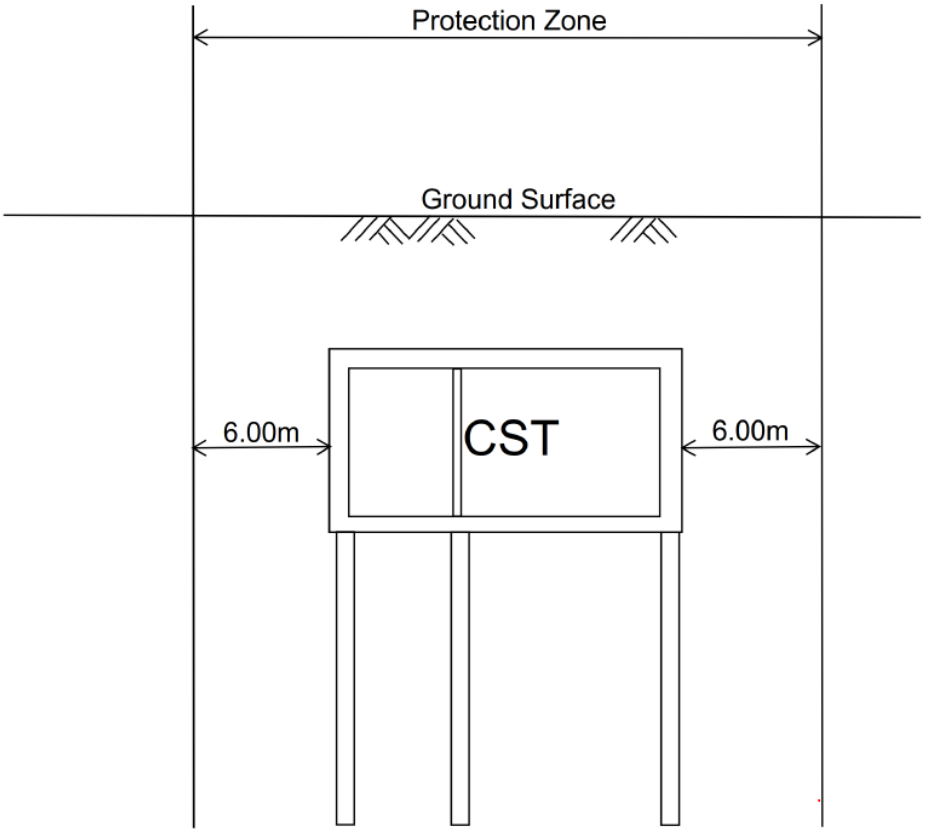


PLAN SHOWING CST WITH VENTILATION SHAFT & ENTRANCE/ EXIT STRUCTURE

Appendix 3



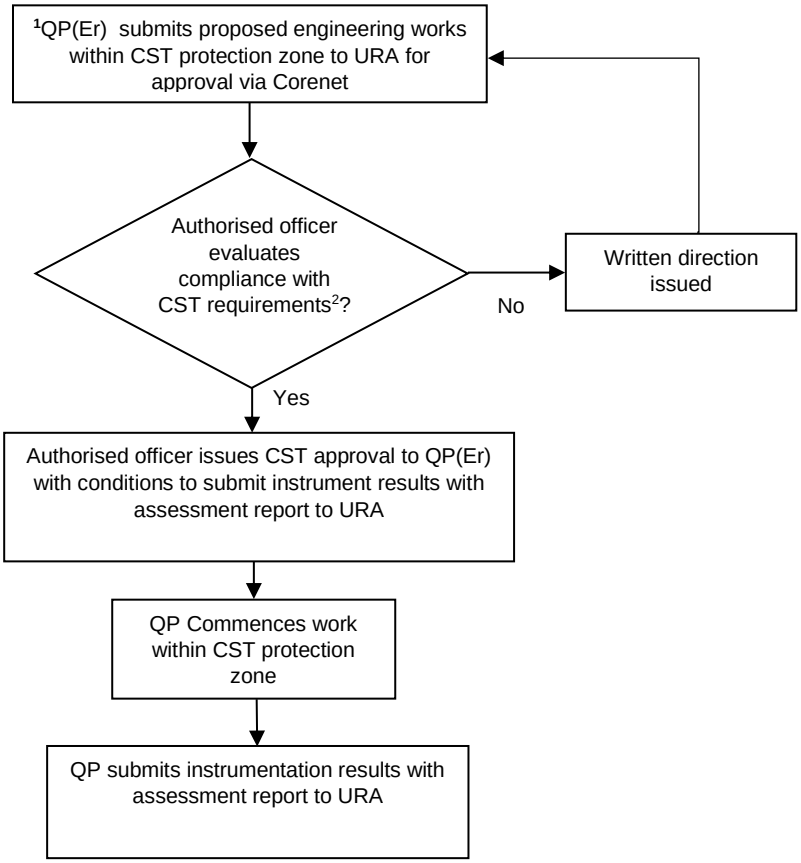
SECTION A - A



PROTECTION ZONE OF
COMMON SERVICES TUNNELS (CST)

Appendix 4

SUBMISSION WORK-FLOW FOR ENGINEERING WORKS WITHIN COMMON SERVICES TUNNEL (CST) PROTECTION ZONE (via CORENET – BP / ST SUBMISSION STAGE)

