SAMPLE DRAWING FOR TYPICAL DETAILS OF METAL CEILING

1. GENERAL NOTE

1.1. THE DESIGN AND CONSTRUCTION OF METAL CEILING ARE IN ACCORDANCE WITH THE BUILDING (CONSTRUCTION) REGULATION, HONG KONG.
1.2. THE DRAWINGS SHOULD BE READ IN CONJUNCTION WITH THE LATEST APPROVED GENERAL BUILDING PLAN APPROVED ON __(DATE)__ .
1.3. THE STRUCTURAL INFORMATION FOR THE PARENT STRUCTURE SHOULD BE READ IN CONJUNCTION WITH THE LATEST STRUCTURAL PLAN APPROVED ON __(DATE)__ .

2. STANDARD AND CODES

2.1. CODE OF PRACTICE FOR THE STRUCTURAL USE OF STEEL 2011.
2.2. THE STRUCTURAL USE OF ALUMINIUM – BS 8118: PART 1: 1991 WITH MODIFICATION OF PARTIAL LOAD FACTOR FOR WIND LOAD IN ACCORDANCE WITH PNAP APP–53.
2.3. CODE OF PRACTICE FOR DEAD AND IMPOSED LOAD 2011.
2.4. CODE OF PRACTICE ON WIND EFFECTS IN HONG KONG 2019.

3. NOTE ON DESIGN LOADS

3.1. DESIGN WIND LOAD:

DESIGN WIND PRESSURE / DESIGN WIND REFERENCE PRESSURE	Q_z = ____
PRESSURE COEFFICIENT	C_p = ____
SIZE FACTOR	S_s = ____
DESIGN WIND PRESSURE	P = Q_z x C_p x S_s = ____

4. NOTE ON STRUCTURAL STEEL

4.1. STRUCTURAL STEEL SHALL BE GRADE ___ . ALL STEEL SECTIONS SHALL BE CLASS 1 AS SPECIFIED IN CLAUSE 3.1.1 OF THE CODE OF PRACTICE FOR THE STRUCTURAL USE OF STEEL 2011.
4.2. ALL STRUCTURAL STEELWORK SHALL BE HOT–DIP GALVANIZED IN ACCORDANCE WITH BS EN ISO 1461: 2009 TO 85 MICRON MINIMUM THICKNESS.
4.3. ALL WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS IN ACCORDANCE WITH BS EN 287–1:2004 AND BS EN 288–3:1992.
4.4. WELD STRENGTH SHALL BE ___ N/mm².
4.5. ALL WELDING SHALL BE 6mm FILLET WELDS, UNLESS OTHERWISE SPECIFIED.
4.6. WELDING ELECTRODE SHALL BE CLASS___TO BS EN ISO 2560:2009.
4.7. WELDING TESTS SHALL COMPLY WITH CLAUSE 14.3.6 OF THE CODE OF PRACTICE FOR THE STRUCTURAL USE OF STEEL 2011.

5. NOTE ON STRUCTURAL STAINLESS STEEL

5.1. STAINLESS STEEL SCREW / BOLT SHALL BE OF GRADE ___ TO BS EN ISO 3506: PART 1 TO 3: 2009.

6. NOTE ON STRUCTURAL ALUMINIUM

6.1. ALL ALUMINIUM EXTRUSION SHALL BE GRADE ___ COMPLYING WITH BS 8118: PART 1: 1991, BS EN 755: PART 2: 2008, AND BS EN 573: PART 3: 2009.
6.2. ALL ALUMINIUM SHEET SHALL BE GRADE ___ TO BS EN 485 PART 2: 2008 AND BS EN 573 PART 3: 2009.
6.3. NOTE ON ALUMINIUM STUDS
a) ALL ALUMINUM STUD SHALL BE GRADE _____ .
b) DESIGN AND QUALITY ASSURANCE OF THE DRAWN ARC STUD WELDING PROCESS SHALL SATISFY THE REQUIREMENTS OF BS EN ISO 14555: 2017.
c) THE STUD SHALL FOLLOW THE DEFINED PROFILE M5 AS SPECIFIED UNDER TABLE 14 OF BS EN ISO 13918:2008.

