



MAJLIS AMANAH RAKYAT (MARA)

BAHAGIAN BINAAN DAN SELENGGARAAN,
TINGKAT 11, IBU PEJABAT MARA,
NO. 21 JALAN MARA, 50609 KUALA LUMPUR.

CADANGAN KERJA- KERJA MENAIKTARAF ASRAMA BLOK C DAN D DI KOLEJ MARA KULIM, KEDAH.

LIST OF DRAWINGS

MAJLIS AMANAH RAKYAT(MARA)

BAHAGIAN BINAAN DAN SELENGGARAAN,
TINGKAT 11, IBU PEJABAT MARA,
NO. 21 JALAN MARA, 50609 KUALA LUMPUR.

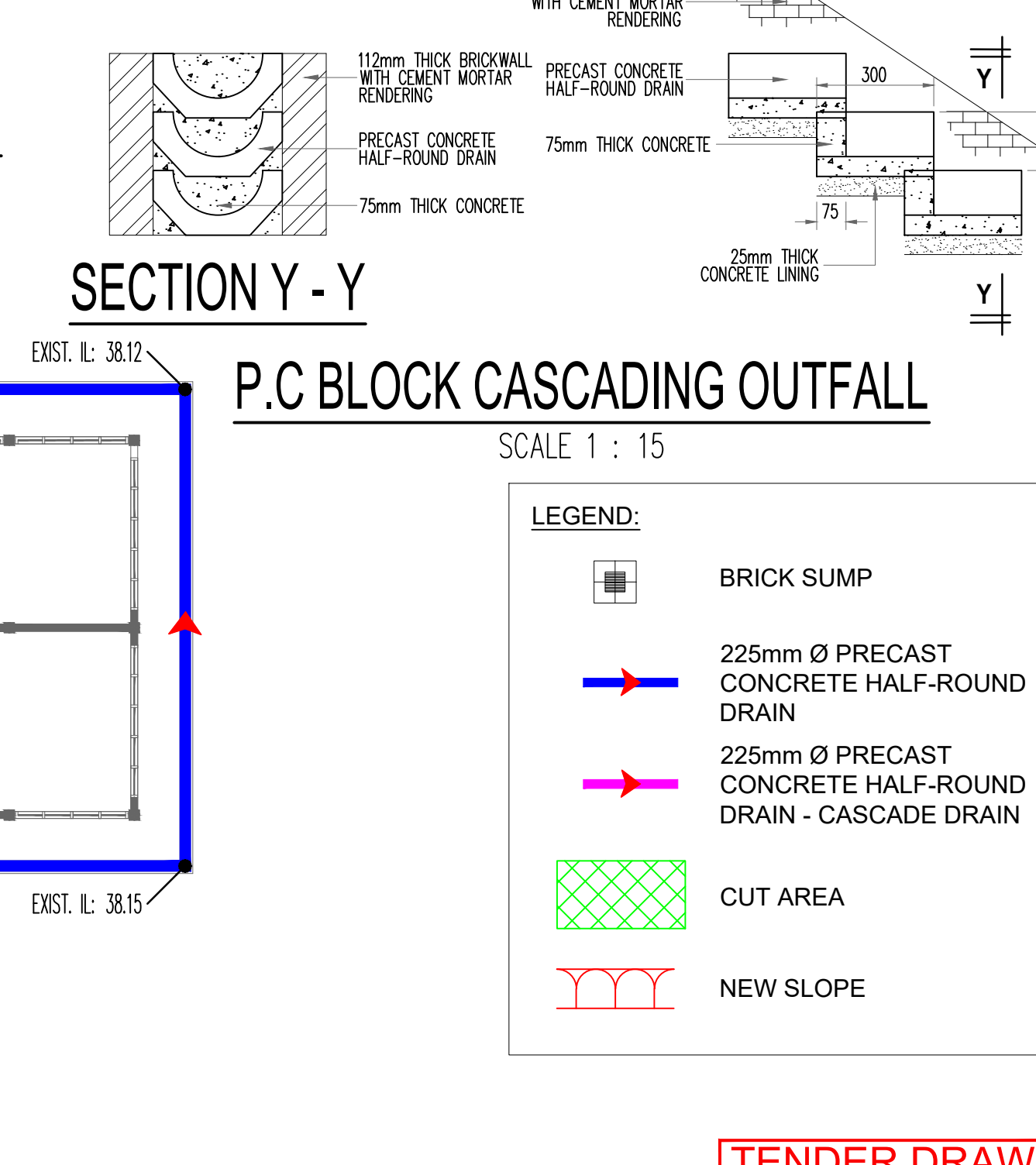
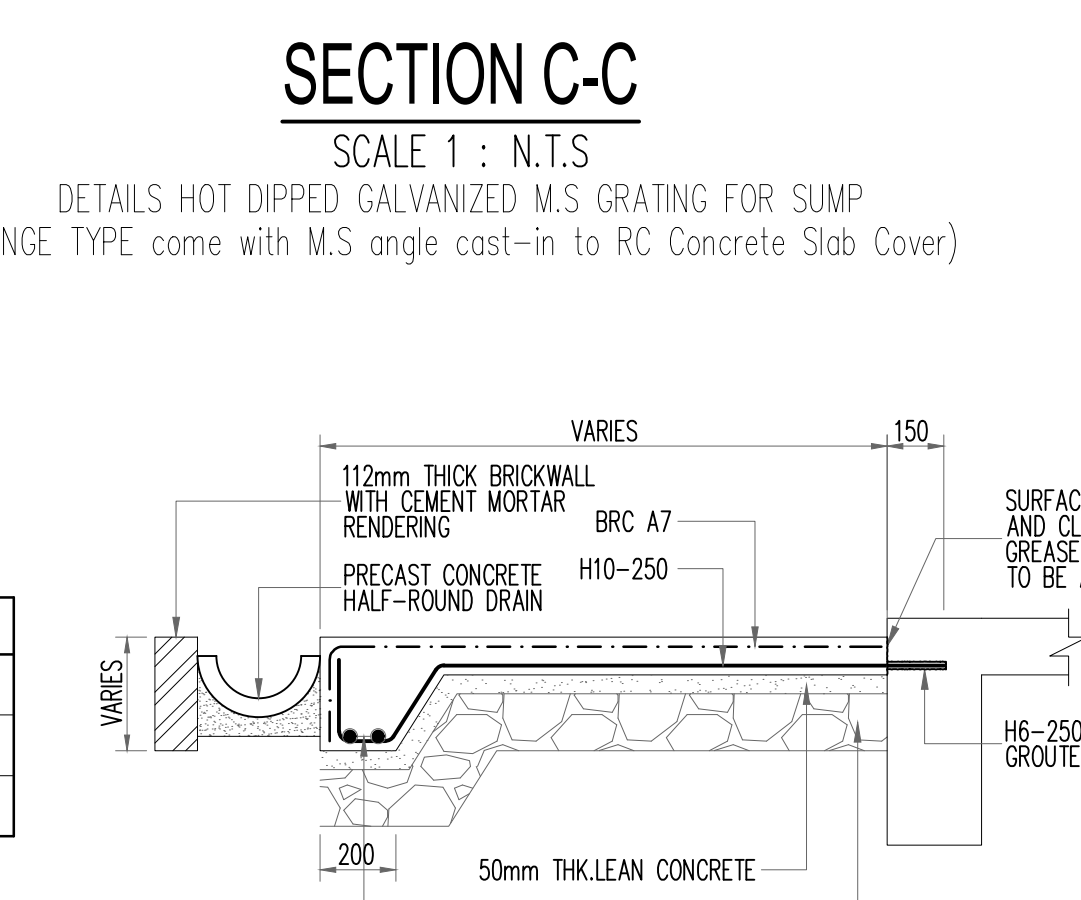
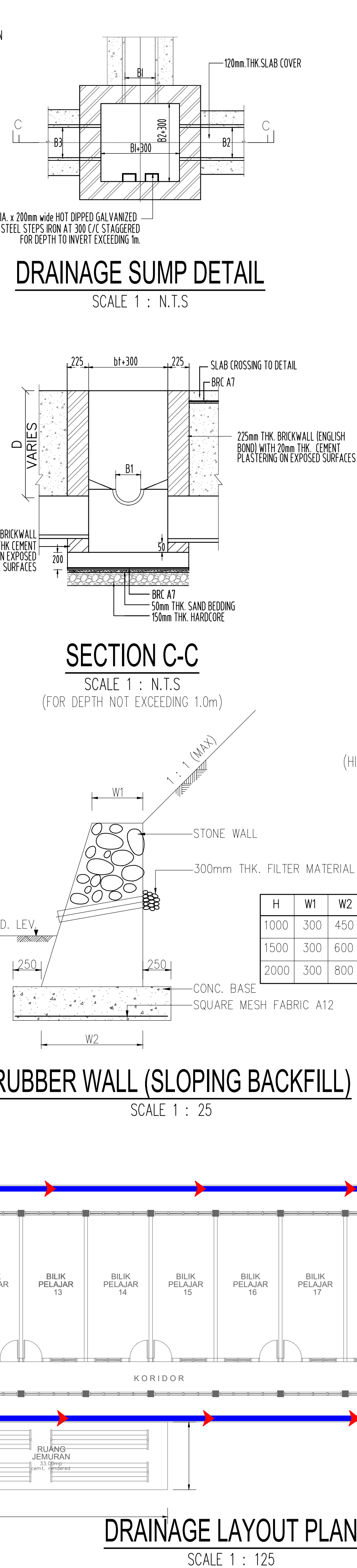
CADANGAN KERJA- KERJA MENAIKTARAF
ASRAMA BLOK C DAN D DI KOLEJ MARA
KULIM, KEDAH.