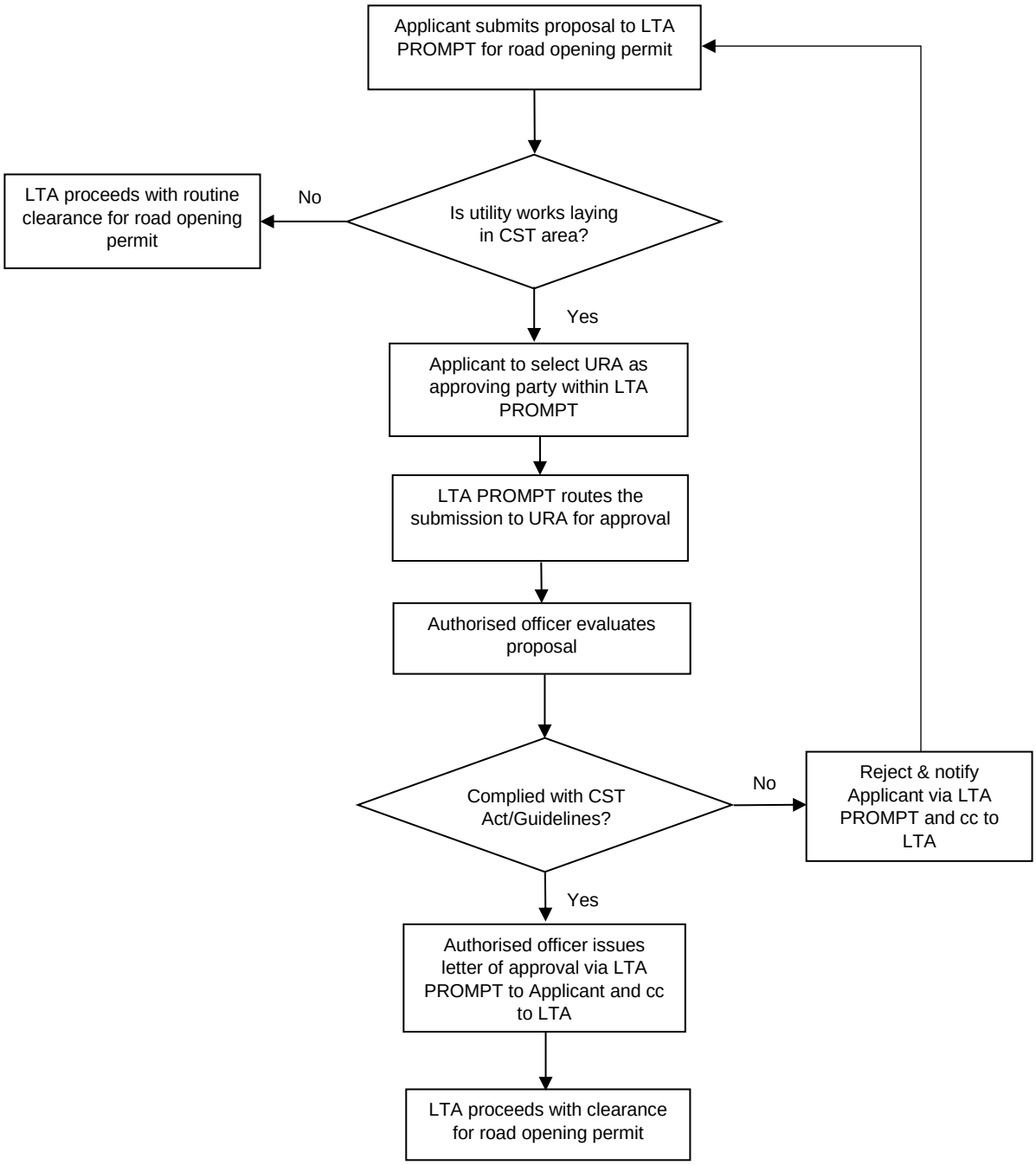


Note:

1. QP can concurrently submit to BCA for ST approval however work can only commence when both relevant ST and CST submission are approved.
