

SULIT



**BAHAGIAN PEPERIKSAAN DAN PENILAIAN
JABATAN PENDIDIKAN POLITEKNIK DAN KOLEJ KOMUNITI
KEMENTERIAN PENGAJIAN TINGGI**

JABATAN KEJURUTERAAN AWAM

PEPERIKSAAN AKHIR

SESI II : 2021/2022

DCQ40192: CIVIL ENGINEERING WORK MEASUREMENT 1

TARIKH : 29 JUN 2022

MASA : 11.30 AM – 1.30 PM (2 JAM)

Kertas ini mengandungi **ENAM (6)** halaman bercetak.

Bahagian A: Struktur (3 soalan)

Bahagian B: Esei (1 soalan)

Dokumen sokongan yang disertakan : **DRAWINGS**

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIARAHKAN

(CLO yang tertera hanya sebagai rujukan)

SULIT

SECTION A: 75 MARKS**BAHAGIAN A: 75 MARKAH****INSTRUCTION:**

This section consists of **THREE (3)** structured essay questions. Answer **ALL** questions.

ARAHAN:

*Bahagian ini mengandungi **TIGA (3)** soalan esei berstruktur. Jawab **SEMUA** soalan.*

Notes:

- a. Taking off refers to the rules in Malaysian Civil Engineering Standard Method of Measurement Second Edition (MyCESMM2).

Ukur kuantiti merujuk kepada syarat-syarat dalam Malaysian Civil Engineering Standard Method of Measurement Edisi Kedua (MyCESMM2).

- b. Candidate is allowed to make assumptions if the information in the drawing is inadequate.

Calon dibenarkan membuat andaian jika maklumat dalam lukisan tidak lengkap.

QUESTION 1**SOALAN 1**

CLO1
C1

- (a) Method Related Charge is the sum for an item inserted in the Bill of Quantities by a tenderer.

Explain the types of Method Related Charge.

Caj Berkaitan Kaedah adalah sejumlah wang untuk item yang dimasukkan ke dalam Senarai

Kuantiti oleh petender. Terangkan jenis-jenis Caj Berkaitan Kaedah.

[5 marks]

[5 markah]

Table 1 : Proposed Construction of New Road From Kuala Lipis to Raub, Pahang.**Jadual 1:** *Cadangan Pembinaan Jalan Baharu dari Kuala Lipis ke Raub, Pahang.*

Project Duration: 6 months	
NO	PROJECT REQUIREMENTS
1	Performance guarantee sum.
2	Allow insurance of public liability.
3	Provide S.O's representative transport vehicle (to be reverted to employer after completion)
4	Provide monthly progress reports.
5	Testing of materials; concrete test cube; sample and method of testing as per Specifications clause S5.
6	Routine of maintenance of existing road.
7	Provide the safety signage in the site for the safety of workers.

CLO 1
C3

- (b) Refer to **Table 1**, adapt all the items with their code numbers and units applied in Class A: General Items.

*Merujuk kepada **Jadual 1**, sesuaikan item-item berkaitan dengan nombor kod dan unit seperti dalam Kelas A: Butiran Am.*

[14 marks]
[14 markah]

CLO 1
C3

- (c) Prepare all the measured quantities in **Question 1(b)** as the bill of quantities.

*Sediakan semua kuantiti terukur dalam **Soalan 1(b)** sebagai senarai kuantiti.*

[6 marks]
[6 markah]

QUESTION 2

SOALAN 2

- CLO 1
C2
- (a) Explain the Definition Rules D2 in Class E: Demolition and Site Clearance and give an example of the description.
Terangkan Peraturan Definisi D2 dalam Kelas E: Perobohan dan Pembersihan Tapak dan berikan contoh keterangan.
- [5 marks]
[5 markah]
- CLO 1
C3
- (b) Refer to the Drawing No: **DCQ40192/DEMOLITION & SITE CLEARANCE/01**, prepare the quantities measurement for the demolition and site clearance items.
*Merujuk kepada Lukisan No: **DCQ40192/DEMOLITION & SITE CLEARANCE/01**, ukur kuantiti untuk item kerja-kerja perobohan dan pembersihan tapak.*
- [14 marks]
[14 markah]
- CLO 1
C3
- (c) Conclude all the measured quantities in **Question 2(b)** as the bill of quantities.
*Rumuskan semua kuantiti terukur dalam **Soalan 2(b)** sebagai senarai kuantiti.*
- [6 marks]
[6 markah]

QUESTION 3

SOALAN 3

CLO1
C2

- (a) Explain Definition Rules D10 in Class F: Earthworks (Landscaping) and give an example of description.