NO	DRAWING TITLE	DRAWING NO.
	<u>INFRASTRUCTURE - DRAINAGE</u>	
01.	DRAINAGE LAYOUT PLAN	ABS/79/KMK/DRAINAGE/LAYOUT/01
	<u>INFRASTRUCTURE - SEWERAGE</u>	
01.	SEWERAGE LAYOUT PLAN	ABS/79/KMK/SEW/LAYOUT/01
	<u>STRUCTURE</u>	
01.	GENERAL NOTES	ABS/79/KMK/STRUC/G.NOTES/i
02.	(BLOK C) - PELAN TINGKAT BAWAH & PELAN TINGKAT ATAS	ABS/79/KMK/STRUC/LAY/BLOK.C/01
03.	(BLOK D) - PELAN TINGKAT BAWAH(LOWER GROUND), PELAN TINGKAT BAWAH & PELAN TINGKAT ATAS	ABS/79/KMK/STRUC/LAY/BLOK.D/02
04.	LINTEL BEAM SCHEDULE, R.C STIFFENER DETAIL, R.C SINK DETAIL, & R.C SINK : TOILET AREA DETAIL	ABS/79/KMK/STRUC/TYP/DETAIL/03
05.	PLAN VIEW (JEMURAN) & SECTION A -A	ABS/79/KMK/STRUC/TYP/JEMURAN/04

MAJLIS AMANAH RAKYAT(MARA)

BAHAGIAN BINAAN DAN SELENGGARAAN,
TINGKAT 11, IBU PEJABAT MARA,
NO. 21 JALAN MARA, 50609 KUALA LUMPUR.

INFRASTRUCTURE



NOTA:			
PROJEK :			
CADANGAN KERJA- KERJA MENAIKTARAF ASRAMA BLOK C DAN D DI KOLEJ MARA KUALIM, KEDAH.			
UNTUK :			
TUTUP MAJLIS AMANAH RAKYAT (MARA)			
NOTA:			
REV.	DATE	DESCRIPTION	BY.
PEMILIK:			
 MAJLIS AMANAH RAKYAT BAHAGIAN BINAAN DAN SELENGGARAAN, TINGKAT 11, BLOK PEJABAT MARA, NO.21 JALAN MARA, 50609 KUALA LUMPUR.			
ARKITEK:			
 FARAH SOFIAH SIA, BANGUNAN KHATUAH, JALAN KAMPUNG PERAK, 05100 ALOR STAR, KEDAH DARULAMAN, Tel: 094 - 7330598 Fax: 094 - 7330597			
JURUTERA C & S:			
 ABS CIVIL CONSULTANT NO. 102, TRUSMI 1, JALAN BPJ 1/2, SEKSYEN 1, BANDAR PUTERI JAYA, 80000 SUNGAI PETAN, KEDAH DARUL AMAN, TEL: 09-42431800 FAX: 09-42431900 I have certify that these works have been designed by me in accordance with sound engineering practice and that i take full responsibility for the design and proper performance of the same.			
JURUTERA M & E:			
 RHA Consulting Engineers Sdn Bhd No.11-3 Jalan Ara SD 73/A Bandar Sri Damansara 52200 Kuala Lumpur Selangor Darul Ehsan			
JURUKUR BAHAN:			
 PERUNDING BE SDN BHD 025387-1 (MCA No. 12) 985707284 Jalan Rahat Genting Berangan No. 11-3 Jalan Ara SD 73/A Bandar Sri Damansara 52200 Kuala Lumpur Selangor Darul Ehsan			
TAJUK LUKISAN:			
DRAINAGE LAYOUT PLAN			
TARIKH:	JULAI 2026	SKALA:	AS SHOWN
DI LUKIS:	AIMAN	DI SEMAK:	Ir. AZIZI
NO. KONTRAK:		REVISION:	
NO. LUKISAN:	ABS/79/KMK/RAINAGE/LAYOUT/01		

DETAIL 'A'

DETAIL 'A'

PLAN VIEW : INSPECTION CHAMBER

SCALE 1 : 20

SECTION B1 - B1

SCALE 1 : 20

SECTION B2 - B2

SCALE 1 : 20

DETAIL 'A'

SCALE 1 : 100

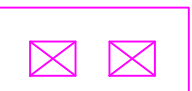
DETAIL 'B'

SCALE 1 : 75

SEWERAGE LAYOUT PLAN

SCALE 1 : 125

LEGEND:

- IC  PROPOSED NEW INSPECTION CHAMBER
- IC  EXIST. INSP. CHAMBER TO BE DEMOLISHED & PROPOSED NEW INSP. CHAMBER
-  150mm Ø VCP PIPE
-  EXISTING SEPTIC TANK

GENERAL NOTES FOR SEWERAGE

- THIS DRAWING JUST INDICATIVE ONLY. CONTRACTOR MUST CERTIFY THE EXACT LOCATION OF EXISTING SOIL PIPE, INSPECTION CHAMBERS, SEWER PIPE AND MANHOLES ON SITE.
- THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES MUST BE REPORTED IMMEDIATELY TO THE ARCHITECT.
- NOTIFY S.O. IF ANY DISCREPANCIES OCCUR ON SITE.
- CONTRACTOR TO PROVIDE NECESSARY TEMPORARY PROTECTION TO THE ALL EXISTING SOIL PIPE, INSPECTION CHAMBERS, SEWER PIPE AND MANHOLES DURING THE WHOLE CONSTRUCTION.
- THE CONTRACTOR SHALL AT HIS OWN COSTS RECTIFY ALL DAMAGES TO EXISTING SOIL PIPE, INSPECTION CHAMBERS, SEWER PIPE AND MANHOLES.
- CONTRACTOR TO CHECK THE EXISTING INVERT LEVEL AND DEPTH FOR SOIL PIPE, INSPECTION CHAMBERS, SEWER PIPE AND MANHOLES BEFORE COMMENCEMENT OF WORK AS DIRECTED BY THE S.O.
- CONTRACTOR TO INSPECT, RETEST AND RECOMMISSION ON EXISTING SMALL SEWERAGE TREATMENT SYSTEM (STP).
- ALL SETTING OUT INCLUDING EXACT POSITIONS OF SOIL PIPE, INSPECTION CHAMBERS, SEWER PIPE AND MANHOLES AND ETC SHALL BE RECONFIRM ON SITE AS DIRECTED BY THE S.O.
- AFFECTED INFRA SERVICES TO BE RELOCATED, DIVERTED AND TERMINATED BY DIRECTION OF THE S.O.
- THE INSTALLATION PIPEWORKS AND FITTING SHALL COMPLY WITH LOCAL AUTHORITY REQUIREMENT.
- THE CONTRACTOR IS RESPONSIBLE TO CLEAR, DESILT AND MAINTAIN REGULARLY ALL SOIL PIPE, INSPECTION CHAMBER, SEWER PIPE, MANHOLES AND ALL AFFECTED BY SEWERAGE WORKS.
- ALL SEWERLINES SHALL BE APPROVED PIPE EXTRA STRENGTH WITH FLEXIBLE JOINT TO BS 65 AND BS 540.
- ALL MANHOLE FRAMES AND COVERS SHALL BE TO BS 497:1976 AND ACCORDANCE WITH JPP REQUIREMENT.
- THE CONTRACTOR SHOULD REINSTATE ANY DAMAGE TO EXISTING SOIL PIPE, INSPECTION CHAMBERS, SEWER PIPE, MANHOLES AND ETC. DUE TO HIS WORK TO BE SATISFACTION OF THE S.O.
- UNLESS OTHERWISE STATED ALL DIMENSION IN METRE.
- ALL SEWER PIPE IS 150 Ø VCP
- ALL SANITARY WORKS SHALL BE CARRIED OUT BY A LICENSED SANITARY PLUMBING REGISTERED WITH AUTHORITY CONCERNED.
- THE ACTUAL POSITION AND ALIGNMENT OF ALL SOIL PIPE, INSPECTION CHAMBERS, SEWER PIPE AND MANHOLES SHALL BE CONFIRMED AT SITE BEFORE COMMENCEMENT OF WORKS.
- ALL SOIL PIPE AND INSPECTION CHAMBER TO FOLLOW ARCHITECT'S DETAIL.
- THE CONTRACTOR SHALL LIASE WITH RELEVANT AUTHORITIES BEFORE TERMINATION OF EXISTING SERVICES.
- ALL WORKS THAT NEED PERMIT/PERMISSION/DEPOSIT FROM THE LOCAL AUTHORITY SHALL BE BORNE BY THE CONTRACTOR.

