



**DEPARTMENT OF BUILDING SURVEYING
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING
UNIVERSITI TEKNOLOGI MARA
PERAK**

DEFECT AT EAST BLOCK, POLITEKNIK MERSING, JOHOR DARUL TAKZIM.

MOHAMAD SYAZWAN BIN ROHAZAT
2010608358
DIPLOMA IN BUILDING SURVEYING

**PRACTICAL TRAINING REPORT
JUN 2013 – SEPTEMBER 2013**

ABSTRACT

Background: In growing development of construction especially in our country takes a lot of effort and mindful, alert procedure in planning to construct the best quality of building for a great satisfaction and a good feedback from the occupant. It needs a solid idea and a great team to achieve what we goals for. Thus, good relationship and information from different parties are important to avoid problem occur in the building component and structure. Otherwise, the developer will suffer huge losses and wastage.

Method: A detailed inspection in a proposed a new building such as soil investigation, site condition, material condition , type of construction, inspection after finish construction and many more should be concern and take seriously to make sure that building is in good condition. With a lot of hard work in obtaining the information, inspection method and the building can be use follow the function and safely.

Result: In Malaysia, we can see in some problem and cases in construction and development we will be faced such as failure in foundation, serious defect occur, and building not functionally cannot be avoided. For example building collapse and serious crack occur in residential. Therefore, the examples which have been described will lead to the wastage problems and failure in project.

Conclusion: In conclusion, another plan and another way need to be arranged from the beginning for every construction in our country especially to our local developer to avoid building problem occur.

AKNOWLEDGEMENT

Assalamualaikum,

First of all I would like to take this opportunity to give my greatest appreciation to my supervisor, Pn.Salhah binti Rahman @ Abdul Rahman and for my lecturer Pn Nadirah Binti Ahzahar for their typical guidance that had been given by them to me from time to time to sail through the journey of life as a Uitm students until the field of development work

I also like to take this chance to give my thanks to Pn. Siti Salhah Binti Rahman @ Abd Rahman and Haji Ya'acob bin Abd Aziz for the supported the lot of information of the Defect Liability after construction at Politeknik Mersing, good value and guidance, which help me a lot in completing this task during various stages.

I am also responsible to the member of staff of Jabatan Kerja Raya Mersing for the valuable information provided by them in their work field. I am grateful for their cooperation during the period of my practical training.

Major grateful to Lord ALLAH S.W.T for sending me such a great team which is our family and friend. We pray may this report may credit with high mark and also as the references to the other in the future. May ALLAH S.W.T give HIS bless to all of us, Insya'Allah.

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CHAPTER 1

BUILDING AND COMPANY'S BACKGROUND

Practical Training Company's Background

1.1 BUILDING BACKGROUND

1.1.1 Introduction

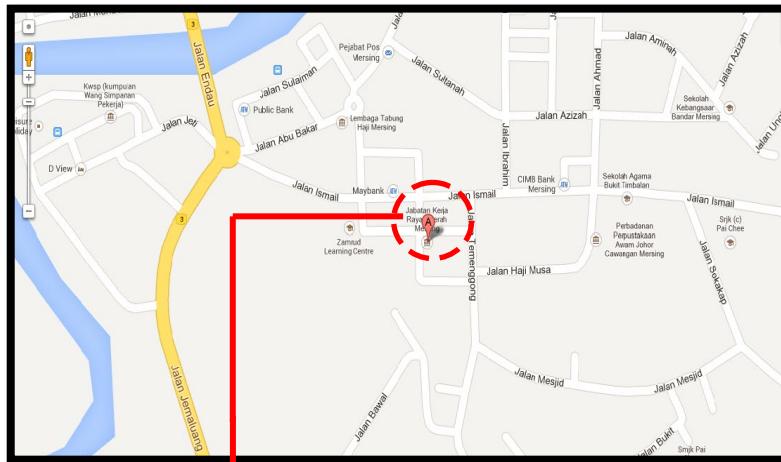
Jabatan Kerja Raya Daerah Mersing (JKR Mersing) is the local authority for the city of Mersing include Endau, Kahang, Jemaluang and the agency under Johor state also Malaysia government.

JKR Mersing is responsible to implement development projects in particular maintenance building and roads, construct and complete of government building and district of Mersing as well as a reference for the other departments for help and give pertaining guidance to the execution of a project.

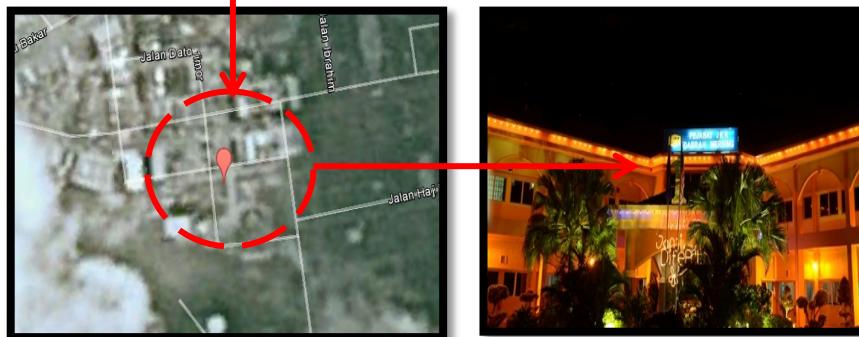
JKR Mersing was establishing in October 1998, and began operating in the new building that has been developed which located in Jalan, Pancor Mersing. The cost to build the JKR Mersing building is almost RM 2 million.

1.1.2 Location of Company

The JKR Mersing building is located in No. 1000 Jalan Pancor, Mersing, Johor. The building is behind the shop lot and near the JKR Workshop and JKR staff quarters. The building is near the others departments building such as Jabatan Bomba dan Penyelamat, Makhamah Syariah and the other Government building. The map below shows the location to the site building.



LOCATION
Jalan Panchor, Mersing



Night View JKR Mersing



Figure 1.1.2.1 | Location of JKR Mersing

1.1.3 Function

No.	Department	Floor
1	<ul style="list-style-type: none"> • KAUNTER UTAMA • TANDAS L DAN P • BILIK FAIL • BAHAGIAN BANGUNAN <ul style="list-style-type: none"> - PEJABAT JURUTERA BANGUNAN - PEJABAT JURUUKUR BAHAN (B) - PEJABAT PENOLONG JURUTERA (B) 1 - PEJABAT PENOLONG JURUTERA (B) 2 - PEJABAT JURUTERA SENGGARA - PEJABAT STAF BAHAGIAN BANGUNAN • BAHAGIAN JALAN <ul style="list-style-type: none"> - PEJABAT JURUTERA JALAN 1 - PEJABAT JURUTERA JALAN 2 - PEJABAT PENOLONG JURUTERA (J) - PEJABAT JURUUKUR BAHAN (J) - PEJABAT STAF BAHAGIAN JALAN 	G
2	<ul style="list-style-type: none"> • PEJABAT KETUA PENTADBIRAN • PEJABAT STAFF KEEWANGAN 	1

	<ul style="list-style-type: none">• PEJABAT STAFF PENTADBIRAN• PEJABAT JURUTERA DAERAH• PANTRI• BILIK MESYUARAT• SURAU• BILIK FAIL• STOR	
--	--	--

Table 1.1.3.1 | Function every level in JKR, Mersing

The function of JKR Mersing building is same like common JKR building in Malaysia. It is used as office for technical staff that works in JKR that is as engineer, technical assistant, technicians and architect. This building is particularly for civil, electrical and Mechanical work. This private building combines of three sector which is building, road and maintenance.

1.2 INFORMATION OF JKR (D) MERSING

1.2.1 Introduction

Jabatan Kerja Raya Mersing is the most superior department in the implementation of project in this area. The department is committed to pursuing and completing the projects entrust to the duration, cost, quality was satisfactory. JKR (D) Mersing is operating in October 1998 and done many type of project such as school building.

1.2.2 Mission, Vision and Policy of JKR Mersing

Commonly, strategic planning deals with at least one of three key questions. Below shows the three question of JKR Mersing which is mission, vision and policy:

i. **Mission**

- We are the top technical department in the country's infrastructure development.
- We provide a range of expertise to ensure best practices in technical consulting, project management and maintenance of assets and facilities.
- We strive to provide a better quality of life for our employees.
- We appreciate and practice integrity and sincerity.
- We are committed to working towards sustainable development for the benefit of this generation and the next day.
-

ii. **Vision**

- Be a first-rate service and excellent center in asset management, project management and engineering for the infrastructure development based on human capital and the creative and innovative technology.

iii. Policy

- JKR is committed to customer satisfaction by delivering quality products.
- JKR will utilize and combine the most appropriate technology and updated for the products produced.
- Our product will be produced according with good engineering practice, safety and the environment as possible and in compliance with legal requirements and national or international standards.

1.2.3 Objective of JKR Mersing

.Objective is a basic tool that underlies all planning and strategic activities. They serve as the basic for creating policy and evaluating performance. Below shows the JKR Mersing objective:

- To provide an efficient and effective in the implementation of the objectives of the Public Works Department to meet the needs of socio-economic development of the District as outlined in the following matters.
- Construction and maintenance of roads, bridges, drains, piers, the airport.
- Construction and maintenance of Buildings State and Federal Government.
- Provide maintenance and advisory services expertise in engineering and the use of plants to Government departments.

1.2.4 Function of JKR

Several functions JKR Mersing as follows:

- For plan, design and implement public utility buildings.
- For maintenance of roads, government buildings and public facilities are provided.
- For provide technical advice to departments / agencies of other governments in the region

1.3 ORGANIZATION CHART

JKR Mersing's chart typically illustrates relations between people within an organization. Relations include managers to sub-workers, directors to managing directors, chief executive officer to various departments, and so forth.

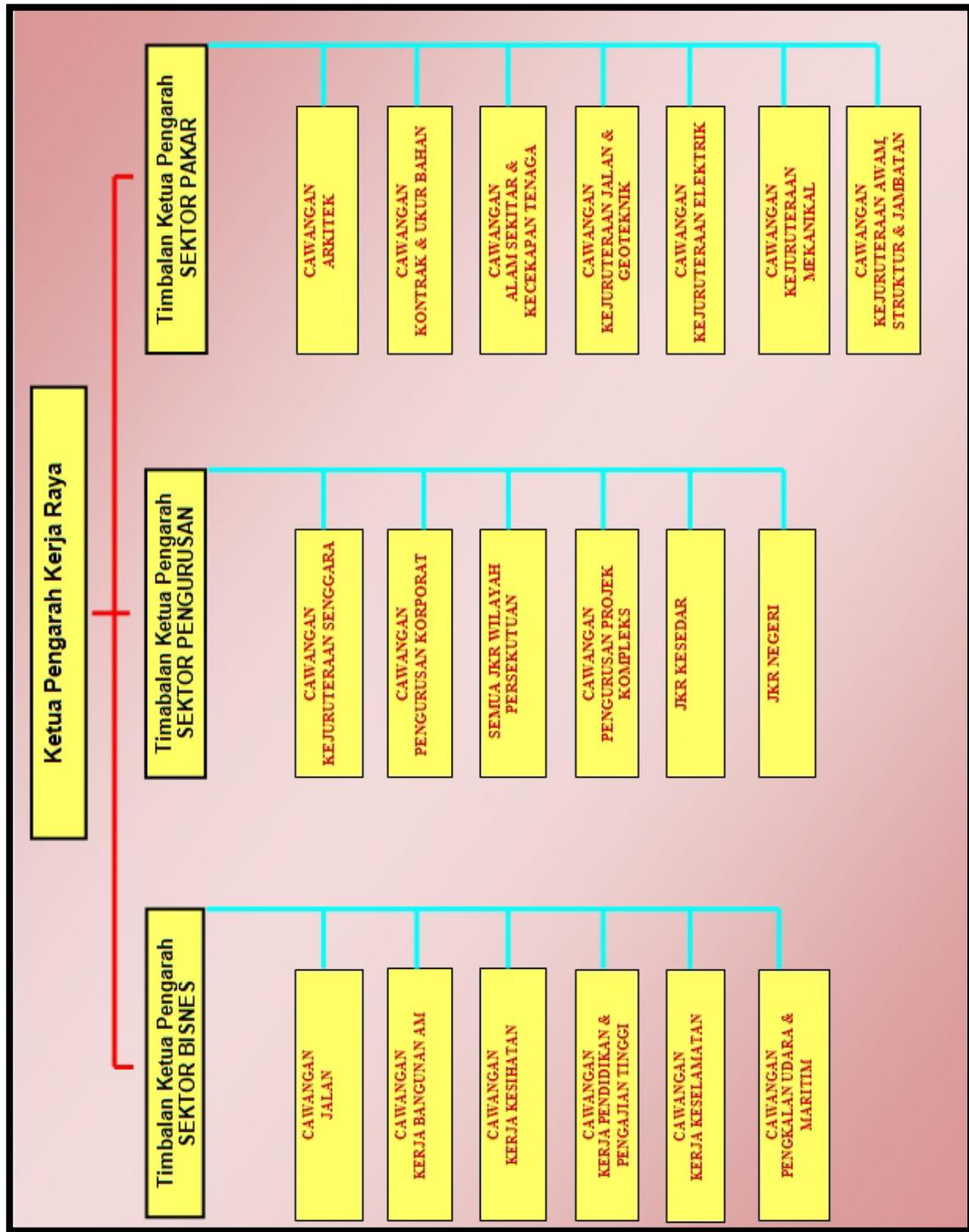


Chart 1.3.1 |Organization Chart of JKR Malaysia

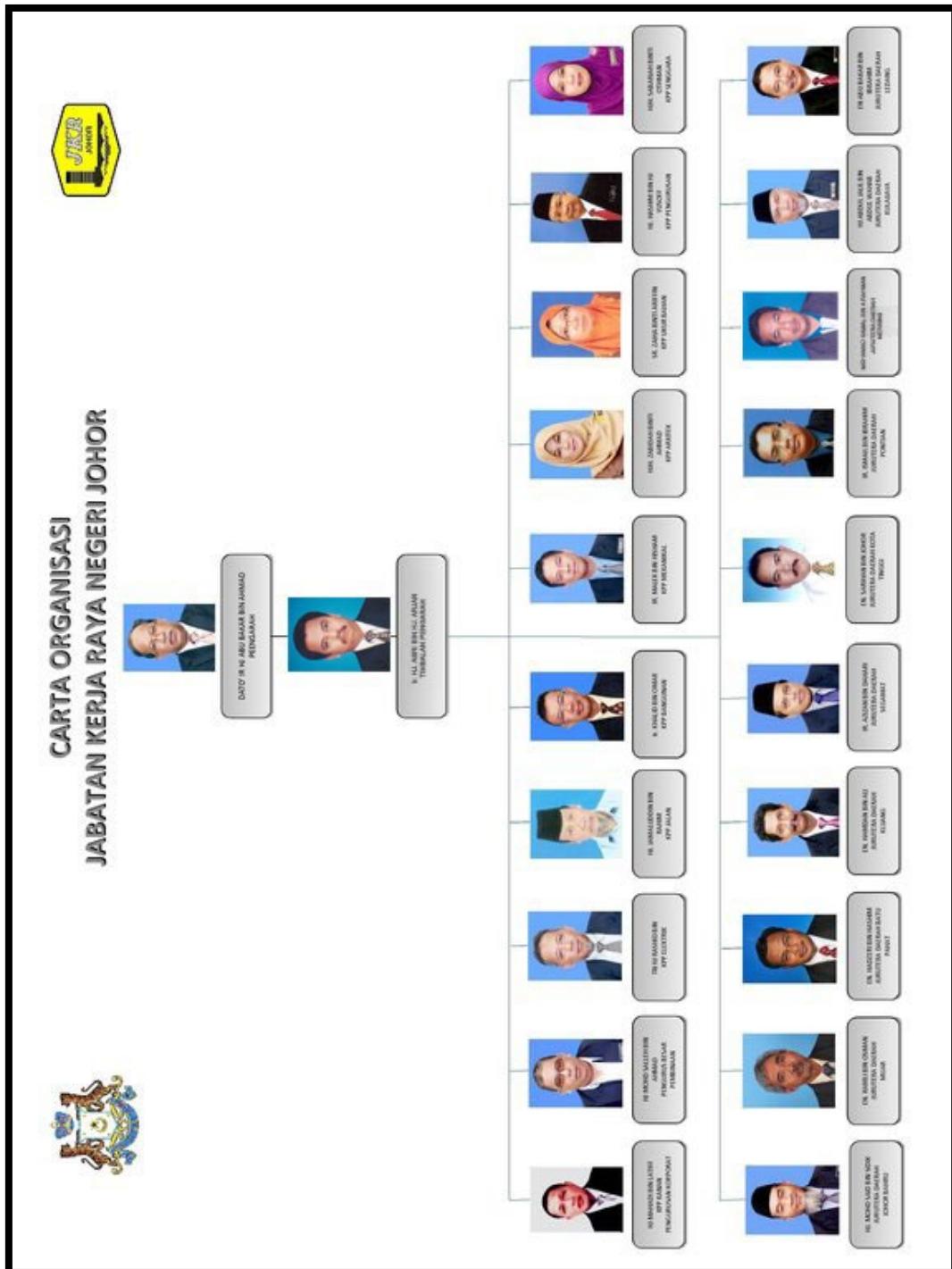


Chart 1.3.2 |Organization Chart of JKR Johor

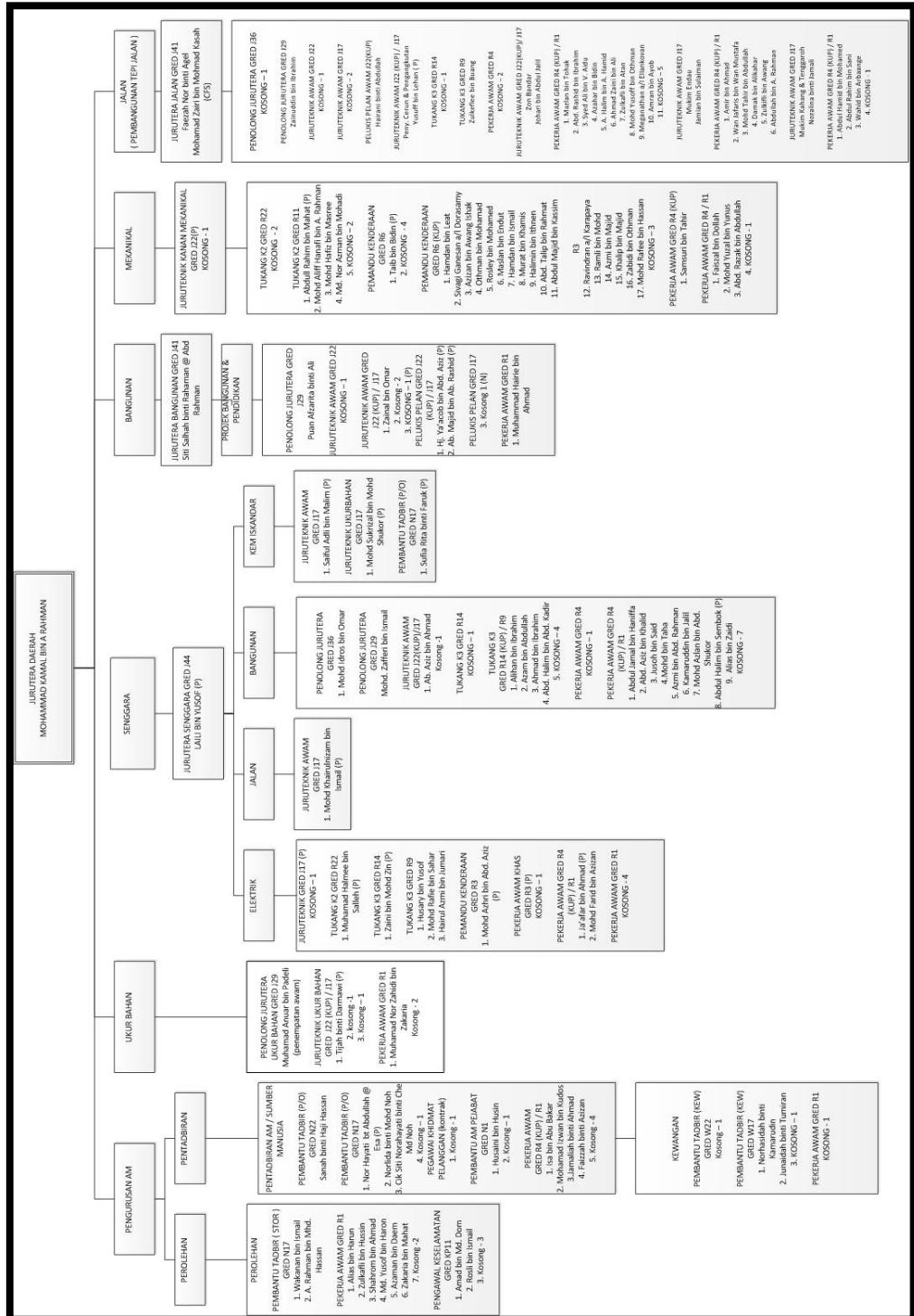


Chart 1.3.3 |Organization Chart of JKR Mersing

1.4 BUILDING DEPARTMENT

1.4.1 Introduction

There is building department where the section of processing of defect liability to be done. It is also carry out other project such as maintenance and new construction under Jabatan Kerja Raya Malaysia.

The building department was also providing examine buildings for the purpose of CF production. In the same time, providing a building plan project design and manage Council's building projects.

1.4.2 List of Department

Below shows the department that provided by the JKR Mersing building:

- Building Department
- Road Department
- Maintenance Department
- Mechanical Department
- Electrical Department

CHAPTER 2

PROJECT BACKGROUND

LEGENDS:

- 1.** Case Study Project
- 2.** Procedure
- 3.** Organization Chart Of Agency participate
- 4.** General Requirement
- 5.** Progress Of Construction
- 6.** Conclusion Of Case Study

2.1 CASE STUDY PROJECT

2.1.1 Introduction of Project

Politenik Mersing site project area is 128 acres and about 5 km from Mersing town that is at Lot PTD 16434, Mukim Kampung Pangkalan Batu, Mersing. Politeknik Mersing able to menampung 3000 user in one time there 2400 of the is students.

All the building that has been constructing in Politenik Mersing can be divide into some categories that is:

- Main Building
- Accillary Building
- External work

2.1.2 Introduction of Proposed Site

The subject property comprises a parcel of State Land currently cultivated with matured oil palms and covered with light undergrowth and has been earmarked for alienation for purposes of Politeknik Mersing development.

The land is generally had hills and ravine in terrain and at level with the surrounding lots but lies at about 3 meter above the level of Jalan Nitar Mersing.

The site boundaries of the land are not demarcated with any form of physical fencing. None the less, the site was surrounded with palm oil industrial and other economic that near from the main road.

PROPOSED SITE

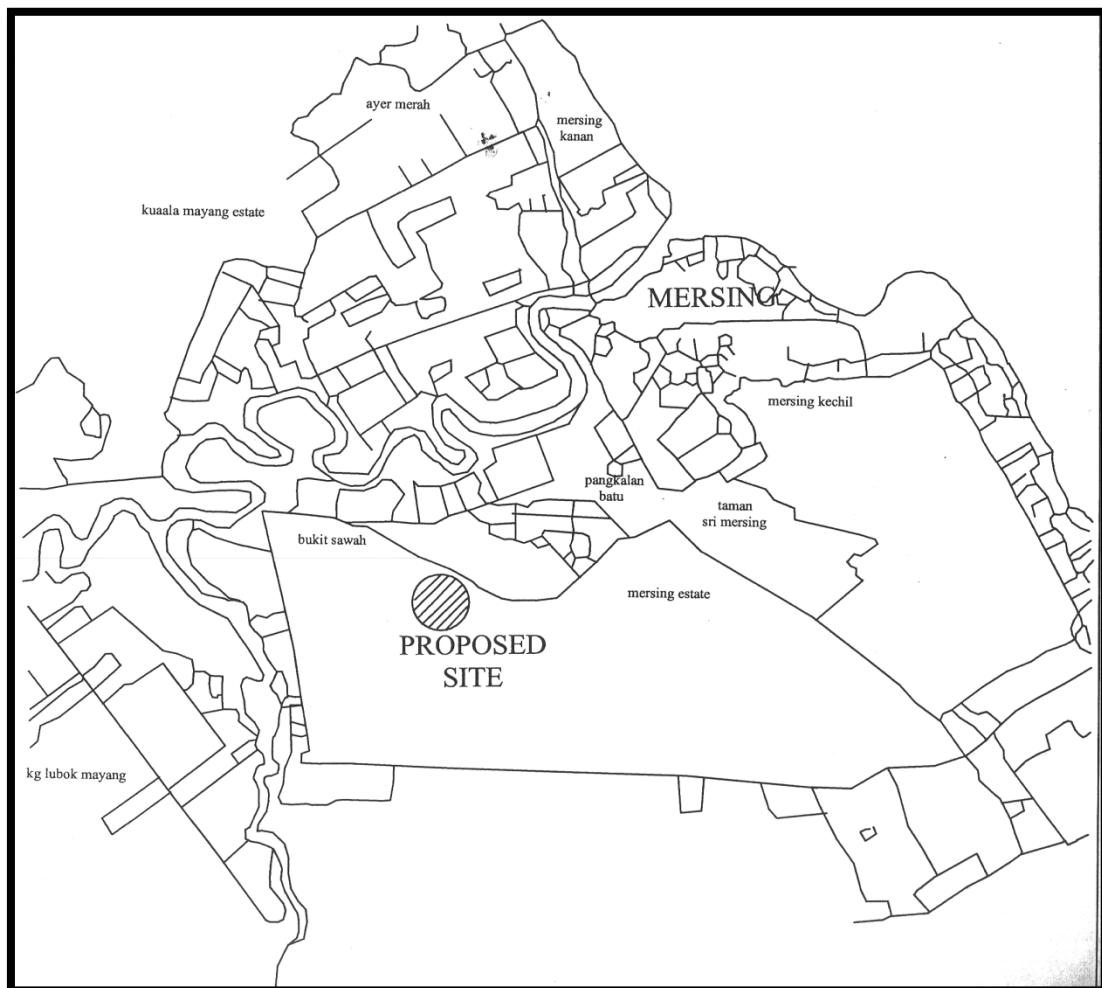


Figure 2.1.2.1 | Key Plan of Proposed Site

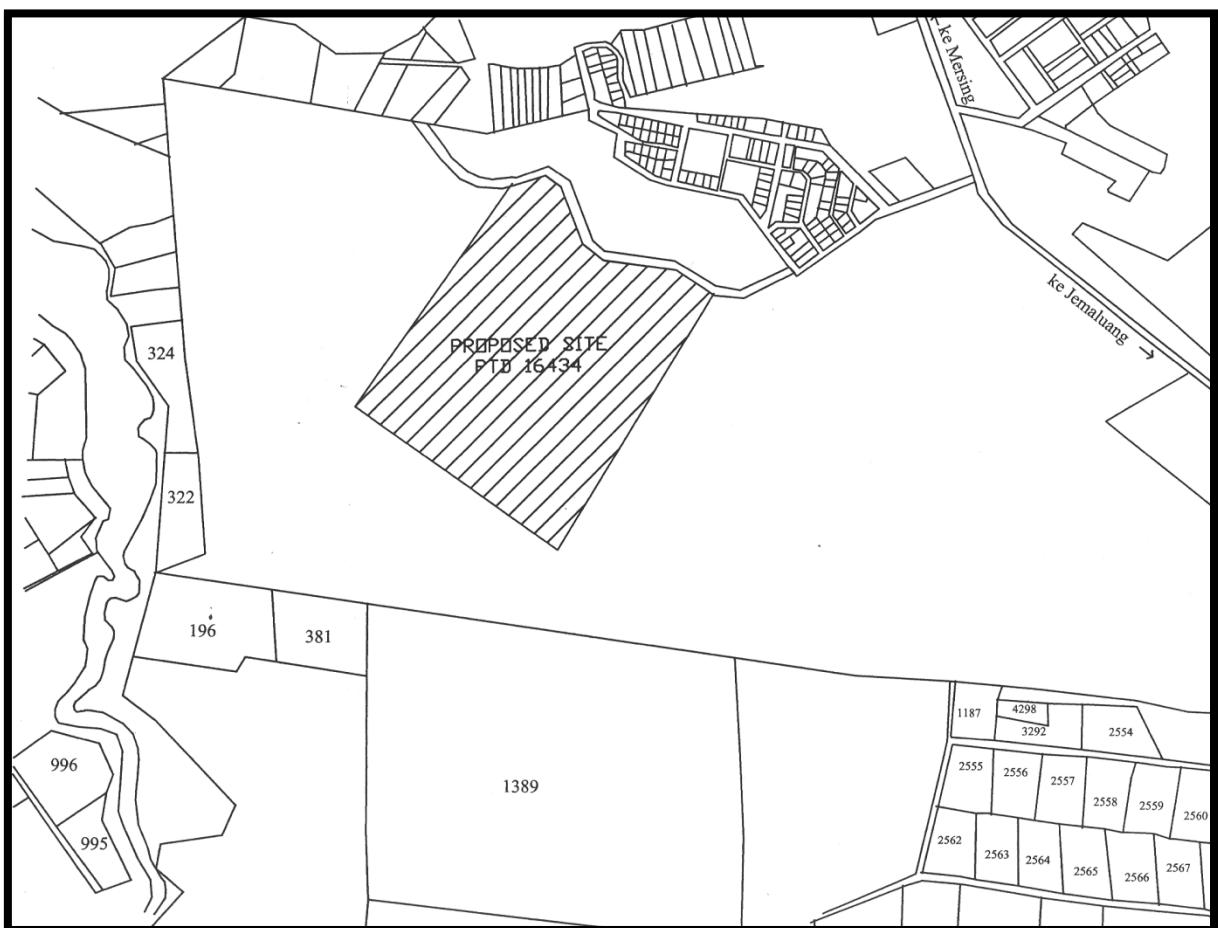


Figure 2.1.2.2 | Location Plan of Proposed Site

The proposed site for development is potential and strategic because it is located in an area that is in way to developing. The proposed development can meet the growing of numbers of Malaysian high education Students. It can also provide opportunities for local people and contribute to local economic development.

Thus, Kementerian Pengajian Tinggi has agreed to approve the request of alienation of 128 acre of land on 28th September 2009 from Hong Leong Melaka Estate to build this Politeknik.

REFER APPENDIX

Figure 2.1.2.3 | Proposed Layout on Project Site

The conceptual of the technique to build this politeknik is shown in the project drawing it is ‘Reka Dan Bina’ as prepare by ‘Habrisalam Architect’ dated April 2009 comprises the following building:

LIST OF BUILDING	NO. OF UNITS
Main Building	
Administration	1
CISC and Lodge	1
Hostel Male	4
Hostel Female	3
Warden Apartment	2
Students centre	3
Resources Center	1
Islamic Center	1
Quarters	12
Canteen	3
Block Academic	3
Work Shop	1
Students Sport Center	1
Accillary Building	
Guard House	2

Garage	1
Bin Center	1
Pencawang	5
External works	
Site work	1
Drainage System	1
Road works and Car parks	12
Water Supply	1
Plant System	1
Landscape	1
Fencing and Gates	1
Walkways	1
TOTAL	64

Table 2.1.2.1 |Detail on Proposed Development

2.2 Construction Procedures and Site Supervision

2.2.1 Introduction

In the year of 2009, Kementerian Pengajian Tinggi has been identified a piece of private land of 128 acres located at Lot PTD 16434 Mukim Pengkalan Batu, Daerah Mersing, Johor Darul Takzim. Thus, the developer is planning to construct the Building and appointed Konsortium Politeknik Mersing Sdn Bhd and Jabatan Kerja Raya, Cawangan Pengajian Tinggi for construct the project .

Thus, the project have construction procedure to make Politeknik Mersing project become smooth.

 JKR MALAYSIA	PROSEDUR PEMBINAAN DAN PENYELIAAN TAPAK BINA	No. Ruj. Dokumen :JKR.PK(O).04 No. Kejuaran :01 No. Pindaan :01 Tarikh :12 Januari 2005 Muka Surat :11/31
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LAMPIRAN 2

Pelan Kualiti Pembinaan (C-Plan)
Pindaan No. 5

[Borang JKR.PK(O).04-2]

1. MAKLUMAT ASAS KONTRAK		
1.1 Butir-butir Kontrak		
Tajuk Kontrak : Politeknik Mersing, Johor (Pakej 2 : Kerja Bangunan dan Kerja-kerja Berkaitan)		
Kos Kontrak : RM 199,603,428.70	No. Kontrak :	JKR/IP/CKUB/214/2009
Tarikh Mula : 28-09-2009	Tarikh Siap : 09-07-2012	
Pejabat Ketua Pasukan Projek (HOPT) : UNIT PENGAJIAN TINGGI 6 (BPPT-CPPT)	Pejabat Selia Tapak :	JKR(D) MERSING (JOH)
		Pejabat Kendali Bayaran Kontrak (JKR66) : JKR(D) MERSING (JOH)
1.2 Butir-butir Pelanggan		
Nama & Alamat Pelanggan :		
Ketua Setiausaha Kementerian Pengajian Tinggi Malaysia Bahagian Pembangunan Aras 10, No. 2, Menara 2, Jalan P5/6, Presint 5, 62200 Putrajaya, Malaysia.		
Nama Wakil Pelanggan : Dato' Mahamed Bin Hussain	Jawatan : Setiausaha Bahagian Pembangunan	
Alamat Wakil Pelanggan: (sekiranya berlainan dari alamat pelanggan di atas)	No. Telefon :	No. Fax :
	03-88835423	03-88891324

Figure 2.2.1.1 | Construction Procedure and site supervision form

 JKR MALAYSIA	PROSEDUR PEMBINAAN DAN PENYELIAAN TAPAK BINA		No. Ruj. Dokumen :JKR.PK(O).04 No. Keluaran :01 No. Pindaan :01 Tarikh :12 Januari 2005 Muka Surat :12/31	
1.3 Butir-butir Kontraktor Utama / NSC				
Nama & Alamat Kontraktor Utama: KONSORTIUM POLITEKNIK MERSING SDN. BHD. 372, 1st Floor, Jalan Tuanku Abdul Rahman, 50100 Kuala Lumpur		No Talipon: 077970142	No Fax:	Kelas: A
Nama & Alamat NSC: (perlu diisi setelah dilantik)				No PKK: SKALA10108
2. SKOP KONTRAK				
<p>Membina dan Menyiapkan Politeknik Mersing, Johor. Pakej 2: Kerja Babgunaan Dan Kerja-Kerja Berkaitan (Reka & Bina)</p> <ol style="list-style-type: none"> 1. Preliminaries And Turnkey Element. 2. Environmental Protection Works. 3. Structural, Geotechnical & Foundation. 4. Building Works. 5. Mechanical Services. 6. Electrical Services. 7. Ancillary Buildings 8. External Works. 9. Maintenance For 24 Months. 10. Provisional Sum. 				
3. CARTA ORGANISASI PASUKAN JKR				
<p>Carta Organisasi Pasukan JKR ini adalah bagi semua pegawai yang terlibat (kerja-kerja kontraktor utama dan NSC) sebagaimana yang dinyatakan di dalam skop kontrak di atas.</p>				

Figure 2.2.1.2 | Construction Procedure and site supervision form (Cont'd)

 JKR MALAYSIA	PROSEDUR PEMBINAAN DAN PENYELIAAN TAPAK BINA	No. Ruj. Dokumen :JKR.PK(O).04 No. Keluaran :01 No. Pindaan :01 Tarikh :12 Januari 2005 Muka Surat :14/31
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4. SENARAI MESYUARAT

Nyatakan jenis mesyuarat yang akan diadakan bagi kontrak ini.

Bil	Jenis Mesyuarat	Kekerapan	Pengerusi	Ahli-ahli
1.	Mesyuarat Pra-Pembinaan	SEKALI	PP	Semua yang terlibat dengan projek.
2.	Mesyuarat Tapak (jika berkenaan)	SEBULAN SEKALI	PP/TPP/KPP B/WPP	Semua yang terlibat dengan projek
3.	Mesyuarat Teknikal (jika berkenaan)	KERAP	WPP	Semua yang terlibat dengan projek
4.	Mesyuarat Penyelarasian (jika berkenaan)	MENGIKUT KEPERLUAN	PENGARAH CPPT/KPPK	Semua yang terlibat dengan projek
5.				
6.				

5. REKOD-REKOD YANG DISENGGARA

Senaraikan rekod-rekod yang perlu disenggara dan lokasi sepanjang tempoh pelaksanaan kontrak.

Bil	Jenis Rekod	Pegawai Yang Bertanggungjawab	Lokasi Rekod Disimpan.
1.	Surat Setuju Terima (SST)	KPP Ukur Bahan	CKUB IP JKR
2.	Dokumen Tender	KPP Ukur Bahan	CKUB IP JKR
3.	Borang Verifikasi Harta Pelanggan	HOPT	CPPT IP JKR
4.	Pelan Kualiti Projek (QPlan) yang mengandungi Pelan Kualiti Pembinaan (CPlan)	HOPT	CPPT IP JKR
5.	Borang Kalibrasi Peralatan	KONTRAKTOR/ PERUNDING	PEJABAT TAPAK
6.	Buku Harian Tapak	KONTRAKTOR/ PERUNDING	PEJABAT TAPAK
7.	Rekod/Borang/ Senarai Semakan bagi Pemeriksaan/ Pengujian	KONTRAKTOR/ PERUNDING	PEJABAT TAPAK
8.	Minit Mesyuarat Pra Pembinaan/ Tapak/ Penyelarasian/ Teknikal	PERUNDING/JKR	PEJABAT TAPAK
9.	Perakuan Siap Kerja Projek	PP	UKUR BAHAN JOHOR

Gunakan Lampiran jika ruang tidak mencukupi.

Figure 2.2.1.3 | Construction Procedure and site supervision form (Cont'd)

Jadual Rancangan Kewangan Kontrak

Tajuk Projek				Politeknik Mersing, Johor (Pakej 2 : Kerja Bangunan dan Kerja-kerja Berkaitan)		
No. Kontrak	JKR/IP/CKUB/214/2009	Tarikh Milik Tapak	28-09-2009			
Harga Kontrak Asal	RM 199,791,000.00	Tarikh Siap Asal	15-01-2012			
Harga Kontrak Semasa	RM 199,603,428.70	Tarikh Siap Semasa	09-07-2012			

Pindaan 3

Bil	Tahun	Bulan	Unjuran Semasa		
			Bulanan (RM)	Kumulatif (RM)	%
1	2009	September	0.00	0.00	0.0
2	2009	Okttober	1,000,000.00	1,000,000.00	0.5
3	2009	November	1,500,000.00	2,500,000.00	1.3
4	2009	Disember	2,098,321.67	4,598,321.67	2.3
5	2010	Januari	1,883,690.67	6,482,012.34	3.2
6	2010	Februari	3,119,507.48	9,601,519.82	4.8
7	2010	Mac	3,006,359.01	12,607,878.83	6.3
8	2010	April	2,397,380.98	15,005,259.81	7.5
9	2010	Mei	3,882,634.22	18,887,894.03	9.5
10	2010	Jun	2,688,221.15	21,576,115.18	10.8
11	2010	Julai	4,216,950.97	25,793,066.15	12.9
12	2010	Ogos	4,184,652.93	29,977,719.08	15.0
13	2010	September	3,829,699.25	33,807,418.33	16.9
14	2010	Oktober	4,026,501.91	37,833,920.24	19.0
15	2010	November	6,134,243.83	43,968,164.07	22.0
16	2010	Disember	4,647,049.13	48,615,213.20	24.4
17	2011	Januari	5,095,386.35	53,710,599.55	26.9
18	2011	Februari	7,196,579.94	60,907,179.49	30.5
19	2011	Mac	6,612,712.75	67,519,892.24	33.8
20	2011	April	8,011,006.29	75,530,898.53	37.8
21	2011	Mei	7,573,395.15	83,104,293.68	41.6

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Figure 2.2.1.4 Construction Procedure and site supervision form

(Cont'd)

Bil	Tahun	Bulan	Unjuran Semasa		
			Bulanan (RM)	Kumulatif (RM)	%
22	2011	Jun	11,508,214.61	94,612,508.29	47.4
23	2011	Julai	8,298,251.66	102,910,759.95	51.6
24	2011	Ogos	10,136,446.29	113,047,206.24	56.6
25	2011	September	8,969,343.84	122,016,550.08	61.1
26	2011	Oktober	9,308,416.03	131,324,966.11	65.8
27	2011	November	9,133,379.13	140,458,345.24	70.4
28	2011	Disember	12,500,000.00	152,958,345.24	76.6
29	2012	Januari	10,500,000.00	163,458,345.24	81.9
30	2012	Februari	9,000,000.00	172,458,345.24	86.4
31	2012	Mac	7,400,000.00	179,858,345.24	90.1
32	2012	April	8,300,000.00	188,158,345.24	94.3
33	2012	Mei	4,500,000.00	192,658,345.24	96.5
34	2012	Jun	4,100,000.00	196,758,345.24	98.6
35	2012	Julai	2,845,083.46	199,603,428.70	100.0

Tandatangan
 Nama Pegawai
 Jawatan
 Tarikh
 Abdul Halim Bin Mat Daud
 Jurutera Daerah JKR
 Mersing
 25-06-2012

ABDUL HALIM BIN MAT DAUD
 JURUTERA DAERAH
 JKR MERSING

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Figure 2.2.1.5 Construction Procedure and site supervision form

(Cont'd)

2.3 Involved Agency Organizational Chart

2.3.1 Jabatan Kerja Raya Organization Chart

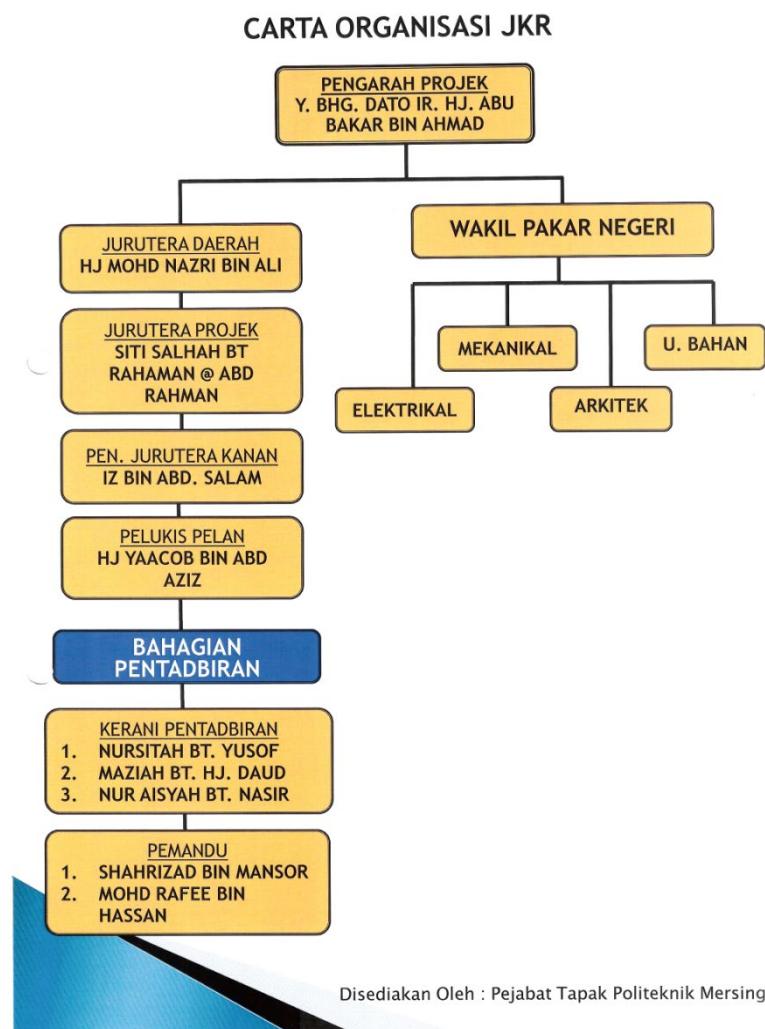


Chart 2.3.1.1| JKR (D) Mersing Organization chart

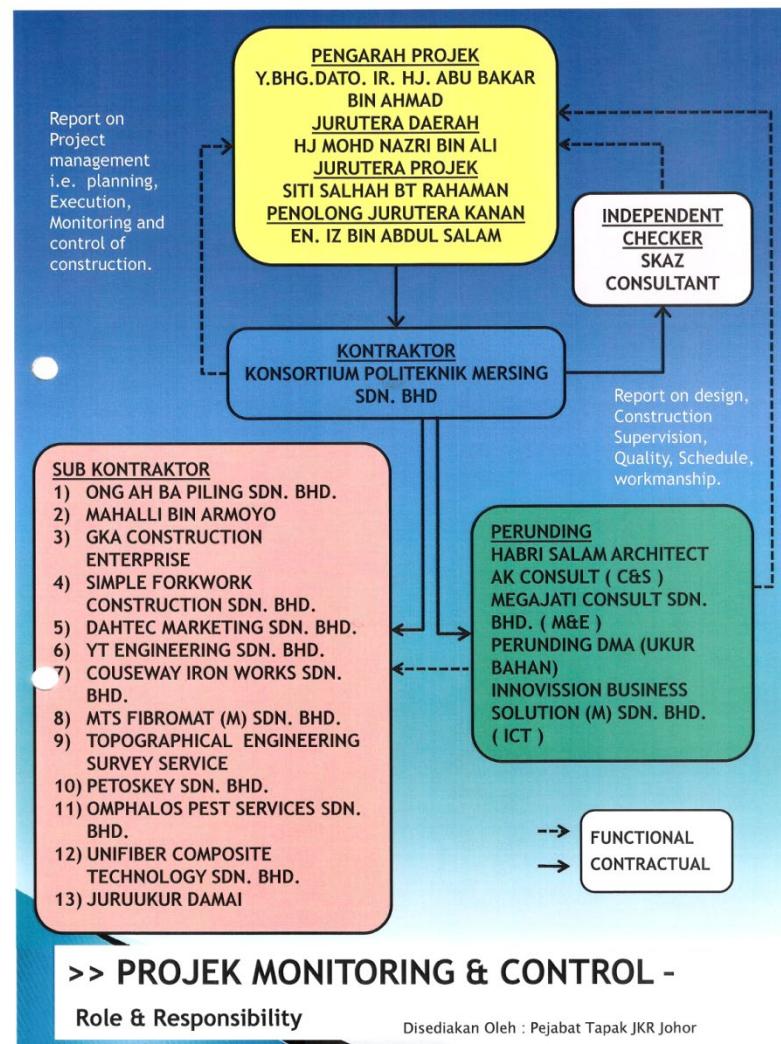


Chart 2.3.1.1| JKR (D) Mersing Organization chart (cont'd)

2.3.2 Contractor and Sub-con Organization Chart

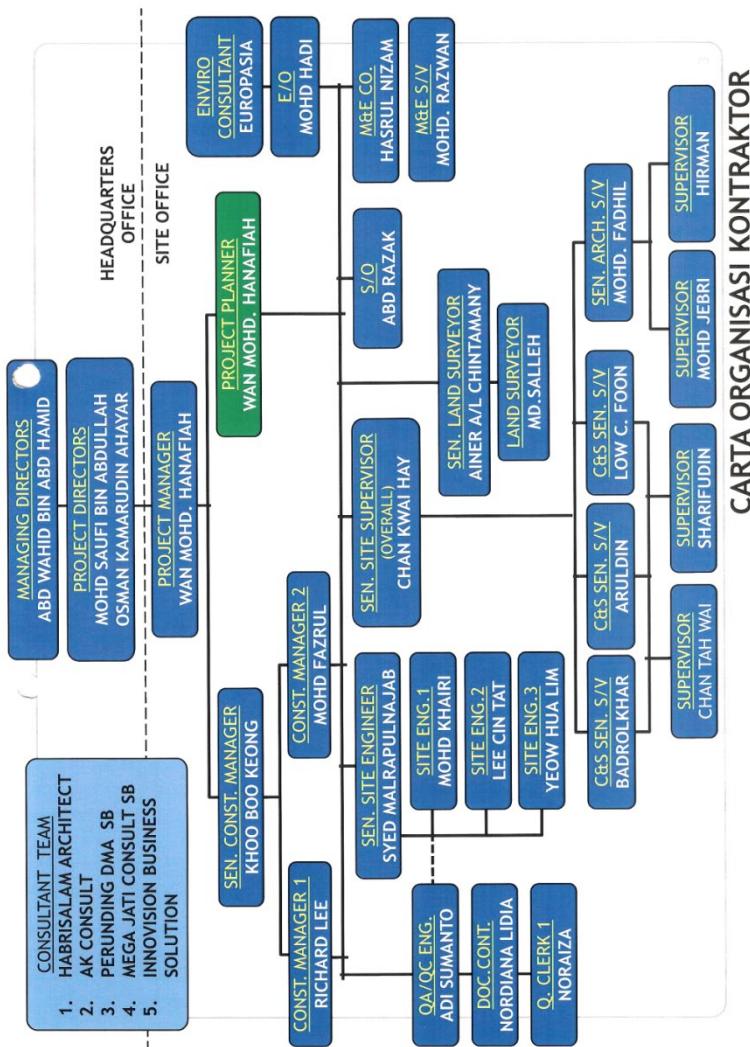


Chart 2.3.2.1| JKR (D) Mersing Organization chart

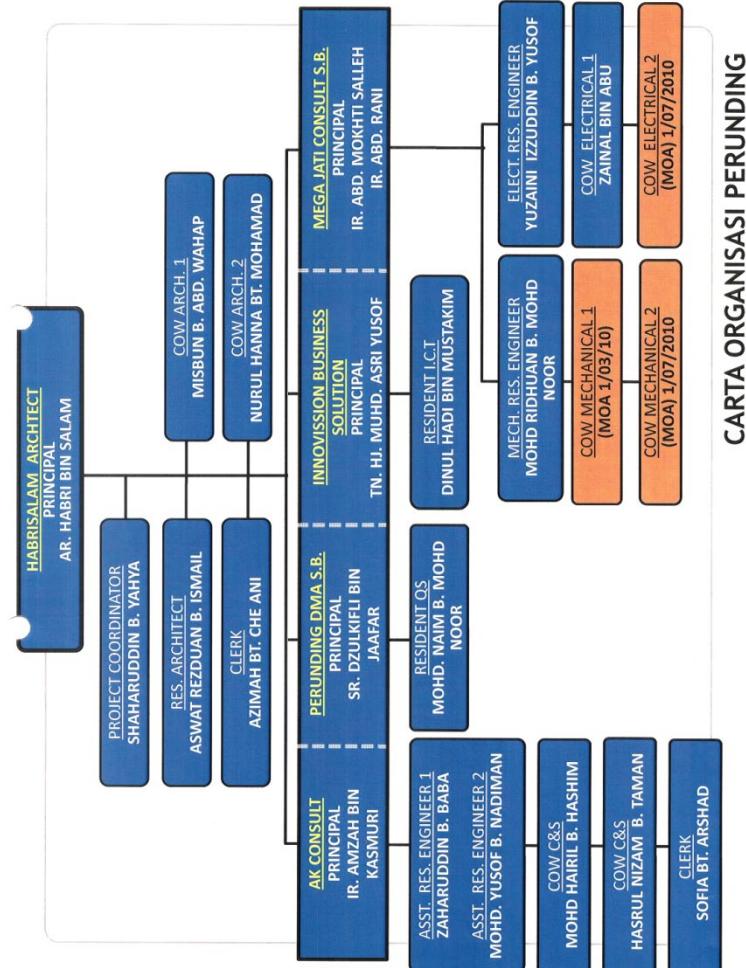


Chart 2.3.2.2| Consultant Organization chart

2.3.3 Design And Build Contract With ‘Project Management’ By Contractor.

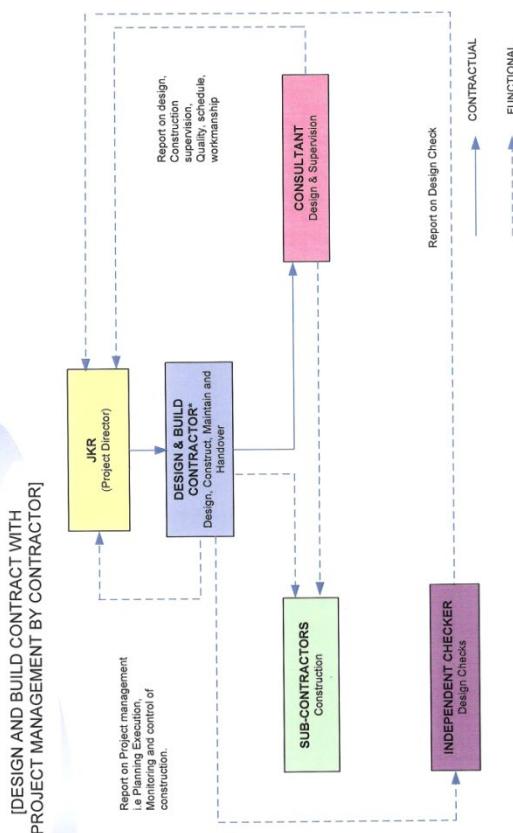
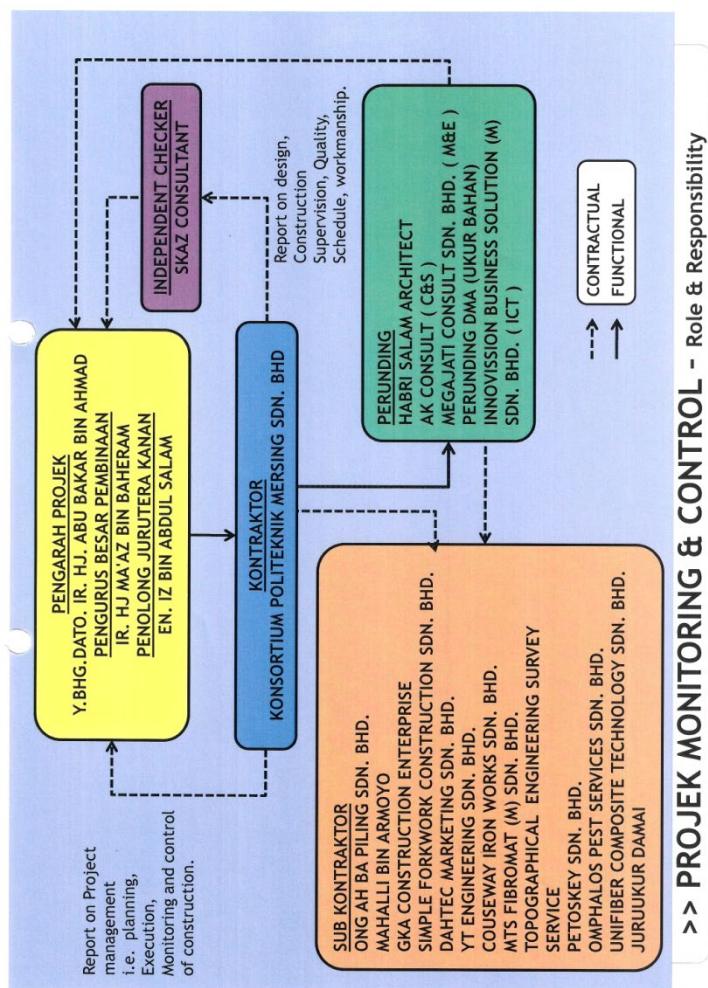


Chart 2.3.3.1 | Project Management by Contractor



>> PROJEK MONITORING & CONTROL - Role & Responsibility

Chart 2.3.3.2| Project Management By Contractor (cont'd)

2.4 Contractual and General Requirement (Government)

2.4.1 Introduction

.As a development project under the supervision of the JKR (D) Mersing, the contractor shall obey with contractual and general requirement provide right by JKR, in order to ensure that the construction process is run without any problems. Besides, the JKR also want every project that involves Kementerian Pelajaran comply with the specifications set by the government.