2. Refer to guide for works within CST area and protection zone.

Appendix 5

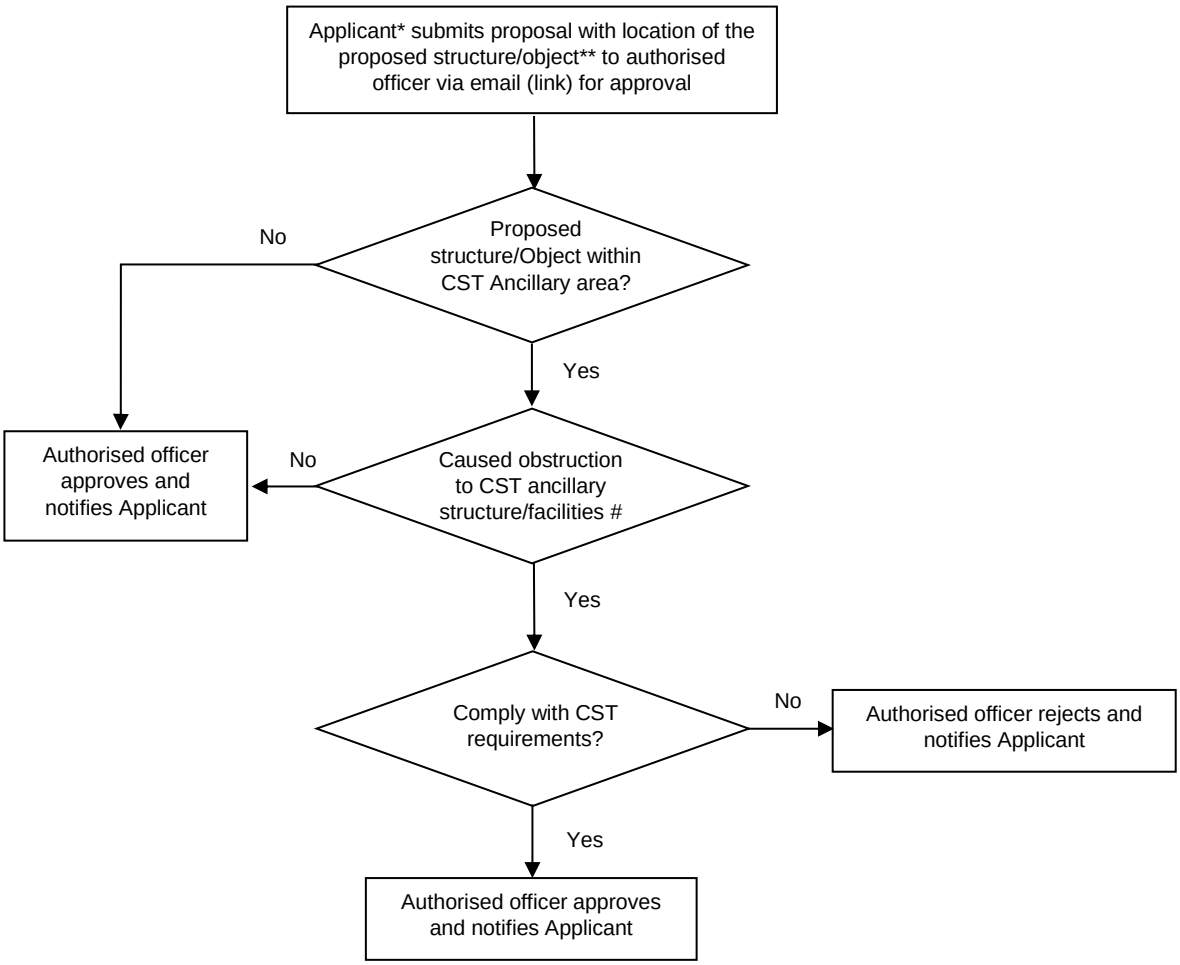
SUBMISSION WORK-FLOW FOR LAYING OF UTILITIES WORKS[1] WITHIN COMMON SERVICES TUNNEL (CST) AREA (via LTA PROMPT System)



[1] Utility suppliers or service providers planning to lay their services/utility lines within the gazetted CST Area shall submit their proposed utility alignment/routes to the CST Authority for approval via LTA Prompt system. Road opening permit approval will be issued by LTA once the proposed laying work is approved by the CST Authorised Officer

Appendix 6

SUBMISSION WORK-FLOW FOR PROPOSED STRUCTURE/ OBJECT WITHIN THE CST ANCILLARY STRUCTURES/ FACILITIES (via email: URA_CST_DA@ura.gov.sg)



* Applicant - Building Owner/MCST, developers, Facility Management Company

** Structure/Object referring to physical erection of structure or object (e.g. advertisement panel/signboard, site office, storage, events, etc.)

CST entrance door, ventilation outlet/inlet, access path or pavement leading to CST Sub-station/Switch room/Generator set room and the associated cable trenches.

SUBMISSION REQUIREMENTS

The following CST requirements shall be complied with, for Development Works within the vicinity of the CST in Downtown Marina Bay.

1. The Applicant shall ensure that the proposed works (including all temporary works etc) be kept at least 6m clear of the outermost edge of the CST tunnels. The CST herein after also refers to Common Services Tunnel and its associated structure e.g. manhole, installation mouth and link structure etc. Depending on a case by case basis, URA CST Operations and Maintenance Unit (CST O&M) may consider to allow the proposed works to be within the 6m of the outermost edge of the CST subject to the work will not cause any detrimental effect on the existing CST.

2. The Applicant is to ensure that any construction vehicle such as roller, lorry & truck etc. shall not allow to driving over the existing CST manholes and installation mouths. The CST installation mouth is design with minimum soil cover which is sufficient for planting turfing but no planting of shrubs/ trees shall be allowed above the installation mouths.

3. The Applicant shall at his own cost and expense, raise or lower the existing manhole(s) structure and its cover to match the final levels of the roadside table if the said manhole(s) is/are affected by the proposed development. However, any such proposal is subject to the evaluation and approval of the authority. The Applicant shall submit plan showing all proposed street elements such as lamp posts, scupper pipes/ drains, trees, etc. within roadside table with the existing/ proposed CST and its manholes and installation mouths indicated. The Applicant shall ensure that all these proposed street elements shall be kept clear of all CST structures and its manholes, installation mouths, etc if applicable.

4. If the depth of excavation above CST or within 6m from the outermost edge of CST tunnel is exceeded 1.5m deep, the Applicant shall submit 2 sets of the proposals for instrumentation and monitoring of the existing CST at least one month before the commencement of construction work, to the URA, CST O&M as following:

   (a) The relevant BP approved plans (only those relevant drawings related to CST works) and approval letter, permit to commence the proposed work within and in the vicinity of existing CST and risk assessment/ management according to the MOM's requirements;

   (b) The temporary earth retaining & stabilizing system (TERS) design and instrumentation plan (with alert & work suspension limits) and program for installing instrumentation in the CST;

   (c) The letter of undertaking to provide regular instrumentation readings and interpretive report to the Authority for comment and information;

   (d) The method statements for the proposed construction of all works within 6m of the outermost of the CST (both sides) and any works that are deemed to affect the CST structure. The method statement must be detailed illustrative and to the point on its

possible impact to CST and contain detail mitigating measures to arrest the impact to the Authority for comment and approval;

(e) The engineering impact analysis report is required to demonstrate that the following performance limits will not be exceeded during or after the construction of the development works:

i. Movement of the CST structure in any plane is not to exceed 15mm;
ii. Water draw-down in the CST protection zone is not to exceed 2.0m;
iii. Vibration (resultant peak particle velocity) measured on the CST structure is not to exceed 15mm/s;
iv. Surcharge load at ground level is not to exceed 30KPa.

(f) Detailed construction schedule for works that may affect the CST structure;

(g) Details of the instruments or equipment, including the types, function of instruments, depth of installation etc. Calibration certificates for the proposed instruments;

(h) Schedule for instrument installation within the CST indicating the number and frequency of access required if necessary; and

(i) The letter of undertaking to pay for work period inside the CST for carrying out installation of instrumentation, monitoring works and other tunnel works etc.

5. Where the proposed works involve structural modifications to the existing CST, the Applicant shall seek URA, CST O&M's consent as the owner and Building & Construction Authority (BCA)'s approval for works on the CST structure. Drawings, design calculations and method statements for the proposed works are to be submitted for approval prior to commencement of works.

Prior to Construction

6. The outline of CST must be clearly indicated in the shop-drawings of the proposed work. The shop-drawings shall be endorsed by the QP and cleared by URA, CST O&M.

7. The Applicant shall submit method statement to clearly show how the top level of manholes/ installation mouths can be modified to match the proposed roadside table for approval by URA prior to modification of manholes/ installation mouths if required.

8. The Applicant shall engage a registered surveyor to submit the following items for URA, CST O&M verification:-

(a) Hard copy plans (3 sets) endorsed by registered surveyor indicating the tunnel outermost edge and the said 6m clearance, topography and ground features, cada lot information and co-ordinates of the ground instruments and off set distances from the CST tunnel outermost edge.

(b) Soft copy plan (1 set) in AutoCad 2016 version or above, showing true coordinates of information listed in (a).

9. Upon approval from the URA, CST O&M, the Applicant's registered surveyor can proceed to peg/ mark on site the above. These pegs/markers shall be verified and jointly inspected by URA, CST O&M on site prior to the excavation and drilling works and to be protected throughout the construction period. This is to ensure that at all times the outermost edge of the CST tunnels is clearly indicated on site. The Applicant is also required to barricade and hoard out any CST associated structure e.g. manhole, installation mouth, etc. with clear signboards indicating to the site workers that extra precautions is needed in this area. Any damage to the CST structure shall be reported to CST O&M and method statement for the repair shall be submitted and approved prior to carrying out the repair by the Applicant.

10. If there is/are existing CST Ventilation Shaft cum Entrance & Exit/ Manholes within the development boundary, the following shall be complied with prior to commencement of work

(a) The Applicant is to submit to URA, CST O&M for approval of the plans for protection of the existing CST structure and / or the CST works including providing netting to screen off dust arising from the construction works from entering the ventilation shaft.

(b) The CST ventilation shaft cum entrance / exit structures and the manholes are to be kept unobstructed at all times for ease of maintenance and for emergency escape purposes. The Applicant is to consult CST O&M at the early planning stage if any of the CST structures are affected by the construction works.

<u>After Construction (If involve modification to CST structure)</u>

11. The Applicant shall submit all as-built drawings for the modification of CST structures/ manholes duly endorsed by the QP and registered surveyor to CST O&M for records.

12. The Applicant shall make arrangement with CST O&M to handover the CST modification and repair works within 1 week after the completion.