SEWERAGE DILAPIDATION SURVEY

- CONTRACTOR TO TAKE PHOTOS OF MANHOLE, SEWER PIPE, INSPECTION CHAMBER, SOIL PIPE AND ETC EXISTING CONDITION AT CLOSE INTERVAL. (PICTORIAL REPORT IN TWO (2) COPIES TO BE SUBMITTED TO THE S.O)
- AT NEAR COMPLETION, CONTRACTOR TO REINSTATE/REPAIR ALL DAMAGED DRAIN AND DESILT/CLEAN ALL DRAINS TO ORIGINAL CONDITION.

POPULATION EQUIVALENT CALCULATION : BLOK D1

DESCRIPTION	FACTOR P.E	CAPACITY	TOTAL
STUDENT (FULL RESIDENTIAL)	1 per person	54 x 1	54
WARDEN HOUSE	4 per unit	2 x 4	8
TOTAL PE			62

POPULATION EQUIVALENT CALCULATION : BLOK D2

DESCRIPTION	FACTOR P.E	CAPACITY	TOTAL
STUDENT (FULL RESIDENTIAL)	1 per person	54 x 1	54
WARDEN HOUSE	4 per unit	2 x 4	8
TOTAL PE			62

TENDER DRAWING

NOTA:

PROJEK :

CADANGAN KERJA- KERJA MENAIKTARAF ASRAMA BLOK C DAN D DI KOLEJ MARA KULIM, KEDAH.

UNTUK :
TETUAN MAJLIS AMANAH RAKYAT (MARA)

NOTA:

REV.	DATE	DESCRIPTION	BY.

PEMLIK:



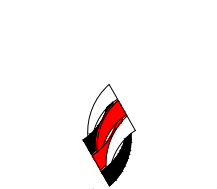
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BAHAGIAN BINAAN DAN SELENGGARAAN,
TINGKAT 11, BILU PELABAT MARA,
No.21 JALAN MARA,
55009 KUALA LUMPUR.

ARKITEK:



FARAH SOFIAH
SIA, BANGUNAN KHATULAH, JALAN KAMPUNG PERAK,
05100 ALOR STAR, KEDAH DARULAMAN,
Tel: 004 - 7359950 Fax: 004 - 7359997

JURUTERA C & S:



ABS CIVIL CONSULTANT
No. 105, TINGKAT 1,
JALAN BPJ 1/2, SEKSYEN 1, BANDAR PUTERI JAYA,
08000 SINGAP PETANI,
KEDAH DARUL AMAN,
TEL: 04-4243 800
FAX: 04-4243 800

I have certify that these works have been designed by me in accordance with sound engineering practice and that I take full responsibility for the design and proper performance of the same

JURUTERA M & E:



RHA Consulting Engineers Sdn Bhd
(Mechanical & Electrical Consulting Engineers and Design Manager)
186, Lorong Puteri 102,
Pusat Perniagaan Puteri,
08000 Kulim, Kedah Darul Aman
Tel. no: 04-4918613 Fax: 04-4918623
E-mail: rha02@rha.com.my, rha07@gmail.com

JURUKUR BAHAN:



PERUNDING BE SDN BHD
(242420) "LAW FIRM" NO. 1967972104
Jalan Maru,
No. 11-3, Jalan Ara SD 7/3A
Bandar Sh Damansara
52200 Kuala Lumpur
Selangor Darul Ehsan
No. Tel: 03-62802450

TAJUK LUKISAN:
SEWERAGE LAYOUT PLAN

TARIKH: JULAI 2026	SKALA: AS SHOWN
DI LUKIS: AIMAN	DI SEMAK: Ir. AZIZI
NO. KONTRAK:	REVISION:
NO. LUKISAN: ABS/79/KMK/SEW/LAYOUT/01	

MAJLIS AMANAH RAKYAT(MARA)

BAHAGIAN BINAAN DAN SELENGGARAAN,
TINGKAT 11, IBU PEJABAT MARA,
NO. 21 JALAN MARA, 50609 KUALA LUMPUR.

STRUCTURE

REINFORCEMENT CONCRETE NOTES :

1. THESE SET OF DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL , MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATION.
2. ALL DIMENSIONS ARE IN MILLIMETERS AND TO BE CONFIRMED ON SITE. DISCREPANCIES TO BE REPORTED TO THE ARCHITECT BEFORE WORK COMMENCES.
3. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE RESPECTIVE EURO CODES (BS EN 1992–1–1:2010) AND OTHER REQUIREMENTS OF THE LOCAL BY LAWS.
4. MINIMUM CLEARANCE COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS :–
- a. 50mm FOR ALL MEMBER CONTACT WITH GROUND.
 - b. 25mm FOR ALL BEAM ABOVE GROUND.
 - c. 25mm FOR ALL COLUMN ABOVE GROUND.
 - d. 25mm FOR ALL SLAB ABOVE GROUND.
5. SLAB THICKNESS DOES NOT INCLUDE FLOOR FINISH. SLAB AND BEAM MUST BE PLACED MONOLITHICALLY.
6. ALL CONCRETE SHALL BE OF GRADE C28/35 UNLESS STATED. ALL LEAN CONCRETE SHALL USED GRADE C12/15.
7. REINFORCEMENT TO COMPLY WITH MS 146:2014 GRD B500B
- T – DENOTES HIGH TENSILE DEFORMED STEEL.
(CHARACTERISTIC STRENGTH $f_y = 500 \text{ N/mm}^2$)
- R – DENOTES MILD STEEL.
(CHARACTERISTIC STRENGTH $f_y = 250 \text{ N/mm}^2$)
- STEEL WIRE MESH TO COMPLY WITH MS 145:2006
- BRC – STEEL FABRIC.
(CHARACTERISTIC STRENGTH $f_y = 500 \text{ N/mm}^2$)
8. THE TOP BARS OVER SUPPORT FOR BEAMS SHALL BE NOT LESS THAN $1/4 \times \text{SPAN}$. UNLESS OTHERWISE STATED.
9. THE TOP BARS OVER SUPPORT FOR SLAB SHALL BE NOT LESS THAN $1/3 \times \text{SPAN}$ OR $40 \times \text{DIA}$. WHICH EVER IS GREATER. UNLESS OTHERWISE STATED.
10. TOP BARS AT THE END OF THE SUPPORT OF SLAB SHALL BE NOT LESS THAN $1/6 \times \text{SPAN}$ OR $40 \times \text{DIA}$. WHICH EVER IS GREATER. UNLESS OTHERWISE STATED.
11. THE LENGTH OF LAP OF BARS IN TENSION SHALL NOT BE LESS THAN $50 \times \text{DIA}$. OF THE LARGEST BAR IF NOT STATED. THE LENGTH OF LAP IN COMPRESSION SHALL NOT BE LESS THAN 400mm IF NOT STATED.
12. ALL LONG SPAN BRICKWALL AND CORNERS JUNCTIONS SHALL BE PROVIDED WITH $125 \times 125\text{mm}$ STIFFENERS AT 3500mm c.c. MAIN REINFORCEMENT SHALL BE OF 4H10 AND LINKS R8–150c.c.
13. ALL GROUND FLOORS SHALL BE PROVIDED WITH A LAYER OF DAMP PROOF COARSE AT UNDER SIDE OF SLAB. TOILET AREA AND OPEN ROOF SLAB SHALL BE PROVIDED WITH A LAYER OF DAMP PROOF MEMBRANE AS APPROVED BY THE S.O.
14. ALL WORK SHALL COMPLY WITH JKR STANDARD SPECIFICATIONS BUILDING WORKS 2020 (JKR 20800–0226–20)