Terangkan Peraturan Definisi D10 dalam Kelas F: Kerja-kerja Tanah (Lanskap) dan berikan satu contoh keterangan.

[5 marks]
[5 markah]

CLO1
C3

- (b) By referring to Drawing No. **DCQ40192/Earthworks/01**, prepare the quantities measurement for all items in Class F: Earthworks.

*Dengan merujuk kepada Lukisan No. **DCQ40192/Earthworks/01** ukur kuantiti bagi semua item di dalam Kelas F: Kerja-kerja Tanah.*

[14 marks]
[14 markah]

CLO1
C3

- (c) Conclude all the measured quantities in **Question 3(b)** as the bill of quantities.

*Rumuskan semua kuantiti terukur dalam **Soalan 3(b)** sebagai senarai kuantiti.*

[6 marks]
[6 markah]

SECTION B: 25 MARKS**BAHAGIAN B: 25 MARKAH****INSTRUCTION:**

This section consists of **ONE (1)** essay question. Answer **ALL** questions.

ARAHAN:

*Bahagian ini mengandungi **SATU (1)** soalan esei. Jawab **SEMUA** soalan.*

QUESTION 1**SOALAN 1**

CLO1
C3

- (b) Based on the Drawing No. **DCQ40192/Roads&Pavings/Q4-01**, prepare the quantities measurement for all items of road works according to the MyCESMM2; Class R: Roads and Pavings.

*Berdasarkan kepada Lukisan No. **DCQ40192/Roads&Pavings/Q4-01**, ukur kuantiti bagi semua item kerja jalan merujuk kepada MyCESMM2; Kelas R: Jalan dan Turapan.*

[16 marks]

[16 markah]

CLO1
C3

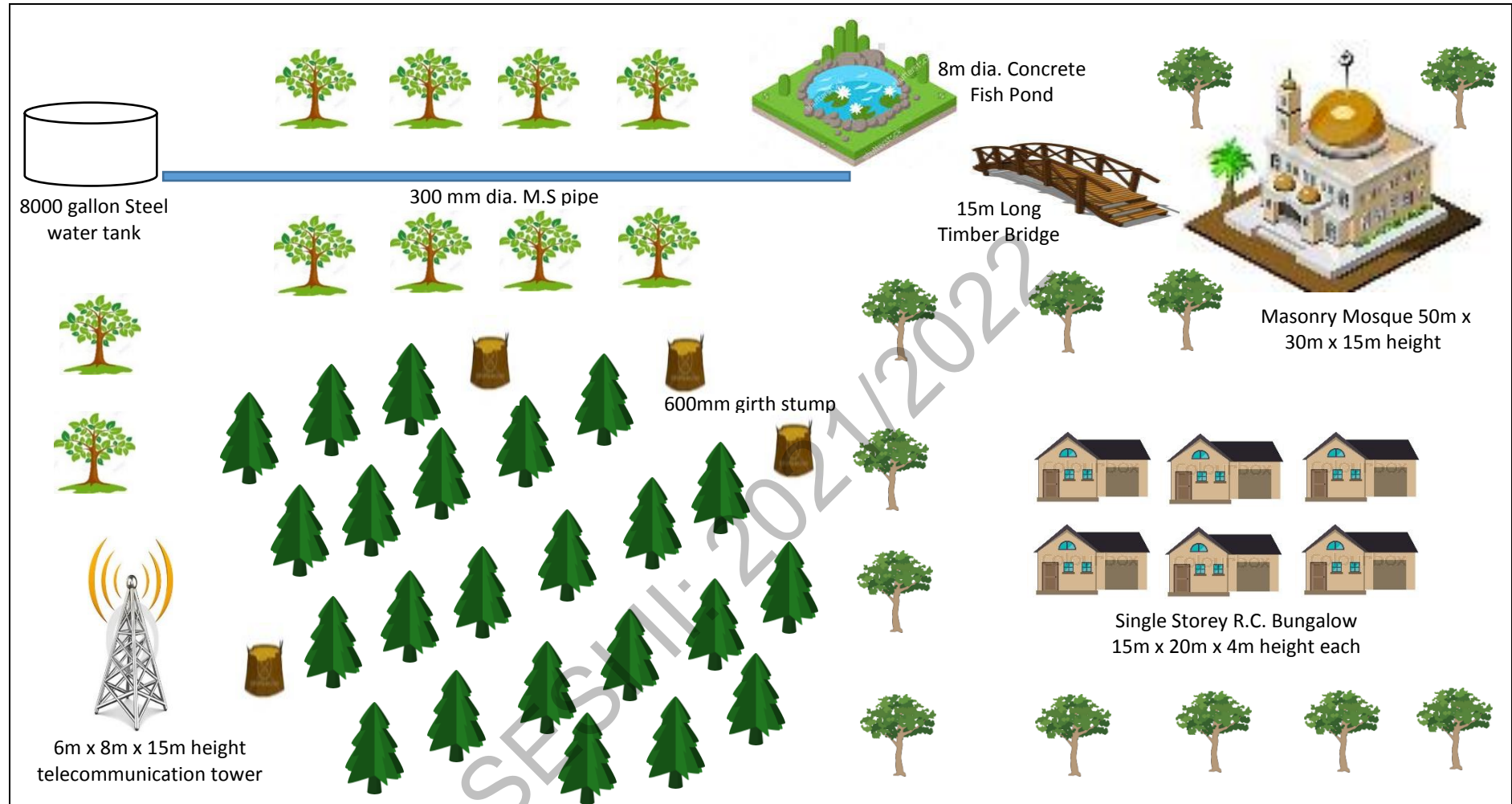
- (c) Conclude all the measured quantities in **Question 1(b)** as the bill of quantities.
*Rumuskan semua kuantiti terukur dalam **Soalan 1(b)** sebagai senarai kuantiti.*