CONTRACTUAL AND GENERAL REQUIREMENTS

CONTRACTUAL AND GENERAL REQUIREMENTS**1.0 General**

All works with respect to investigation, design, construction, maintenance, etc. shall comply with the Government's Requirements.

All designs must optimally satisfy the requirements of visual elegance, functional adequacy, safety, suitability, robustness, ease of maintenance and cost effectiveness.

2.0 Scope of Work

2.1 The Scope of works shall include the planning, design, construction, equipping, supervision, testing, commissioning and maintenance of "Membina dan Menyiapkan Politeknik Mersing, Johor, Pakej 2 – Kerja Bangunan Dan Kerja-Kerja Berkaitan (Reka & Bina)". The Works shall be carried out complete with relevant appurtenance and ancillary works, services and equipment all in strict accordance with the Government's Requirements as specified in Volume I and Volume II of the Pre-bid Documents. The site is in the location of Mukim Kg. Pengkalan Batu in the district of Mersing, Johor at Lot PTD 16434.

The Contractor shall provide at his own risk and expense and allow for in his tender price all materials, scaffolding, tools, plant, equipment, professional services, labour, transport, water, power, lighting, complying with and obtaining detailed planning permission and building regulation approval including the relevant Certificates of Fitness and everything else necessary for the proper execution and completion of the Works.

All designs and need statements or briefs submitted for architectural, mechanical and electrical works shall comply with the requirements and guidelines of the Economic Planning Unit (EPU) accordingly.

2.1 The works shall include but shall not be limited to the following:-

- a) Preliminaries Works
- b) Environmental Protection and Enhancement Requirement

Figure 2.4.1.1 | Contractual and general requirement propose by JKR

CONTRACTUAL AND GENERAL REQUIREMENTS**2.0 Scope of Work (Cont'd)**

- c) Structural , Geotechnical Foundation System,
- d) Building Works
 - i) Non-Academic Building
 - ii) Academic Building
- e) Specialist Works
 - i) Acoustic Works
- f) Built-In Furniture
- g) Mechanical Services
- h) Electrical Services
- i) Ancillary Building
 - i) TNB Sub-station
 - ii) Guard House
 - iii) Main Store
 - iv) Pump House
 - v) Water Storage Tank
 - vi) Bus Stop
 - vii) Refuse Chamber
 - viii) Chiller Plant Room
- j) External Works
 - i) Site Works
 - ii) Drainage System
 - iii) Roadworks and Carparks
 - iv) External Water Supply System
 - v) Sewerage Treatment Plant System
 - vi) Waste Disposal System
 - vii) Landscaping and Turfing
 - viii) Covered Walkway
 - ix) Fencing and Gate
- k) Maintenance for 24 Month
- l) Provisional Sum

All designs and need statements or brief submitted for architectural, mechanical and electrical works shall comply with the requirements and guidelines of the Economic Planning Unit (EPU) accordingly.

Figure2.4.1.2 | Contractual and general requirement propose by JKR (cont'd)

CONTRACTUAL AND GENERAL REQUIREMENTS

10.0 Programme of Works and Progress Reports (cont'd)

- iii) The report should contain all the relevant information pertaining to contract management, scope of work, extent of work done, the plant and labour force employed, all quality control tests and records, illustrative photographs at every level of construction, and problems encountered, issues pending P.D.'s decisions and enclosures including all important corresponding letters, visitors details and all minutes of meeting in the month. All the reports shall be prepared, checked and Certified by the P.D.
- iv) A set of digital photographs in CD form or progress video showing the progress and stage of the construction of each part of the Works shall also be submitted together with the aforesaid monthly report.

The programme shall fulfill the following conditions:

- i) The works programme must consist of the three (3) basic elements of planning, milestones, task or activities and relationships.
- ii) The works programme will start with a milestone and finish or complete with a milestone.
- iii) The commencement and finish date must coincide with the contractual dates.
- iv) All tasks and activities must have both predecessor and successor element linked.
- v) The contractor can submit either a PERT or GANTT formatted programme.
- vi) The relationships approved for use are either finish to start, start-to-start, finish-to-finish and start to finish.
- vii) The works programme must be resources loaded with machinery and manpower to the quantum that the contractor proposed to carry out the works with. For example General Worker [2] where "General Worker" is the resource type and [2] is the number or quantity proposed.
- viii) The works programme must be financially loaded as per the tender items & cost. In the event the tender is of lump sum nature, the contractor will need to disperse their tender cost across the work programmes, task & activities, to values, rationalized and approved by JKR or its authorized representatives.

Figure 2.4.1.3 | Contractual and general requirement propose by JKR

(cont'd)

CONTRACTUAL AND GENERAL REQUIREMENTS

10.0 Programme of Works and Progress Reports (cont'd)

- ix) The works programme must indicate clearly all designated governmental approved holidays and any other holidays they wish to adhere to during the course of the project time. This selected list of holidays must be on the timeline chart display or extractable via the calendar view.
- x) The programme must be presented in a Works Breakdown Structure (WBS) format, using codes approved by JKR or its representatives.
- xi) The tenderer will be required to submit to JKR a soft copy of the works programme in compact disk (CD) format. The CD must be submitted in a completely close case and labeled to show
 - a. Project Name
 - b. Tender Name (if different from Project Name)
 - c. Contractor's Name & Address
 - d. Reference number (if any)
 - e. Any other information as per JKR's instruction, should such need arise
 - f. The soft copy will not be saved as Baseline, unless otherwise approved by JKR or its representatives.

Software

The Software acceptable for use in the creation of the works programme is

- a) Microsoft Project 2003 or higher

The contractor will need to submit a Legal and genuine copy to JKR or its representatives for use during the duration of the project. The contractor is also required to provide minimum two (2) clerical staffs for administration purposes.

Training

The contractor will need to send six (6) representatives for JKR and two (2) of their Site based representatives to Project Planning Training within one calendar month from the commencement of the project. The training must include the following minimum content.

JKR or their representatives will select the Trainer or the facility conducting such training and inform the contractor of their choice.

Figure 2.4.1.4 | Contractual and general requirement propose by JKR

(cont'd)

CONTRACTUAL AND GENERAL REQUIREMENTS

10.0 Programme of Works and Progress Reports (cont'd)Seminar Contents

- a) Planning basics & fundamentals
- b) Resource Loading and management
- c) Financial Loading
- d) Physical & Financial progress chart generation
- e) Scheduled and Actual progress monitoring
- f) Progress difference in duration and percentage
- g) Reports
- h) Work Breakdown Structures (WBS)
- i) Progress Payment and work programme

Planners or Planning consultants

The contractor will need to employ a Planner or Planning consultant to provide explanation to JKR or its representatives about the works programme during the Technical Meetings until a time where the programme is approved for use. Thereby the need to retain the service of the planner is pending on the need and request from JKR or its representatives.

The Planner will have to be of the following criteria:-

- a) A technical personnel degree holder with 5 years working on site experience
- b) A tertiary qualification relevant to the works programme creation JKR or its representative at the time of audit of the planner can request for the Planner's work portfolio of past projects to justify the planner's ability.

10.1 Programme to be submitted with Proposal

The Contractor shall submit together with his Proposal, a construction programme showing his proposals and the periods for carrying out the various sections of the Works in order to complete the whole Works within the time for completion specified, together with a Schedule of Construction Plant and Labour Strength planned for the various periods and sections of the Works. It is important that the Contractor demonstrates how he can save time in carrying out the planning, design and construction of the project to completion. He shall also indicate the type of management tools and expertise he will employ to plan, monitor and control the project.

Figure 2.4.1.5 | Contractual and general requirement propose by JKR

(cont'd)

CONTRACTUAL AND GENERAL REQUIREMENTS

20.0 Temporary Facilities and Services (cont'd)

20.2 For the Project Director (cont'd)

(d) Equipments and Facilities, Pheripheral and Consumable Items (cont'd)

1.2 Printers complete with tables (2 Nos)

HP Colour LaserJet 5550 Printer (Q3713A) or approved equivalent
In-line colour laser, direct-to-page printing
HP Image REt 3600
Up to 600 x 600 dpi
Up to 28ppm print speed (colour and black and white, normal quality, A4)
Up to 14ppm print speed (colour and black and white, normal quality, A3)
MIPS RISC Processor Type
533 MHz Processor Speed
Up to 120,000 Pages per month
Up to 2100 Maximum input capacity
Up to 250 Maximum output capacity
A3, A4, A5, B4-JIS, B5-JIS Standard media sizes
160 MB Standard memory
544 MB Maximum memory
Optional, 20GB Hard disk capacity

1.3 All software to be supplied under this contract shall be original software and shall be registered in the name of the Contractor. The Contractor shall submit all documentary evidence of the originality and legality of the software.

CONTRACTUAL AND GENERAL REQUIREMENTS

21.0 Tenderer's Proposal

The Tenderer shall take note of the following conditions:

21.1 Design

All the designs by the Tenderer shall be carried out in accordance with good engineering practice and standards and shall be approved by local and federal authorities if required.

21.2 Quantities and Figures

Any quantities and figures as indicated in the Contractor's Proposal for any system or portion of work shall be taken as purely indicative only. No claims for extra cost shall be entertained if such increase is an essential part of the completion of the whole of the Works.

21.3 Discrepancy

Where there is any discrepancy within the Contractor's Proposal, the Project Director shall have the right to decide between the discrepant items and the Contractor shall comply with the decision without any cost to the Government.

21.4 Detailed Drawings

Any drawings shown in the Contractor's Proposal are considered as the complete working drawings to be used for the completion of the whole of the Works. Any necessary and subsequent updating/modification made in order to suit the final accepted layout shall not be treated as a variation to the Contract.

All drawings submitted by the Contractor must be folded and binded to the relevant volume.

21.5 Modification to Mechanical & Electrical Services

Where necessary, the Contractor shall update/modify the mechanical and electrical engineering services drawings to follow the accepted architectural layout and any such updating/modification made to the Mechanical and Electrical Services shall not be treated as a variation to the Contract.

Figure 2.4.1.7 | Contractual and general requirement propose by JKR

(cont'd)

CONTRACTUAL AND GENERAL REQUIREMENTS

22.0 Taxation

In addition to Clause 13 of the Conditions of Contract, the Contractor is also required to pay all forms of Customs duties/Excise/Sales tax in Malaysia where necessary.

23.0 Contract Document

The Tenderer shall prepare and submit to the Government fifteen (15) certified true copies and one (1) original of the Contract Documents immediately after the Contract Agreement has been formally executed. The original of the Contract Document shall be kept by the Government.

24.0 Detailed Working Drawings

- 24.1 Within three (3) months from the date of the Letter of Acceptance, the Contractor shall prepare and finalise all the detailed analysis, design, working drawings and specifications and shall submit the same to the Project Director.
- 24.2 Before the Contractor commences any work under this Contract, the Contractor shall submit to the Project Director two (2) sets of all detailed working drawings and documents related thereto for his concurrence. The Contractor shall also keep one (1) set of all the above mentioned drawings relevant to the individual buildings at the respective sites so as to be available to the Project Director at all reasonable times.

CONTRACTUAL AND GENERAL REQUIREMENTS

25.0 Protection and Temporary Relocation of Existing Utilities and Services

- 25.1 The Contractor shall prior to the execution of the Works, liaise with all public utility authorities/providers and relevant affected parties with regard to the existing utility installations or facilities affecting his works. He shall establish the exact locations of these services by trial trenching or other suitable methods such as using radio detection equipment. The Contractor shall take all necessary precautions and provide all necessary protection so as not to damage any existing utilities and services; and where necessary or if required by the public utility authorities/providers, the Contractor shall carry out temporary relocation of the existing utilities and services including reinstatement of the same.
- 25.2 If during excavations, the Contractor comes across any underground cables, pipes etc. he shall stop work immediately and report to the P.D. who shall liaise with the relevant utility authorities/providers to determine the necessary action to be taken. The Contractor shall be responsible for making good all damage to cables, etc. and shall indemnify the Government against all claims as a result of such damage.
- 25.3 All costs incurred by the Contractor in complying with these requirements shall be borne by the Contractor and deemed to be included in the Contract Sum.

26.0 Permanent Relocation of Utilities and Services

Provisional Sum items to be allowed in the Tender Sum Analysis for the permanent relocation of utilities and/or services (if any).

27.0 Employment of Foreign Workers

Notwithstanding the requirements of Clause 18 of the Conditions of Contract, should the Contractor intend to employ foreign workers in the execution of this Contract, he shall seek the written consent of the P.D. and comply with all employment laws and by-laws pertaining to the same and furnish to the P.D. all relevant documents.

CONTRACTUAL AND GENERAL REQUIREMENTS

28.0 Adjoining Property

- 28.1 Where the property adjoining the site (or sites) is in constant use by the Government, adjoining owners and occupiers, the Contractor shall arrange for and carry out the Works so as to cause minimum interference or interruption to the use of the adjoining properties including roads, footpaths, other access and any existing services thereto. He shall comply with all instructions or directions given by the P.D. in these matters.
- 28.2 The Contractor shall take all proper measures to the satisfaction of the P.D. to minimize the spread of dust, noise, flooding, siltation, etc. arising from the execution of the Works to the adjoining properties and shall comply with the requirements imposed by the relevant Authority.

29.0 Access and Temporary Roads

- 29.1 The Contractor shall provide and maintain, to the approval and satisfaction of the P.D., all necessary temporary culverts, roads, tracks, bridges, etc. for access to and within the site (or sites) as long as required for the execution of the Works. The positions where the site access are to be made shall be clearly indicated on the site plans submitted by the Contractor as part of the Proposals. The Contractor shall make all arrangements and obtain all necessary approvals and permission required in connection thereto.
- 29.2 Access roads from the site (or sites) leading to public roads shall be properly maintained at all times and shall only be removed by the Contractor when instructed to do so by the P.D.

30.0 Protection of the Environment and Environmental Impact Assessment (EIA)

- 30.1 The Contractor shall take necessary precautions to prevent the deposition of any debris, rubbish, silt, waste materials, foul water, chemicals, etc. arising from the execution of the Works into existing streams/waterways.
- 30.2 The Contractor shall divert existing drains, waterways, etc. encountered during the progress of the Works without disrupting their flow system and if such diversion is temporary, he shall subsequently reinstate the same subject to the P.D.'s approval.
- 30.3 The Contractor shall take necessary precautions to ensure that the tyres of all vehicles leaving the site are free of mud.

CONTRACTUAL AND GENERAL REQUIREMENTS

**30.0 Protection of the Environment and Environmental Impact Assessment (EIA) –
(cont'd)**

- 30.4 The Contractor shall not carry out any open burning on the site (or sites) without the written approval of the P.D.
- 30.5 The Contractor shall be held solely responsible for the sufficiency of precautions taken by him to protect the environment and shall comply with requirements imposed by the relevant authorities.
- 30.6 (i) **Environment Quality Act 1974**
The Contractor shall comply with all aspects of the Environment Quality Act 1974 which has relevance to the design, construction, equipping and commissioning of the proposed project.
- (ii) **Environmental Impact Assessment (EIA)**
Where EIA is required by the said Act, the Contractor shall prepare, submit and obtain approval from the Department of Environment (DOE) and he shall incorporate in his Works all the abatement and mitigation measures for environmental protection and environmental monitoring as required by the DOE.

The Contractor shall be liable for and shall indemnify the Government in respect of any claim or proceeding arising from his neglect of this provision. All costs associated therewith shall be deemed to be included in the Contract Sum.

31.0 Certification of Works Before Testing and Commissioning and Final Inspection

All works claimed to be completed works shall be certified by the Contractor's Consultants in respect of each discipline, as complete, functional and safe for use before a request is made for the P.D. or his representatives to witness or carry out any testing commissioning and final inspection prior to the issue of the Certificate of Practical Completion.

CONTRACTUAL AND GENERAL REQUIREMENTS

32.0 Inventory System for Equipment, Furniture, etc.

Upon handing over the Works to the Government, the Contractor shall fill up and submit to the P.D inventory cards for all equipment, furniture and fittings supplied and installed in each building, each item having a value exceeding RM500. The details to be recorded on the inventory cards shall include:

- (i) Item Name
- (ii) Item Description
- (iii) Item Code
- (iv) Item Quantity
- (v) Name, Address and Telephone number of Supplier
- (vi) Location(s) Where Item is Stored (Department/Room/Room Ref.)

33.0 As-Built Drawings and Documents**33.1 Submission of as-built drawings during construction**

The Contractor shall be required to submit to the P.D. as built drawings progressively as the relevant portions of work are completed or as and when required by the P.D.

33.2 Within 3 months from the date of practical completion, the Contractor shall submit to the P.D. for his concurrence a full set of as-built drawings, microfilm and other details and information to show the final construction and form of the Works as completed. All as-built drawings shall be computer generated in the form of AutoCad drawing files.

33.3 Upon concurrence of the P.D., the Contractor shall prepare:-

- (a) for each drawing one (1) reproducible drawing on medium weight premalrace or equivalent (A1 size), three (3) non-fade prints (A1 size) and microfilms
- (b) three (3) copies of operations and maintenance manual.

All the computer generated as-built drawings shall be stored in CD-ROM and forwarded within two (2) months thereafter to the P.D. together with the reproducibles, mirofilms and one (1) set of the non-fade prints. The remaining prints shall be issued as directed by the P.D.

CONTRACTUAL AND GENERAL REQUIREMENTS

37.0 Joint Venture Requirements

Any Proposal submitted by a legally constituted joint venture shall comply with the following:

- 37.1 The Contractor's Proposal shall be signed by the authorized signatories of all the partners to the joint venture so as to be legally binding upon each partner.
- 37.2 A copy of the Joint Venture agreement shall be attached to Volume 1 of the Proposal for the perusal and approval of the Government.
- 37.3 The Joint Venture agreement signed by the authorized signatories shall include an undertaking by all partners to the joint venture that they remain liable jointly and severally to the Government for the execution and completion of the whole of the Works in full accordance with the terms contained in the Government's Requirements as referred to in Appendix 3 to the Conditions of Contract.
- 37.4 The Contractor's Proposal shall include:
 - a) A description of the proposed participation and responsibilities of each partner.
 - b) A statement of proposed capital contribution of each partner and the sharing out of profits and losses among the parties.
 - c) The Contractor's Proposal shall include the official correspondence address for service of all letters, written notices and instructions to the Joint Venture including the leading partner to be designated.

38.0 Maintenance Requirements During Maintenance Period

- 38.1 The Contractor's attention is drawn to Clause 59 of the Special Conditions to the Conditions of Contract whereby the Contractor will be required to maintain mechanical and electrical services including water supply and sewerage systems for a period of 24 months from the date of completion as stated in the Certificate of Practical Completion. For this purpose, the Contractor is to station on site and maintain a small team of personnel to attend to all repairs and maintenance works. Any urgent repairs shall be attended to immediately and completed within the period as directed by the P.D. For detail, please refer to Volume II of the pre-bid document.
- 38.2 The Contractor is to price such requirement in the contract and to provide sufficient personnel spares and other items for this purposes.

CONTRACTUAL AND GENERAL REQUIREMENTS

38.0 Maintenance Requirements During Maintenance Period (Cont'd)

- 38.3 The scope of maintenance shall also cover any statutory requirements to renew licenses, inspections, regular and routine maintenance of all services as mentioned in 35.1 above.
- 38.4 General cleaning such as cleaning the floors, toilets, cooking utensils, apparatus, drains etc are not part of the requirements of maintenance. However, cleaning of boiler, switch gears/distribution boards, water storage tanks, water main, air-conditioner, AHU, and equipment which require regular cleaning as part of routine maintenance is the responsibility of the Contractor during the maintenance period.
- 38.5 The detailed scope of maintenance is given in the respective Government's Requirements for Civil, Mechanical and Electrical Works.

39.0 Advance Payment

In line with clause 62 of the Conditions of Contract, the Contractor shall be entitled to an advanced payment in the contract amounting to 25% of the Builders work (subject to a maximum of RM 10 million) on compliance with the condition.

40.0 Defects Liability Period

The period of defects liability shall be twelve (12) months after practical completion of the Works unless otherwise stated in Appendix 1 of the Contract Conditions.

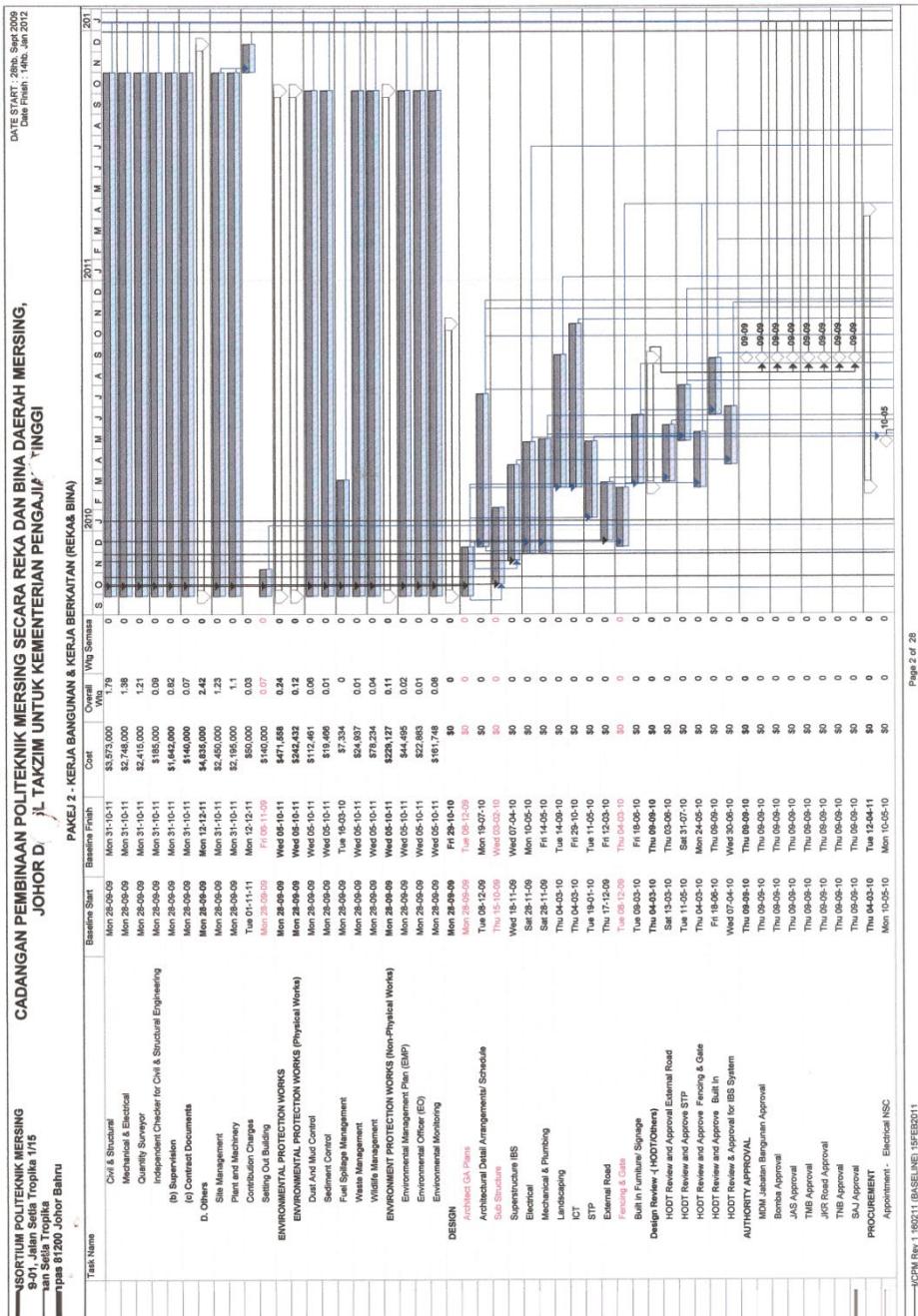
41.0 Transfer Of Technology

- 41.1 The Contractor shall submit a proposal for programmes to Government Officers in the form of familiarization visits, technical study visits, and fact finding visit in domestic or any foreign country having specialized areas/technologies as well as organizing seminars, workshops or short courses for the benefit of Government Officers, comprising of various disciplines, particularly in relations with the project.
- 41.2 The Transfer of Technology shall be carried out in stages starting from the award of the project until the completion of the project. It shall take effect in the manner and according to programmes and schedules agreed to by the Project Director. The quantum, duration and place of the programmes to be held shall be stated and agreed by the P.D

2.5 Progress off Construction

2.5.1 Introduction

Writing a progress report is to keep interested parties informed about what has been done on a project and complain to the contractor if there are some mistakes in construction and defect occurs in the building. As a result the contractor must do the maintenance to avoid the payment blocked.



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Figure 2.5.1.1 | Progress off construction propose by Contractor

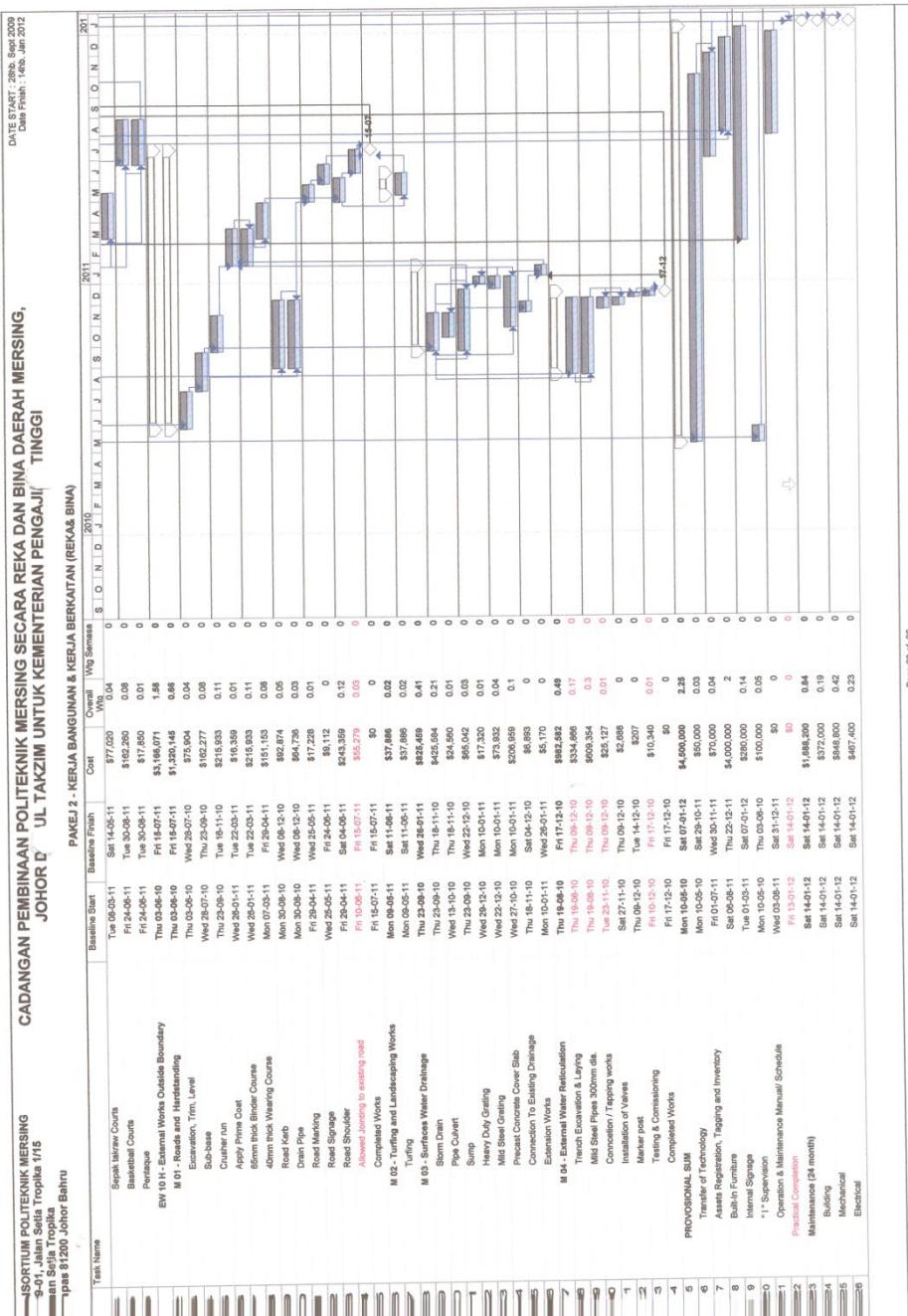


Figure 2.5.1.2 | Progress off construction propose by Contractor (cont'd)

2.6 CONCLUSION OF CASE STUDY

Based on the studied project of East Block, Politenik Mersing Indah we can define that case study is defined as a research of strategy, situation, problems, and an empirical inquiry that investigates a phenomenon with its real-life context.

In a nut shell, the aim of the Jabatan Kerja Raya had reached their objective and goal with some report and complaint to the contractor that help the client can uses the building safety.

CHAPTER 3

CASE STUDY

Defect At Politeknik Mersing

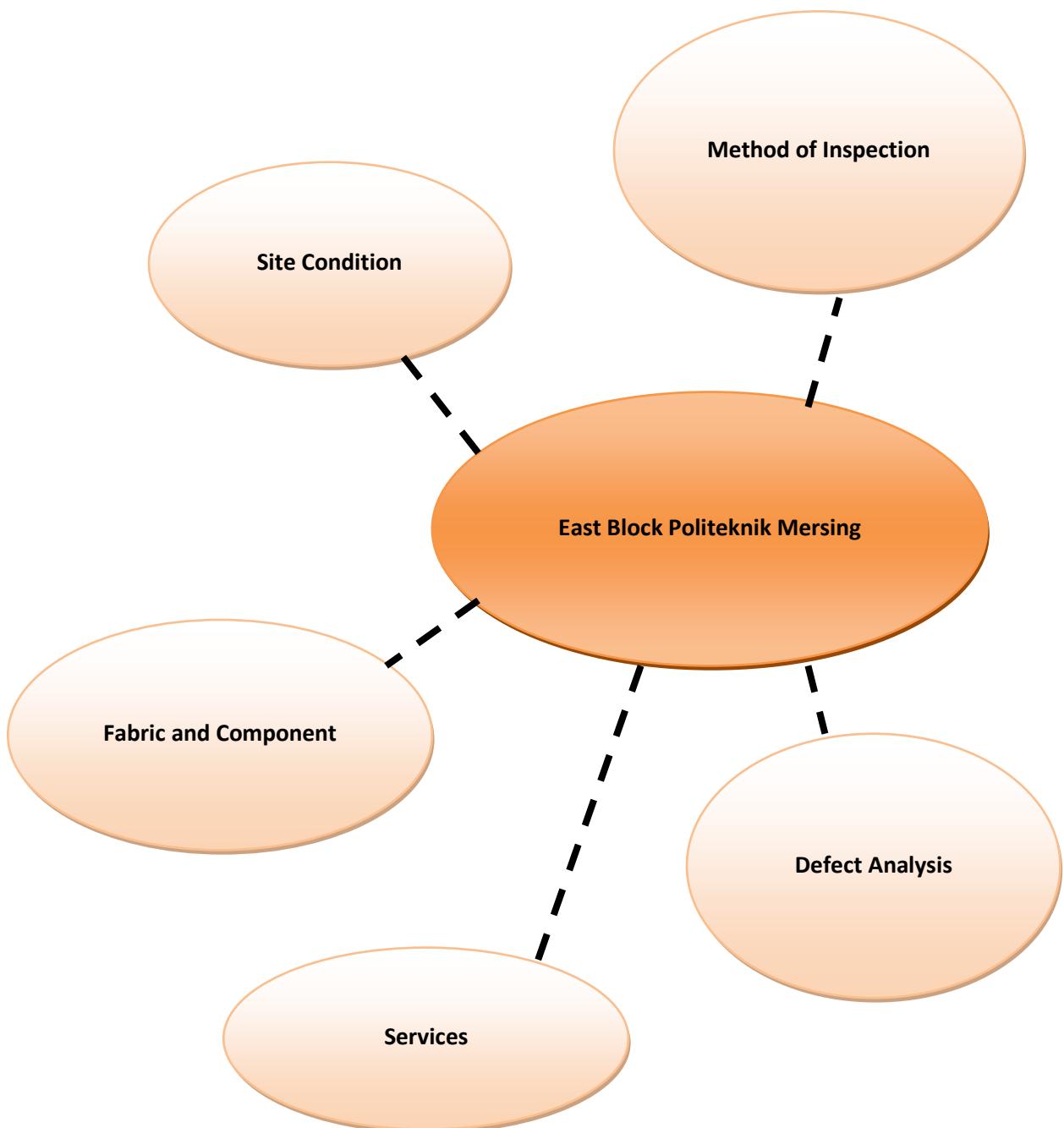


Chart 3.0 | Bubble diagram of Defect Liability Period

3.1 Defect At East Block Politeknik Mersing

3.1.1 Introduction

According to Panduan Kerja-kerja Pemeriksaan Kecacatan Bangunan by Dr. Ahmad Bin Ramly, Ph.D, damage and defect in the building is one of the phenomenon that is common occur to most building. In some building this phenomenon can occurs relatively late, while some occur otherwise. However, most of damage and defect occur according to some factor that influence in that building physical.

Causes of failure of the building based on the following:

- Environmental
- Defects in materials
- Construction error
- The Design error
- Users error

3.1.2 Procedure of Building Inspection

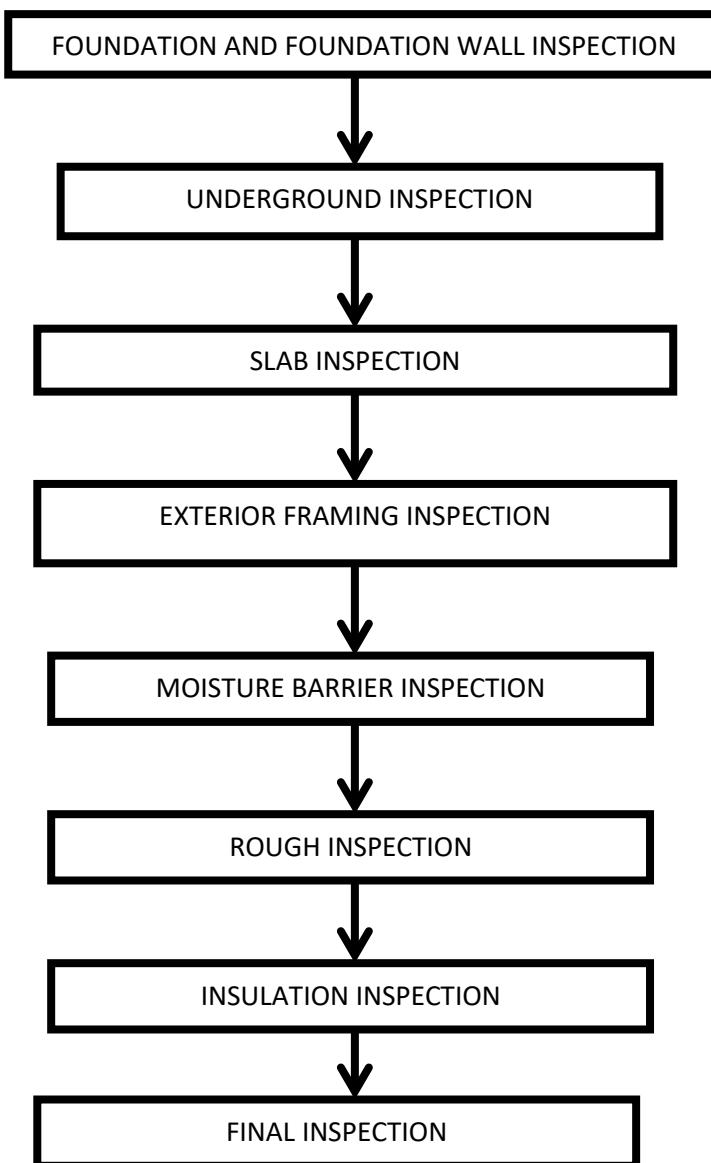


Chart 3.1.2.1 |Flow of Procedure of Building Inspection At Politeknik Mersing.

LEDGENS:

- 1. Method Of Inspection**
- 2. External Site Condition**
- 3. Fabric and Component**
- 4. Services**
- 5. Defect Analysis**

3.2 METHOD OF INSPECTION

3.2.1 Introduction

In the case study at Politeknik Mersing, Johor, I have done to complete the report with several procedures of works. As an initial setup of inspection, building surveyor should examine the following five requirements that are:

- Initial survey
- Manage excess
- Research about the site
- Arrange additional services by specialist

The tool equipment that we have used in the case study is measuring tape, camera and meter tape. The function of meter tape and measuring tape is to measure small distance in the small place and otherwise. Another function of measuring tape is to measure the long distance. Which in distance in 10-12m that we cannot use the meter tape. The function of camera is to take the defect picture of the building when we doing the inspection.

3.2.2 Checked List

3.2.2.1 Introduction

Provide a complete checklist former for inspection is the best way to prevent important things in building inspection left behind. This must be done by surveyor before inspection is made. Surveyors need to go to site and see themselves the real situation of the building to inspect. By the way, time is not being waste for the unnecessary work. Below show the list of general checklist that can be applied.

- Early details.
- Background information
- Initial detail
- Outside effect
- Equipment for inspection work
- Work details
- Building element
- Type of defect
- Classification of defect

3.2.3 Scope of Work

4.2.3.1 Introduction

There are ten scope of consideration that should be noted by surveyors when making inspections and submit their report. All the scope is the essence of the report will be presented and discussed with the client. Conclusions of the examination will be done carefully and repeatedly reviewed. The considerations of matter are:

- Building condition
- Additional analysis
- Building services
- Needs
- Legal requirements
- Safety and health
- Adjoining building
- Physical factor

LEDGENS:

- 1. Introduction**
- 2. Floor Plan**
- 3. Site view**

3.3 EXTERNAL SITE CONDITION

3.3.1 Introduction

From the inspection, I have identified the surrounding at the East block of Politeknik Mersing. The building contains several classrooms, a computer lab, general lab, technology lab, toilets, workshops, etching room, and AHU room. Refer figure 3.3.1.

The site condition that we have observed shows the surrounding of this building is surrounding with roadways, this building near the south block, east block and west block. The ground condition is flat and the roadway is covered with tar. This building is quarter- circle shape and when all the building is bind circle shape is made. Refer figure 3.1.1, figure 3.1.2, figure 3.1.3, and figure 3.1.4 for the pictures of surrounding area.

.

REFER APPENDIX

Figure 3.3.1 | Floor plan of East Block Politeknik Mersing



Figure 3.3.2 | East Block Surrounding Area



Figure 3.3.3 | East Block Surrounding Area (Cont'd)



Figure 3.3.4 | East Block Surrounding Area (Cont'd)

LEDGENS:

- 1. Roof**
- 2. Openings**
- 3. Wall**
- 4. Column**
- 5. Staircase**
- 6. Floor**
- 7. Drainage**

3.4 FABRIC AND COMPONENTS

3.4.1 Roof

Roof is a basic elements and important part of the buildings.

Base on the observation, I known the type of the roof of East Block of Politeknik Mersing building, the type of roof use is gable roof. From the gable roof have two.. The whole perimeter of roof is around the gutter and at the ground level is drainage.

The use material of the roof is metal deck. The color of the metal deck is like a brown to cream color. There are lots components at the roof, for example are a fascia board, flashing, gutter, ridge/half ridge, trusses and many more. All the roof trusses are made by steel. Refer Figure 3.4.1.1 and Figure 3.4.1.2.

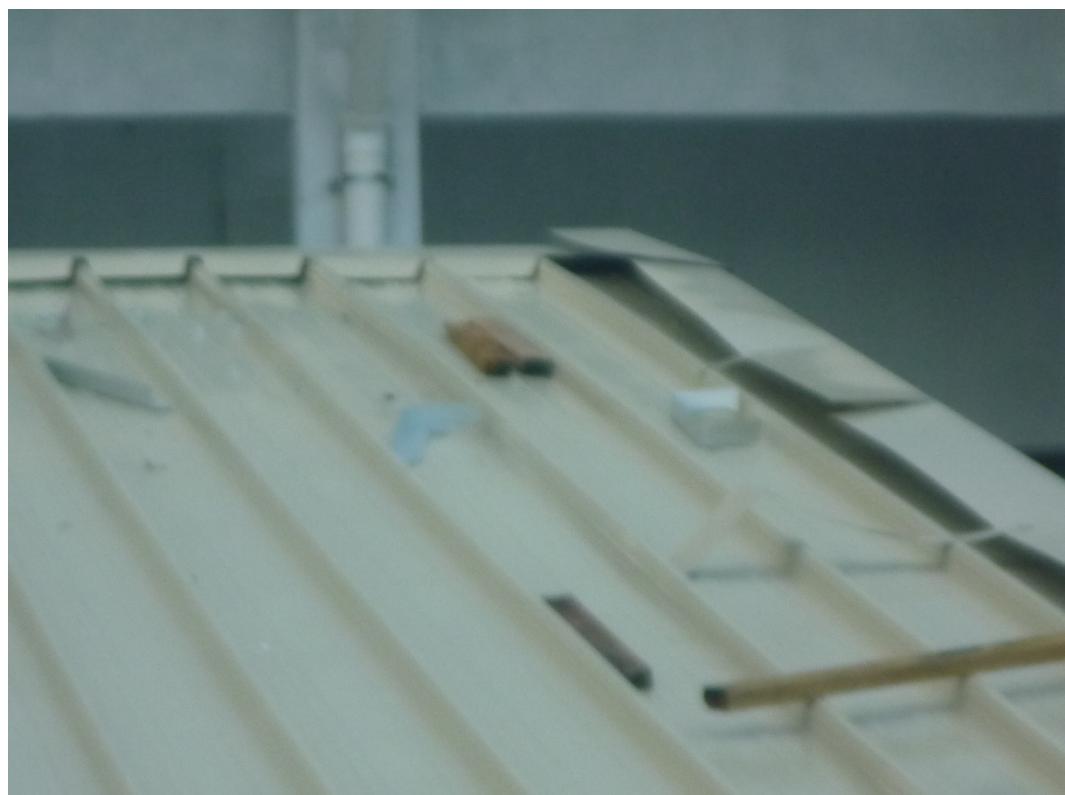


Figure 3.4.1.1 | Metal Deck of East Block Politeknik Mersing

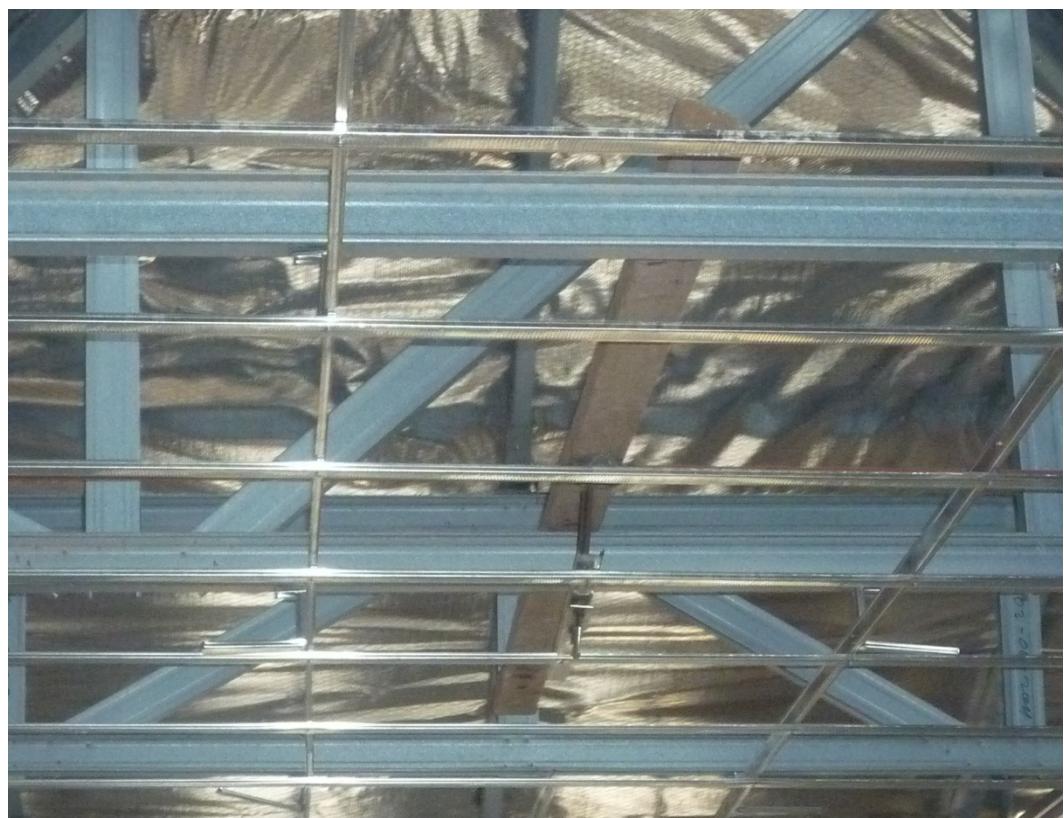


Figure 3.4.1.2 | Roof Trusses of East Block Politeknik Mersing

3.4.2 Openings

(a) Door

Figure 2.2.1 show the double flush timber door. The double flush timber door has two panels and the door usually made from the wood. At the every lecture room and other room have two doors to go inside the room; it is the panel doors same like the figure. The doors used brown color paint as the finishes. At my case study's door, the entire door use double leaf timber flush door.



Figure 3.4.2.1 | Single Leaf Door of East Block Politeknik Mersing



Figure 3.4.2.2 | Double Leaf Door of East Block Politeknik Mersing

(b) Window

Figure 4.4.2.3 show the type of the window is adjustable louver window. As see the figure, we know the window using glasses casement window. All the entire building uses the same window for the opening.



Figure 3.4.2.3 | Window Type Of East Block Politeknik Mersing

3.4.3 Wall

Wall is the important element for each building. Wall usually is a solid structure that defines and sometimes protects an area. Commonly, wall delineates a building and supports its superstructure, separates space in the buildings into rooms and protects or delineates a space in the open air. Type of wall use in the building is panel wall and brick wall. The panel wall and brick wall was installed at all the East Block building. We can see at the figure 3.4.3.1 and 3.4.3.2.



Figure 3.4.3.1 | Panel Wall Of East Block Politeknik Mersing



Figure 3.4.3.2 | Brick Wall Of East Block Politeknik Mersing

3.4.4 Column

A column in structural engineering is a vertical supported element that transmits through compression, the weight of the structure above to other structural elements below. For the purpose of wind or earthquake engineering, columns may be designed to resist lateral forces. Refer figure 3.4.4.1



Figure 3.4.4 | Column of East Block Politeknik Mersing

3.4.5 Staircase

The staircase of the building is to connect the ground floor to the first floor and second floor. The material of the staircase is use the concrete and about the finishes are used floor tiles.

Refer figure 3.4.5.1.

Figure 4.4.5.1 | Staircase at East Block Politeknik Mersing

3.4.6 Floor

At The East Block Politeknik Mersing have two type of the floor. It's is cement render at pavement, AHU room, etching room and use floor tiles in the other room. Refer at the figure 3.4.6.1 for the cement render floor and figure 3.4.6.2 for the Floor tiles at East Block Politeknik Mersing.



Figure 3.4.6.1 | Floor Tiles at East Block Politeknik Mersing



Figure 3.4.6.2 | Cement Render at East Block Politeknik Mersing

3.4.7 Drainage

The drainage of the building uses the standard drainage at the other building because the function is to flow the water out. Drainage is the natural or artificial removal of surface and subsurface water from an area. For East Block Politeknik Mersing, the drainage is around the building and the drainage follows the floor plan of the building. Refer figure 3.2.15.



Figure 3.4.7.1 | Cement Render at East Block Politeknik Mersing

LEDGENS:

- 1. Ceiling Fan**
- 2. Fluorescent Lamp**
- 3. Switches and Plug**
- 4. Air-Conditioner Split Unit**
- 5. Main Control Switch**

3.5 SERVICES

4.5.1 Services Element

Figure	Service Element	Pictures	Description
3.5.1.1	Ceiling Fan		Ceiling fan is an example of facilities been used in our case study, Art Gallery, Melaka. Type of

			fans in this building it is a ceiling fan. Totally fans in this building are 14, at the ground floor has 9 fans and at the first floor has 5 fans. Refer figure 2.2.17.
3.5.1.2	Fluorescent Lamp		The type of the lamps is a fluorescent lamp. Total overall the lamps in this building is a 20 lamps, ground floor have 10 lamps and the second floor have a 10 lamps. All the lamps in the building to function properly. Refer at the figure 2.2.18. We can see the type of the lamp uses
3.5.1.3	Switches and Plugs		Figure 2.2.19 show the switch and plug uses at the building. Each equipments in the building uses the switch and used the energy from the current to functional. Furthermore, type of the switch is a 4 switch in 1 board and 3 users at the board to control the use. The plug used the 3 switch socket.
3.5.1.4	Air-Conditioner Split Unit		Have 5 air-conditional in the building. Air-conditional function is to supplier the cool to the building beside the clean air to all over the spaces of the building. Refer figure 2.2.20
3.5.1.5	Main Control Box		Every building that use electricity as their power are using control/main box. It is very important to cut off the connection if

			anything of emergency occurs to the building. It is located at ground floor.
--	--	--	--

Table 3.5.1 | Table show the building services at East Block Politeknik Mersing

LEDGENS:

1. Introduction
2. Defect Description
3. Defect Analysis
4. Defect Sheet

3.6 DEFECT AT EAST BLOCK POLITEKNIK MERSING

3.6.1 Introduction

Defect in Politeknik Mersing are list in defect sheet that supplied by Jabatan Kerja Raya (D) Mersing. The defect sheet is

commonly copy in a little amount. This due to the defect form is proportional form issued by JKR (D) Mersing. The entire defect is tagging by number.

3.6.2 Defect Description

Defect	Shortcut	Symbol
Crack	C	
Broken	B	
Uneven	U	
Peeled Paint	PP	
Dampness	D	
Fungus	F	
Discoloration	DS	

Table 3.6.2.1 | Table show the defect description for East Block Politeknik Mersing

		PRIORITY ASSESSMENT				
		E4	U3	R2	N1	
CONDITION ASSESSMENT	5	20	15	10	5	
	4	16	12	8	4	
	3	12	9	6	3	
	2	8	6	4	2	
	1	4	3	2	1	
NO	MATRIX (c)	SCORE				
1	PLAN MAINTENANCE	1 to 4				
2	CONDITION MONITORING	5 to 12				
3	SERIOUS ATTENTION	13 to 20				
OVERALL BUILDING RATING		BUILDING RATING	SCORE			
NO						
1	GOOD	1 to 4				
2	FAIR	5 to 12				
3	DILAPIDATED	13 to 20				
CONDITION ASSESSMENT (a)		SCALE VALUE	DESCRIPTION (VALUE)			
CONDITION						
1	NEW/AS NEW		MINOR SERVICING			
2	FAIR		MINOR REPAIR			
3	POOR		MAJOR REPAIR/REPLACEMENT			
4	VERY POOR		MALFUNCTION			
5	DILAPIDATED		DAMAGE/MISSING			
PRIORITY ASSESSMENT (b)		SCALE VALUE	DESCRIPTION (VALUE)			
PRIORITY						
NORMAL	1		Functional, only cosmetic defect			
ROUTINE	2		Minor defect, but can lead to serious defect if left unattended			
URGENT	3		Serious defect, cannot function to an acceptable standard			
EMERGENCY	4		Element/ structure not function at all; OR Risks that can lead to fatality and/ or injury			

**Figure 3.6.2.2 | Table show the building condition assessment for East Block
Politeknik Mersing**

3.6.3 Defect Analysis

Building Assessment Rating System (Baris) For East Block Politeknik Mersing (wall)						
Schedule Of Building Condition (SBC)						
Sheet No.	Defects	BARIS				
		Condition Assesment [a]	Priority Assesment [b]	Matrix Analysis [c]=(a x b)	Defect Sheet	Defect Indication Plan
1	Crack	2	2	4	GF/C/01-59	
Total marks (A) = (\sum of c)				4		
Number of Defect (e)				1		
Total Score (A/e)				4		
Overall building Rating				Good		

From the schedule, overall building rating for wall is good

3.6.4 Defect Sheet

3.6.4.1 East Block 1 Politeknik Mersing

Defect Sheet No. 1	Level	Ground Floor		
Photo/Sketch	Location	Bilik Kuliah 1		
	Element	Wall		
Component				
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 25 cm.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 2	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 1	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Colour
2	2	4	
Defect description			
Cracks that occur in between the wall panel connection exceed 20 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 3	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 1	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Colour
2	2	4	
Defect description			
Cracks that occur in between the wall panel connection exceed 50 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 4	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 1	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Colour
2	2	4	
Defect description			
Cracks that occur in between the wall panel connection exceed 20 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 5	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 2	
	Element	Wall	
	Component		
Baris			
	Condition	Priority	Matrix
	2	2	4
Defect description			
Cracks that occur in between the wall panel connection exceed 20 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 6	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 2	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Colour
2	2	4	
Defect description			
Cracks that occur in between the wall panel connection exceed 20 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 7	Level	Ground Floor		
Photo/Sketch	Location	Bilik Kuliah 2		
	Element	Wall		
	Component			
Baris				
	Condition	Condition	Condition	Condition
	2	2	4	
Defect description				
Cracks that occur in between the wall panel connection exceed 10 cm.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ul style="list-style-type: none"> 5. Remove the concrete at the cracks. 6. Use the high concrete to replace the existing concrete 7. Apply skin coat on a concrete replaced. 8. Paint the wall using the correct paint code. 				