MILD STEEL WORKS NOTES :

1. ALL STEEL MUST BE OF GRADE S275 OR ABOVE AND FABRICATION SHALL BE IN ACCORDANCE WITH BS EN 1993 AND JKR STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL WORKS JKR NO 20601–0191–12.
2. ALL STEELWORKS SHALL BE NEW , WELL AND CLEANLY ROLLED TO THE DIMENSIONS, SECTION AND WEIGHTS SPECIFIED. IT SHALL BE FREE FROM CRACKS, SURFACE FLAWS, LAMINATIONS AND OTHER DEFECTS.
3. ALL STEELWORKS SHALL BE BLAST CLEANED, BLAST CLEANED STEELWORKS SHALL BE FREE FROM DUST, MILL SCALE AND ADHERENT PARTICLES. THE FIRST COAT OF PRIMER SHALL BE APPLIED BY AN APPROVED AIRLESS SPRAY PROCESS WITH THE LEAST POSSIBLE DELAY. THE SUCCESSIVE (MIO EPOXY 100 DFT) COATS SHALL BE APPLIED WITHIN THE TIME PERIODS SPECIFIED BY THE MANUFACTURER.
4. PAINTING SYSTEM SHALL BE PROPRIETARY ANTI–CORROSIVE SUITABLE FOR AT LEAST 5 YEARS PROTECTION FROM POLLUTED INLAND ENVIROMENT. RECOMENDED PAINTING SYSTEM:–
- i) – SURFACE TO BE MANUALLY CLEAN FROM DIRT & RUST (WIREBRUSHED)
 - ii) – PRIMER COAT – RED LEAD QUICK DRY, 40 micrometer thk
 - iii) – INTERMEDIATE COAT– MODIFIED MICACEOUS IRON OXIDE, 50 micrometer thk
 - iv) – TOP COAT– HIGH BUILD ALKYD FINISH, 50 micrometer thk
 - v) – FINISHING COAT
5. ALL PURLINS SHALL BE HI–TENSILE GALVANIZED C–PURLIN OR OTHER STATED.
6. ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH B.S 729
7. ALL BOLTS SHALL BE OF GRADE 8.8 (MILD STRENGTH BLACK BOLT) WITH MIN. SHEAR STRENGTH 275 N/mm^2 . AND COMPLY TO BS EN 1993.
8. ALL BOLTS SHALL BE TIGHTENED 'DEAD TIGHT'
9. WELDING ELECTRODES FOR MANUAL SHIELDED METAL–ARC WELDING SHALL CONFORM TO BS 639. TYPE OF ELECTRODES USED SHALL BE COMPATIBLE WITH THE GRADE OF STEEL TO BE WELDED.
10. MATERIALS SHALL BE STORED UNDER PROTECTIVE COVER AND KEPT DRY. NO DAMAGE MATERIALS SHALL BE USED IN THE CONSTRUCTION.
11. CONTRACTOR SHALL BE SUBMITTED TO S.O. SHOP DRAWINGS TOGETHER WITH DESIGN CALCULATION AND MANUFACTURER’S GUARANTEE CERTIFICATE FOR MATERIALS APPROVAL. ALL SHOP DRAWINGS AND CALCULATION SHALL BE ENDORSED BY PROFESSIONAL ENGINEER.
12. ALL END SECTION OF HOLLOW SECTION SHALL BE CLOSED WITH 3mm THK MS END PLATE AND WELDED BY 4mm THK ALL AROUND.

NOTA:

PROJEK :

CADANGAN KERJA- KERJA MENAIKTARAF ASRAMA BLOK C DAN D DI KOLEJ MARA KULIM, KEDAH.

UNTUK :
TETUAN MAJLIS AMANAH RAKYAT (MARA)

NOTA:

REV.	DATE	DESCRIPTION	BY.

PEMLIK:



ARKITEK:



JURUTERA C & S:



JURUTERA M & E:



JURUKUR BAHAN:



TAJUK LUKISAN:

- GENERAL NOTES

TARIKH:	JULAI 2026	SKALA:	1 : N.T.S
DI LUKIS:	AIMAN	DI SEMAK:	Ir. AZIZI
NO. KONTRAK:		REVISION:	
NO. LUKISAN:	ABS/79/KMK/STRUC/G.NOTES/I		

TENDER DRAWING



TENDER DRAWING

NOTA:

PROJEK

CADANGAN KERJA- KERJA MENAIKTARAF
ASRAMA BLOK C DAN D DI KOLEJ MARA
KULIM, KEDAH.

UNTUK :
TETUAN MAJLIS AMANAH RAKYAT (MARA)

NOTA

[illegible]

PEMILIK



MAJLIS AMANAH RAKYAT
BAHAGIAN BINAAN DAN SELENGGARAAN
TINGKAT 11, IBU PEJABAT MARA,
No.21 JALAN MARA,
50609 KUALA LUMPUR.

ARKITEK



FARAH SOFIAH

JURUTERA C & S



ABS CIVIL CONSULTANT
NO. 185, TINGKAT 1,
JALAN BPJ 1/2, SEKSYEN 1, BANDAR PUTERI JAYA,
08000 SUNGAI PETANI,
KEDAH DARUL AMAN.
TEL : 04-4243 800

I have certify that these works have been designed by me in accordance with sound engineering practice and that i take full responsibility for the design and proper performance of the same.

JURUTERA M & E



RHA Consulting Engineers Sdn Bhd

186, Lorong Putra 1/D,
Pusat Perniagaan Putra,
Jalan Kilang Lama,
09000 Kulim, Kedah Darul Aman

JURUKUR BAHAN



PERUNDING BE SDN BHD

(344350) LBM PERMIT No. 1995/PG 00
Jumlah Bahan
Quantity Surveyed

No. 11-3 Jalan Ara SD 7/3A
Bandar Lampung, Indonesia

Bandar Sri Damansara
52200 Kuala Lumpur
Selangor Darul Ehsan

No. Tel: 03-6060045

TAJUK LUKISAN:

BLOK C
- PELAN TINGKAT BAWAH
- PELAN TINGKAT ATAS

TARIKH: JULAI 2026		SKALA: AS SHOWN	
DI LUKIS: AIMAN		DI SEMAK: Ir. AZIZI	
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ABS/79/KMK/STRUC/LAY/BLOK.C/01			

BLOK D

PELAN TINGKAT BAWAH

SCALE 1 : 150

PELAN TINGKAT ATAS

SCALE 1 : 150

PELAN TINGKAT BAWAH(LOWER GROUND)

SCALE 1 : 150

TENDER DRAWING

NOTA:

PROJEK :

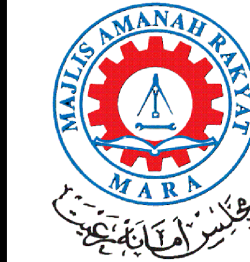
CADANGAN KERJA- KERJA MENAIKTARAF
ASRAMA BLOK C DAN D DI KOLEJ MARA
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55009 KUALA LUMPUR.

ARKITEK:



JURUTERA C & S:

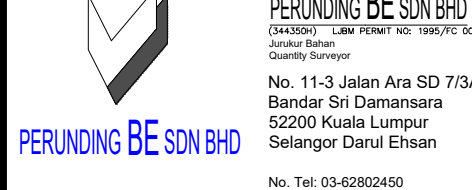


I have certify that these works have been designed by me in accordance with sound engineering
practice and that I take full responsibility for the design and proper
performance of the same

JURUTERA M & E:



JURUKUR BAHAN:



TAJUK LUKISAN:
BLOK D
PELAN TINGKAT BAWAH(LOWER GROUND)
PELAN TINGKAT BAWAH
PELAN TINGKAT ATAS

TARIKH:

DI LUKIS:

NO. KONTRAK:

NO. LUKISAN:

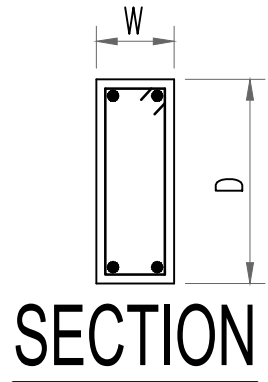
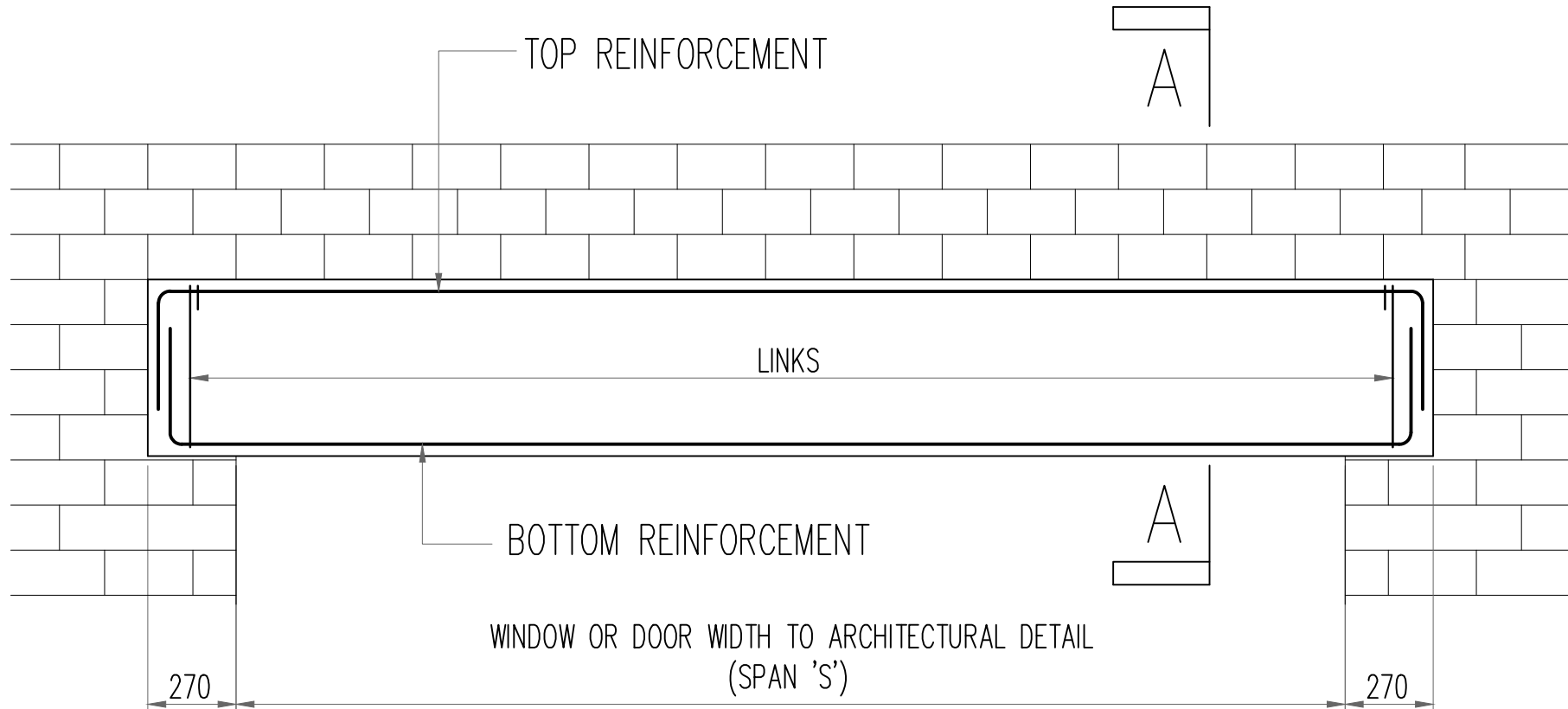
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DI SEMAK:

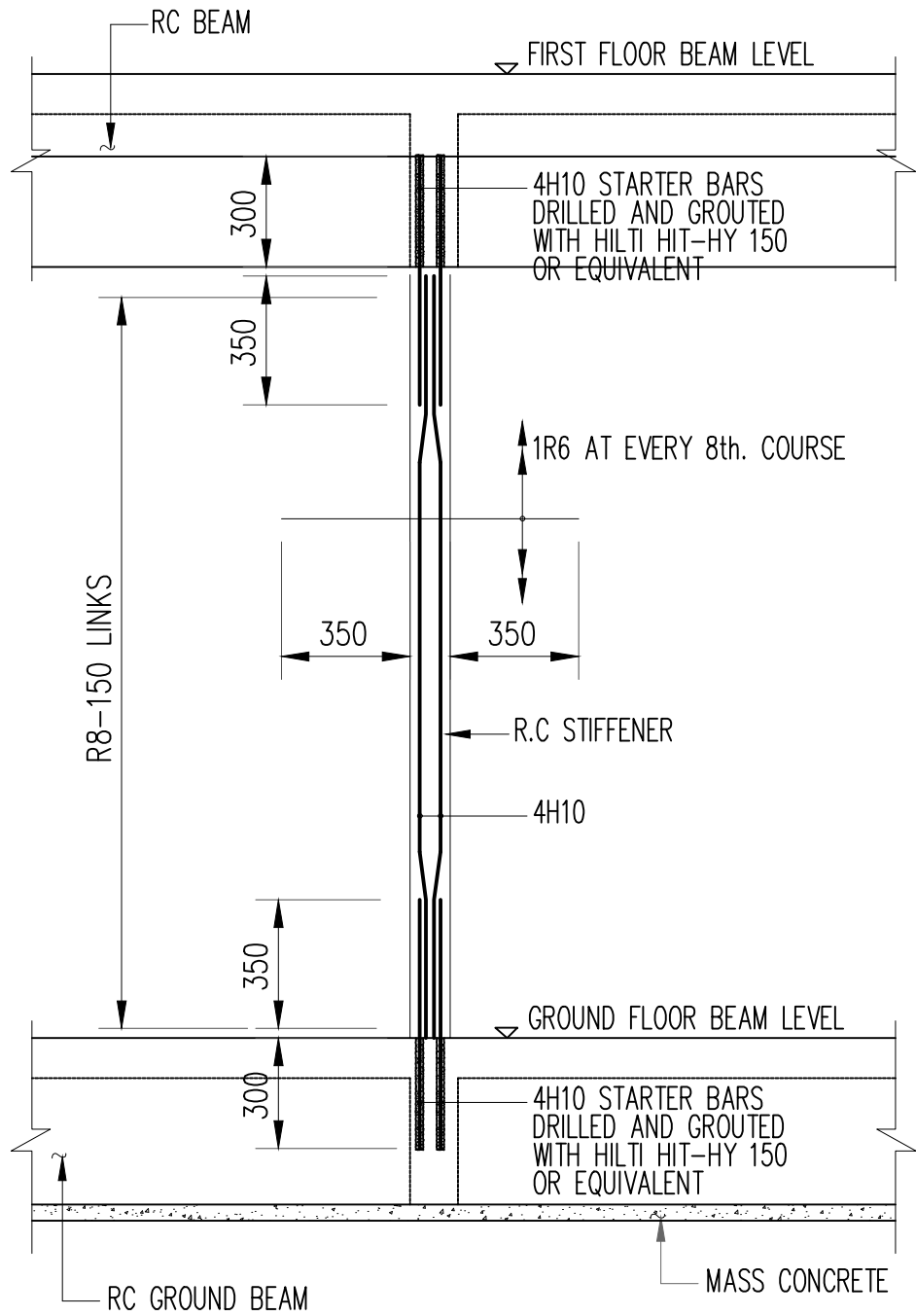
REVISION:

ABS/79/KMK/STRUC/LAY/BLOK.D/02

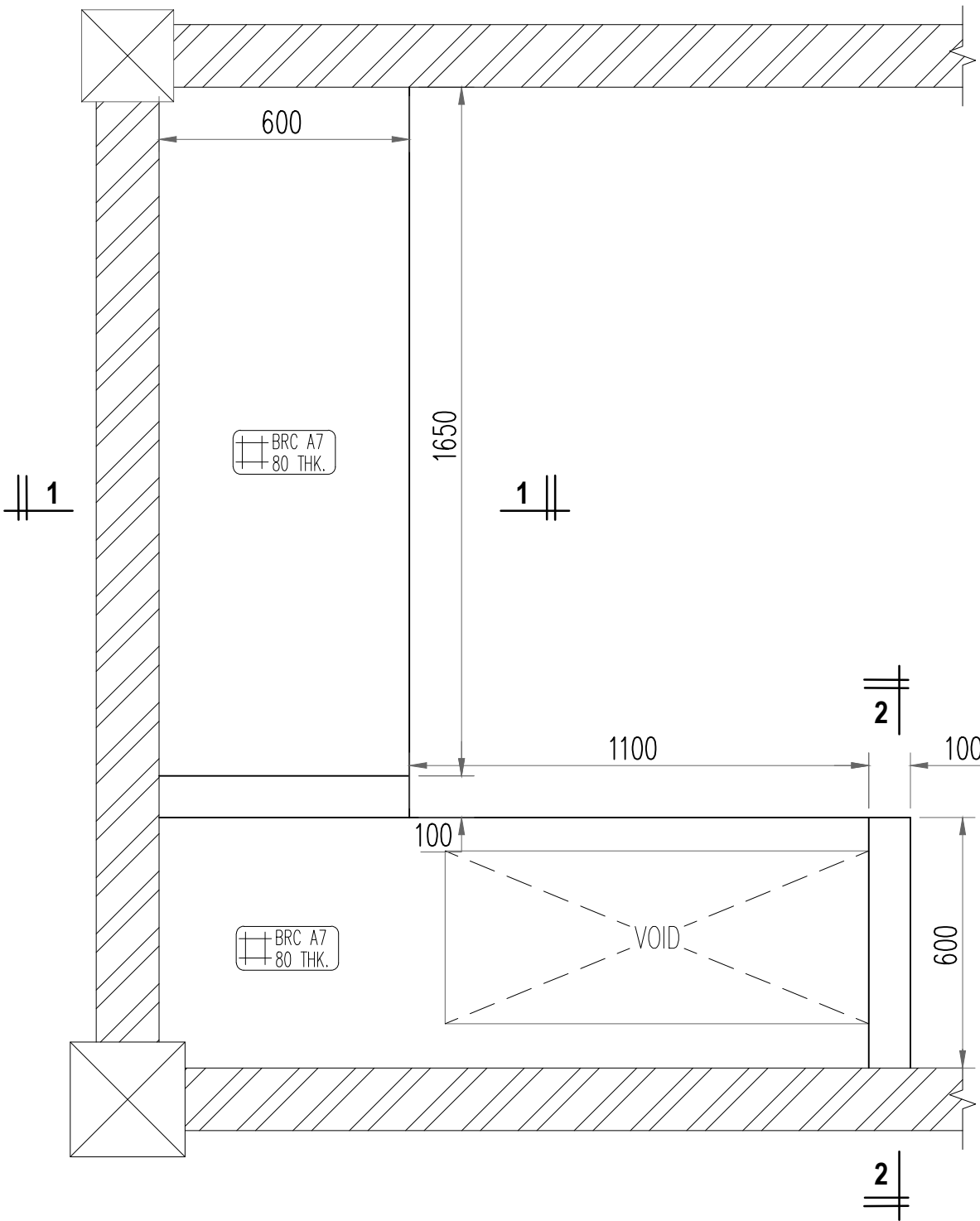
LINTEL BEAM SCHEDULE					
SPAN 'S'	SIZE W x D	REINFORCEMENT		LINKS	BRICKWORK THICKNESS
		TOP	BOTTOM		
0<'S'<1500	150 x 200	2 H 12	2 H 12	R 8 – 175	115
1500<'S'<3000	150 x 400	2 H 12	2 H 16	R 8 – 175	115
3000<'S'<5000	150 x 400	2 H 12	2 H 16	R 8 – 150	115
0<'S'<1500	225 x 225	2 H 12	2 H 12	R 8 – 175	225
1500<'S'<3000	225 x 400	2 H 12	2 H 16	R 8 – 175	225
3000<'S'<5000	225 x 400	2 H 12	2 H 16	R 8 – 150	225