7. NOTE ON BIMETALLIC EFFECT

7.1. ALL CONTACT FACES BETWEEN DISSIMILAR METALS AND ALUMINIUM SHALL BE COATED WITH BITUMINOUS PAINT FOR INSULATION.

8. NOTE ON DRILLED–IN ANCHOR

8.1. DESIGN AND INSTALLATION OF DRILLED–IN ANCHORS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
8.2. DRILLED–IN ANCHORS SHALL BE INSTALLED IN SOUND CONCRETE WITH F.O.S. = 3.
8.3. SCHEDULED OF DRILLED–IN ANCHORS:

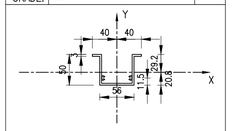
ANCHOR TYPE	EMBEDMENT DEPTH	MIN. EDGE DISTANCE	MIN. SPACING	LOADING CAPACITY/ RECOMMENDED LOAD	TEST LOAD	B.D. REF.

8.4. DESIGN CONCRETE STRENGTH OF PARENT STRUCTURE = ____ N/mm².

9. MEMBER SCHEDULE

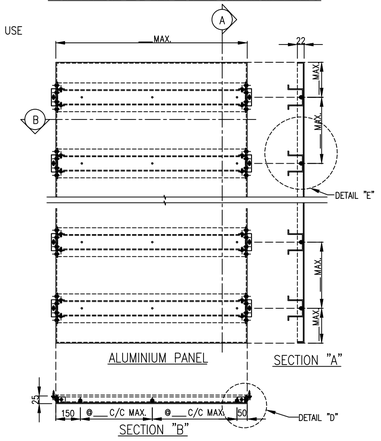
MEMBER MARK	DESCRIPTION	GRADE
MC2/MC3/MC4/EC2	–	–
SC1	–	–
SC2	–	–
AL1	–	–

3mm THK. ALUM. STIFFENER		AL1
DIE No:	–	
GRADE:	–	

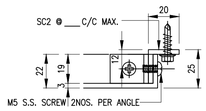


MASS PROPERTIES(UNIT)	VALUES
AREA (mm²):	–
PERIMETER (mm):	–
BENDING BOX–X(mm):	–
BENDING BOX–Y(mm):	–
MOMENT OF INERTIA–X(mm⁴):	–
MOMENT OF INERTIA–Y(mm⁴):	–
ELASTIC MODULUS–X(mm³):	–
ELASTIC MODULUS–Y(mm³):	–

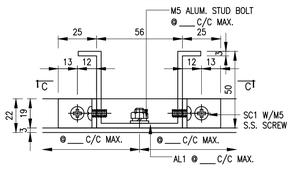
10. TYPICAL DETAIL OF ALUMINIUM PANEL



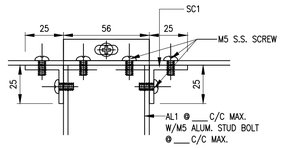
ALUMINIUM PANEL — SECTION "A" — SECTION "B"



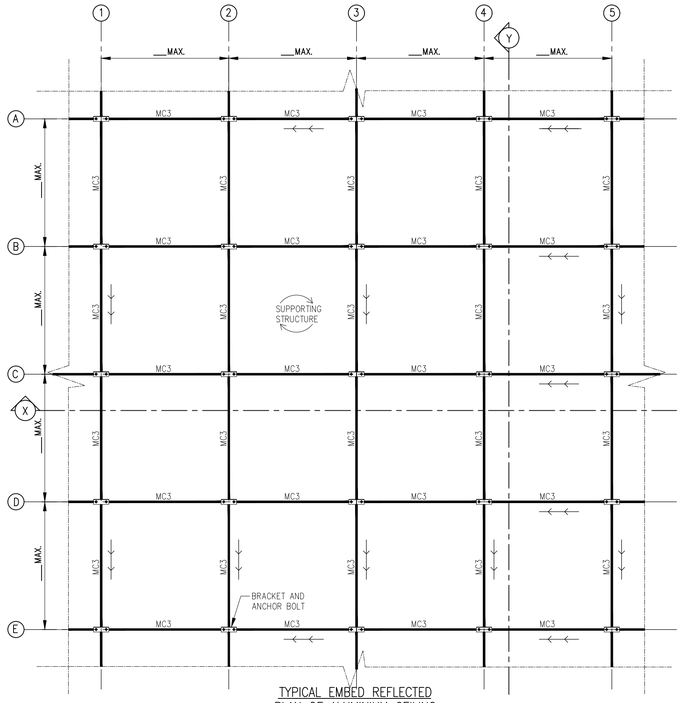
DETAIL "D"



DETAIL "E"

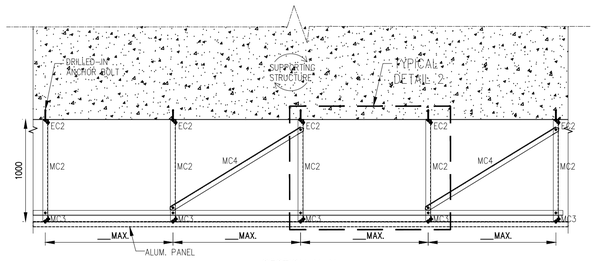


SECTION "C"

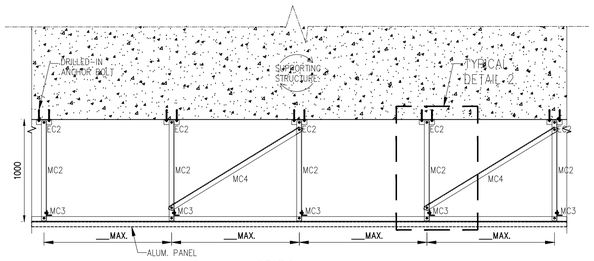


TYPICAL EMBED REFLECTED PLAN OF ALUMINIUM CEILING

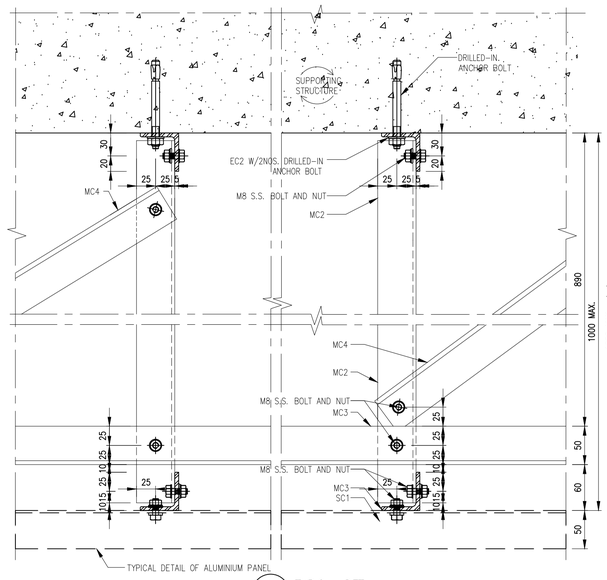
DIAGONAL BRACING, MC4 (NOTE: DIAGONAL BRACING SHOWN IS INDICATIVE ONLY, LAYOUT AND NOS. OF BRACING SHALL BE DESIGNED TO SUIT)



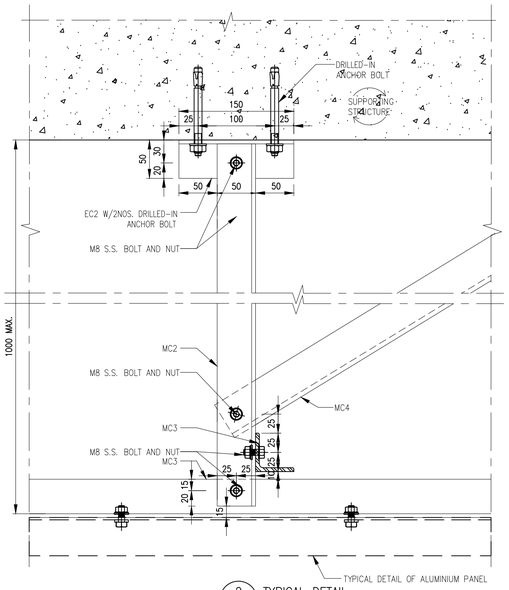
SECTION Y–Y
(BRACING TO BE PROVIDED IN ALTERNATE BAY)
(NOTE: DIAGONAL BRACING SHOWN IS INDICATIVE ONLY, LAYOUT AND NOS. OF BRACING SHALL BE DESIGNED TO SUIT)



SECTION X–X
(BRACING TO BE PROVIDED IN ALTERNATE BAY)
(NOTE: DIAGONAL BRACING SHOWN IS INDICATIVE ONLY, LAYOUT AND NOS. OF BRACING SHALL BE DESIGNED TO SUIT)



1 / – TYPICAL DETAIL
1:4



2 / – TYPICAL DETAIL
1:4

BLOCK PLAN

BD REF
BIM REF
FSD REF

REV.	DATE	AMENDMENT

PROJECT
SAMPLE

DRAWING TITLE
NOTES AND DETAILS OF METAL CEILING

SCALE

DRAWING NO. A005 REV. NO.

SORUCE

90mm(W) x 40mm(H) space for COMPANY LOGO

90mm(W) x 60mm(H) space for AP/RSE/RGE's signature/ and stamp chop

BD's OFFICIAL USE

90mm(W) x 150mm(H) space for BD's approval stamp/ certification of copies of approved plans (PNAP ADM–10 APP A)

SAMPLE DRAWING FOR TYPICAL DETAILS OF METAL LOUVRE

1. GENERAL NOTE

1.1. THE DESIGN AND CONSTRUCTION OF METAL LOUVRE ARE IN ACCORDANCE WITH THE BUILDING (CONSTRUCTION) REGULATION, HONG KONG.
1.2. THE DRAWINGS SHOULD BE READ IN CONJUNCTION WITH THE LATEST APPROVED GENERAL BUILDING PLAN APPROVED ON (DATE) .
1.3. THE STRUCTURAL INFORMATION FOR THE PARENT STRUCTURE SHOULD BE READ IN CONJUNCTION WITH THE LATEST STRUCTURAL PLAN APPROVED ON (DATE) .

2. STANDARD AND CODES

2.1. CODE OF PRACTICE FOR THE STRUCTURAL USE OF STEEL 2011.
2.2. THE STRUCTURAL USE OF ALUMINIUM – BS 8118: PART 1: 1991 WITH MODIFICATION OF PARTIAL LOAD FACTOR FOR WIND LOAD IN ACCORDANCE WITH PNAP APP–53.
2.3. CODE OF PRACTICE FOR DEAD AND IMPOSED LOAD 2011.
2.4. CODE OF PRACTICE ON WIND EFFECTS IN HONG KONG 2019.

3. NOTE ON DESIGN LOADS

3.1. DESIGN WIND LOAD:

DESIGN WIND PRESSURE / DESIGN WIND REFERENCE PRESSURE	Q_z = ____
PRESSURE COEFFICIENT	C_p = ____
SIZE FACTOR	S_s = ____
DESIGN WIND PRESSURE	P = Q_z x C_p x S_s = ____

4. NOTE ON STRUCTURAL STAINLESS STEEL

4.1. STAINLESS STEEL SCREW/BOLT SHALL BE OF GRADE __ TO BS EN ISO 3506: PART 1 TO 3: 2009.

5. NOTE ON STRUCTURAL ALUMINIUM

5.1. ALL ALUMINIUM EXTRUSION SHALL BE GRADE __ COMPLYING WITH BS 8118: PART 1: 1991, BS EN 755: PART 2: 2008, AND BS EN 573: PART 3: 2009.
5.2. ALL ALUMINIUM SHEET SHALL BE GRADE __ TO BS EN 485 PART 2: 2008 AND BS EN 573 PART 3: 2009.

6. NOTE ON BIMETALLIC EFFECT

6.1. ALL CONTACT FACES BETWEEN DISSIMILAR METALS AND ALUMINIUM SHALL BE COATED WITH BITUMINOUS PAINT FOR INSULATION.

7. NOTE ON DRILLED–IN ANCHOR

7.1. DESIGN AND INSTALLATION OF DRILLED–IN ANCHORS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
7.2. DRILLED–IN ANCHORS SHALL BE INSTALLED IN SOUND CONCRETE WITH F.O.S. = 3.
7.3. SCHEDULED OF DRILLED–IN ANCHORS:

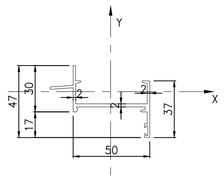
ANCHOR TYPE	EMBEDMENT DEPTH	MIN. EDGE DISTANCE	MIN. SPACING	LOADING CAPACITY/ RECOMMENDED LOAD	TEST LOAD	B.D. REF.

7.4. DESIGN CONCRETE STRENGTH OF PARENT STRUCTURE = ____ N/mm².

8. MEMBER SCHEDULE

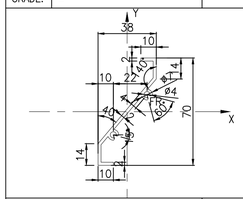
MEMBER MARK	DESCRIPTION	GRADE
AL1	–	–
A1	–	–
A2	–	–
A3	–	–
A4	–	–

2mm THK. ALUM. LOUVRE	A3
DIE NO.: –	
GRADE: –	

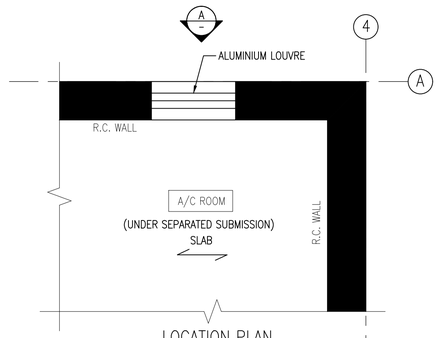


MASS PROPERTIES (UNIT)	VALUES
AREA (mm²)	–
PERIMETER (mm)	–
BENDING BOX–X (mm)	–
BENDING BOX–Y (mm)	–
MOMENT OF INERTIA–X (mm⁴)	–
MOMENT OF INERTIA–Y (mm⁴)	–
ELASTIC MODULUS–X (mm³)	–
ELASTIC MODULUS–Y (mm³)	–

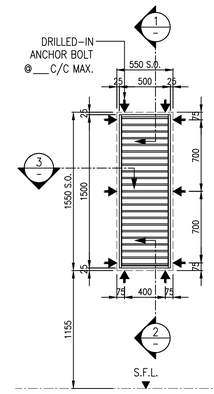
2mm THK. ALUM. LOUVRE BLADE	A4
DIE NO.: –	
GRADE: –	



MASS PROPERTIES (UNIT)	VALUES
AREA (mm²)	–
PERIMETER (mm)	–
BENDING BOX–X (mm)	–
BENDING BOX–Y (mm)	–
MOMENT OF INERTIA–X (mm⁴)	–
MOMENT OF INERTIA–Y (mm⁴)	–
ELASTIC MODULUS–X (mm³)	–
ELASTIC MODULUS–Y (mm³)	–

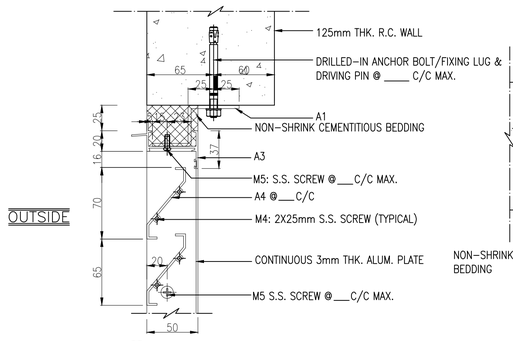


LOCATION PLAN
(2/F A/C ROOM)

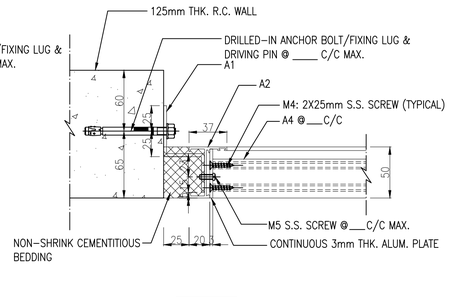


LOCATION	–

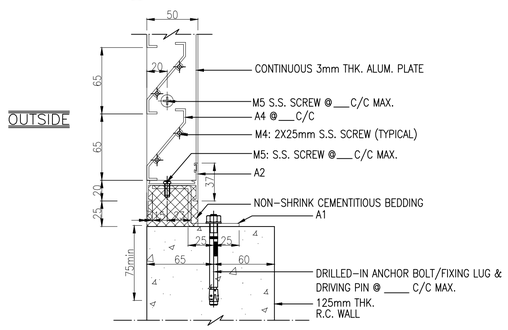
ELEVATION A



1 TYPICAL DETAIL
1:3

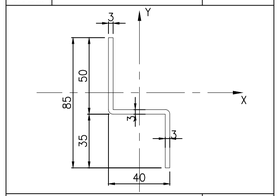


3 TYPICAL DETAIL
1:3



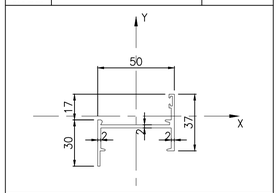
2 TYPICAL DETAIL
1:3

3mm THK. ALUM. BENT PLATE	A1
DIE NO.: –	
GRADE: –	



MASS PROPERTIES (UNIT)	VALUES
AREA (mm²)	–
PERIMETER (mm)	–
BENDING BOX–X (mm)	–
BENDING BOX–Y (mm)	–
MOMENT OF INERTIA–X (mm⁴)	–
MOMENT OF INERTIA–Y (mm⁴)	–
ELASTIC MODULUS–X (mm³)	–
ELASTIC MODULUS–Y (mm³)	–

2mm THK. ALUM. LOUVRE	A2
DIE NO.: –	
GRADE: –	



MASS PROPERTIES (UNIT)	VALUES
AREA (mm²)	–
PERIMETER (mm)	–
BENDING BOX–X (mm)	–
BENDING BOX–Y (mm)	–
MOMENT OF INERTIA–X (mm⁴)	–
MOMENT OF INERTIA–Y (mm⁴)	–
ELASTIC MODULUS–X (mm³)	–
ELASTIC MODULUS–Y (mm³)	–

BLOCK PLAN

BD REF
BIM REF
FSD REF

REV.	DATE	AMENDMENT

PROJECT
SAMPLE

DRAWING TITLE
NOTES AND DETAILS OF METAL LOUVRE

SCALE

DRAWING NO. A006 REV. NO.

SORUCE

90mm(W) x 40mm(H) space for COMPANY LOGO

90mm(W) x 60mm(H) space for AP/RSE/RGE's signature/ and stamp chop

BD's OFFICIAL USE

90mm(W) x 150mm(H) space for BD's approval stamp/ certification of copies of approved plans (PNAP ADM–10 APP A)

SAMPLE DRAWING FOR TYPICAL DETAILS OF METAL GRILLE

1. GENERAL NOTE

1.1. THE DESIGN AND CONSTRUCTION OF METAL GRILLE ARE IN ACCORDANCE WITH THE BUILDING (CONSTRUCTION) REGULATION, HONG KONG.
1.2. THE DRAWINGS SHOULD BE READ IN CONJUNCTION WITH THE LATEST APPROVED GENERAL BUILDING PLAN APPROVED ON __(DATE)__ .
1.3. THE STRUCTURAL INFORMATION FOR THE PARENT STRUCTURE SHOULD BE READ IN CONJUNCTION WITH THE LATEST STRUCTURAL PLAN APPROVED ON __(DATE)__ .

2. STANDARD AND CODES

2.1. CODE OF PRACTICE FOR THE STRUCTURAL USE OF STEEL 2011.
2.2. THE STRUCTURAL USE OF ALUMINIUM – BS 8118: PART 1: 1991 WITH MODIFICATION OF PARTIAL LOAD FACTOR FOR WIND LOAD IN ACCORDANCE WITH PNAP APP-53.
2.3. CODE OF PRACTICE FOR DEAD AND IMPOSED LOAD 2011.
2.4. CODE OF PRACTICE ON WIND EFFECTS IN HONG KONG 2019.

3. NOTE ON DESIGN LOADS

3.1. DESIGN WIND LOAD:

DESIGN WIND PRESSURE / DESIGN WIND REFERENCE PRESSURE	Q_z = ____
PRESSURE COEFFICIENT	C_p = ____
SIZE FACTOR	S_s = ____
DESIGN WIND PRESSURE	P = Q_z x C_p x S_s = ____

4. NOTE ON STRUCTURAL STEEL

4.1. STRUCTURAL STEEL SHALL BE GRADE ___ . ALL STEEL SECTIONS SHALL BE CLASS 1 AS SPECIFIED IN CLAUSE 3.1.1 OF THE CODE OF PRACTICE FOR THE STRUCTURAL USE OF STEEL 2011.
4.2. ALL STRUCTURAL STEELWORK SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH BS EN ISO 1461: 2009 TO 85 MICRON MINIMUM THICKNESS.
4.3. ALL WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS IN ACCORDANCE WITH BS EN 287-1:2004 AND BS EN 288-3:1992.
4.4. WELD STRENGTH SHALL BE ___ N/mm².
4.5. ALL WELDING SHALL BE 6mm FILLET WELDS, UNLESS OTHERWISE SPECIFIED.
4.6. WELDING ELECTRODE SHALL BE CLASS___TO BS EN ISO 2560:2009.
4.7. WELDING TESTS SHALL COMPLY WITH CLAUSE 14.3.6 OF THE CODE OF PRACTICE FOR THE STRUCTURAL USE OF STEEL 2011.

5. NOTE ON STRUCTURAL STAINLESS STEEL

5.1. STAINLESS STEEL SCREW / BOLT SHALL BE OF GRADE ___ TO BS EN ISO 3506: PART 1 TO 3: 2009.

6. NOTE ON STRUCTURAL ALUMINIUM

6.1. ALL ALUMINIUM EXTRUSION SHALL BE GRADE ___ COMPLYING WITH BS 8118: PART 1: 1991, BS EN 755: PART 2: 2008, AND BS EN 573: PART 3: 2009.

7. NOTE ON BIMETALLIC EFFECT

7.1. ALL CONTACT FACES BETWEEN DISSIMILAR METALS AND ALUMINIUM SHALL BE COATED WITH BITUMINOUS PAINT FOR INSULATION.

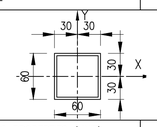
8. NOTE ON CAST-IN EMBED

8.1. CAST-IN BAR SHALL BE HIGH YIELD BAR OF GRADE 500B TO CS2:2012.
8.2. DESIGN CONCRETE STRENGTH OF PARENT STRUCTURE = ___ N/mm².

9. MEMBER SCHEDULE

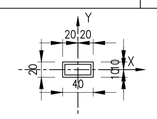
MEMBER MARK	DESCRIPTION	GRADE
SP1	–	–
SP2	–	–
AL1	–	–
AL2	–	–
M1	–	–
T1	–	–
T2	–	–

60x60x3mm THK. ALUMINIUM S.H.S.		T1
DIE NO.:	–	
GRADE:	–	

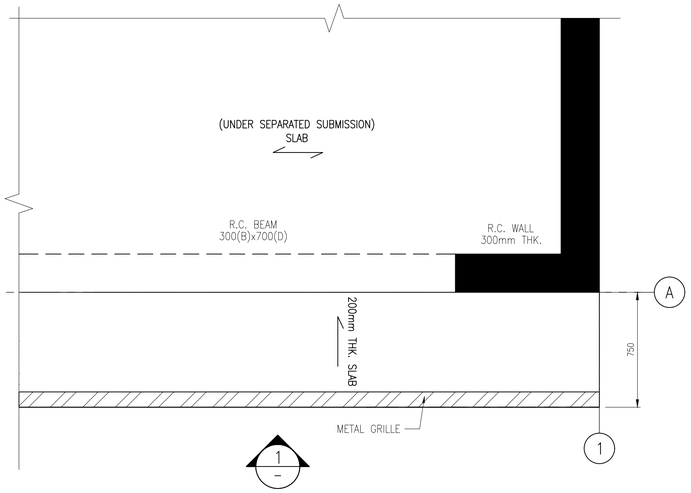


MASS PROPERTIES (UNIT)	VALUES
AREA (mm²)	–
PERIMETER (mm)	–
BENDING BOX-X (mm)	–
BENDING BOX-Y (mm)	–
MOMENT OF INERTIA-X (mm⁴)	–
MOMENT OF INERTIA-Y (mm⁴)	–
ELASTIC MODULUS-X (mm³)	–
ELASTIC MODULUS-Y (mm³)	–

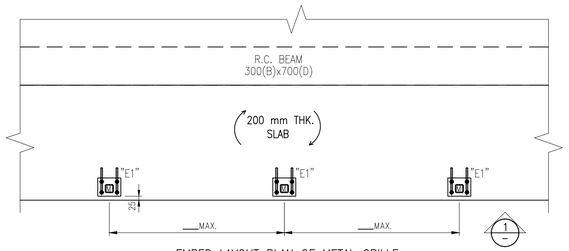
40X20X3mm THK. ALUMINIUM R.H.S.		T2
DIE NO.:	–	
GRADE:	–	



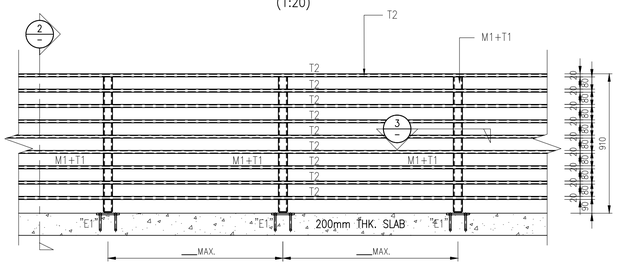
MASS PROPERTIES (UNIT)	VALUES
AREA (mm²)	–
PERIMETER (mm)	–
BENDING BOX-X (mm)	–
BENDING BOX-Y (mm)	–
MOMENT OF INERTIA-X (mm⁴)	–
MOMENT OF INERTIA-Y (mm⁴)	–
ELASTIC MODULUS-X (mm³)	–
ELASTIC MODULUS-Y (mm³)	–



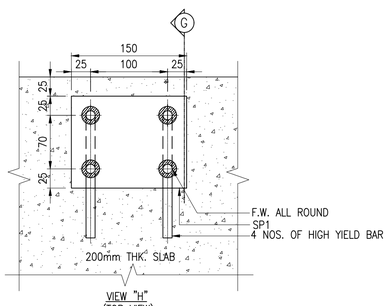
1 – LOCATION PLAN
1:20



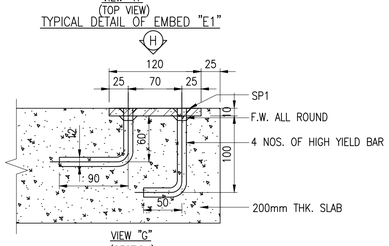
EMBED LAYOUT PLAN OF METAL GRILLE
(1:20)



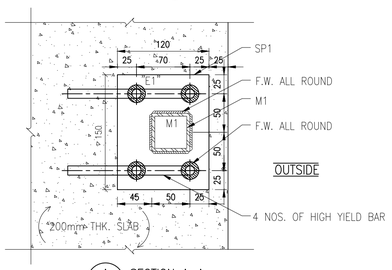
1 – ELEVATION OF METAL GRILLE
1:20



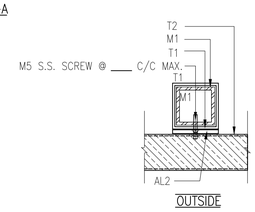
VIEW "H"
(TOP VIEW)
TYPICAL DETAIL OF EMBED "E1"



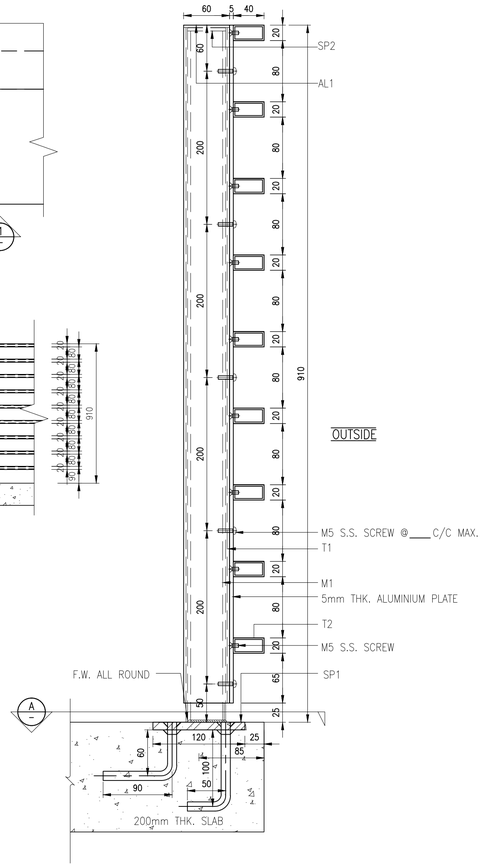
VIEW "G"
(SECTION)



A – SECTION A-A
1:4

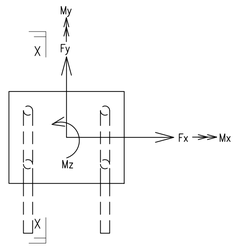


3 – TYPICAL DETAIL OF METAL GRILLE
1:4

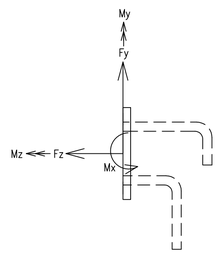


2 – TYPICAL DETAIL OF METAL GRILLE
1:4

BLOCK PLAN



PLAN



SECTION X-X

SIGN CONVENTION OF CAST-IN EMBED

LOAD SCHEDULE OF CAST-IN EMBED

	DL (kN)	WL (kN)
Fx	–	–
Fy	–	–
Fz	–	–
Mx	–	–
My	–	–
Mz	–	–

BD REF
BIM REF
FSD REF

REV.	DATE	AMENDMENT

PROJECT
SAMPLE

DRAWING TITLE
NOTES AND DETAILS OF METAL GRILLE

SCALE

DRAWING NO. A007 REV. NO.

SORUCE

90mm(W) x 40mm(H) space for COMPANY LOGO

90mm(W) x 60mm(H) space for AP/RSE/RGE's signature/ and stamp chop

BD's OFFICIAL USE

90mm(W) x 150mm(H) space for BD's approval stamp/ certification of copies of approved plans (PNAP ADM-10 APP A)