Defect Sheet No. 8	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 3	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Colour
2	2	4	
Defect description			
Cracks that occur in between the wall panel connection exceed 50 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 9	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 3	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Colour
2	2	4	
Defect description			
Cracks that occur in between the wall panel connection exceed 20 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 10	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 3	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Colour
2	2	4	
Defect description			
Cracks that occur in between the wall panel connection 12 cm long.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 11	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 4	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Colour
2	2	4	
Defect description			
Cracks that occur in between the wall panel connection exceed 25 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 12	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 4	
	Element	Wall	
	Component		
Baris			
	Condition	Priority	Matrix
	2	2	4
Defect description			
Cracks that occur in between the wall panel connection exceed 50 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 13	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 4	
	Element	Wall	
	Component		
Baris			
	Condition	Priority	Matrix
	2	2	4
Defect description			
Cracks that occur in between the wall panel connection exceed 50 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 14	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 5	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Colour
2	2	4	
Defect description			
Cracks that occur in between the wall panel connection exceed 50 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 15	Level	Ground Floor	
Photo/Sketc	Location	Bilik Kuliah 5	
	Element	Wall	
	Component		
Baris			
	Condition	Priority	Matrix
	2	2	4
Defect description			
Cracks that occur in between the wall panel connection exceed 50 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 16	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 5	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Colour
2	2	4	
Defect description			
Cracks that occur in between the wall panel connection exceed 25 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 17	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 6	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Colour
2	2	4	
Defect description			
Cracks that occur in between the wall panel connection exceed 25 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 18	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 6	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Colour
2	2	4	
Defect description			
Cracks that occur in between the wall panel connection exceed 25 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 19	Level	Ground Floor	
Photo/Sketch	Location	Bilik Kuliah 6	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Colour
2	2	4	
Defect description			
Cracks that occur in between the wall panel connection exceed 50 cm.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 20	Level	Ground Floor	
Photo/Sketch	Location	Route	
	Element	Beam	
	Component		
Baris			
Condition	Priority	Matrix	Colour
3	2	6	
Defect description			
Cracks that occur at the beam between the corridor and building 30 mm long.			
Possible causes			
The joint between the first beam made and second beam connections are not properly connected using the correct method.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 21	Level	Ground Floor		
Photo/Sketch	Location	Route		
	Element	Beam		
Component				
Baris				
Condition	Priority	Matrix	Colour	
3	2	6		
Defect description				
Cracks that occur at the beam between the corridor and building 30 mm long.				
Possible causes				
The joint between the first beam made and second beam connections are not properly connected using the correct method.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 22	Level	Ground Floor		
Photo/Sketch	Location	Route		
	Element	Slab		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
3	2	6		
Defect description				
Cracks that occur at the beam between the flat roof and building 30 mm long.				
Possible causes				
The joint between the slab and the building are not properly connected using the correct method.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 23	Level	Ground Floor		
Photo/Sketch	Location	Right Building		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur at the wall panel exceed 50 cm long.				
Possible causes				
The problem occur at wall panel because it is not properly installed using the correct method.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 24	Level	Ground Floor		
Photo/Sketch	Location	Right Building		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 25	Level	Ground Floor		
Photo/Sketch	Location	Toilet Female		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 26	Level	Ground Floor		
Photo/Sketch	Location	Toilet Female		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 27	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 28	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 29	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 30	Level	Ground Floor		
Photo/Sketch	Location	Etching Room		
	Element	Wall		
Component				
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 31	Level	Ground Floor		
Photo/Sketch	Location	Etching Room		
	Element	Wall		
	Component			
Baris				
	Condition	Priority	Matrix	Colour
	2	2	4	
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 32	Level	Ground Floor		
Photo/Sketch	Location	Left Building		
	Element	Wall		
Component				
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 33	Level	Ground Floor		
Photo/Sketch	Location	Left Building		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 34	Level	Ground Floor		
Photo/Sketc	Location	Left Building		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

h



Defect Sheet No. 35	Level	Ground Floor		
Photo/Sketch	Location	Left Building		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 36	Level	Ground Floor		
Photo/Sketch	Location	Left Building		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 37	Level	Ground Floor		
Photo/Sketch	Location	Left Building		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 38	Level	Ground Floor		
Photo/Sketch	Location	Left Building		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Colour	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

3.6.4.2 East Block 2 Politeknik Mersing

Defect Sheet No. 39	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
	Condition	Priority	Matrix	Priority
	1	2	2	
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 40	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 41	Level	Ground Floor	
Photo/Sketch	Location	Workshop	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Priority
1	2	2	
Defect description			
Cracks that occur in between the wall panel connection exceed 25 cm long.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 42	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 15 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 43	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 15 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 44	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 15 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 45	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 46	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 15 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 47	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 20 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 48	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

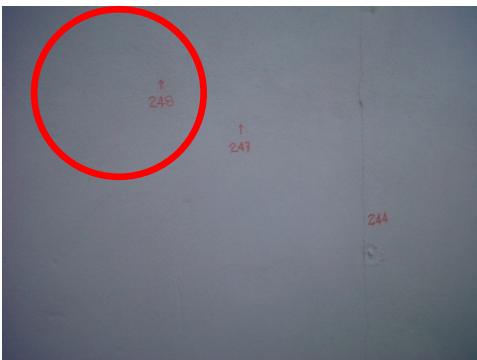
Defect Sheet No. 49	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 25 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

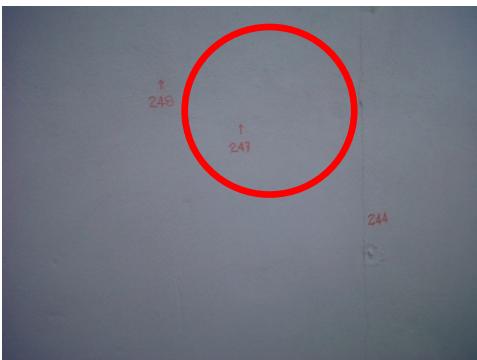
Defect Sheet No. 50	Level	Ground Floor		
Photo/Sketch	Location	Workshop		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 25 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 51	Level	Ground Floor		
Photo/Sketch	Location	Utility Room		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 15cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 52	Level	Ground Floor		
Photo/Sketch	Location	Right Building		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 53	Level	Ground Floor	
Photo/Sketch	Location	Right Building	
	Element	Wall	
	Component		
Baris			
Condition	Priority	Matrix	Priority
1	2	2	
Defect description			
Cracks that occur in between the wall panel connection exceed 50 cm long.			
Possible causes			
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.			
Remedies			
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 			

Defect Sheet No. 54	Level	Ground Floor		
Photo/Sketch	Location	Right Building		
	Element	Wall		
Component				
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 55	Level	Ground Floor		
Photo/Sketch	Location	Right Building		
	Element	Wall		
Component				
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 56	Level	Ground Floor		
Photo/Sketch	Location	Left Building		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 57	Level	Ground Floor		
Photo/Sketch	Location	Left Building		
	Element	Wall		
Component				
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 58	Level	Ground Floor		
Photo/Sketch	Location	Left Building		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
1	2	2		
Defect description				
Cracks that occur in between the wall panel connection exceed 50 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

Defect Sheet No. 59	Level	Ground Floor		
Photo/Sketch	Location	Left Building		
	Element	Wall		
	Component			
Baris				
Condition	Priority	Matrix	Priority	
2	2	4		
Defect description				
Cracks that occur in between the wall panel connection exceed 25 cm long.				
Possible causes				
The joint between the wall panel connections are not properly connected. The extension also does not use the correct grade of concrete.				
Remedies				
<ol style="list-style-type: none"> 1. Remove the concrete at the cracks. 2. Use the high concrete to replace the existing concrete 3. Apply skin coat on a concrete replaced. 4. Paint the wall using the correct paint code. 				

CHAPTER 4

CONCLUSION

Conclusion from the project

4.1 CONCLUSION

As a result for my surveying, I have found that the building is mostly in a good condition due to the construction finish in July 2011. Although, overall rating building is in fair condition. The common defects that we found are crack at the wall panel. Thus, the building can stand still for a long term. In a nutshell, the building still needs to do some maintenance for fix the defect to prevent failure of the building function.

CHAPTER 5

COMMENT AND SUGGESTION

Comment and suggestion based on the project

6.1 COMMENT AND SUGGESTION.

6.1.1 Introduction

The comments and suggestion are all based on the East Block Politeknik Mersing defects activities. The problems during the defect liability period had been formulated.

6.1.2 Comment

i. Changing Building Component

In this situation, there are a few changes that been done while constructing the project. For example, at first type of wall was proposed on site but in the end, the wall had been change to wall panel based on the developer need.

The problem occurs due to the lack of information and insufficient data from developer to contractor and worker. Thus, the developer must tell to use the different wall type in early, before construction to avoid lack of information.

ii. Budgeting

The biggest crisis that often occurs in construction is off budgets. The problem will automatically lead to unsmooth progress in construction the product. Thus, wastage can easily be occurs. For example, the developers are forced want to use wall panel due to the wall panel construction is more cheap than brick wall. But, wastage from the wall panel that have been cut is more than the construction of brick wall and that make the budget off.

6.1.3 Suggestion

i. Use the Right wall type.

Based onthe previous case, the developer should take a deep view to the type of construction that suitable to that area that can be development and construct a new building that provide unsmooth progress in term of delivering the material, machine and professional worker.

This is for the reason from earlier construction, supplier of the material to construction the building is too far from the site location and makes the progress of the construction

project unsmooth. Also the worker cannot install the wall properly because their knowledge about the wall is too low and make the defect occur in building.

ii. **Correct the Defect That Occur**

After defect inspections have been done on the building, contractor should ensure all the defects have been correct before finish the defect liability period in 24 month. It is because to ensure that the occupants in the building can live in the building without any problem occurs.

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- http://www.mdkt.gov.my/web/guest/maksud_merancang

ii. Method Of Inspection

-

iii. **Jabatan Kerja Raya Malaysia**

- <http://www.jkrmalayisa.gov.my/>

iv. **Jabatan Kerja Raya Negeri Johor**

- <http://www.jkrjohor.gov.my/>

v. **Jabatan Kerja Raya (D) Mersing**

- <http://www.jkrmersing.gov.my/>

INTERVIEW

i. **En. Kamal Bin A Rahman**

- Jurutera Daerah

ii. **Pn Salhah Binti Rahaman @ Abd Rahman**

- Project Engineer

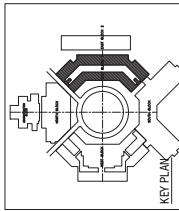
iii. **Hj. Yacoob bin Abd Aziz**

- Site Supervisor Of Politeknik Mersing

BOOK

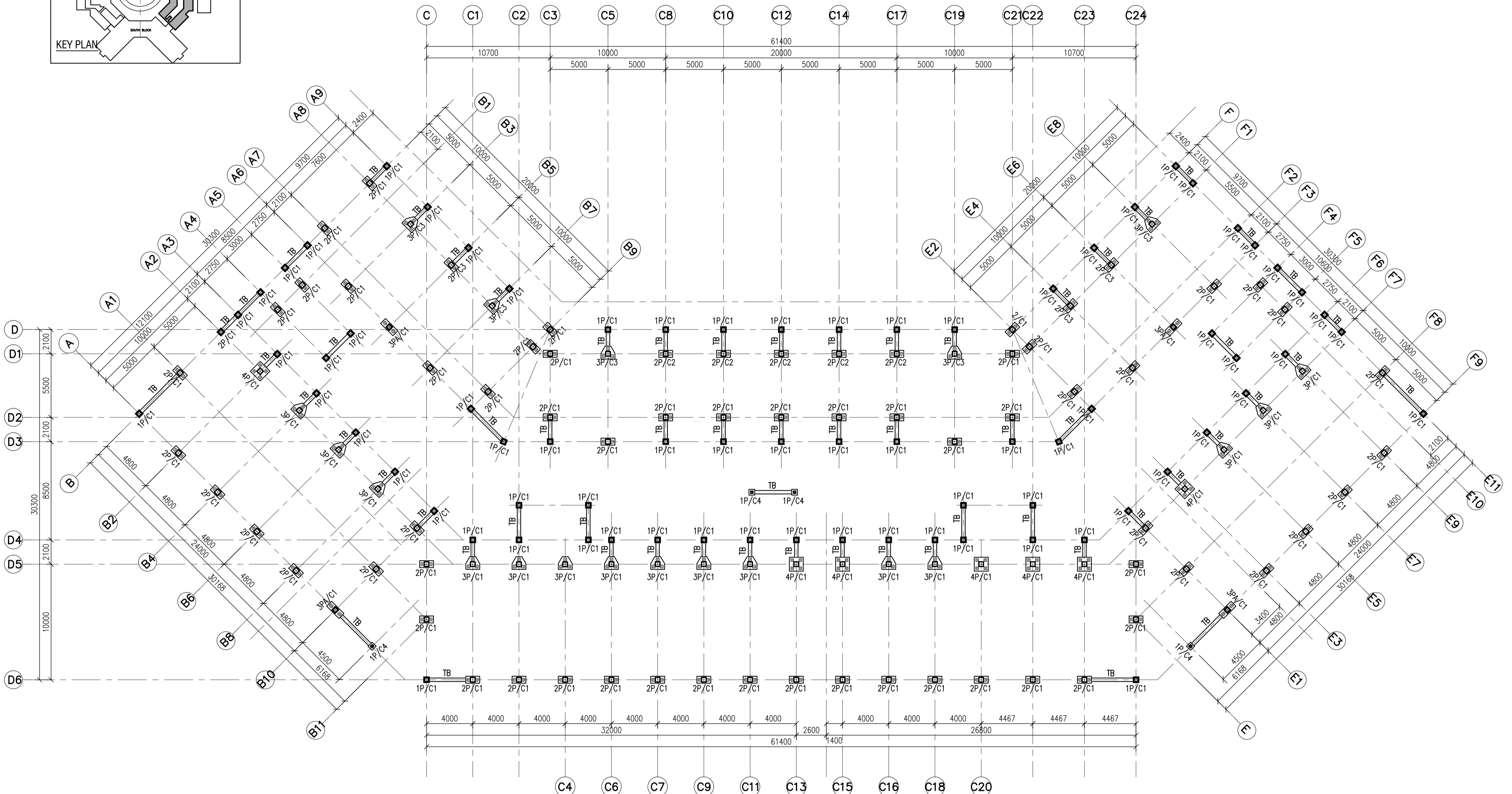
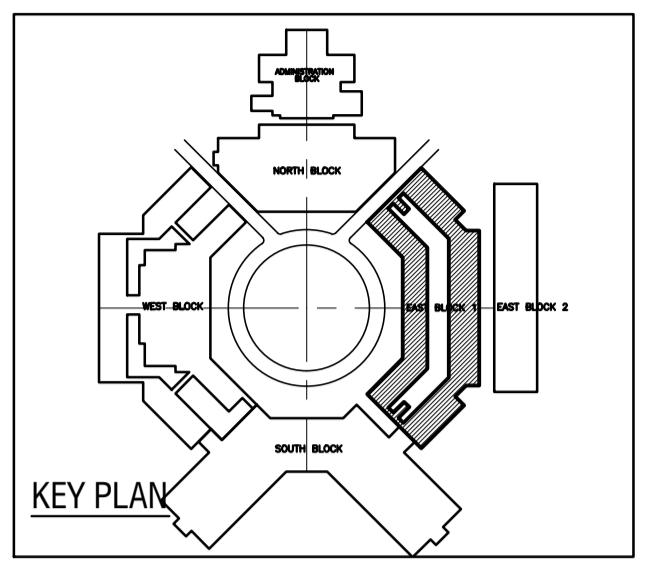
- Uniform Building By Law 1984 Amendments August 2010
- Panduan Kerja-kerja Pemeriksaan Kecacatan Bangunan
- Kontrak Pembinaan Reka dan Bina Politeknik Mersing
- Past Year Building Condition Survey BSB252.

SHOP DRAWING	
REVISION	PARTIALS
NO	DATE
PEMILIK / PENGUNA BUDAYA DAN KUANTAN TTDI MALL S.A. JALAN 18/12, TTDI, 59100 Kuala Lumpur, MAS 1, LOKER 13 PABEL PRODUK, BUR RAYA, REHAWA, TERKINI 12, KUALA LUMPUR, 101, JALAN 18/100, 59100 Kuala Lumpur, MAS 1, LOKER 13	
PENGURUS PROJEK 	
KONTRAKTOR UTAMA KONSORTIUM POLYTECHNIK MERSING SDN. BHD. LOT 108, TTDI 10/100, JALAN 18/2, MAS 1, LOKER 13 PABEL PRODUK, BUR RAYA, REHAWA, TERKINI 12, KUALA LUMPUR, 101, JALAN 18/100, 59100 Kuala Lumpur, MAS 1, LOKER 13	
ARSITEK  HSIA ARCHITECTS 26-01, JLN 18/100, TTDI, MAS 1, LOKER 13 81200 Kuala Lumpur, Malaysia. 03-90553555 FAX: 03-90553557	
JURUTERA M&E  MEGA CONSULT SDN BHD 15, JALAN 18/100, TTDI, 59100 Kuala Lumpur, MAS 1, LOKER 13 81200 Kuala Lumpur, Malaysia. 03-90553555 FAX: 03-90553557	
JURUKUR BAHAN  PERUNDING DMA SDN BHD 11, JALAN 18/100, TTDI, 59100 Kuala Lumpur, MAS 1, LOKER 13 81200 Kuala Lumpur, Malaysia. Tel: 03-90553555 FAX: 03-90553557	
PERAKARIAH IS  INITIAL-T ENGINEERING CONSULTANCY SDN BHD Civil, Structural and Fire Engineering Services, Mechanical, Electrical & Building Services, Water Treatment, Waste Water Treatment, Soil Remediation, Geotechnical Engineering Tel: 03-90553555 FAX: 03-90553557	
PROJECT Tajuk Laman : GROUND FLOOR PLAN Scale : 1:200 NOTE : 1. ALL SLAB 150mm THK UNLESS OTHERWISE STATED.	
POLEMIK MERSING, JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKATAN (REKA & BINA).	
TAJUK LAMAN ACADEMIC - EAST BLOCK 1 GROUND FLOOR PLAN.	
Scale : 1:200 Date : APRIL 2009 Design : Tan HL Draw : Ira Check : Ir. Amran Kamari Approved : Ir. Amran Kamari	
NAME OF LAMAN AKRP/TPOL/08/NC-EB1/KP No. Releasian : 01 REV.	



AS-BUILT DRAWING

CONCRETE GRADE 35



NOTES :

1. ALL PILES TO BE 250x250 R.C. PILE.
2. CAPACITY : 700KN EACH
1P = TYPE OF PILE CAP
C1 = TYPE OF COLUMN
3. TB DENOTE 300x500 TIE BEAM
4T25(1&B), R10-150
4. ALL CENTER OF COLUMN LOCATED AT INTERSECTION OF GRID, UNLESS INDICATED OTHERWISE.

SHOP DRAWING

REVISION		
NO	DATE	PARTICULARS

PEMILIK / PENGGUNA



BAHAGIAN PEMBANGUNAN
KEMENTERIAN PENGAJIAN TINGGI MALAYSIA
ARAS 3, BLOK E3
JALAN 14/3, TTDI, 50400 KUALA LUMPUR
PUSAT PENGADBIRAN KERJAAN PERSEKUTUAN
62405 PUTRAJAYA

PENGURUS PROJEK



JABATAN KERJA RAYA
CAWANGAN PENGAJIAN TINGGI
IBU PEJABAT JKR MALAYSIA,
TINGKAT 12, MAJU TOWER,
DEWA MALL, 101,
JALAN SULTAN ISMAIL,
50250 KUALA LUMPUR

KONTRAKTOR UTAMA



KONSORTIUM POLITEKNIK MERSING SDN. BHD.
LOT 106A, 1ST FLOOR, FABER TOWERS 2,
JALAN DEWA BAHARU, TAMAN DESA,
OFF JALAN KELANG 10/1,
58100 KUALA LUMPUR
TEL : 03-79806605 FAX : 03-79800608

ARKITEK



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HABRISALAM ARCHITECTS
26-01, Jln. Dian 8,Taman Munshi Ibrahim,
81200 Johor Bahru.
tel:07-2343532,2343534 fax: 07-2343537

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25-2-1, Medan Putra Business Centre,
Bandar Putra Permai, 52200 Kuala Lumpur
No.Tel : 603-6277 4695 No Fax: 603-6277 4697

JURUKUR BAHAN



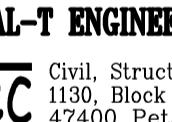
PERUNDING DMA SDN BHD
No. 3747-7-P
119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail,
60000 Kuala Lumpur.
Tel : 03-77263800 Fax : 03-77267800

JURUTERA C&S



AK CONSULT
(Civil & Structural Consulting Engineers)
No.43-A, Jalan Impian Emas 6
Taman Impian Emas 81300 Skudai, Johor.
Tel : 05-554 1219 Fax : 07-557 1837
E-mail : akconsult_akc@yahoo.com

PEREKABUNTU IBS



INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.
(Formerly No.811505)
Civil, Structural and Bridge Consulting Engineers
1130, Block A, Damansara Intan e-Business Park,
47400 Petaling Jaya, Selangor Darul Ehsan
Tel : 603-7729 3928 Fax : 603-7729 7028 Email : iec@msk@gmail.com

SAYA MEMPERAKU BAHANIA DETAIL DALAM PELAN-PELAN ADALAH MERURUT KEHENDAK-KEHENDAK UNTUNG
-UNDANG KECI BAHANIA SERAGAM 1984 DAN SAYA SETUJU TERMA TANGGUNGJAWAB PENUH DENGAN SEJALIANYA

PROJEK

POLITEKNIK MERSING,JOHOR
PAKEJ 2 - KERJA BANGUNAN DAN
KERJA BERKAITAN (REKA & BINA).

TAJUK LUKISAN

ACADEMIC - EAST BLOCK 1

PILING LAYOUT PLAN.

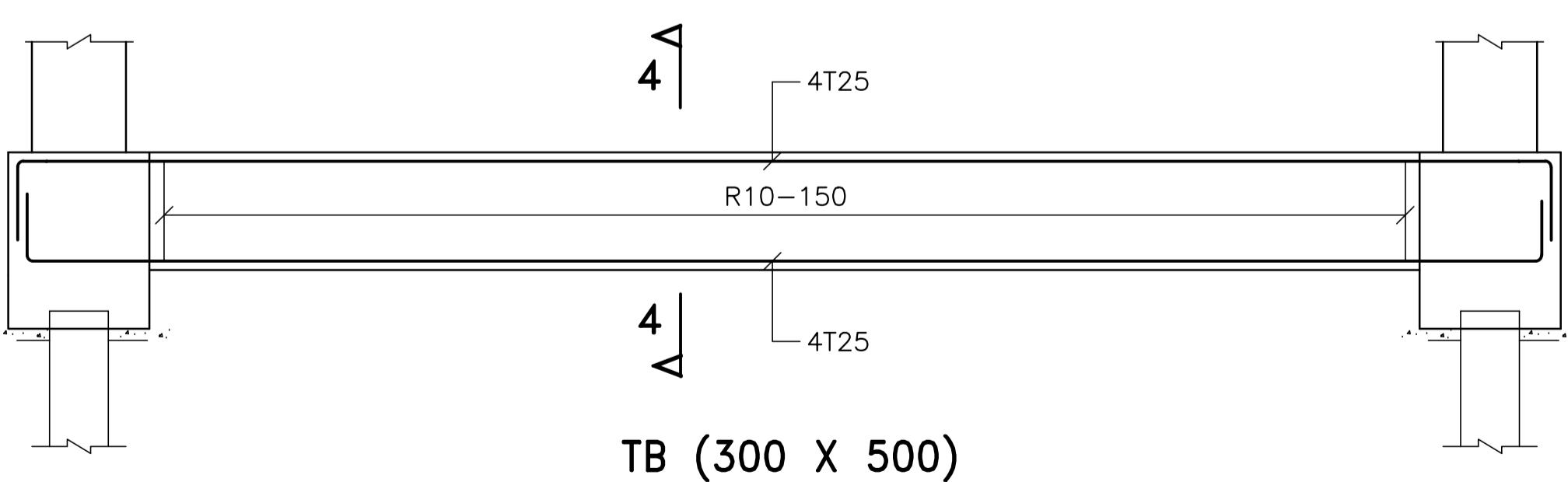
Scale	1:200	Date	APRIL 2009
Design	Tan HL	Drawn	Ina
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri

NOMBOR LUKISAN

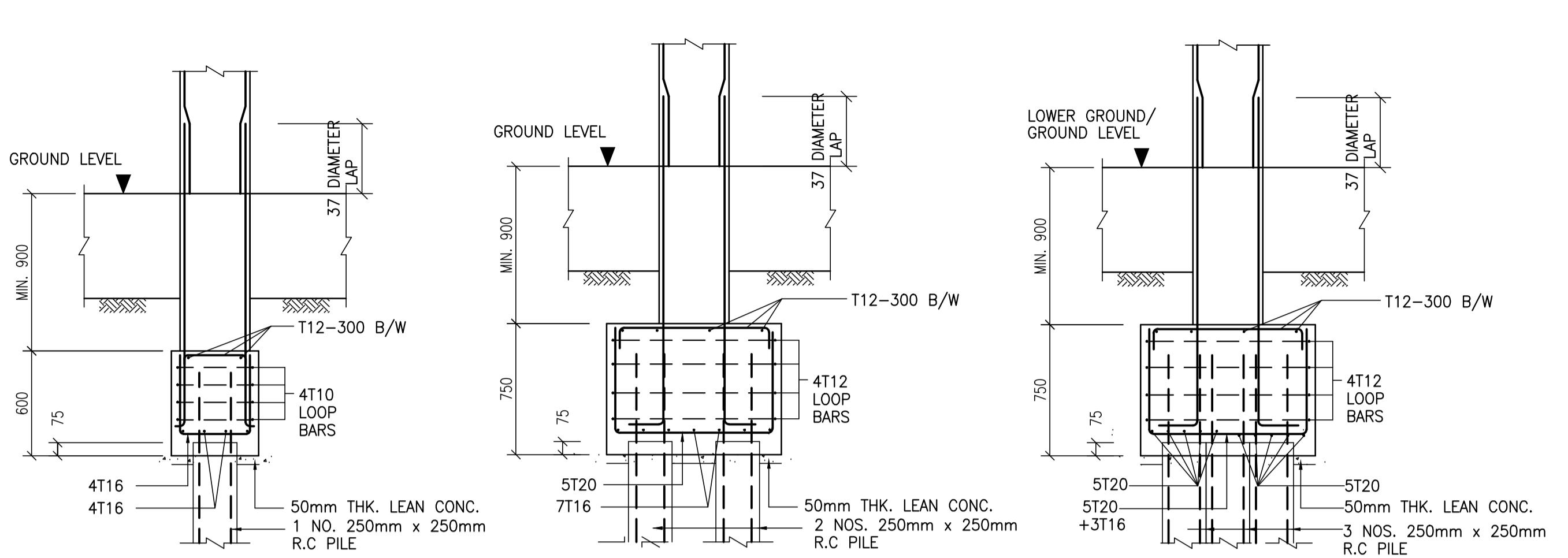
AK/KPT/POLY/08/RC-EB1/FD	No. Helaian:	REV.
		01

COLUMN SCHEDULE

ROOF					
2nd FLOOR					
1st FLOOR					
GROUND FLOOR					
STUMP					
COLUMN MARKING	C1	C2	C3	C4	C5



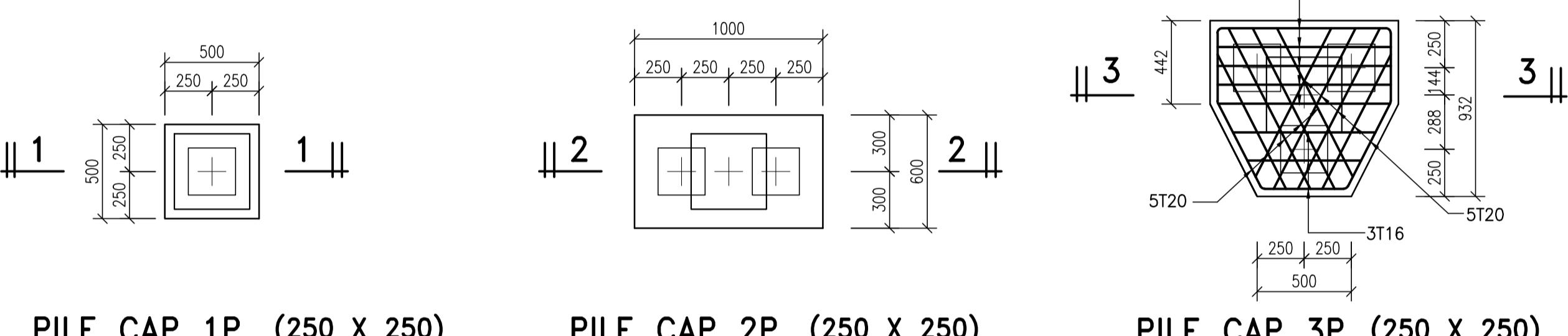
CONCRETE GRADE 35



SECTION 1-1

SECTION 2-2

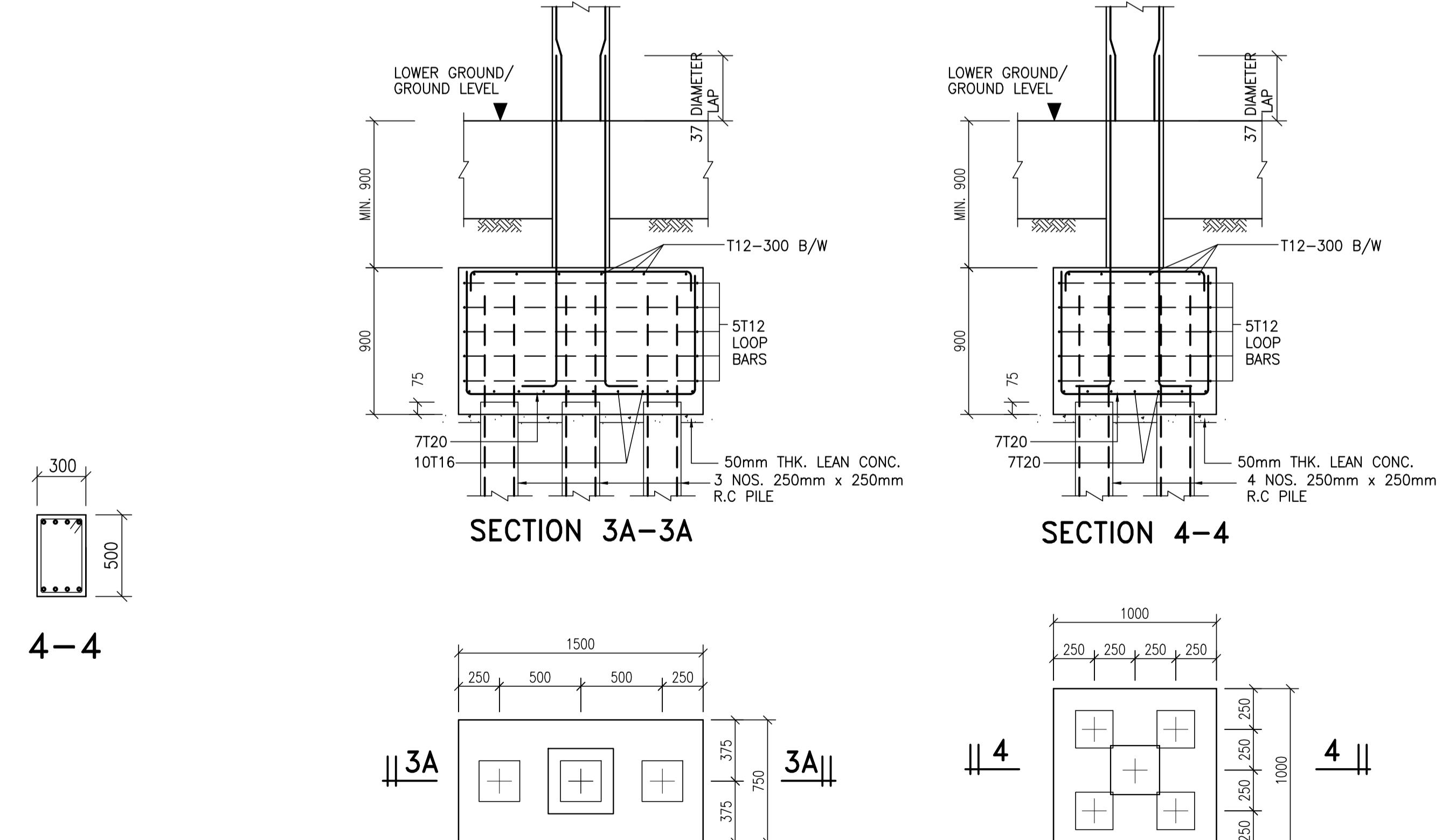
SECTION 3-3



PILE CAP 1P (250 x 250)

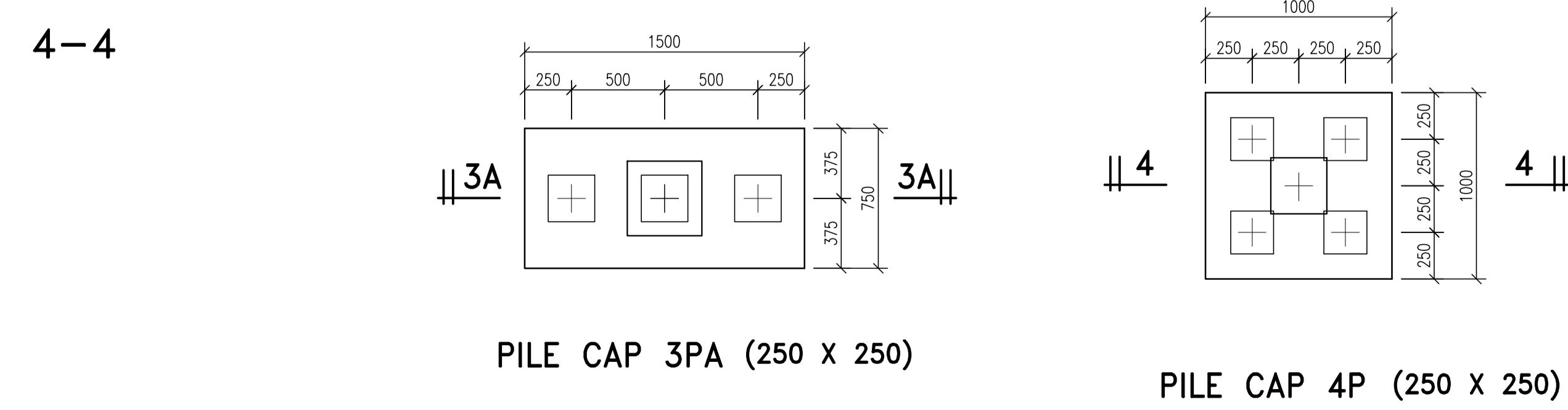
PILE CAP 2P (250 x 250)

PILE CAP 3P (250 x 250)



SECTION 3A-3A

SECTION 4-4

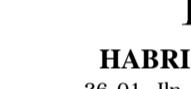
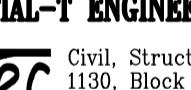


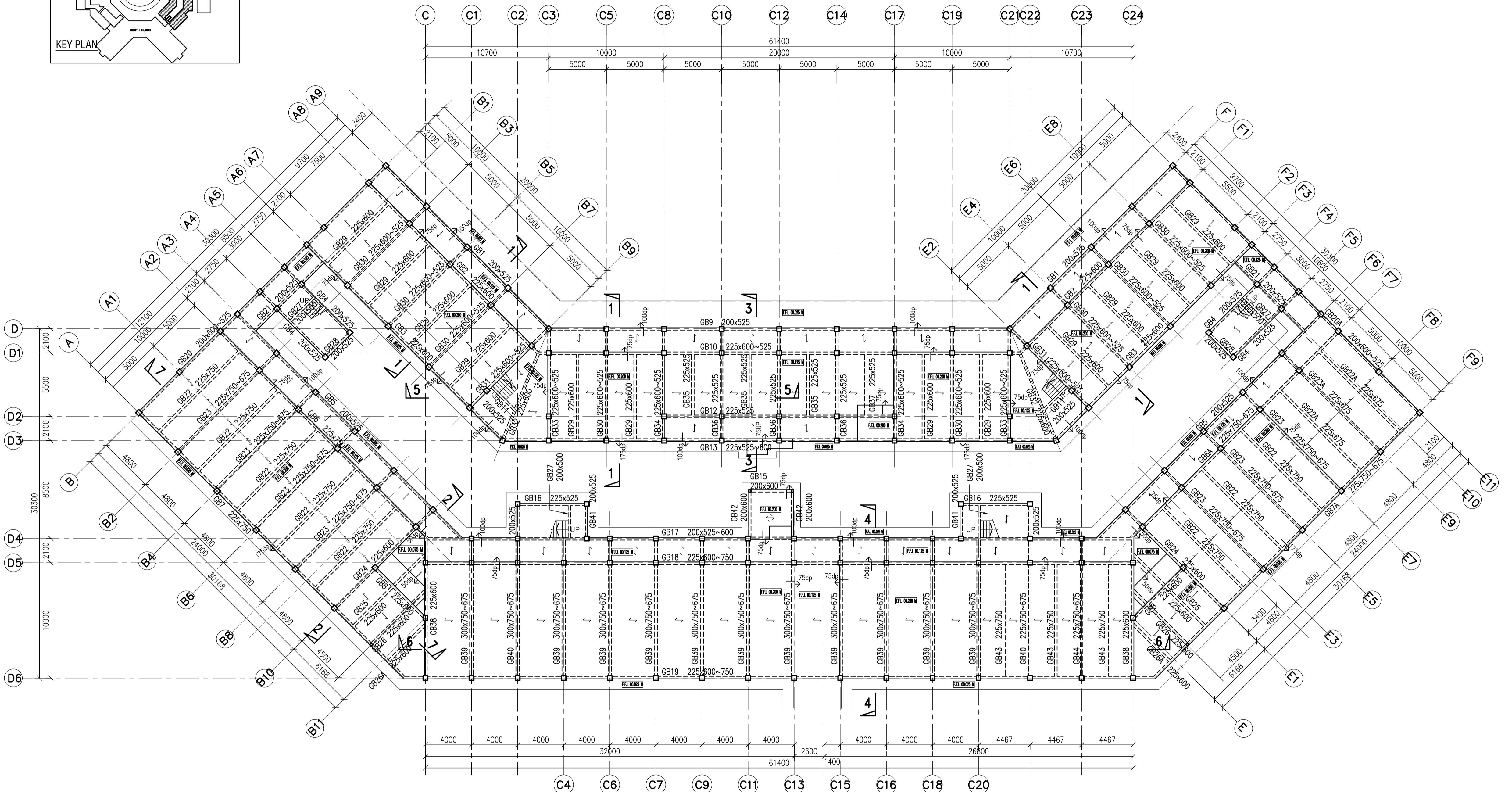
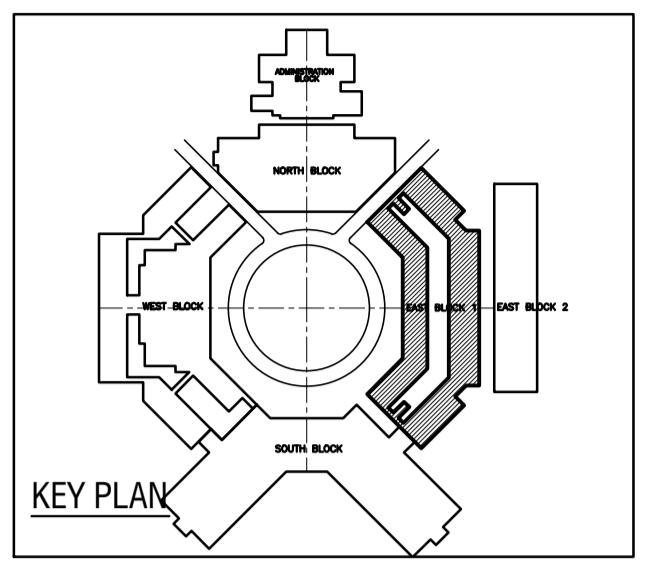
PILE CAP 3PA (250 x 250)

PILE CAP 4P (250 x 250)

AS-BUILT DRAWING

SHOP DRAWING

REVISION			
NO	DATE	PARTICULARS	
PEMILIK / PENGGUNA			
 BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E, PUSAT PENGAYAAN KERJAAN PERSEKUTUAN 62050 PUTRAJAYA			
PENGURUS PROJEK			
 JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKRR MALAYSIA, TINGKAT 12, MAJU TOWER, PETRONAS TOWER, 1001, JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR			
KONTRAKTOR UTAMA			
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1st FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608			
ARKITEK			
 H S I A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bahru. tel:07-2343532,2343534 fax: 07-2343537			
JURUTERA M&E			
 MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Putra, 52200 Kuala Lumpur No.Tel : 603-6277 4695 No Fax: 603-6277 4697			
JURUKUR BAHAN			
 PERUNDING DMA SDN BHD NO 20-A, 407847-P, 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800			
JURUTERA C&S			
 AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel: 05-554 1219 Fax: 07-557 1837 E-mail : akconsult_ak@yahoo.com			
PEREKABENTUK IBS			
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PROJEK			
POLYTEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).			
TAJUK LUKISAN			
ACADEMIC - EAST BLOCK 1 COLUMN REINFORCEMENT SCHEDULE & PILE CAP DETAILS			
Scale	1 : 25	Date	APRIL 2009
Design	JAY	Drawn	KROLL
Checked	GBN	Approved	Ir. Amzah Kasmuri
NOMBOR LUKISAN			
AK/KPT/POLY/08/RC-EB1/COL No. Helaian: REV. 01			



NOTE :
1. ALL SLAB 150mm THK UNLESS
OTHERWISE STATED.

SHOP DRAWING

REVISION		
NO	DATE	PARTICULARS

PEMILIK / PENGGUNA



BAHAGIAN PEMBANGUNAN
KEMENTERIAN PENGAYAN TINGGI MALAYSIA
ARAS 3, BLOK E3
JALAN 14/15, TAMAN DESA,
PUSAT PENGAYAN KERJAAN PERSEKUTUAN
62603 PUTRAJAYA

PENGURUS PROJEK



JABATAN KERJA RAYA
CAWANGAN PENGAYAN TINGGI
IBU PEJABAT JKRY MALAYSIA,
TINGKAT 12, MAJU TOWER,
PERKERTIKA 10,
10100 JALAN SULTAN ISMAIL,
50250 KUALA LUMPUR

KONTRAKTOR UTAMA



KONSORTIUM POLITEKNIK MERSING SDN. BHD.
LOT 106A, 1st FLOOR, FABER TOWERS 2,
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OFF JALAN KELANG LAMA,
58100 KUALA LUMPUR
TEL : 03-79806605 FAX : 03-79800608

ARKITEK



HISIA
HABRISALAM ARCHITECTS
26-01, Jln. Dian 8,Taman Munshi Ibrahim,
81200 Johor Bahru.
tel:07-2343532,2343534 fax: 07-2343537

JURUTERA M&E



MEGA JATI CONSULT SDN.BHD
25-2-1, Medan Putra Business Centre,
Bandar Putra, 52200 Kuala Lumpur
No.Tel : 603-6277 4695/96 No Fax: 603-6277 4697

JURUKUR BAHAN



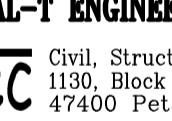
PERUNDING DMA SDN BHD
No. 25-1, 25-747-7-P,
119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail,
60000 Kuala Lumpur.
Tel : 03-77263800 Fax : 03-77267800

JURUTERA C&S



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(Civil & Structural Consulting Engineers)
No.43-A, Jalan Impian Emas 6
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Tel: 05-554 1219 Fax: 07-557 1837
E-mail : akconsult_ak@yahoo.com

PEREKABENTU IBS



INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.
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1130, Block A, Damansara Intan e-Business Park,
47400 Petaling Jaya, Selangor Darul Ehsan
Tel : 603-7729 3928 Fax : 603-7729 7028 Email : itec-ibc@gmail.com

SAYA MEMPERAKU BAHWA DETAIL DETAIL DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK KEHENDEK UNTUNG
UNDANG KECU BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERIMA TANGGUNGJAWAB PENUH DENGAN SEJALINYA

PROJEK

POLITEKNIK MERSING,JOHOR
PAKEJ 2 - KERJA BANGUNAN DAN
KERJA BERKAITAN (REKA & BINA).

TAJUK LUKISAN

ACADEMIC - EAST BLOCK 1

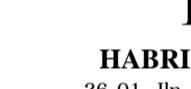
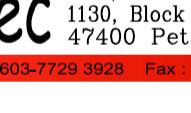
GROUND FLOOR PLAN.