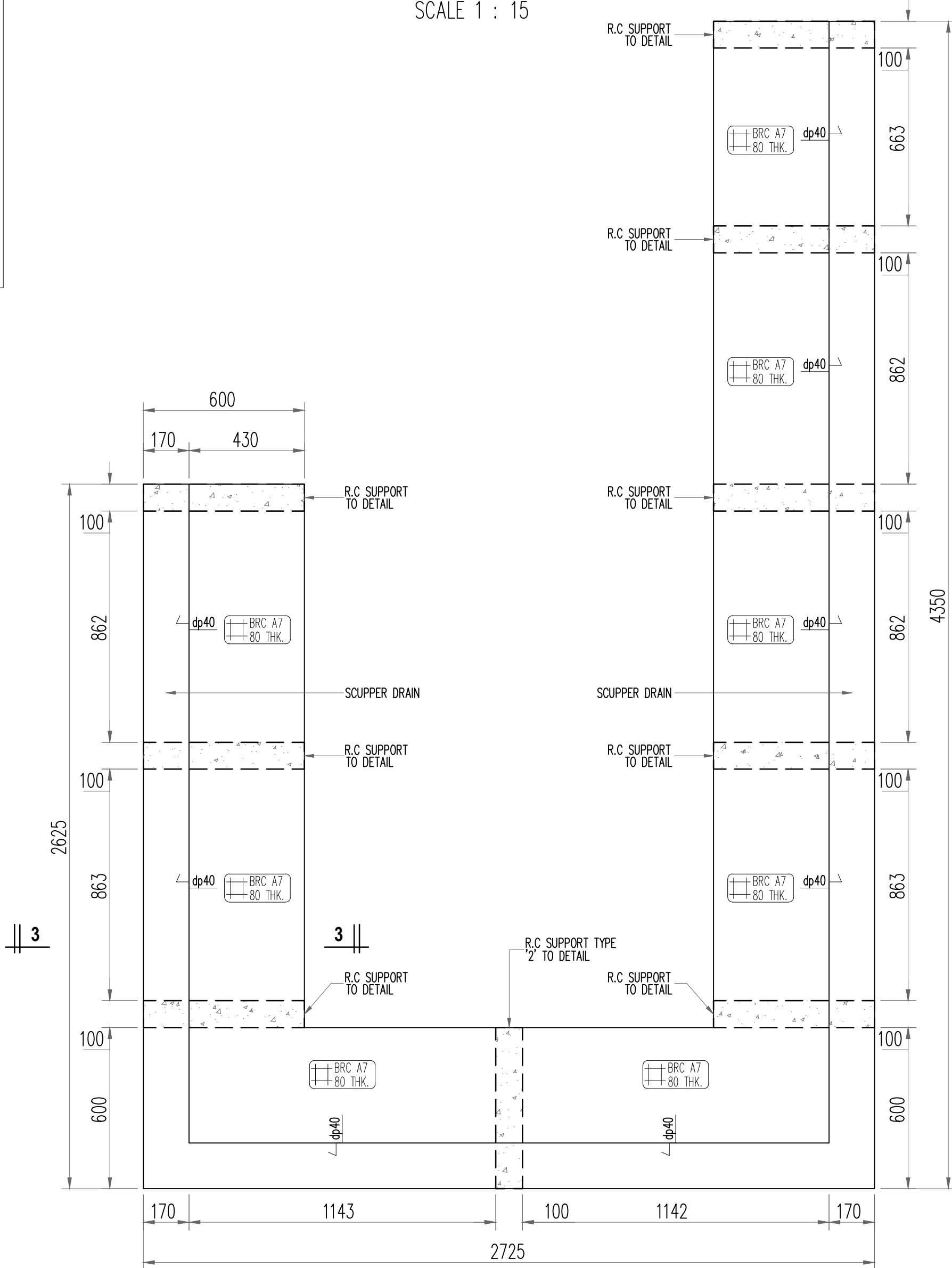
LINTEL BEAM SCHEDULE
SCALE 1 : 15



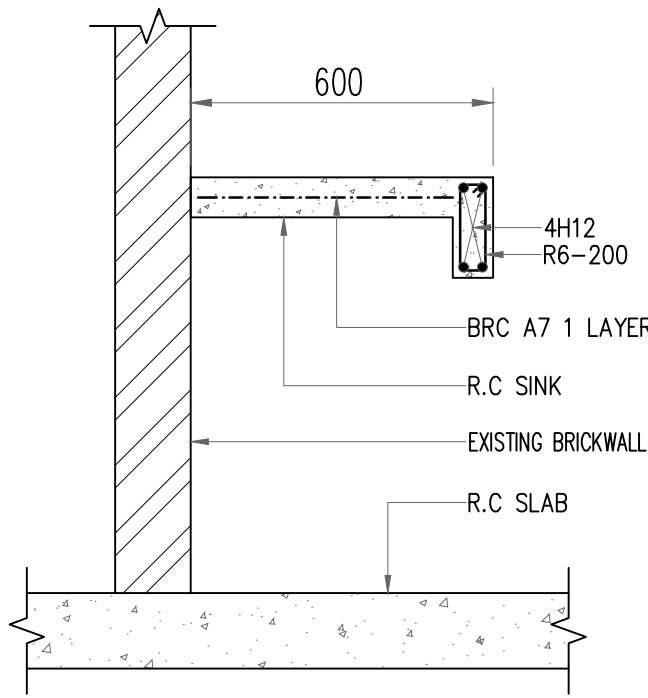
R.C STIFFENER DETAIL
SCALE 1 : 20



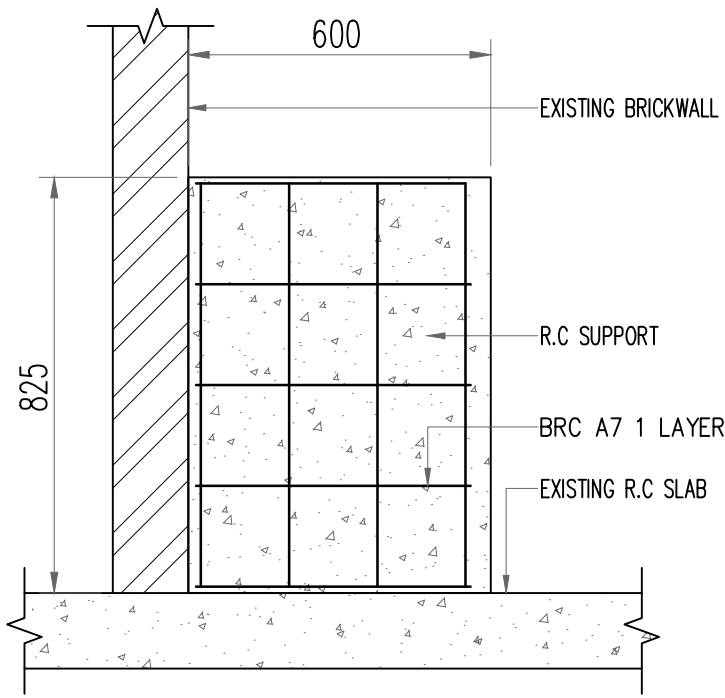
R.C SINK PLAN VIEW : KITCHEN AREA
SCALE 1 : 15



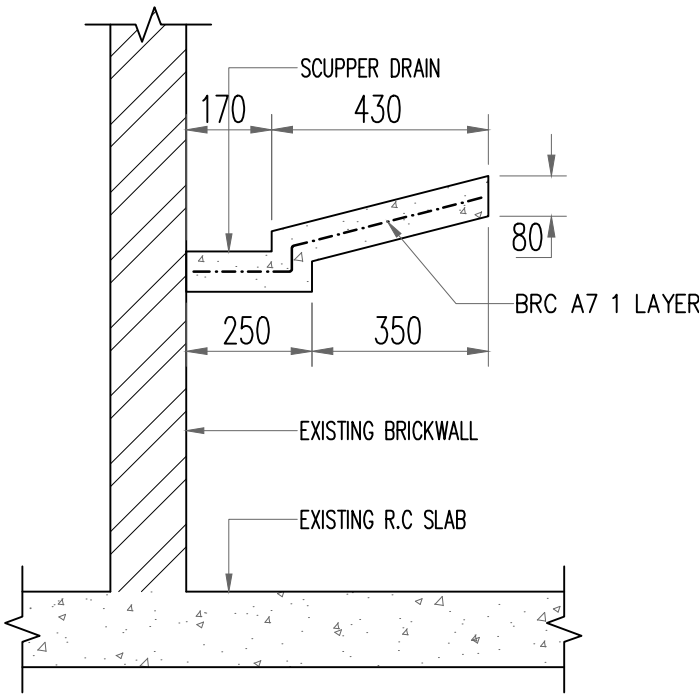
R.C SINK PLAN VIEW : TOILET AREA
SCALE 1 : 15



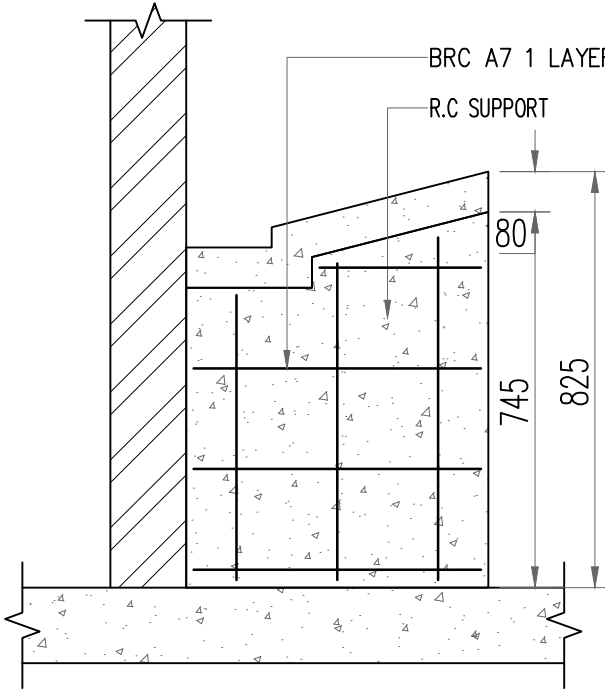
SECTION 1 - 1
SCALE 1 : 15



SECTION 2 - 2
SCALE 1 : 15



SECTION 3 - 3
SCALE 1 : 15



R.C SUPPORT : TOILET AREA
SCALE 1 : 15

NOTA:

PROJEK :

CADANGAN KERJA- KERJA MENAIKTARAF
ASRAMA BLOK C DAN D DI KOLEJ MARA
KULIM, KEDAH.

UNTUK :

TETUAN MAJLIS AMANAH RAKYAT (MARA)

NOTA:

REV.	DATE	DESCRIPTION	BY.

PEMILIK:

MAJLIS AMANAH RAKYAT
BAHAGIAN BINAAN DAN SELENGGARAAN,
TINGKAT 11, BLOK PEKASAT MARA,
No.21 JALAN MARA,
55009 KUALA LUMPUR.

ARKITEK:

FARAH SOFIAH
ARCHITECTS
55A, BANGUNAN KHAYAT, JALAN KAMPUNG PERAK,
05100 ALOR STAR, KEDAH DARULAMAN,
TEL: 004 - 7355950 Fax: 004 - 7355951

JURUTERA C & S:

ABS CIVIL CONSULTANT
No. 105, TINGKAT 1,
JALAN BPJ 1/2, SEKSYEN 1, BANDAR PUTERI JAYA,
08000 BUNGA PETANI,
KEDAH DARUL AMAN,
TEL: 04-4243 800
FAX: 04-4243 800

I have certify that these works have been designed by me in accordance with sound engineering practice and that i take full responsibility for the design and proper performance of the same

JURUTERA M & E:

RHA Consulting Engineers Sdn Bhd
(Mechanical & Electrical Consulting Engineers and Design Manager) (892296-V)
198, Lorong Putra 1/2,
Pusat Perniagaan Putra,
08000 Kulim, Kedah Darul Aman
Tel. no. 04-4918152 Fax: 04-4918252
E-mail: rhae2007@yahoo.com, rhae2007@gmail.com

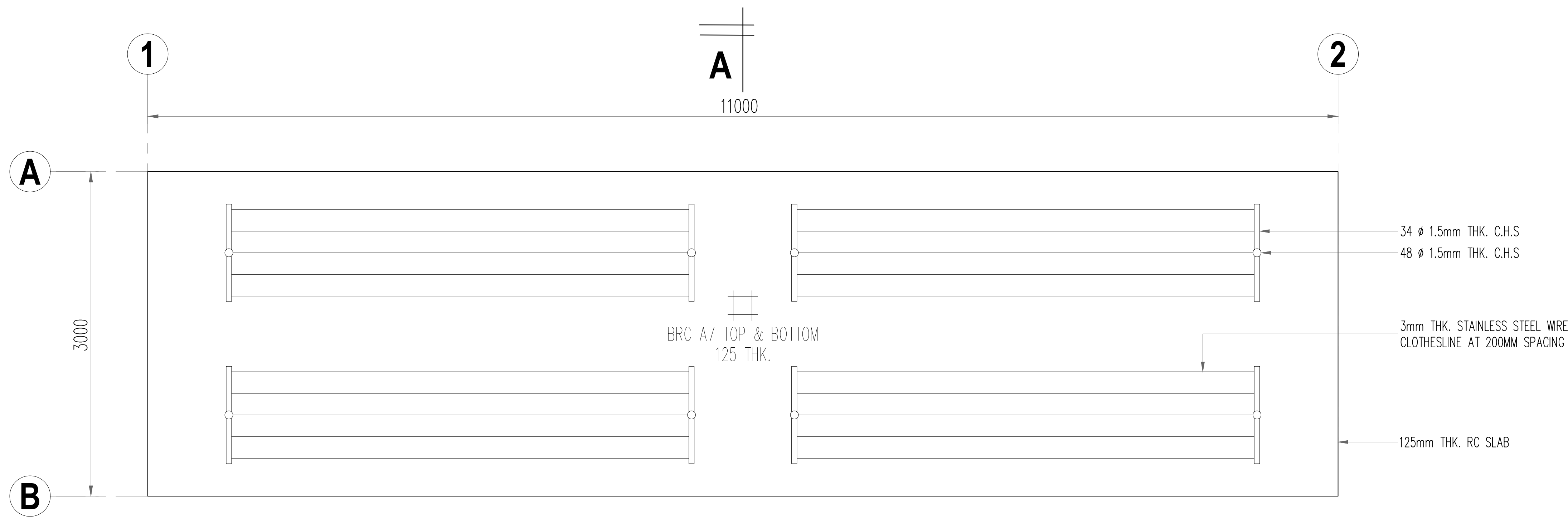
JURUKUR BAHAN:

PERUNDING BE SDN BHD
(242420) "LAW FIRM" NO. 196/PET 104+
Company No. 11-3 Jalan Ara SD 7/3A
Bandar Sh Damansara
52200 Kuala Lumpur
Selangor Darul Ehsan
No. Tel: 03-6282450

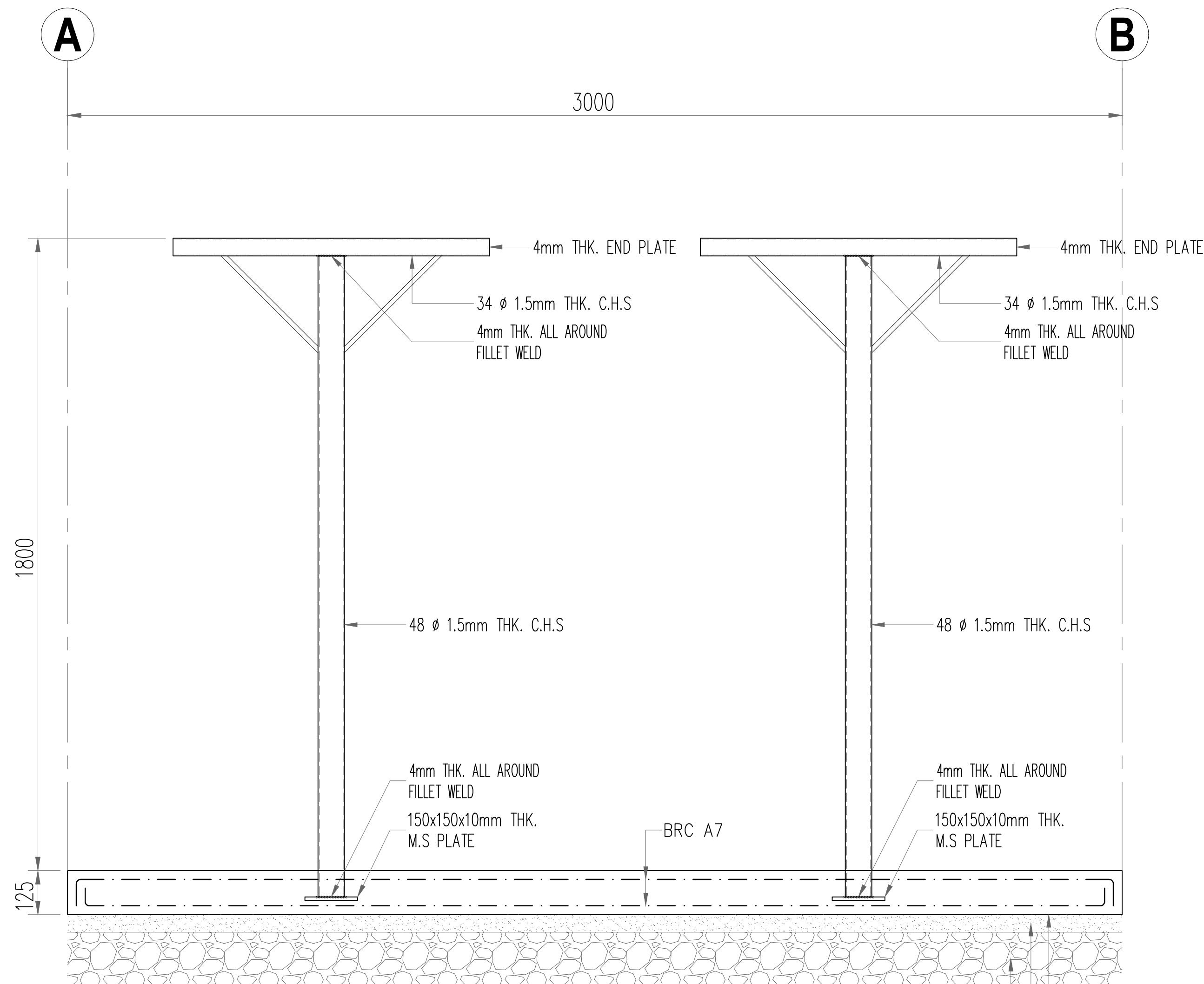
TAJUK LUKISAN:
- LINTEL BEAM SCHEDULE,
R.C STIFFENER DETAIL, R.C SINK DETAIL,
& R.C SINK : TOILET AREA DETAIL

TARIKH:	JULAI 2026	SKALA:	AS SHOWN
DI LUKIS:	AIMAN	DI SEMAK:	Ir. AZIZI
NO. KONTRAK:			REVISION:
NO. LUKISAN:	ABS/79/KMK/STRUC/TYP/DETAIL/03		

TENDER DRAWING



TYPICAL PLAN (JEMURAN)
SCALE 1 : 25



SECTION A - A
SCALE 1 : 10

NOTA:

PROJEK :
CADANGAN KERJA- KERJA MENAIKTARAF
ASRAMA BLOK C DAN D DI KOLEJ MARA
KULIM, KEDAH.

UNTUK :
TETUAN MAJLIS AMANAH RAKYAT (MARA)

NOTA:

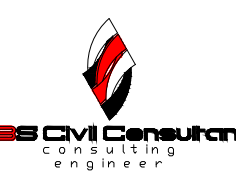
REV.	DATE	DESCRIPTION	BY.

PEMLIK:

MAJLIS AMANAH RAKYAT
BAHAGIAN BINAAN DAN SELENGGARAAN,
TINGKAT 11, IBLI PEKASAT MARA,
No.21 JALAN MARA,
55009 KUALA LUMPUR.

ARKITEK:

FARAH SOFIAH
ARCHITECTS
83A, BANGUNAN KHATULAH, JALAN KAMPUNG PERAK,
05100 ALOR STAR, KEDAH DARULAMAN,
TEL: 004 - 7355950 Fax: 004 - 7355957

JURUTERA C & S:

ABS CIVIL CONSULTANT
NO. 105, TINGKAT 1,
JALAN BPJ 1/2, SEKSYEN 1, BANDAR PUTERI JAYA,
08000 BUNGA PETANI,
KEDAH DARUL AMAN,
TEL: 04-4243 800
FAX: 04-4243 800
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performance of the same

JURUTERA M & E:

RHA Consulting Engineers Sdn Bhd
(Mechanical & Electrical Consulting Engineers and Design Manager) (892296-V)
186, Lorong Putra 1/2,
Pusat Perniagaan Putra,
Jalan Klang Lama,
08000 Kulim, Kedah Darul Aman
Tel. no. 04-4918153 Fax: 04-4918223
E-mail: rha027@putra.com, rha027@gmail.com

JURUKUR BAHAN:

PERUNDING BE SDN BHD
(242420) "LAW FIRM" NO. 1967/PE/2014
Jalan Puteri
No. 11-3 Jalan Ara SD 7/3A
Bandar Sh Damansara
52200 Kuala Lumpur
Selangor Darul Ehsan
No. Tel: 03-6282450

TAJUK LUKISAN:
- PLAN VIEW (JEMURAN)
- SECTION A - A

TARIKH: JULAI 2026 SKALA: AS SHOWN

DI LUKIS: AIMAN DI SEMAK: Ir. AZIZI

NO. KONTRAK: NO. LUKISAN: ABS/79/KMK/STRUC/TYP/JEMURAN/04 REVISION: