

**For discussion
on 20 November 2014**

**BOARD PAPER
AAB/45/2013-14**

**MEMORANDUM FOR THE
ANTIQUITIES ADVISORY BOARD**

**ARCHAEOLOGICAL FEATURES DISCOVERED AT TO KWA WAN
STATION OF THE SHATIN TO CENTRAL LINK (SCL) AND
THEIR PROPOSED PRELIMINARY CONSERVATION AND
INTERPRETATION PLANS**

PURPOSE

All the fieldwork for the archaeological watching brief (AWB)¹ at the works site of the To Kwa Wan Station of the Shatin to Central Link (SCL) was substantially completed at the end of September 2014. This paper serves to give Members a comprehensive account of the discoveries, with particular reference to some newly discovered archaeological findings and a discussion of their conservation options.

BACKGROUND

2. The SCL project, implemented by the MTR Corporation Limited (MTRCL), is a designated project under the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499). An archaeological survey-cum-excavation at the previous location of the Sacred Hill (North) area was recommended in the approved Environmental Impact Assessment report. Dr Liu Wensuo, the archaeologist engaged by the contractor of the project, was granted a licence to carry out the above mentioned archaeological work by the Antiquities Authority, after an assessment of the licence application by the Antiquities and Monuments Office (AMO) and with the support of the Antiquities Advisory Board (AAB). Further to the archaeological survey-cum-excavation completed on 27 December 2013, the AMO initiated and the MTRCL agreed, that an AWB be arranged at the launching shaft area (LSA), having regard to the discovery of over 500 coins mainly dated to the Song dynasty at the LSA in early September 2013. The area for AWB was expanded in April 2014 as a result of the discovery of Song-Yuan archaeological findings within the LSA. Dr. Liu Wensuo is

¹ AWB refers to any archaeological work conducted within a project for non-archaeological purpose. AWB allows archaeological methods to be applied by archaeologists once any archaeological remains are identified in the course of the earth movement works of the development project. A proposal is required to specify the aim, method, and potential mitigation measures for the AWB. AWB could turn into an archaeological excavation if significant archaeological remains are discovered. Once the AWB commences, the archaeologist needs to report any archaeological remains discovered to the AMO. The AMO will then report the related discoveries to the AAB. The AMO will also regularly oversee the related archaeological work.

also responsible for the AWB, with licences issued in December 2013 and April 2014 respectively.

3. The AMO has regularly reported progress of the archaeological work to the AAB and eleven Briefs have been issued to the Members so far. In addition, Dr Liu Wensuo has presented his progress reports at the AAB meetings held on 29 May, 4 June and 16 September 2014. The reported discoveries dated to Song-Yuan period, included remnants of building foundations, remnants of tile wall, stone blocks, stone wells, drains, a wooden structure inside a pit, a footpath built with broken tiles, etc. Findings of late Qing to Republican period such as a stone well and a stone riverbank structure of the former Ma Tau Chung were also present. A summary of the key archaeological discoveries at the works site of the To Kwa Wan Station during the AWB is at Annex I for Members' information.

4. Subsequent to the substantial completion of the fieldwork for the AWB at the end of September 2014, on-site recordings were completed in October 2014. Detailed processing of the findings is now in progress. In view of large amount of ceramic sherds unearthed, it takes time for the written reports of the findings to be finalised by the archaeologist.

CONSERVATION OF THE ARCHAEOLOGICAL FEATURES UNEARTHED

5. The key archaeological features unearthed from the works site of the To Kwa Wan Station have been reported in the previous Briefs to the AAB. The findings yield invaluable information about the archaeological past of Hong Kong during Song-Yuan period, which help the reconstruction of the social and economic developments of the period and in turn enhance our knowledge and understanding of the history of Hong Kong in the pre-colonial era.

6. In summary, archaeological features dated to Song-Yuan period, including Well J5 of Song-Yuan period, the building remains and well J1 in Area T1, stone building features at Zones B, C and D of Song-Yuan period will be preserved in-situ. Well J3 of late Qing to Republican period found at Zone D, will also be preserved in-situ. A modern red brick well found at Zone A will be dismantled after detailed recording. A wooden structure, also unearthed at Zone A, has been retrieved and moved off site for specialist conservation treatment. In addition, building structure F5 of the Song-Yuan period comprising stone foundations, stone pillar bases, water dispenser (made of tiles) and remnants of a tile wall found in the area will also be preserved. It is proposed to install pipe-pile wall to protect the archaeological discoveries from possible damage by subsequent station construction works. These pipe-pile wall would be installed at least 2 metres away from the southern edge of the area of the archaeological discoveries, and soil nails/tiebacks would be then installed below the cultural layer to give sufficient lateral support to the pile-pile wall. More information on the archaeological features and their conservation proposals are set out at Annex II.

7. While as many as possible of the archaeological features uncovered, including two stone wells (i.e. Wells J1 and J5) with higher heritage value, will be preserved in-situ, it is noted that the conservation options for the following two features will require further consideration:

- (a) A stone well of the Song-Yuen period (named Well J2), associated with an early 20th century stone water channel; and
- (b) A stone structure at the end of excavation section ‘Adit C’ near Sung Wong Toi Road.

Please refer to Annex II for the photographs and location of the above features.

WELL J2 AND STONE STRUCTURE AT ADIT C

8. Well J2 is located directly within the proposed station concourse while the stone structure is within a proposed pedestrian walkway connecting from Pak Tai Street to the proposed To Kwa Wan Station. In order to strike a balance between heritage conservation and station re-design, the alternative conservation options for these two special features, are as follows-

Proposed Conservation Options for Well J2 and Water Channel

Option 1	<ol style="list-style-type: none"> 1. Dismantle the Well J2 and water channel by hand after proper records. 2. Reassemble them above To Kwa Wan Station near ground level to facilitate future interpretation after the station construction or at other suitable locations.
Option 2	<ol style="list-style-type: none"> 1. Dismantle water channel by hand after proper records. 2. Construct steel structure for protecting Well J2. 3. Remove steel structure containing Well J2. 4. Reinststate Well J2 and reassemble water channel above To Kwa Wan Station to facilitate future interpretation after station construction or at other suitable locations.
Option 3	<ol style="list-style-type: none"> 1. Preserve both Well J2 and water channel in-situ by surrounding them by steel structure, which will be located at station concourse permanently.
Option 4	<ol style="list-style-type: none"> 1. Dismantle water channel by hand after proper records. 2. Construct steel structure for Well J2 and preserve in-situ and steel structure will be located at station concourse permanently. 3. Reassemble water channel at its original location after station construction.

The details of these conservation options are at Annex III.

Proposed Conservation Options for the Stone Structure in Adit C

9. The stone structure dated to Song-Yuan period was unearthed in the end of Adit C near Olympic Avenue. The two conservation options are: to preserve in-situ or to remove after proper record. The details of these two options are at Annex IV.

AMO's view on the Conservation Options for Well J2 and Stone Structure at Adit C

10. The AMO has reviewed the different conservation options for Well J2 and the Stone Structure and its comments from the heritage conservation viewpoint have been included at Annexes III and IV. The AMO's comments principally take into account the historic and heritage value of Well J2 and the Stone Structure against the heritage value of the other archaeological features uncovered at the site with reference to the prevailing conservation guidelines and examples in overseas. It was noted that the upper part of Well J2 was partially damaged in the early 20th century and it is in relatively lower heritage value when compared with the other two stone wells J1 and J5, both of which will be preserved in-situ. The AMO has also considered the possible educational and interpretation benefits that could become available to the public through the ways by which these valuable historic items are conserved and interpreted.

ADVICE SOUGHT

11. Members are invited to give comments and advice on the conservation approaches for the archaeological features as listed out in the paragraphs above, in particular Well J2 and the Stone Structure in Adit C.

Antiquities and Monuments Office
Leisure and Cultural Services Department
November 2014

Ref: LCSD/CS/AMO 81-5/21

出土考古文物

Archaeological Features Unearthed



石砌建築遺蹟
Stone building features
(宋、元時期 Song-Yuan Period)



紅磚井
Red Brick Well
(近代 Modern)



J5井 Well J5
(宋、元時期
Song-Yuan Period)



石砌建築遺蹟 Stone building features
(宋、元時期 Song-Yuan Period)



坑中木質結構
Wooden structure in a pit
(宋、元時期 Song-Yuan Period)



石砌建築遺蹟 (宋、元時期)
及J3井 (晚清時期)
Stone building features
(Song-Yuan Period)
and Well J3 (Late Qing Period)



石砌結構
Stone structure
(宋、元時期 Song-Yuan Period)



石砌路徑(宋、元時期)及前馬頭涌河岸
的石結構(晚清至民國時期)
Stone footpath (Song-Yuan Period)
and stone structure which forms the
riverbanks of the former Ma Tau Chung
(Late Qing to Republican Period)



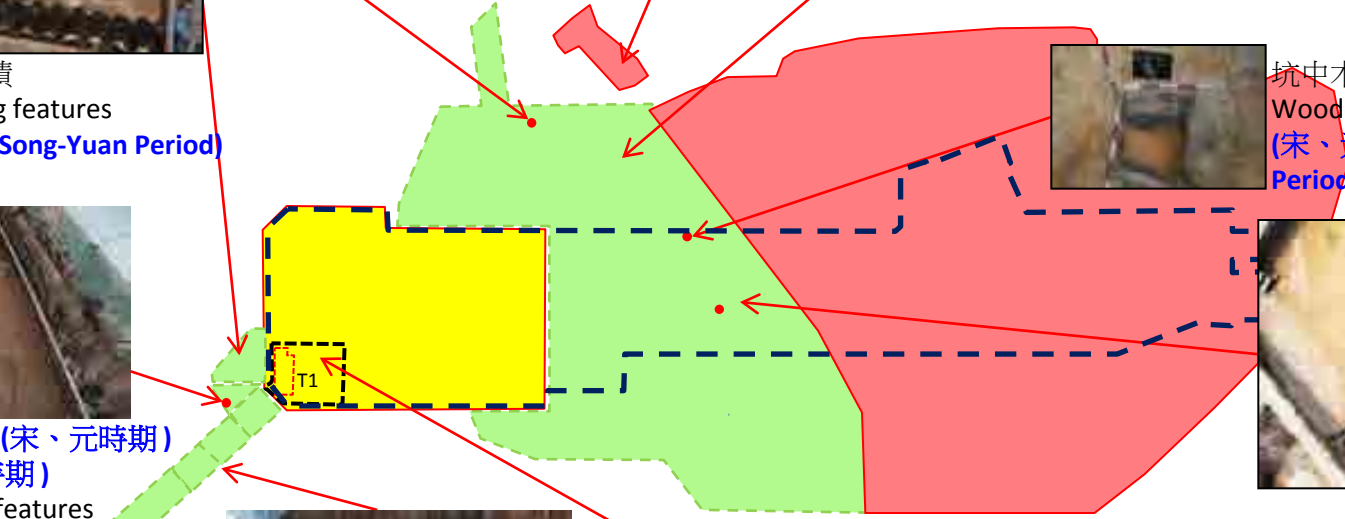
殘存房屋構件 Building remains
(宋、元時期 Song-Yuan Period)



J2井 Well J2
(宋、元時期 Song-Yuan Period)
引水槽 Water channel
(二十世紀初期 Early 20th Century)

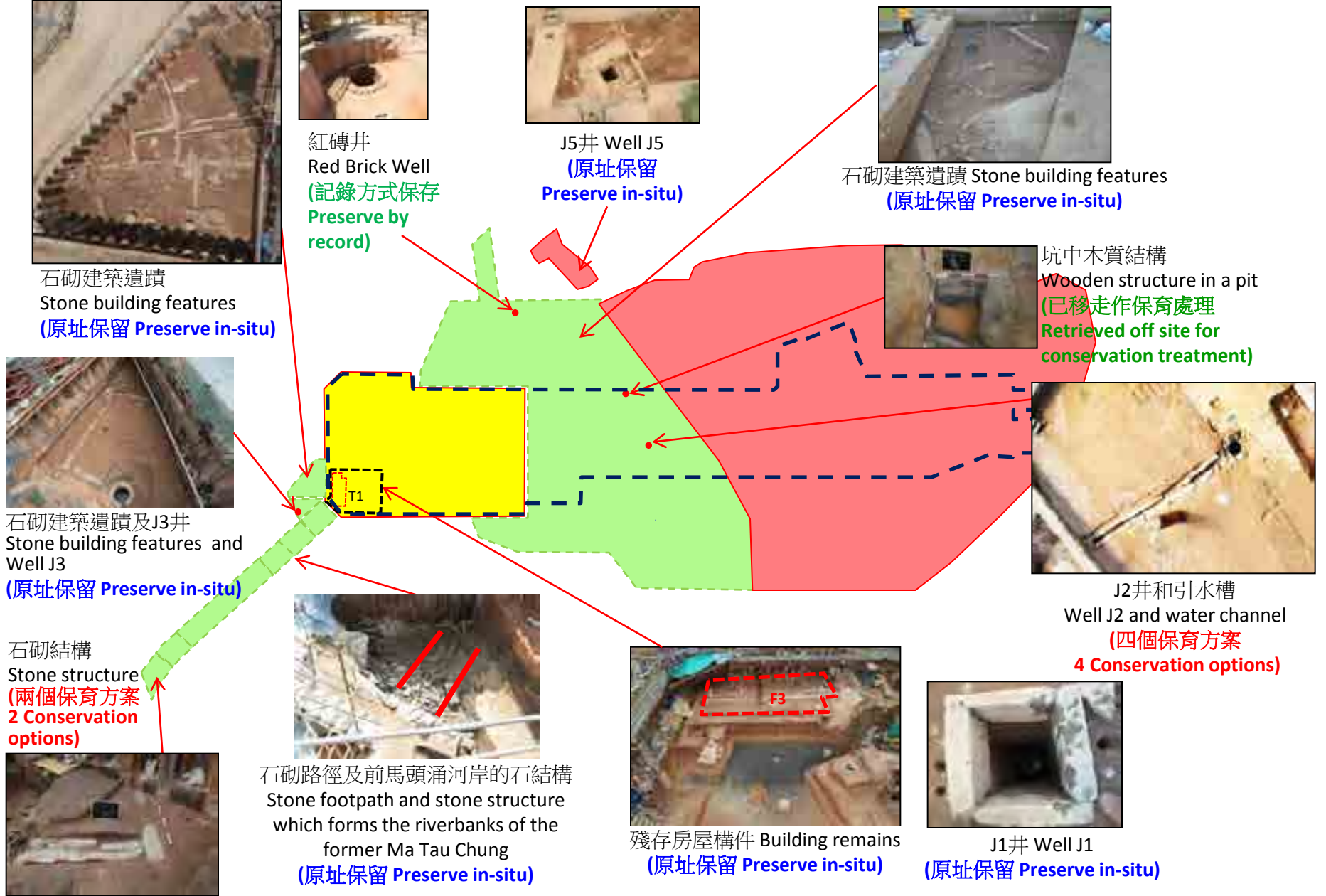


J1井 Well J1
(宋、元時期 Song-Yuan Period)



考古文物保育方案

Conservation Options for Archaeological Features Discovered



石砌建築遺蹟
Stone building features
(原址保留 Preserve in-situ)



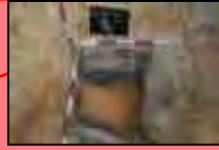
紅磚井
Red Brick Well
(記錄方式保存
Preserve by record)



J5井 Well J5
(原址保留
Preserve in-situ)



石砌建築遺蹟 Stone building features
(原址保留 Preserve in-situ)



坑中木質結構
Wooden structure in a pit
(已移走作保育處理
Retrieved off site for
conservation treatment)



石砌建築遺蹟及J3井
Stone building features and
Well J3
(原址保留 Preserve in-situ)



J2井和引水槽
Well J2 and water channel
(四個保育方案
4 Conservation options)



石砌結構
Stone structure
(兩個保育方案
2 Conservation options)



石砌路徑及前馬頭涌河岸的石結構
Stone footpath and stone structure
which forms the riverbanks of the
former Ma Tau Chung
(原址保留 Preserve in-situ)



殘存房屋構件 Building remains
(原址保留 Preserve in-situ)



J1井 Well J1
(原址保留 Preserve in-situ)

J2 井和引水槽的保育方案

Conservation Options for Well J2 and Water Channel

方案 Option	工程風險 Construction risk	對車站設計的影響 Impact to station design	文物保育角度 Heritage Viewpoint
1	<ul style="list-style-type: none"> 重置後可能與原本狀況整體上有輕微分別 Possible slight difference to the original condition generally after re-assembly 	<ul style="list-style-type: none"> 除因應T1區保育方案及大堂展示櫃的改動外並無額外修改 No additional change to the modification due to T1 Area conservation scheme and display cabinets in concourse 	<ul style="list-style-type: none"> J2井及引水槽完整性受影響 展示和詮釋安排較靈活，增加教育果效 Integrity of Well J2 and water channel would be impaired Interpretation and display would be flexible to enhance education
2	<ul style="list-style-type: none"> 打樁工程有可能遇上孤石層，產生的震動可能影響井的結構 為避開孤石亦可能需要另覓打樁位置，因而涉及額外施工時間及開支 搬運巨型結構的過程可能影響井的結構 Piling works through corestone layers may cause vibration that affects the well structure Find another piling location to avoid conflict with corestone layers may incur additional time and cost Well may deform during relocation of the massive structure 	<ul style="list-style-type: none"> 除因應T1區保育方案及大堂展示櫃的改動外並無額外修改 No additional change to the modification due to T1 Area conservation scheme and display cabinets in concourse 	<ul style="list-style-type: none"> J2井較完整地保存 引水槽文物價值較低，故採用不同保育方法 Well J2 would be kept intact Water channel is of lower heritage value thus a different conservation approach is applied
3	<ul style="list-style-type: none"> 打樁工程有可能遇上孤石層，產生的震動可能影響井的結構 為避開孤石亦可能需要另覓打樁位置，因而涉及額外施工時間及開支 Piling works through corestone layers may cause vibration that affects the well structure Find another piling location to avoid conflict with corestone layers may incur additional time and cost 	<ul style="list-style-type: none"> 車站範圍須進一步擴大，而且須修改設計以承托巨型結構 Station area needs to be further enlarged, and the design has to be revised for supporting the massive structure. 	<ul style="list-style-type: none"> 完整保存J2井及引水槽 因其位處將來路面以下，展示和詮釋較為困難 Integrity of Well J2 and water channel retained As they are located at a level lower than the future ground level, display and interpretation would be difficult
4	<ul style="list-style-type: none"> 打樁工程有可能遇上孤石層，產生的震動可能影響井的結構 為避開孤石亦可能需要另覓打樁位置，因而涉及額外施工時間及開支 Piling works through corestone layers may cause vibration that affects the well structure Find another piling location to avoid conflict with corestone layers may incur additional time and cost 	<ul style="list-style-type: none"> 車站範圍須進一步擴大，但比方案三的範圍較少，而且須修改設計承托巨型結構 Station area needs to be further enlarged, but the enlargement required is smaller than Option 3. Also, the design has to be revised for supporting the massive structure. 	<ul style="list-style-type: none"> 完整保存J2井 引水槽文物價值較低，故採用不同保育方法 因其位處將來地面以下，展示和詮釋較為困難 Integrity of Well J2 retained Water channel is of lower heritage value thus a different conservation approach is applied As they are located at a level lower than the future ground level, display and interpretation would be difficult

位於行人通道 C 區南端遺蹟的保育方案

Conservation options for relics at southern portion of Adit C

方案 Option	近世運道的石砌結構 Stone structure near Olympic Avenue	對行人通道C影響 Impact to Adit C	替代路線建議 Alternative Route Option	文物保育角度 Heritage Viewpoint
1	原址保留 Preserve in-situ	<ul style="list-style-type: none"> 整條行人通道受影響，須適時研究替代路線 對北帝街附近的居民帶來較大的不便 Entire adit will be affected, need to study an alternative route at suitable time Inconvenience to the residents living near Pak Tai Street 	<ul style="list-style-type: none"> 探討替代的行人隧道路線 使用於馬頭涌道原有的路面行人過路處 探討於宋皇臺道適當位置加設過路處，及路面行人路至車站出入口 Explore an alternative tunnel alignment Use the existing at-grade crossing at Ma Tau Chung Road Explore at-grade crossing at suitable location of Sung Wong Toi Road together with at-grade footpath to station entrance 	<ul style="list-style-type: none"> 完整性不受影響 Integrity would not be impaired
2	記錄方式保存 Preserve by record	<ul style="list-style-type: none"> 部分行人通道受影響，須適時為該部分研究替代路線 能減低對北帝街附近的居民的不便 Part of adit will be affected, need to study an alternate route for this section at suitable time Inconvenience to the residents living near Pak Tai Street can be minimised 	<ul style="list-style-type: none"> 為部分的行人通道，探討替代的行人隧道路線以路面行人路接駁至車站出入口 Explore an alternative alignment for part of the adit Use at-grade footpath for connecting to station entrance 	<ul style="list-style-type: none"> 完整性會受到影響 Integrity would be impaired