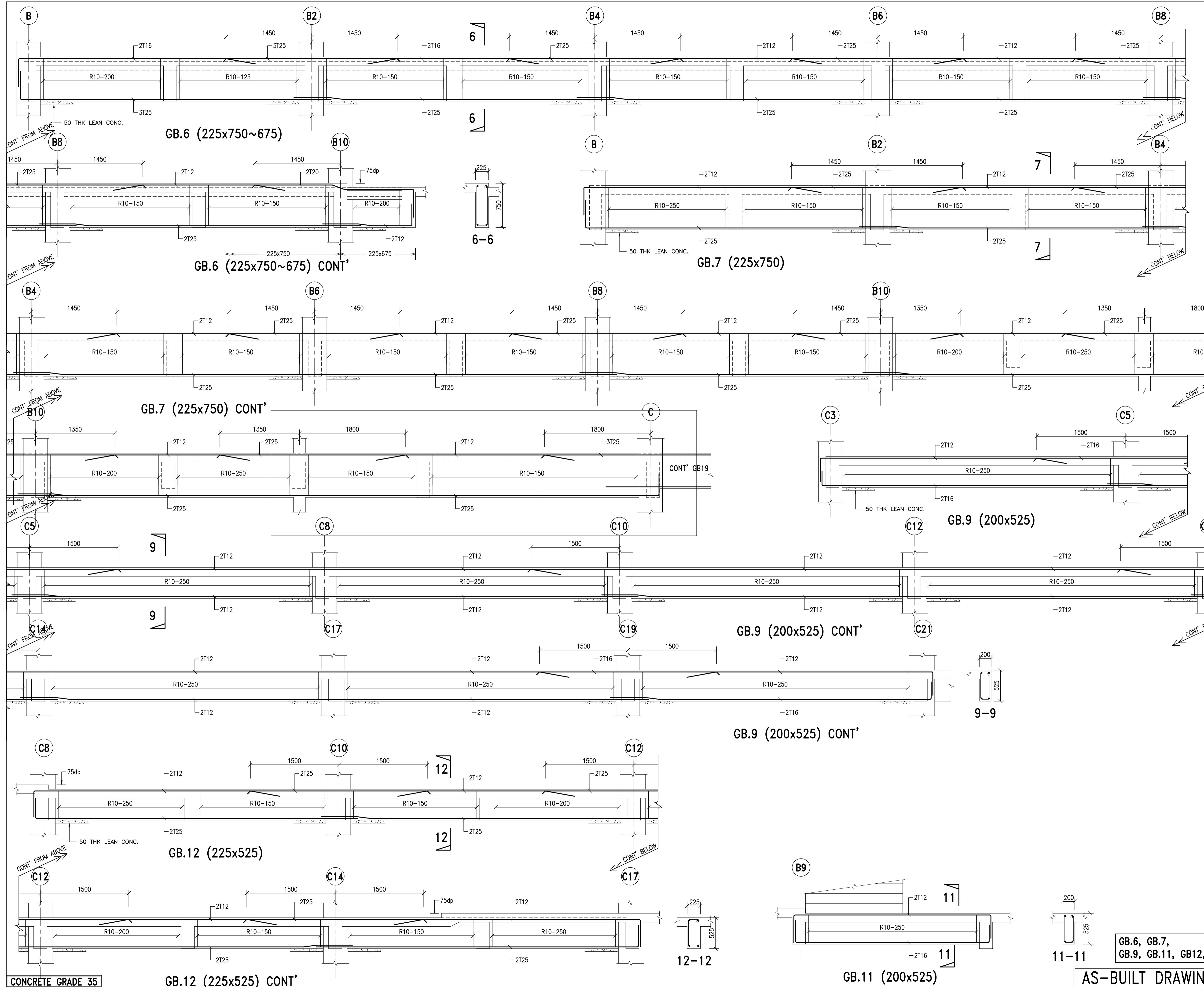
Scale	1:200	Date	APRIL 2009
Design	Tan HL	Drawn	Ina
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri

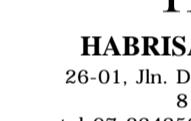
NOMBOR LUKISAN

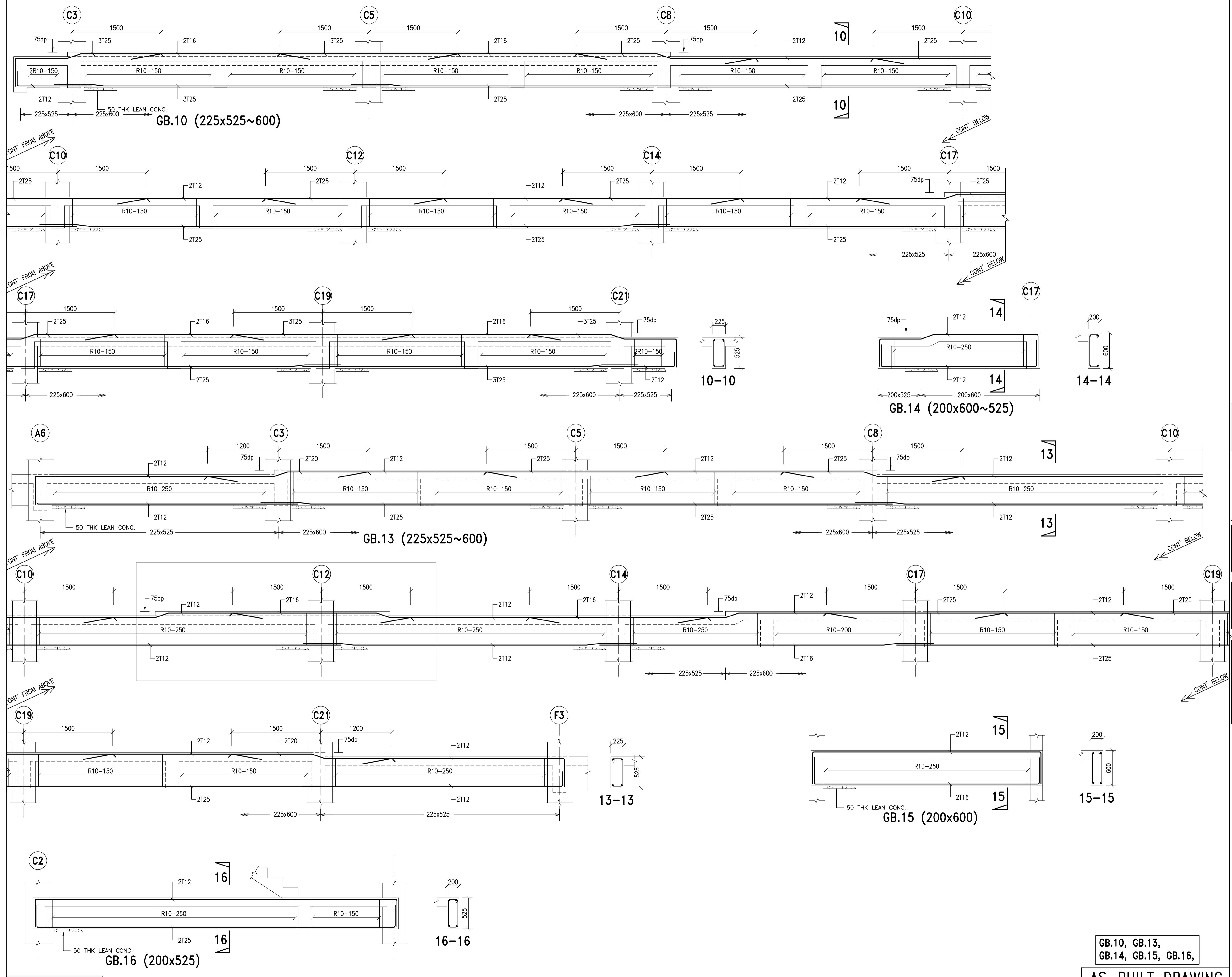
AK/KPT/POLY/08/RC-EB1/KP	No. Helaian:	REV.
		01



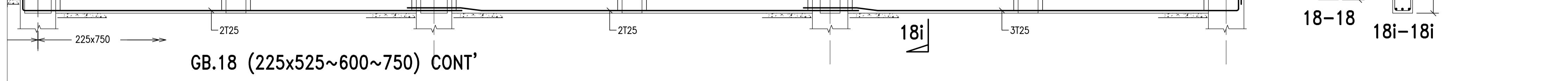
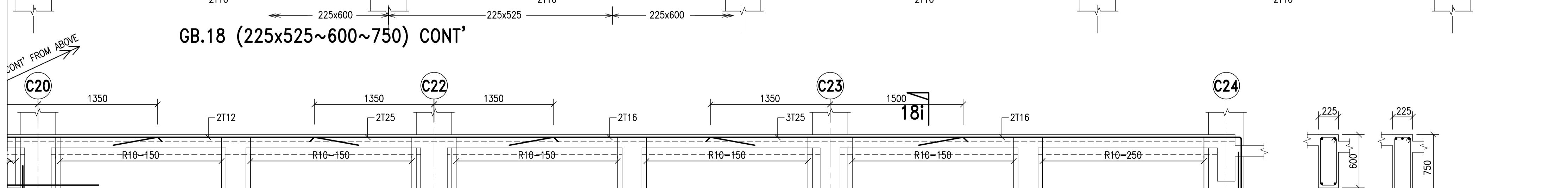
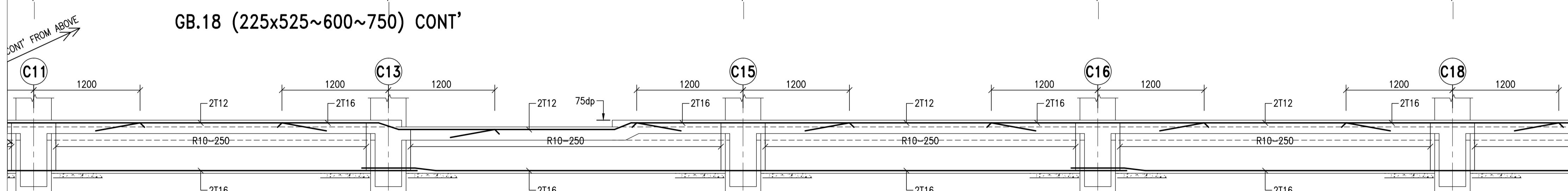
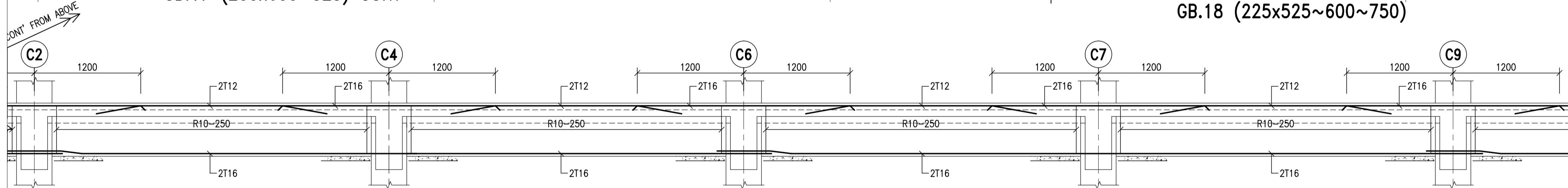
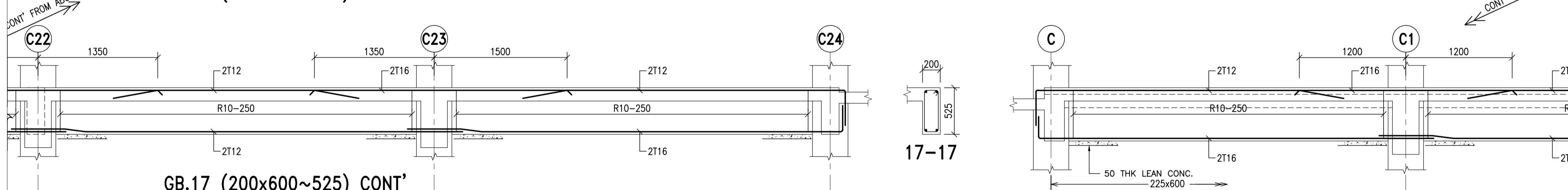
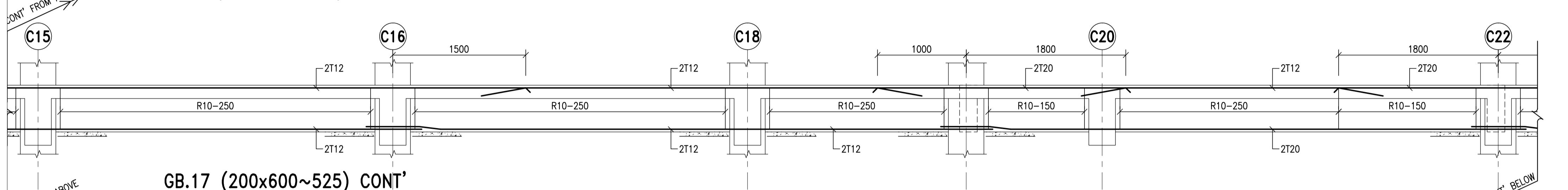
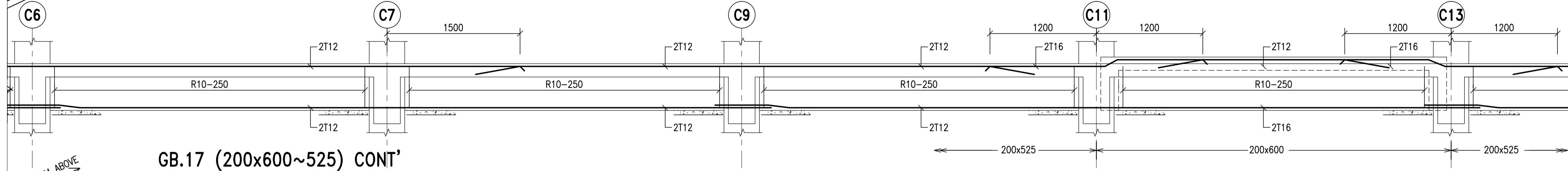
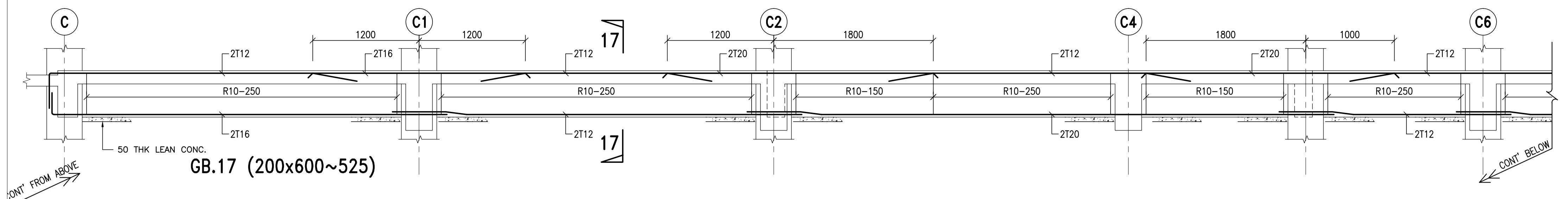
SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS
PEMILIK / PENGGUNA		
 BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/15, TAMAN DESA, PUTRAJAYA 62000 KUALA LUMPUR 62050 PUTRAJAYA		
PENGURUS PROJEK		
 JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKRR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, JALAN 14/15 10100 KUALA LUMPUR 52050 KUALA LUMPUR		
KONTRAKTOR UTAMA		
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1st FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608		
ARKITEK		
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JURUTERA M&E		
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JURUKUR BAHAN		
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JURUTERA C&S		
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PROJEK		
POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).		
TAJUK LUKISAN		
ACADEMIC - EAST BLOCK 1		
GROUND FLOOR BEAM DETAILS (1)		
Scale	1 : 30	Date APRIL 2009
Design	Tan HL	Drawn Ina/TPG
Checked	Ir. Tan EH	Approved Ir. Amzah Kasmuri
NOMBOR LUKISAN	No. Helaian	REV.
AK/KPT/POLY/08/RC-EB1/GB	01	.



SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS
PEMILIK / PENGGUNA		
 BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/15, TTDI, 50430 KUALA LUMPUR PUSAT PENGAYAAN KERJAAN PERSEKUTUAN 62050 PUTRAJAYA		
PENGURUS PROJEK		
 JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKR MALAYSIA, TINGKAT 12, MAJU TOWER, PERKERTIKA, 10100 JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR		
KONTRAKTOR UTAMA		
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1st FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, 81100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608		
ARKITEK		
 H S I A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bahru. tel:07-2343532,2343534 fax: 07-2343537		
JURUTERA M&E		
 MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Putra Permai, 52200 Kuala Lumpur No.Tel : 603-6277 4695/96 No Fax: 603-6277 4697		
JURUKUR BAHAN		
 PERUNDING DMA SDN BHD No. 107, Jalan 7/477-P, 119A, Jalan Abdurrahman Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77263800		
JURUTERA C&S		
 AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 05-554 2119 Fax : 07-557 1837 E-mail : akconsult_akc@yahoo.com		
PEREKABENTUK IBS		
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. (Corporate No. B011505)  Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itec-mek@gmail.com		
PROJEK		
POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).		
TAJUK LUKISAN		
ACADEMIC - EAST BLOCK 1 GROUND FLOOR BEAM DETAILS (2)		
Scale	1 : 30	Date APRIL 2009
Design	Tan HL	Drawn Ina/TPG
Checked	Ir. Tan EH	Approved Ir. Amzah Kasmuri
NOMBOR LUKISAN		
AK/KPT/POLY/08/RC-EB1/GB No. Helaian: REV. 02		



SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS
PEMILIK / PENGGUNA		
 BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/15, TTDI, PUSAT PENTADBIRAN KERJAAN PERSEKUTUAN 62603 PUTRAJAYA		
PENGURUS PROJEK		
 JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, 101, JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR		
KONTRAKTOR UTAMA		
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1ST FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608		
ARKITEK		
 H S I A HABRISALAM ARCHITECTS 26-01, Jln 8/Taman Munshi Ibrahim, 81200 Johor Bahru. tel:07-2343532,2343534 fax: 07-2343537		
JURUTERA M&E		
 MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Putra Permai, 52200 Kuala Lumpur No.Tel : 603-6277 4695/96 No Fax: 603-6277 4697		
JURUKUR BAHAN		
 PERUNDING DMA SDN BHD No. 23-1, 23-7847-7-P, 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800		
JURUTERA C&S		
 AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 05-554 1219 Fax : 07-557 1837 E-mail : akconsult_akc@yahoo.com		
PEREKABENTUK IBS		
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. (Civil, Structural and Bridge Consulting Engineers) 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7028 Email : itec-ibc@gmail.com		
PROJEK		
POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).		
TAJUK LUKISAN		
ACADEMIC - EAST BLOCK 1 GROUND FLOOR BEAM DETAILS (3)		
Scale	1 : 30	Date APRIL 2009
Design	Tan HL	Drawn Ina/TPG
Checked	Ir. Tan EH	Approved Ir. Amzah Kasmuri
NOMBOR LUKISAN	No. Helaian: REV.	
AK/KPT/POLY/08/RC-EB1/GB	03	



SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS

PEMILIK / PENGGUNA



BAHAGIAN PEMBANGUNAN
KEMENTERIAN PENGAYAAN TINGGI MALAYSIA
ARAS 3, BLOK E3
JALAN 14/15, TTDI, 50480 KUALA LUMPUR
PUSAT PENGABDIAN KERJAAN PERSEKUTUAN
62050 PUTRAJAYA

PENGURUS PROJEK



JABATAN KERJA RAYA
CAWANGAN PENGAYAAN TINGGI
IBU PEJABAT JKRY MALAYSIA,
TINGKAT 12, MAJU TOWER,
DEWA RAYA, JALAN 14/15
10100 KUALA LUMPUR
52300 PUTRAJAYA

KONTRAKTOR UTAMA



KONSORTIUM POLITEKNIK MERSING SDN. BHD.
LOT 106A, 1ST FLOOR, FABER TOWERS 2,
JALAN DEWA BAHARU, TAMAN DESA,
OFF JALAN KELANG LAMA,
58100 KUALA LUMPUR
TEL : 03-79806605 FAX : 03-79806608

ARKITEK



HISLA
HABRISALAM ARCHITECTS
26-01, Jln 8-Taman Munshi Ibrahim,
81200 Johor Bahru.
tel:07-2343532,2343534 fax: 07-2343537

JURUTERA M&E



MEGA JATI CONSULT SDN.BHD
25-2-1, Medan Putra Business Centre,
Bandar Muarala, 52200 Kuala Lumpur
No.Tel : 603-6277 4695 No Fax: 603-6277 4697

JURUKUR BAHAN



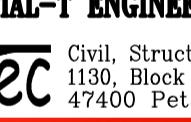
PERUNDING DMA SDN BHD
LOT 507847-P,
119A, Jalan Imran Bakri, Taman Tun Dr. Ismail,
60000 Kuala Lumpur.
Tel : 03-77263800 Fax : 03-7726800

JURUTERA C&S



AK CONSULT
(Civil & Structural Consulting Engineers)
No.43-A, Jalan Impian Emas 6
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PEREKABUNTU IBS



INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.
(Formerly No.811565)
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1130, Block A, Damansara Intan e-Business Park,
47400 Petaling Jaya, Selangor Darul Ehsan
Tel : 603-7729 3928 Fax : 603-7729 7928 Email : tec@msk@gmail.com

SAYA MEMPERAKU BAHWA DETAIL DETAIL DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK-KEHENDAK UNDANG-KECIL BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERIMA TANGGUNGJAWAB PENUH DENGAN SEJALAN NYA

PROJEK



POLITEKNIK MERSING,JOHOR
PAKEJ 2 - KERJA BANGUNAN DAN
KERJA BERKAITAN (REKA & BINA).

TAJUK LUKISAN



ACADEMIC - EAST BLOCK 1
GROUND FLOOR BEAM DETAILS (4)

Scale 1 : 30 Date APRIL 2009

Design Tan HL Drawn Ina/TPG

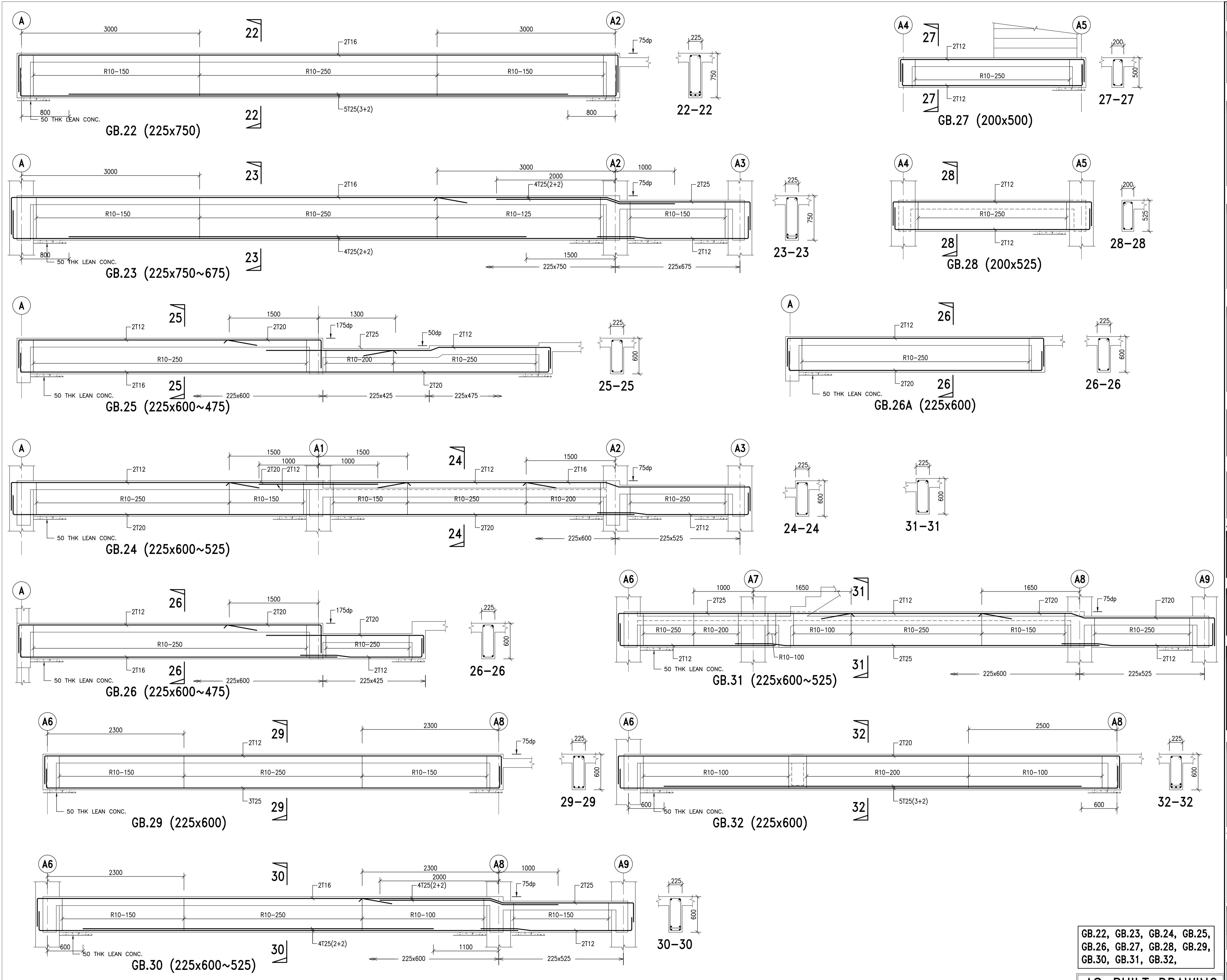
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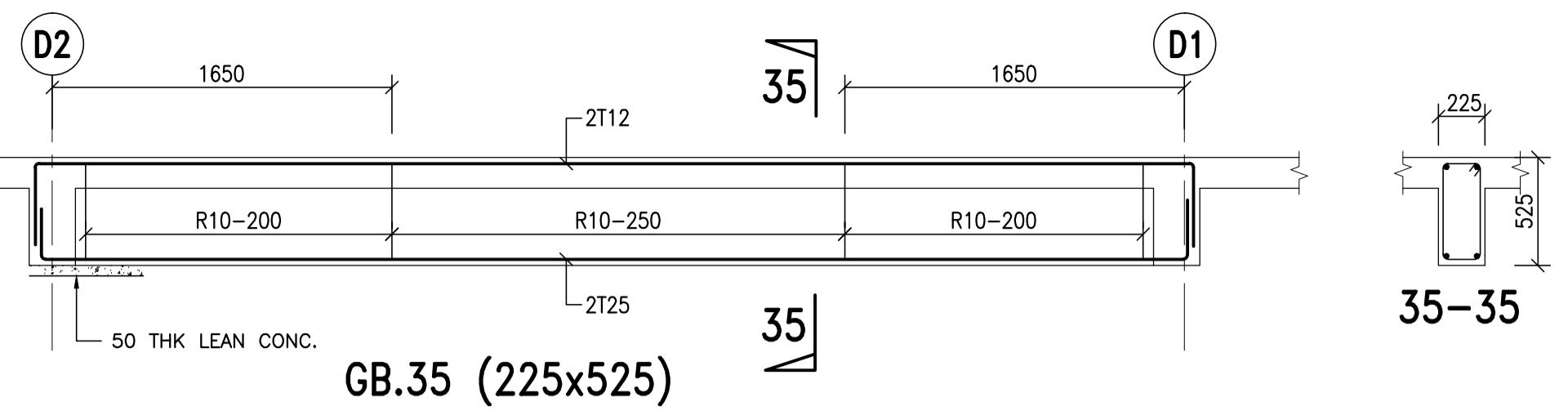
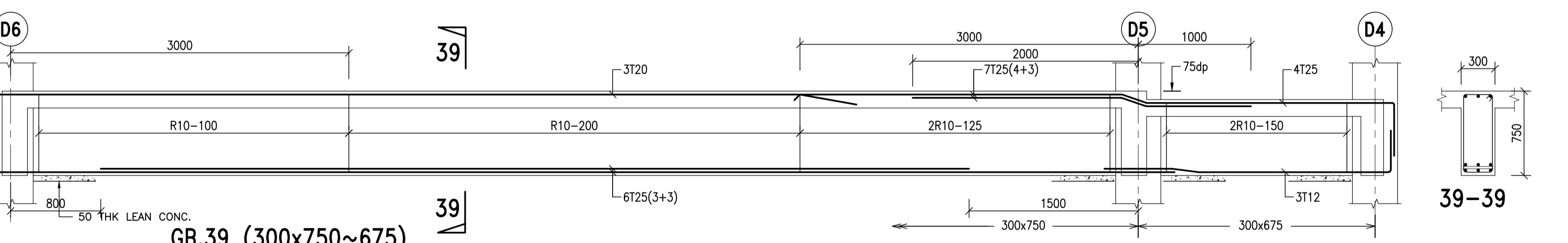
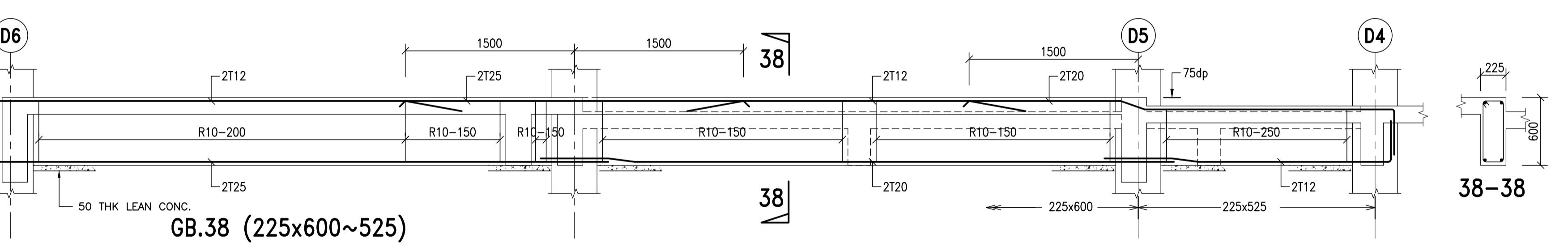
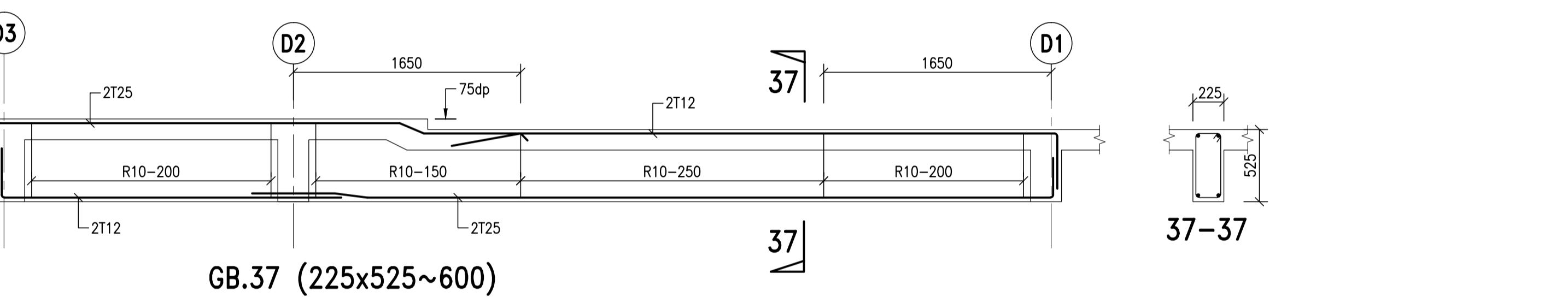
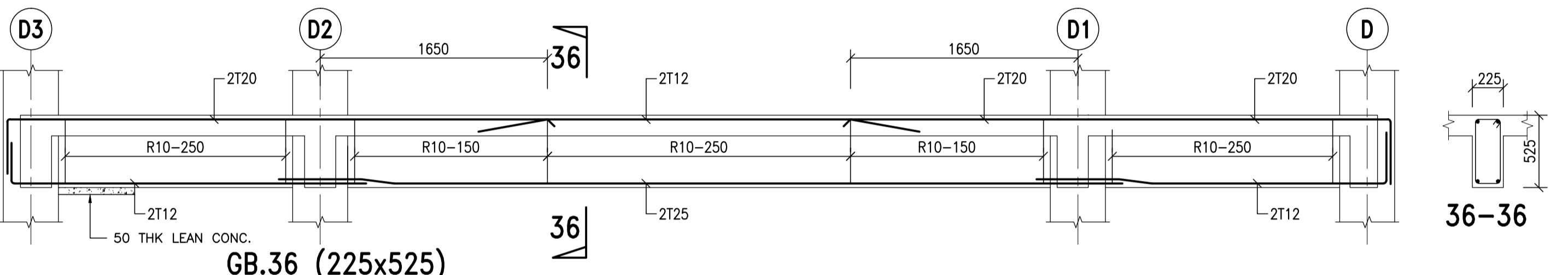
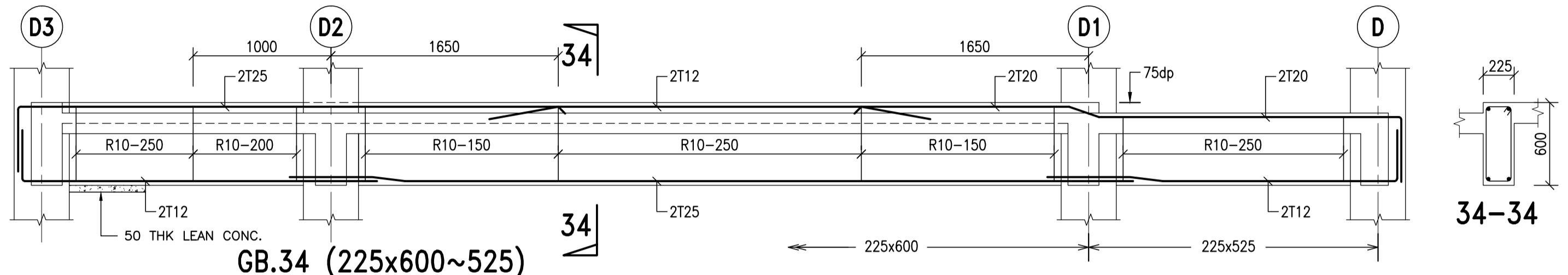
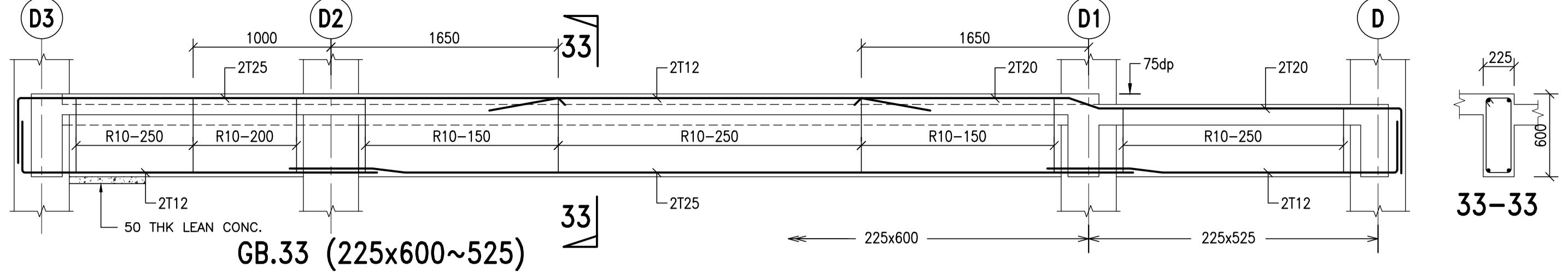
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No. Helaian: REV.
04

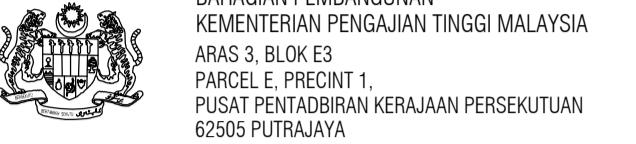
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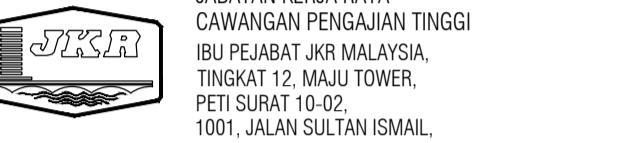


SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS

PEMILIK / PENGGUNA



PENGURUS PROJEK



KONTRAKTOR UTAMA

KONSORTIUM POLITEKNIK MERSING SDN. BHD.
LOT 106A, 1ST FLOOR, FABER TOWERS 2,
JALAN DEWA BAHARU, TAMAN DESA,
OFF JALAN KELANG LAMA,
58100 KUALA LUMPUR
TEL : 03-79806605 FAX : 03-79806608

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No.Tel : 603-6277 4695/96 No Fax: 603-6277 4697

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PERUNDING DMA SDN BHD
No. 24-1, 247847-P,
119A, Jalan Anuddin Bakri, Taman Tun Dr. Ismail,
60000 Kuala Lumpur.
Tel : 03-77263800 Fax : 03-77267800

JURUTERA C&S

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(Civil & Structural Consulting Engineers)
No.43-A, Jalan Impian Emas 6
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PEREKABENTU IBS

INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.
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1130, Block A, Damansara Intan e-Business Park,
47400 Petaling Jaya, Selangor Darul Ehsan
Tel : 603-7729 3928 Fax : 603-7729 7928 Email : tec@msk@gmail.com

SAYA MEMPERAKU BAHWA DETAIL DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK-KEHENDAK UNDANGAN
UNDANG KECIL BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERIMA TANGGUNGJAWAB PENUH DENGAN SEJALAN

PROJEK

POLITEKNIK MERSING,JOHOR
PAKEJ 2 - KERJA BANGUNAN DAN
KERJA BERKAITAN (REKA & BINA).

TAJUK LUKISAN

ACADEMIC - EAST BLOCK 1
GROUND FLOOR BEAM DETAILS (7)

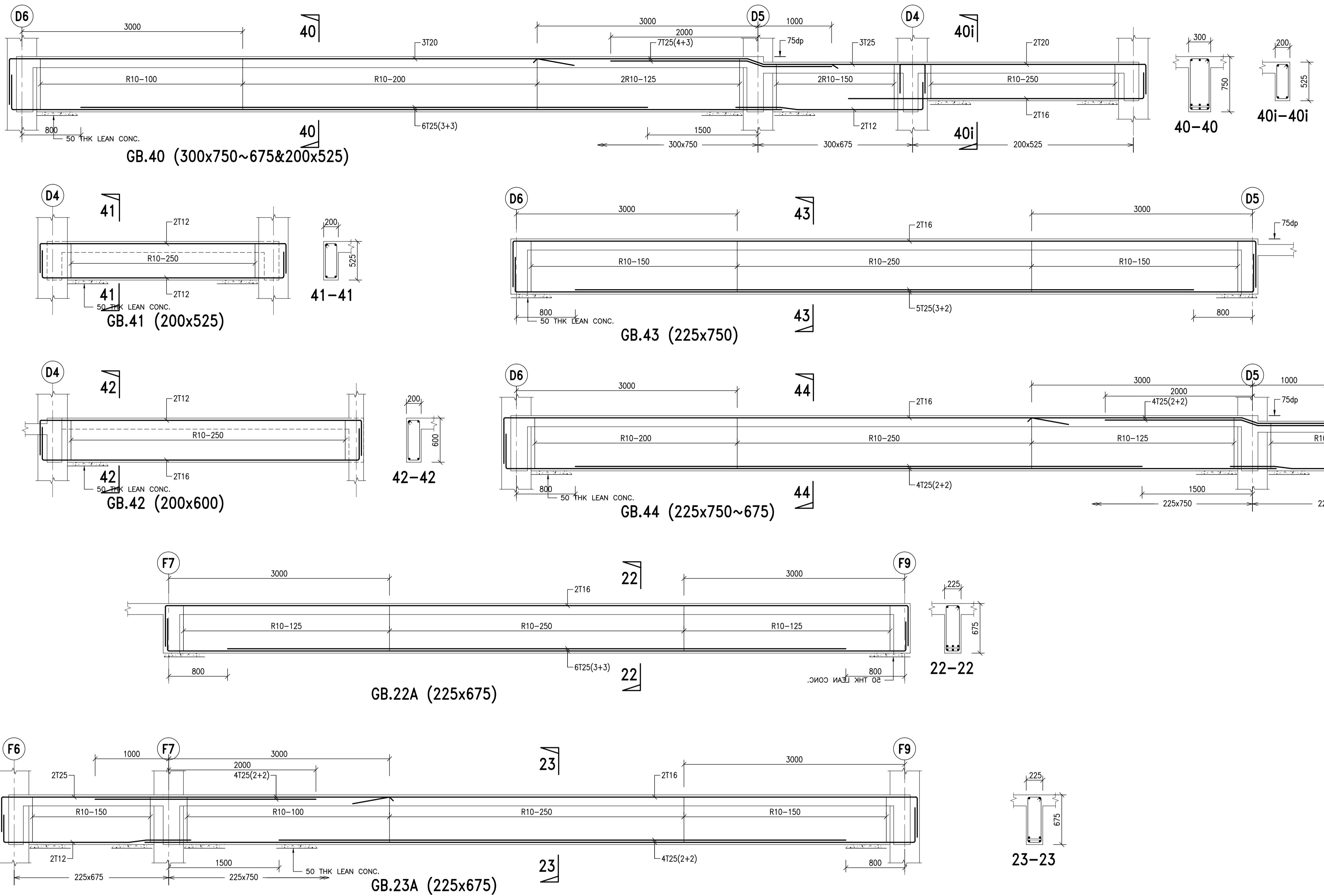
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Design	Tan HL	Drawn	Ina/TPG
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri

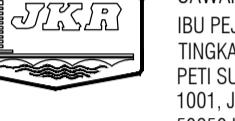
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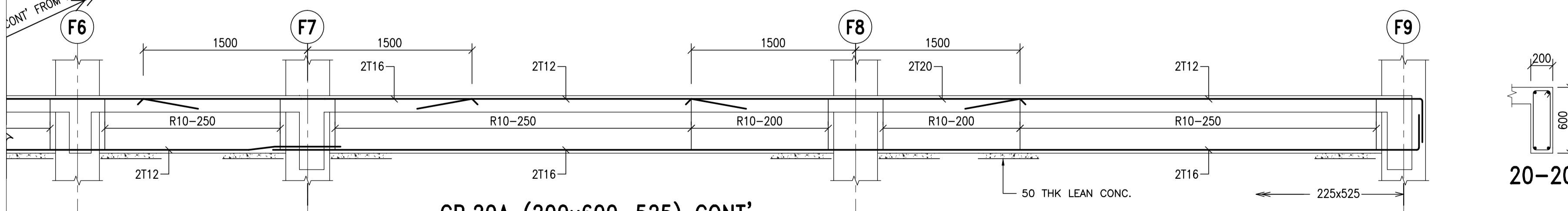
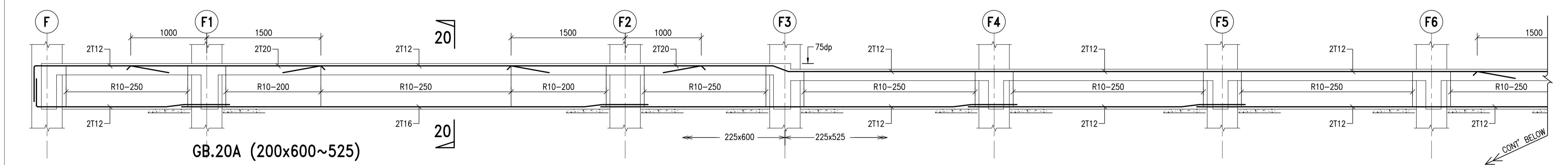
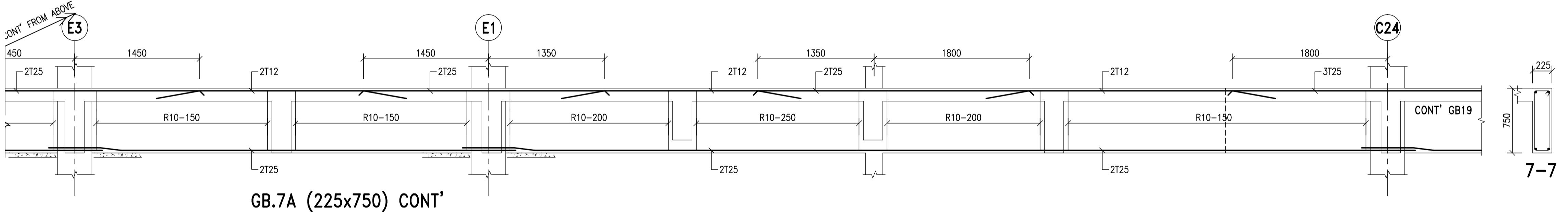
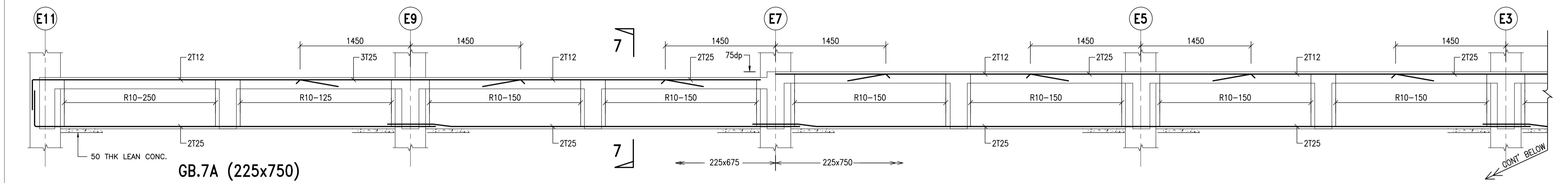
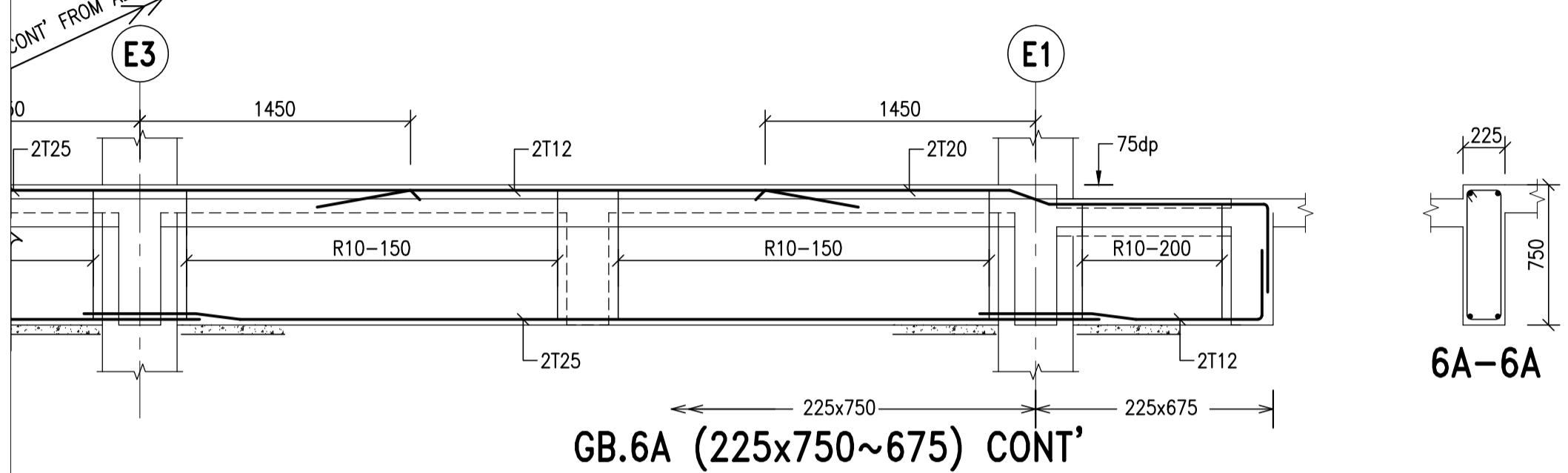
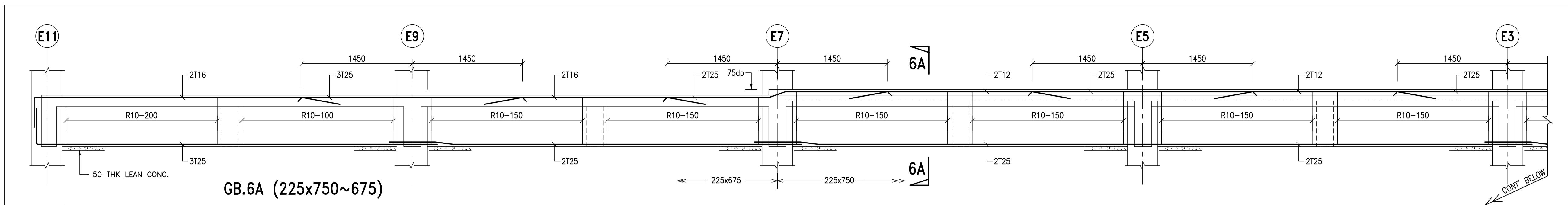
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		07

GB.33, GB.34, GB.34A, GB.35,
GB.36, GB.37, GB.38, GB.39,

AS-BUILT DRAWING



SHOP DRAWING			
REVISION			
NO	DATE	PARTICULARS	
PEMILIK / PENGGUNA			
 <p>BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/15, TTDI 1, PUSAT PENGAYAN KERJAAN PERSEKUTUAN 62000 PUTRAJAYA</p>			
PENGURUS PROJEK			
 <p>JABATAN KERJA RAYA CAWANGAN PENGAYAN TINGGI IBU PEJABAT KJR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, JALAN 10/10 10010 JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR</p>			
KONTRAKTOR UTAMA			
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1ST FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608			
ARKITEK			
HISIA HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bharu. tel:07-2343532,2343534 fax: 07-2343537			
JURUTERA M&E			
MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Putra, 52200 Kuala Lumpur No.Tel : 603-6277 4695/96 No Fax: 603-6277 4697			
JURUKUR BAHAN			
PERUNDING DMA SDN BHD W-001, Jalan 10/10, 7847-P, 118A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800			
JURUTERA C&S			
AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 05-554 1219 Fax : 07-557 1837 E-mail : akconsult_ak@yahoo.com			
PEREKABENTU IBS			
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. (Consultant No. B011505) TEC Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7028 Email : teculim@gmail.com			
PROJEK			
POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).			
TAJUK LUKISAN			
ACADEMIC - EAST BLOCK 1 GROUND FLOOR BEAM DETAILS (8)			
Scale	1 : 30	Date	APRIL 2009
Design	Tan HL	Drawn	Ina/TPG
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri
NOMBOR LUKISAN			No. Helaian: REV.
GB.40, GB.41, GB.42, GB.43, GB.44, GB.22A, GB.23A,			08
AS-BUILT DRAWING			AK/KPT/POLY/08/RC-EB1/GB



**GB.6A, GB.7A,
GB.20A,**
AS-BUILT DRAWING

SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS

PEMILIK / PENGGUNA



BAHAGIAN PEMBANGUNAN
KEMENTERIAN PENGAYAAN TINGGI MALAYSIA
ARAS 3, BLOK E,
PUSAT PENGURUSAN KERJAAN PERSEKUTUAN
62050 PUTRAJAYA

PENGURUS PROJEK
JKR JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, 101, 10010 JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR

KONSORTIUM POLITEKNIK MERSING SDN. BHD.
LOT 106A, 1st FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608

ARKITEK
HIS A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bahru. tel:07-2343532,2343534 fax: 07-2343537

JURUTERA M&E
MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Putra, 52200 Kuala Lumpur No.Tel : 603-6277 4695/96 No Fax: 603-6277 4697

JURUKUR BAHAN
PERUNDING DMA SDN BHD No. 52-1, 47/47-P, 118A, Jalan Abdurrahman Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800

JURUTERA C&S
AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 05-554 1219 Fax: 07-557 1837 E-mail : akconsult_ak@yahoo.com (JM 0425764-V)

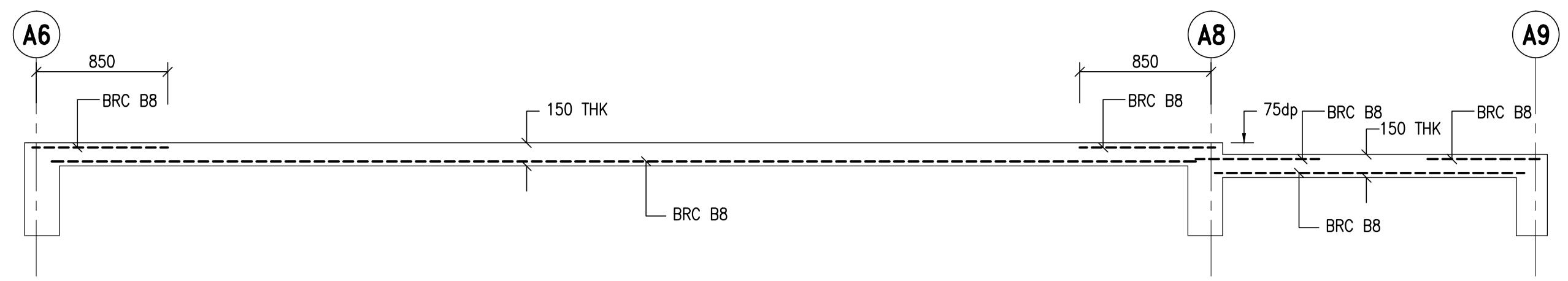
PEREKABUNTU IBS
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. (Company No. B011505) TEC Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : tec@msn.com

SAYA MEMPERAKU BAHWA DETAIL DETAIL DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK-KEHENDAK UNDANG-UNDANG KECIL BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERIMA TANGGUNGJAWAB PENUH DENGAN SELARANYA

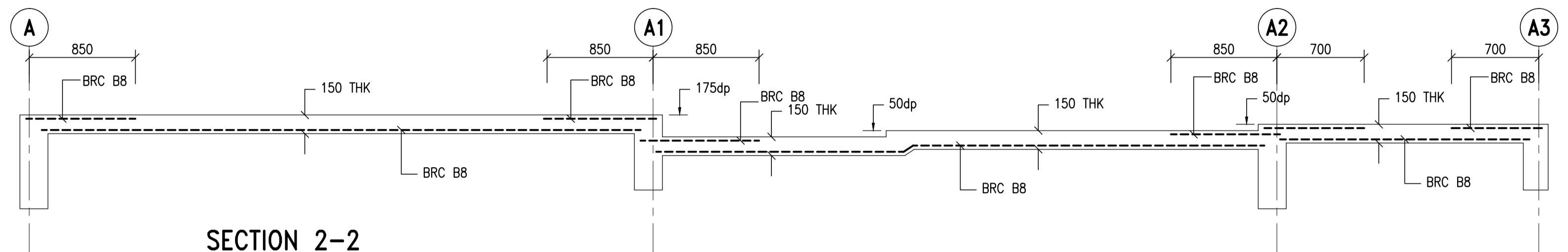
PROJEK
POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).

TAJUK LUKISAN
ACADEMIC - EAST BLOCK 1 GROUND FLOOR BEAM DETAILS (9)

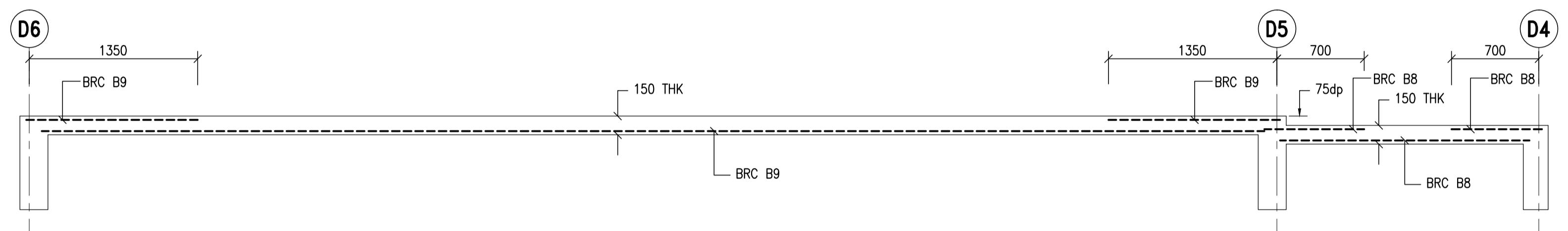
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NOMBOR LUKISAN			
AK/KPT/POLY/08/RC-EB1/GB			No. Helaian: REV. 09



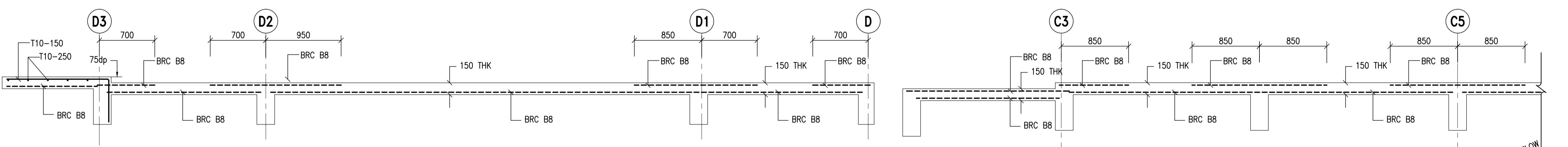
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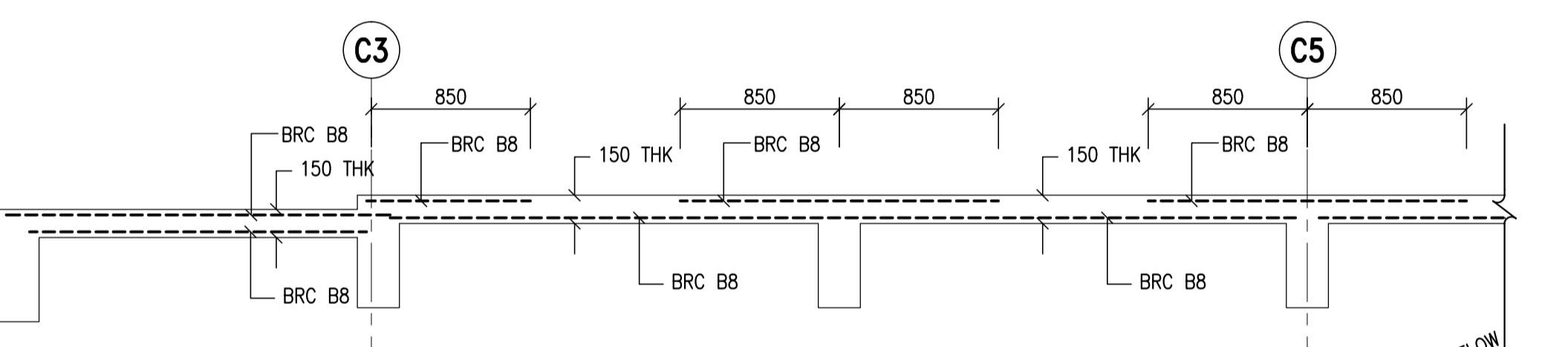
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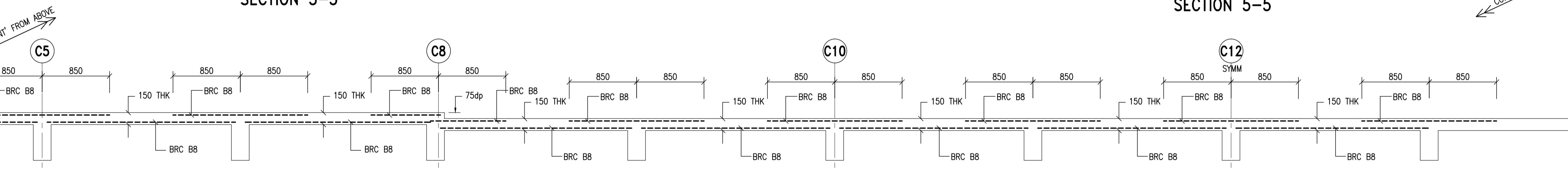
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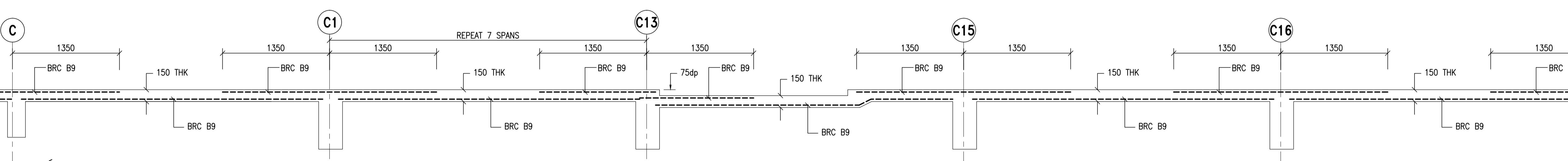
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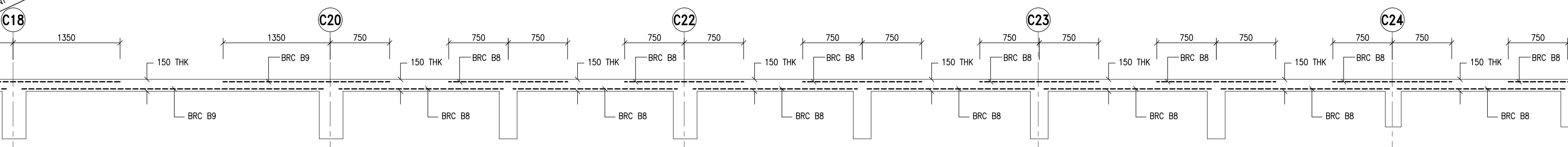
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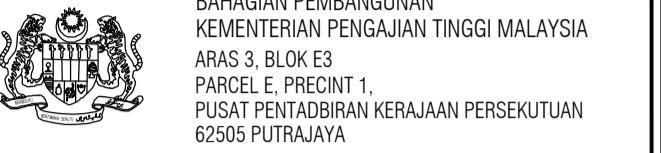


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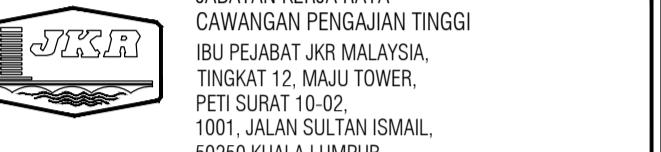
REVISION		
NO	DATE	PARTICULARS

PEMILIK / PENGGUNA



BAHAGIAN PEMBANGUNAN
KEMENTERIAN PENGETAHUAN TINGGI MALAYSIA
ARAS 3, BLOK E3
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PUSAT PENGADBIRAN KERJAAN PERSEKUTUAN
62050 PUTRAJAYA

PENGURUS PROJEK



JABATAN KERJA RAYA
CAWANGAN PENGETAHUAN TINGGI
IBU PEjabat JKRR MALAYSIA,
TINGKAT 12, MAJU TOWER,
DEWA RAYA, JALAN 14/10
1001, JALAN SULTAN ISMAIL,
50250 KUALA LUMPUR

KONTRAKTOR UTAMA



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ARKITEK



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tel:07-2343532,2343534 fax: 07-2343537

JURUTERA M&E



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JURUKUR BAHAN



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JURUTERA C&S



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Taman Impian Emas 81300 Skudai, Johor.
Tel : 05-554 1219 Fax : 07-557 1837
E-mail : akconsult_ak@yahoo.com

PEREKABUNTU IBS

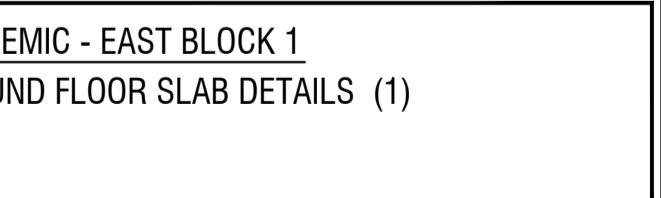


INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.
(Formerly No.81150-D)
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SAYA MEMPERAKU BAHAGIA DETAIL DALAM PELAN ADALAH MENURUT KEHENDAK KEHENDAK UNDANG
UNDANG KECIL BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERMAKNA TANGGUNGJAWAB PENUH DENGAN SEJALAJNA
PROJEK

POLITEKNIK MERSING,JOHOR
PAKEJ 2 - KERJA BANGUNAN DAN
KERJA BERKAITAN (REKA & BINA).

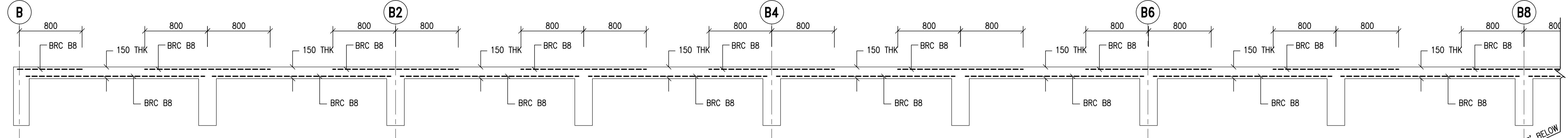
TAJUK LUKISAN



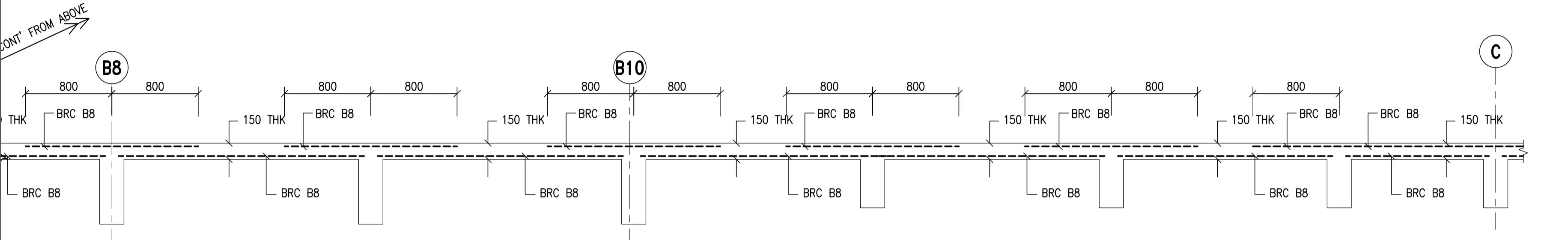
Scale 1 : 30 Date APRIL 2009
Design Tan HL Drawn Ina/TPG
Checked Ir. Tan EH Approved Ir. Amzah Kasmuri

NOMBOR LUKISAN

AK/KPT/POLY/08/RC-EB1/GS	No. Helaian:	REV.
		01



SECTION 7-7



SECTION 7-7 cont'

SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS
A	15/7/2010	SECTION 7-7 AMENDED TO SUIT ARCHITECT
PEMILIK / PENGGUNA		
 BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAJUAN TINGGI MALAYSIA ARAS 3, BLOK E, JALAN 14/15, E, BANDAR BARU PUSAT PENTADBIRAN KERJAAN PERSEKUTUAN 62605 PUTRAJAYA		

PENGURUS PROJEK		
 JABATAN KERJA RAYA CAWANGAN PENGAJUAN TINGGI IBU PEJABAT JKR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, 101, JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR		

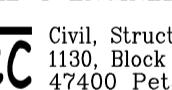
KONTRAKTOR UTAMA		
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1st FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608		

ARKITEK		
 H S I A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bahru. tel:07-2343532,2343534 fax: 07-2343537		

JURUTERA M&E		
 MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Manjalara, 52200 Kuala Lumpur No.Tel :603-6277 4695/96 No.Fax:603-6277 4697		

JURUKUR BAHAN		
 PERUNDING DMA SDN BHD NO. 24-A, 407847-P, 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800		

JURUTERA C&S		
 AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel: 05-554 1219 Fax: 07-557 1837 E-mail : akconsult_akc@yahoo.com		

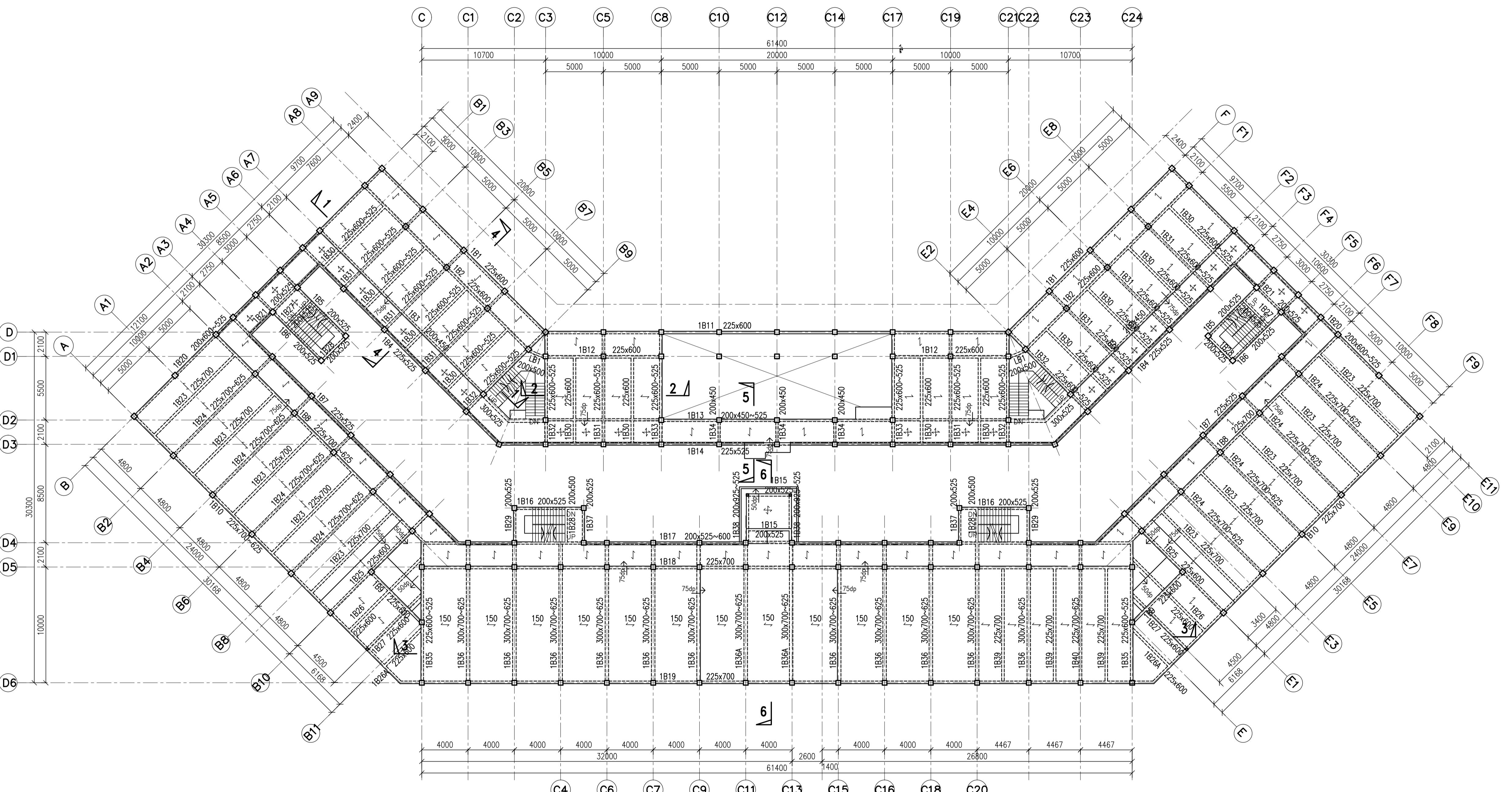
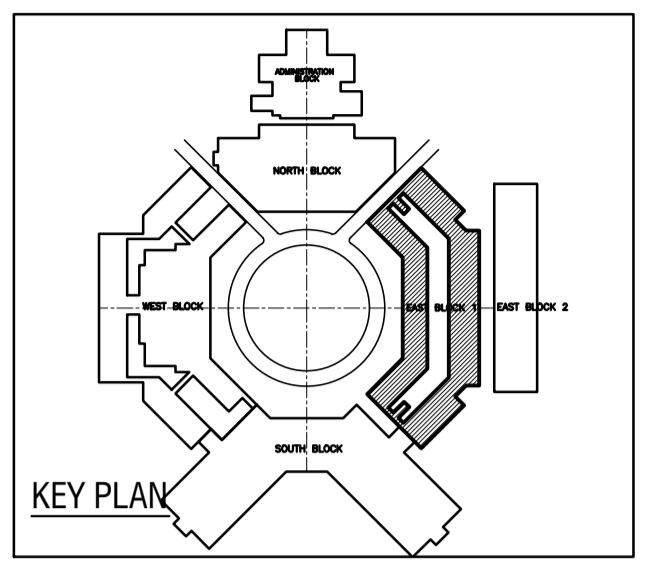
PEREKABENTUK IBS		
 INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itec-ibc@gmail.com		

SAYA MEMPERAKU BAHWA DETAIL DETAIL DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK-KEHENDAK UNDANGAN KECIL BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERMA TANGGUNGJAWAB PENUH DENGAN SEJALINYA

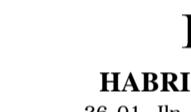
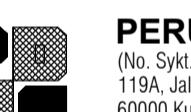
PROJEK		
POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).		

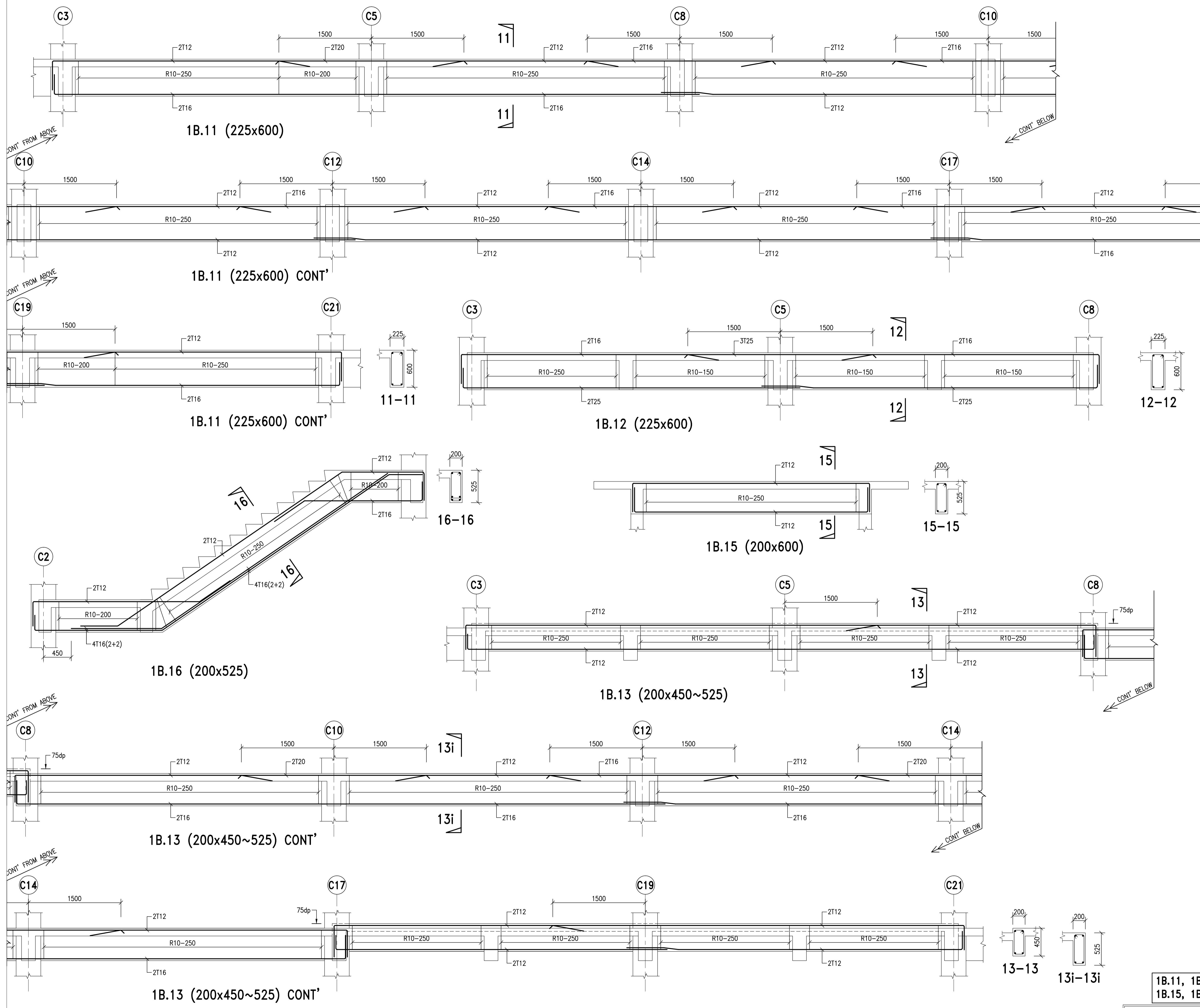
TAJUK LUKISAN		
ACADEMIC - EAST BLOCK 1 GROUND FLOOR SLAB DETAILS (2)		

Scale	1 : 30	Date	APRIL 2009
Design	Tan HL	Drawn	Ina/TPG
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri
NOMBOR LUKISAN			No. Helaian: REV.
AK/KPT/POLY/08/RC-EB1/GS			02 A

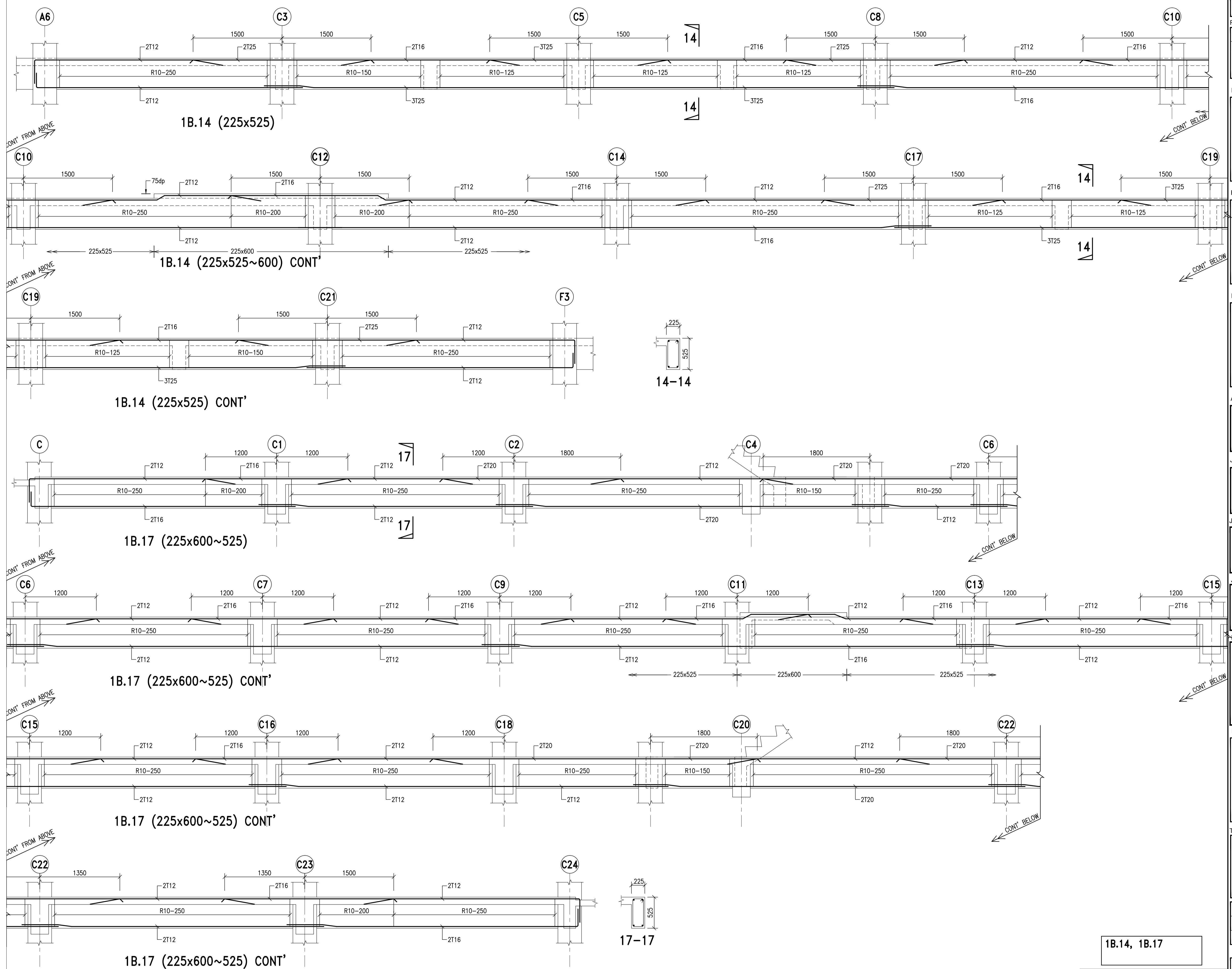


NOTE :
1. ALL SLAB 125mm THK UNLESS
OTHERWISE STATED.

SHOP DRAWING								
REVISION								
NO	DATE	PARTICULARS						
PEMILIK / PENGGUNA								
 <p>BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/15, TTDI PUSAT PENGAYAAN KERJAAN PERSEKUTUAN 62603 PUTRAJAYA</p>								
PENGURUS PROJEK								
 <p>JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKRR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, 101, JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR</p>								
KONTRAKTOR UTAMA								
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1ST FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608								
ARKITEK								
 <p>H S I A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bahru. tel:07-2343532,2343534 fax: 07-2343537</p>								
JURUTERA M&E								
 <p>MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Muarala, 52200 Kuala Lumpur No.Tel:603-6277 4695/96 No Fax:603-6277 4697</p>								
JURUKUR BAHAN								
 <p>PERUNDING DMA SDN BHD No. 27847-P 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel.: 03-77263800 Fax: 03-77267800</p>								
JURUTERA C&S								
 <p>AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel: 05-554 1219 Fax: 07-557 1837 E-mail : akconsult_ak@yahoo.com</p>								
PEREKABENTU IBS								
 <p>INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. (Cet No. B01150) Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itec-mek@gmail.com</p>								
PROJEK								
<p>SAYA MEMPERAKU BAHANNA DETAILED DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK-KEHENDAK UNDANGAN UNDANGAN KECIL BAHANNA SERAGAM 1984 DAN SAYA SETUJU TERMAU TANGGUNGJAWAB PENUH DENGAN SEJALAJNYA</p> <p>POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).</p>								
TAJUK LUKISAN								
<u>ACADEMIC - EAST BLOCK 1</u>								
FIRST FLOOR PLAN.								
Scale 1:200 Date APRIL 2009								
Design Tan HL Drawn Ina								
Checked Ir. Tan EH Approved Ir. Amzah Kasmuri								
NOMBOR LUKISAN								
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AK/KPT/POLY/08/RC-EB1/KP	No. Helaian:	REV.						
		02						



Scale	1 : 30	Date	APRIL 2009
Design	Tan HL	Drawn	Ina/TPG
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri
NOMBOR LUKISAN			No. Helaian: REV.
AK/KPT/POLY/08/RC-EB1/FB			03



SHOP DRAWING

REVISION		
NO	DATE	PARTICULARS

EMILIK / PENGGUNA

AN PEMBANGUNAN
TERIAN PENGAJIAN TINGGI MALAYSIA
BLOK E3
E, PRECINT 1,
ENTADBIRAN KERAJAAN PERSEKUTUAN
UTRAJAYA



N KERJA RAYA
GAN PENGAJIAN TINGGI
ABAT JKR MALAYSIA,
12, MAJU TOWER,
AT 10-02,
JALAN SULTAN ISMAIL,
UALA LUMPUR

KONSORTIUM POLITEKNIK MERSING SDN. BHD.
LOT 106A, 1st FLOOR, FABER TOWERS 2,
JALAN DESA BAHAGIA, TAMAN DESA,
OFF JALAN KELANG LAMA,
58100 KUALA LUMPUR
TEL : 03-79806605 FAX : 03-79800608

Page 1



SIA
M ARCHITECTS
Taman Munshi Ibrahim,
Johor Bharu.

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CONSULT SDN.BHD
dan Putra Business Centre,
Jalara, 52200 Kuala Lumpur.
1605/06 No Fax: 603-6277-1697

ANSWER



ING DMA SDN BHD
7-P)
uddin Baki, Taman Tun Dr. Ismail,
ur.
E: 03-77667000



CONSULT
& Structural Consulting Engineers
A, Jalan Impian Emas 6
Impian Emas 81300 Skudai, Johor.
-554 1219 Fax: 07-557 1837

(GM 8128781 - V)

REKABENTUK IBS

INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.
(Company No. 816115-W)

itec Civil, Structural and Bridge Consulting Engineers
1130, Block A, Damansara Intan e-Business Park,
47400 Petaling Jaya, Selangor Darul Ehsan

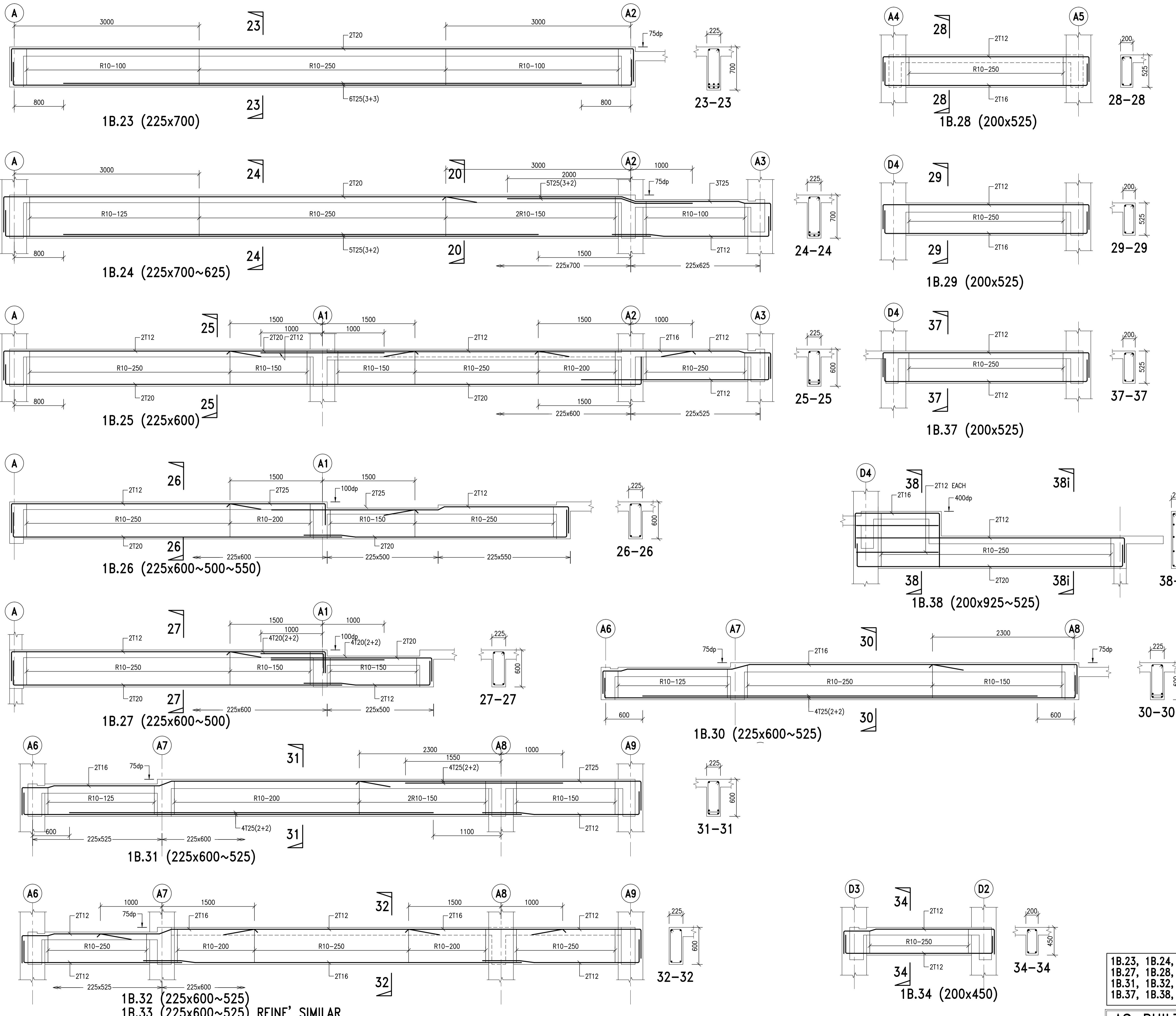
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ACADEMIC - EAST BLOCK 1

Scale	1 : 30	Date	APRIL 2009
Design	Tan HL	Drawn	Ina/TPG
Checked	J. Tan - EH	Approved	J. A. and K. J.

OMBOR LUKISAN	No. Helaian:	REV.
AK/KPT/DOLY/08/DC, FR1/FR		





SHOP DRAWING

REVISION		
NO	DATE	PARTICULARS

PEMILIK / PENGGUNA

IAN PEMBANGUNAN
TERIAN PENGAJIAN TINGGI MALAYSIA
, BLOK E3
L E, PRECINT 1,
PENTADBIRAN KERAJAN PERSEKUTUAN
PUTRAJAYA

PENGURUS PROJEK

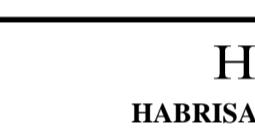


AN KERJA RAYA
NGAN PENGAJIAN TINGGI
JABAT JKR MALAYSIA,
LT 12, MAJU TOWER,
URAT 10-02,
ALAN SULTAN ISMAIL,
KUALA LUMPUR

KONTAKTOR UTAMA

KONSORTIUM POLITEKNIK MERSING SDN. BHD.
LOT 106A, 1st FLOOR, FABER TOWERS 2,
JALAN DESA BAHAGIA, TAMAN DESA,
OFF JALAN KELANG LAMA,
58100 KUALA LUMPUR
TEL : 03-79806605 FAX : 03-79800608

ARKITEK



S A
M ARCHITECTS
3, Taman Munshi Ibrahim,
Johor Bharu.

JIBUTERA M&E



I CONSULT SDN.BHD
edan Putra Business Centre,
jala, 52200 Kuala Lumpur.
7 4695/96 No.Fax:603-6277 4697

СИРИИ ВАНАН



DING DMA SDN BHD
47-P)
uddin Baki, Taman Tun Dr. Ismail,
pur.
0 Fax : 03-77267800

JIBUTERA C&S



CONSULT
& Structural Consulting Engineers)
4-A, Jalan Impian Emas 6
n Impian Emas 81300 Skudai, Johor.
07-554 1219 Fax: 07-557 1837
il : akconsult_akc@yahoo.com

(JM 0425764-V) E-

PEREKABENTUK IBS
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.
(Company No. 816115-W)
Civil, Structural and Bridge Consulting Engineers
1130, Block A, Damansara Intan e-Business Park,
47400 Petaling Jaya, Selangor Darul Ehsan
Tel: 603-7729 3928 Fax: 603-7729 7928 Email: itecsh.mail@gmail.com

SAYA MEMPERAKUI BAHWA DETAIL-DETAIL DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK-KEHENDAK UNDANG-UNDANG KECIL BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERIMA TANGGUNGJAWAB PENUH DENGAN SEWAJARNYA.

PROJEK

POLITEKNIK MERSING, JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).

TAJUK LUKISAN

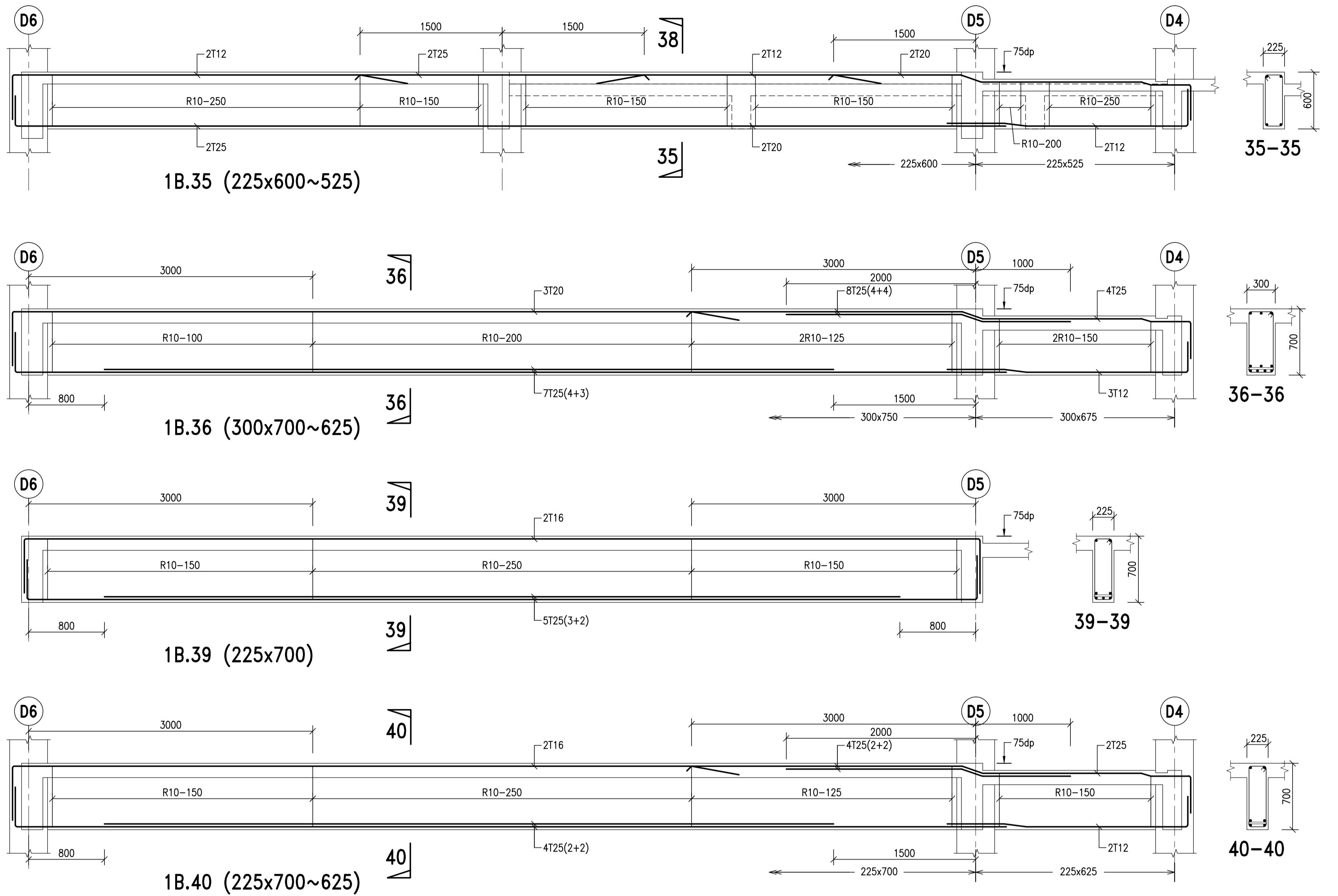
ACADEMIC - EAST BLOCK 1

FIRST FLOOR BEAM DETAILS (6)

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Design	Tan HL	Drawn	Ina/TPG

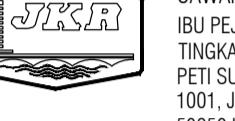
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- 1B.27, 1B.28, 1B.29, 1B.30,
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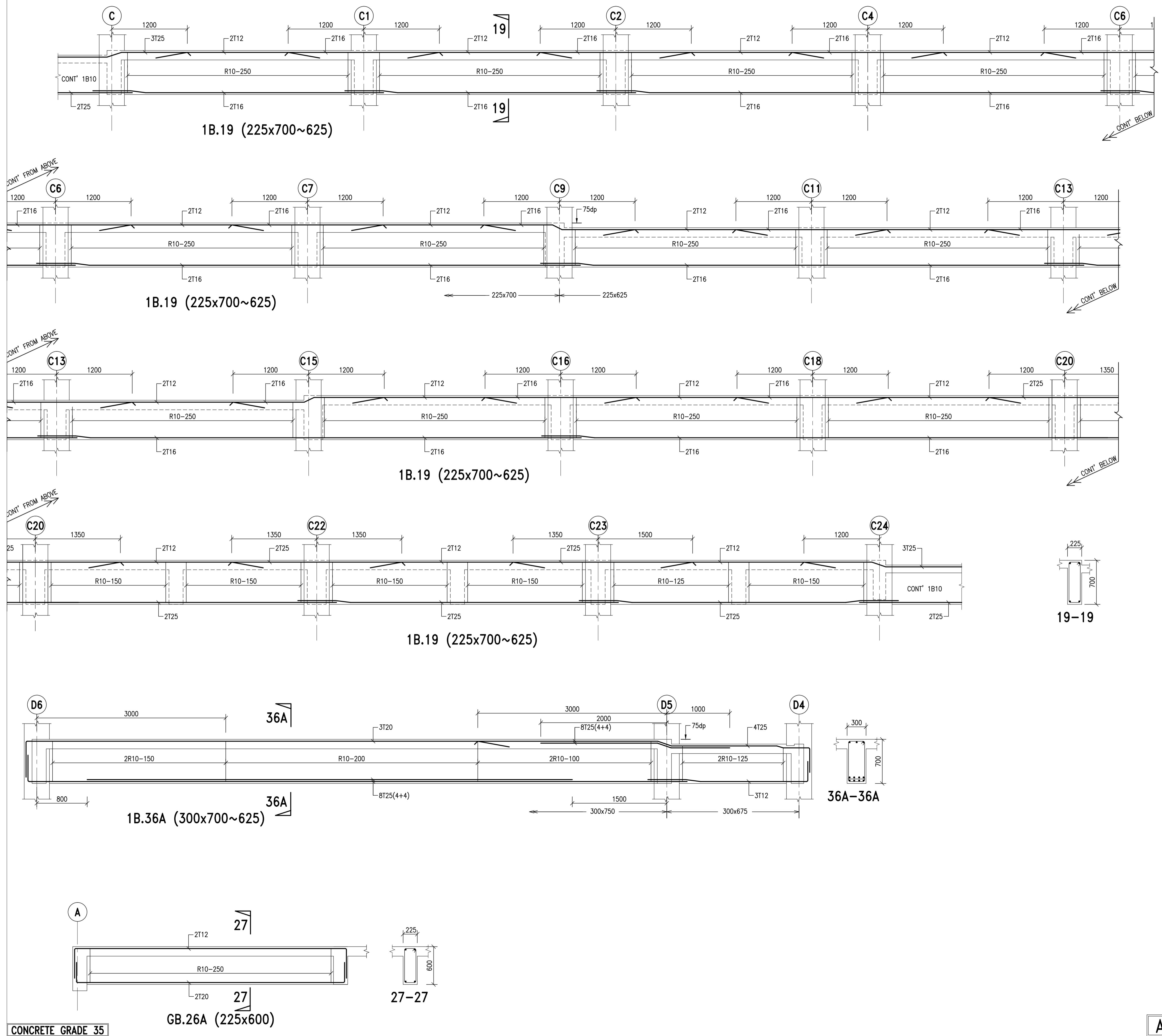
AS-BUILT DRAWING



1B.35, 1B.36,
1B.39, 1B.40,

AS-BUILT DRAWING

SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS
PEMILIK / PENGGUNA		
 BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/6, TTDI 1 PUSAT PENGURUSAN KERJAAN PERSEKUTUAN 62603 PUTRAJAYA		
PENGURUS PROJEK		
 JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKRR MALAYSIA, TINGKAT 12, MAJU TOWER, PETRONAS TOWER 10, 1001, JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR		
KONTRAKTOR UTAMA		
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1ST FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608		
ARKITEK		
HISIA HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bharu. tel:07-2343532,2343534 fax: 07-2343537		
JURUTERA M&E		
MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Manjalar, 52200 Kuala Lumpur No.Tel :603-6277 4695/96 No Fax:603-6277 4697		
JURUKUR BAHAN		
PERUNDING DMA SDN BHD NO. 524 - 507847-P 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800		
JURUTERA C&S		
AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel: 05-554 1219 Fax: 07-557 1837 (JM 0425764-V) E-mail : akconsult_akc@yahoo.com		
PEREKABENTUK IBS		
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : initail-t@msn.com		
PROJEK		
POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).		
TAJUK LUKISAN		
ACADEMIC - EAST BLOCK 1 FIRST FLOOR BEAM DETAILS (7)		
Scale	1 : 30	Date APRIL 2009
Design	Tan HL	Drawn Ina/TPG
Checked	Ir. Tan EH	Approved Ir. Amzah Kasmuri
NOMBOR LUKISAN		
AK/KPT/POLY/08/RC-EB1/FB No. Helaian: REV. 07		



SHOP DRAWING

REVISION

NO	DATE	PARTICULARS

PEMILIK / PENGGUNA

BAHAGIAN PEMBANGUNAN
KEMENTERIAN PENGAJIAN TINGGI MALAYSIA
ARAS 3, BLOK E3
PARCEL E, PRECINT 1,
PUSAT PENTADBIRAN KERAJAAN PERSEKUTUAN
62505 PUTRAJAYA

PENGURUS PROJEK

JABATAN KERJA RAYA
CAWANGAN PENGAJIAN TINGGI
IBU PEJABAT JKR MALAYSIA,
TINGKAT 12, MAJU TOWER,
PETI SURAT 10-02,
1001, JALAN SULTAN ISMAIL,
50250 KUALA LUMPUR

KONTRAKTOR UTAMA

KONSORTIUM POLITEKNIK MERSING SDN. BHD.

LOT 106A, 1st FLOOR, FABER TOWERS 2,
JALAN DESA BAHAGIA, TAMAN DESA,
OFF JALAN KELANG LAMA,
58100 KUALA LUMPUR
TEL : 03-79806605 FAX : 03-79800608

ARKITEK

H | S | A

HABRISALAM ARCHITECTS

26-01, Jln. Dian 8,Taman Munshi Ibrahim,
81200 Johor Bharu.
tel:07-2343532,2343534 fax: 07-2343537

JURUTERA M&E

MEGA JATI CONSULT SDN.BHD

25-2-1, Medan Putra Business Centre,
Bandar Manjalara, 52200 Kuala Lumpur

No.Tel :603-6277 4695/96 No.Fax:603-6277 4697

JURUKUR BAHAN

PERUNDING DMA SDN BHD

(No. Sykt. : 407847-P)
119A, Jalan Aminuddin Bakri, Taman Tun Dr. Ismail,
60000 Kuala Lumpur.
Tel : 03-77263800 Fax : 03-77267800

JURUTERA C&S

AK CONSULT

(Civil & Structural Consulting Engineers)
No.43-A, Jalan Impian Emas 6
Taman Impian Emas 81300 Skudai, Johor.
Tel : 07-554 1219 Fax: 07-557 1837
E-mail : akconsult_akc@yahoo.com

PEREKABENTUK IBS

INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.

(Company No. 816115-W)

Civil, Structural and Bridge Consulting Engineers
1130, Block A, Damansara Intan e-Business Park,
47400 Petaling Jaya, Selangor Darul Ehsan

Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itecsb.mail@gmail.com

SAYA MEMPERAKUI BAHWA DETAIL-DETAIL DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK-KEHENDAK UNDANG-UNDANG KECIL BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERIMA TANGGUNGJAWAB PENUH DENGAN SEWAJARNYA.

PROJEK

POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).

TAJUK LUKISAN

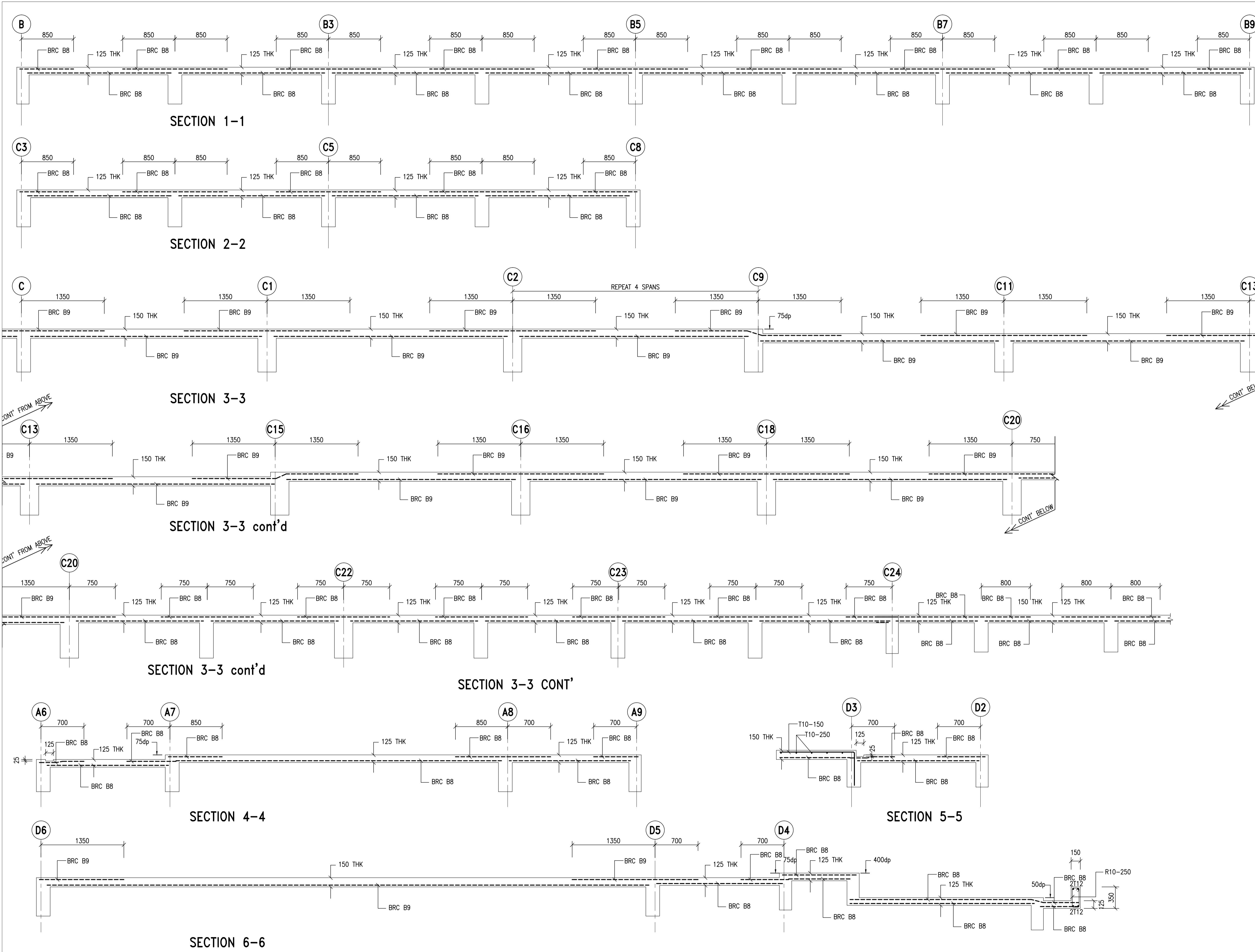
ACADEMIC - EAST BLOCK 1

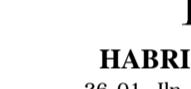
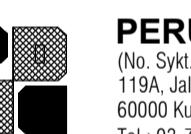
FIRST FLOOR BEAM DETAILS (8)

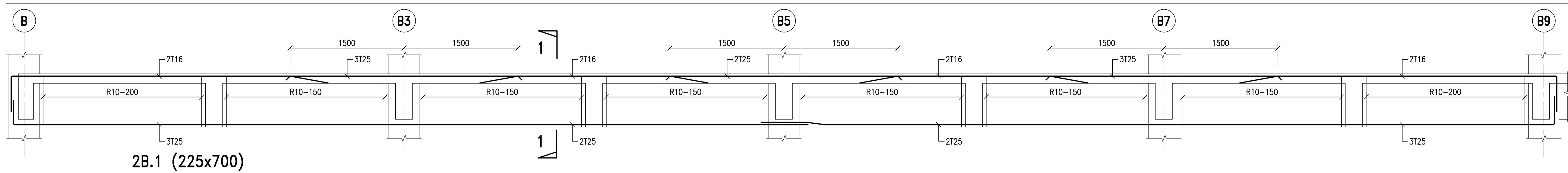
Scale	1 : 30	Date	APRIL 2009
Design	Tan HL	Drawn	Ina/TPG
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri

NOMBOR LUKISAN

AK/KPT/POLY/08/RC-EB1/FB	No. Helaian:	REV.
	08	

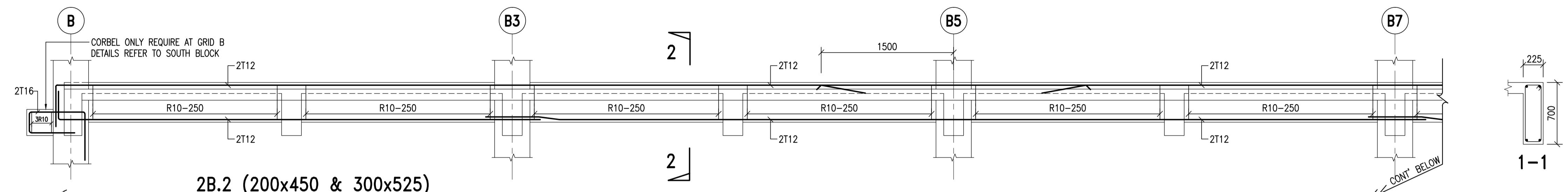


SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS
PEMILIK / PENGGUNA		
 BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/15, TTDI, 50400 KUALA LUMPUR PUSAT PENGADBIRAN KERJAAN PERSEKUTUAN 62050 PUTRAJAYA		
PENGURUS PROJEK		
 JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA 10, 1001, JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR		
KONTRAKTOR UTAMA		
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1st FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79800608		
ARKITEK		
 H S I A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bahru. tel:07-2343532,2343534 fax: 07-2343537		
JURUTERA M&E		
 MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Manjalar, 52200 Kuala Lumpur No.Tel :603-6277 4695/96 No Fax:603-6277 4697		
JURUKUR BAHAN		
 PERUNDING DMA SDN BHD No. 524 - 407847-P 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800		
JURUTERA C&S		
 AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 05-554 1219 Fax : 07-557 1837 E-mail : akconsult_ak@yahoo.com		
PEREKABENTUK IBS		
 INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. (Control No. B011505) Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itec-ibc@gmail.com		
PROJEK		
POLYTEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).		
TAJUK LUKISAN		
ACADEMIC - EAST BLOCK 1 FIRST FLOOR SLAB DETAILS		
Scale	1 : 30	Date APRIL 2009
Design	Tan HL	Drawn Ina/TPG
Checked	Ir. Tan EH	Approved Ir. Amzah Kasmuri
NOMBOR LUKISAN		
AK/KPT/POLY/08/RC-EB1/FS No. Helaian: REV. 01		

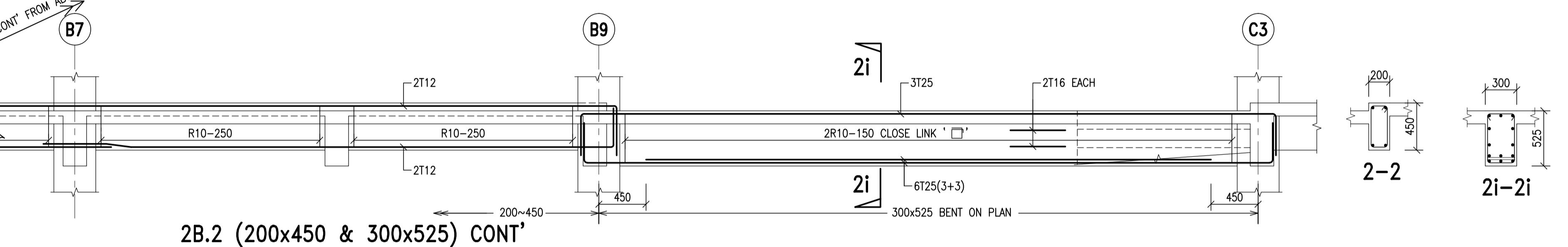


SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS
PEMILIK / PENGGUNA		

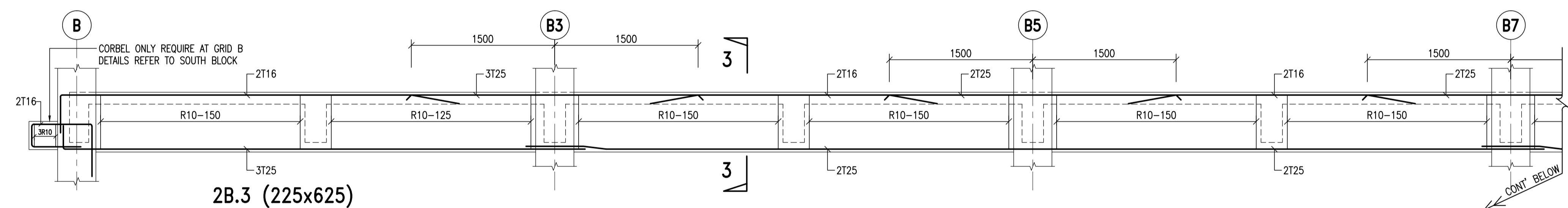
BAHAGIAN PEMBANGUNAN
KEMENTERIAN PENGAYAAN TINGGI MALAYSIA
ARAS 3, BLOK E3
JALAN 14/15, TTDI 1,
PUSAT PENGAYAAN KERJAAN PERSEKUTUAN
62050 PUTRAJAYA



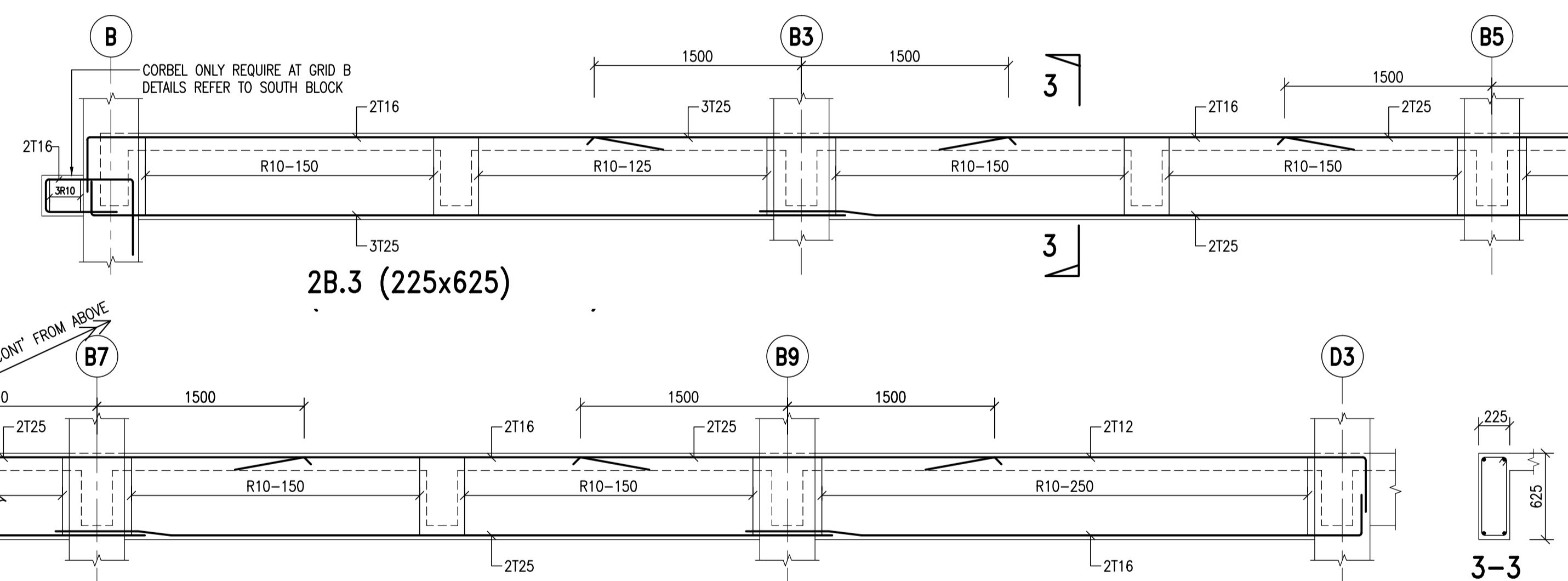
PENGURUS PROJEK
JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKRR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, JALAN 14/15, 10110 KUALA LUMPUR, 52250 KUALA LUMPUR



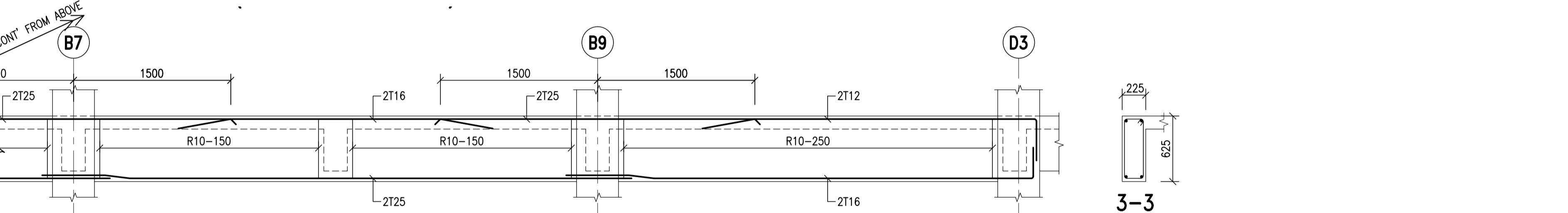
KONTRAKTOR UTAMA
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1st FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608



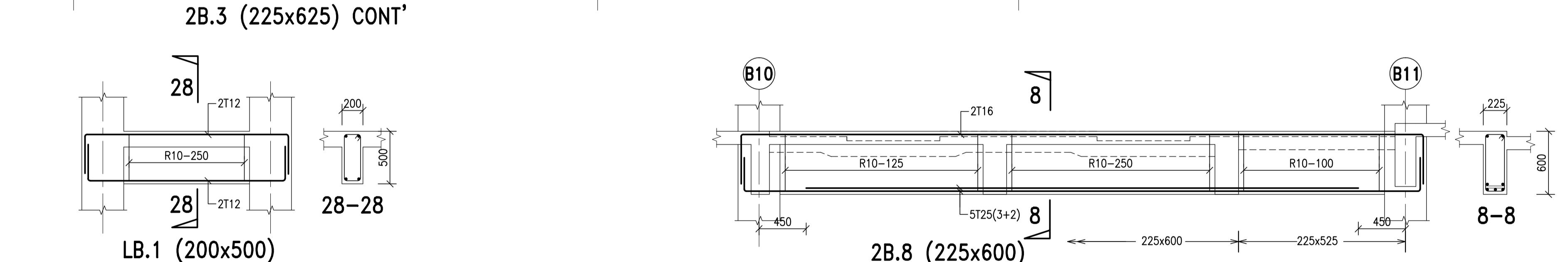
ARKITEK
HIS A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bharu. tel:07-2343532,2343534 fax: 07-2343537



JURUTERA M&E
MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Putra, 52200 Kuala Lumpur. No.Tel : 603-6277 4695/96 No Fax: 603-6277 4697



JURUKUR BAHAN
PERUNDING DMA SDN BHD No. 247, Jalan 17/47-P, 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800



PEREKABENTUK IBS
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. (Formerly IEC) Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : iec@msn.com

PROJEK
POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).

TAJUK LUKISAN
ACADEMIC - EAST BLOCK 1 SECOND FLOOR BEAM DETAILS (1)

Scale	1 : 30	Date	APRIL 2009
Design	Tan HL	Drawn	Ina/TPG
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri

NOMBOR LUKISAN	No. Helaian	REV.
AK/KPT/POLY/08/RC-EB1/2B		01

**2B.1, 2B.2, 2B.3,
LB.1, 2B.8,**

AS-BUILT DRAWING

SHOP DRAWING

REVISION		
NO	DATE	PARTICULARS

PEMILIK / PENGGUNA



BAHAGIAN PEMBANGUNAN
KEMENTERIAN PENGAYAAN TINGGI MALAYSIA
ARAS 3, BLOK E3
JALAN 14/15, TTDI, 50400 KUALA LUMPUR
PUSAT PENGATURAN KERJAAN PERSEKUTUAN
62405 PUTRAJAYA

PENGURUS PROJEK



JABATAN KERJA RAYA
CAWANGAN PENGAYAAN TINGGI
IBU PEJABAT JKR MALAYSIA,
TINGKAT 12, MAJU TOWER,
DEWA RAYA, 10110
JALAN SULTAN ISMAIL,
50250 KUALA LUMPUR

KONTRAKTOR UTAMA

KONSORTIUM POLITEKNIK MERSING SDN. BHD.
LOT 106A, 1ST FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608

ARKITEK

HIS A HABRISALAM ARCHITECTS
26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bharu. tel:07-2343532,2343534 fax: 07-2343537

JURUTERA M&E

MEGA JATI CONSULT SDN.BHD
25-2-1, Medan Putra Business Centre, Bandar Manjalar, 52200 Kuala Lumpur No.Tel : 603-6277 4695/96 No Fax: 603-6277 4697

JURUKUR BAHAN

PERUNDING DMA SDN BHD
No. 24, 407847-P, 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800

JURUTERA C&S

AK CONSULT (Civil & Structural Consulting Engineers)
No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 05-554 2119 Fax : 07-557 1837 E-mail : akconsult_akc@yahoo.com

PEREKABENTUK IBS

INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.
Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itec-ibc@gmail.com

SAYA MEMPERAKU BAHAN DAN DETAIL DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK-KEHENDAK UNDANG-KECIL BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERMAKNA TANGGUNGJAWAB PENUH DENGAN SEJALINNYA

PROJEK

POLITEKNIK MERSING,JOHOR
PAKEJ 2 - KERJA BANGUNAN DAN
KERJA BERKAITAN (REKA & BINA).

TAJUK LUKISAN

ACADEMIC - EAST BLOCK 1
SECOND FLOOR BEAM DETAILS (2)

Scale 1 : 30 Date APRIL 2009

Design Tan HL Drawn Ina/TPG

Checked Ir. Tan EH Approved Ir. Amzah Kasmuri

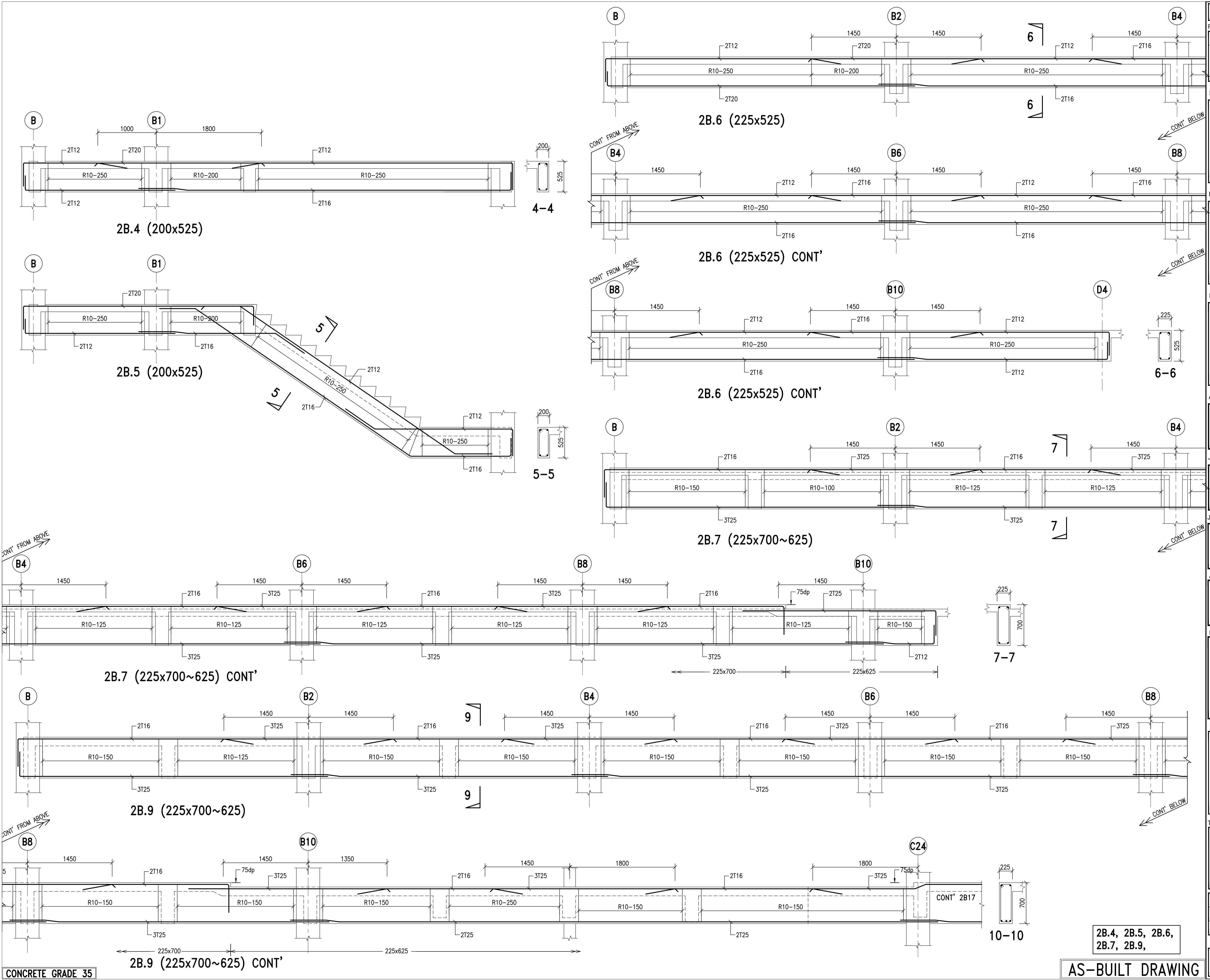
NOMBOR LUKISAN

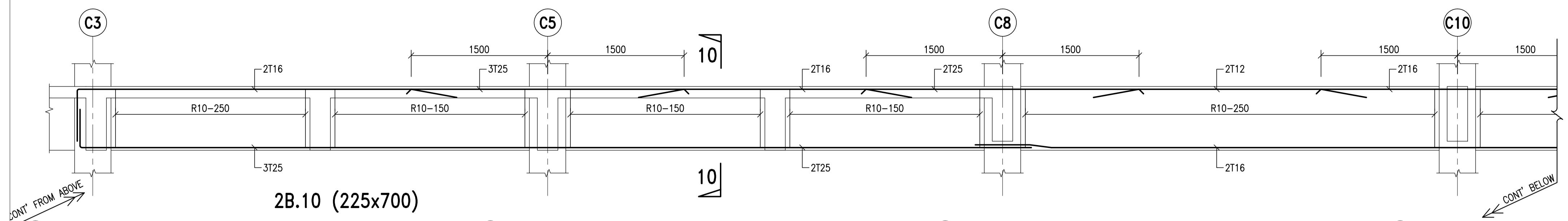
AK/KPT/POLY/08/RC-EB1/2B No. Helaian: REV.

02

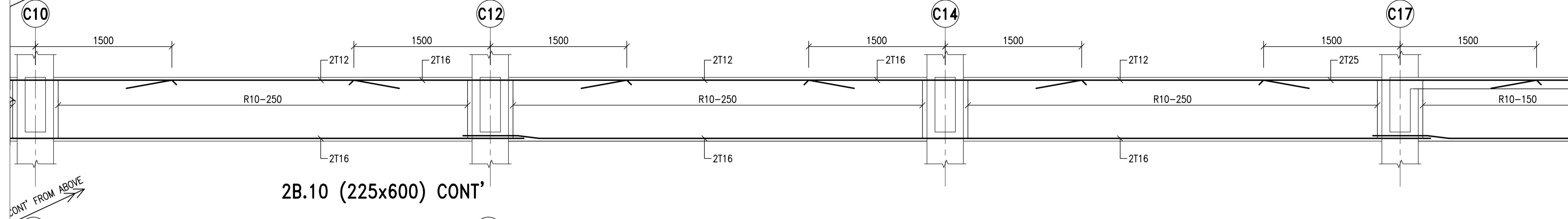
2B.4, 2B.5, 2B.6,
2B.7, 2B.9,

AS-BUILT DRAWING

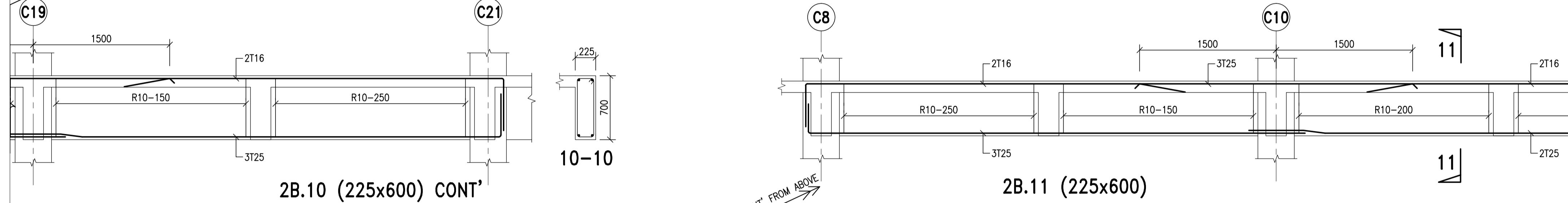




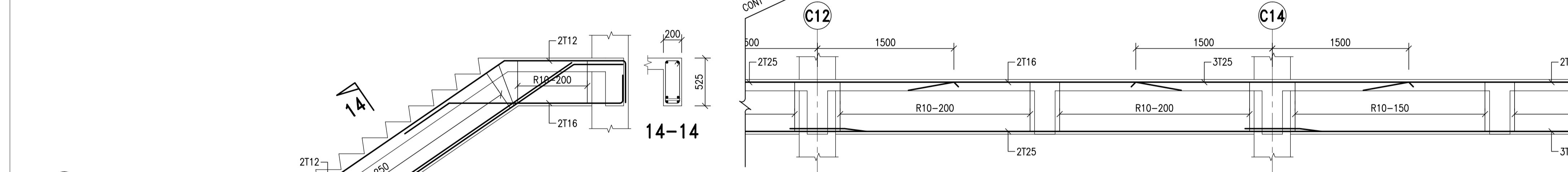
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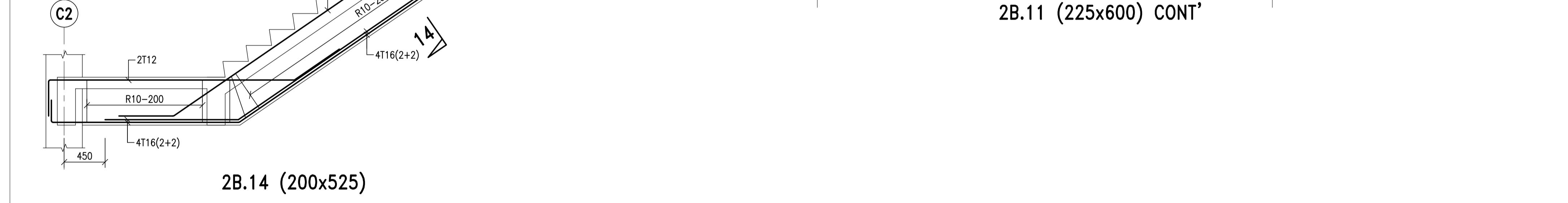
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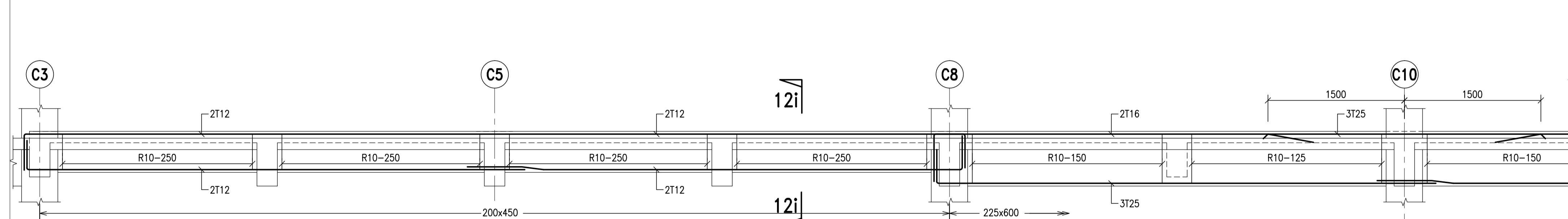
2B.10 (225x600) CONT'



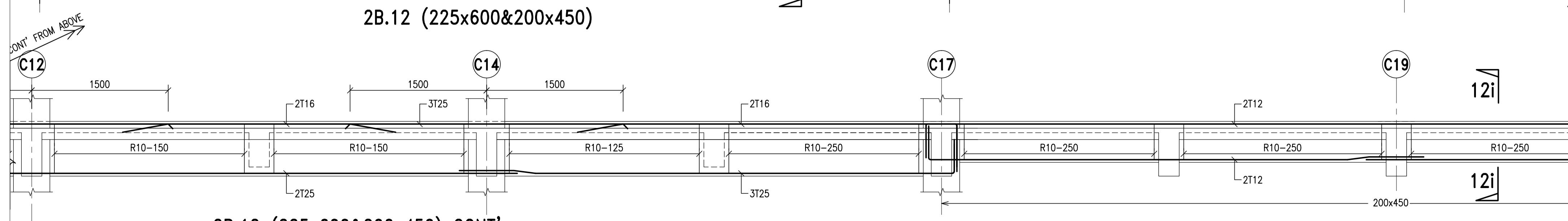
2B.11 (225x600)



2B.11 (225x600) CONT'



2B.12 (225x600&200x450)



2B.12 (225x600&200x450) CONT'

2B.10, 2B.11,
2B.12, 2B.14,

AS-BUILT DRAWING

SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS

PEMILIK / PENGGUNA

 BAHAGIAN PEMBANGUNAN
 KEMENTERIAN PENGAYAAN TINGGI MALAYSIA
 ARAS 3, BLOK E3
 LALUAN E, BERSAMA 1,
 PUSAT PENGADBIRAN KERJAAN PERSEKUTUAN
 62603 PUTRAJAYA

PENGURUS PROJEK

 JABATAN KERJA RAYA
 CAWANGAN PENGAYAAN TINGGI
 IBU PEJABAT JKRR MALAYSIA,
 TINGKAT 12, MAJU TOWER,
 PETRONAS TOWER 10,
 1001, JALAN SULTAN ISMAIL,
 50250 KUALA LUMPUR

KONTRAKTOR UTAMA
KONSORTIUM POLITEKNIK MERSING SDN. BHD.
 LOT 106A, 1ST FLOOR, FABER TOWERS 2,
 JALAN DEWA BAHARU, TAMAN DESA,
 OFF JALAN KELANG LAMA,
 58100 KUALA LUMPUR
 TEL : 03-79806605 FAX : 03-79806608

ARKITEK
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 HABRISALAM ARCHITECTS
 26-01, Jln. Dian 8,Taman Munshi Ibrahim,
 81200 Johor Bahru.
 tel:07-2343532,2343534 fax: 07-2343537

JURUTERA M&E
MEGA JATI CONSULT SDN.BHD
 25-2-1, Medan Putra Business Centre,
 Bandar Manjalar, 52200 Kuala Lumpur
 No.Tel : 603-6277 4695/96 No Fax: 603-6277 4697

JURUKUR BAHAN
PERUNDING DMA SDN BHD
 NO. 24-1, 47847-P,
 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail,
 60000 Kuala Lumpur.
 Tel : 03-77263800 Fax : 03-77267800

JURUTERA C&S
AK CONSULT
 (Civil & Structural Consulting Engineers)
 No.43-A, Jalan Impian Emas 6
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 Tel : 05-554 1219 Fax : 07-557 1837
 E-mail : akconsult_ak@yahoo.com

PEREKABUNTU IBS
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.
 (Formerly No.811545)
TEC Civil, Structural and Bridge Consulting Engineers
 1130, Block A, Damansara Intan e-Business Park,
 47400 Petaling Jaya, Selangor Darul Ehsan
 Tel : 603-7729 3928 Fax : 603-7729 7928 Email : tec@msk@gmail.com

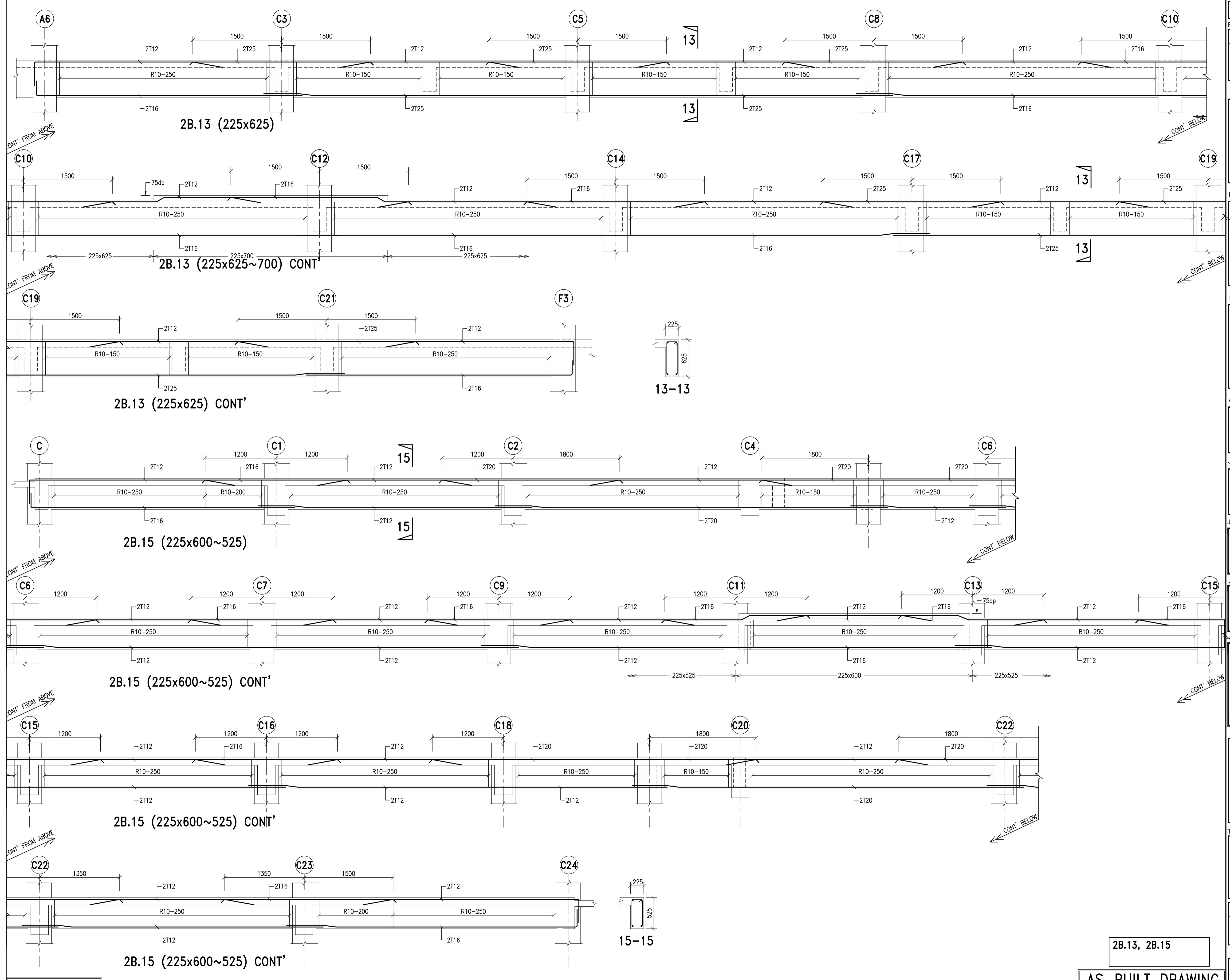
SAYA MEMPERAKU BAHWA DETAIL DETAIL DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK KEHENDAK UNDANG-UNDANG KECIL BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERIMA TANGGUNGJAWAB PENUH DENGAN SEJALINYA
 PROJEK

POLITEKNIK MERSING,JOHOR
 PAKEJ 2 - KERJA BANGUNAN DAN
 KERJA BERKAITAN (REKA & BINA).

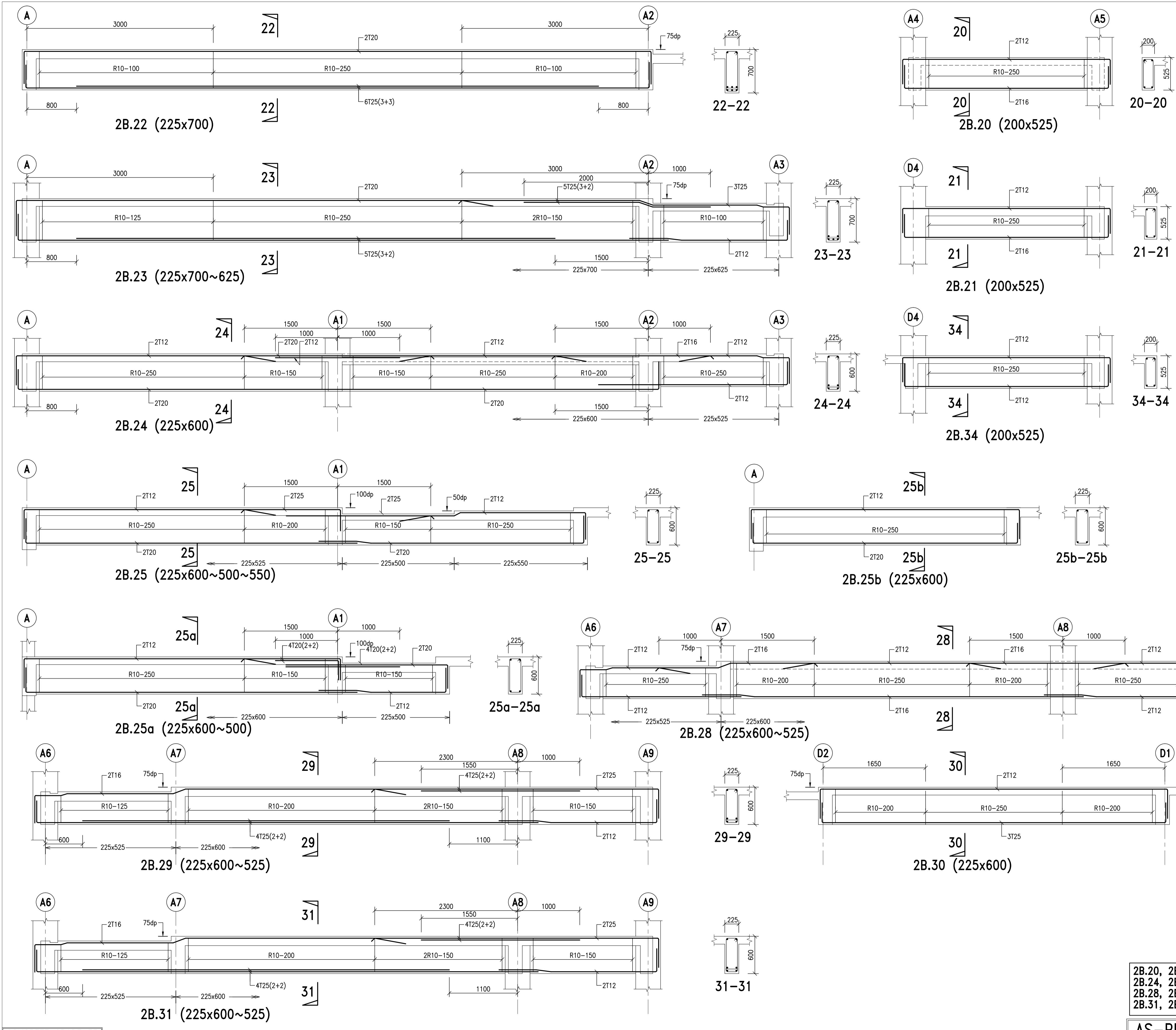
TAJUK LUKISAN
ACADEMIC - EAST BLOCK 1
 SECOND FLOOR BEAM DETAILS (3)

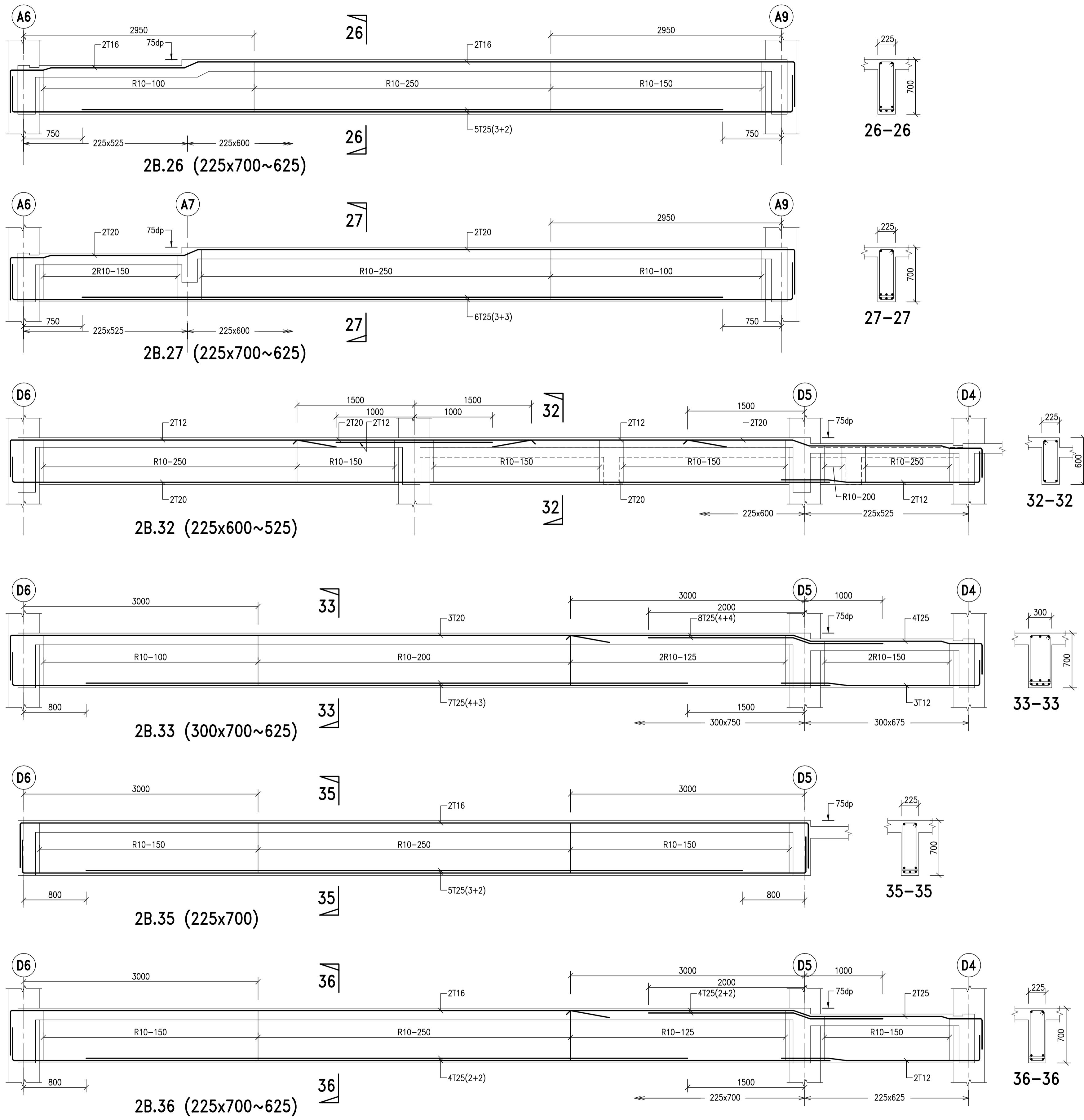
Scale 1 : 30 Date APRIL 2009
 Design Tan HL Drawn Ina/TPG
 Checked Ir. Tan EH Approved Ir. Amzah Kasmuri

NOMBOR LUKISAN
AK/KPT/POLY/08/RC-EB1/2B No. Helaian: REV.
 03

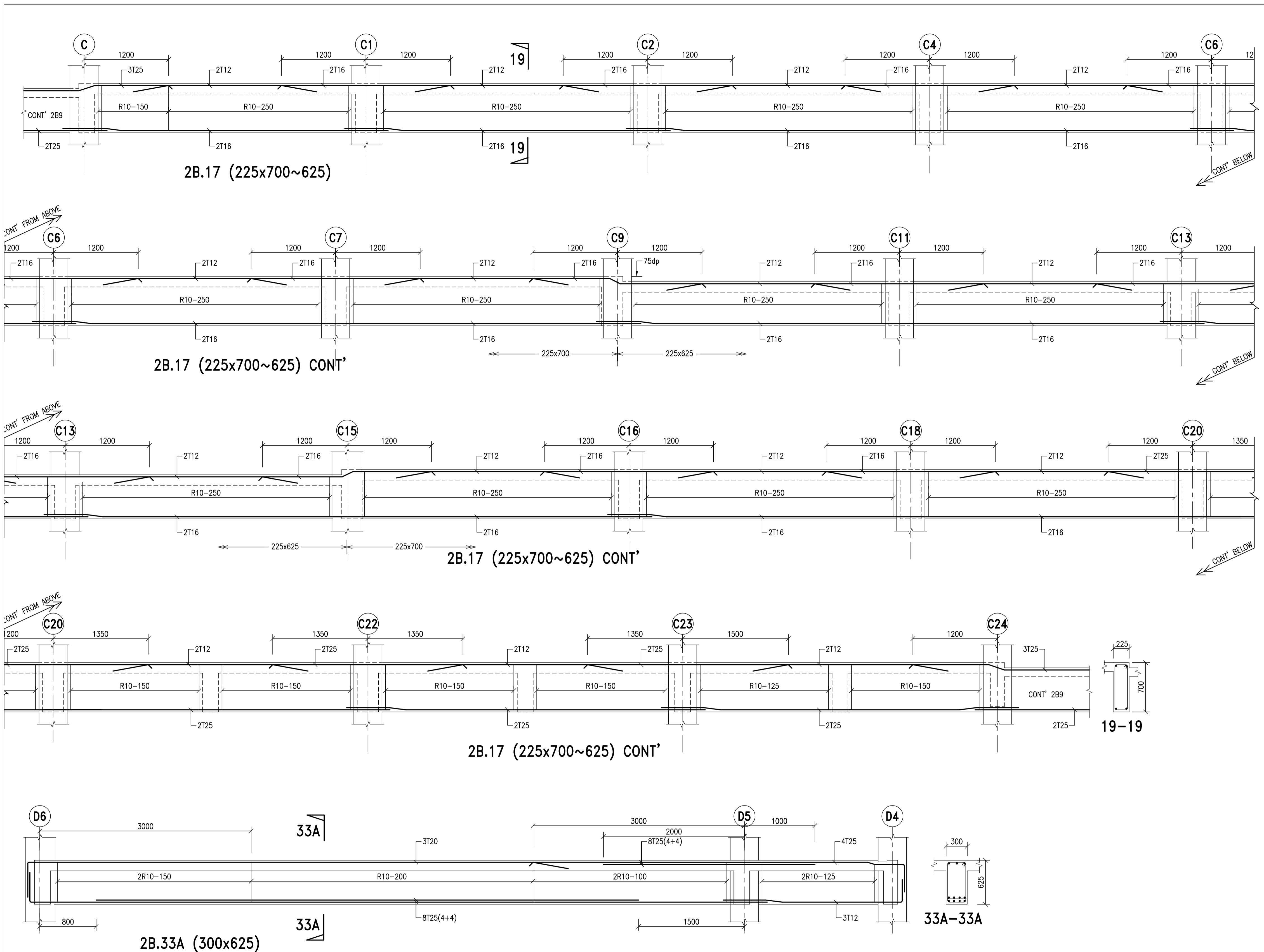




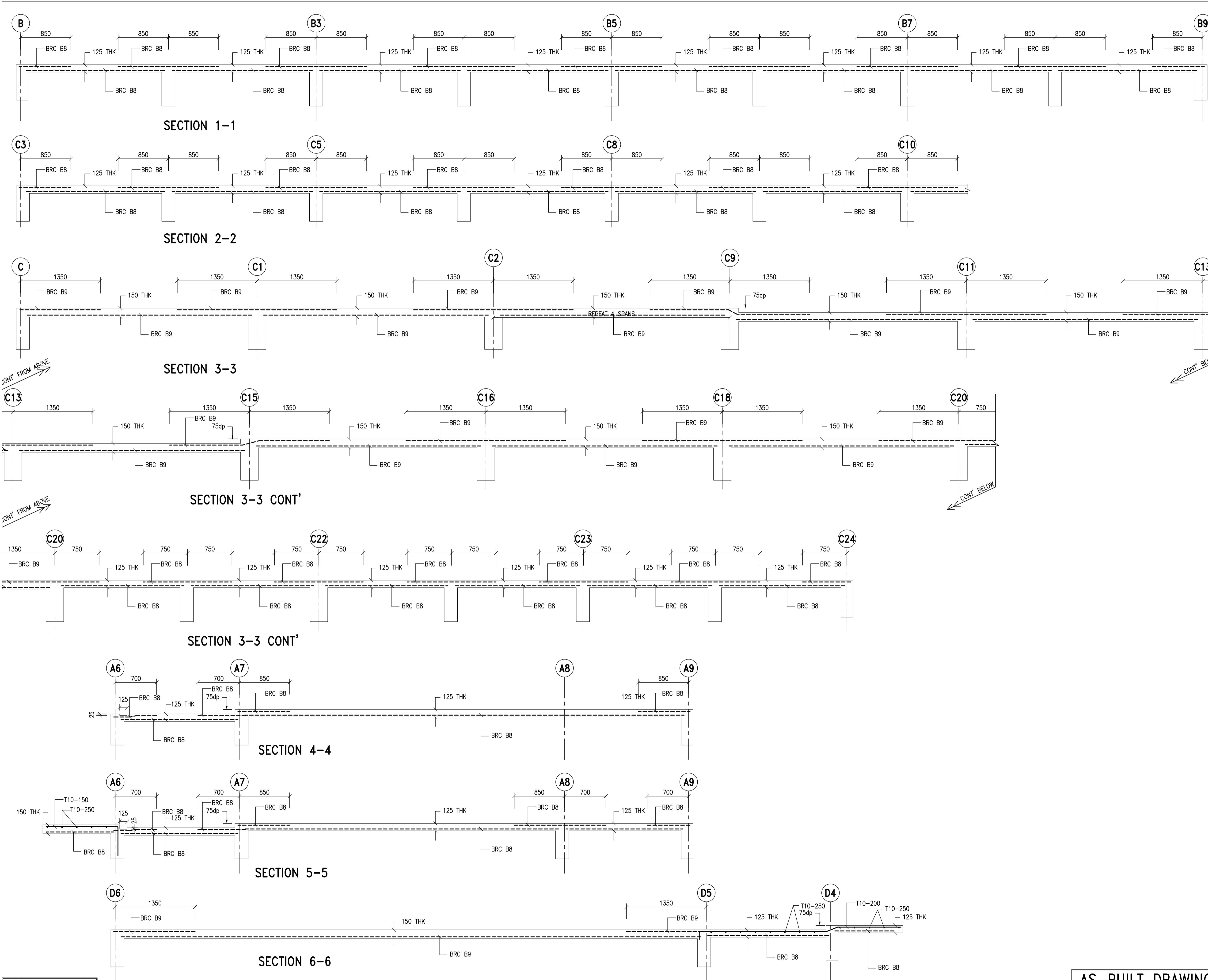




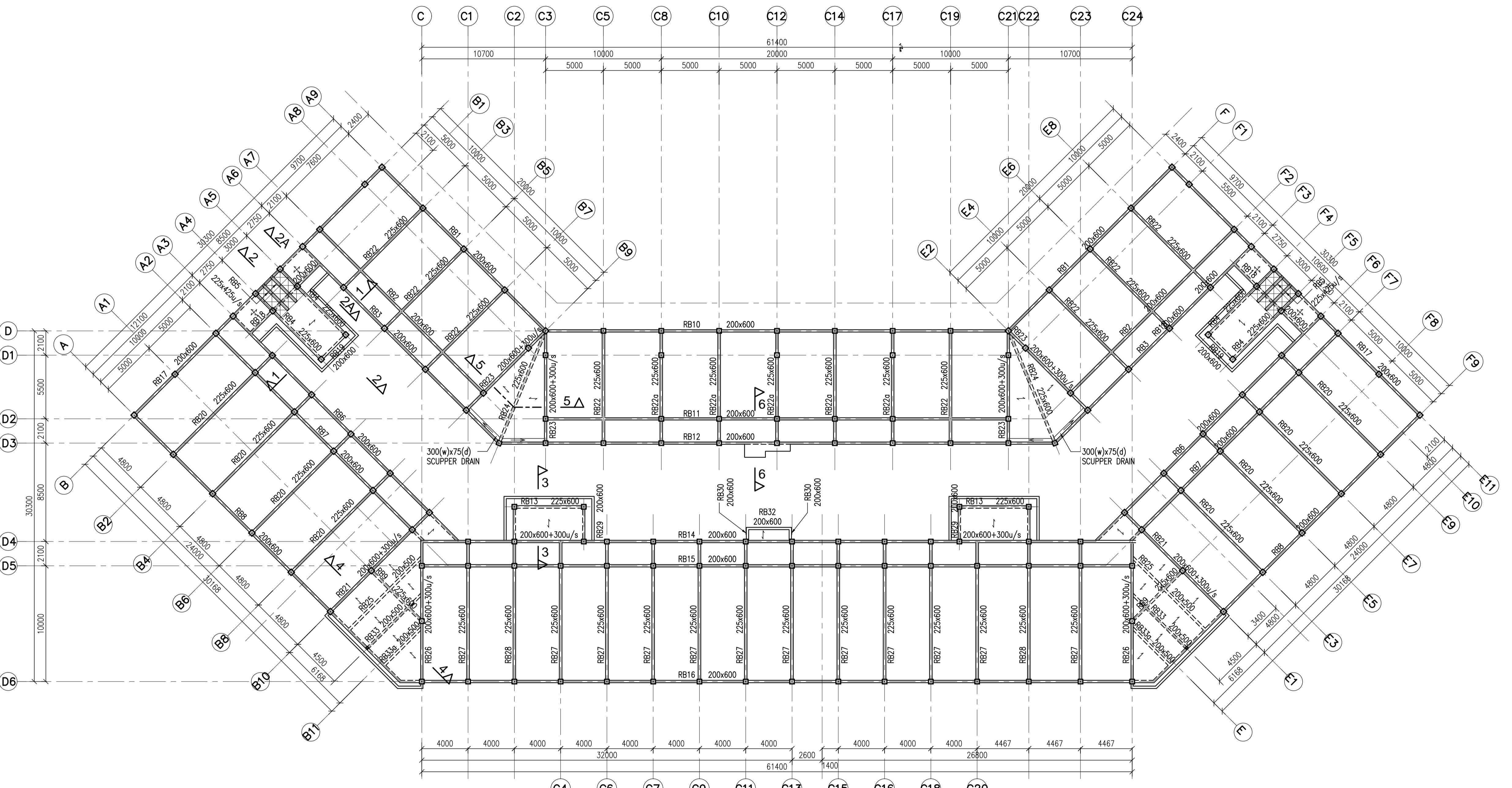
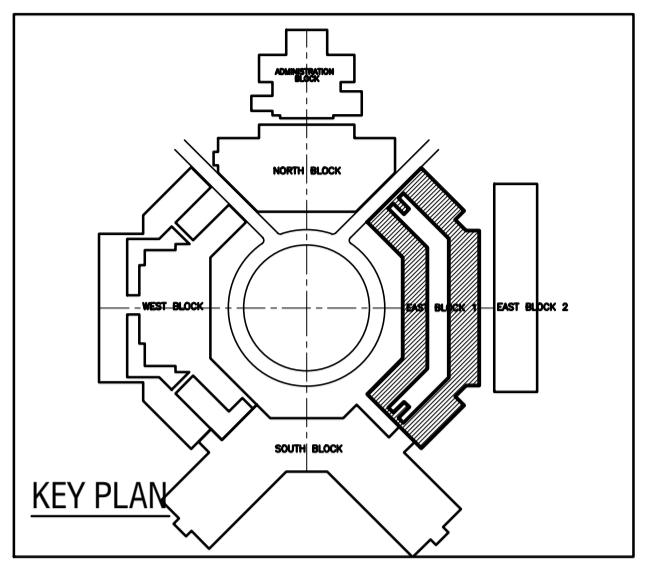
SHOP DRAWING			
REVISION			
NO	DATE	PARTICULARS	
PEMILIK / PENGGUNA			
 BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/6, TTDI, 50400 KUALA LUMPUR PUSAT PENGADBIRAN KERJAAN PERSEKUTUAN 62050 PUTRAJAYA			
PENGURUS PROJEK			
 JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, 101, JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR			
KONTRAKTOR UTAMA			
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1st FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608			
ARKITEK			
HIS A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bharu. tel:07-2343532,2343534 fax: 07-2343537			
JURUTERA M&E			
MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Putra Permai, 52200 Kuala Lumpur No.Tel :603-6277 4695/96 No.Fax:603-6277 4697			
JURUKUR BAHAN			
PERUNDING DMA SDN BHD No. 24-1, 247847-P, 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800			
JURUTERA C&S			
AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 07-554 1219 Fax: 07-557 1837 E-mail : akconsult_akc@yahoo.com			
PEREKABENTUK IBS			
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itec-ibc@gmail.com			
PROJEK			
POLYTEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).			
TAJUK LUKISAN			
ACADEMIC - EAST BLOCK 1 SECOND FLOOR BEAM DETAILS (7)			
Scale	1 : 30	Date	APRIL 2009
Design	Tan HL	Drawn	Ina/TPG
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri
NOMBOR LUKISAN			No. Helaian: REV.
2B.26, 2B.27, 2B.32, 2B.33, 2B.35, 2B.36,			07
AS-BUILT DRAWING			
AK/KPT/POLY/08/RC-EB1/2B			No. Helaian:



SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS
PEMILIK / PENGGUNA		
BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/15, TAMAN DESA, PUTRAJAYA 62400 KUALA LUMPUR		
PENGURUS PROJEK		
JKR JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, NO. 1001, JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR		
KONTRAKTOR UTAMA		
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1st FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608		
ARKITEK		
HISIA HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bharu. tel:07-2343532,2343534 fax: 07-2343537		
JURUTERA M&E		
MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Manjalar, 52200 Kuala Lumpur No.Tel :603-6277 4695/96 No Fax:603-6277 4697		
JURUKUR BAHAN		
PERUNDING DMA SDN BHD No. 224 - 207847-P 119A, Jalan Imran Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800		
JURUTERA C&S		
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PEREKABENTU IBS		
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. (Formerly No.811505) Otec Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : otec-ibc@gmail.com		
PROJEK		
POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).		
TAJUK LUKISAN		
ACADEMIC - EAST BLOCK 1 SECOND FLOOR BEAM DETAILS (7)		
Scale 1 : 30 Date APRIL 2009		
Design Tan HL	Drawn Ina/TPG	
Checked Ir. Tan EH	Approved Ir. Amzah Kasmuri	
NOMBOR LUKISAN		
2B.17 & 2B.33A		
AS-BUILT DRAWING		
AK/KPT/POLY/08/RC-EB1/2B		
No. Helaian: REV. 08		



SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS
PEMILIK / PENGGUNA		
 BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/155E, TAMAN DESA, PUSAT PENGAYAAN KERJAAN PERSEKUTUAN 62605 PUTRAJAYA		
PENGURUS PROJEK		
 JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKRR MALAYSIA, TINGKAT 12, MAJU TOWER, PERKERTIKA, 101, JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR		
KONTRAKTOR UTAMA		
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1st FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608		
ARKITEK		
 H S I A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bahru. tel:07-2343532,2343534 fax: 07-2343537		
JURUTERA M&E		
 MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Muarala, 52200 Kuala Lumpur No.Tel :603-6277 4695/96 No.Fax:603-6277 4697		
JURUKUR BAHAN		
 PERUNDING DMA SDN BHD No. 100-107847-P 119A, Jalan Imran Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800		
JURUTERA C&S		
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PROJEK		
POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).		
TAJUK LUKISAN		
ACADEMIC - EAST BLOCK 1 SECOND FLOOR SLAB DETAILS		
Scale	1 : 30	Date APRIL 2009
Design	Tan HL	Drawn Ina/TPG
Checked	Ir. Tan EH	Approved Ir. Amzah Kasmuri
NOMBOR LUKISAN		
AK/KPT/POLY/08/RC-EB1/2S	No. Helaian:	REV.
		01



ROOF PLAN

SCALE 1 : 200

NOTE :
1. ALL SLAB 125mm THK UNLESS
OTHERWISE STATED.

SHOP DRAWING

REVISION

NO	DATE	PARTICULARS

PEMILIK / PENGGUNA



BAHAGIAN PEMBANGUNAN
KEMENTERIAN PENGAYAAN TINGGI MALAYSIA
ARAS 3, BLOK E3
JALAN 14/15, TAMAN DESA,
PUSAT PENGAYAAN KERJAAN PERSEKUTUAN
62603 PUTRAJAYA

PENGURUS PROJEK



JABATAN KERJA RAYA
CAWANGAN PENGAYAAN TINGGI
IBU PEJABAT JKRR MALAYSIA,
TINGKAT 12, MAJU TOWER,
DEWA RAYA, 101,
JALAN SULTAN ISMAIL,
50250 KUALA LUMPUR

KONTRAKTOR UTAMA



KONSORTIUM POLITEKNIK MERSING SDN. BHD.
LOT 106A, 1ST FLOOR, FABER TOWERS 2,
JALAN DEWA BAHARU, TAMAN DESA,
OFF JALAN KELANG LAMA,
58100 KUALA LUMPUR
TEL : 03-79806605 FAX : 03-79806608

ARKITEK



HIS | A
HABRISALAM ARCHITECTS
26-01, Jln 8/Taman Munshi Ibrahim,
81200 Johor Bahru.
tel:07-2343532,2343534 fax: 07-2343537

JURUTERA M&E



MEGA JATI CONSULT SDN.BHD
25-2-1, Medan Putra Business Centre,
Bandar Manjalar, 52200 Kuala Lumpur
No.Tel : 603-6277 4695/96 No Fax: 603-6277 4697

JURUKUR BAHAN



PERUNDING DMA SDN BHD
No. 25-2-1, Medan Putra,
119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail,
60000 Kuala Lumpur.
Tel : 03-77263800 Fax : 03-77267800

JURUTERA C&S



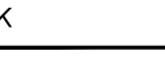
AK CONSULT
(Civil & Structural Consulting Engineers)
No.43-A, Jalan Impian Emas 6
Taman Impian Emas 81300 Skudai, Johor.
Tel : 07-554 1219 Fax : 07-557 1837
E-mail : akconsult_ak@yahoo.com

PEREKABUNTU IBS



INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.
(Formerly No.811565)
Civil, Structural and Bridge Consulting Engineers
1130, Block A, Damansara Intan e-Business Park,
47400 Petaling Jaya, Selangor Darul Ehsan
Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itec-mek@gmail.com

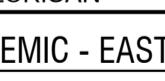
PROJEK



SAYA MEMPERAKU BAHANNAH DETAILED DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK-KEHENDAK UNDANGAN KECIL BAHANNAH SERAGAM 1984 DAN SAYA SETUJU TERMAU TANGGUNGJAWAB PENUH DENGAN SEJALAJNYA

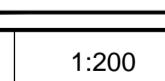
POLITEKNIK MERSING,JOHOR
PAKEJ 2 - KERJA BANGUNAN DAN
KERJA BERKAITAN (REKA & BINA).

TAJUK LUKISAN

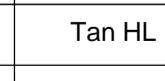


ACADEMIC - EAST BLOCK 1

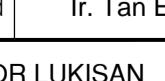
ROOF PLAN



Scale 1:200 Date APRIL 2009



Design Tan HL Drawn Ina



Checked Ir. Tan EH Approved Ir. Amzah Kasmuri

NOMBOR LUKISAN

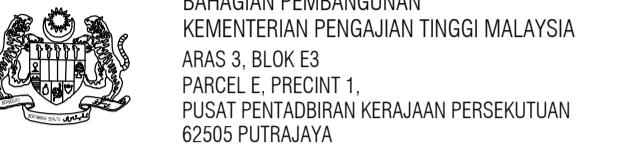


No. Helaian: REV.
04

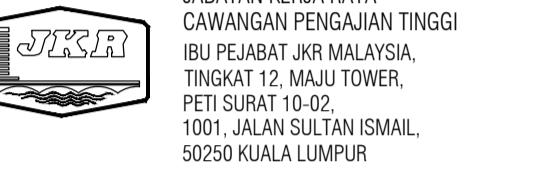
SHOP DRAWING

REVISION		
NO	DATE	PARTICULARS

PEMILIK / PENGGUNA



PENGURUS PROJEK



KONTRAKTOR UTAMA



ARKITEK



JURUTERA M&E



JURUKUR BAHAN



JURUTERA C&S



PEREKABUNTU IBS



SAYA MEMPERAKU BAHWA DETAIL DETAIL DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK-KEHENDAK UNDANGAN KECIL BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERIMA TANGGUNGJAWAB PENUH DENGAN SEJALINYA.

PROJEK

POLITEKNIK MERSING,JOHOR
PAKEJ 2 - KERJA BANGUNAN DAN
KERJA BERKAITAN (REKA & BINA).

TAJUK LUKISAN

ACADEMIC - EAST BLOCK 1
ROOF BEAM DETAILS (1)

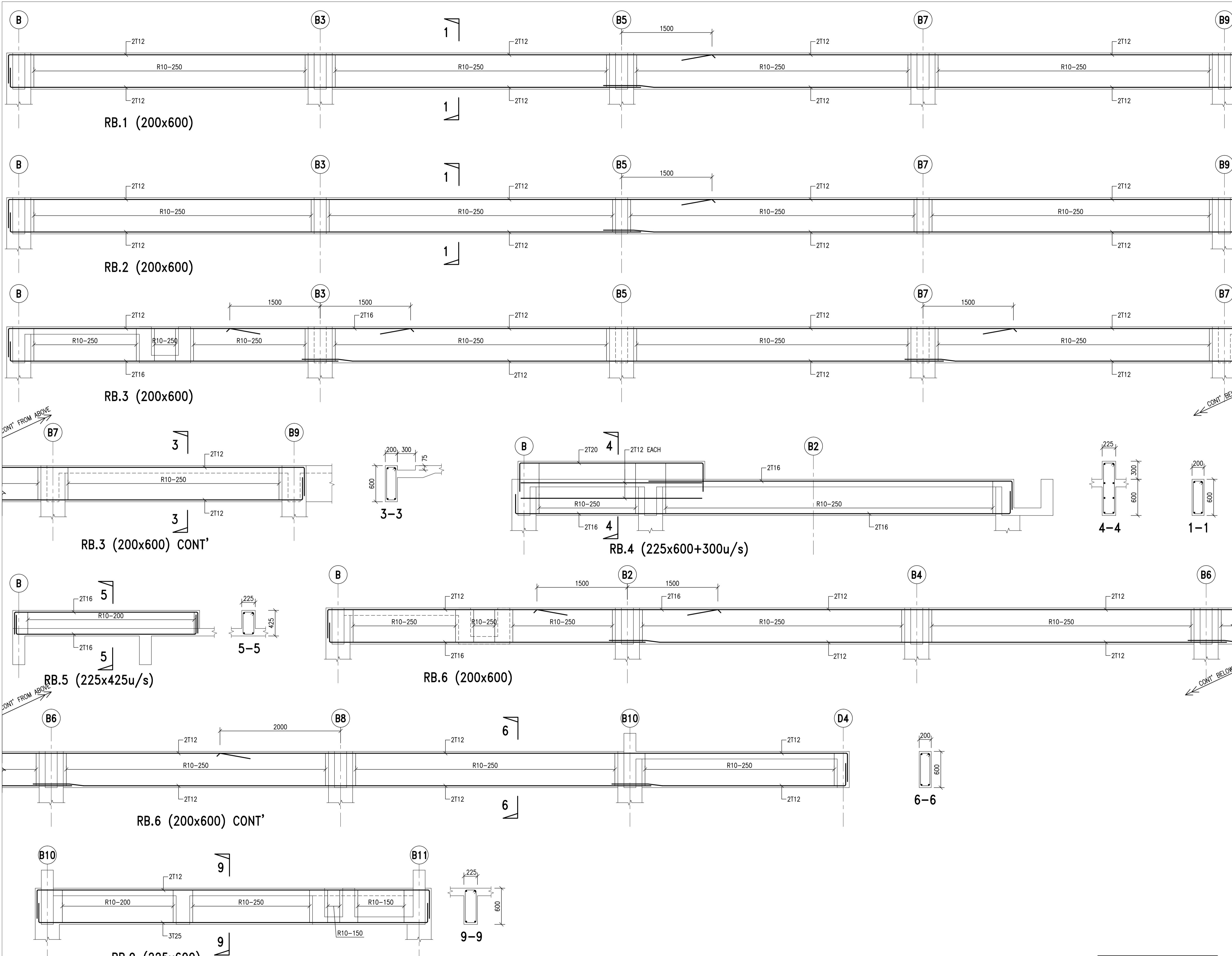
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Design	Tan HL	Drawn	Ina/TPG
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri

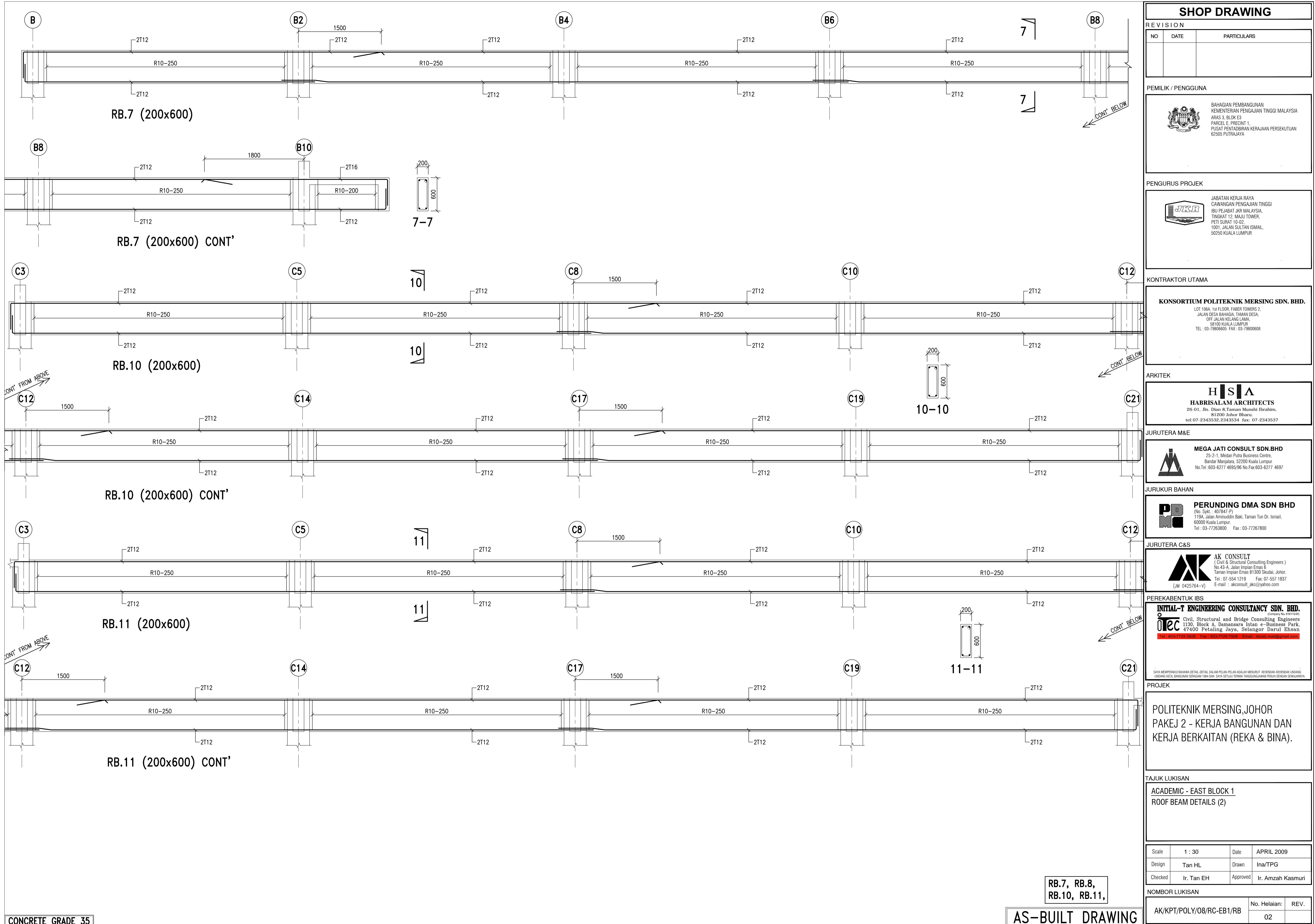
NOMBOR LUKISAN

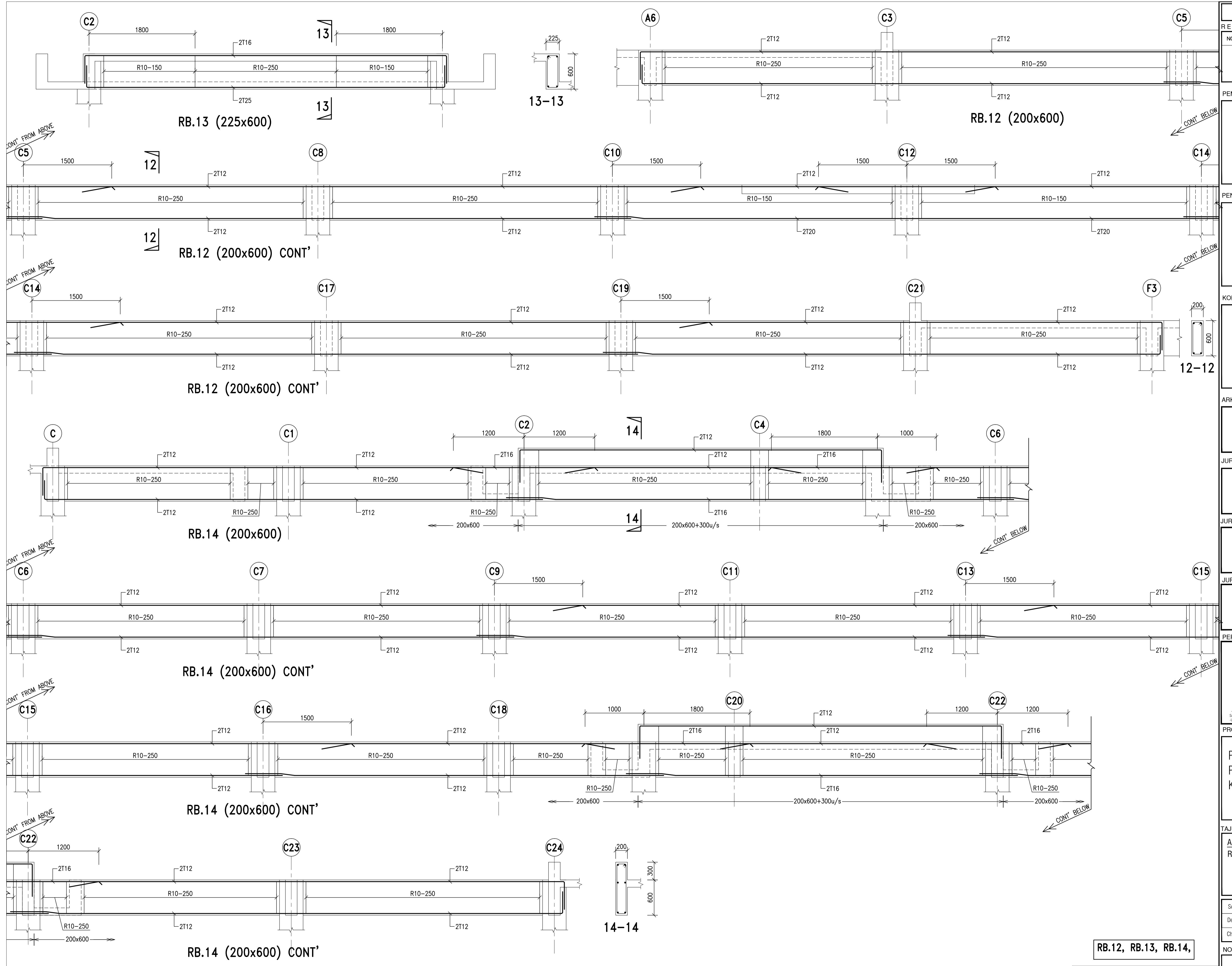
AK/KPT/POLY/08/RC-EB1/RB	No. Helaian:	REV.
	01	.

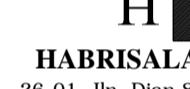
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RB.4, RB.5, RB.6, RB.9,

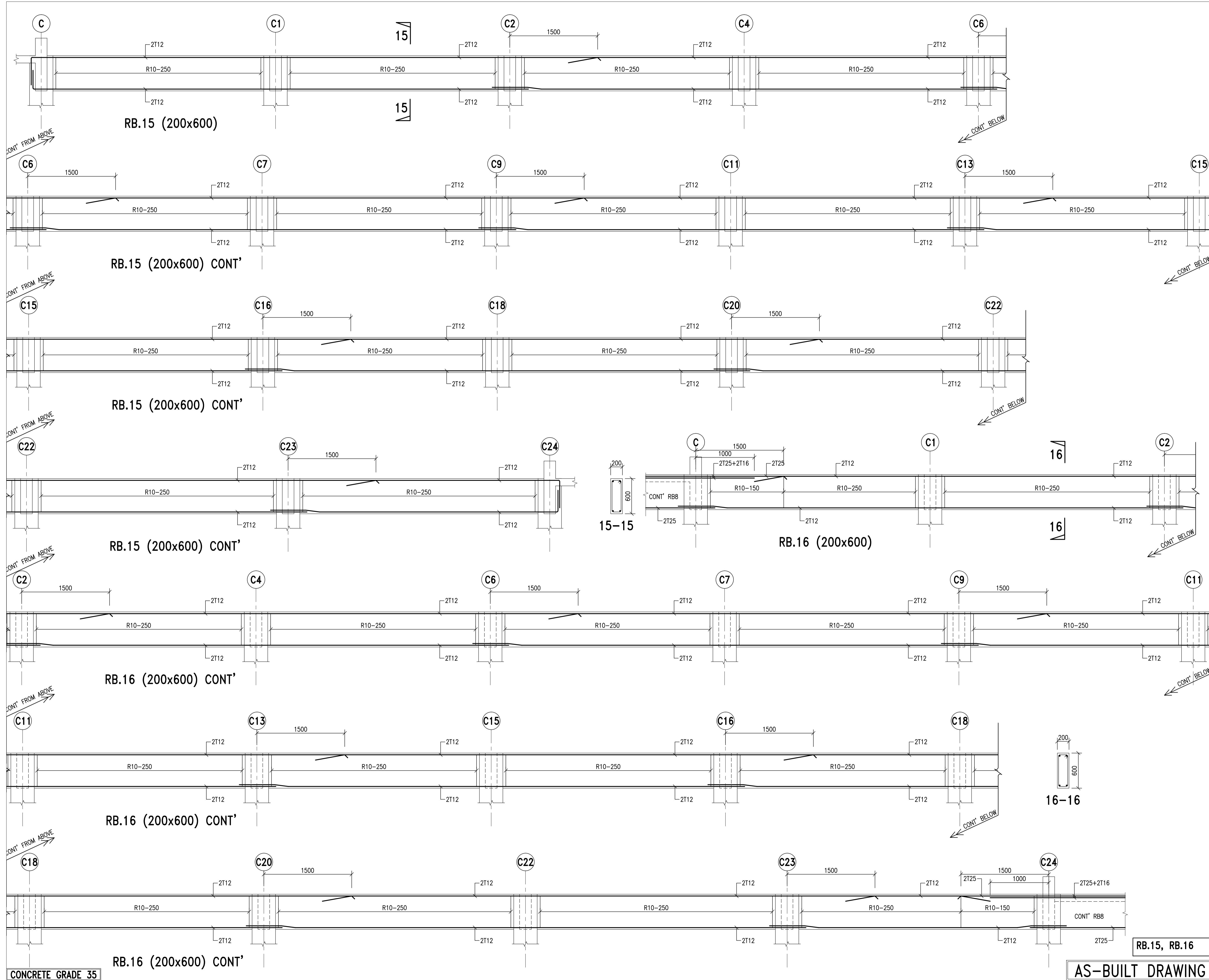
AS-BUILT DRAWING







SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS
PEMILIK / PENGGUNA		
 <p>BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/15, TAMAN DESA, PUTRAJAYA 62000 KUALA LUMPUR</p>		
PENGURUS PROJEK		
 <p>JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, 101, JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR</p>		
KONTRAKTOR UTAMA		
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1ST FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608		
ARKITEK		
 <p>H S I A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bahru. tel:07-2343532,2343534 fax: 07-2343537</p>		
JURUTERA M&E		
 <p>MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Muarala, 52200 Kuala Lumpur No.Tel :603-6277 4695/96 No.Fax:603-6277 4697</p>		
JURUKUR BAHAN		
 <p>PERUNDING DMA SDN BHD No. 524 - 407847-P 119A, Jalan Imran Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800</p>		
JURUTERA C&S		
 <p>AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 05-554 1219 Fax : 07-557 1837 E-mail : akconsult_ak@yahoo.com</p>		
PEREKABENTU IBS		
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itec-mlk@gmail.com		
PROJEK		
POLYTEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).		
TAJUK LUKISAN		
ACADEMIC - EAST BLOCK 1 ROOF BEAM DETAILS (3)		
Scale	1 : 30	Date APRIL 2009
Design	Tan HL	Drawn Ina/TPG
Checked	Ir. Tan EH	Approved Ir. Amzah Kasmuri
NOMBOR LUKISAN		
AK/KPT/POLY/08/RC-EB1/RB No. Helaian: REV. 03		



SHOP DRAWING

REVISION

NO	DATE	PARTICULARS

PEMILIK / PENGGUNA

BAHAGIAN PEMBANGUNAN
KEMENTERIAN PENGAJIAN TINGGI MALAYSIA
ARAS 3, BLOK E3
PARCEL E, PRECINT 1,
PUTUS PENTADBIRAN KERAJAAN PERSEKUTUAN
62505 PUTRAJAYA

PENGURUS PROJEK

JABATAN KERJA RAYA
CAWANGAN PENGAJIAN TINGGI
IBU PEJABAT JKR MALAYSIA,
TINGKAT 12, MAJU TOWER,
PETI SURAT 10-02,
1001, JALAN SULTAN ISMAIL,
50250 KUALA LUMPUR

KONTRAKTOR UTAMA

KONSORTIUM POLITEKNIK MERSING SDN. BHD.

LOT 106A, 1st FLOOR, FABER TOWERS 2,
JALAN DESA BAHAGIA, TAMAN DESA,
OFF JALAN KELANG LAMA,
58100 KUALA LUMPUR
TEL : 03-79806605 FAX : 03-79800608

ARKITEK

H S A

HABRISALAM ARCHITECTS

26-01, Jln. Dian 8, Taman Munshi Ibrahim,
81200 Johor Bharu.
tel: 07-2343532, 2343534 fax: 07-2343537

JURUTERA M&E

MEGA JATI CONSULT SDN.BHD

25-2-1, Medan Putra Business Centre,
Bandar Manjalara, 52200 Kuala Lumpur.
No.Tel :603-6277 4695/96 No.Fax:603-6277 4697
Tel : 03-77263800 Fax : 03-77267800

PEREKABENTUK IBS

INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.
(Company No. 816115-W)

Civil, Structural and Bridge Consulting Engineers
1130, Block A, Damansara Intan e-Business Park,
47400 Petaling Jaya, Selangor Darul Ehsan
Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itecsb.mail@gmail.com

PROJEK

POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).

TAJUK LUKISAN

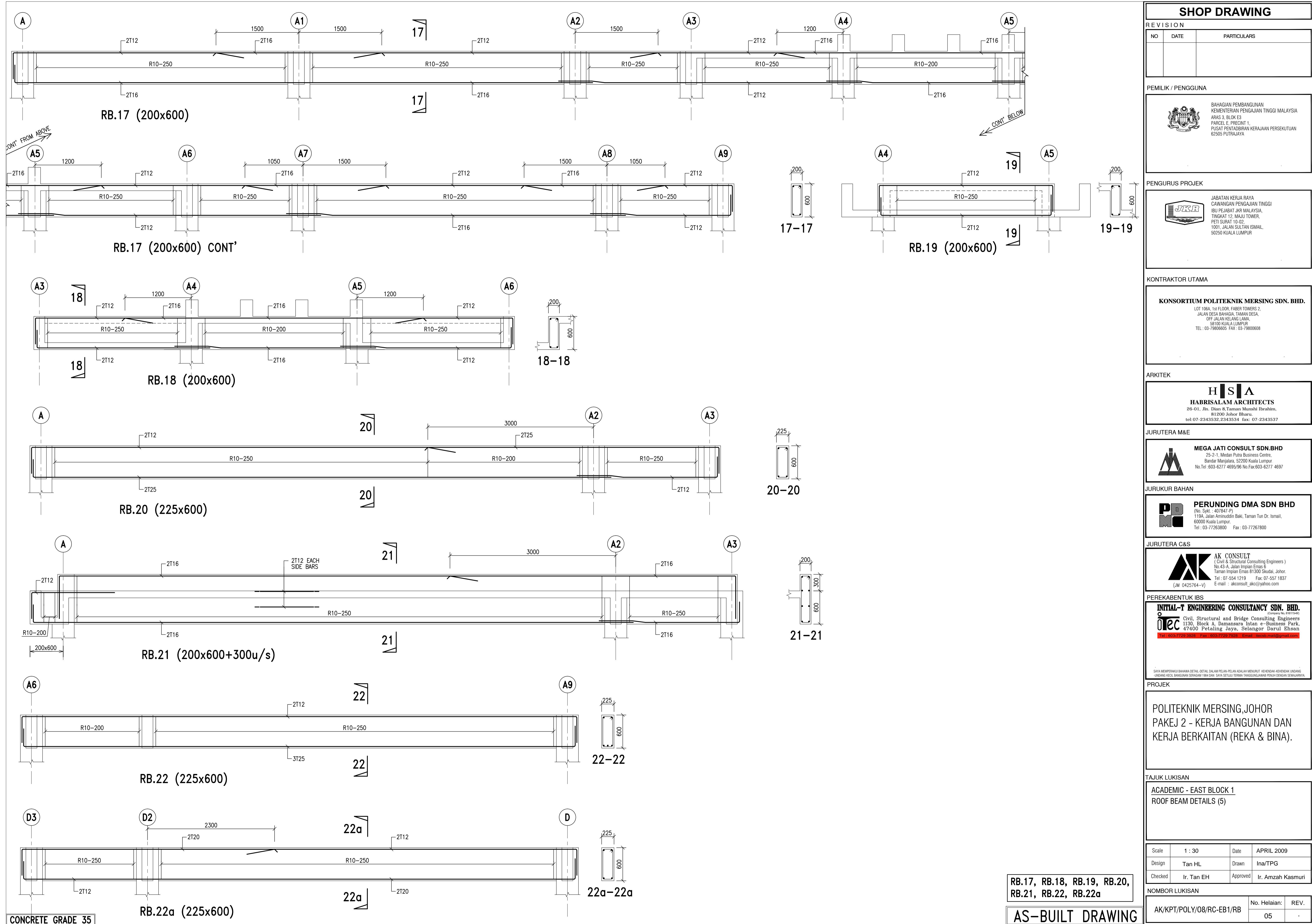
ACADEMIC - EAST BLOCK 1

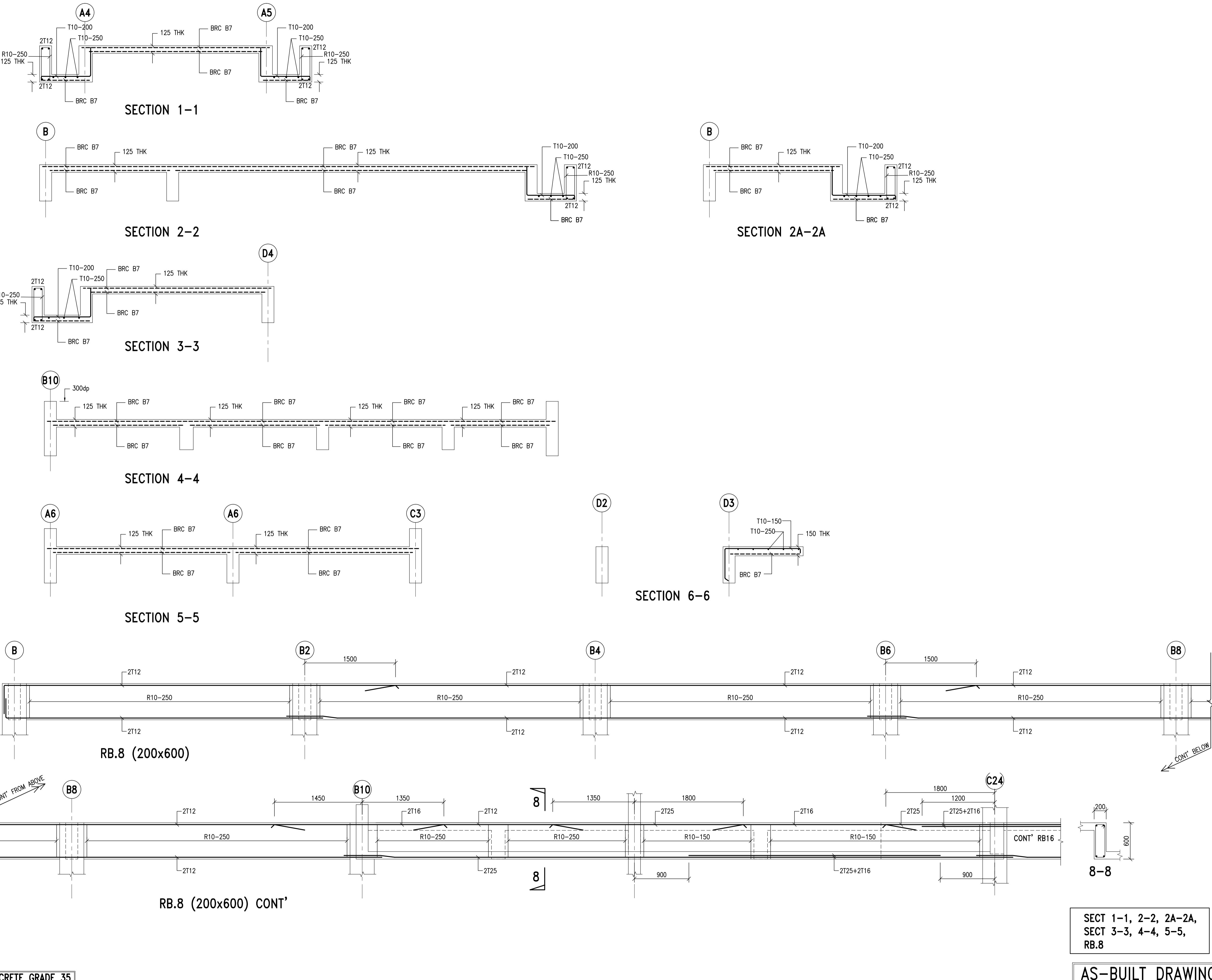
ROOF BEAM DETAILS (4)

Scale	1 : 30	Date	APRIL 2009
Design	Tan HL	Drawn	Ina/TPG
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri

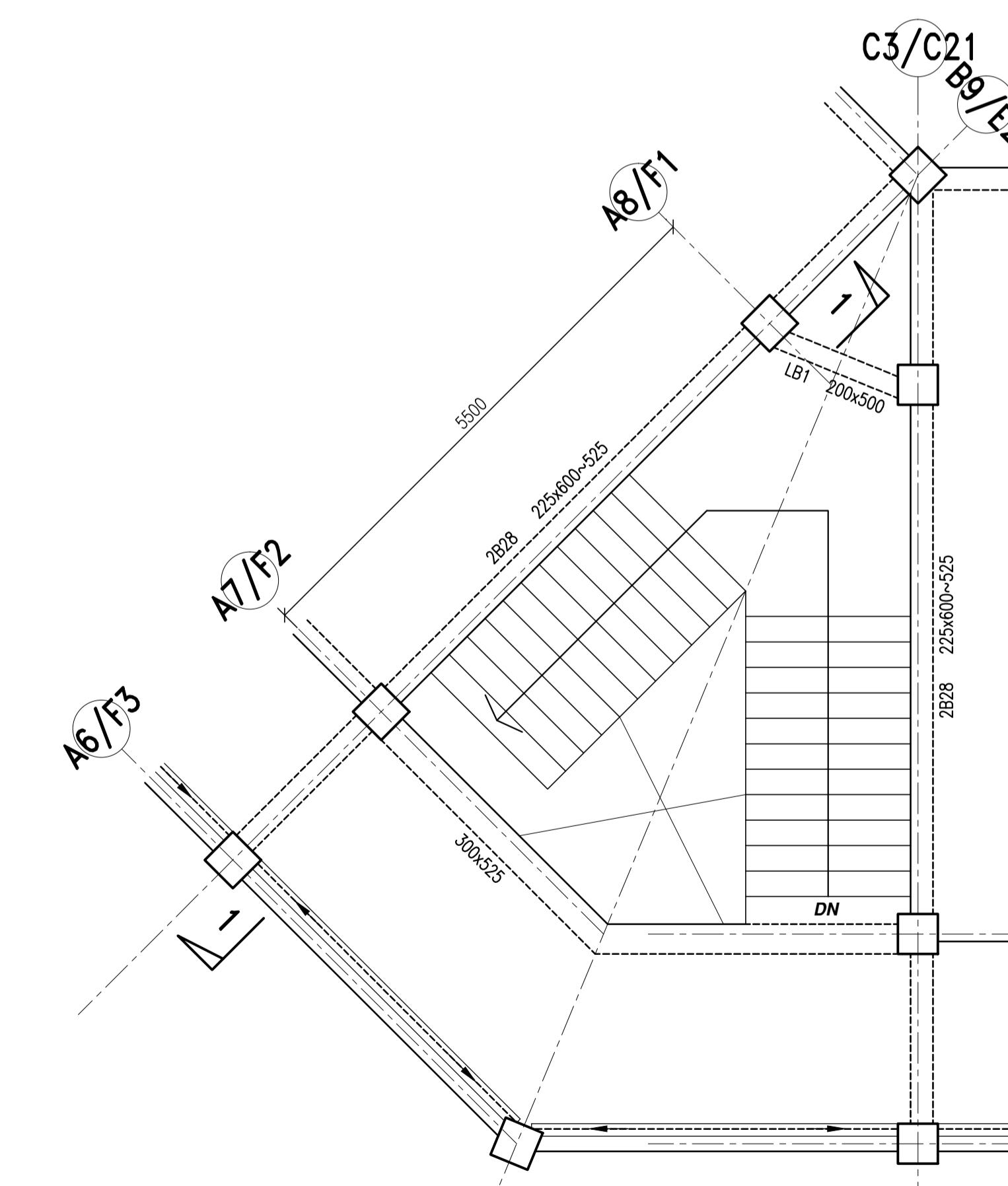
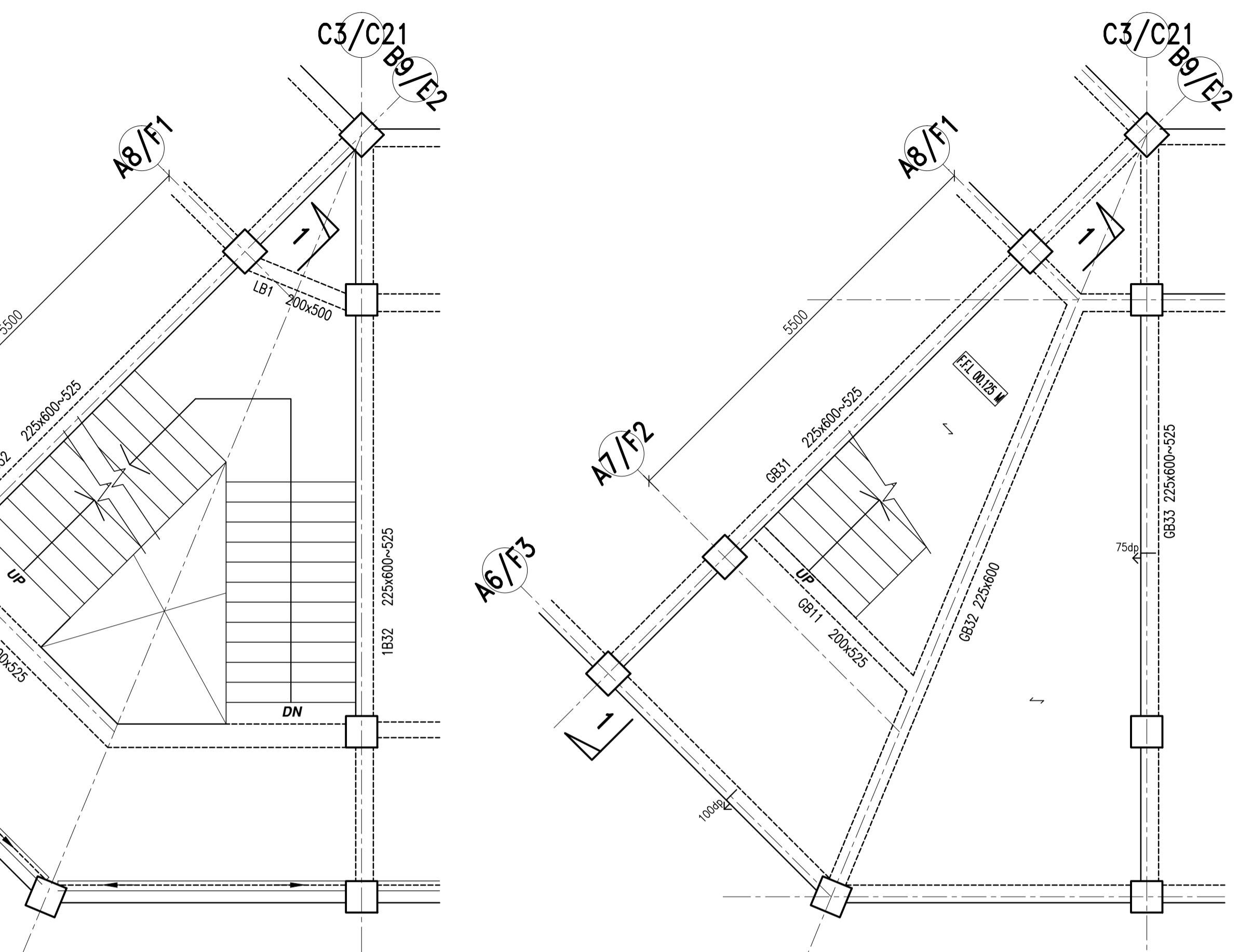
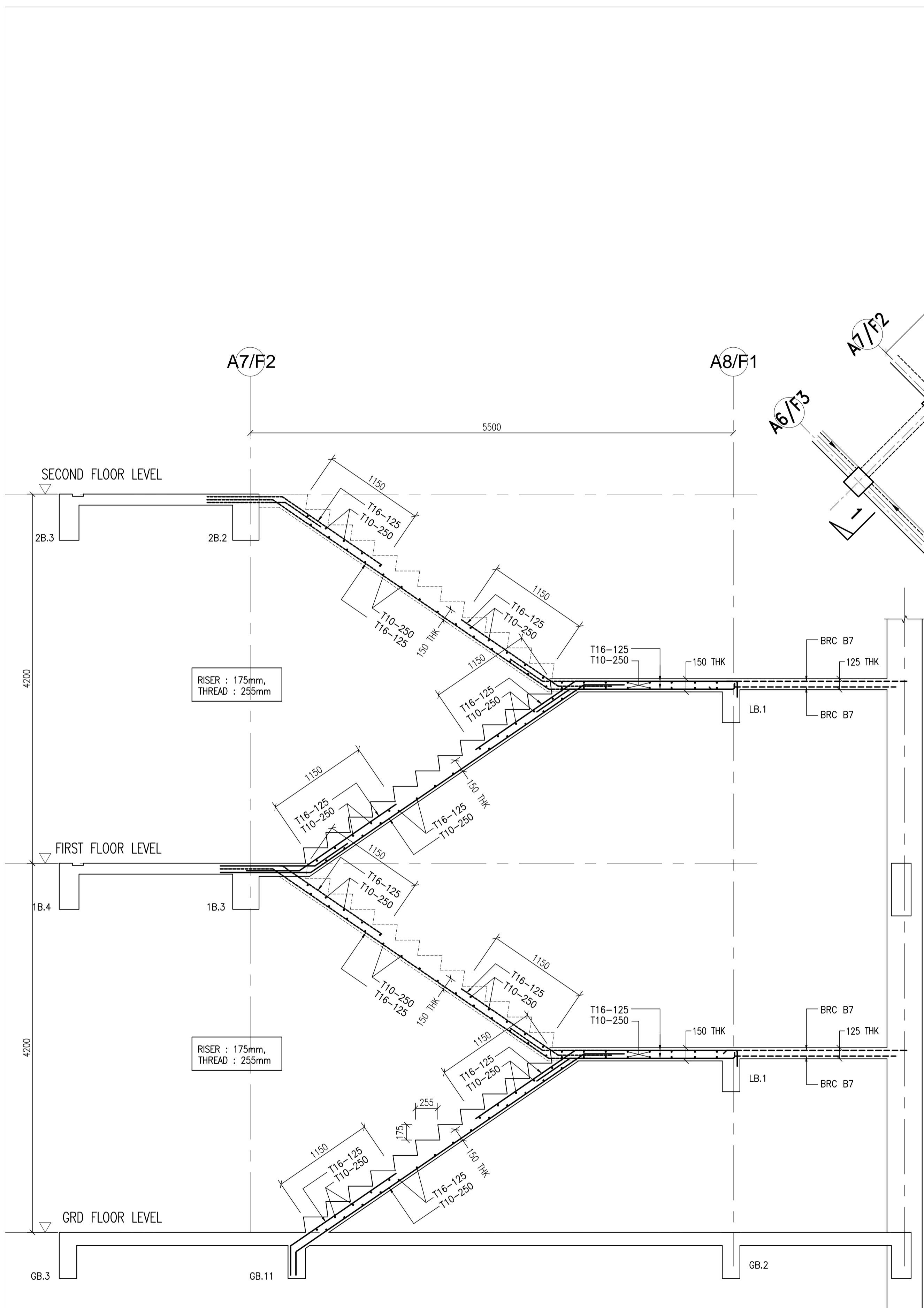
NOMBOR LUKISAN

AK/KPT/POLY/08/RC-EB1/RB	No. Helaian:	REV.
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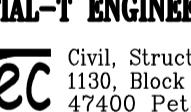


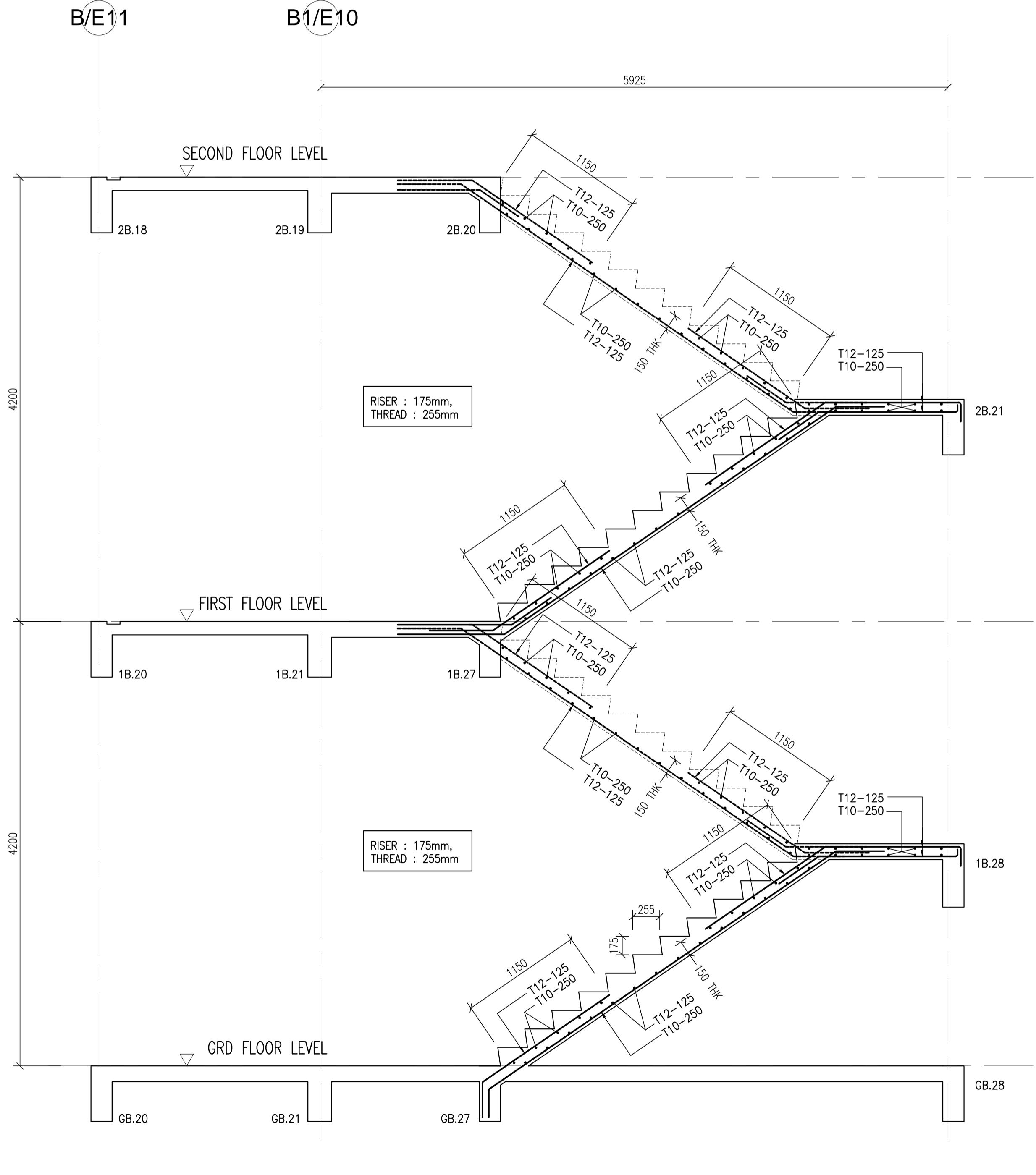
SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS
PEMILIK / PENGGUNA		
 BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/15, TAMAN DESA, PUSAT PENGAYAAN KERJAAN PERSEKUTUAN 62605 PUTRAJAYA		
PENGURUS PROJEK		
 JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKRR MALAYSIA, TINGKAT 12, MAJU TOWER, PERKERTIKA, 101, JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR		
KONTRAKTOR UTAMA		
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1ST FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608		
ARKITEK		
 H I S A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bahru. tel:07-2343532,2343534 fax: 07-2343537		
JURUTERA M&E		
 MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Muarala, 52200 Kuala Lumpur No.Tel : 603-6277 4695/96 No Fax: 603-6277 4697		
JURUKUR BAHAN		
 PERUNDING DMA SDN BHD No. 201-207847-P 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800		
JURUTERA C&S		
 AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 05-554 1219 Fax: 07-557 1837 (JM 0425764-V) E-mail : akconsult_akc@yahoo.com		
PEREKABUNTU IBS		
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. (Corporation No. B811505)  ITC Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itec-ibc@gmail.com		
PROJEK		
POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).		
TAJUK LUKISAN		
ACADEMIC - EAST BLOCK 1 ROOF SLAB DETAILS		
Scale	1 : 30	Date APRIL 2009
Design	Tan HL	Drawn Ina/TPG
Checked	Ir. Tan EH	Approved Ir. Amzah Kasmuri
NOMBOR LUKISAN		
AK/KPT/POLY/08/RC-EB1/RS	No. Helaian:	REV.
		01



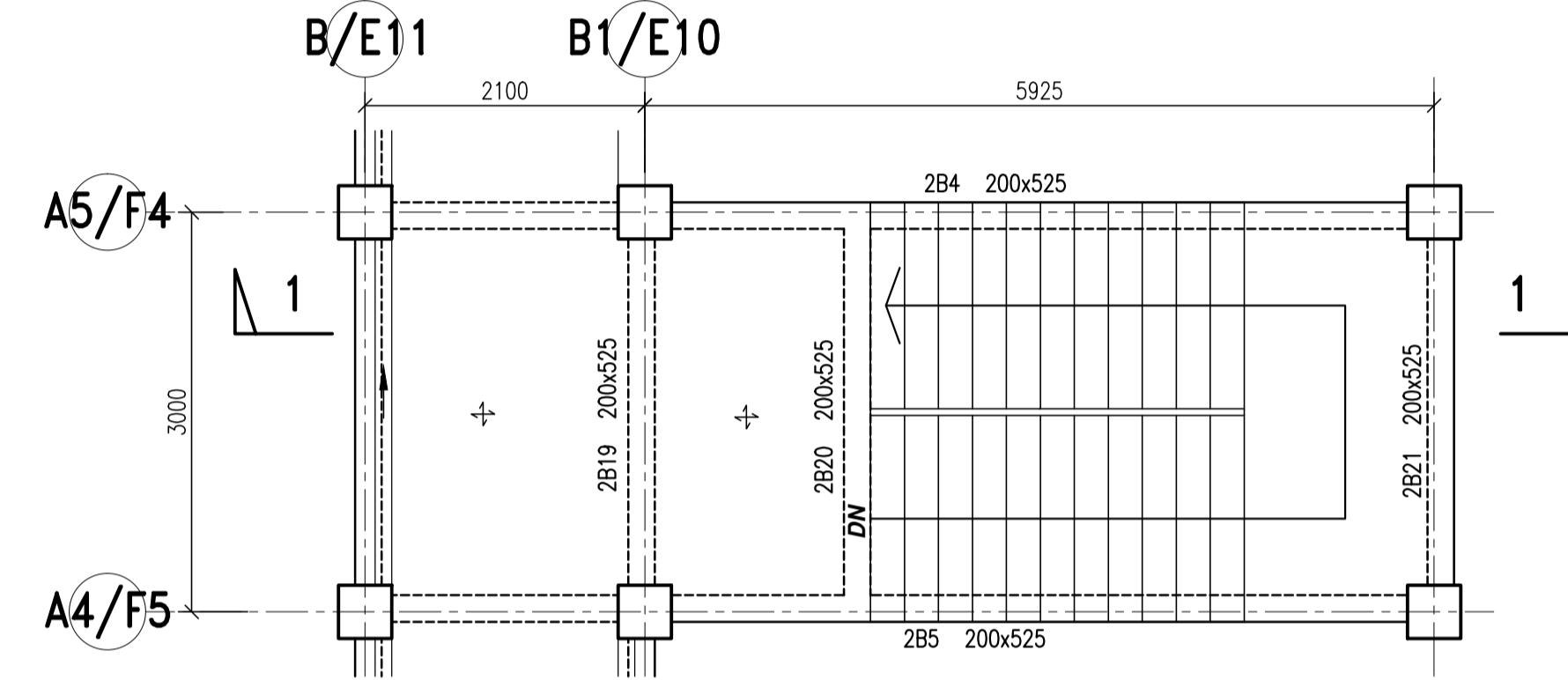
SECTION 1 - 1
SCALE : 1 : 30

AS-BUILT DRAWING

SHOP DRAWING			
REVISION			
NO	DATE	PARTICULARS	
PEMILIK / PENGGUNA			
 <p>BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/15, TINGKAT 1, PUSAT PENGAYAAN KERJAAN PERSEKUTUAN 62605 PUTRAJAYA</p>			
PENGURUS PROJEK			
 <p>JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, 101, JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR</p>			
KONTRAKTOR UTAMA			
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1ST FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608			
ARKITEK			
 <p>HIS A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bharu. tel:07-2343532,2343534 fax: 07-2343537</p>			
JURUTERA M&E			
 <p>MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Putra, 52200 Kuala Lumpur No.Tel : 603-6277 4695/96 No.Fax: 603-6277 4697</p>			
JURUKUR BAHAN			
 <p>PERUNDING DMA SDN BHD No. 24-1, 247847-P, 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800</p>			
JURUTERA C&S			
 <p>AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 05-554 1219 Fax : 07-557 1837 E-mail : akconsult_ak@yahoo.com</p>			
PEREKABENTUK IBS			
 <p>INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. (Formerly No.8115-05) TEC Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : tec@msk@gmail.com</p>			
PROJEK			
<p>SAYA MEMPERAKU BAHWA DETAIL DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK-KEHENDAK UNDANGAN UNDANG KECIL BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERIMA TANGGUNGJAWAB PENUH DENGAN SEJALAJNYA</p> <p>POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).</p>			
TAJUK LUKISAN			
<p>ACADEMIC - EAST BLOCK 1 STAIRCASE DETAILS (1)</p>			
Scale	1 : 30	Date	APRIL 2009
Design	Tan HL	Drawn	Ina/TPG
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri
NOMBOR LUKISAN			
AK/KPT/POLY/08/RC-EB1/ST	No. Helaian:	REV.	
	01	.	

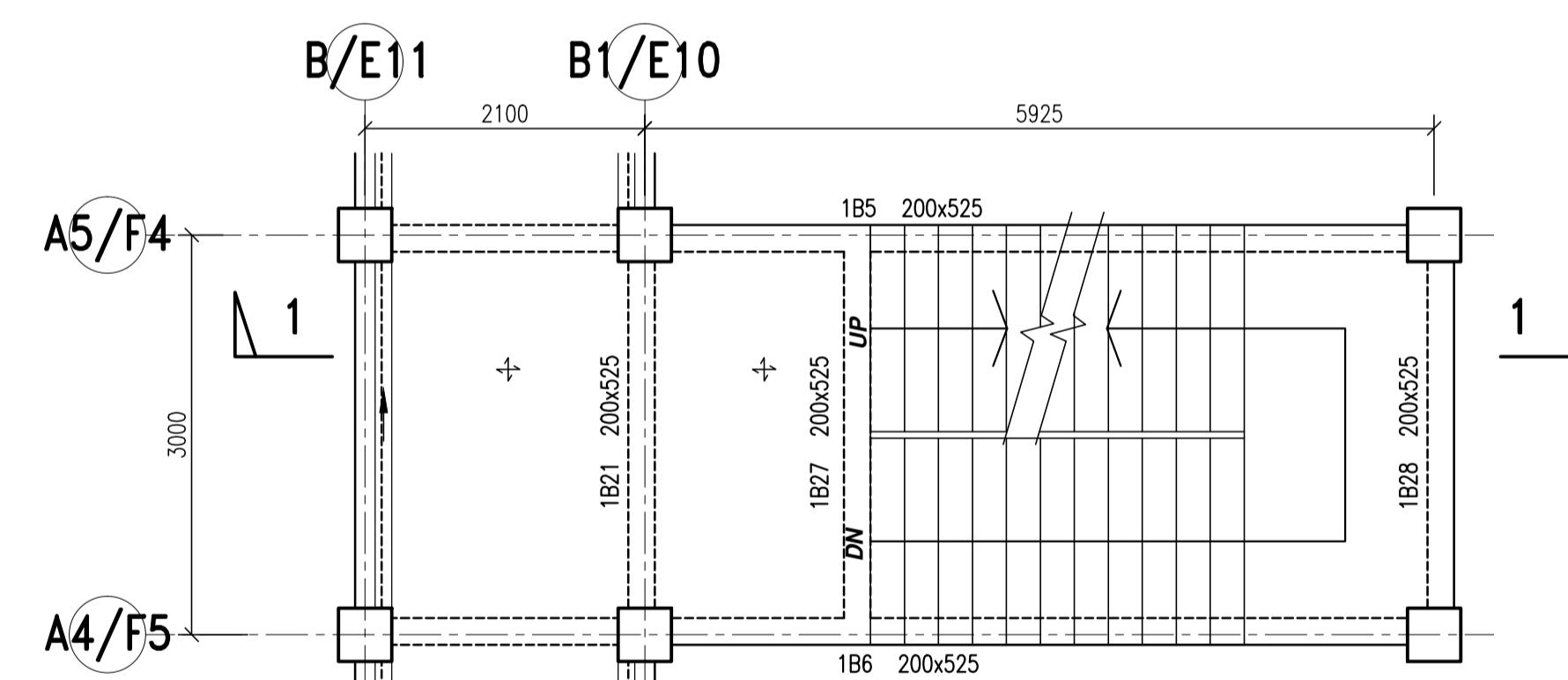


SECTION 1 -1



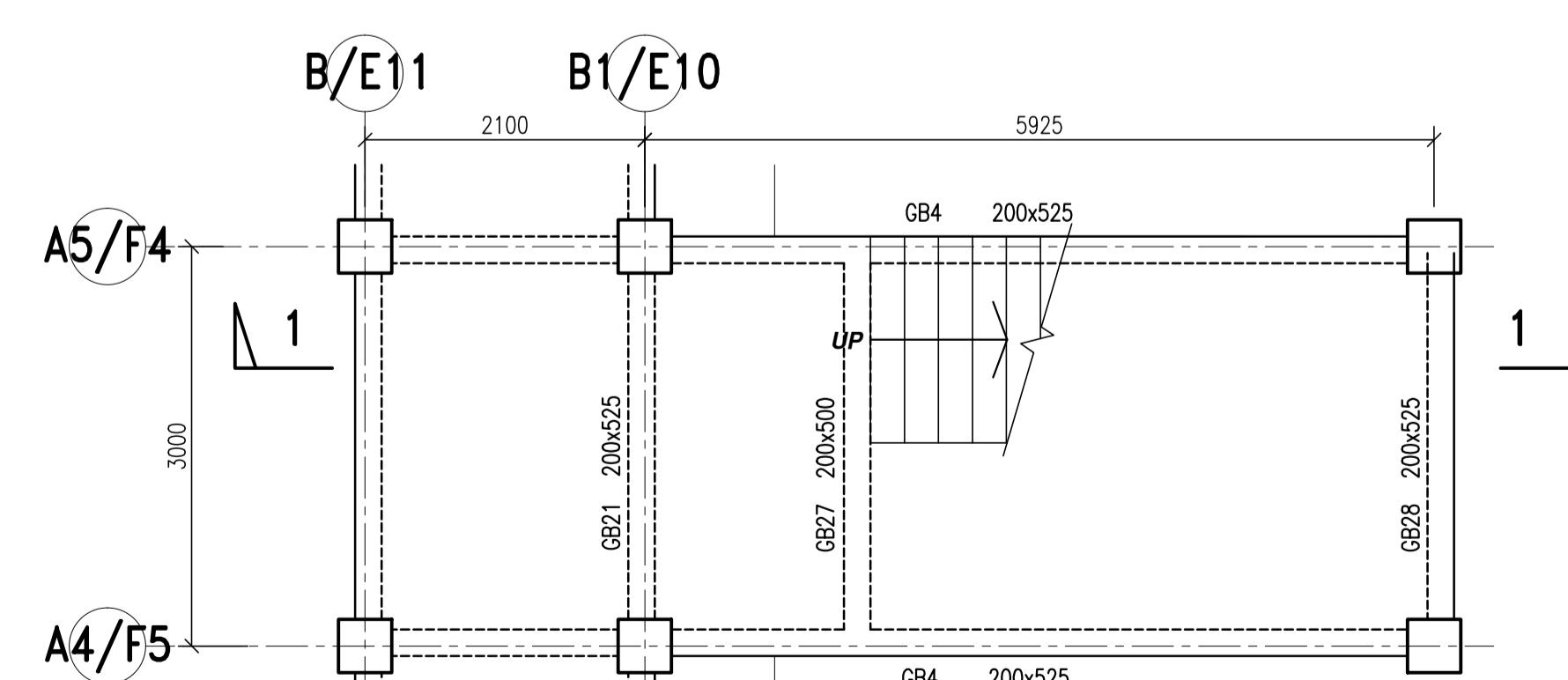
SECOND FLOOR PLAN

SCALE 1:50



FIRST FLOOR PLAN

SCALE 1:50



GROUND FLOOR PLAN

SCALE 1:50

SHOP DRAWING

REVISION

NO	DATE	PARTICULARS

PEMILIK / PENGGUNA

BAHAGIAN PEMBANGUNAN
KEMENTERIAN PENGAJIAN TINGGI MALAYSIA
ARAS 3, BLOK E3
PARCEL E, PRECINT 1,
PUSAT PENTADBIRAN KERAJAAN PERSEKUTUAN
62505 PUTRAJAYA

PENGURUS PROJEK

JABATAN KERJA RAYA
CAWANGAN PENGAJIAN TINGGI
IBU PEJABAT JKR MALAYSIA,
TINGKAT 12, MAJU TOWER,
PETI SURAT 10-02,
1001, JALAN SULTAN ISMAIL,
50250 KUALA LUMPUR

KONTRAKTOR UTAMA

KONSORTIUM POLITEKNIK MERSING SDN. BHD.

LOT 106A, 1st FLOOR, FABER TOWERS 2,
JALAN DESA BAHAGIA, TAMAN DESA,
OFF JALAN KELANG LAMA,
58100 KUALA LUMPUR
TEL : 03-79806605 FAX : 03-79800608

ARKITEK

H | S | A

HABRISALAM ARCHITECTS
26-01, Jln. Dian 8, Taman Munshi Ibrahim,
81200 Johor Bharu.
tel: 07-2343532, 2343534 fax: 07-2343537

JURUTERA M&E

MEGA JATI CONSULT SDN.BHD
25-2-1, Medan Putra Business Centre,
Bandar Manjalara, 52200 Kuala Lumpur.
No.Tel :603-6277 4695/96 No.Fax:603-6277 4697

URUKUR BAHAN

PERUNDING DMA SDN BHD
(No. Sykt. : 407847-P)
119A, Jalan Aminuddin Bakri, Taman Tun Dr. Ismail,
60000 Kuala Lumpur.
Tel : 03-77263800 Fax : 03-77267800

JURUTERA C&S

AK CONSULT
(Civil & Structural Consulting Engineers)
No.43-A, Jalan Impian Emas 6
Taman Impian Emas 81300 Skudai, Johor.
Tel : 07-554 1219 Fax: 07-557 1837
E-mail : akconsult_akc@yahoo.com

PEREKABENTUK IBS

INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.
(Company No. 816115-W)
Civil, Structural and Bridge Consulting Engineers
1130, Block A, Damansara Intan e-Business Park,
47400 Petaling Jaya, Selangor Darul Ehsan

Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itecsb.mail@gmail.com

PROJEK

**POLITEKNIK MERSING,JOHOR
PAKEJ 2 - KERJA BANGUNAN DAN
KERJA BERKAITAN (REKA & BINA).**

TAJUK LUKISAN

ACADEMIC - EAST BLOCK 1

STAIRCASE DETAILS (2)

Scale	1 : 30	Date	APRIL 2009
Design	Tan HL	Drawn	Ina/TPG
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri

NOMBOR LUKISAN

AK/KPT/POLY/08/RC-EB1/ST	No. Helaian:	REV.
	02	.

SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS

PEMILIK / PENGGUNA

BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/15, TTDI, 50400 KUALA LUMPUR PUSAT PENGURUSAN KERJAAN PERSEKUTUAN 62505 PUTRAJAYA
--

PENGURUS PROJEK

JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKRR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, 101, JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR

KONTRAKTOR UTAMA

KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1st FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608
--

ARKITEK

HIS A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bharu. tel:07-2343532,2343534 fax: 07-2343537
--

JURUTERA M&E

MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Putra, 52200 Kuala Lumpur No.Tel :603-6277 4695/96 No Fax:603-6277 4697
--

JURUKUR BAHAN

PERUNDING DMA SDN BHD No. 204, 407847-P, 119A, Jalan Anuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800

JURUTERA C&S

AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 05-554 1219 Fax : 07-557 1837 E-mail : akconsult_ak@yahoo.com
--

PEREKABENTUK IBS

INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. (Formerly No.81156) Otec Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : otec-ibc@gmail.com
--

PROJEK

SAYA MEMPERAKU BAHWA DETAIL-DETAIL DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK-KEHENDAK UNDANG-KECIL BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERIMA TANGGUNGJAWAB PENUH DENGAN SEJALANNYA.
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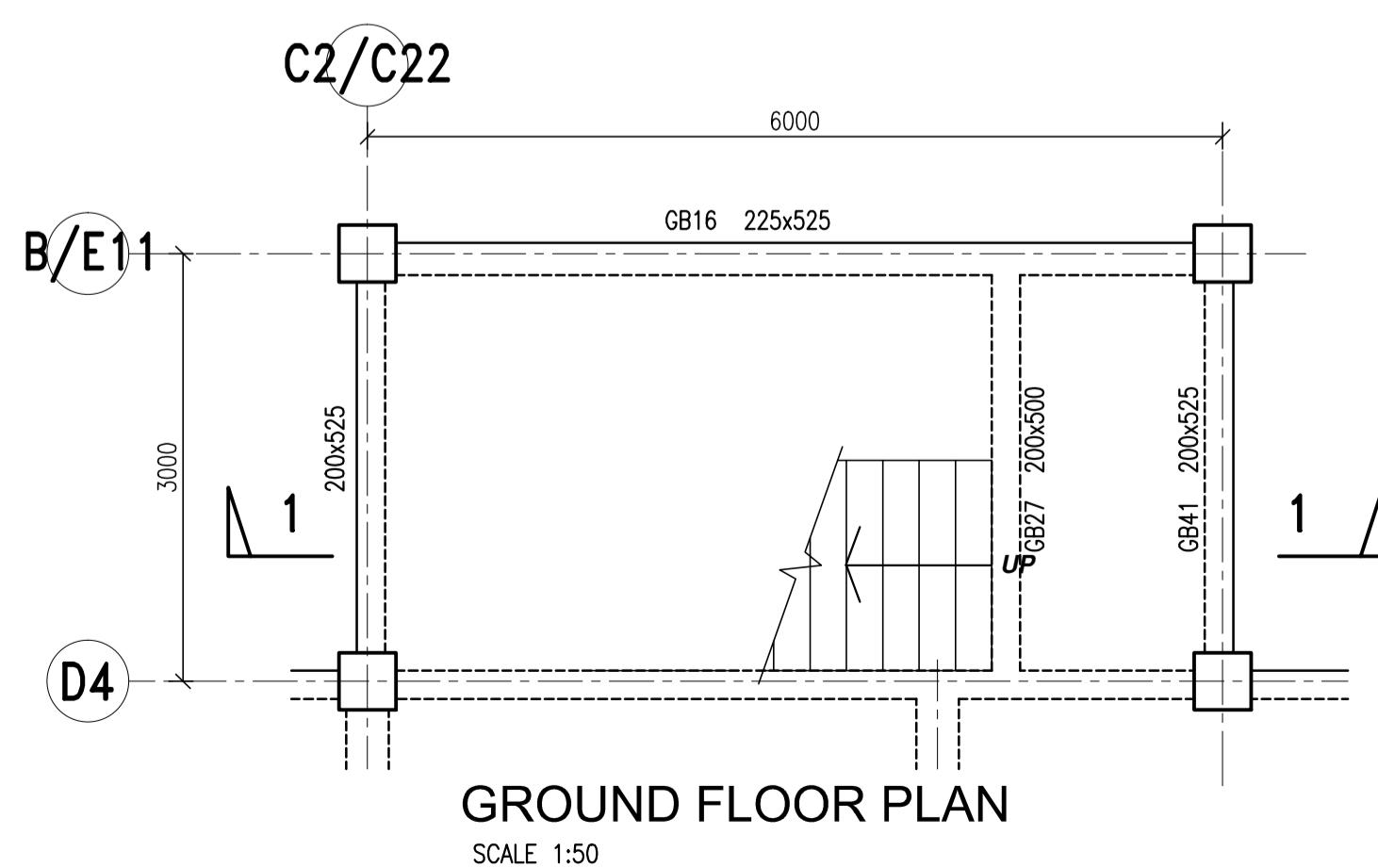
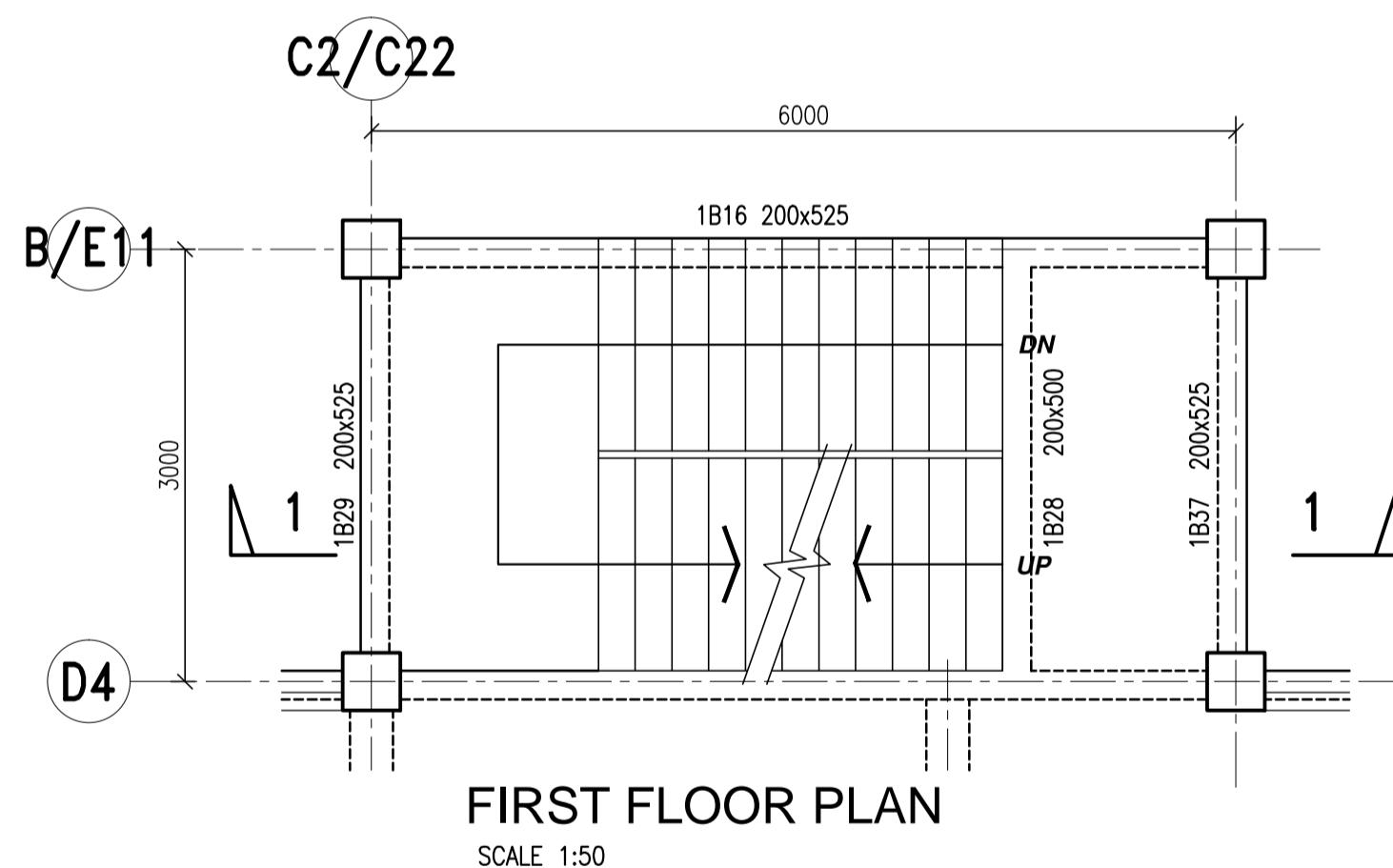
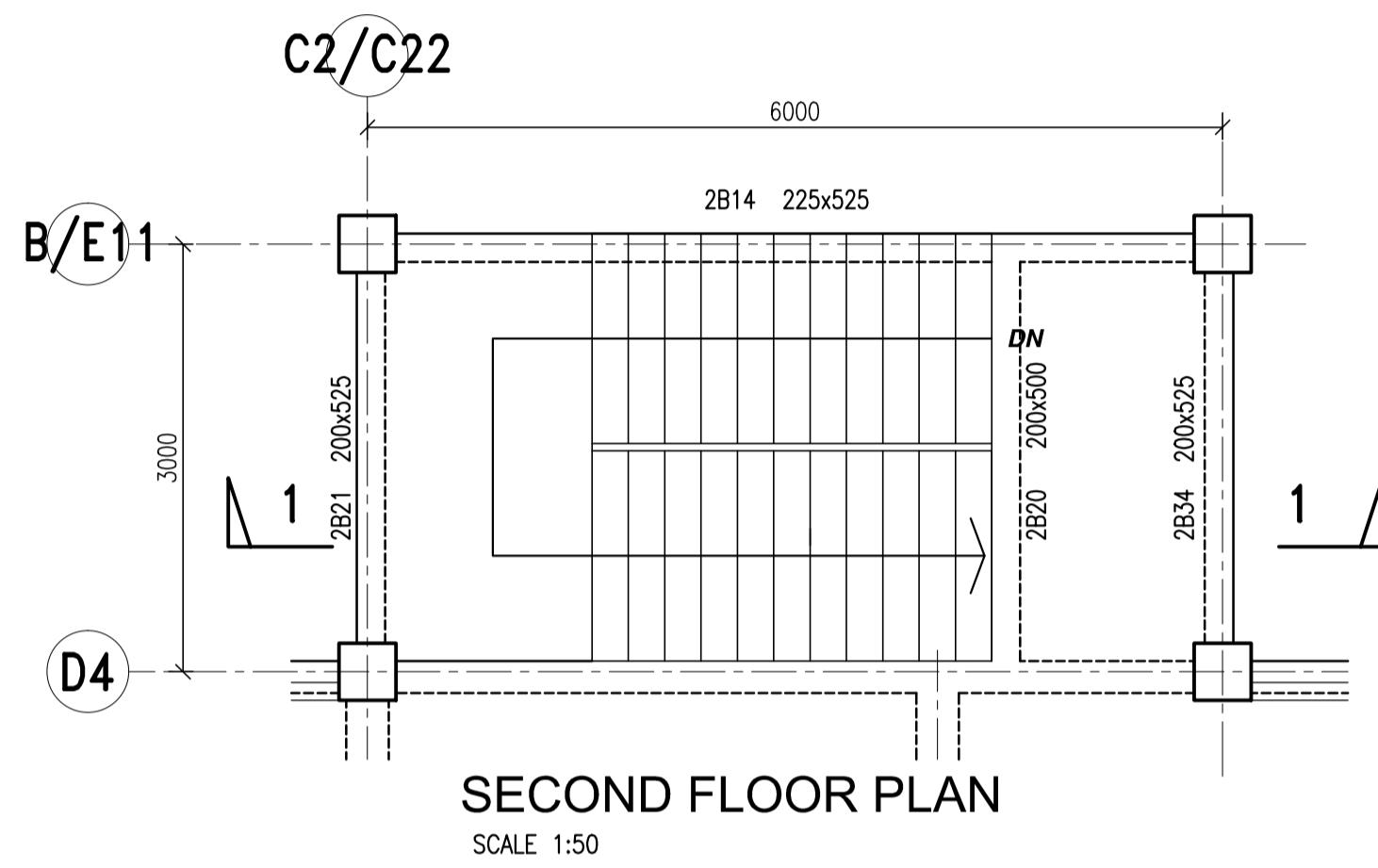
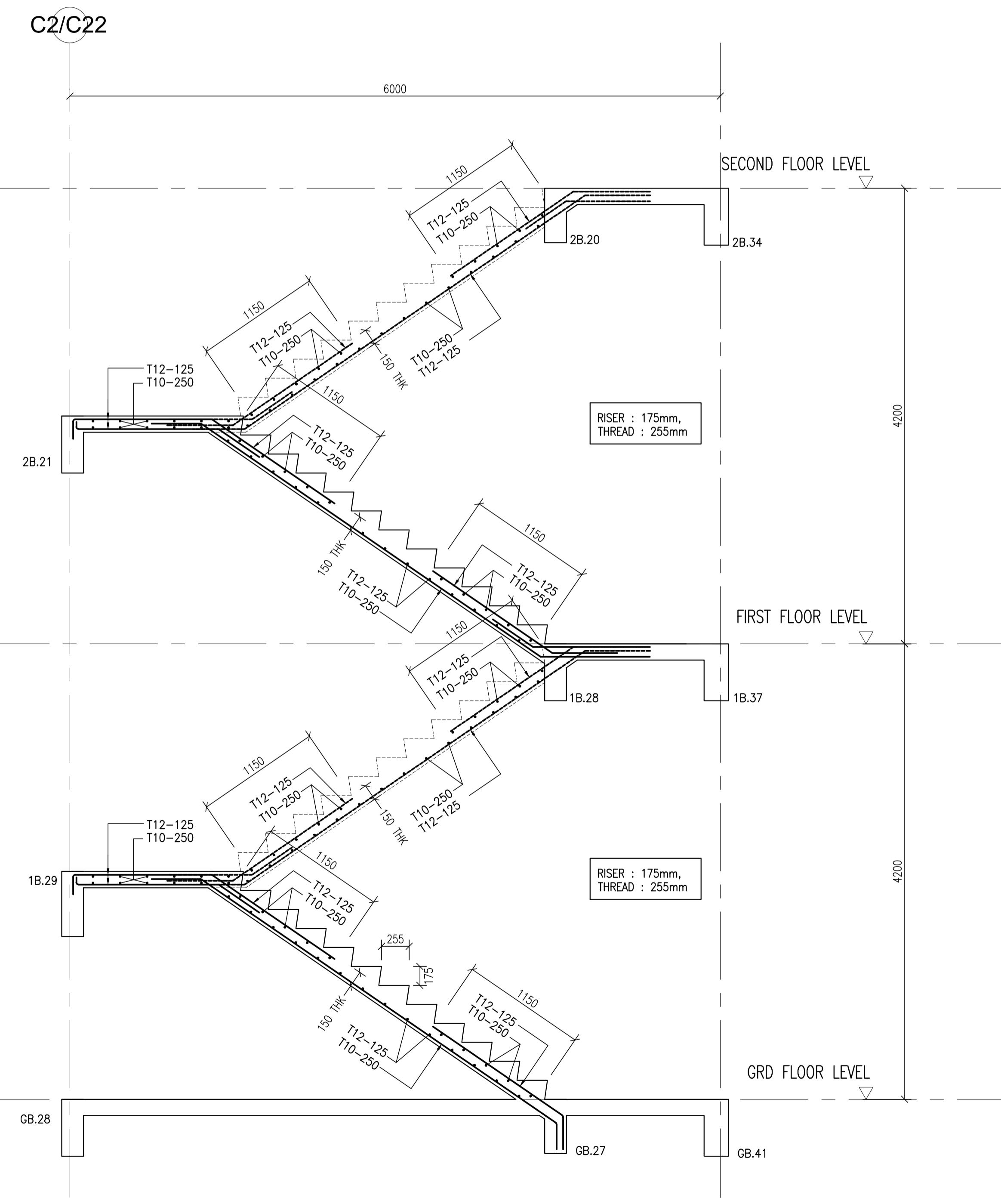
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PAKEJ 2 - KERJA BANGUNAN DAN
KERJA BERKAITAN (REKA & BINA).

TAJUK LUKISAN

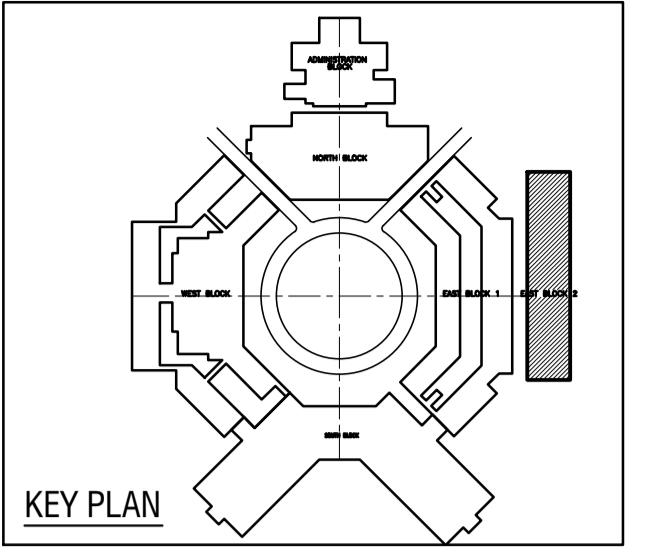
ACADEMIC - EAST BLOCK 1 STAIRCASE DETAILS (3)
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Design	Tan HL	Drawn	Ina/TPG
Checked	Ir. Tan EH	Approved	Ir. Amzah Kasmuri

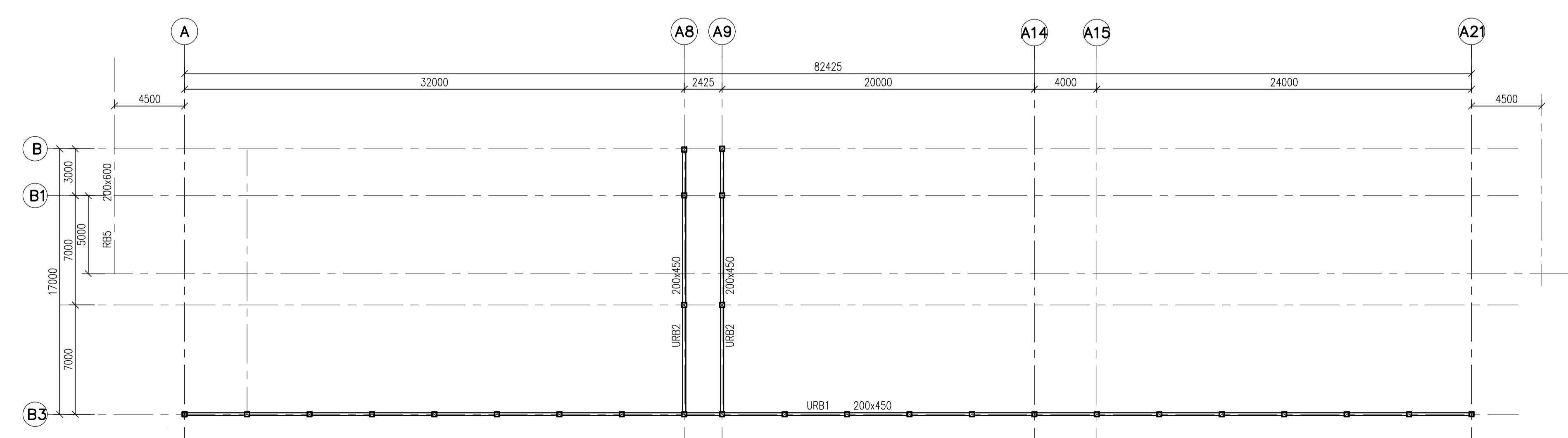
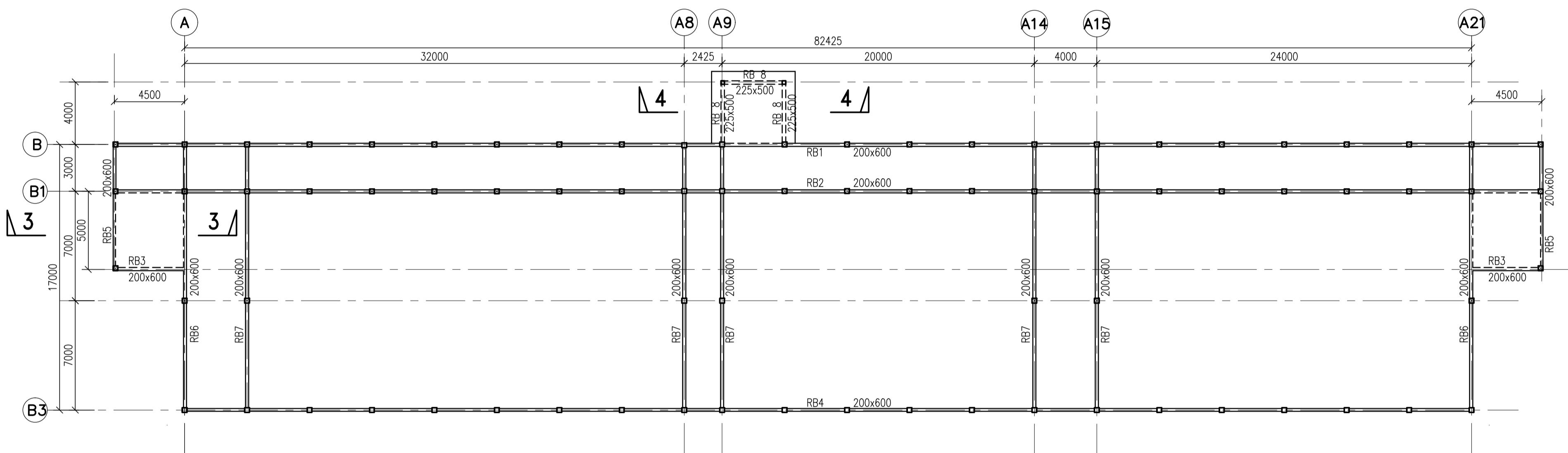
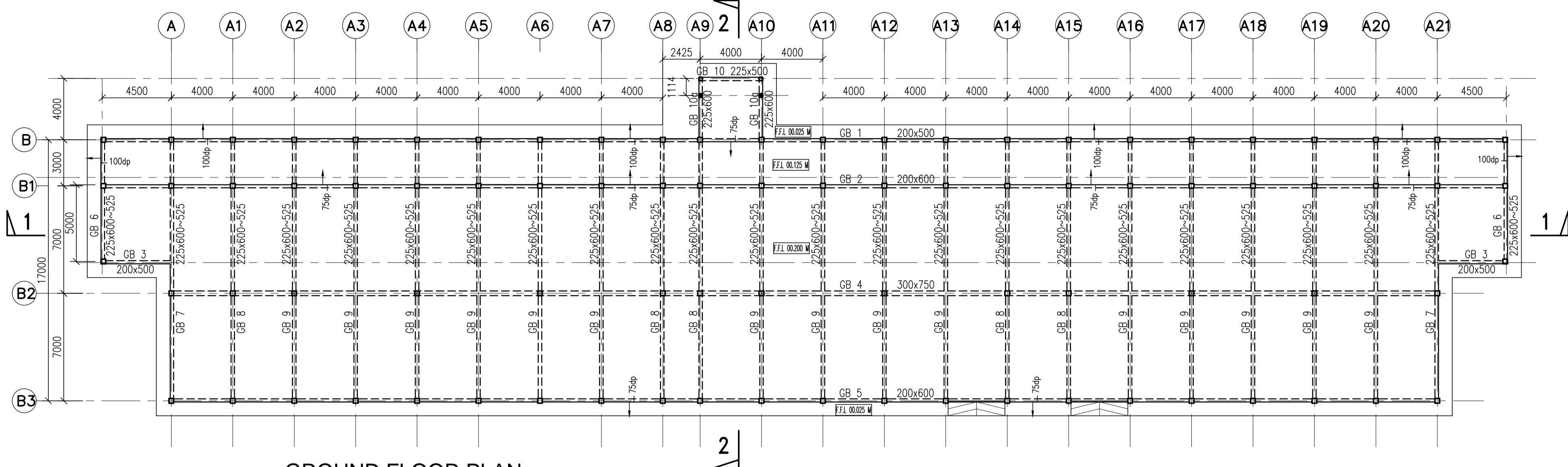
NOMBOR LUKISAN	No. Helaian:	REV.
AK/KPT/POLY/08/RC-EB1/ST	03	.



AS-BUILT DRAWING



KEY PLAN

**SHOP DRAWING**

REVISION		
NO	DATE	PARTICULARS

PEMILIK / PENGGUNA



BAHAGIAN PEMBANGUNAN
KEMENTERIAN PENGAYAAN TINGGI MALAYSIA
ARAS 3, BLOK E3
PUSAT PENGURUSAN KERJAAN PERSEKUTUAN
62050 PUTRAJAYA

PENGURUS PROJEK



JABATAN KERJA RAYA
CAWANGAN PENGAYAAN TINGGI
IBU PEJABAT JKRR MALAYSIA,
TINGKAT 12, MAJU TOWER,
PENGURUSAN PERSEKUTUAN
1001, JALAN SULTAN ISMAIL,
50250 KUALA LUMPUR

KONTRAKTOR UTAMA

KONSORTIUM POLITEKNIK MERSING SDN. BHD.
LOT 106A, 1st FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, 81100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608

ARKITEK

HISLA ARCHITECTS
26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bahru. tel:07-2343532,2343534 fax: 07-2343537

JURUTERA M&E

MEGA JATI CONSULT SDN.BHD
25-2-1, Medan Putra Business Centre, Bandar Manjalar, 52200 Kuala Lumpur No.Tel :603-6277 4695/96 No Fax:603-6277 4697

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PERUNDING DMA SDN BHD
No. 24, Jalan 7/47-P, 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800

JURUTERA C&S

AK CONSULT
(Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 05-554 1219 Fax: 07-557 1837 E-mail : akconsult_ak@yahoo.com

PEREKABENTUK IBS

INITIAL-T ENGINEERING CONSULTANCY SDN. BHD.
Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itec-mlk@gmail.com

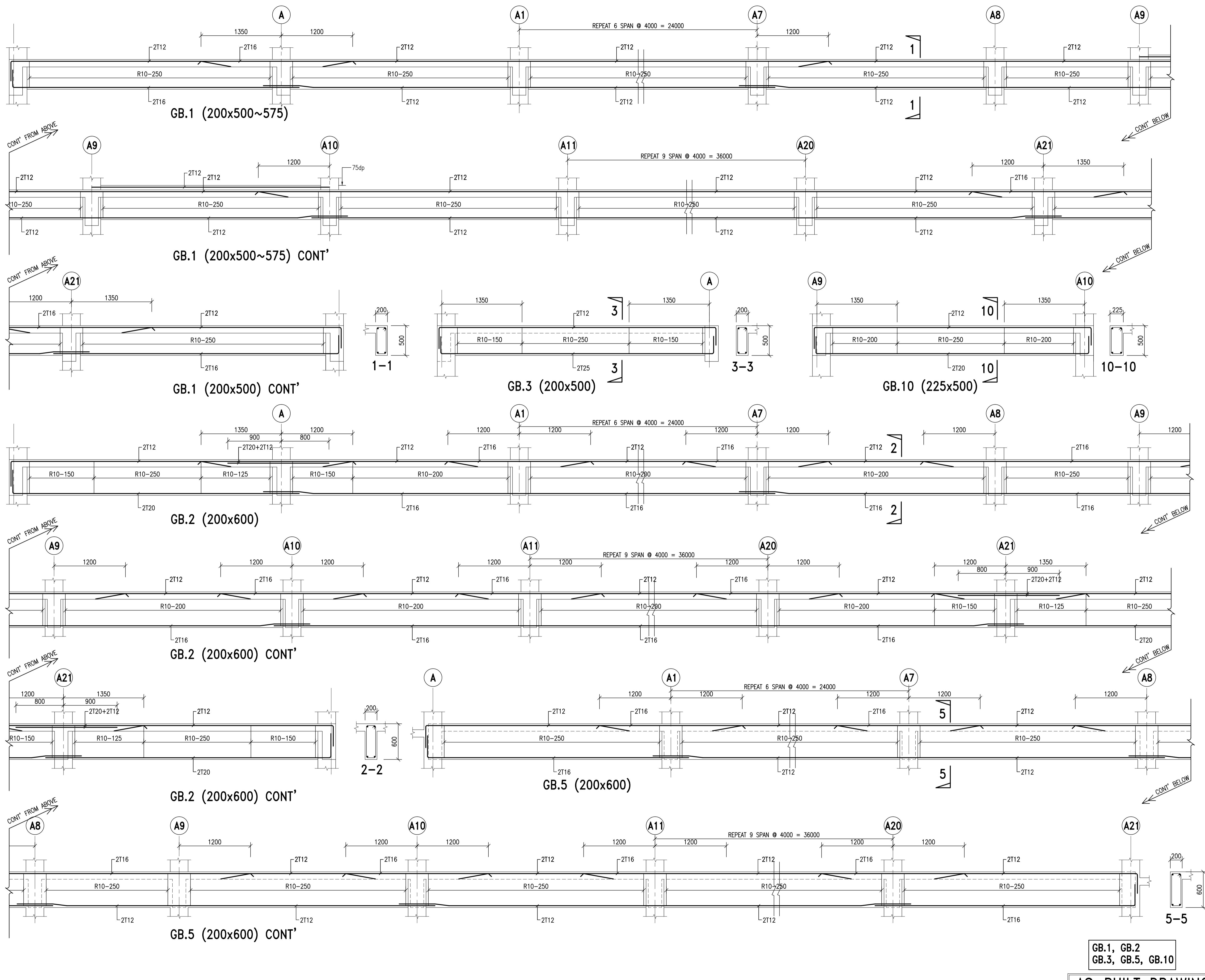
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PROJEK

POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).
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TAJUK LUKISAN
ACADEMIC - EAST BLOCK 2 GROUND FLOOR PLAN, ROOF PLAN & UPPER ROOF PLAN

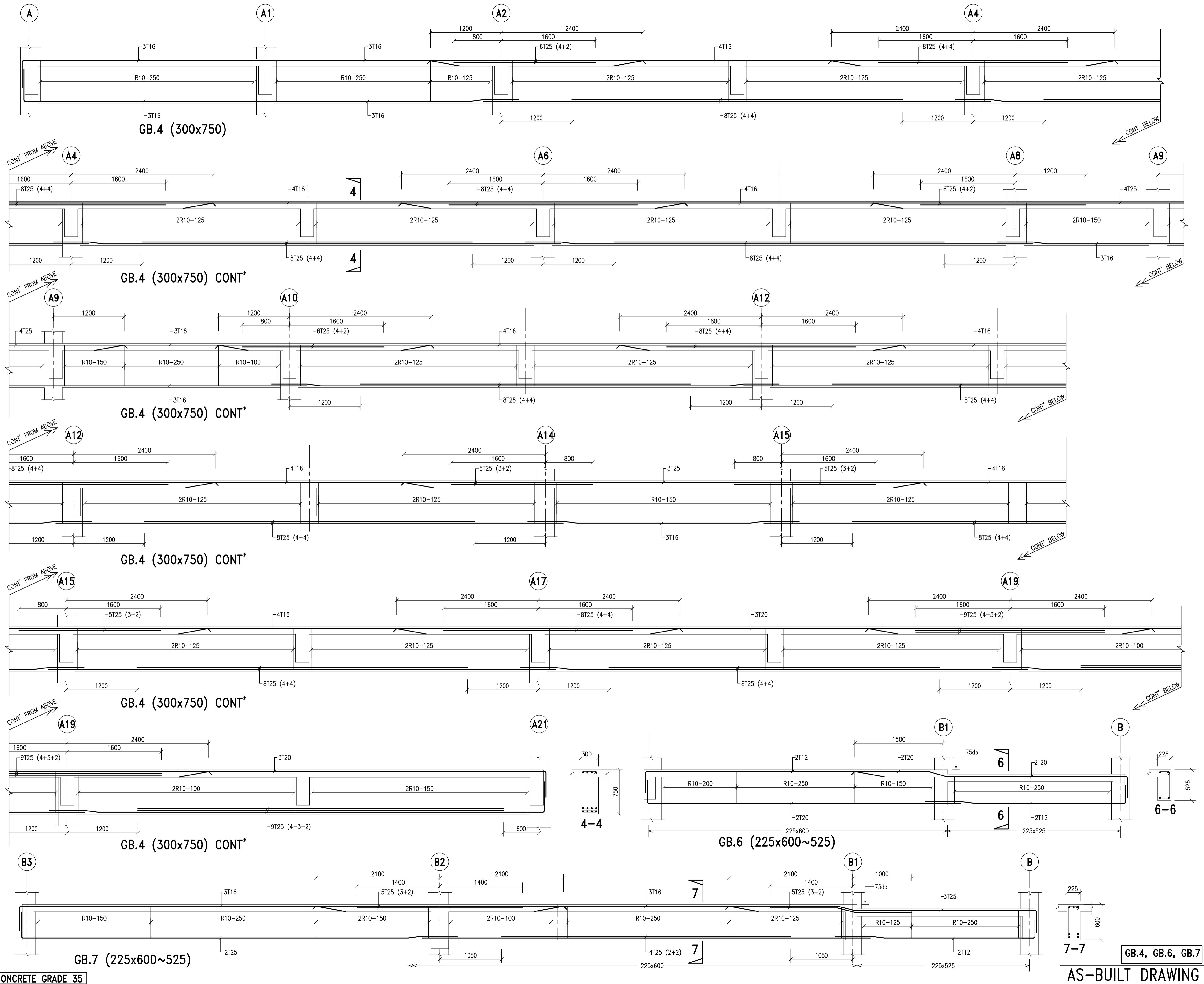
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Checked	GBN	Approved	Ir. Amzah Kasmuri
NOMBOR LUKISAN			No. Helaian: REV.
AK/KPT/POLY/08/RC-EB2/KP			01



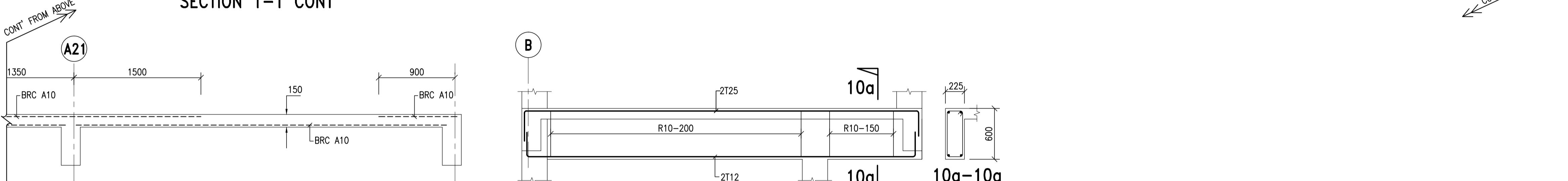
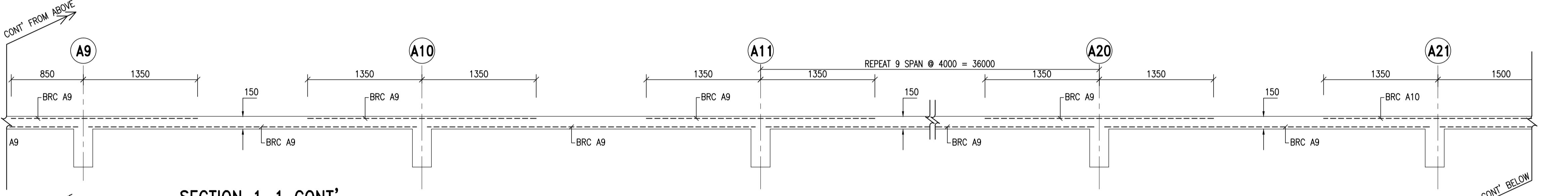
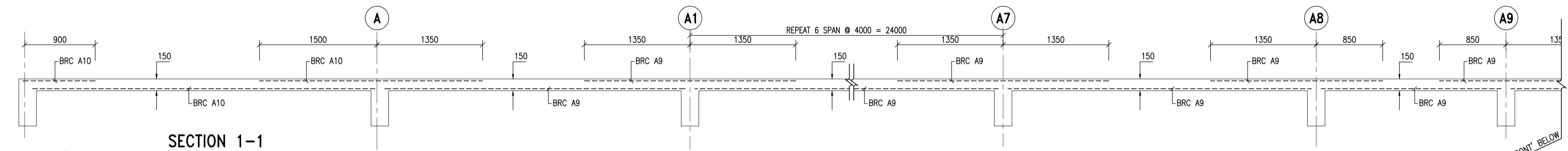
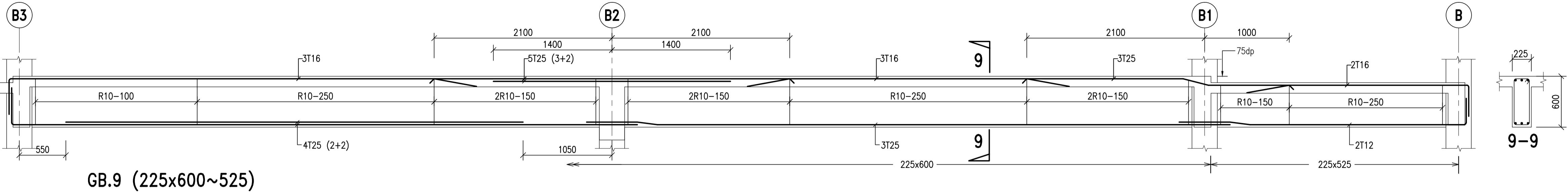
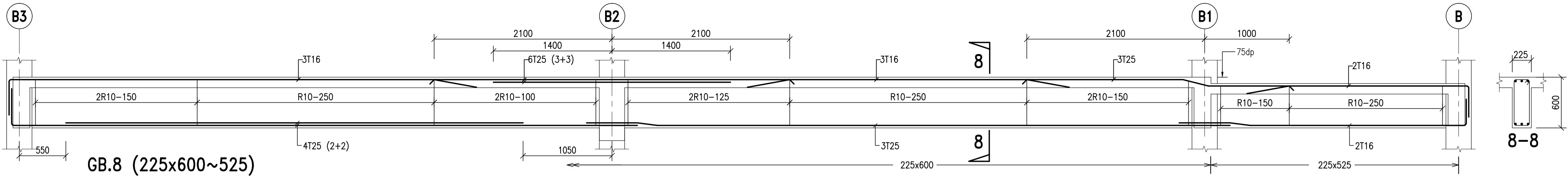
S-BUILT DRAWING

S. BUILT DRAW

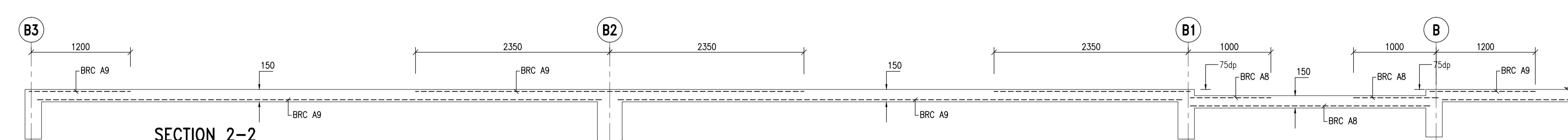
CONCRETE GRADE 35



SHOP DRAWING		
REVISION		
NO	DATE	PARTICULARS
PEMILIK / PENGGUNA		
 BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/15, TTDI, PUSAT PENGAYAAN KERJAAN PERSEKUTUAN 62000 PUTRAJAYA		
PENGURUS PROJEK		
 JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKRR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, JALAN 14/15 10100 JALAN SULTAN ISMAIL, 50250 KUALA LUMPUR		
KONTRAKTOR UTAMA		
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1ST FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TTDI, KELANA JAYA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79800608		
ARKITEK		
 H S I A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bahru. tel:07-2343532,2343534 fax: 07-2343537		
JURUTERA M&E		
 MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Putra Permai, 52200 Kuala Lumpur No.Tel : 603-6277 4695/96 No Fax: 603-6277 4697		
JURUKUR BAHAN		
 PERUNDING DMA SDN BHD No. 24-1, 47847-P, 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800		
JURUTERA C&S		
 AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 05-554 2119 Fax : 07-557 1837 E-mail : akconsult_8k@yahoo.com		
PEREKABENTUK IBS		
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itec-mek@gmail.com		
PROJEK		
POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).		
TAJUK LUKISAN		
ACADEMIC - EAST BLOCK 2 GROUND FLOOR BEAM DETAILS (2)		
Scale	1 : 30	Date APRIL 2009
Design	JAY	Drawn KROLL
Checked	GBN	Approved Ir. Amzah Kasmuri
NOMBOR LUKISAN	No. Helaian: REV.	
AK/KPT/POLY/08/RC-EB2/GB	02	

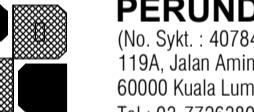
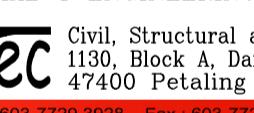


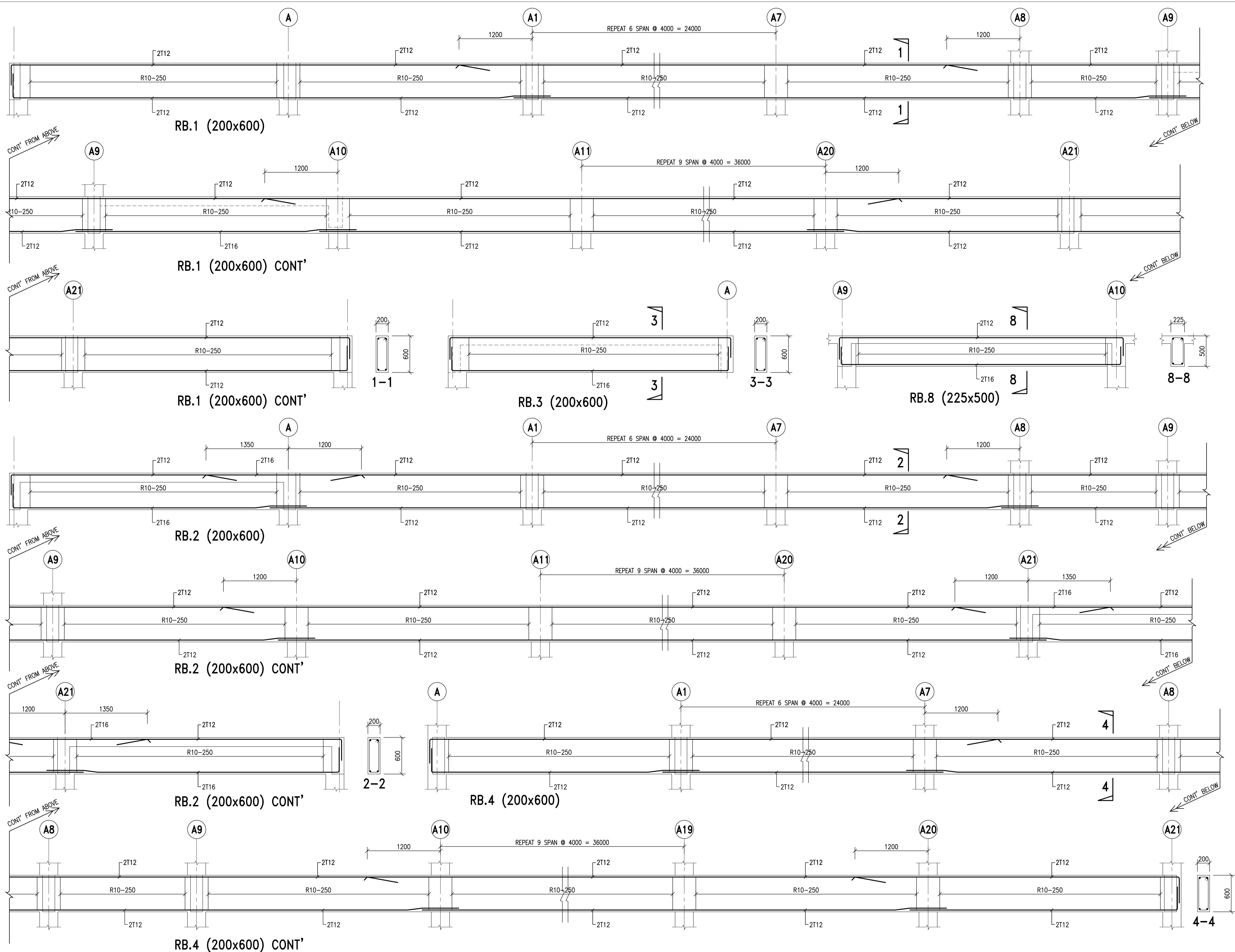
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**GB.8, GB.9, GB.10a
SECT 1-1, 2-2**

AS-BUILT DRAWING

SHOP DRAWING								
REVISION								
NO	DATE	PARTICULARS						
PEMILIK / PENGGUNA								
 <p>BAHAGIAN PEMBANGUNAN KEMENTERIAN PENGAYAAN TINGGI MALAYSIA ARAS 3, BLOK E3 JALAN 14/15, TANAH MERAH, PUSAT PENGAYAAN KERJAAN PERSEKUTUAN 62603 PUTRAJAYA</p>								
PENGURUS PROJEK								
 <p>JABATAN KERJA RAYA CAWANGAN PENGAYAAN TINGGI IBU PEJABAT JKRR MALAYSIA, TINGKAT 12, MAJU TOWER, DEWA RAYA, JALAN 14/15 10110 KUALA LUMPUR 52250 KUALA LUMPUR</p>								
KONTRAKTOR UTAMA								
KONSORTIUM POLITEKNIK MERSING SDN. BHD. LOT 106A, 1ST FLOOR, FABER TOWERS 2, JALAN DEWA BAHARU, TAMAN DESA, OFF JALAN KELANG LAMA, 58100 KUALA LUMPUR TEL : 03-79806605 FAX : 03-79806608								
ARKITEK								
 <p>H S I A HABRISALAM ARCHITECTS 26-01, Jln. Dian 8,Taman Munshi Ibrahim, 81200 Johor Bahru. tel:07-2343532,2343534 fax: 07-2343537</p>								
JURUTERA M&E								
 <p>MEGA JATI CONSULT SDN.BHD 25-2-1, Medan Putra Business Centre, Bandar Manjalar, 52200 Kuala Lumpur No.Tel : 603-6277 4695 No Fax: 603-6277 4697</p>								
JURUKUR BAHAN								
 <p>PERUNDING DMA SDN BHD No. 24-1, 247847-P, 119A, Jalan Anakuddin Bakri, Taman Tun Dr. Ismail, 60000 Kuala Lumpur. Tel : 03-77263800 Fax : 03-77267800</p>								
JURUTERA C&S								
 <p>AK CONSULT (Civil & Structural Consulting Engineers) No.43-A, Jalan Impian Emas 6 Taman Impian Emas 81300 Skudai, Johor. Tel : 05-554 1219 Fax: 07-557 1837 E-mail : akconsult_akc@yahoo.com</p>								
PEREKABENTUK IBS								
INITIAL-T ENGINEERING CONSULTANCY SDN. BHD. (Corporate No. B011505)  <p>Civil, Structural and Bridge Consulting Engineers 1130, Block A, Damansara Intan e-Business Park, 47400 Petaling Jaya, Selangor Darul Ehsan Tel : 603-7729 3928 Fax : 603-7729 7928 Email : itec-mek@gmail.com</p>								
PROJEK								
<p>SAYA MEMPERAKU BAHWA DETAIL DALAM PELAN-PELAN ADALAH MENURUT KEHENDAK-KEHENDAK UNDANG-UNDANG KECI BANGUNAN SERAGAM 1984 DAN SAYA SETUJU TERIMA TANGGUNGJAWAB PENUH DENGAN SEJALINYA</p> <p>POLITEKNIK MERSING,JOHOR PAKEJ 2 - KERJA BANGUNAN DAN KERJA BERKAITAN (REKA & BINA).</p>								
TAJUK LUKISAN								
ACADEMIC - EAST BLOCK2 GROUND FLOOR BEAM AND SLAB DETAILS								
Scale	1 : 30	Date APRIL 2009						
Design	JAY	Drawn KROLL						
Checked	GBN	Approved Ir. Amzah Kasmuri						
NOMBOR LUKISAN								
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AK/KPT/POLY/08/RC-EB2/GB	No. Helaian:	REV.						
		03						



Scale	1 : 30	Date	APRIL 2009
Design	JAY	Drawn	KROLL
Checked	GBN	Approved	Ir. Amzah Kasmuri
NOMBOR LUKISAN	No. Helaian: REV.		
AK/KPT/POLY/08/RC-EB2/RB		No. Helaian:	REV.
			01