[9 marks]

[9 markah]

- **SOALAN TAMAT** -

600M



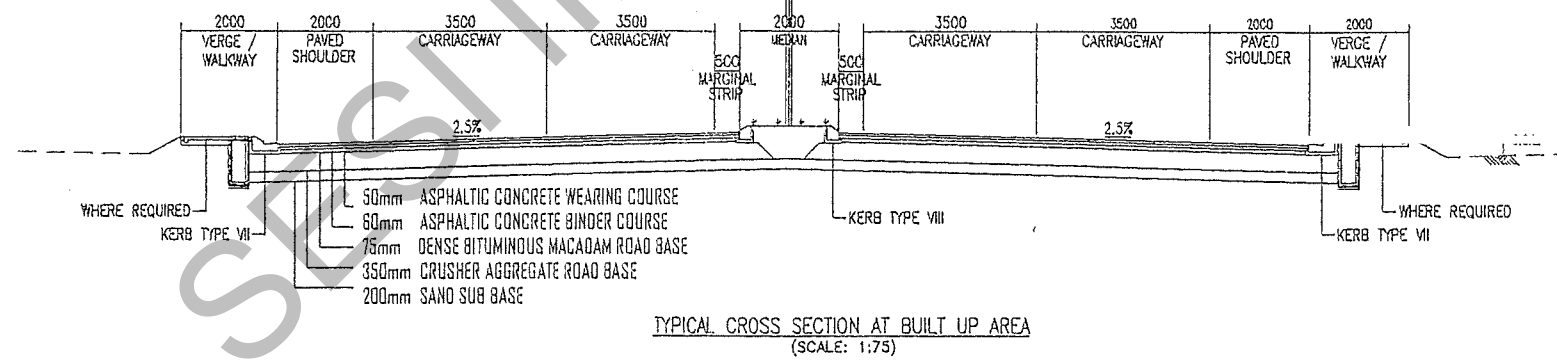
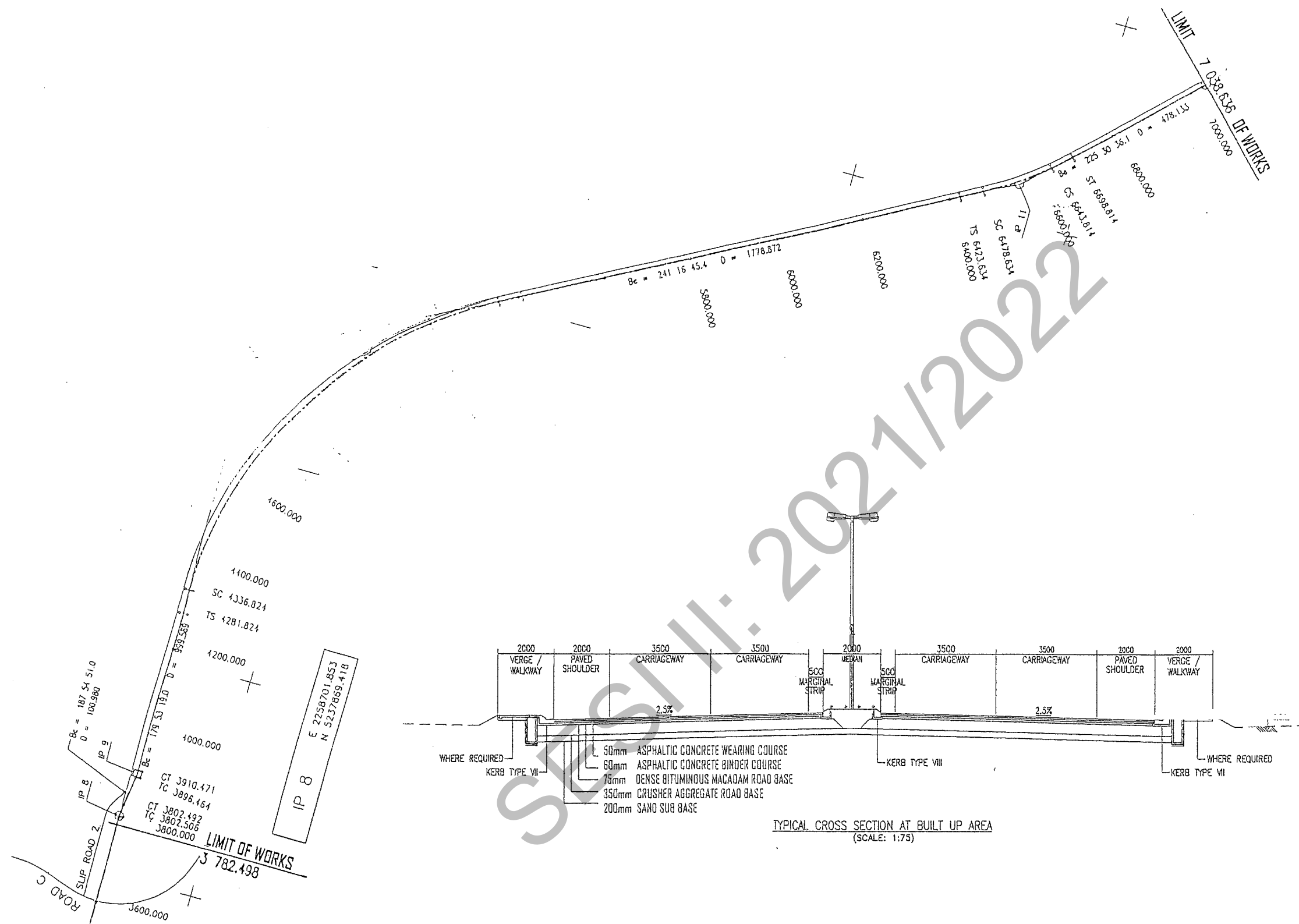
Project Title :

**PROPOSED DEMOLITION WORKS FOR CONSTRUCTION & COMPLETION
OF NEW HOUSING DEVELOPMENT, KOTA TINGGI, JOHOR.**

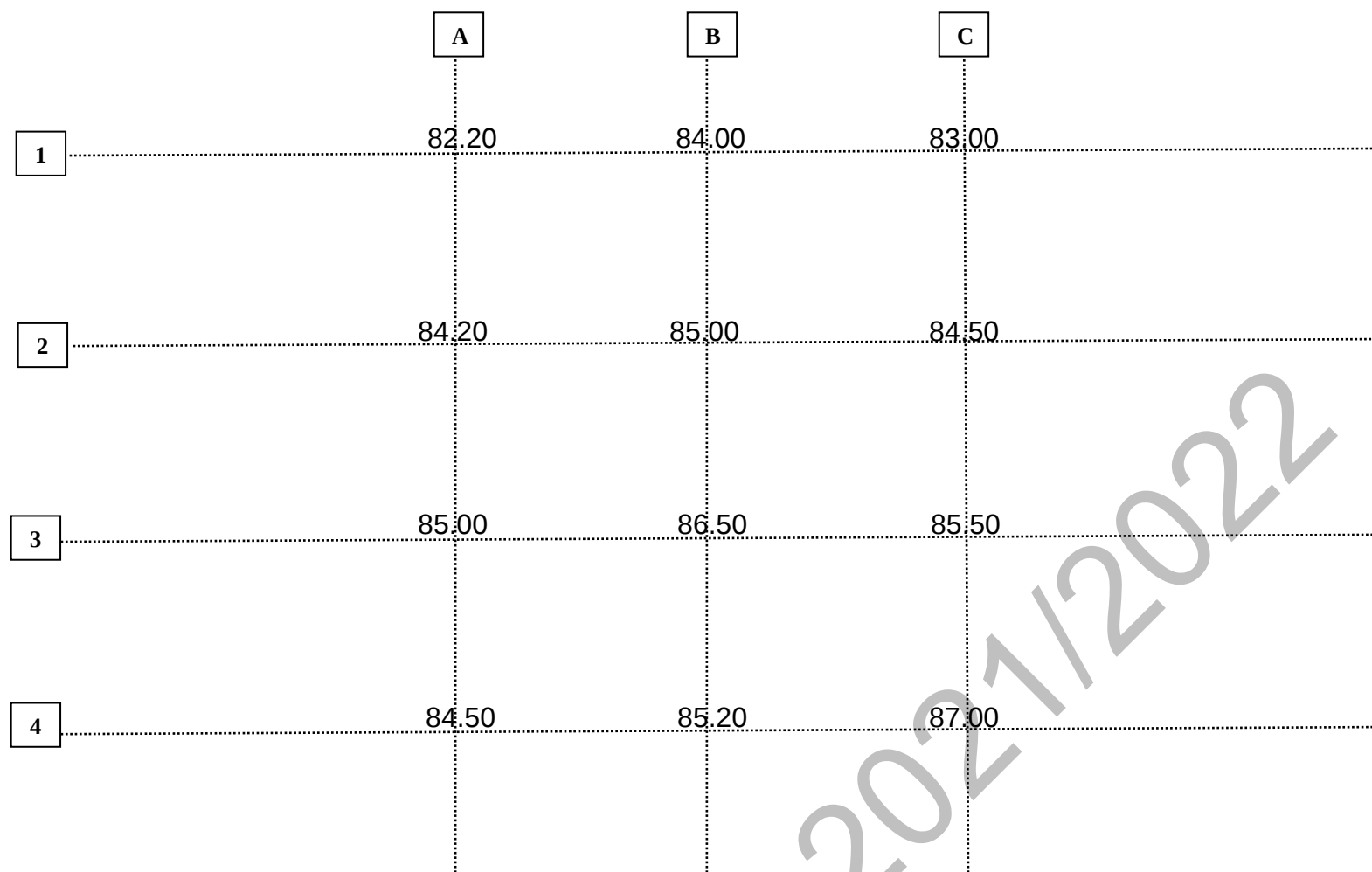
Drawing No. : DCQ40192/DEMOLITION & SITE CLEARANCE /01

LEGEND

-  450mm girth trees
-  1100mm girth trees
-  2200mm girth trees



DRAWING NO. : DCQ40192/Road&Paving/04-01



NOTE :

1. Each grid size 15m X 15m
2. The site is to be levelled to 85.00 m
3. Excavation to commence from the original ground level

PROJECT TITLE :

PROPOSED NEW EARTHWORKS PACKAGE, SEKSYEN 13,
MAJLIS BANDARAYA SHAH ALAM, SELANGOR.

TITLE :

EARTHWORK PLAN

DRAWING NO :

DCQ40192/Earthworks/01