

# GENERAL NOTES FOR METAL BALUSTADE & GLASS BALUSTRADE

1. DESIGN CODES :
- BUILDING ( CONSTRUCTION ) REGULATIONS CAP 123
  - CODE OF PRACTICE FOR THE STRUCTURAL USE OF CONCRETE 2013
  - CODE OF PRACTICE ON WIND EFFECTS IN HONG KONG 2004.
  - CODE OF PRACTICE STRUCTURAL USE OF GLASS 2018
  - CODE OF PRACTICE FOR DEAD AND IMPOSED LOAD 2011
  - BS 8118 - THE STRUCTURAL USE OF ALUMINIUM , PART 1 - 1991. (PARTIAL LOAD FACTOR OF 1.4 FOR WIND LOAD)
  - APP110 - PROTECTIVE BARRIER

2. DESIGN LOADS :
- WIND LOAD : ACCORDING TO CODE OF PRACTICE ON WIND EFFECT IN HONG KONG 2004  
 HEIGHT ABOVE GROUND LEVEL = 125M  
 BASIC WIND PRESSURE: 2.96 KPa  
 TOPOGRAPHIC FACTOR  $S_o$  = 1.0  
 DESIGN WIND PRESSURE ( $C_p = \pm 2.0$ ): =  $2.96 \times \pm 2.0 = \pm 5.92$  KPa (FOR OPEN FRAME STRUCTURES)

- HORIZONTAL IMPOSED LOAD ON PROTECTIVE BARRIER : (FOR DOMESTIC USE)  
 AREA WHERE PEOPLE MAY CONGREGATE BUT OVERCROWDING IS NOT EXPECTED.  
 - LINE LOAD APPLIED AT HEIGHT OF 1.1M ABOVE F.F.L.: 1.5KN/m  
 - UDL APPLIED ON THE INFILL BETWEEN FLOOR AND TOP RAIL: 1.5KPa  
 - CONCENTRATE LOAD APPLIED ON ANY PART ON INFILL BETWEEN FLOOR AND TOP RAIL: 1.5KN

3. GLASS :
- GLASS USED TO BE : (NON COMPOSITE ACTION IS APPLIED FOR DESIGN OF LAMINATED GLASS)  
 1) GLASS BALUSTRADE FOR FREE STANDING BALUSTRADE (MAX SIZE: 1550mm(W) X 1150mm(H))  
 G1: 19mm THK. CLEAR TEMPERED + 2.28mm THK(PVB) + 19mm THK CLEAR TEMPERED LAMINATED GLASS  
 2) GLASS BALUSTRADE FOR BALCONY (MAX SIZE: 2360mm(W) X 1100mm(H))  
 G2: 8mm THK. CLEAR TEMPERED + 1.52mm THK(PVB) + 8mm THK CLEAR TEMPERED LAMINATED GLASS  
~~3) GLASS BALUSTRADE FOR FREE STANDING BALUSTRADE (MAX SIZE: 1800mm(W) X 1450mm(H))~~  
~~G3: 22mm THK. CLEAR TEMPERED + 2.28mm THK(PVB) + 22mm THK CLEAR TEMPERED LAMINATED GLASS~~
  - DESIGN OF GLASS SHALL COMPLY TO CODE OF PRACTICE FOR STRUCTURAL USE OF GLASS 2018 AND BE EN14179-1 2016  
 -LOAD DURATION : SHORT-TERM  
 -ULTIMATE DESIGN STRENGTH (TEMPERED) = 80 MPa  
 -YOUNG'S MODULUS = 70,000 N/mm<sup>2</sup>  
 -DENSITY = 26 kN/m<sup>3</sup>
  - GLASS MATERIALS SHALL COMPLY TO BS 952
  - ALL TEMPERED GLASS TO BE HEAT-SOAK TESTS TO CODE OF PRACTICE FOR STRUCTURAL USE OF GLASS 2018 & BS EN 14179-1:2016
  - IMPACT TEST TO BE COMPLIED WITH BS EN 12600

4. ALUMINIUM ALLOY :
- ALL ALUMINIUM EXTRUSIONS TO BE GRADE 6063-T5 AND 6063-T6 TO BS EN 755-2 AND BS EN 573-3  
 DENSITY = 27.2kN/m<sup>3</sup>
- | 6063-T5                   |           | 6063-T6                   |           |
|---------------------------|-----------|---------------------------|-----------|
| 0.2% PROOF STRENGTH       | = 130 MPa | 0.2% PROOF STRENGTH       | = 170 MPa |
| MINIMUM TENSILE STRENGTH  | = 175 MPa | MINIMUM TENSILE STRENGTH  | = 215 MPa |
| LIMITING BENDING STRENGTH | = 110 MPa | LIMITING BENDING STRENGTH | = 160 MPa |
| LIMITING TENSILE STRENGTH | = 130 MPa | LIMITING TENSILE STRENGTH | = 175 MPa |
| LIMITING SHEAR STRENGTH   | = 65 MPa  | LIMITING SHEAR STRENGTH   | = 95 MPa  |

- ALL ALUMINIUM SHEET TO BE GRADE 3003-H14 TO BS EN 485-2 AND BS EN 573-3  
 DENSITY = 27.2kN/m<sup>3</sup>
- | 3003-H14                  |           |
|---------------------------|-----------|
| 0.2% PROOF STRENGTH       | = 125 MPa |
| MINIMUM TENSILE STRENGTH  | = 145 MPa |
| LIMITING BENDING STRENGTH | = 125 MPa |
| LIMITING TENSILE STRENGTH | = 135 MPa |
| LIMITING SHEAR STRENGTH   | = 75 MPa  |

5. STEEL :
- ALL STEEL MEMBERS SHALL MEET THE MINIMUM REQUIREMENTS OF BS EN10025 S275JO & S275JOH AND CLASS 1 TO C.O.P. FOR THE STRUCTURAL USE OF STEEL 2011. BS EN 10025:2004 FOR STEEL PLATE, BS EN 10210:2009 FOR HOLLOW SECTION.
  - SURFACE TREATMENT SHALL BE HOT-DIP GALVANIZED COMPLIED WITH BS EN ISO 1461, 2009. ( MIN. THICKNESS = 85 MICRONS )

YOUNG'S MODULUS	205,000 N/mm <sup>2</sup>
DENSITY	77 kN/m <sup>3</sup>
FOR THICKNESS "t" : $t \leq 16$ mm (GRADE S275JO)	
YIELD STRENGTH	275 N/mm <sup>2</sup>
TENSILE STRENGTH	275 N/mm <sup>2</sup>
BENDING STRENGTH	275 N/mm <sup>2</sup>
SHEAR STRENGTH	158.8 N/mm <sup>2</sup>
16mm < t ≤ 40mm (GRADE S275JO)	
YIELD STRENGTH	265 N/mm <sup>2</sup>
TENSILE STRENGTH	265 N/mm <sup>2</sup>
BENDING STRENGTH	265 N/mm <sup>2</sup>
SHEAR STRENGTH	153 N/mm <sup>2</sup>

6. WELDING :
- ALL WELDS SHALL COMPLY TO BS EN 1011-1.  
 DESIGN STRENGTH 220 N/mm<sup>2</sup>
  - UNLESS OTHERWISE INDICATED, ALL WELDS SHALL BE 5mm THICK FILLET WELD.
  - ALL WELDING PROCEDURES TO COMPLY WITH BS EN ISO 15614.
  - ALL WELD SHOULD BE DONE BY QUALIFIED WELDED TESTED TO BS EN 287-1

7. SILICONE SEALANT : (FOR INFORMATION ONLY)
- " DOW SIL - 791 " TO BE USED AS WEATHER SEALED & CAULKING SEALANT.

DEFLECTION LIMIT

- GLASS WITH 2-SIDE SUPPORT	SPAN/60
- GLASS WITH CANTILEVERED SUPPORT	SPAN/30
- STRUCTURAL STEEL & ALUM MEMBER	SPAN/180

8. SETTING BLOCK
- ALL SETTING BLOCK SHOULD BE SILICONE RUBBER WITH HARDNESS OF 85+5 SHOR A. A MINIMUM 150mm IN LENGTH AT 1/4 SPAN UNLESS OTHERWISE STATED.

9. FASTENERS
- ALL FASTENERS, BOLTS & NUTS SHALL BE STAINLESS STEEL GRADE A4-70 COMPLYING WITH BS EN ISO 3506.

FOR GRADE A4-70

0.2 PROOF STRENGTH	= 450 MPa
ULTIMATE TENSILE STRENGTH	= 700 MPa
DESIGN SHEAR STRENGTH	= 311 MPa
DESIGN TENSILE STRENGTH	= 450 MPa
DESIGN BEARING STRENGTH	= 828 MPa

UNLESS OTHER SPECIFIED, ALL SCREWS SHALL BE M5 AT 300 C/C  
 MIN. EDGE DISTANCE OF BOLT = 1.5 x DIAMETER OF BOLT  
 MIN. SPACING OF BOLT = 2.5 x DIAMETER OF BOLT

10. ISOLATION FOR METALS
- BITUMINOUS PAINT TO BE APPLIED BETWEEN DISSIMILAR METAL TO PREVENT BIMETALLIC CORROSION TO PD6484  
 BITUMINOUS PAINT TO BE APPLIED BETWEEN METAL AND CONCRETE SURFACE

11. CONCRETE (UNDER SEPARATED SUBMISSION)
- ALL CONCRETE STRUCTURE SHOWN IN THE SUBMISSION ARE FOR INFORMATION ONLY.  
 CONCRETE ELEMENTS TO BE MINIMUM GRADE C45.

12. CAST IN PLATE AND ROD
- ALL CAST IN PLATE TO BE GRADE S275JO (CLASS 1) COMPLY WITH CODE OF PRACTICE FOR THE STRUCTURAL USE OF STEEL 2011 & BS EN 10025:2004 .
  - CAST IN ROD FOR GRADE S275JO (CLASS 1) TO CODE OF PRACTICE FOR THE STRUCTURAL USE OF STEEL 2011 & BS EN 10025:2004.

	FOR $t \leq 16$ mm	FOR $16\text{mm} < t \leq 40$ mm
DESIGN TENSILE STRENGTH	= 275 MPa	= 265 MPa
DESIGN SHEAR STRENGTH	= 158.8 MPa	= 153 MPa

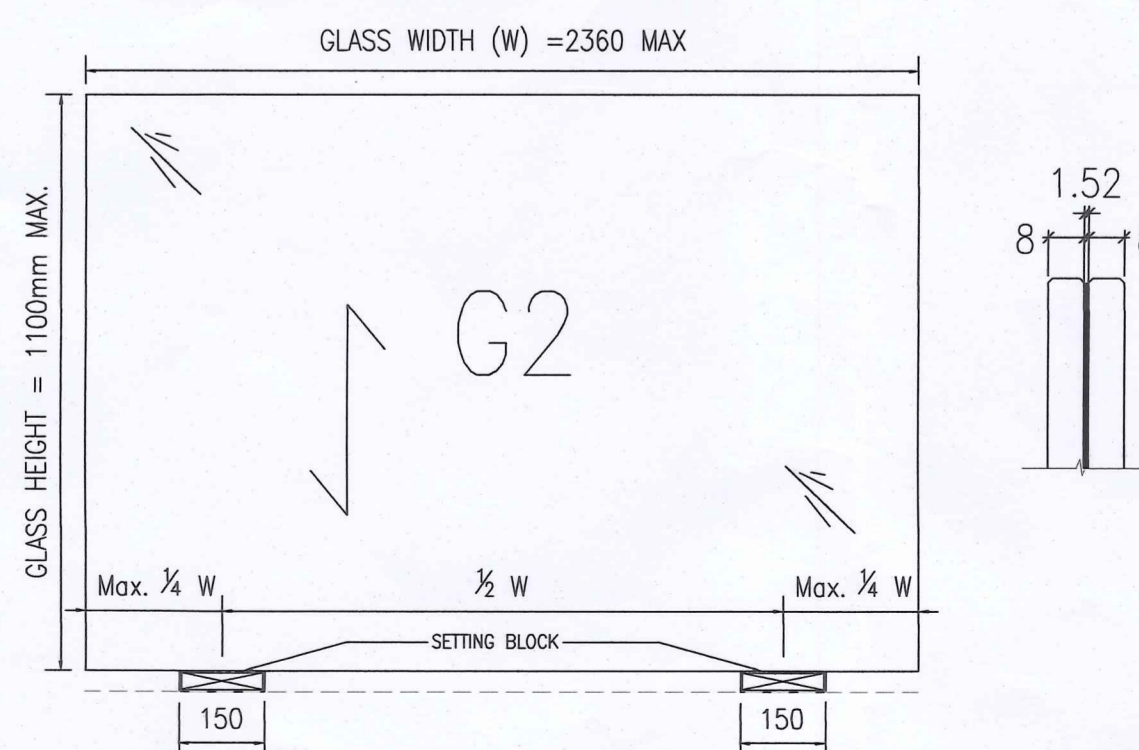
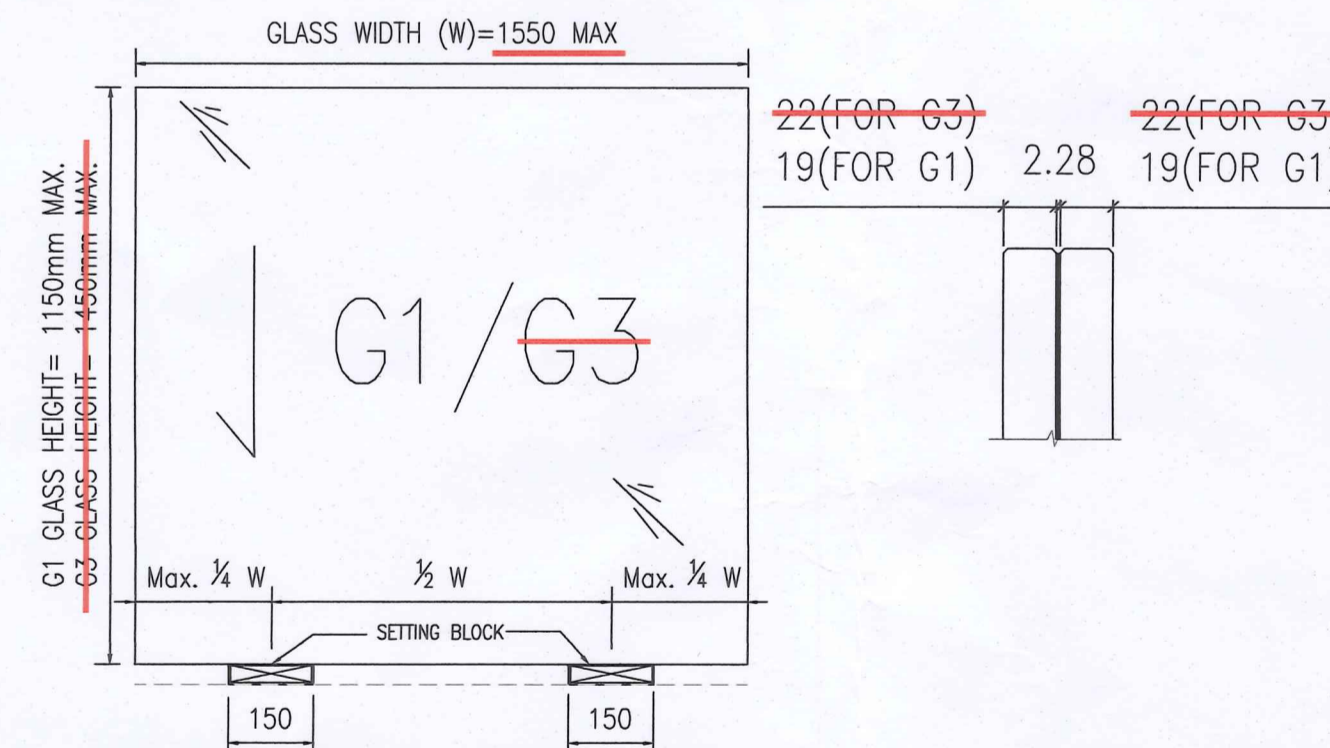
- CAST IN ROD FOR GRADE 500B TO CS2:2012  
 DESIGN TENSILE STRENGTH = 0.87\*500 MPa = 435MPa  
 DESIGN SHEAR STRENGTH = 0.87\*500/√3 MPa = 251MPa

13. ANCHOR BOLT (FOR ALUM CLADDING ONLY)
- ANCHOR BOLT TO BE "HILTI", DESIGN AND INSTALLATION TO BE IN ACCORDANCE WITH MANUFACTURER SPECIFICATION

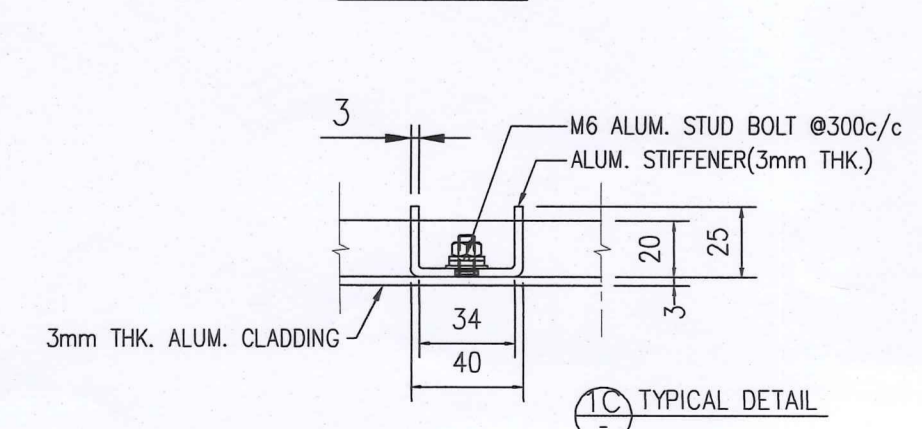
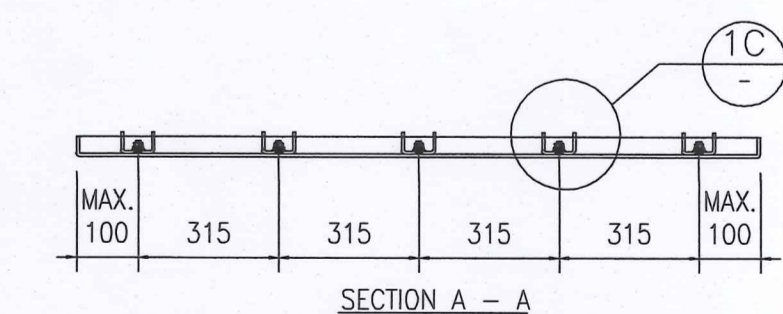
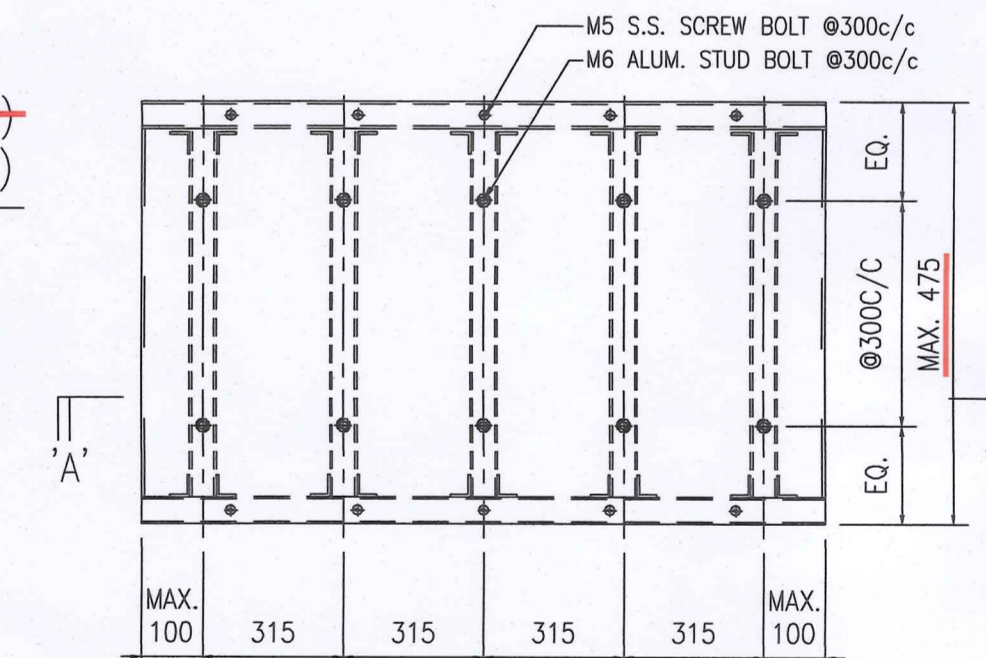
B.D. REF.	TYPE (FOR CRACKED CONCRETE)	MINIMUM CONCRETE THICKNESS (mm)	EFFECTIVE ANCHORAGE DEPTH (mm)	MINIMUM EDGE DISTANCE (mm)	MINIMUM SPACING (mm)	RECOMMENDED TENSILE FORCE (kN)	RECOMMENDED SHEAR FORCE (kN)	PULL-OUT TEST LOAD (kN)
BD-AF 151	"HILTI" HST3-R M8	100	47	40	35	2.8	5.2	1.342X1.5X2.8=5.64

CONSIDER CONCRETE GRADE FACTOR:  $\sqrt{\frac{45}{25}} = 1.342$   
 FACTOR OF SAFETY = 3.0

14. TYPICAL DETAIL OF GLASS



## 3mm THK. ALUM. CLADDING UNIT DETAIL



15. ALUM. STUD BOLT
- ALL ALUM. STUD SHALL BE GRADE 5754-H14 WITH LIMITING STRESS OF STUD  $P_{az} = 100N/mm^2$  TO BS EN 1999-1-1-2007+A2:2013 ( $P_{az}=95N/mm^2$ ADOPE)

- THE ALUM. STUD AND THE BASE PANELS SHALL BE CONNECTED BY DRAWN ARC STUD WELDING COMPLYING WITH BS 8118 Part 1:1991

- DESIGN AND QUALITY ASSURANCE OF THE DRAWN ARC WELDING PROCESS SHALL FULLY SATISFY THE REQUIREMENTS OF AS EN ISO 14555 : 2017

- THE STUD SHALL FOLLOW THE DETHED PROFILE M6 AS SPECIFIED UNDER TABLE 14 OF BS EN ISO 139118:2008.

16. GBP APPROVAL DATE : 04 SEP 2020 8th AMENDMENT  
 SUPER STRUCTURE PLAN APPROVAL DATE : 16 SEPT 2020

17. SILICONE SEALANT :
- " DOW CORNING - 791 " TO BE USED AS WEATHER SEALANT
  - " DOW CORNING - 795/995 " TO BE USED AS STRUCTURAL GLAZING SEALANT (ALLOWABLE STRENGTH = 137.8 KPa)  
 (BD Ref. No. BD-SS 001 & BD Ref. No. BD-SS 002)

B.D. REF : BD 3/9169/16

F.S.D. REF :

Note :

- All dimensions are in mm.
- All elevations are viewed from outside.
- All dimensions to be verified on site before fabrication.

## GENERAL NOTES

STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

Legend :

- F.F.L--- Finished Floor Level
- S.F.L--- Structural Floor Level
- (R) --- Reversed Detail

X1 --- DETAIL MARK NO.  
 X001 --- REFER SHEET NO.

LEUNG CHI HUNG BEN  
 Registered Structural Engineer

## BD AMENDMENT

NO.	DATE	REVISED	BY
A	10-9-2020	1st BD Amendment	

CLIENT :

佳明集團控股有限公司  
 GRAND MING GROUP HOLDINGS LIMITED

MAIN CONTRACTOR :

GRAND TECH CONSTRUCTION CO. LTD.

ARCHITECT : WONG TUNG & PARTNERS LIMITED  
 ARCHITECTS & PLANNERS

STRUCTURAL ENGINEER :

CMA C M WONG & ASSOCIATES LTD  
 Tel: 23489211-4 Fax: (852) 2727666

美特鋁質有限公司  
 MIDI ALUMINIUM FABRICATOR LTD.

Units 6-8, Sunray Industrial Centre, 1/F  
 610, Cho Kwo Ling Road, Kowloon  
 Tel: 23489211-4 Fax: (852) 2727666

PROJECT :

RESIDENTIAL DEVELOPMENT AT  
 TSING YI TOWN LOT 190 SAI SHAN ROAD

TITLE :

GENERAL NOTES

JOB NO. : J-851

DRAWN BY : LS DATE : 26-11-2019

CHKD BY : SCALE A1: N.T.S.  
 A3:

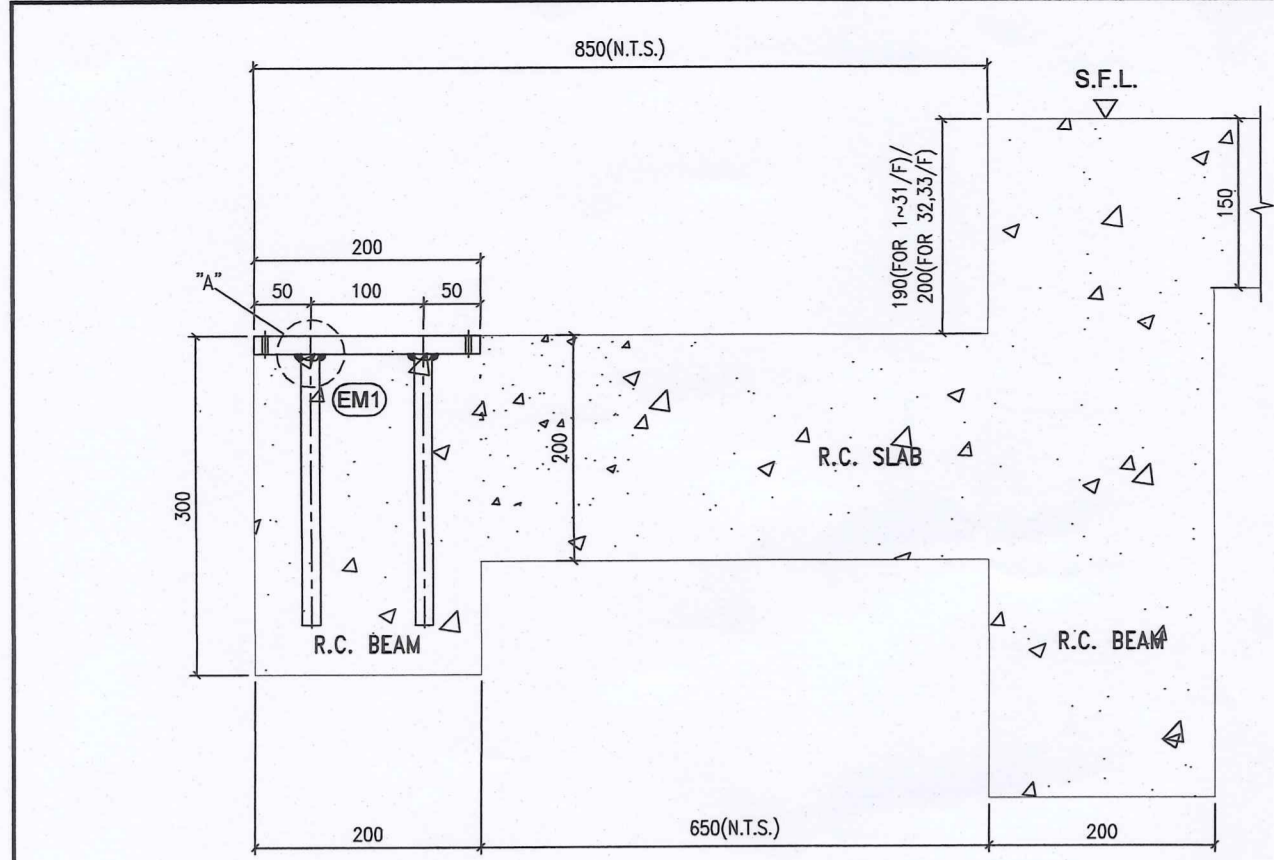
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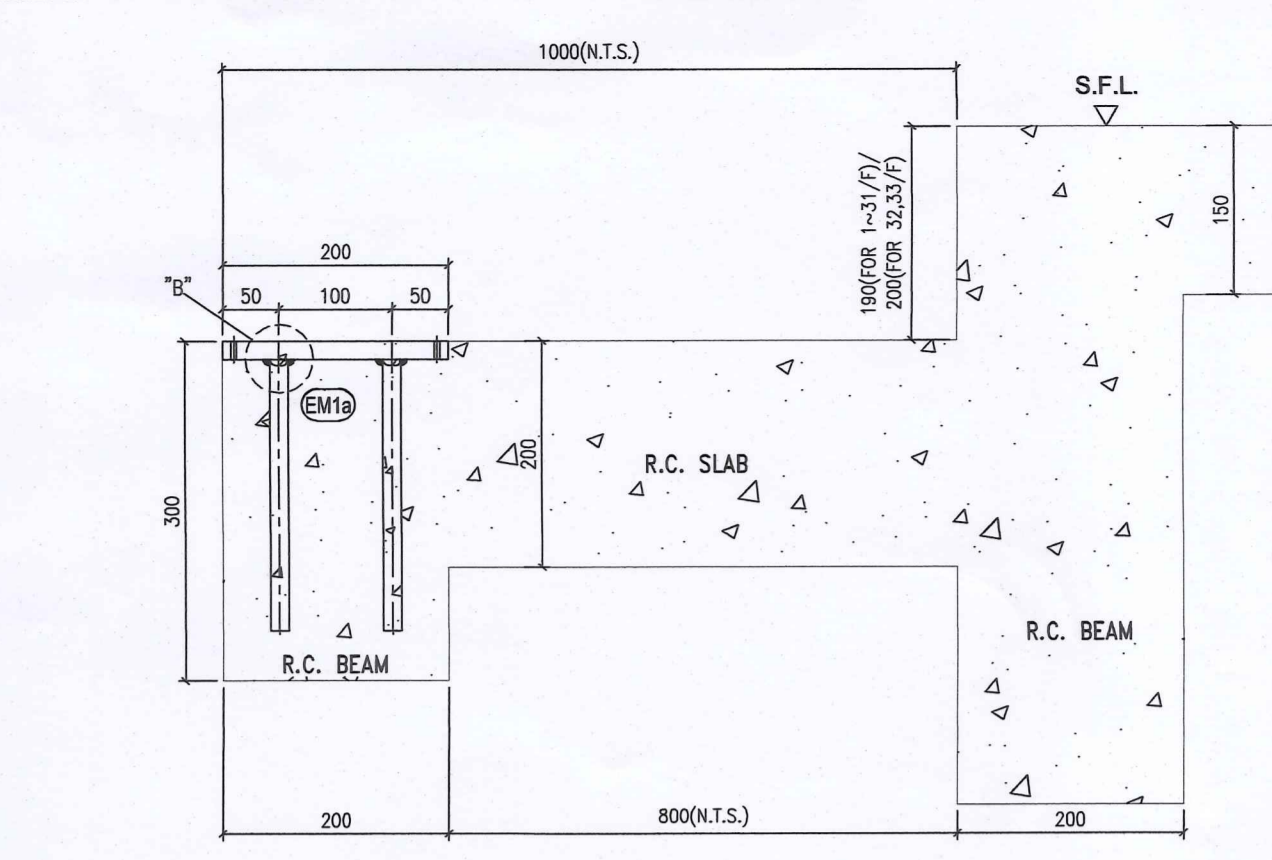
Note: This plan has been processed on a curtailed check basis under the centralized processing system as promulgated in P.W.P. ADM-19. The duties of the authorized person, registered structural engineer and/or registered geotechnical engineer concerned as specified under section 4(3)(b) and the provision of section 14(2)(c) of the Buildings Ordinance are of particular relevance in this regard.

Plan Approved  
 WONG Po-suen  
 Senior Structural Engineer  
 for BUILDING AUTHORITY  
 13 NOV 2020

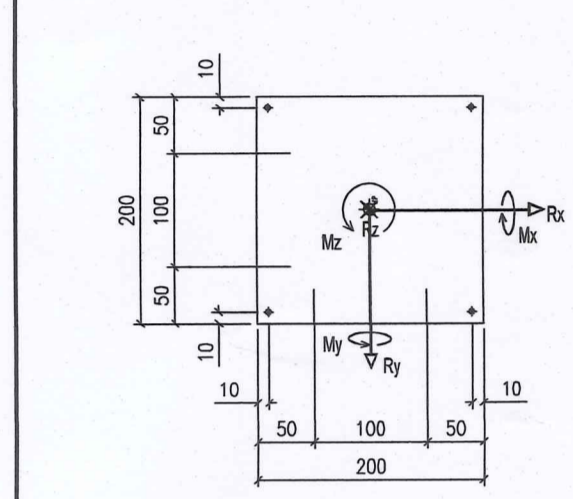
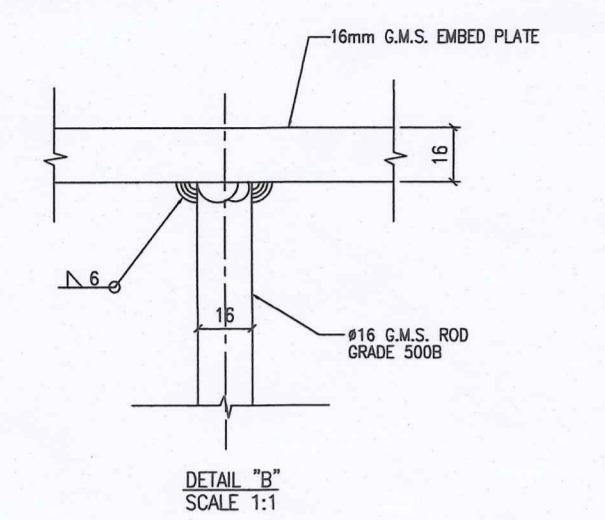
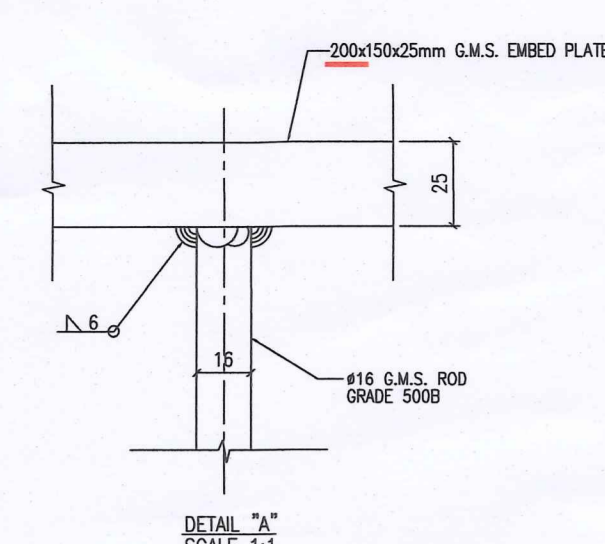




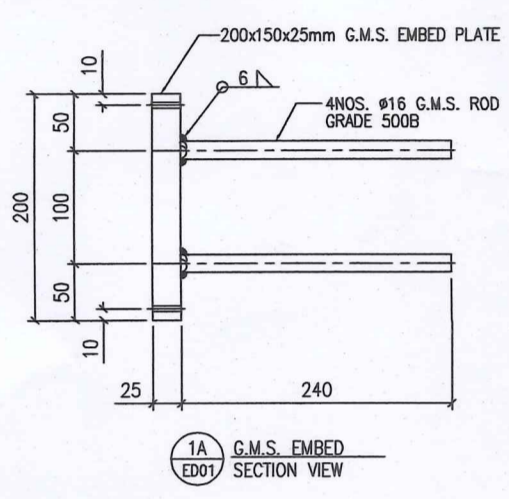
2 G.M.S. EMBED FOR RC CAST-IN SECTION DETAIL



3 G.M.S. EMBED FOR RC CAST-IN SECTION DETAIL



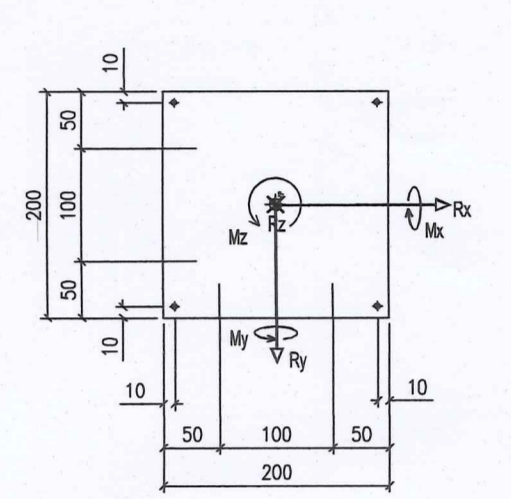
1 G.M.S. EMBED PLAN VIEW



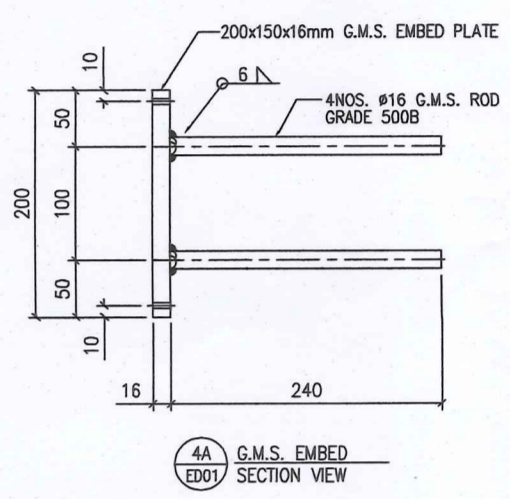
1A G.M.S. EMBED SECTION VIEW

UN-FACTORED LOAD

	WL	LL	DL	WL	LL	DL
Rx(kN)	3.374	1.5	0	Mx(kNm)	5.114	1.815
Ry(kN)	8.453	1.77	0	My(kNm)	2.041	1.815
Rz(kN)	0	0	1.5	Mz(kNm)	0.609	0.139



4 G.M.S. EMBED PLAN VIEW



4A G.M.S. EMBED SECTION VIEW

UN-FACTORED LOAD

	WL	LL	DL	WL	LL	DL
Rx(kN)	0	0	0	Mx(kNm)	2.041	1.815
Ry(kN)	3.374	1.5	0	My(kNm)	0	0
Rz(kN)	0	0	1.5	Mz(kNm)	0.132	0.059

Note: This plan has been processed on a certified check basis under the centralized processing system as promulgated in PIMP ADM-19. The duties of the authorized person, registered structural engineer and/or registered architectural engineer concerned as specified under section 4(3)(b) and the provision of section 14(2)(i) of the Buildings Ordinance are of particular relevance in this regard.

B.D. REF : BD 3/9169/16  
F.S.D. REF :  
Note :  
1.All dimensions are in mm.  
2.All elevations are viewed from outside.  
3.All dimensions to be verified on site before fabrication.

GENERAL NOTES  
STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

Legend :  
1. F.F.L.-- Finished Floor Level  
2. S.F.L.-- Structural Floor Level  
3. (R) -- Reversed Detail  
X1 -- DETAIL MARK NO.  
X001 -- REFER SHEET NO.  
SITE WELD  
DEPTH OF WELD  
WELD ON ARROW SIDE  
WELD ON OTHER SIDE  
LOCATION OF WELD  
WELD ALL ROUND

LEUNG CHI HUNG BEN  
Registered Structural Engineer

BD AMENDMENT

A 10-9-2020 1st BD Amendment  
NO. DATE REVISED BY

CLIENT :  
佳明集團控股有限公司  
GRAND MING GROUP HOLDINGS LIMITED

MAIN CONTRACTOR :  
GRAND TECH CONSTRUCTION CO. LTD.

ARCHITECT :  
WONG TUNG & PARTNERS LIMITED  
ARCHITECTS & PLANNERS

STRUCTURAL ENGINEER :  
CMA C M WONG & ASSOCIATES LTD  
TEL: (852) 2522 1066  
E-mail: cmwong@cma.com.hk

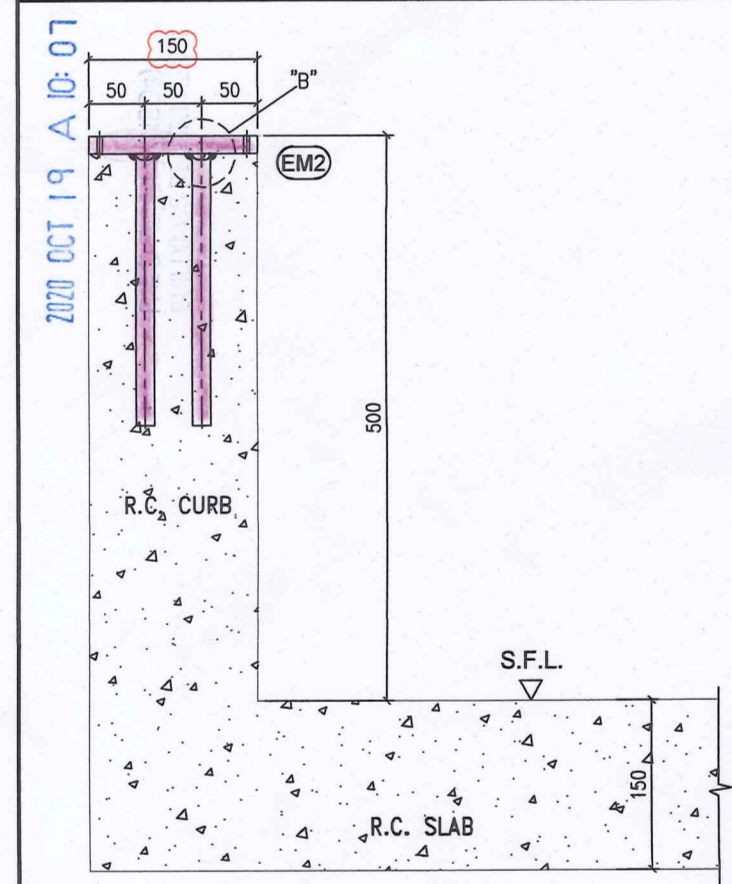
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Units 6-8, Sunray Industrial Centre, 1/F  
610 Cha Kwo Ling Road, Kowloon  
Tel:23489211-4 Fax:(852)27727666

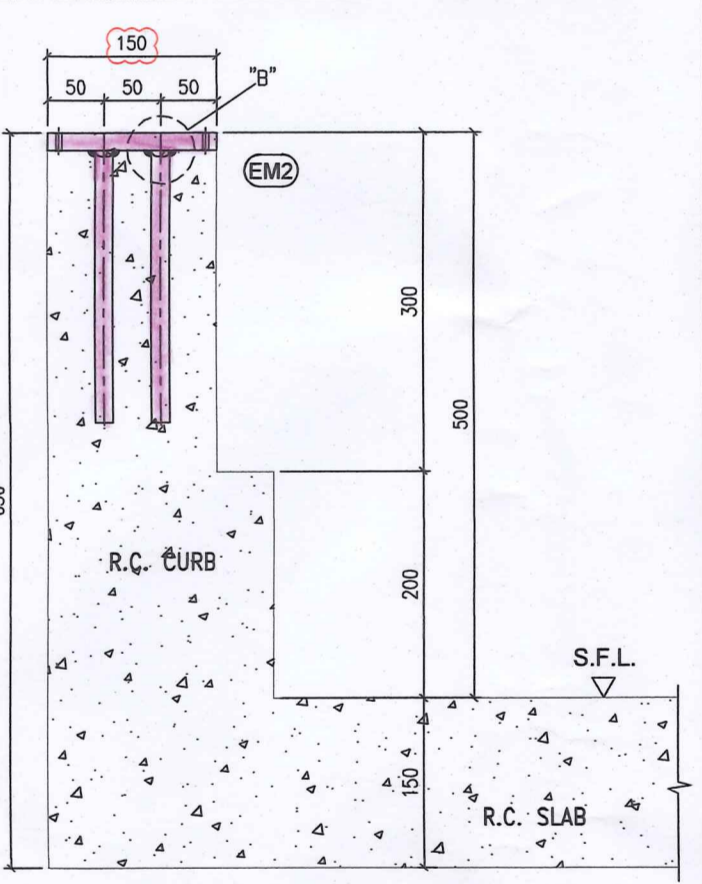
PROJECT :  
RESIDENTIAL DEVELOPMENT AT  
TSING YI TOWN LOT 190 SAI SHAN ROAD

TITLE :  
CAST-IN EMBED DETAIL FOR  
GLASS & METAL BALUSTRADE  
AT TOWER 1,2 - UG/F TO 35/F

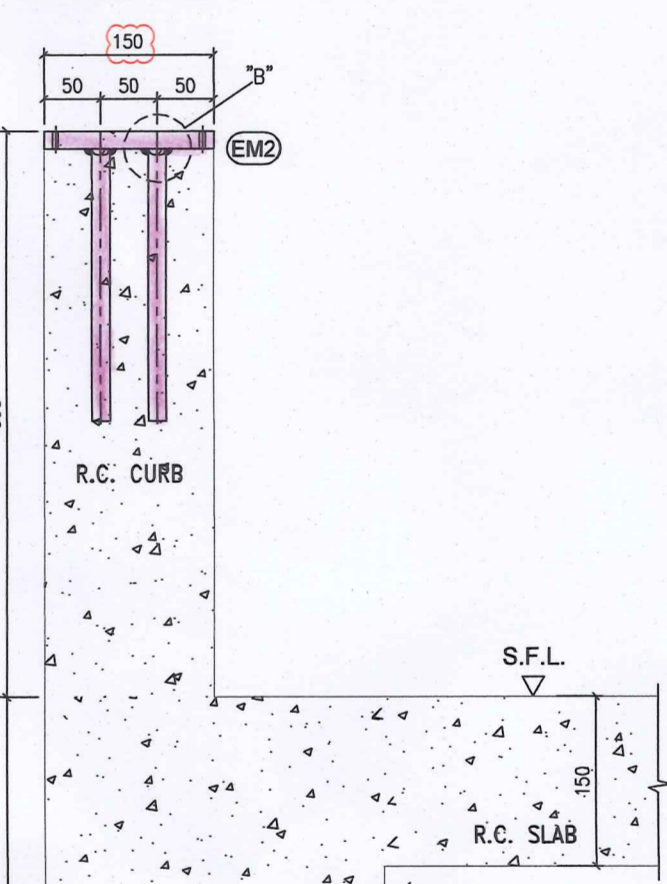
JOB NO. : J-851  
DRAWN BY : LS DATE : 20-11-2019  
CHKD BY : SCALE A1: 1:3 A3:  
DWG. NO. : J851-BD-GB-ED01 REV. : A



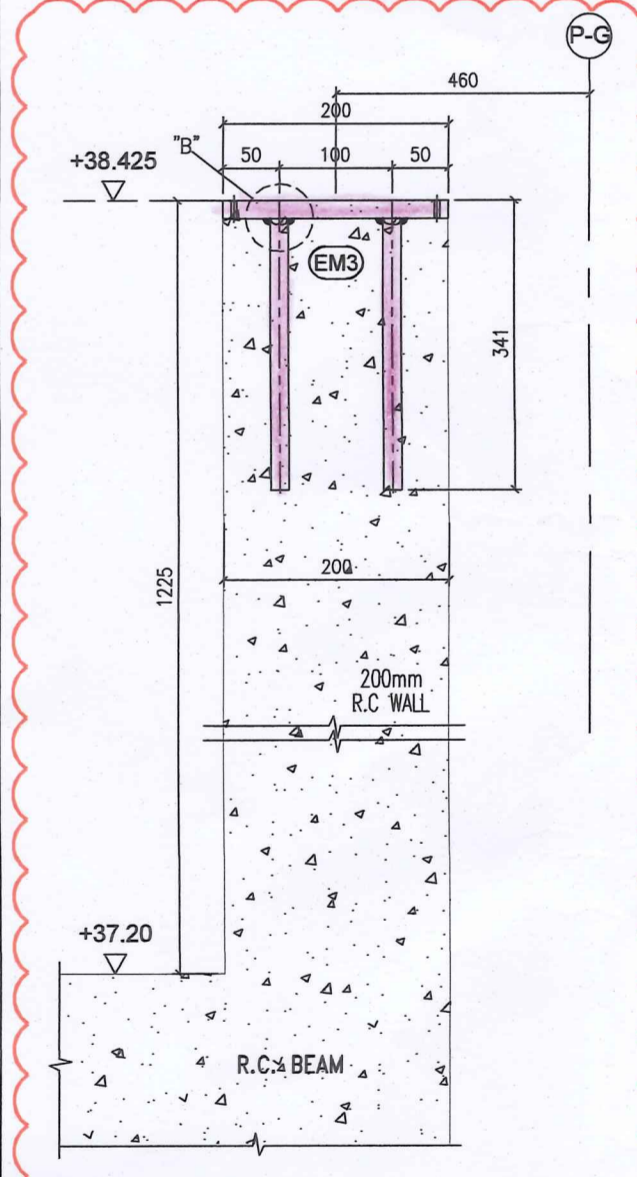
5 G.M.S. EMBED FOR RC CAST-IN SECTION DETAIL



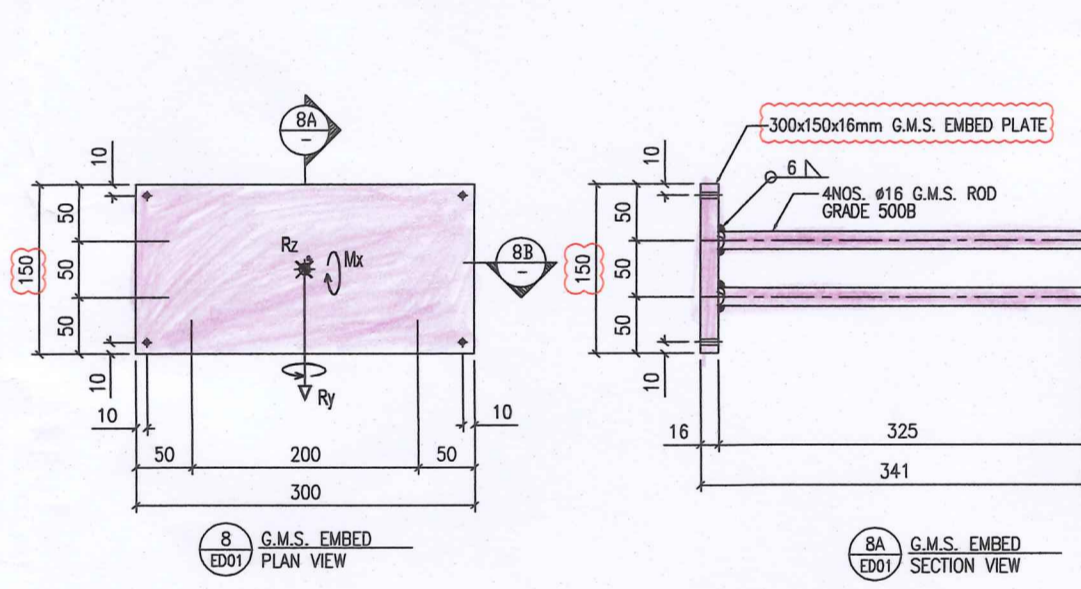
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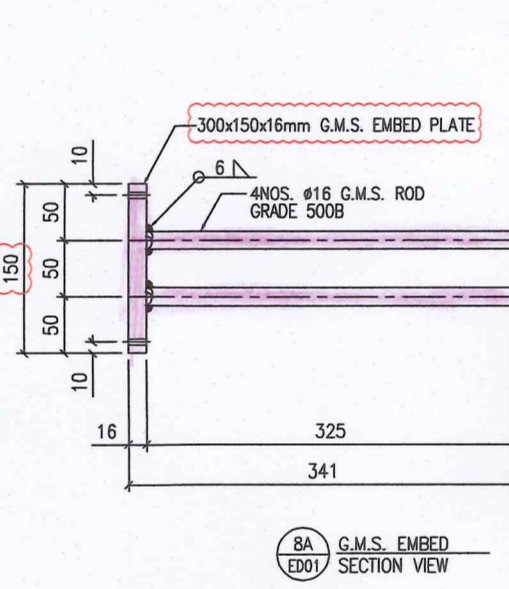
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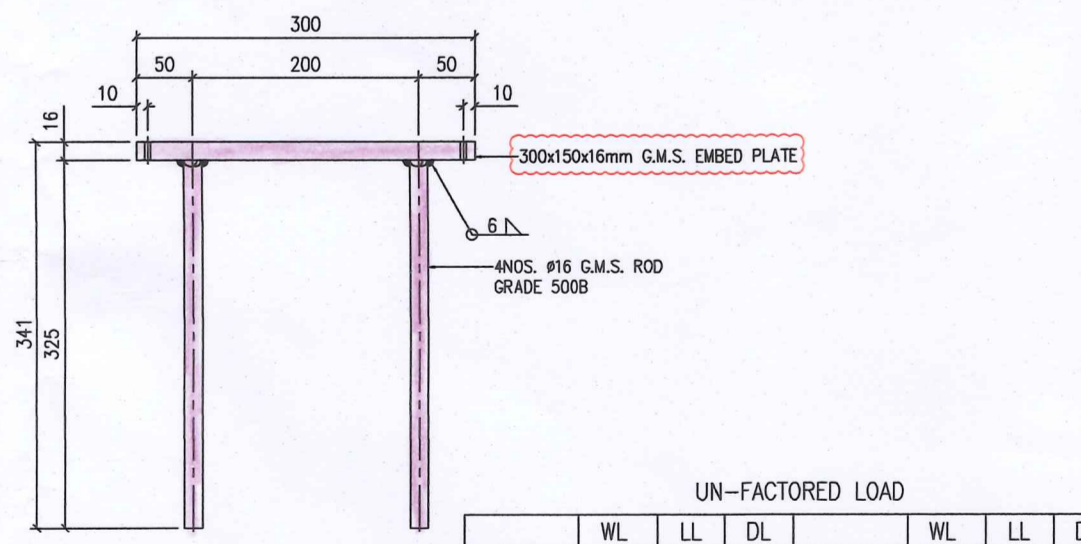
9 G.M.S. EMBED FOR RC CAST-IN SECTION DETAIL



8 G.M.S. EMBED PLAN VIEW



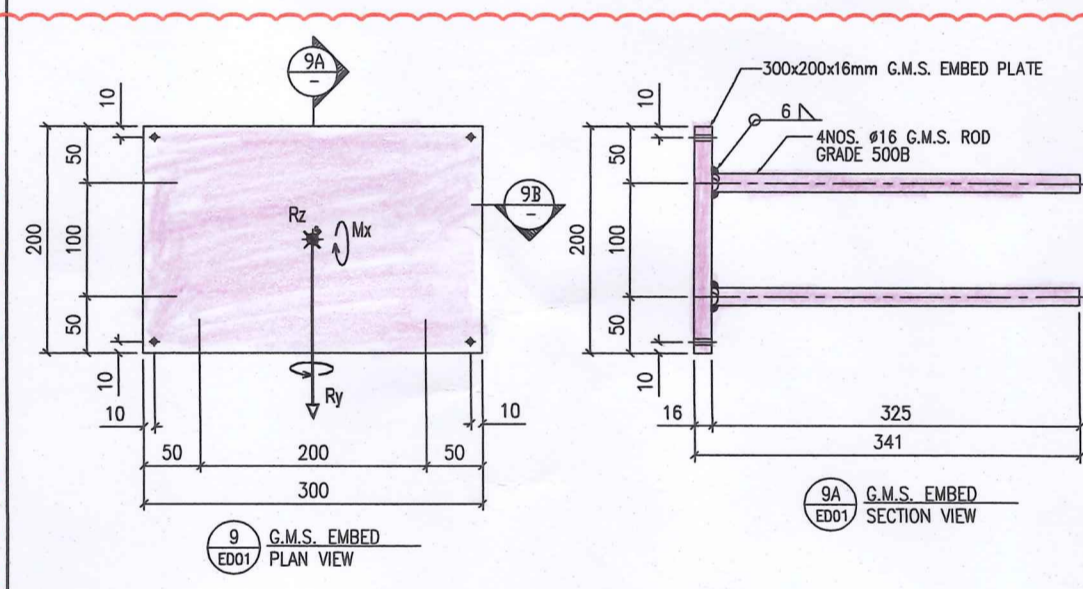
8A G.M.S. EMBED SECTION VIEW



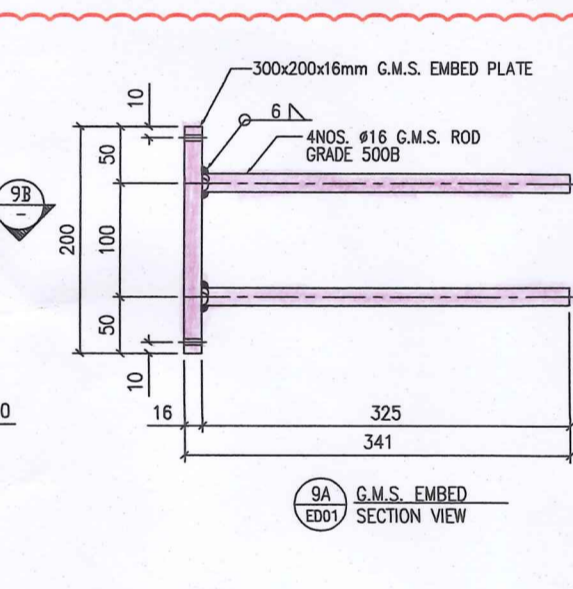
8B G.M.S. EMBED SECTION VIEW

UN-FACTORED LOAD

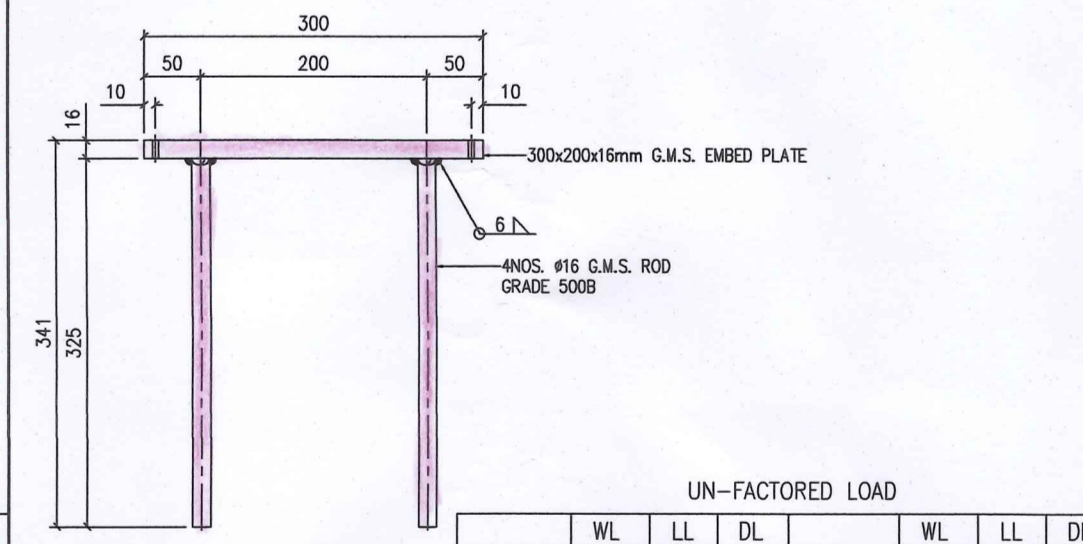
	WL	LL	DL	WL	LL	DL
Rx(kN)	0	0	0	Mx(kNm)	3.81	2.41
Ry(kN)	4.75	1.5	0	My(kNm)	0	0
Rz(kN)	0	0	1.5	Mz(kNm)	0	0



9 G.M.S. EMBED PLAN VIEW



9A G.M.S. EMBED SECTION VIEW



9B G.M.S. EMBED SECTION VIEW

UN-FACTORED LOAD

	WL	LL	DL	WL	LL	DL
Rx(kN)	0	0	0	Mx(kNm)	3.81	2.41
Ry(kN)	4.75	1.5	0	My(kNm)	0	0
Rz(kN)	0	0	1.5	Mz(kNm)	0	0

Plan Approved  
WONG Po-suen  
Senior Structural Engineer  
for BUILDING AUTHORITY  
13 NOV 2020

Note: This plan has been processed on a centralized check basis under the centralized ADAM-19. The duties of the authorized registered structural engineer and/or geotechnical engineer concerned are specified under section 4(3)(b) and the provisions of section 142(2)(c) of the Buildings Ordinance. No further reference in this regard.

1. All dimensions are in mm.
2. All elevations are viewed from outside.
3. All dimensions to be verified on site before fabrication.

**GENERAL NOTES**

**Legend :**

1. F.F.L. --- Finished Floor Level
2. S.F.L. --- Structural Floor Level
3.  $\overleftarrow{R}$  --- Reversed Detail

(X1) DETAIL MARK NO.  
(X001) REFER SHEET NO.

GLASS SUPPORT DIRECTION(2 SIDES)

- G2 : 8mm+1.52mm PVB+8mm THK. LAMINATED CLEAR GLASS
- EM1a : CAST-IN EMBED TYPE: "EM1a" (DWG. REF.: J851-BD-CB-ED01)
- S01 : 100x60x8mm THK. G.M.S RHS
- S02 : 60x40mm THK. G.M.S POST
- (USS.) : UNDER SEPARATED SUBMISSION

Plan Approved  
WONG Po-sun  
Senior Structural Engineer  
for BUILDING AUTHORITY  
13 NOV 2020

LEUNG CHI HING BEN  
Registered Structural Engineer

STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

**BD AMENDMENT**

A 10-9-2020 1st BD Amendment		
NO.	DATE	REVISED BY

CLIENT : 佳明集團控股有限公司  
GRAND MING GROUP HOLDINGS LIMITED

MAIN CONTRACTOR : GRAND TECH CONSTRUCTION CO. LTD.

ARCHITECT : WONG TUNG & PARTNERS LIMITED  
ARCHITECTS & PLANNERS

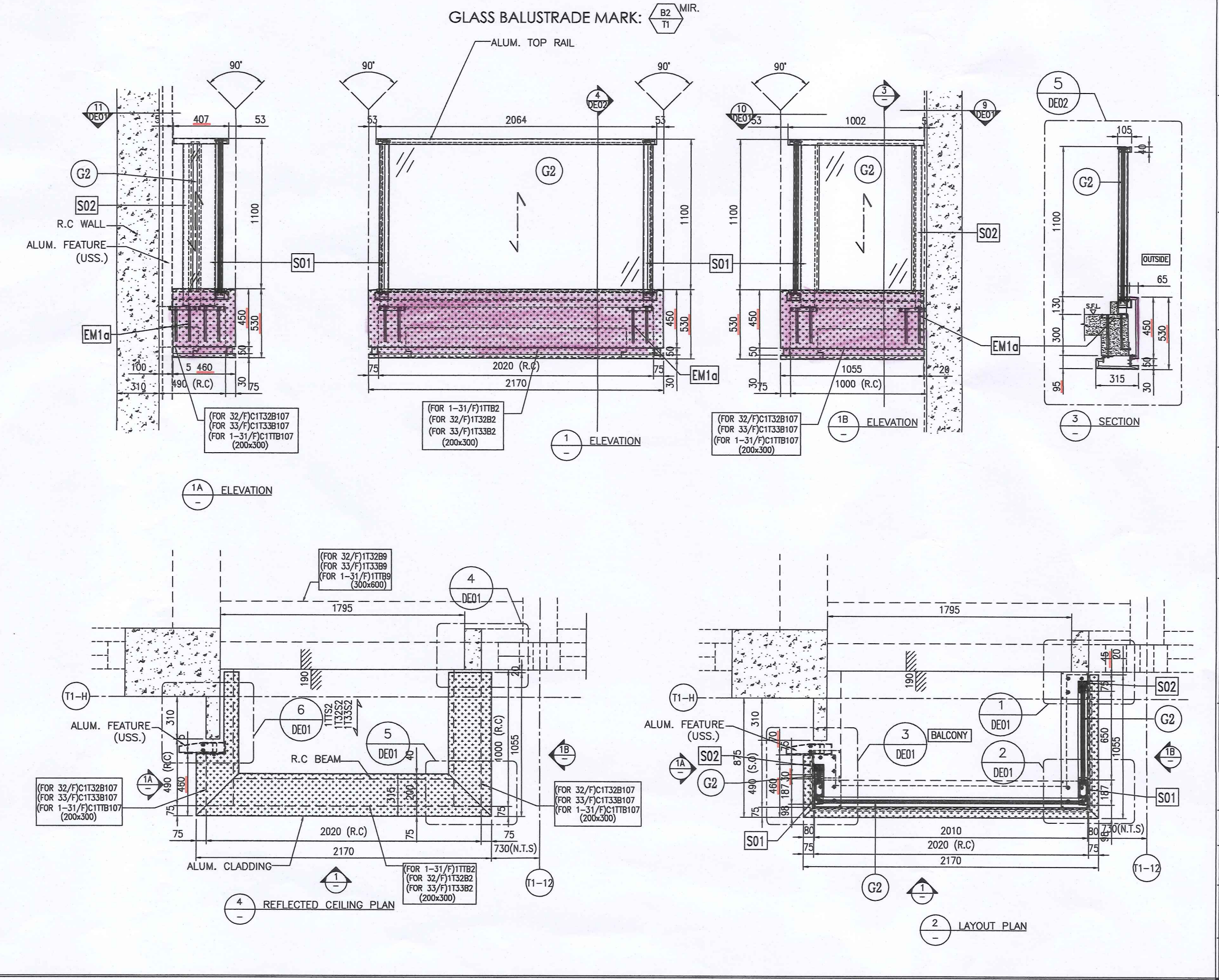
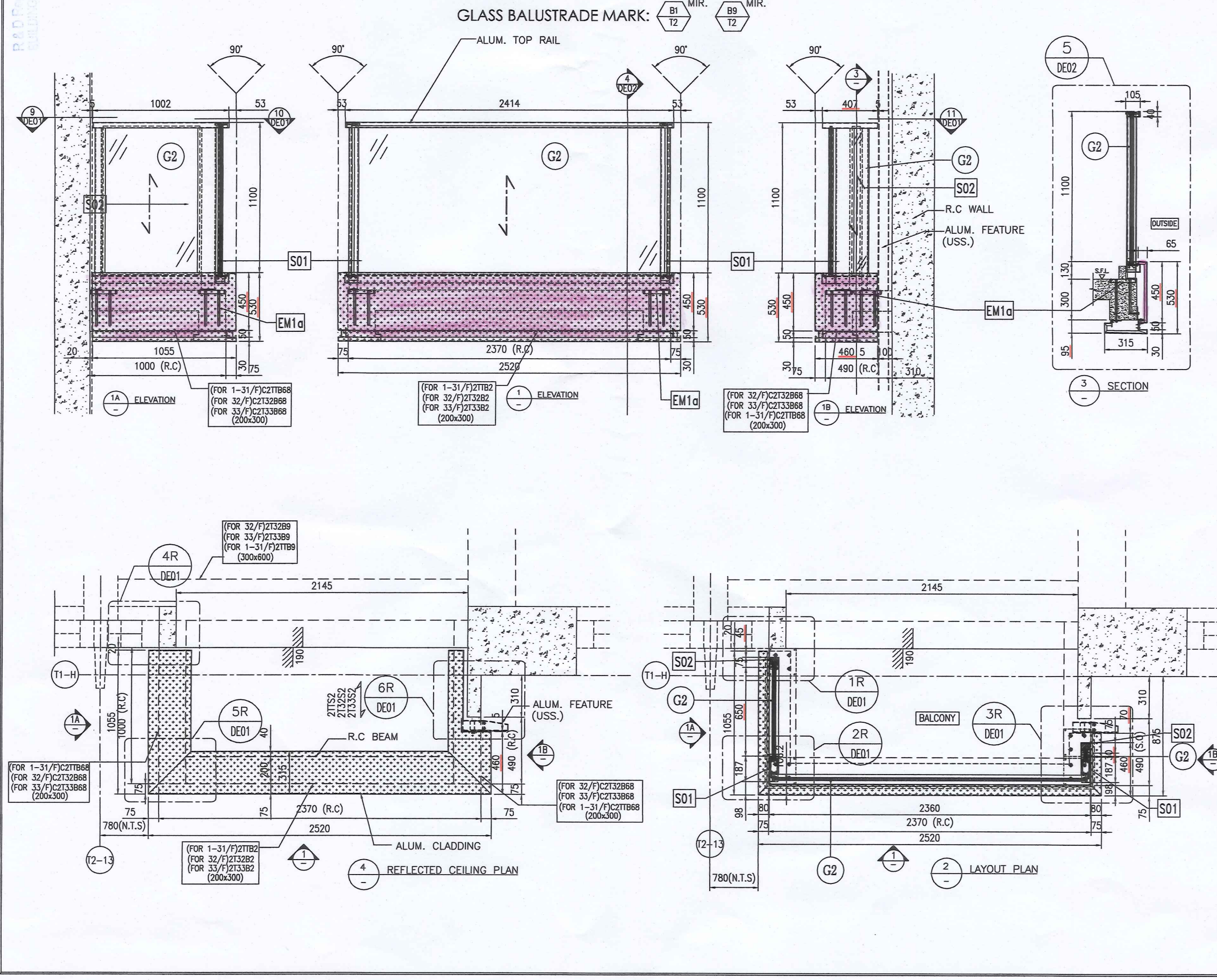
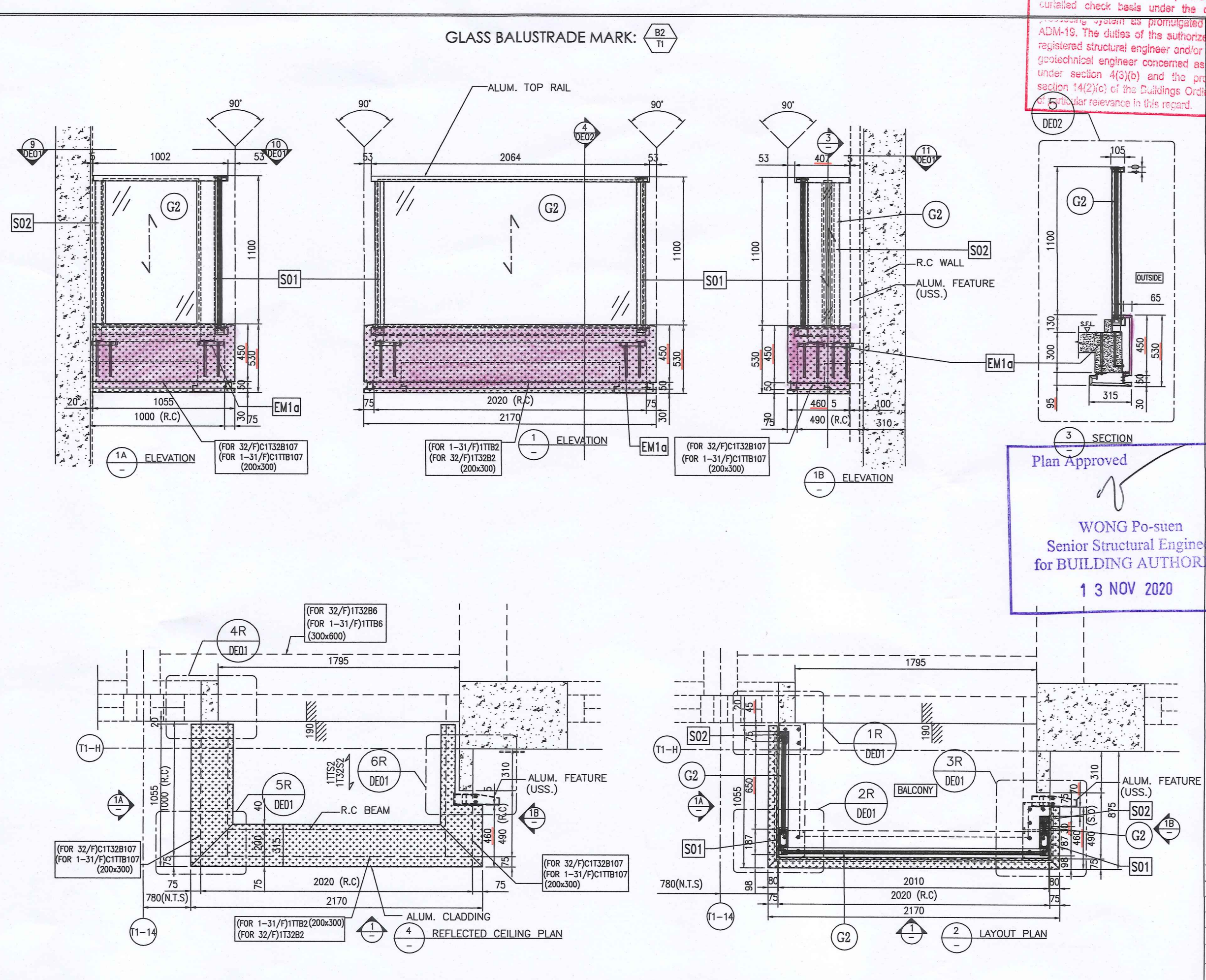
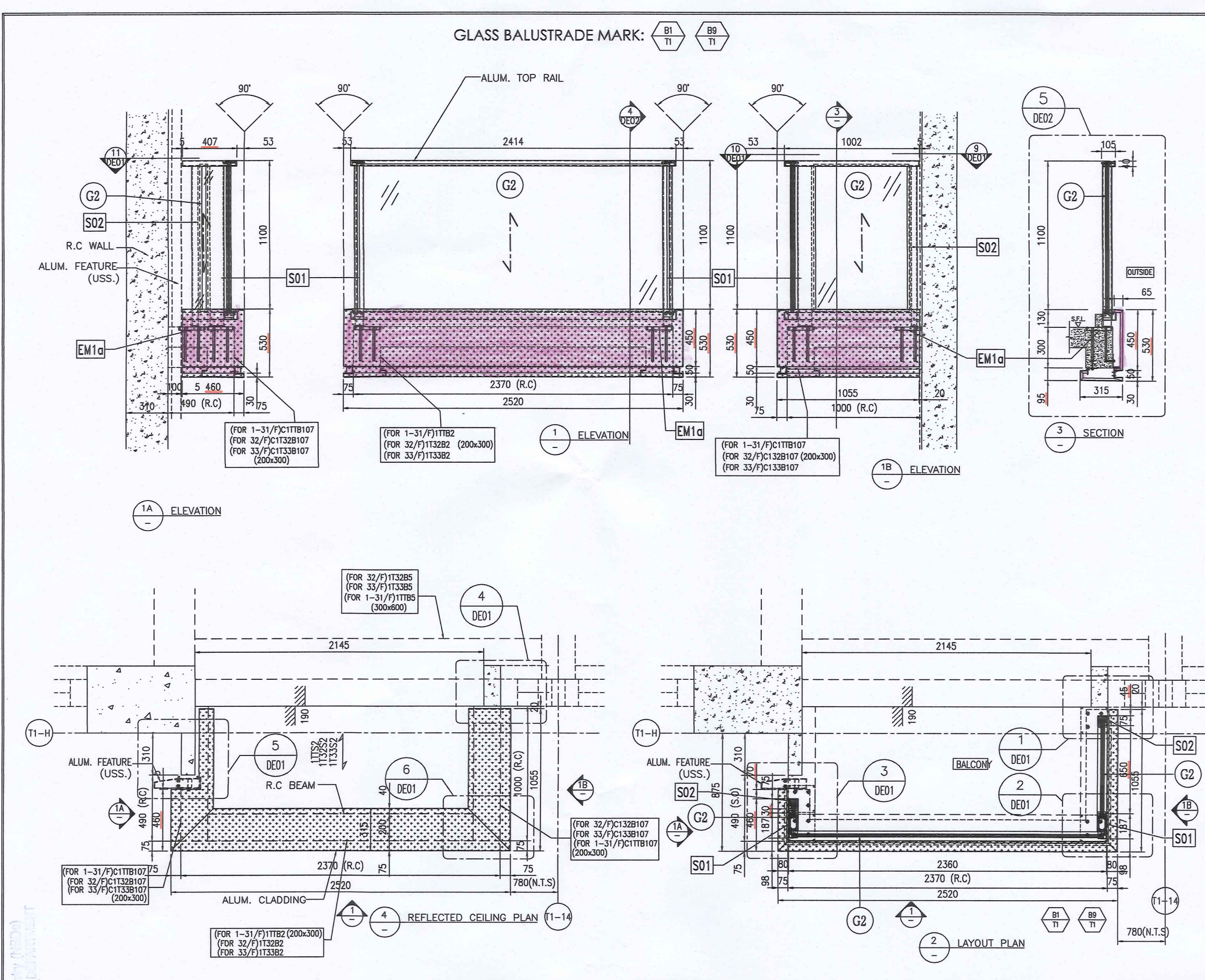
STRUCTURAL ENGINEER : CMA C M WONG & ASSOCIATES LTD

美特鋁質有限公司  
MIDI ALUMINIUM FABRICATOR LTD.  
Units 6-8, Sunray Industrial Centre, 1/F  
610 Cha Kwo Ling Road, Kowloon  
Tel:23489211-4 Fax:(852)27727666

PROJECT : RESIDENTIAL DEVELOPMENT AT TSING YI TOWN LOT 190 SAI SHAN ROAD

TITLE : PARTIAL ELEVATION & PLAN OF GLASS BALUSTRADE AT BALCONY (1 OF 7)

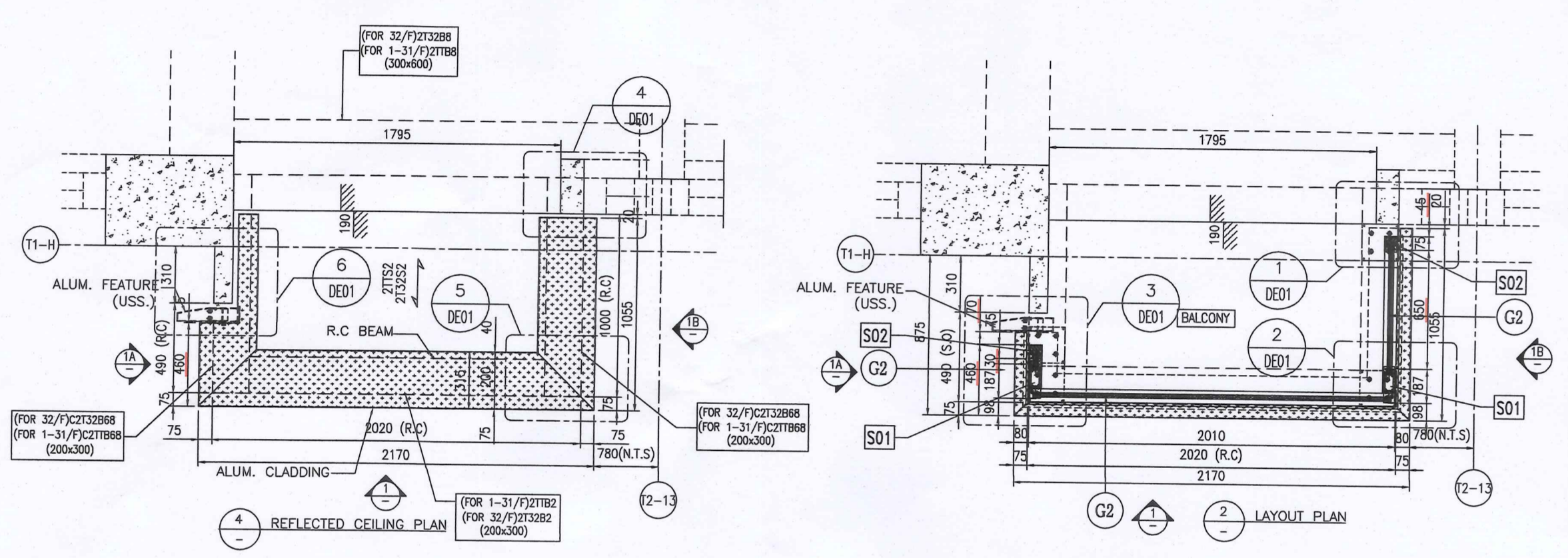
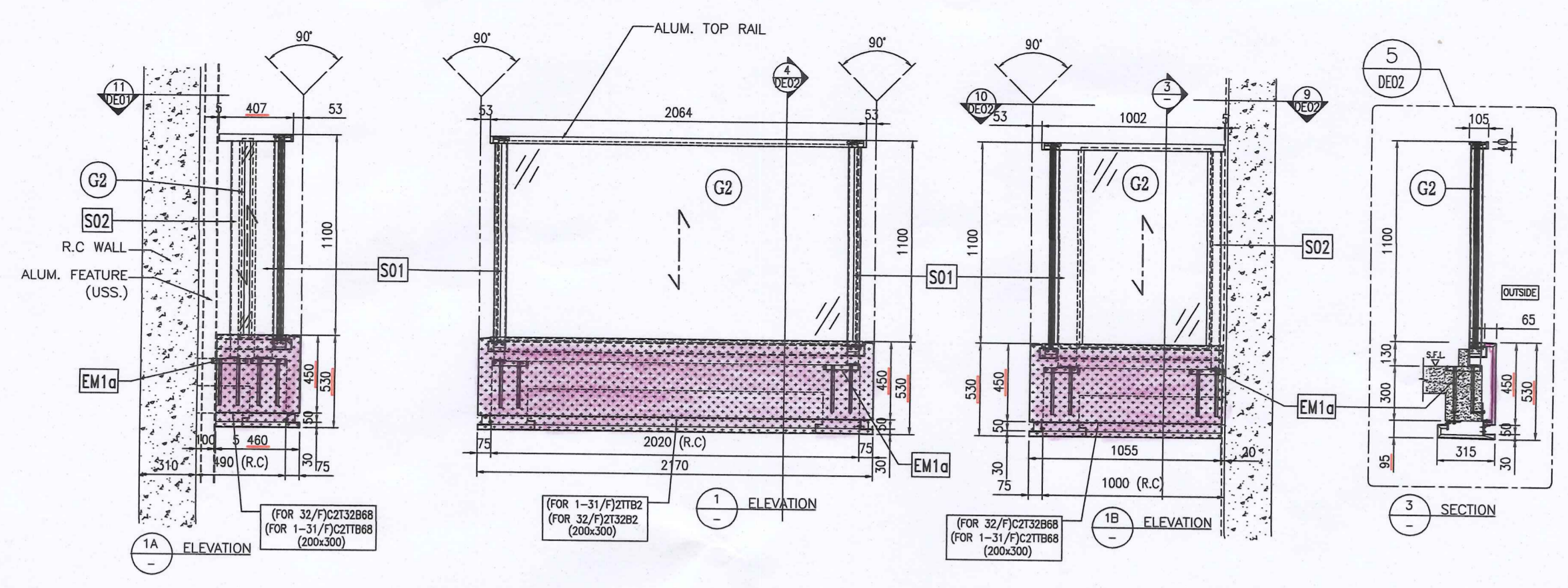
JOB NO. :	J-851
DRAWN BY :	LS
DATE :	26-11-2019
CHKD BY :	SCALE A1: 1:25 A3:
DWG. NO. :	J851-BD-CB-PE01
REV. :	A



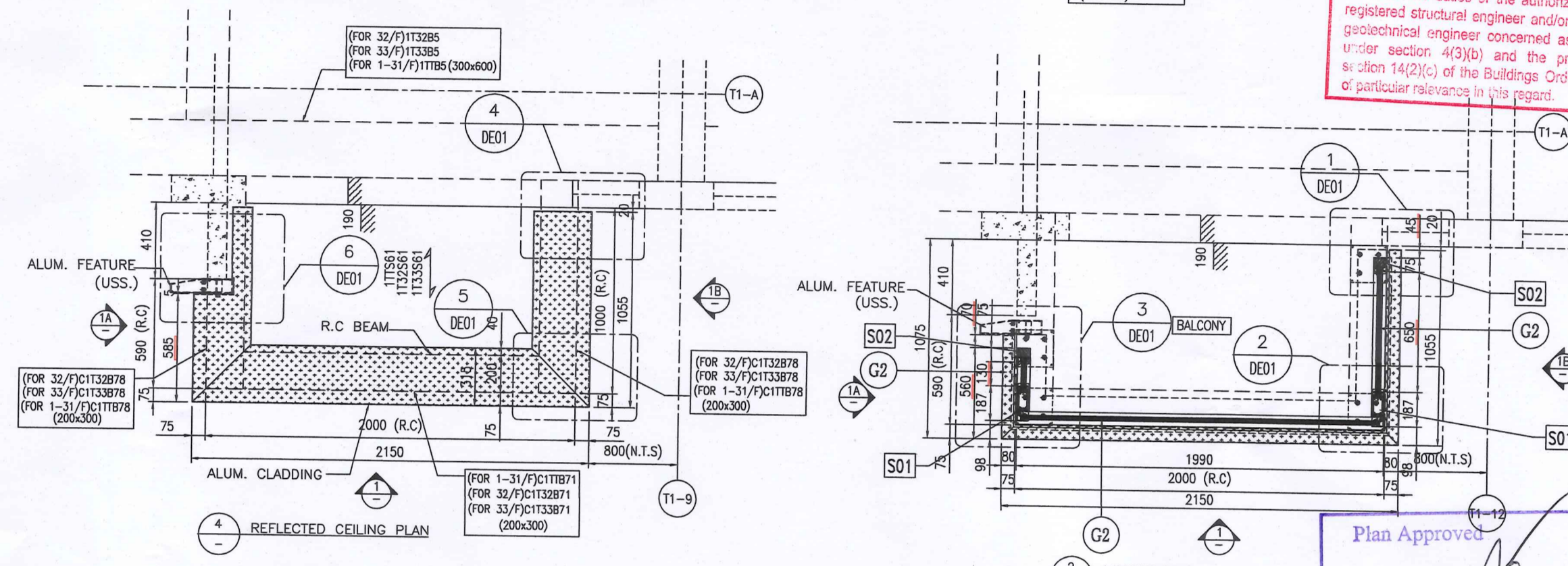
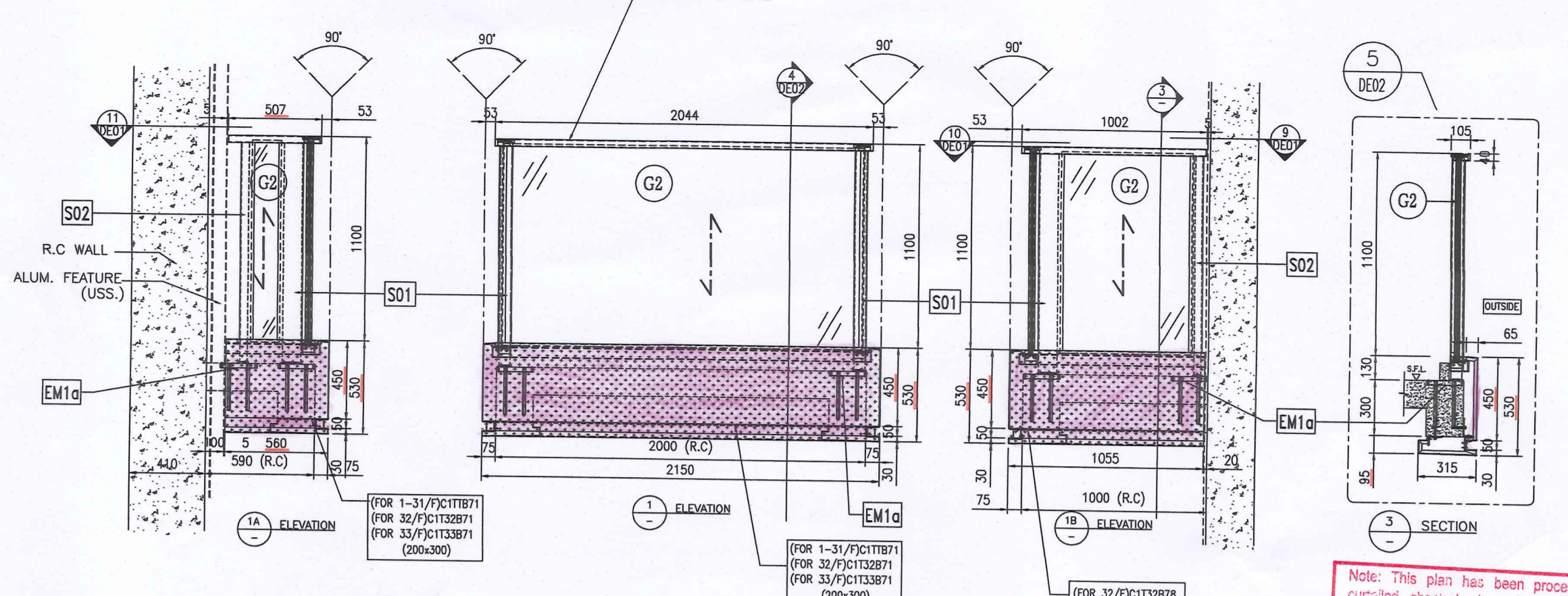
RECEIVED BY  
2020 OCT 19 A 10:01

RECEIVED BY 2020 OCT 19 A 0:07

GLASS BALUSTRADE MARK:  $\frac{82}{12}$   $\frac{810}{12}$



GLASS BALUSTRADE MARK:  $\frac{84}{11}$   $\frac{812}{11}$



Note: This plan has been processed on a curtailed check basis under the centralized processing system as promulgated in the AD-M-19. The duties of the authorized person, registered structural engineer and/or registered geotechnical engineer concerned as specified under section 4(3)(a) and the provision of section 14(2)(c) of the Buildings Ordinance are of particular relevance in this regard.

B.D. REF : BD 3/9/16  
 F.S.D. REF :  
 Note:  
 1. All dimensions are in mm.  
 2. All elevations are viewed from outside.  
 3. All dimensions to be verified on site before fabrication.

**GENERAL NOTES**

**Legend :**

1. F.F.L. --- Finished Floor Level  
 2. S.F.L. --- Structural Floor Level  
 3.  $\overleftarrow{\text{R}}$  --- Reversed Detail

$\text{X1}$   $\text{X001}$  DETAIL MARK NO. REFER SHEET NO.

$\downarrow$  GLASS SUPPORT DIRECTION(2 SIDES)

$\text{G2}$  : 8mm+1.52mm PVB+8mm THK. LAMINATED CLEAR GLASS  
 $\text{EM1a}$  : CAST-IN EMBED TYPE: "EM1a" (DWG. REF.: J851-BD-CB-ED01)  
 $\text{S01}$  : 100x60x8mm THK. G.M.S RHS  
 $\text{S02}$  : 60x40mm THK. G.M.S POST  
 (USS.) - UNDER SEPARATED SUBMISSION

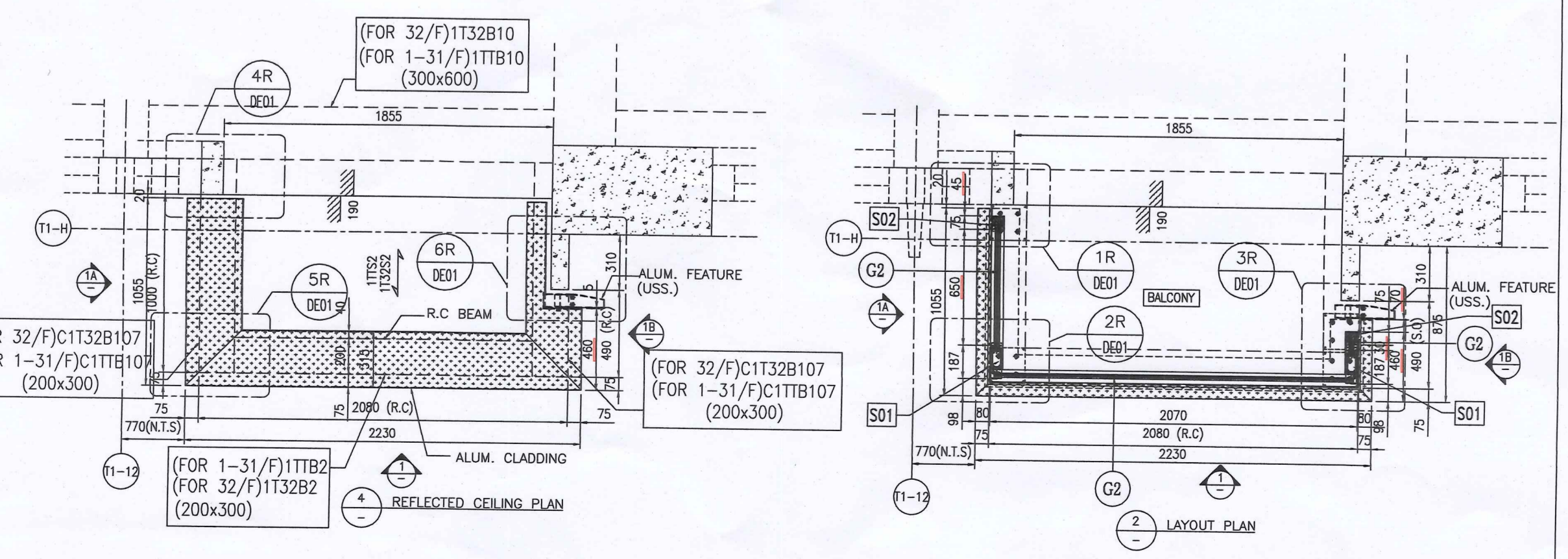
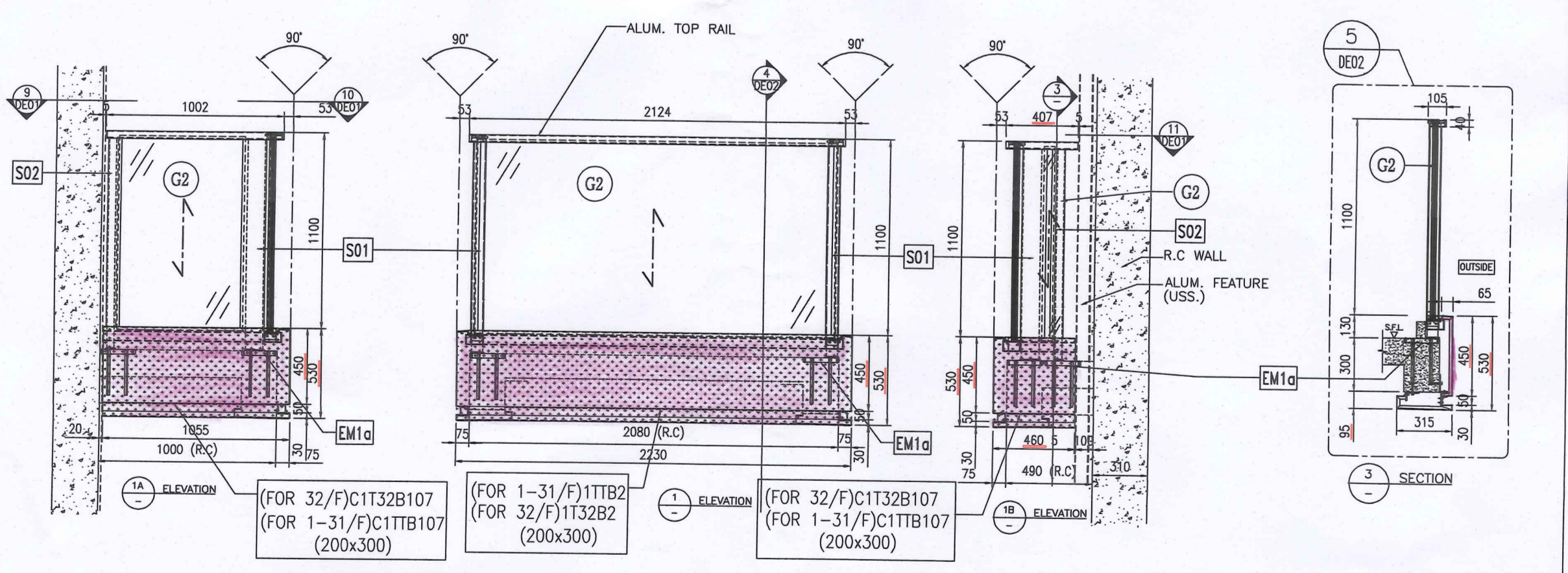
STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

**BD AMENDMENT**

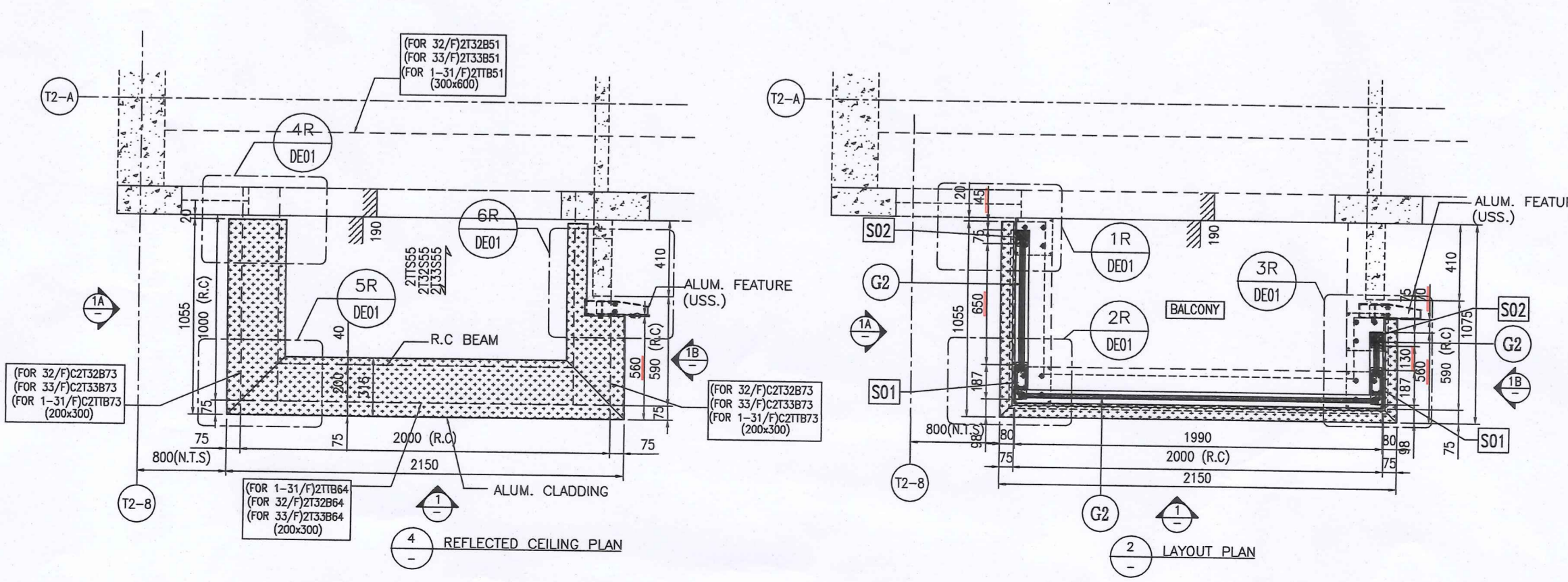
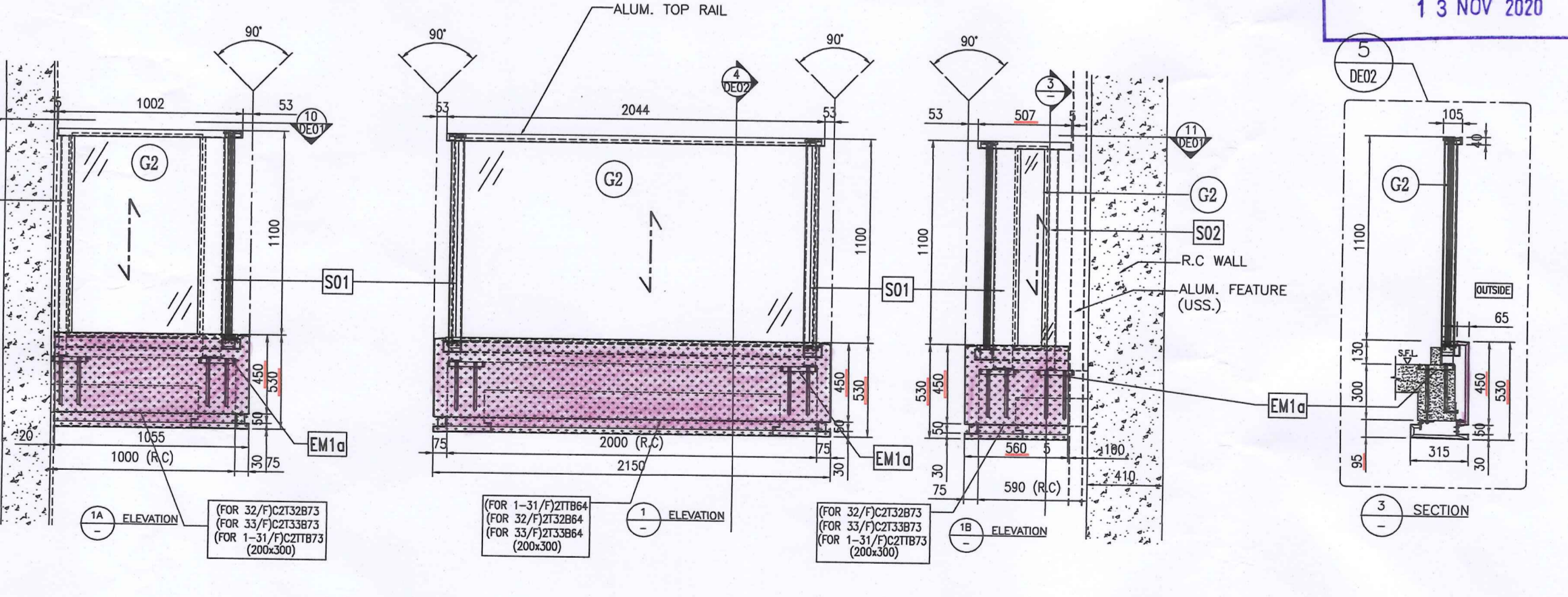
Plan Approved  
 WONG Po-suen  
 Senior Structural Engineer  
 for BUILDING AUTHORITY  
 13 NOV 2020

CLIENT : 佳明集團控股有限公司  
 GRAND MING GROUP HOLDINGS LIMITED

GLASS BALUSTRADE MARK:  $\frac{83}{11}$   $\frac{811}{11}$



GLASS BALUSTRADE MARK:  $\frac{84}{12}$   $\frac{812}{12}$



NO. DATE REVISED BY

A 10-9-2020 1st BD Amendment

ARCHITECT : WONG TUNG & PARTNERS LIMITED  
 ARCHITECTS & PLANNERS

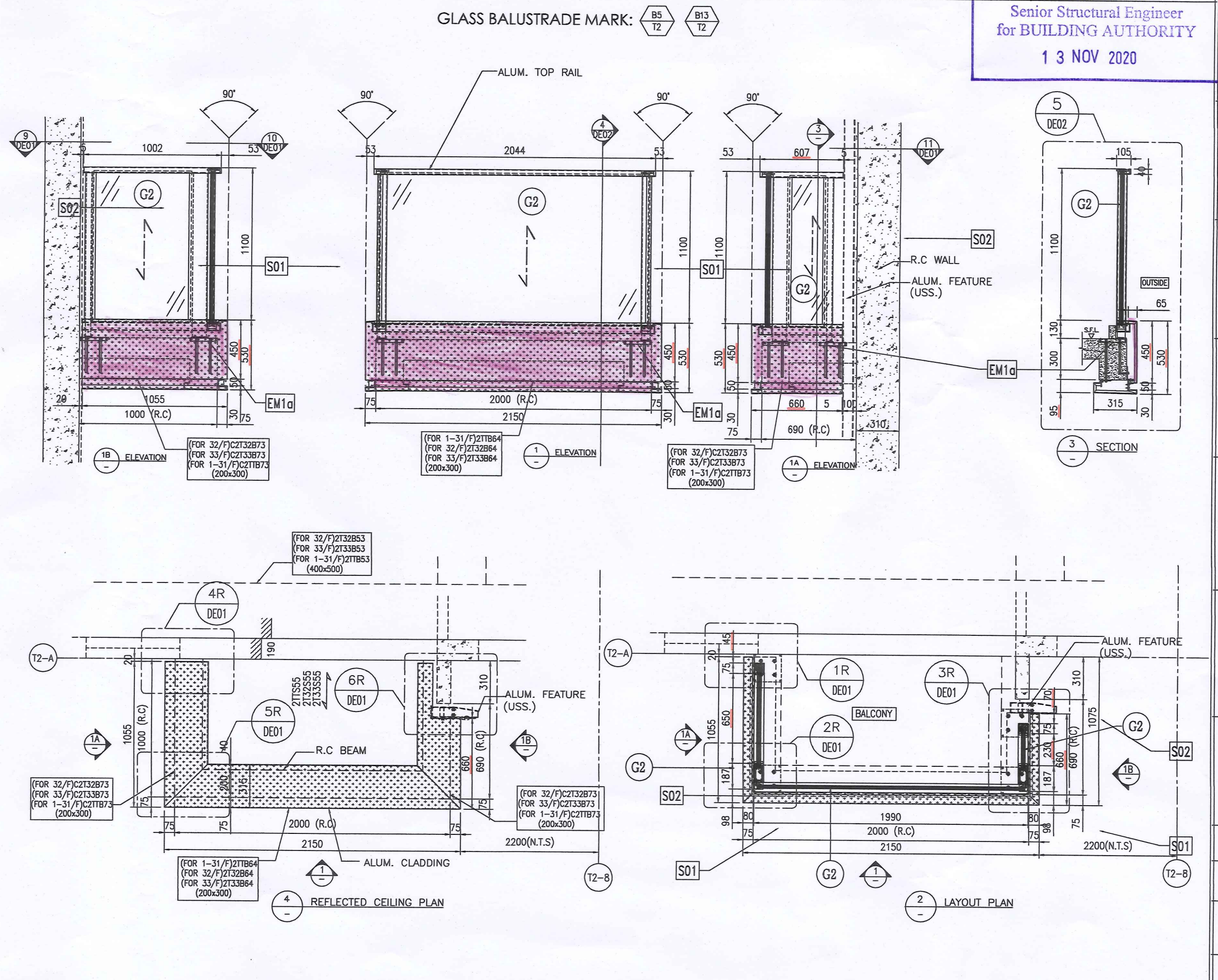
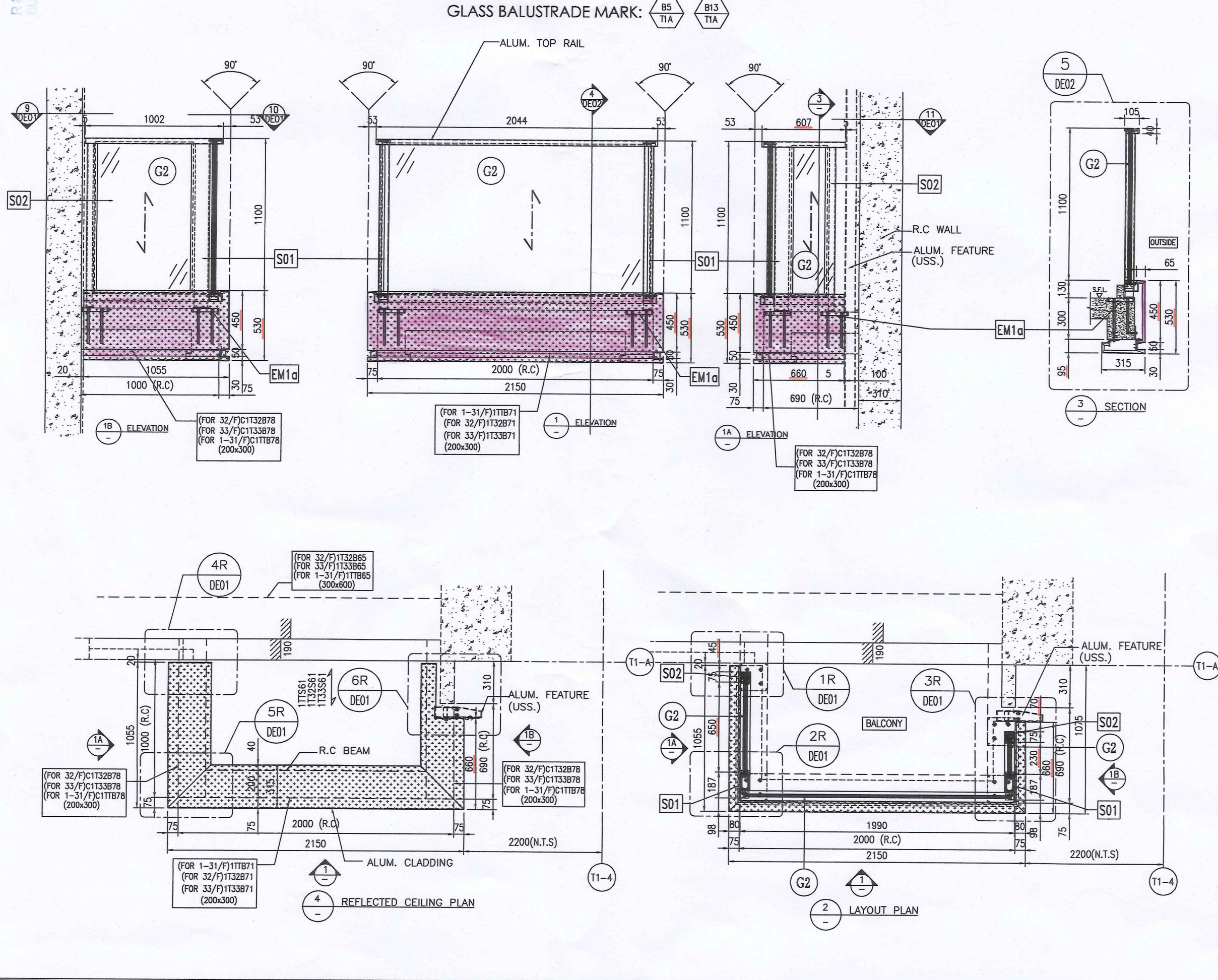
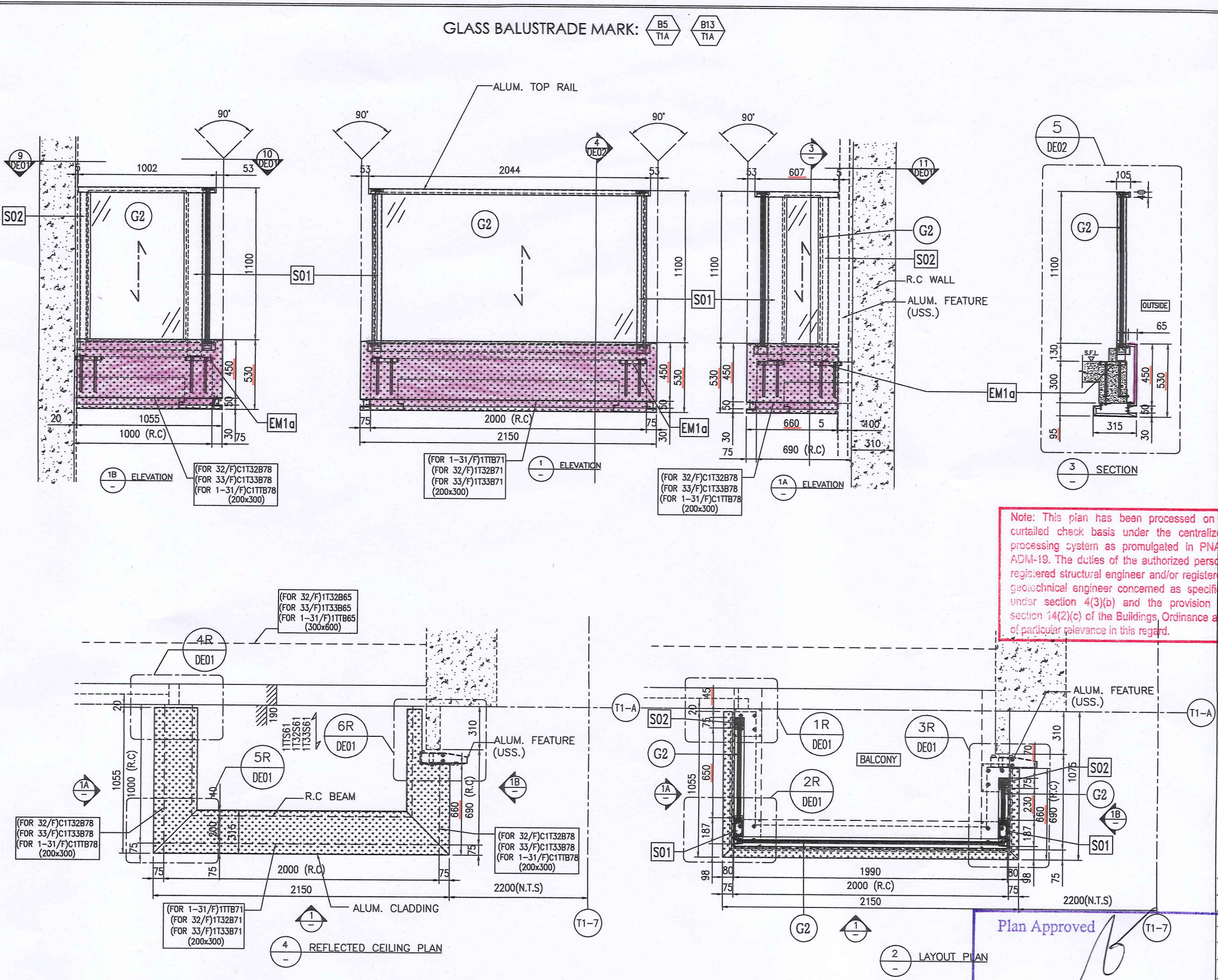
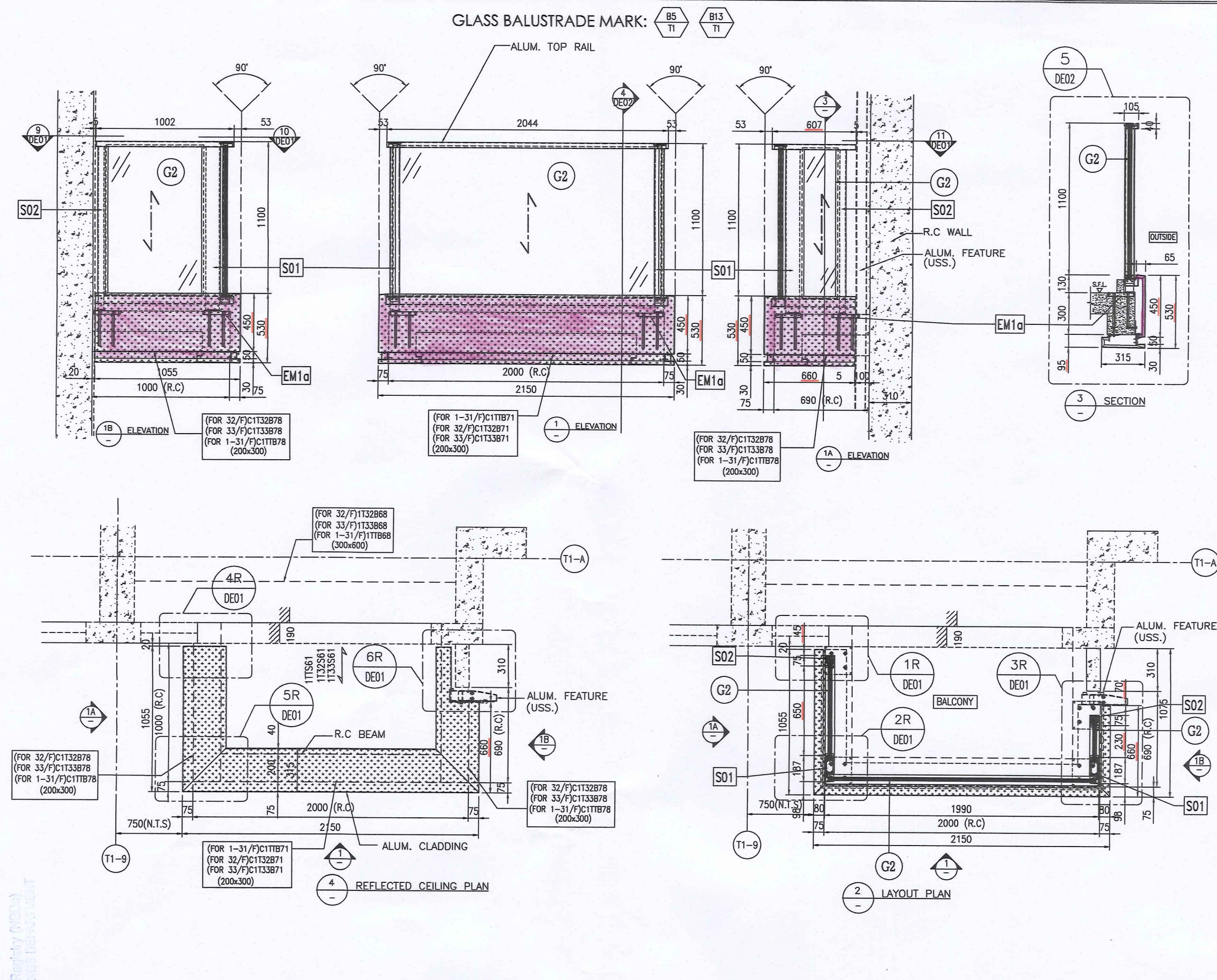
STRUCTURAL ENGINEER : CMA C M WONG & ASSOCIATES LTD

美特鋁質有限公司  
 MIDI ALUMINUM FABRICATOR LTD.  
 Units 6-8, Sunray Industrial Centre, 1/F  
 610 Cha Kwo Ling Road, Kowloon  
 Tel:23489211-4 Fax:(852)2727666

PROJECT : RESIDENTIAL DEVELOPMENT AT TSING YI TOWN LOT 190 SAI SHAN ROAD

TITLE : PARTIAL ELEVATION & PLAN OF GLASS BALUSTRADE AT BALCONY (2 OF 7)

JOB NO. : J-851  
 DRAWN BY : LS DATE : 26-11-2019  
 CHKD BY : SCALE A1: 1:25 A3:  
 DWG. NO. : J851-BD-CB-PE02 REV. : A



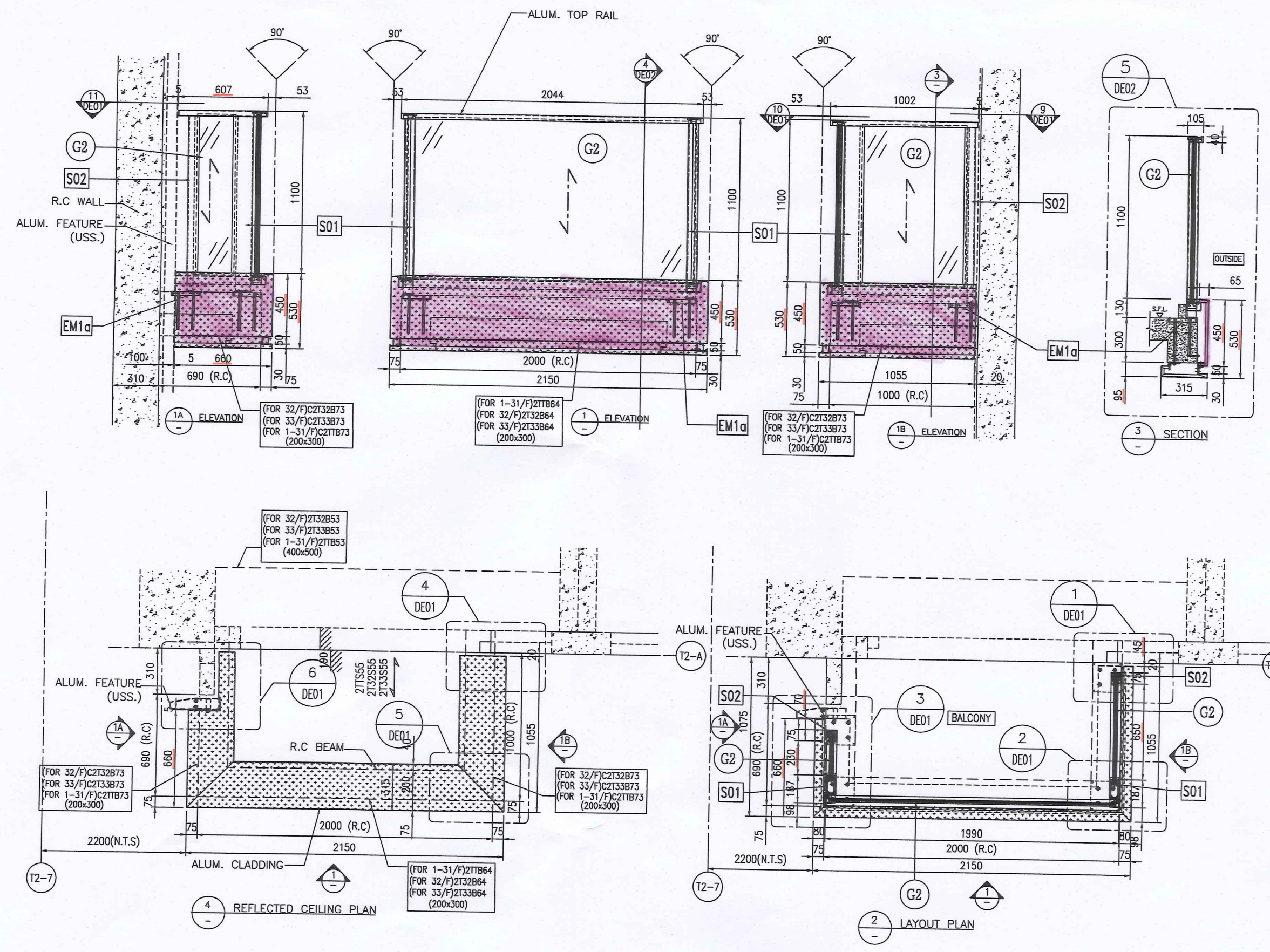
B.D. REF : BD 3/9/169/16
F.S.D. REF :
Note : 1. All dimensions are in mm. 2. All elevations are viewed from outside. 3. All dimensions to be verified on site before fabrication.
<b>GENERAL NOTES</b>
<b>Legend :</b>
1. F.F.L. --- Finished Floor Level
2. S.F.L. --- Structural Floor Level
3. (R) --- Reversed Detail
(X1) --- DETAIL MARK NO.
(X001) --- REFER SHEET NO.
↕ --- GLASS SUPPORT DIRECTION(2 SIDES)
(G2) : 8mm+1.52mm PVB+8mm THK. LAMINATED CLEAR GLASS
(EM1a) : CAST-IN EMBED TYPE- "EM1a" (DWG. REF.: J851-BD-GB-ED01)
(S01) : 100x60x8mm THK. G.M.S RHS
(S02) : 60x40mm THK. G.M.S POST (U.S.S.) --- UNDER SEPARATED SUBMISSION
LEUNG CHI HUNG BEN Registered Structural Engineer
STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR
<b>BD AMENDMENT</b>
A 10-9-2020 1st BD Amendment
NO. DATE REVISED BY
CLIENT : 佳明集團控股有限公司 GRAND MING GROUP HOLDINGS LIMITED
MAIN CONTRACTOR : GRAND TECH CONSTRUCTION CO. LTD.
ARCHITECT : WONG TUNG & PARTNERS LIMITED ARCHITECTS & PLANNERS
STRUCTURAL ENGINEER : CMA C M WONG & ASSOCIATES LTD
美特鋁質有限公司 MIDI ALUMINIUM FABRICATOR LTD.
Units 6-8, Sunray Industrial Centre, 1/F 610 Cho Kwo Ling Road, Kowloon Tel: 23489211-4 Fax: (852) 2727666
PROJECT : RESIDENTIAL DEVELOPMENT AT TSING YI TOWN LOT 190 SAI SHAN ROAD
TITLE : PARTIAL ELEVATION & PLAN OF GLASS BALUSTRADE AT BALCONY (3 OF 7)
JOB NO. : J-851
DRAWN BY : LS DATE : 26-11-2019
CHKD BY : SCALE A1: 1:25 A3:
DWG. NO. : J851-BD-GB-PE03 REV. : A

Plan Approved  
WONG Po-suen  
Senior Structural Engineer  
for BUILDING AUTHORITY  
13 NOV 2020

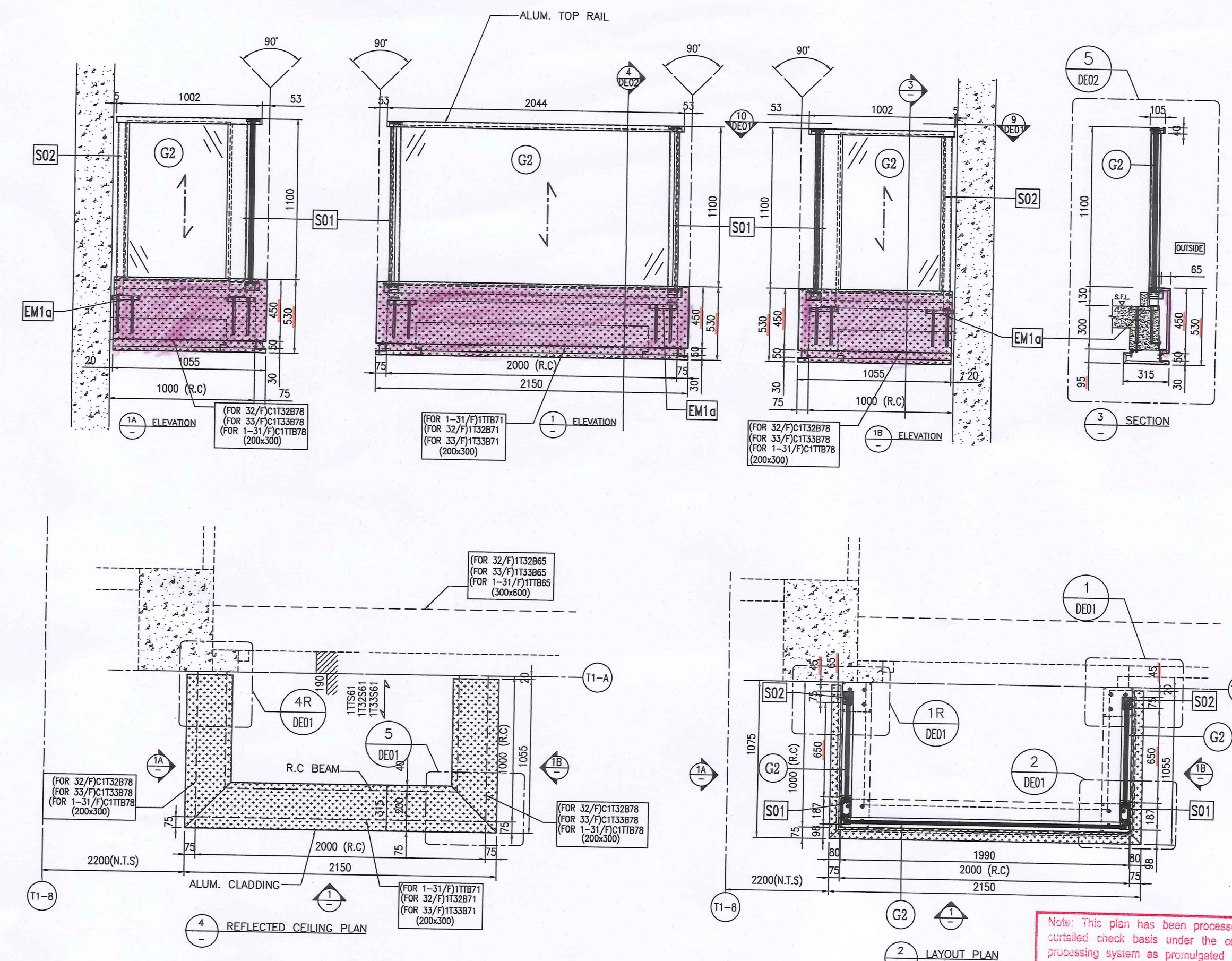
RECEIVED BY  
2020 OCT 19 A 10:01



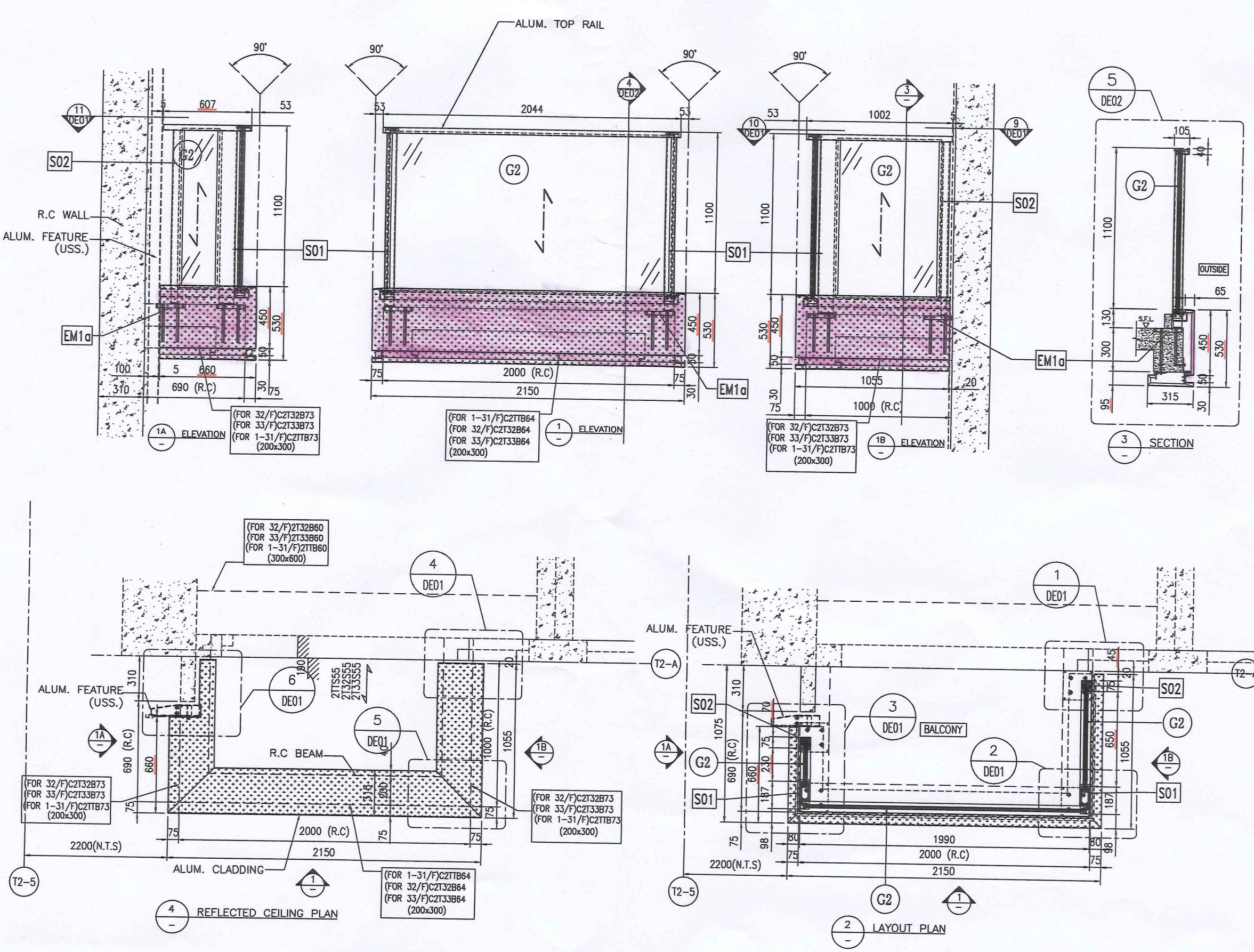
GLASS BALUSTRADE MARK:  $\begin{matrix} \text{B5} \\ \text{MIR} \\ \text{T2} \end{matrix}$   $\begin{matrix} \text{B13} \\ \text{MIR} \\ \text{T2} \end{matrix}$



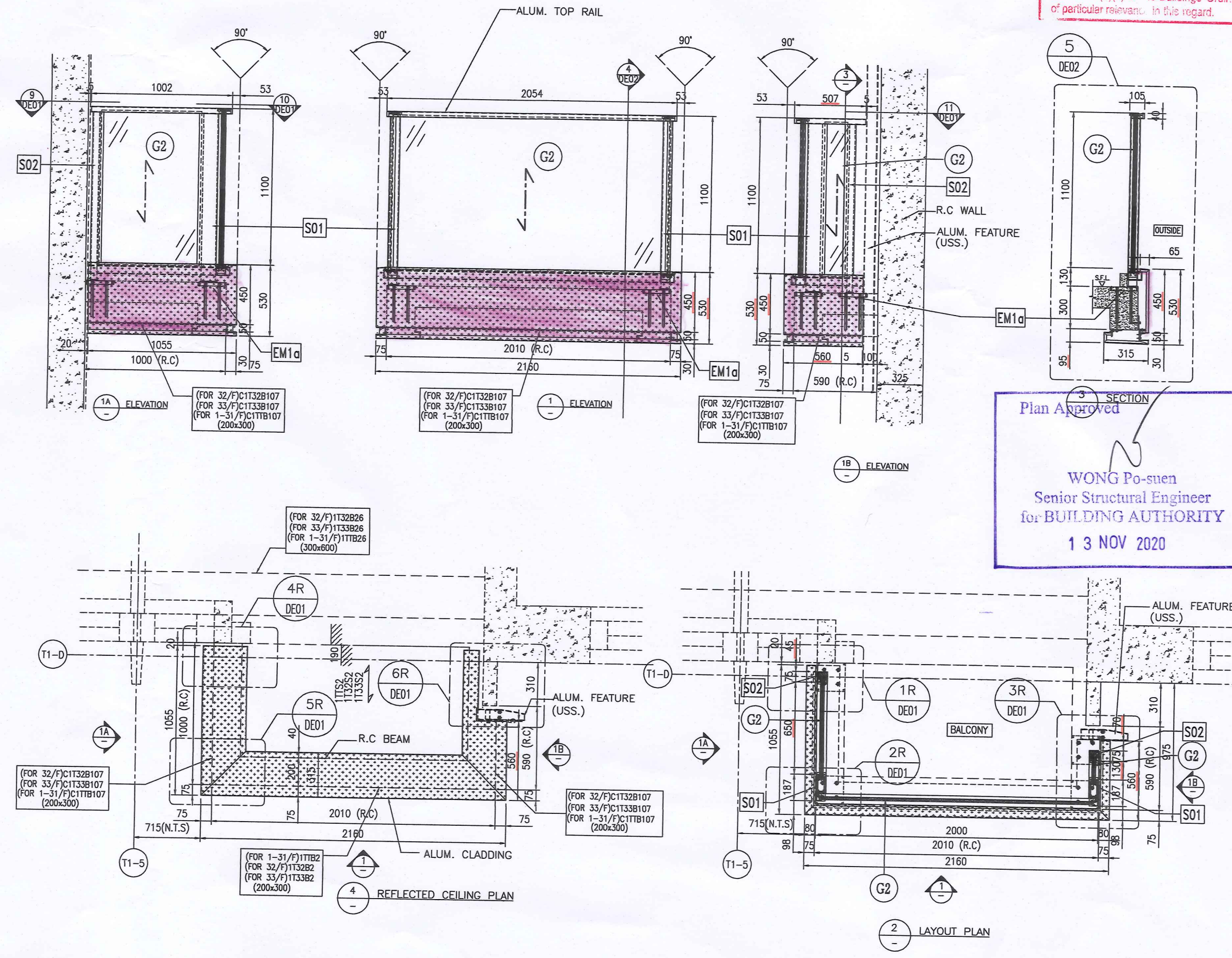
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GLASS BALUSTRADE MARK:  $\begin{matrix} \text{B5} \\ \text{MIR} \\ \text{T2A} \end{matrix}$   $\begin{matrix} \text{B13} \\ \text{MIR} \\ \text{T2A} \end{matrix}$



GLASS BALUSTRADE MARK:  $\begin{matrix} \text{B7} \\ \text{T1A} \end{matrix}$   $\begin{matrix} \text{B15} \\ \text{T1A} \end{matrix}$



B.D. REF : BD 3/9/69/16

F.S.D. REF :  
 Note :  
 1.All dimensions are in mm.  
 2.All elevations are viewed from outside.  
 3.All dimensions to be verified on site before fabrication.

GENERAL NOTES

Legend :  
 1. F.F.L. --- Finished Floor Level  
 2. S.F.L. --- Structural Floor Level  
 3. (R) --- Reversed Detail

(X1) DETAIL MARK NO.  
 (X001) REFER SHEET NO.

↓ GLASS SUPPORT DIRECTION(2 SIDES)

(G2) : 8mm+1.52mm PVB+8mm THK. LAMINATED CLEAR GLASS

(EM1a) : CAST-IN EMBED TYPE: "EM1a" (DWC. REF.: J851-BD-CB-ED01)

(S01) : 100x60x8mm THK. G.M.S. RHS  
 (S02) : 60x40mm THK. G.M.S. POST  
 (USS.) : UNDER SEPARATED SUBMISSION

LEUNG CHI HUNG BEN  
 Registered Structural Engineer

STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

**BD AMENDMENT**

Note: This plan has been processed on a controlled check basis under the centralized processing system as promulgated in Part ADAM-19. The duties of the authorized registered structural engineer and/or registered professional engineer concerned as specified under section 47(b) and the provision section 14(2)(a) of the Buildings Ordinance are of particular relevance in this regard.

10-9-2020	1st BD Amendment		
DATE	REVISED	BY	

佳明集團控股有限公司  
 GRAND MING GROUP HOLDINGS LIMITED

MAIN CONTRACTOR :  
 GRAND TECH CONSTRUCTION CO. LTD.

ARCHITECT :  
 WONG TUNG & PARTNERS LIMITED  
 ARCHITECTS & PLANNERS

STRUCTURAL ENGINEER :  
 CMA C M WONG & ASSOCIATES LTD

美特鋁質有限公司  
 MIDI ALUMINIUM FABRICATOR LTD.  
 Units 6-8, Sunray Industrial Centre, 1/F  
 610 Cha Kwo Ling Road, Kowloon  
 Tel:23489211-4 Fax:(852)27727666

PROJECT :  
 RESIDENTIAL DEVELOPMENT AT  
 TSING YI TOWN LOT 190 SAI SHAN ROAD

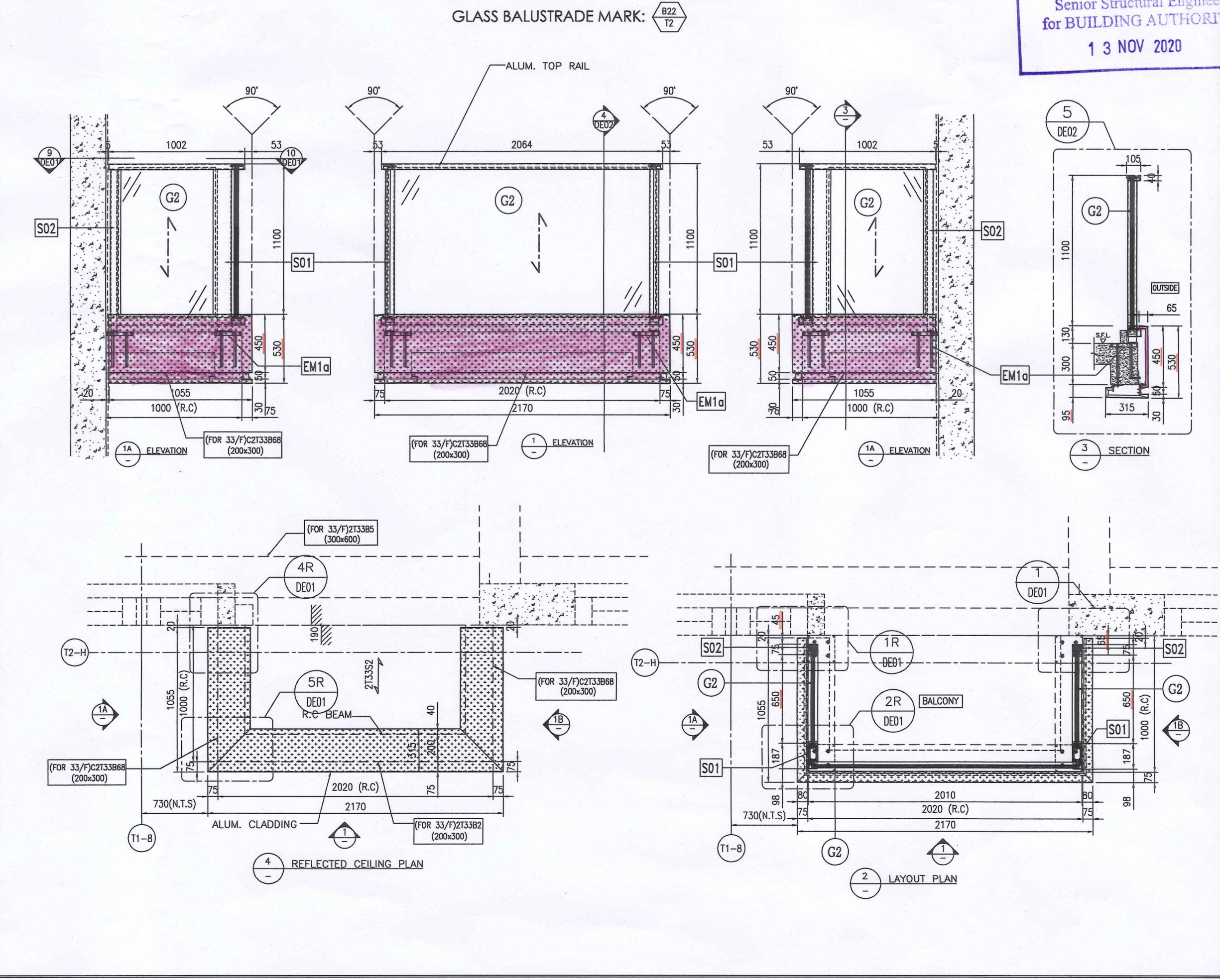
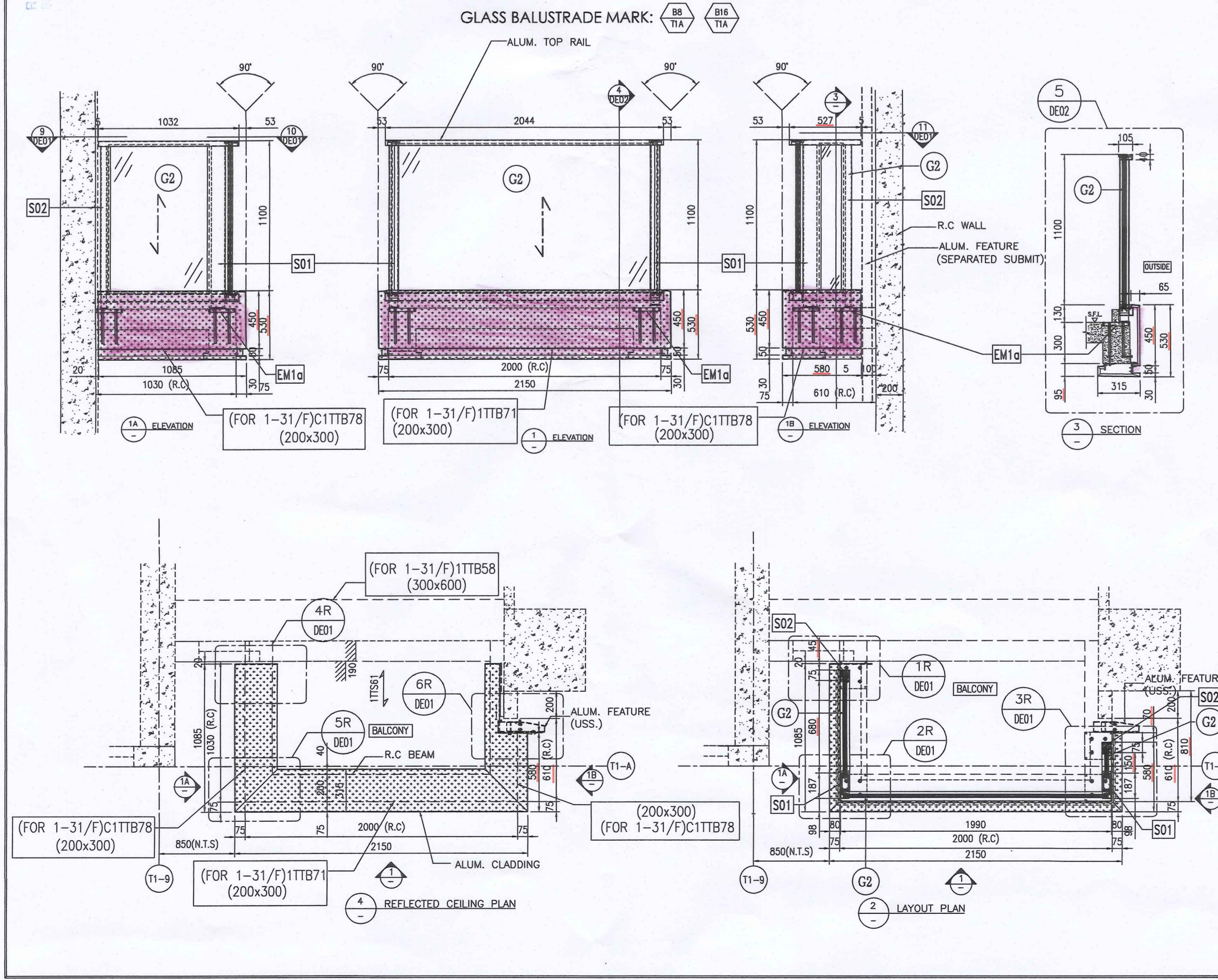
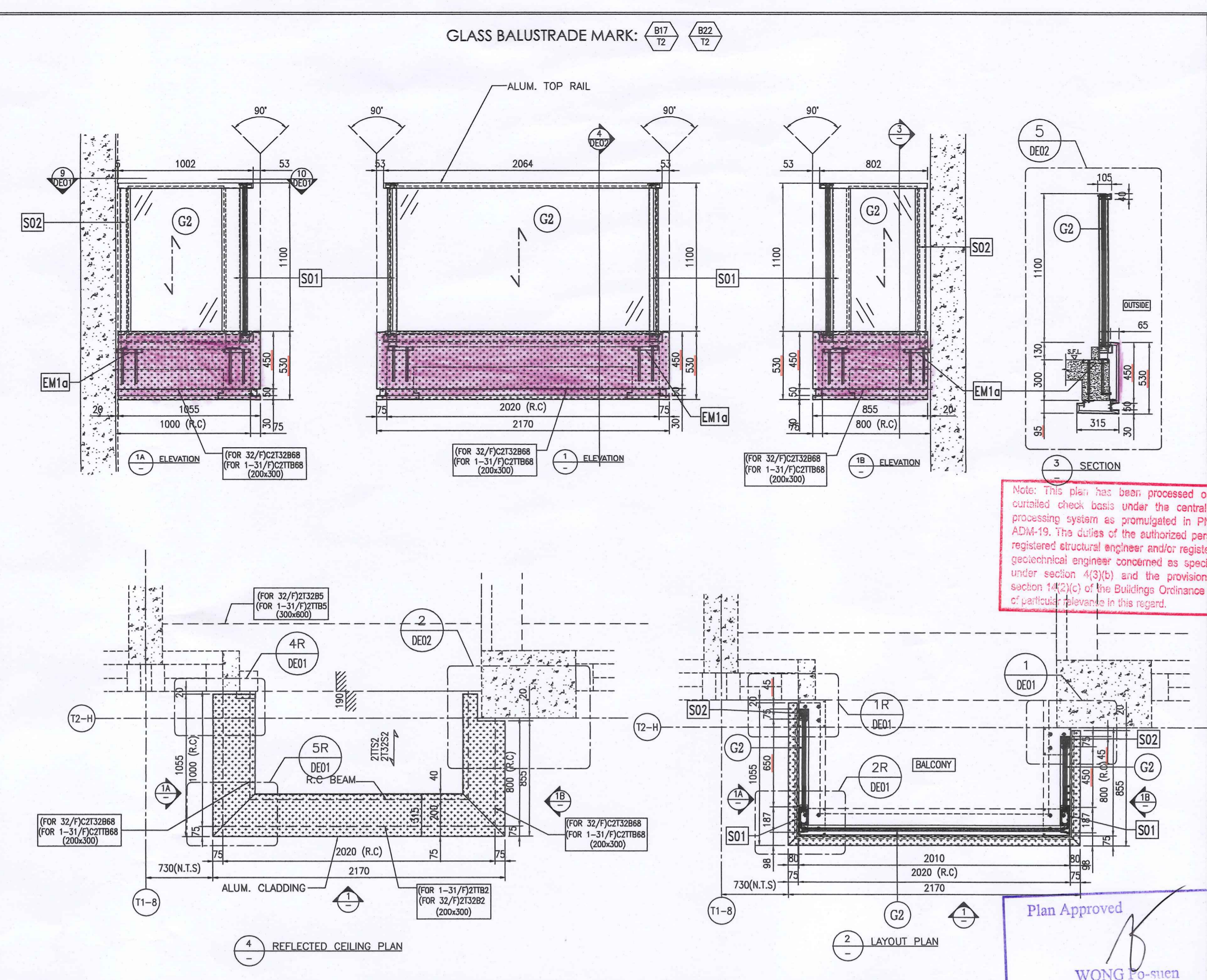
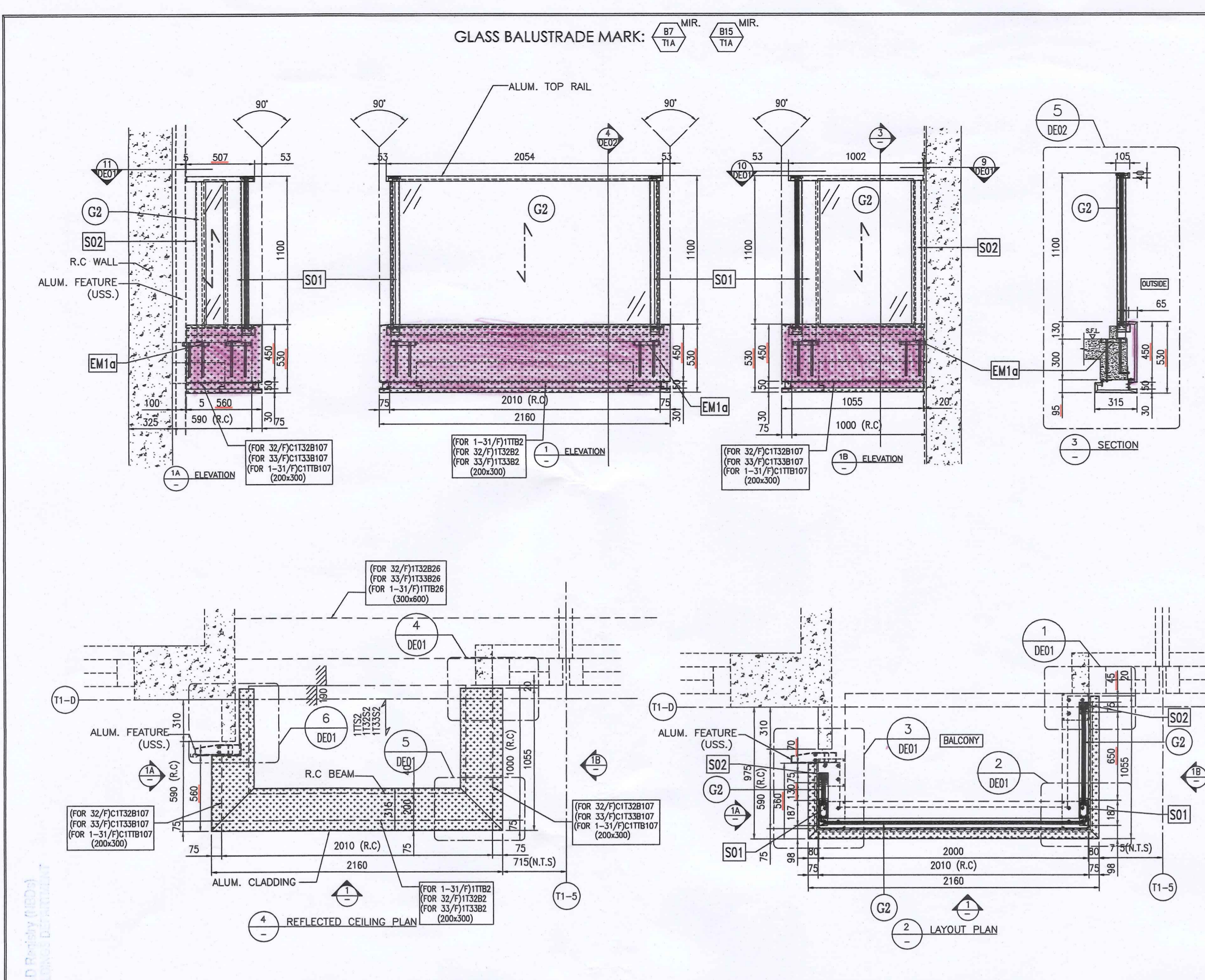
TITLE :  
 PARTIAL ELEVATION & PLAN  
 OF GLASS BALUSTRADE  
 AT BALCONY (5 OF 7)

JOB NO. : J-851  
 DRAWN BY : LS DATE : 26-11-2019  
 CHKD BY : SCALE A1: 1:25  
 A3:  
 DWG. NO. : J851-BD-CB-PE05 REV. : A

WONG Po-men  
 Senior Structural Engineer  
 for BUILDING AUTHORITY  
 13 NOV 2020

Plan Approved

RECEIVED BY 220 OCT 19 A 10:01



B.D. REF : *BD 3/169/116*

F.S.D. REF :

Note :

- All dimensions are in mm.
- All elevations are viewed from outside.
- All dimensions to be verified on site before fabrication.

GENERAL NOTES

Legend :

- F.F.L. --- Finished Floor Level
- S.F.L. --- Structural Floor Level
- (R) --- Reversed Detail

(X1) X001 DETAIL MARK NO. REFER SHEET NO.

GLASS SUPPORT DIRECTION(2 SIDES)

G2 : 8mm+1.52mm PVB+8mm THK. LAMINATED CLEAR GLASS

EM1a : CAST-IN EMBED TYPE: "EM1a" (DWG. REF.: J851-BD-GB-ED01)

S01 : 100x60x8mm THK. G.M.S RHS

S02 : 60x40mm THK. G.M.S POST (USS.) --- UNDER SEPARATED SUBMISSION

LEUNG CHI HUNG BEN  
Registered Structural Engineer

STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

**BD AMENDMENT**

NO.	DATE	REVISED	BY
A	10-9-2020	1st BD Amendment	

Plan Approved  
WONG Po-suen  
Senior Structural Engineer  
for BUILDING AUTHORITY  
13 NOV 2020

CLIENT : 佳明集團控股有限公司  
GRAND MING GROUP HOLDINGS LIMITED

MAIN CONTRACTOR : GRAND TECH CONSTRUCTION CO. LTD.

ARCHITECT : WONG TUNG & PARTNERS LIMITED  
ARCHITECTS & PLANNERS

STRUCTURAL ENGINEER : CMA C M WONG & ASSOCIATES LTD

美特鋁質有限公司  
MIDI ALUMINIUM FABRICATOR LTD.  
Units 6-8, Sunray Industrial Centre, 1/F  
610 Cha Kwo Ling Road, Kowloon  
Tel: 23489211-4 Fax: (852) 27727666

PROJECT : RESIDENTIAL DEVELOPMENT AT TSING YI TOWN LOT 190 SAI SHAN ROAD

TITLE : PARTIAL ELEVATION & PLAN OF GLASS BALUSTRADE AT BALCONY (6 OF 7)

JOB NO. : J-851

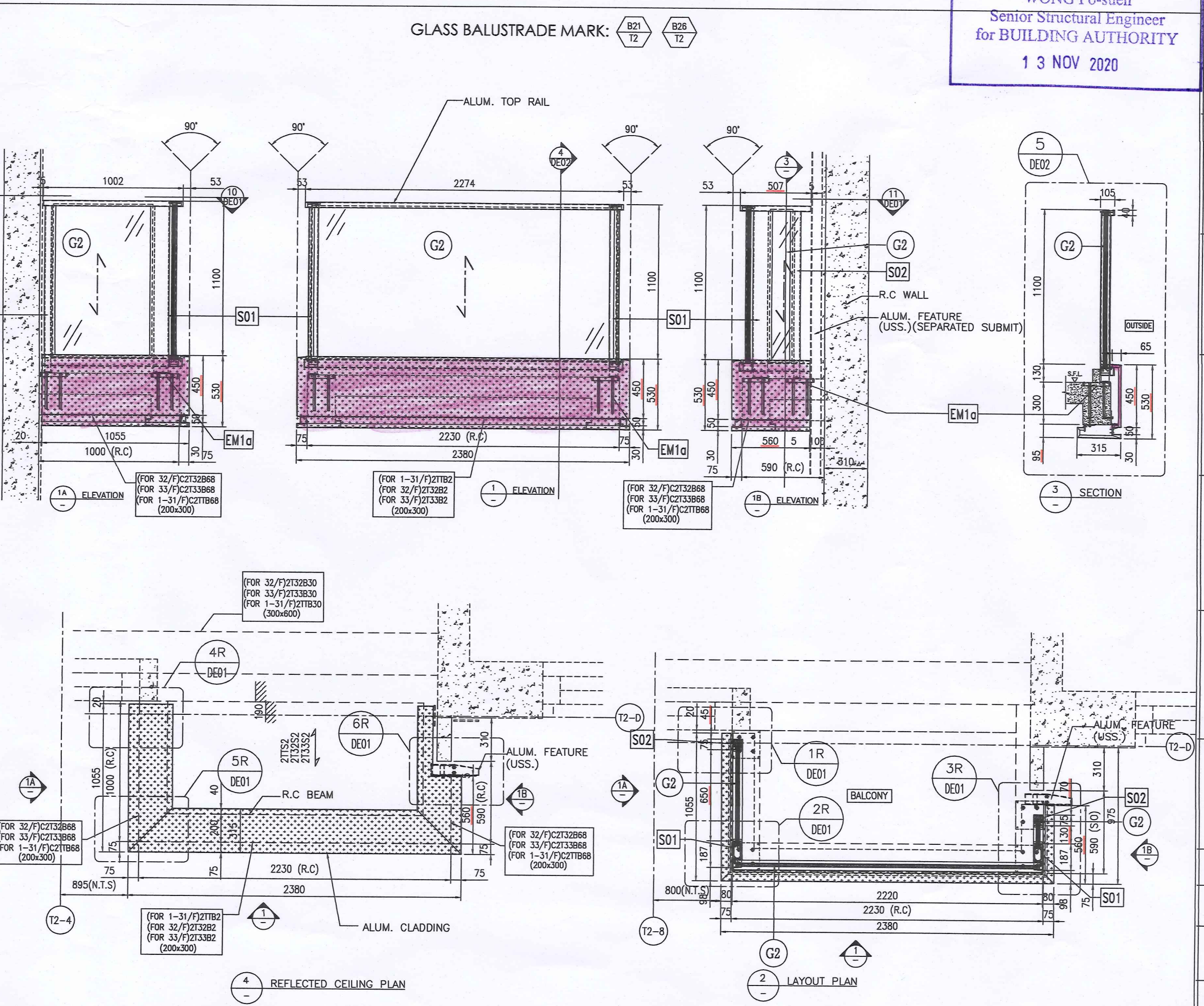
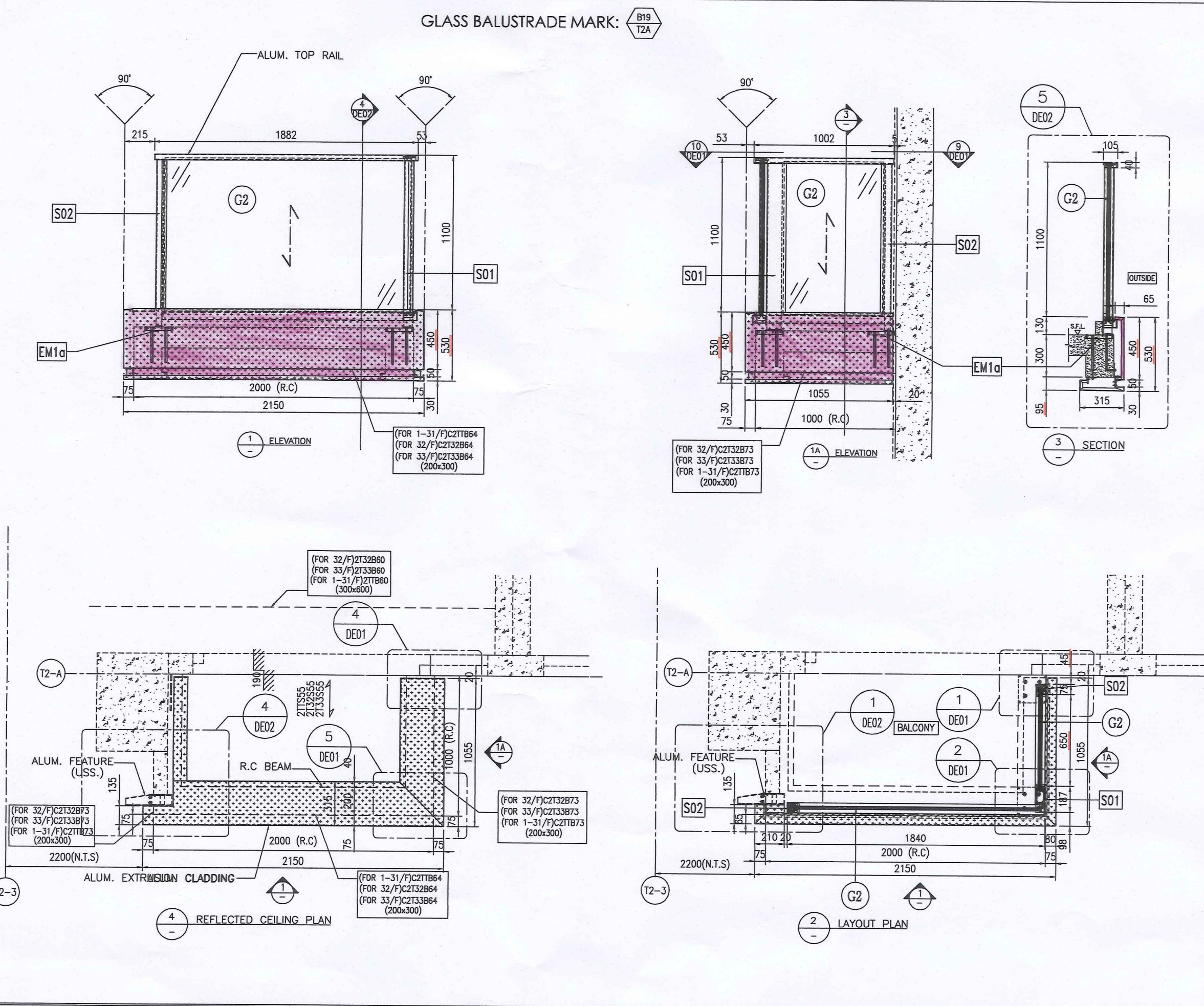
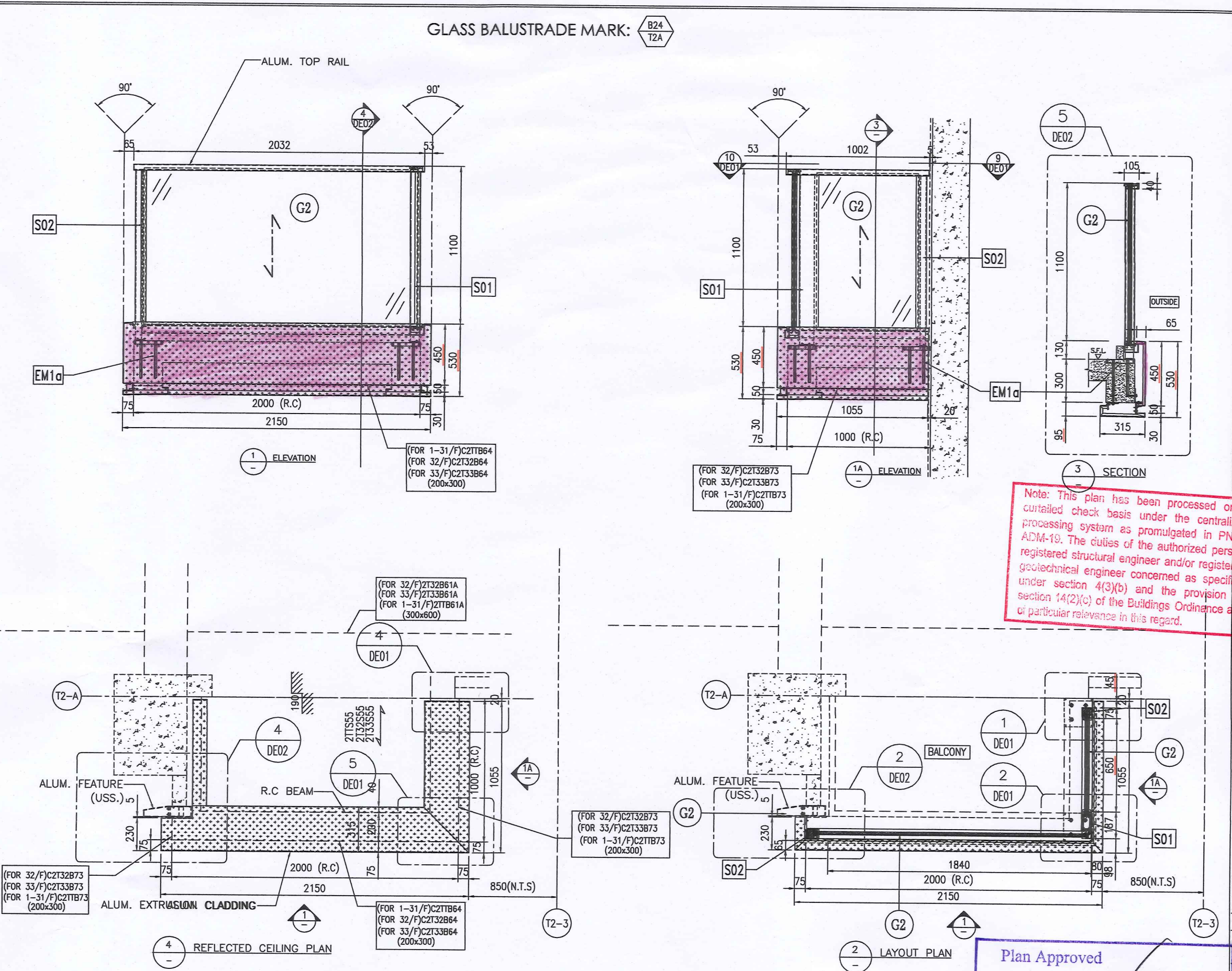
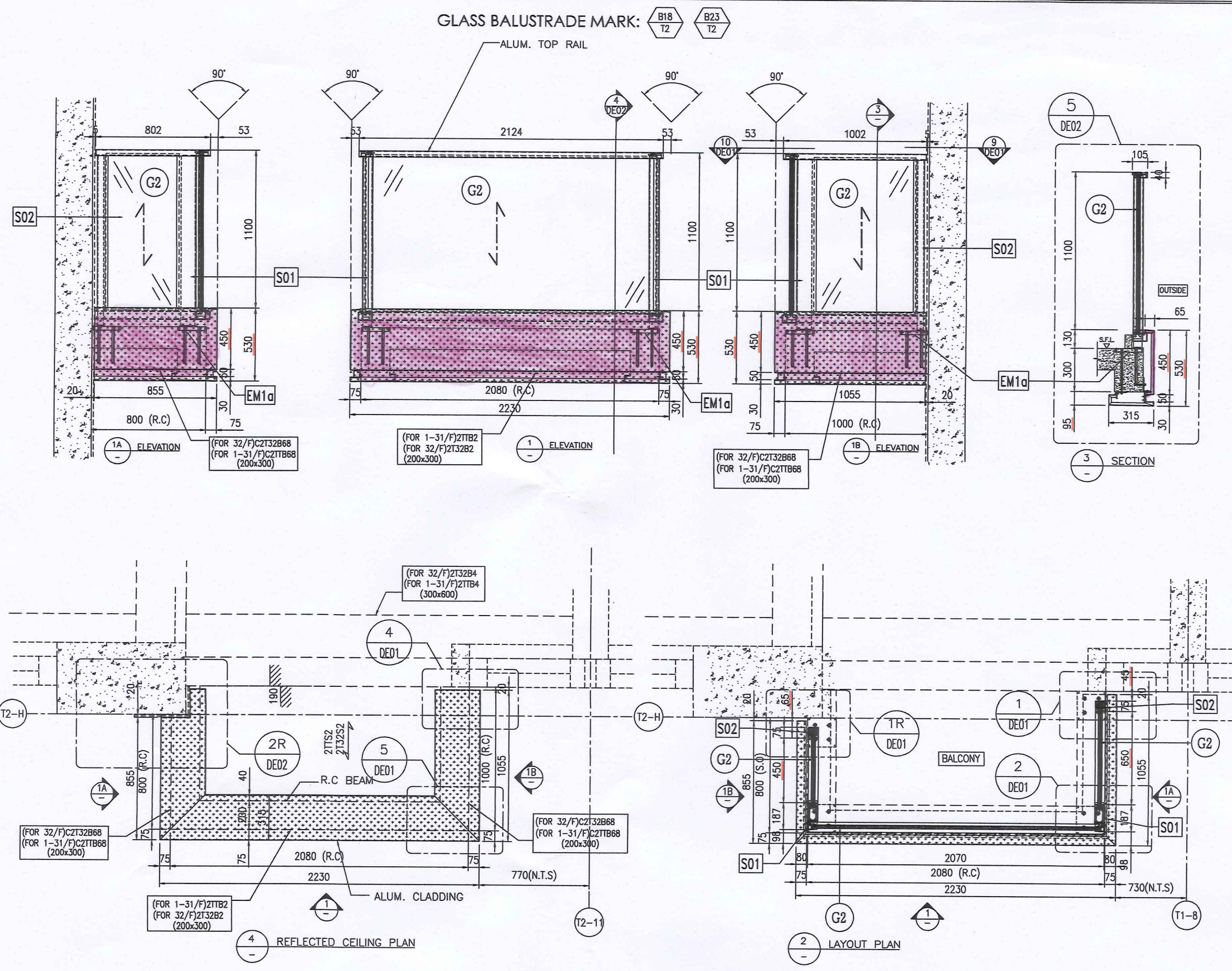
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CHKD BY : SCALE A1: 1:25 A3:

DWG. NO. : J851-BD-GB-PE06 REV. : A

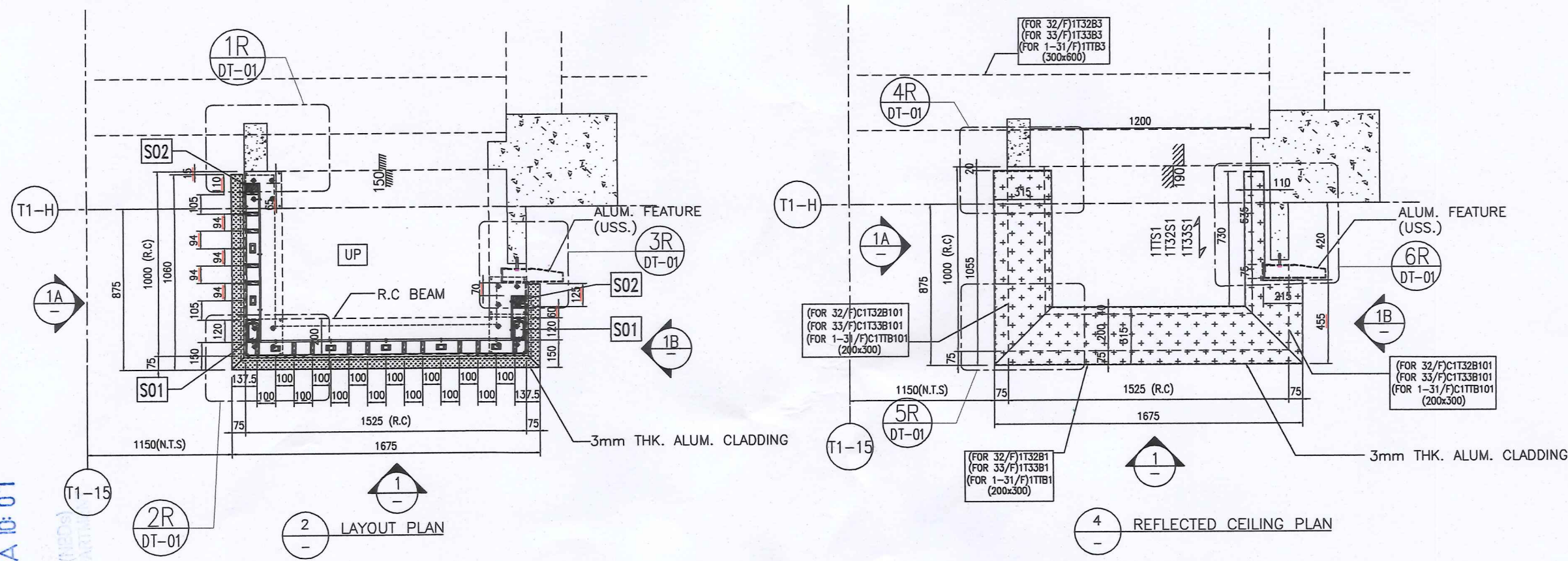
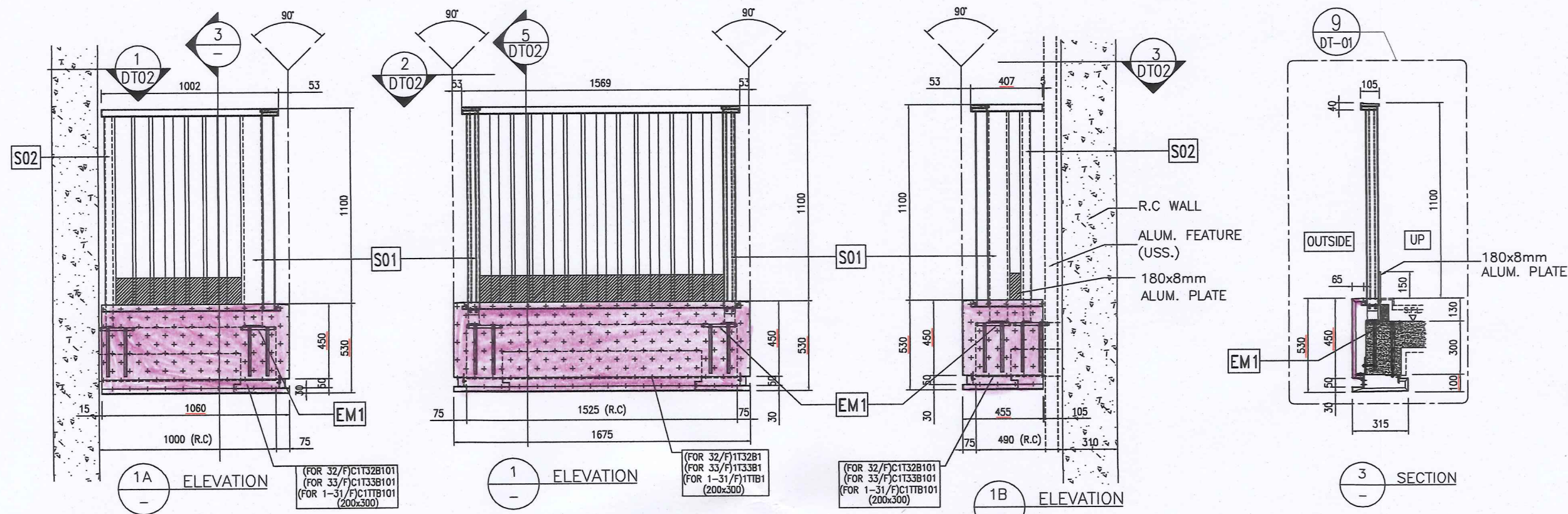
RECEIVED BY 2020 OCT 19 A 10:01

RECEIVED BY  
2020 OCT 19 A 10:01  
C.A.D. (AutoCAD)

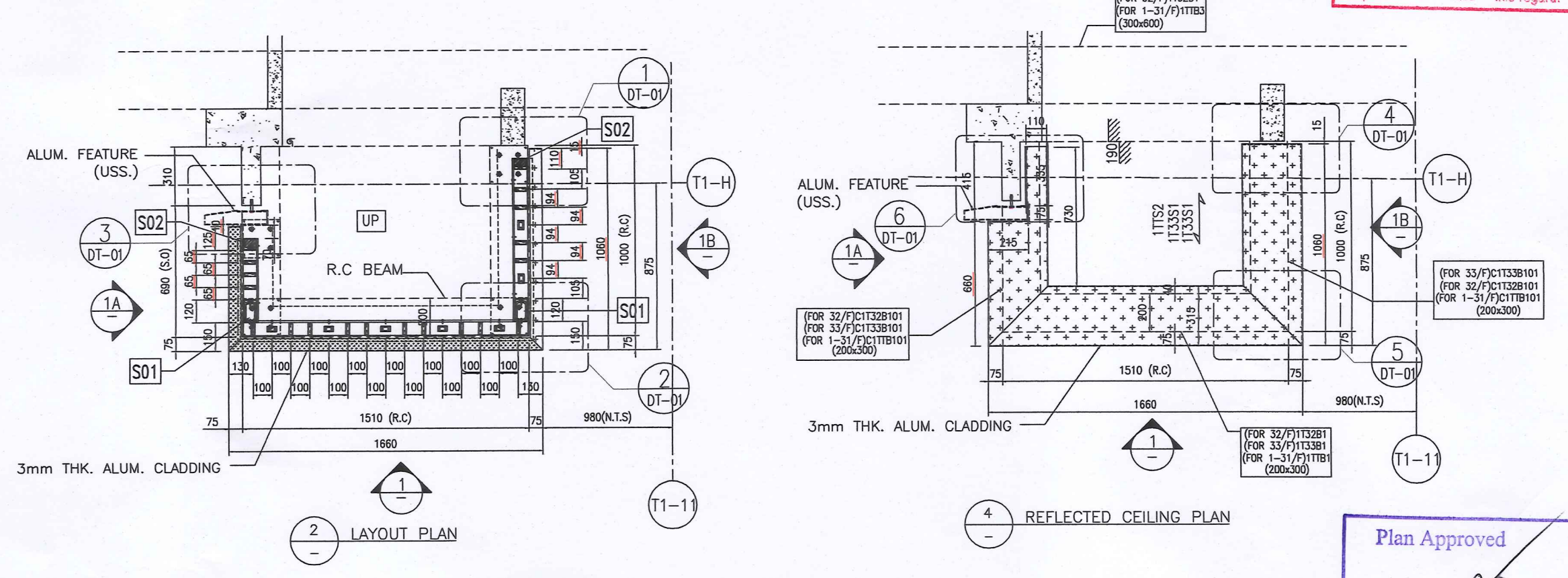
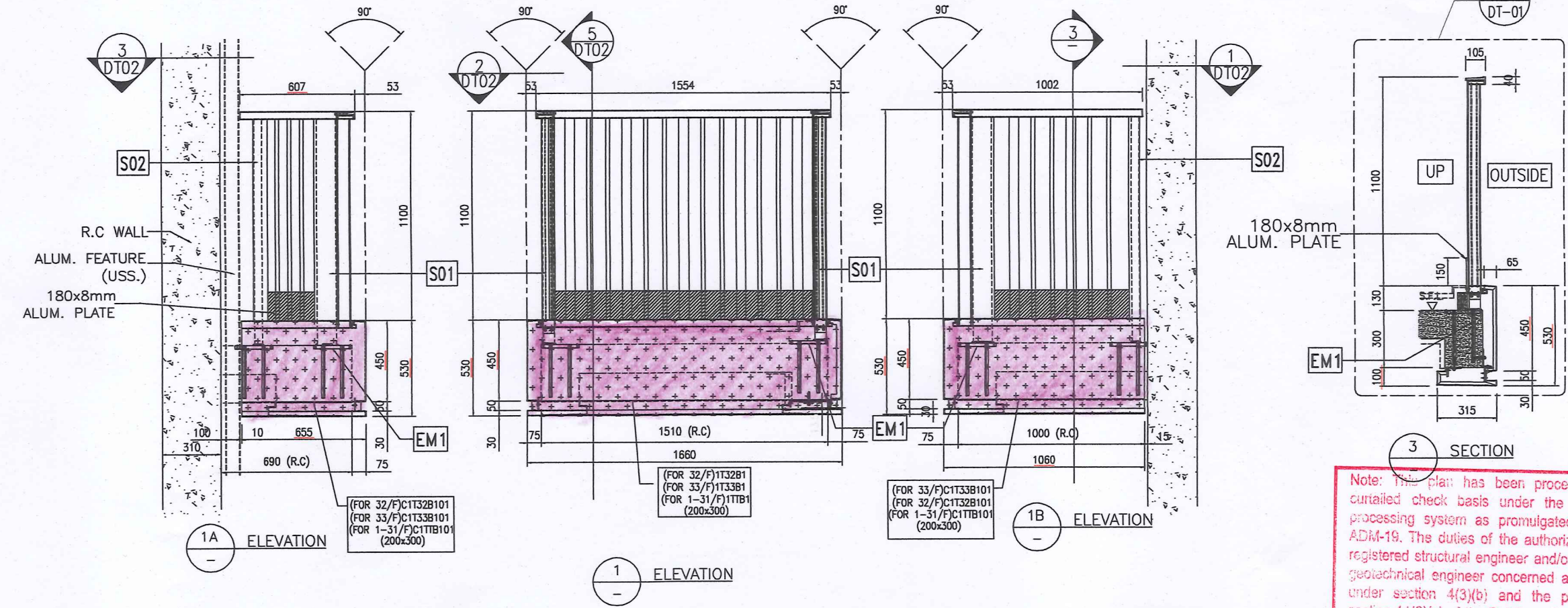


B.D. REF :	BD 3/9/16/16
F.S.D. REF :	
Note :	1. All dimensions are in mm. 2. All elevations are viewed from outside. 3. All dimensions to be verified on site before fabrication.
<b>GENERAL NOTES</b>	
<b>Legend :</b>	
1. F.F.L.---	Finished Floor Level
2. S.F.L.---	Structural Floor Level
3. (R)---	Reversed Detail
(X1)	DETAIL MARK NO.
(X001)	REFER SHEET NO.
(↓)	GLASS SUPPORT DIRECTION(2 SIDES)
(G2)	8mm+1.52mm PVB+8mm THK. LAMINATED CLEAR GLASS
(EM1a)	CAST-IN EMBED TYPE: "EM1a" (DWG. REF.: J851-BD-G8-ED01)
(S01)	100x60x8mm THK. G.M.S RHS
(S02)	60x40mm THK. G.M.S POST (U.S.S.)
 <b>STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR</b>	
<b>BD AMENDMENT</b>	
 <b>Plan Approved</b> WONG Po-sien Senior Structural Engineer for BUILDING AUTHORITY 13 NOV 2020	
A	10-9-2020 1st BD Amendment
NO.	DATE REVISED BY
CLIENT :	
<b>佳明集團控股有限公司</b> GRAND MING GROUP HOLDINGS LIMITED	
MAIN CONTRACTOR :	
<b>GRAND TECH CONSTRUCTION CO. LTD.</b>	
ARCHITECT :	
<b>WONG TUNG &amp; PARTNERS LIMITED</b> ARCHITECTS & PLANNERS 	
STRUCTURAL ENGINEER :	
<b>C M WONG &amp; ASSOCIATES LTD</b> TEL: (852) 2822 1000 Email: cmwong@cmawong.com	
PROJECT :	
<b>RESIDENTIAL DEVELOPMENT AT TSING YI TOWN LOT 190 SAI SHAN ROAD</b>	
TITLE :	
<b>PARTIAL ELEVATION &amp; PLAN OF GLASS BALUSTRADE AT BALCONY (7 OF 7)</b>	
JOB NO. :	J-851
DRAWN BY :	LS
DATE :	26-11-2019
CHKD BY :	
SCALE :	A1: 1:25 A3:
DWG. NO. :	J851-BD-G8-PE07
REV. :	A

METAL BALUSTRADE MARK: UP1, UP4, T1



METAL BALUSTRADE MARK: UP2, UP5, T1



Note: This detail has been processed on a detailed check basis under the centralized processing system as promulgated in P14P ADM-19. The duties of the authorized person, registered structural engineer and/or registered architectural engineer concerned as specified under section 4(3)(b) and the provision of section 14(2)(c) of the Building Ordinance are to be performed in accordance with this regard.

Plan Approved  
 WONG POSSEN  
 Senior Structural Engineer  
 for BUILDING AUTHORITY  
 13 NOV 2020

B.D. REF : BD 3/9/169/16  
 F.S.D. REF :  
 Note :  
 1. All dimensions are in mm.  
 2. All elevations are viewed from outside.  
 3. All dimensions to be verified on site before fabrication.

GENERAL NOTES  
 Legend :  
 1. F.F.L. --- Finished Floor Level  
 2. S.F.L. --- Structural Floor Level  
 3. /R --- Reversed Detail  
 X1 --- DETAIL MARK NO.  
 X001 --- REFER SHEET NO.  
 ↓ GLASS SUPPORT DIRECTION(2 SIDES)  
 EM1 --- CAST-IN EMBED TYPE: "EM1" (DWG. REF.: J851-BD-G8-E01)  
 S01 --- 100x60x8mm THK. G.M.S RHS  
 S02 --- 60x40mm THK. G.M.S POST  
 (U.S.S.) --- UNDER SEPARATED SUBMISSION

STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

**BD AMENDMENT**

A	10-9-2020	1st BD Amendment	
NO.	DATE	REVISED	BY

CLIENT : 佳明集團控股有限公司  
 GRAND MING GROUP HOLDINGS LIMITED

MAIN CONTRACTOR : GRAND TECH CONSTRUCTION CO. LTD.

ARCHITECT : WONG TUNG & PARTNERS LIMITED  
 ARCHITECTS & PLANNERS

STRUCTURAL ENGINEER : CMA C M WONG & ASSOCIATES LTD  
 TEL: (852) 2522 1088  
 E-mail: cmawong@cmawong.com

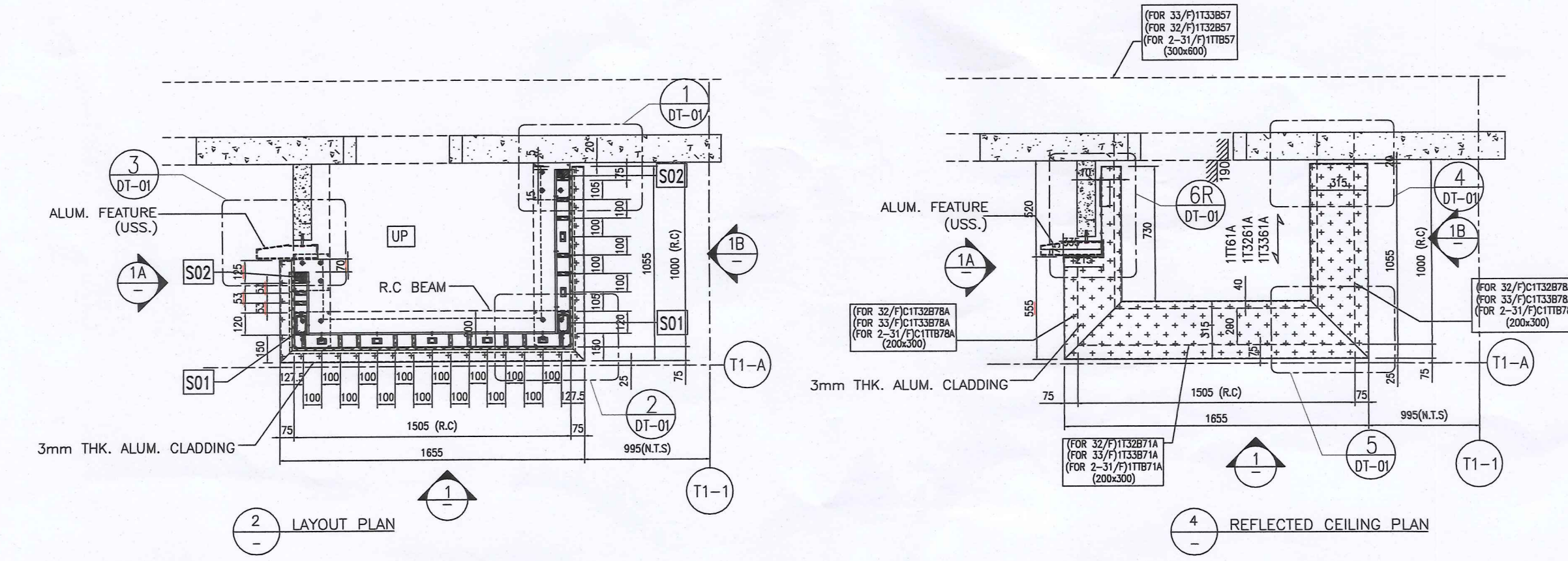
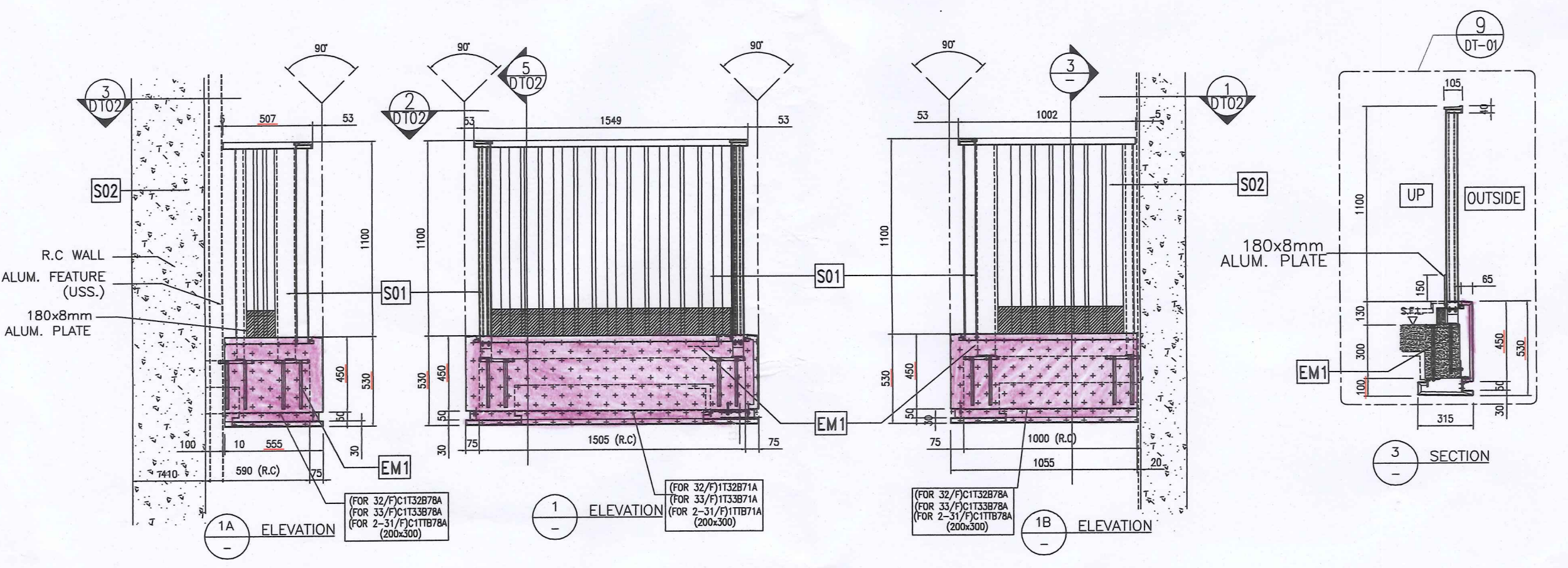
美特鋁質有限公司  
 MIDI ALUMINIUM FABRICATOR LTD.  
 Units 6-8, Sunray Industrial Centre, 1/F  
 610 Cha Kwo Ling Road, Kowloon  
 Tel: 23489211-4 Fax: (852) 2727666

PROJECT : RESIDENTIAL DEVELOPMENT AT TSING YI TOWN LOT 190 SAI SHAN ROAD

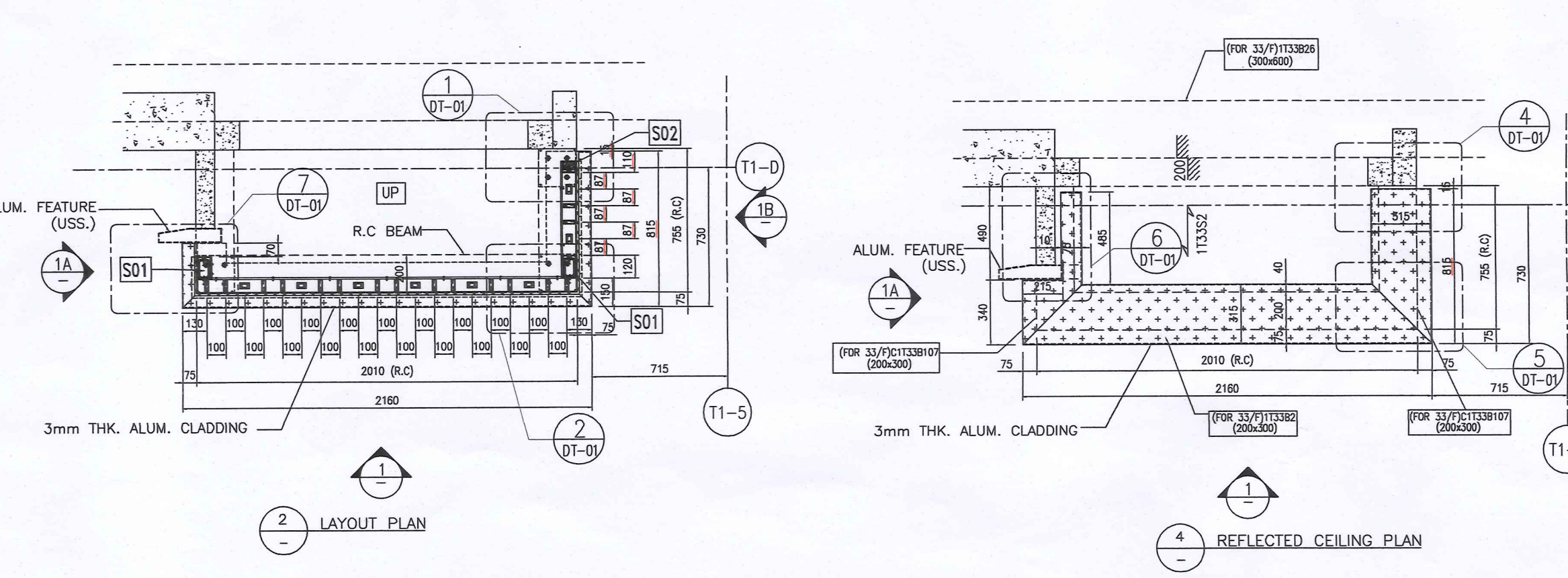
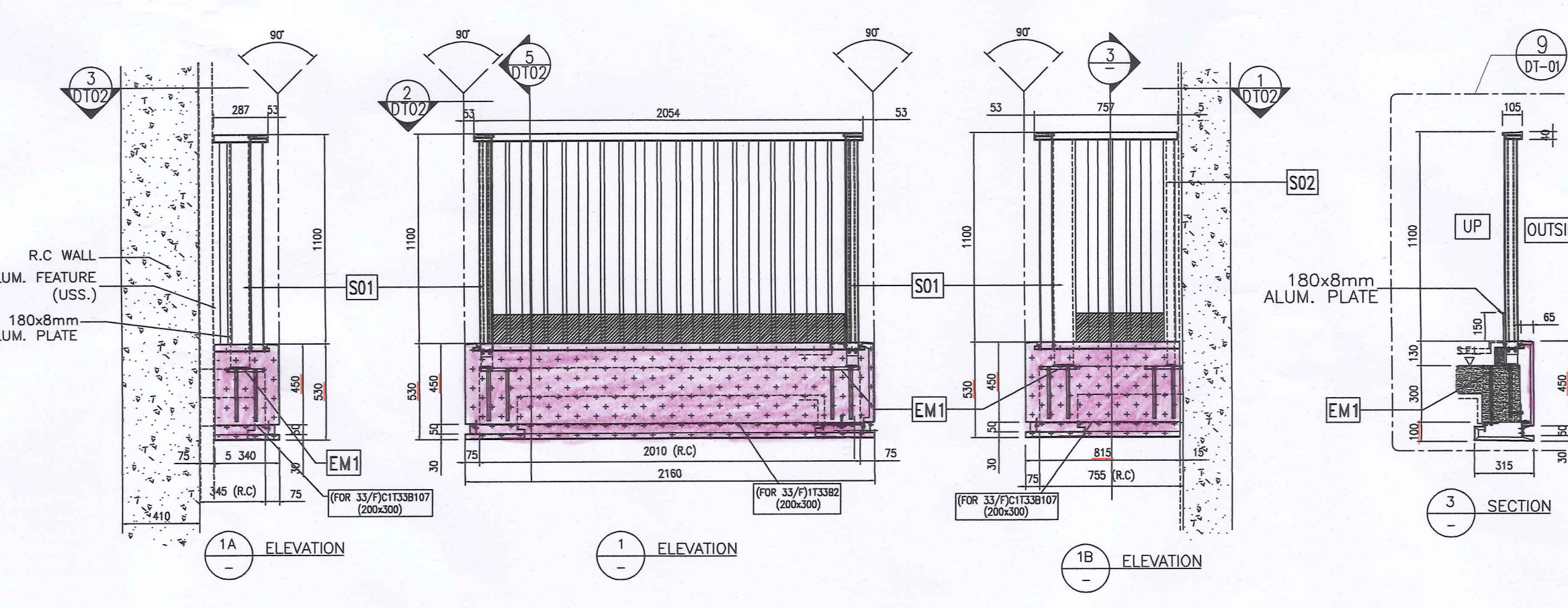
TITLE : PARTIAL ELEVATION & PLAN OF METAL BALUSTRADE AT U.P. (1 OF 2)

JOB NO. : J-851  
 DRAWN BY : LS DATE : 21-02-2020  
 CHKD BY : SCALE A1: 1:25 A3:  
 DWG. NO. : J851-BD-UP-PE01 REV. : A

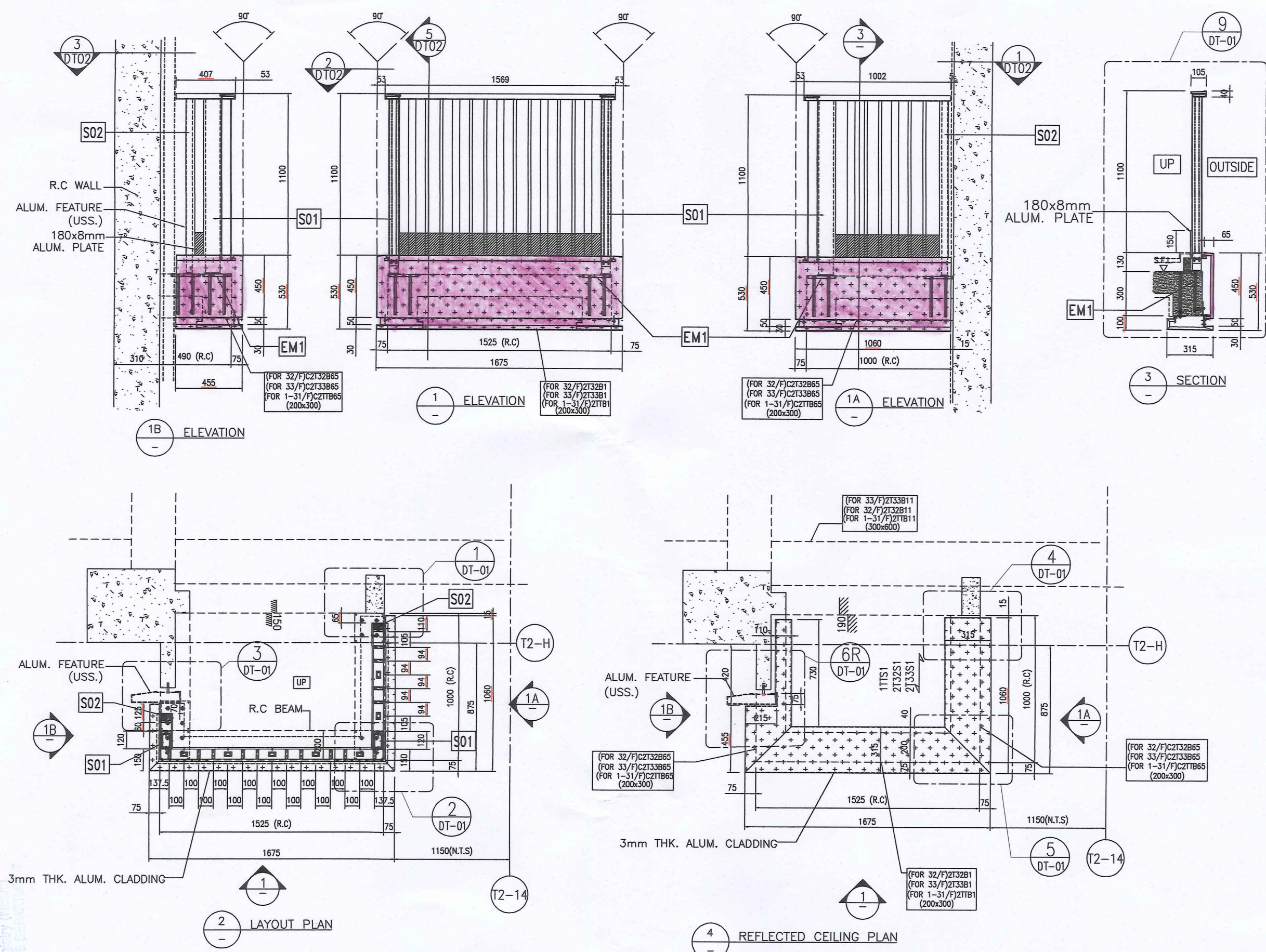
METAL BALUSTRADE MARK: UP3, UP6, T1A



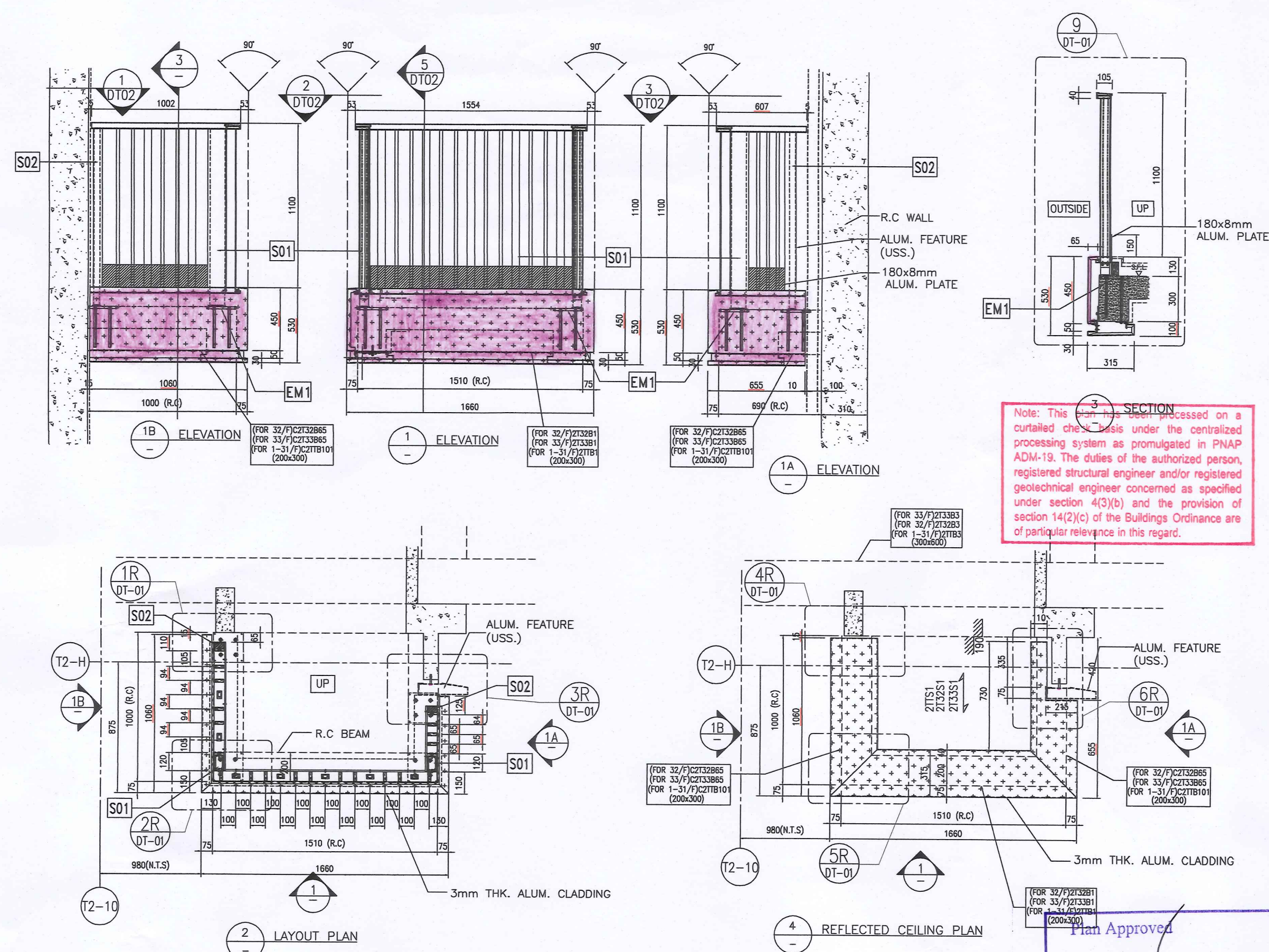
METAL BALUSTRADE MARK: UP7, T1A



METAL BALUSTRADE MARK:  $\frac{UP4}{T2}$   $\frac{UP1}{T2}$

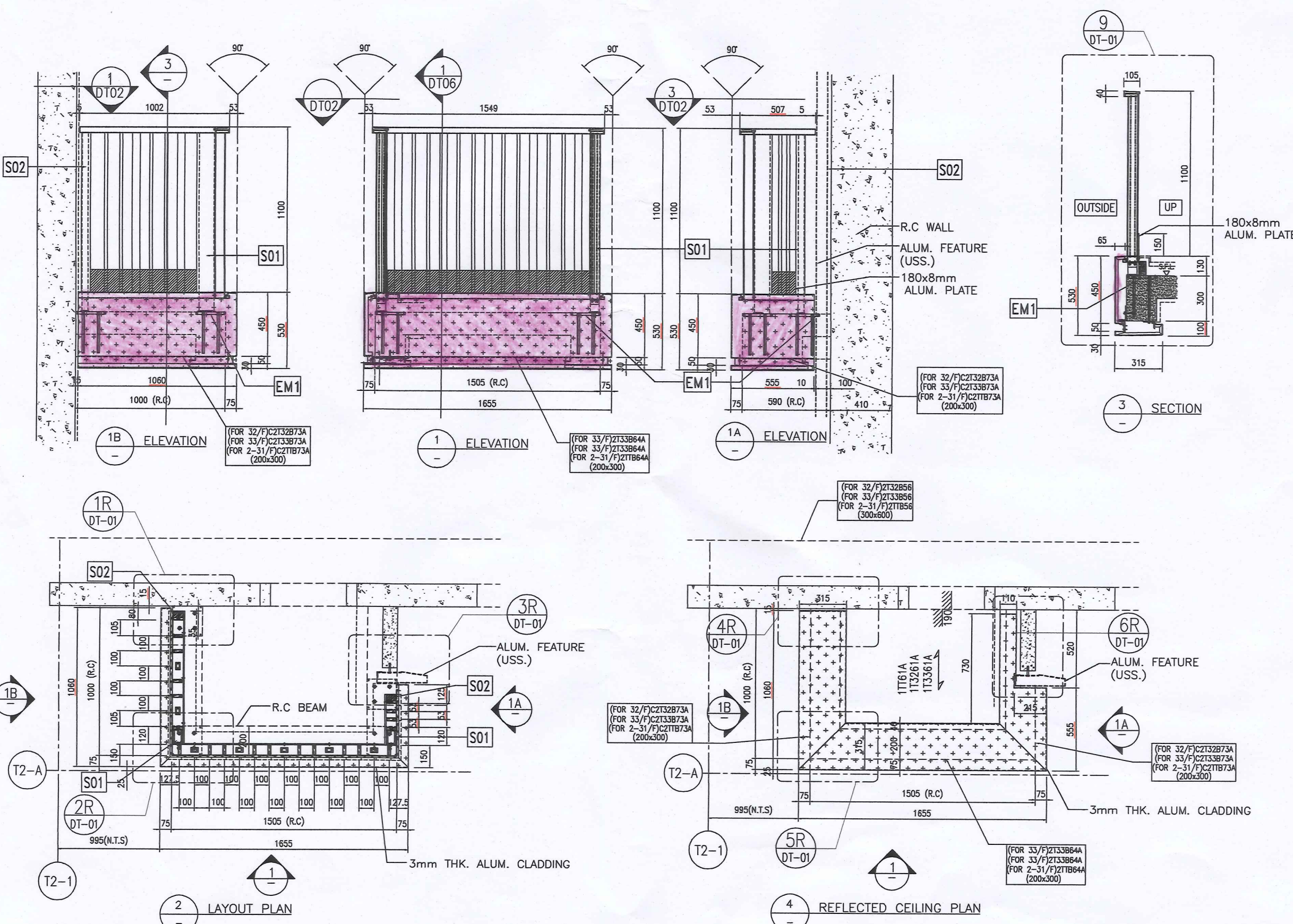


METAL BALUSTRADE MARK:  $\frac{UP2}{T2}$   $\frac{UP5}{T2}$

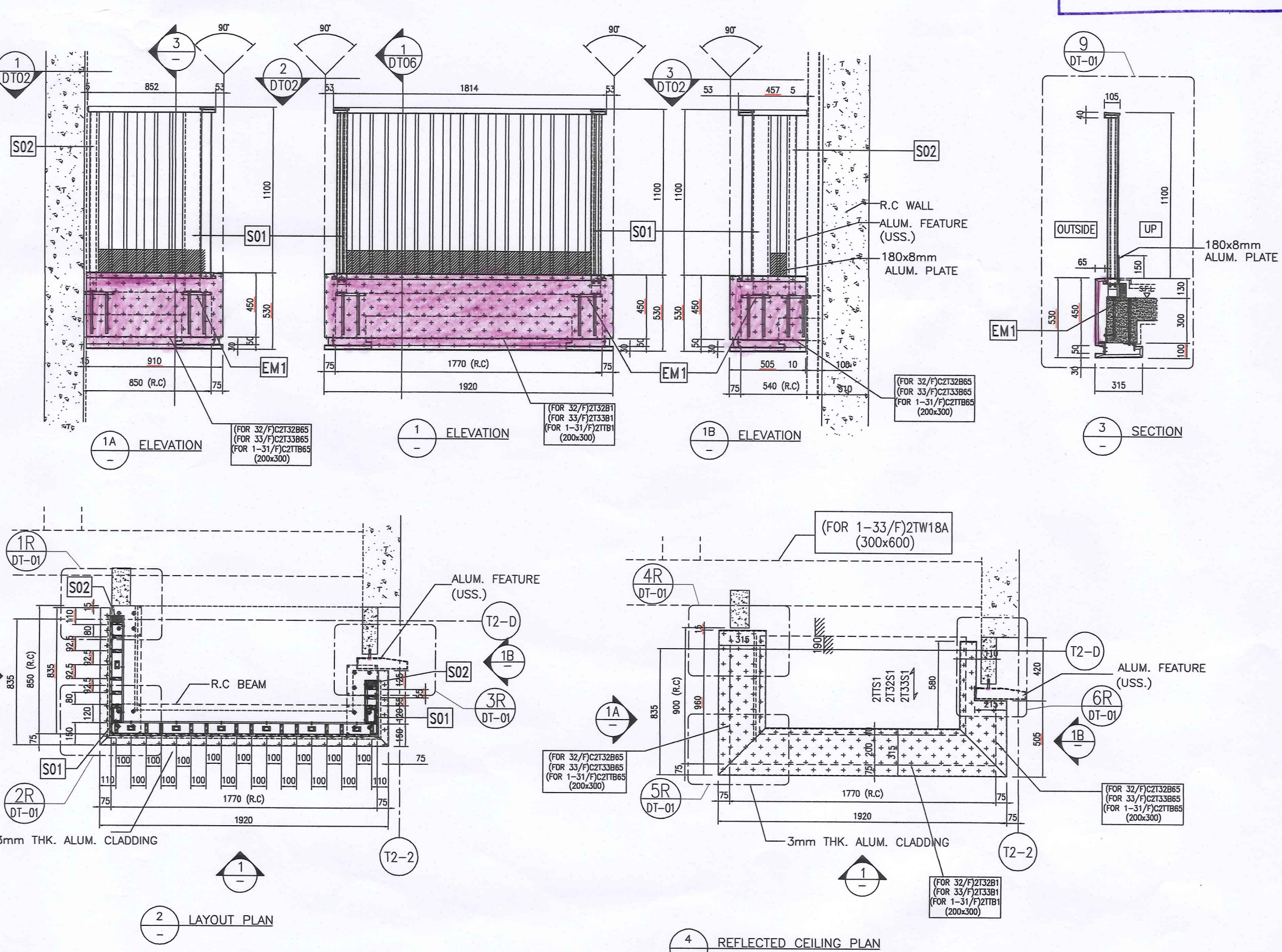


Note: This section is processed on a curtailed chasis under the centralized processing system as promulgated in PNAP-ADM-19. The duties of the authorized person, registered structural engineer and/or registered geotechnical engineer concerned as specified under section 4(3)(b) and the provision of section 14(2)(c) of the Buildings Ordinance are of particular relevance in this regard.

METAL BALUSTRADE MARK:  $\frac{UP3}{T2A}$   $\frac{UP6}{T2A}$



METAL BALUSTRADE MARK:  $\frac{UP8}{T2A}$   $\frac{UP9}{T2A}$



B.D. REF: <b>BD 3/16/16</b>									
F.S.D. REF:									
Note:									
1. All dimensions are in mm.									
2. All elevations are viewed from outside.									
3. All dimensions to be verified on site before fabrication.									
<b>GENERAL NOTES</b>									
<b>Legend:</b>									
1. F.F.L. -- Finished Floor Level									
2. S.F.L. -- Structural Floor Level									
3. (R) -- Reversed Detail									
X1 -- DETAIL MARK NO.									
X001 -- REFER SHEET NO.									
GLASS SUPPORT DIRECTION(2 SIDES)									
EM1	: CAST-IN EMBED TYPE: "EM1"								
S01	: 100x60x8mm THK. G.M.S RHS								
S02	: 60x40mm THK. G.M.S POST								
(USS.) -- UNDER SEPARATED SUBMISSION									
STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR									
BD AMENDMENT									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">A</td> <td style="width: 15%;">10-9-2020</td> <td style="width: 40%;">1st BD Amendment</td> <td style="width: 40%;">BY</td> </tr> <tr> <td>NO.</td> <td>DATE</td> <td>REVISED</td> <td>BY</td> </tr> </table>		A	10-9-2020	1st BD Amendment	BY	NO.	DATE	REVISED	BY
A	10-9-2020	1st BD Amendment	BY						
NO.	DATE	REVISED	BY						
CLIENT : <b>佳明集團控股有限公司</b> GRAND MING GROUP HOLDINGS LIMITED									
MAIN CONTRACTOR : <b>GRAND TECH CONSTRUCTION CO. LTD.</b>									
ARCHITECT : <b>WONG TUNG &amp; PARTNERS LIMITED</b> ARCHITECTS & PLANNERS									
STRUCTURAL ENGINEER : <b>CMA C M WONG &amp; ASSOCIATES LTD</b> TEL: (852) 2322 1668 E-mail: cmawong@cmawong.com									
<b>美特鋁質有限公司</b> MIDI ALUMINIUM FABRICATOR LTD. Units 6-8, Sunray Industrial Centre, 1/F 610 Cha Kwo Ling Road, Kowloon Tel: 23489211-4 Fax: (852) 2727666									
PROJECT : <b>RESIDENTIAL DEVELOPMENT AT TSING YI TOWN LOT 190 SAI SHAN ROAD</b>									
TITLE : <b>PARTIAL ELEVATION &amp; PLAN OF METAL BALUSTRADE AT U.P. (2 OF 2)</b>									
JOB NO. : J-851									
DRAWN BY : LS	DATE : 21-02-2020								
CHKD BY :	SCALE A1: 1:25 A3:								
DWG. NO. : J851-BD-UP-PE02	REV. : A								

RECEIVED BY: [Signature]

B.D. REF : BD 3/9169/16  
 F.S.D. REF :

**Note :**  
 1. All dimensions are in mm.  
 2. All elevations are viewed from outside.  
 3. All dimensions to be verified on site before fabrication.

**GENERAL NOTES**

**STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR**

**Legend :**  
 1. F.F.L. --- Finished Floor Level  
 2. S.F.L. --- Structural Floor Level  
 3. (R) --- Reversed Detail

X1 --- DETAIL MARK NO.  
 X001 --- REFER SHEET NO.

↓ GLASS SUPPORT DIRECTION

G1 : 19mm+2.28mm PVB+19mm THK. LAMINATED CLEAR GLASS

EM2 : CAST-IN EMBED TYPE: "EM2" (DWG. REF.: J851-BD-GB-ED01)



**BD AMENDMENT**

NO.	DATE	REVISED	BY
A	10-9-2020	1st BD Amendment	

CLIENT :  
**佳明集團控股有限公司**  
 GRAND MING GROUP HOLDINGS LIMITED

MAIN CONTRACTOR :  
**GRAND TECH CONSTRUCTION CO. LTD.**

ARCHITECT : **WONG TUNG & PARTNERS LIMITED**  
 ARCHITECTS & PLANNERS

STRUCTURAL ENGINEER :  
**C M WONG & ASSOCIATES LTD**

**美特鋁質有限公司**  
 MIDI ALUMINIUM FABRICATOR LTD.  
 Units 6-8, Sunray Industrial Centre, 1/F  
 610, Cha Kwo Ling Road, Kowloon  
 Tel: 23489211-4 Fax: (852) 2727666

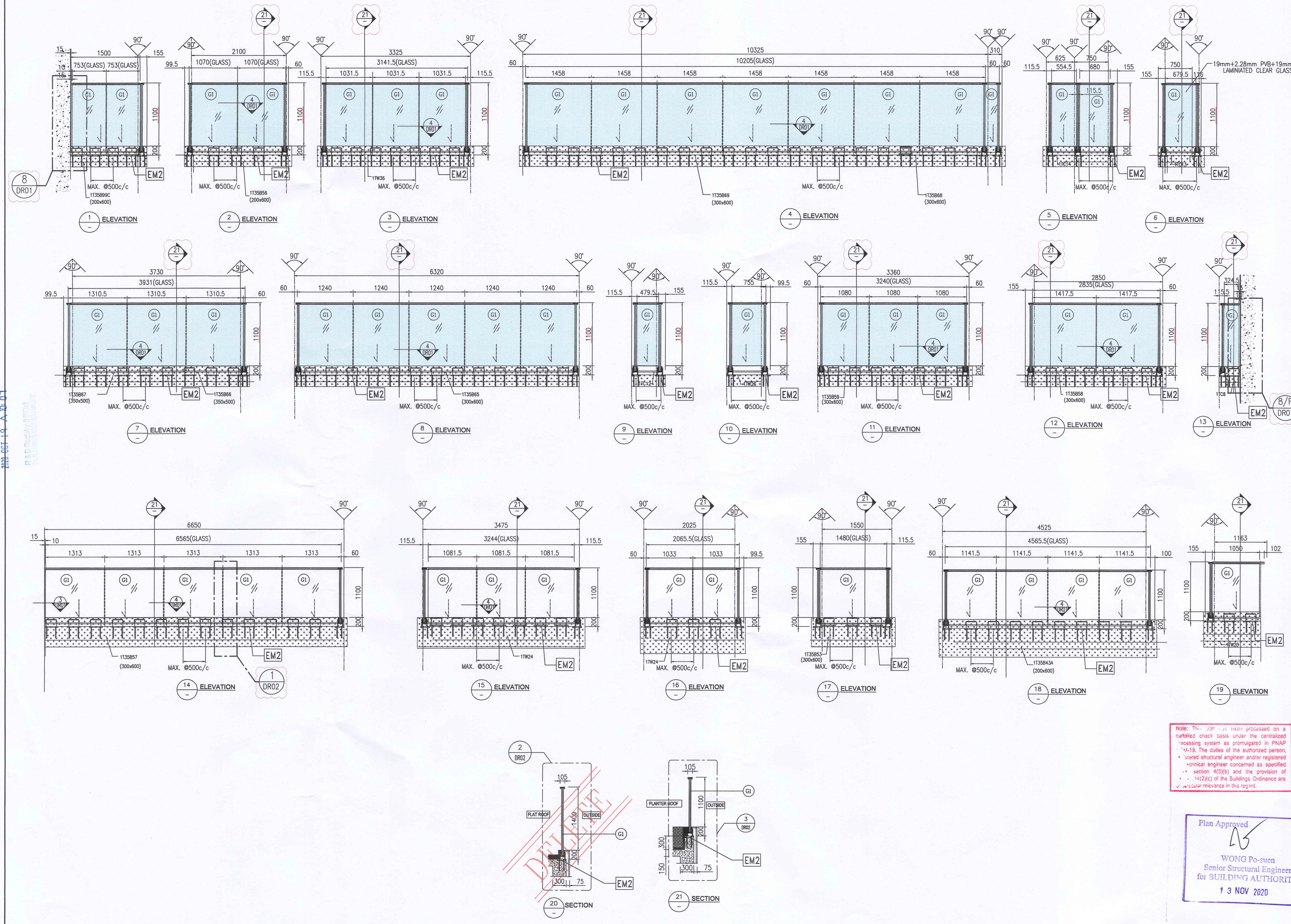
PROJECT :  
 RESIDENTIAL DEVELOPMENT AT  
 TSING YI TOWN LOT 190 SAI SHAN ROAD

TITLE :  
 PARTIAL ELEVATION  
 FOR GLASS BALUSTRADE  
 AT FLAT ROOF  
 (1 OF 2)

JOB NO. : J-851  
 DRAWN BY : LS DATE : 21-02-2020

CHKD BY : SCALE A1: 1:40  
 A3:

DWG. NO. : J851-BD-FR-PE01 REV. : A

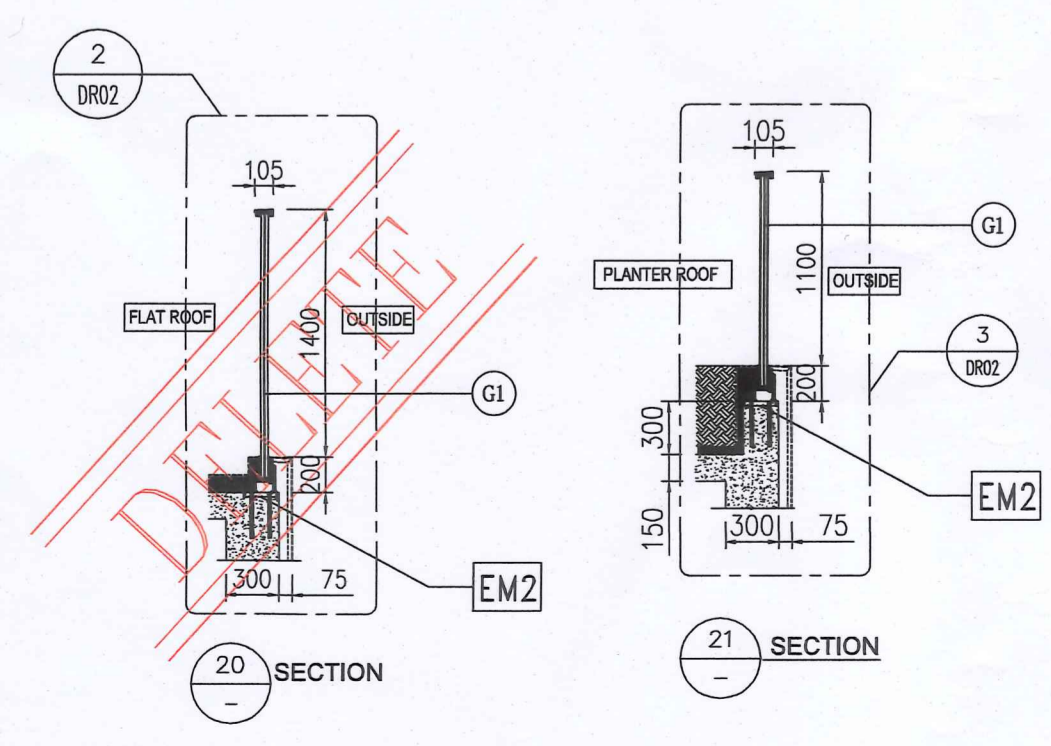


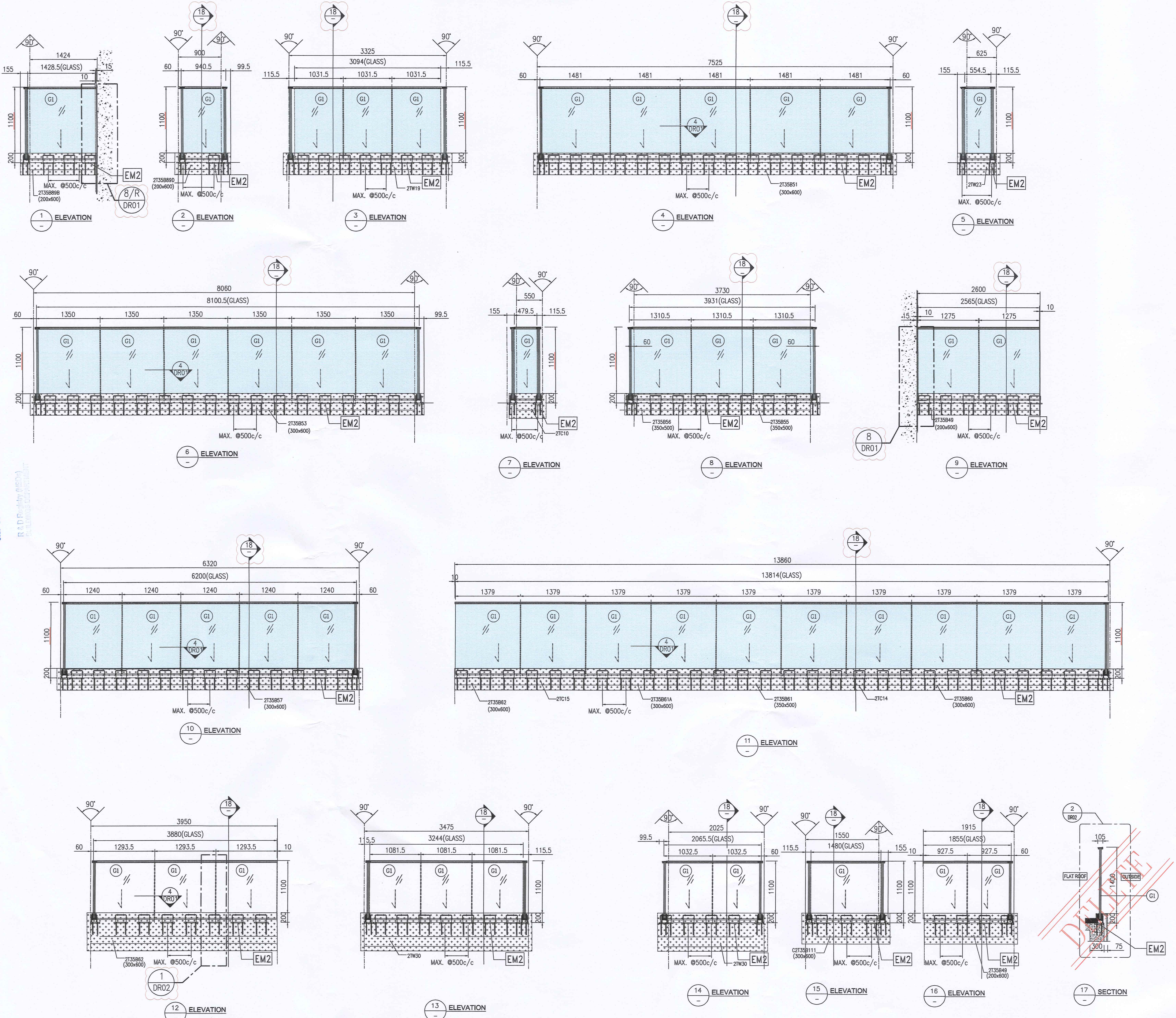
**Note:** This plan has been processed on a outsourced check basis under the centralized processing system as promulgated in PNAP 4-13. The duties of the authorized person, structural engineer and/or registered architectural engineer concerned as specified in section 4(3)(b) and the provision of section 14(2)(c) of the Buildings Ordinance are of no statutory relevance in this regard.

Plan Approved  
 WONG Po-suen  
 Senior Structural Engineer  
 for BUILDING AUTHORITY  
 13 NOV 2020

RECEIVED BY  
 2020 OCT 19 A 10:01

P. M. D. Design (HK) Ltd.  
 Structural Engineer





RECEIVED BY  
2020 OCT 19 A 10:01  
R. & D. Building (Arch) / Structural & Foundation

B.D. REF : BD 3/9169/16  
F.S.D. REF :  
Note :  
1.All dimensions are in mm.  
2.All elevations are viewed from outside.  
3.All dimensions to be verified on site before fabrication.

**GENERAL NOTES**  
STATEMENT II - THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

**Legend :**  
1. F.F.L.-- Finished Floor Level  
2. S.F.L.-- Structural Floor Level  
3. (R) -- Reversed Detail  
X1 -- DETAIL MARK NO.  
X001 -- REFER SHEET NO.  
GLASS SUPPORT DIRECTION  
G1 : 19mm+2.28mm PVB+19mm THK LAMINATED CLEAR GLASS  
EM2 : CAST-IN EMBED TYPE "EM2" (DWG. REF.: J851-BD-GB-ED01)



Note: This plan has been processed on a qualified check basis under the centralized processing system as promulgated in PAAP ADM-19. The duties of the authorized person, registered structural engineer and/or registered geotechnical engineer concerned as specified under section 4(3)(b) and the provision of section 14(2)(c) of the Buildings Ordinance are of particular relevance in this regard.

Plan Approved  
WONG Po-suen  
Senior Structural Engineer  
for BUILDING AUTHORITY  
13 NOV 2020

NO.	DATE	REVISED	BY
A	10-9-2020	1st BD Amendment	

CLIENT :  
**佳明集團控股有限公司**  
GRAND MING GROUP HOLDINGS LIMITED

MAIN CONTRACTOR :  
**GRAND TECH CONSTRUCTION CO. LTD.**

ARCHITECT : **WONG TUNG & PARTNERS LIMITED**  
ARCHITECTS & PLANNERS

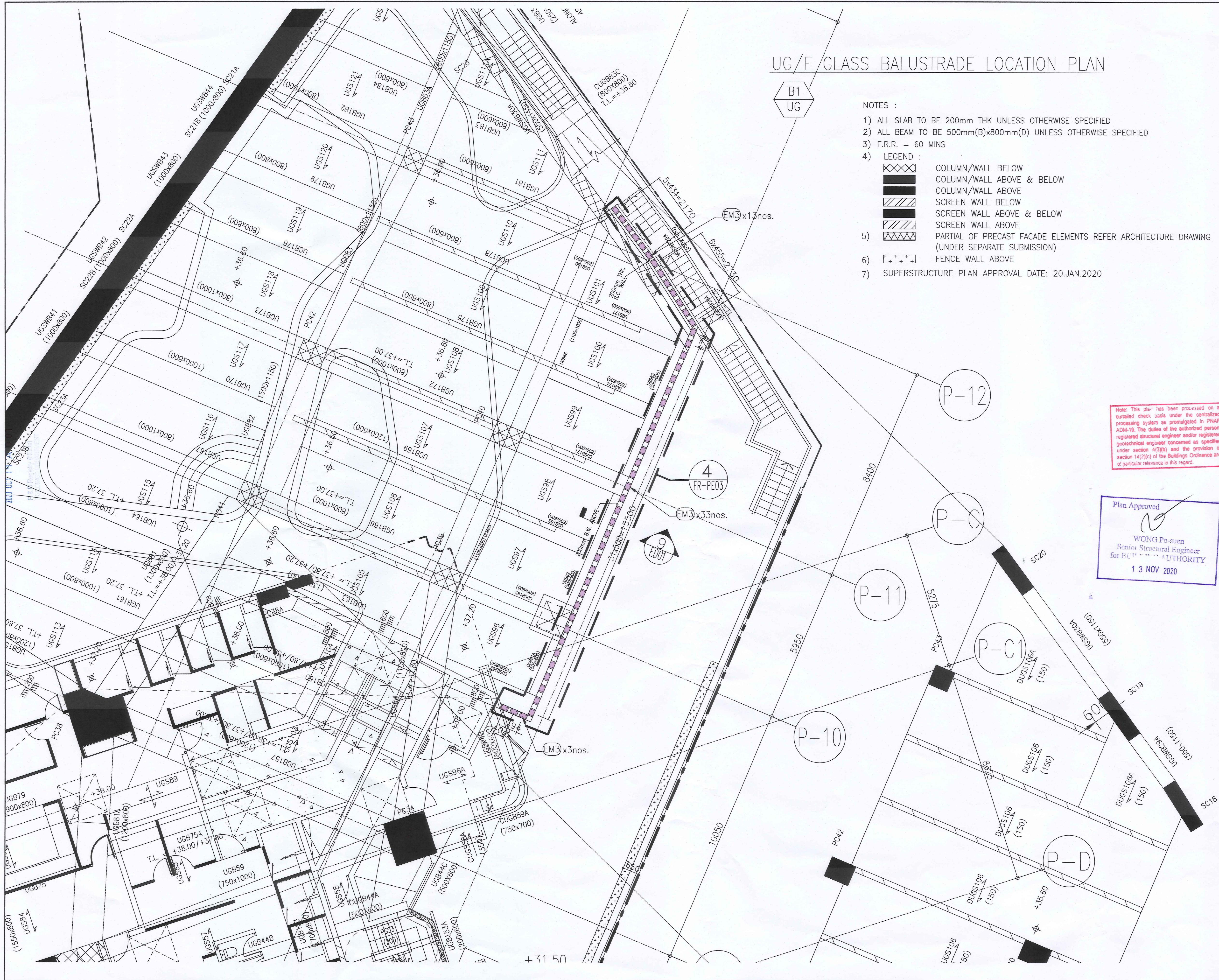
STRUCTURAL ENGINEER :  
**C M WONG & ASSOCIATES LTD**

**美特鋁質有限公司**  
MIDI ALUMINIUM FABRICATOR LTD.  
Units 6-8, Sunray Industrial Centre, 1/F  
610 Cha Kwo Ling Road, Kowloon  
Tel:23489211-4 Fax:(852)27727666

PROJECT :  
**RESIDENTIAL DEVELOPMENT AT TSING YI TOWN LOT 190 SAI SHAN ROAD**

TITLE :  
**PARTIAL ELEVATION FOR GLASS BALUSTRADE AT FLAT ROOF (2 OF 2)**

JOB NO. : J-851  
DRAWN BY : LS DATE : 21-02-2020  
CHKD BY : SCALE A1: 1:40 A3:  
DWG. NO. : J851-BD-FR-PE02 REV. : A



UG/F GLASS BALUSTRADE LOCATION PLAN

- NOTES :
- 1) ALL SLAB TO BE 200mm THK UNLESS OTHERWISE SPECIFIED
  - 2) ALL BEAM TO BE 500mm(B)x800mm(D) UNLESS OTHERWISE SPECIFIED
  - 3) F.R.R. = 60 MINS
  - 4) LEGEND :
    - Column/Wall Below
    - Column/Wall Above & Below
    - Column/Wall Above
    - Screen Wall Below
    - Screen Wall Above & Below
    - Screen Wall Above
    - Partial of Precast Facade Elements Refer Architecture Drawing (Under Separate Submission)
    - Fence Wall Above
  - 5) SUPERSTRUCTURE PLAN APPROVAL DATE: 20.JAN.2020

B.D. REF : BD 3/9169/16  
 F.S.D. REF :  
 Note :  
 1.All dimensions are in mm.  
 2.All elevations are viewed from outside.  
 3.All dimensions to be verified on site before fabrication.

GENERAL NOTES  
 STATEMENT II - THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

Legend :  
 1. F.F.L.-- Finished Floor Level  
 2. S.F.L.-- Structural Floor Level  
 3. (R) -- Reversed Detail  
 X1 -- DETAIL MARK NO.  
 X001 -- REFER SHEET NO.

Note: This plan has been processed on a outlaid check basis under the centralized processing system as promulgated in PNHAP ADM-19. The duties of the authorized person, registered structural engineer and/or registered geotechnical engineer concerned as specified under section 4(3)(b) and the provision of section 14(2)(c) of the Buildings Ordinance are of particular relevance in this regard.

Plan Approved  
 WONG Po-suen  
 Senior Structural Engineer  
 for BUILDING AUTHORITY  
 13 NOV 2020

NEW DRAWING

NO.	DATE	REVISED	BY

CLIENT :  
**佳明集團控股有限公司**  
 GRAND MING GROUP HOLDINGS LIMITED

MAIN CONTRACTOR :  
 GRAND TECH CONSTRUCTION CO. LTD.

ARCHITECT :  
**WONG TUNG & PARTNERS LIMITED**  
 ARCHITECTS & PLANNERS

STRUCTURAL ENGINEER :  
**CMA C M WONG & ASSOCIATES LTD**  
 TEL: (852) 2522 1088  
 E-mail: cmawong@cmawong.com

**美特鋁質有限公司**  
 MIDI ALUMINIUM FABRICATOR LTD.  
 Units 6-8, Sunray Industrial Centre, 1/F  
 610 Cha Kwo Ling Road, Kowloon  
 Tel:23489211-4 Fax:(852)2727666

PROJECT :  
 RESIDENTIAL DEVELOPMENT AT  
 TSING YI TOWN LOT 190 SAI SHAN ROAD

TITLE :  
 LOCATION PLAN  
 FOR GLASS BALUSTRADE  
 AT UG/F

JOB NO. :	J-851
DRAWN BY :	LS
DATE :	29-06-2020
CHKD BY :	SCALE A1: 1:40 A3:
DWG. NO. :	J851-BD-FR-PL03
REV. :	-

B.D. REF : BD 3/9169/16

F.S.D. REF :

Note :  
1.All dimensions are in mm.  
2.All elevations are viewed from outside.  
3.All dimensions to be verified on site before fabrication.

GENERAL NOTES

STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

Legend :  
1. F.F.L.-- Finished Floor Level  
2. S.F.L.-- Structural Floor Level  
3. (P/R) --- Reversed Detail

X1 --- DETAIL MARK NO.  
X001 --- REFER SHEET NO.

GLASS SUPPORT DIRECTION  
G1 : 19mm+2.28mm PVB+19mm THK. LAMINIATED CLEAR GLASS  
EM3 : CAST-IN EMBED TYPE: "EM03" (DWG. REF.: J851-BD-GB-ED01)



NEW DRAWING

Note: This plan has been processed on a curtailed check basis under the centralized processing system as promulgated in PNA/ADM-15. The duties of the authorized person, registered structural engineer and/or registered geotechnical engineer concerned as specified under section 4(3)(b) and the provision of section 14(2)(c) of the Buildings Ordinance are of particular relevance in this regard.

Plan Approved  
WONG Po-suen  
Senior Structural Engineer  
for BUILDING AUTHORITY  
13 NOV 2020

NO.	DATE	REVISED	BY

CLIENT :  
佳明集團控股有限公司  
GRAND MING GROUP HOLDINGS LIMITED

MAIN CONTRACTOR :  
GRAND TECH CONSTRUCTION CO. LTD.

ARCHITECT :  
WONG TUNG & PARTNERS LIMITED  
ARCHITECTS & PLANNERS

STRUCTURAL ENGINEER :  
CMA C M WONG & ASSOCIATES LTD  
TEL: 010 2022 1008  
E-mail: cmawong@cmawong.com

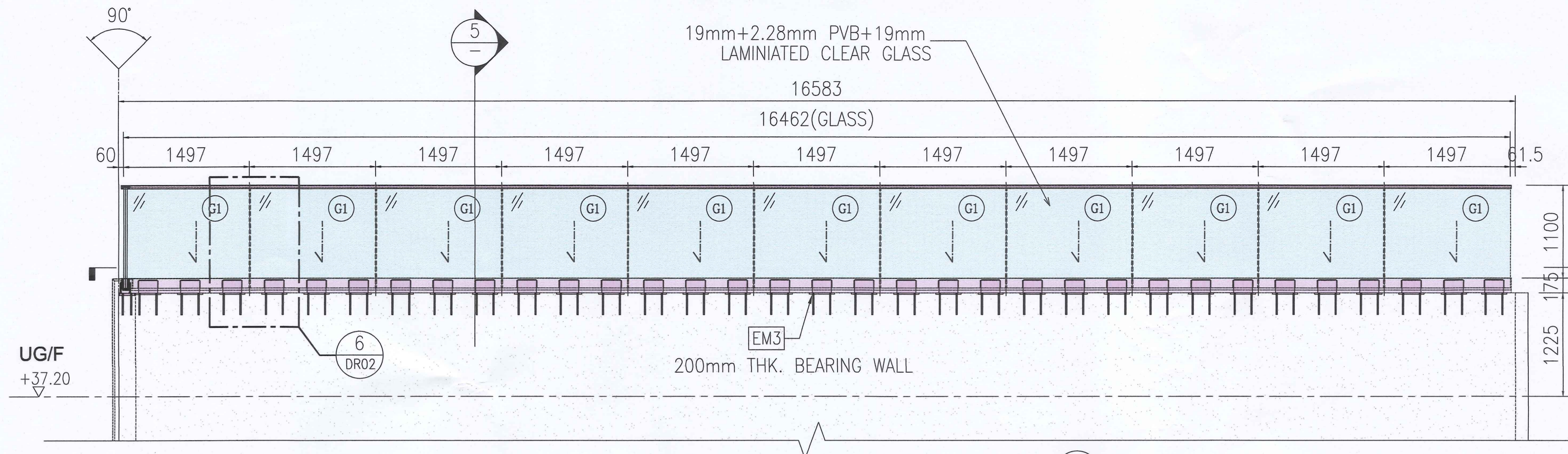
美特鋁質有限公司  
MIDI ALUMINIUM FABRICATOR LTD.  
Units 6-8, Sunray Industrial Centre, 1/F  
610 Cha Kwo Ling Road, Kowloon  
Tel: 23489211-4 Fax: (852) 2727666

PROJECT :  
RESIDENTIAL DEVELOPMENT AT  
TSING YI TOWN LOT 190 SAI SHAN ROAD

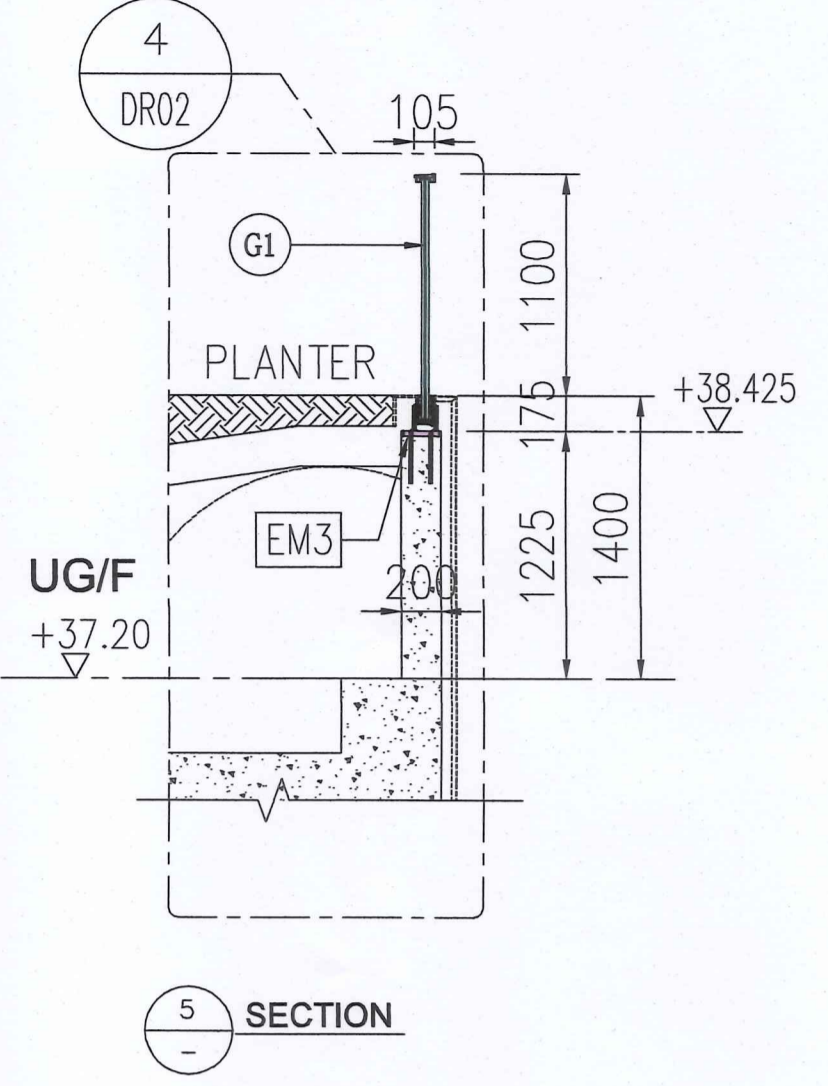
TITLE :  
PARTIAL ELEVATION & PLAN  
FOR GLASS BALUSTRADE  
AT UG/F

JOB NO. : J-851  
DRAWN BY : LS DATE : 29-06-2020  
CHKD BY : SCALE A1: 1:40  
A3:

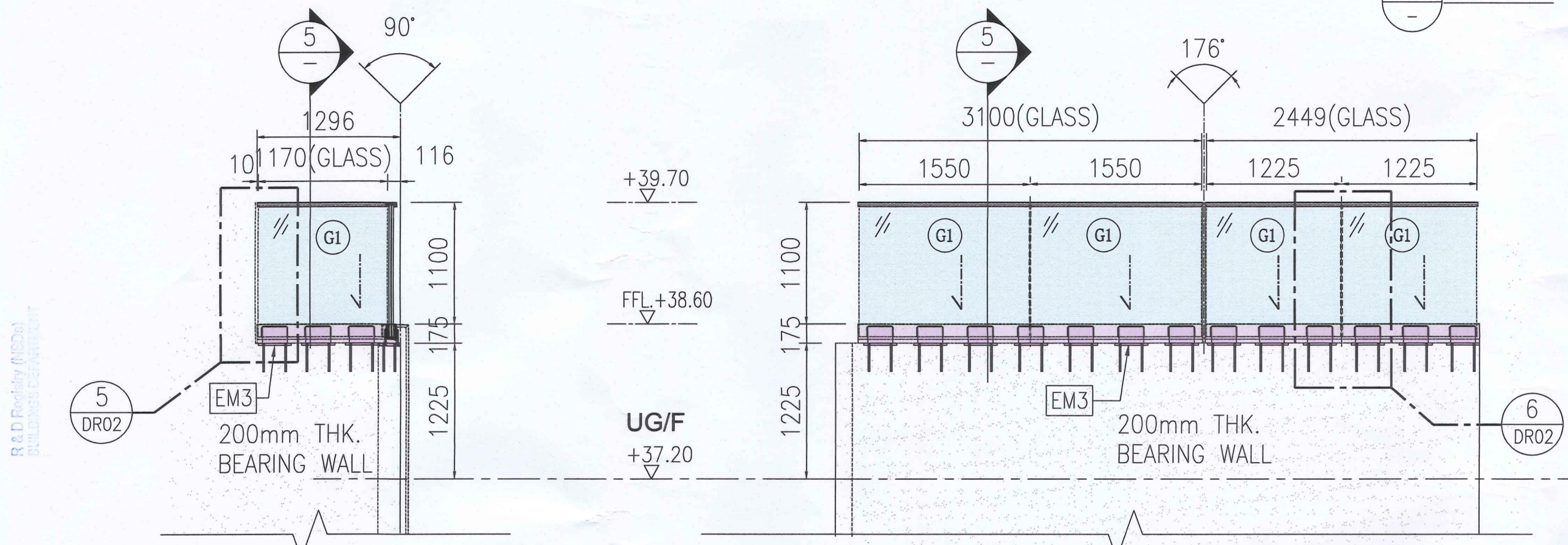
DWG. NO. : J851-BD-FR-PE03 REV. : -



1 ELEVATION

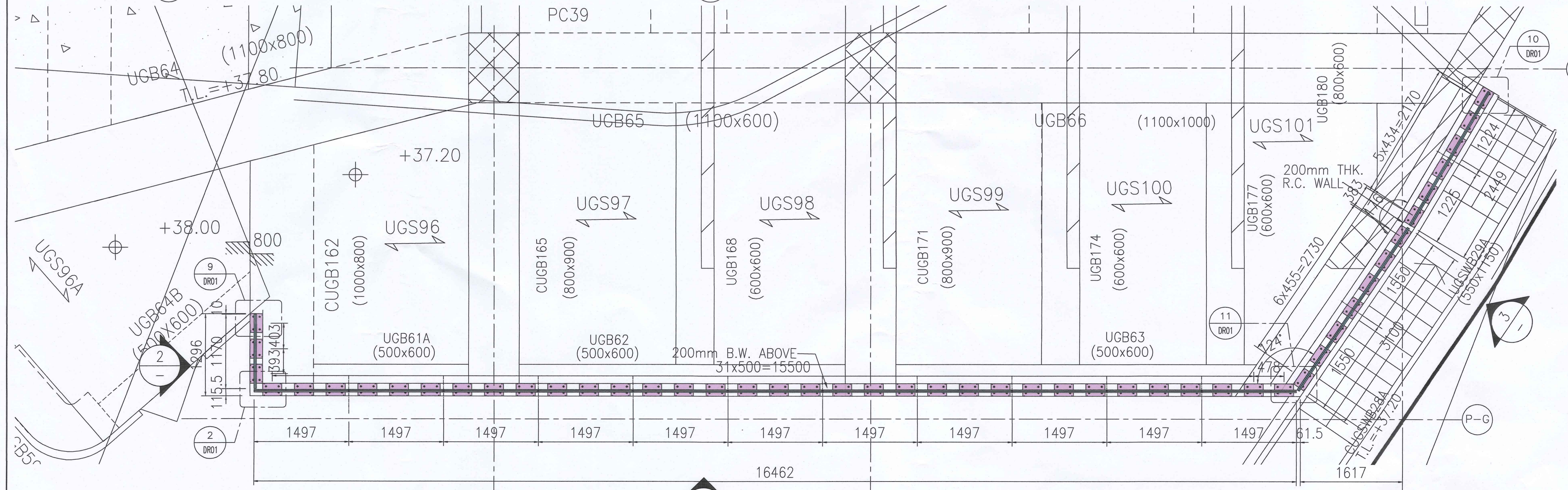


4 SECTION



2 ELEVATION

3 ELEVATION



4 TRANSFORM ROOM-2 LAYOUT PLAN

RECEIVED BY  
7/20 OCT 19 A 10:01  
B.D. REF: BD 3/9169/16

This plan has been processed on a computer-aided design system as promulgated in PD 404:19. The duties of the authorized person, registered structural engineer and/or registered professional engineer concerned as specified under section 14(3)(b) and the provision of section 14(2)(c) of the Buildings Ordinance shall not be affected in this regard.

B.D. REF : BD 3/9169/16  
S.D. REF :

- Note:
- All dimensions are in mm.
  - All elevations are viewed from outside.
  - All dimensions to be verified on site before fabrication.

**GENERAL NOTES**

STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

- Legend :
- F.F.L.-- Finished Floor Level
  - S.F.L.-- Structural Floor Level
  - (R) -- Reversed Detail

X1 -- DETAIL MARK NO.  
X001 -- REFER SHEET NO.

Plan Approved  
**WONG Po-suen**  
Senior Structural Engineer  
for BUILDING AUTHORITY  
13 NOV 2020

LEUNG SHU HUNG BEN  
Registered Structural Engineer

**BD AMENDMENT**

A 10-9-2020 1st BD Amendment  
NO. DATE REVISED BY

CLIENT :

**佳明集團控股有限公司**  
GRAND MING GROUP HOLDINGS LIMITED

MAIN CONTRACTOR :  
**GRAND TECH CONSTRUCTION CO. LTD.**

ARCHITECT : **WONG TUNG & PARTNERS LIMITED**  
ARCHITECTS & PLANNERS

STRUCTURAL ENGINEER :  
**CMA C M WONG & ASSOCIATES LTD**  
Tel: (852) 2522 1008  
E-mail: cmawong@gmail.com

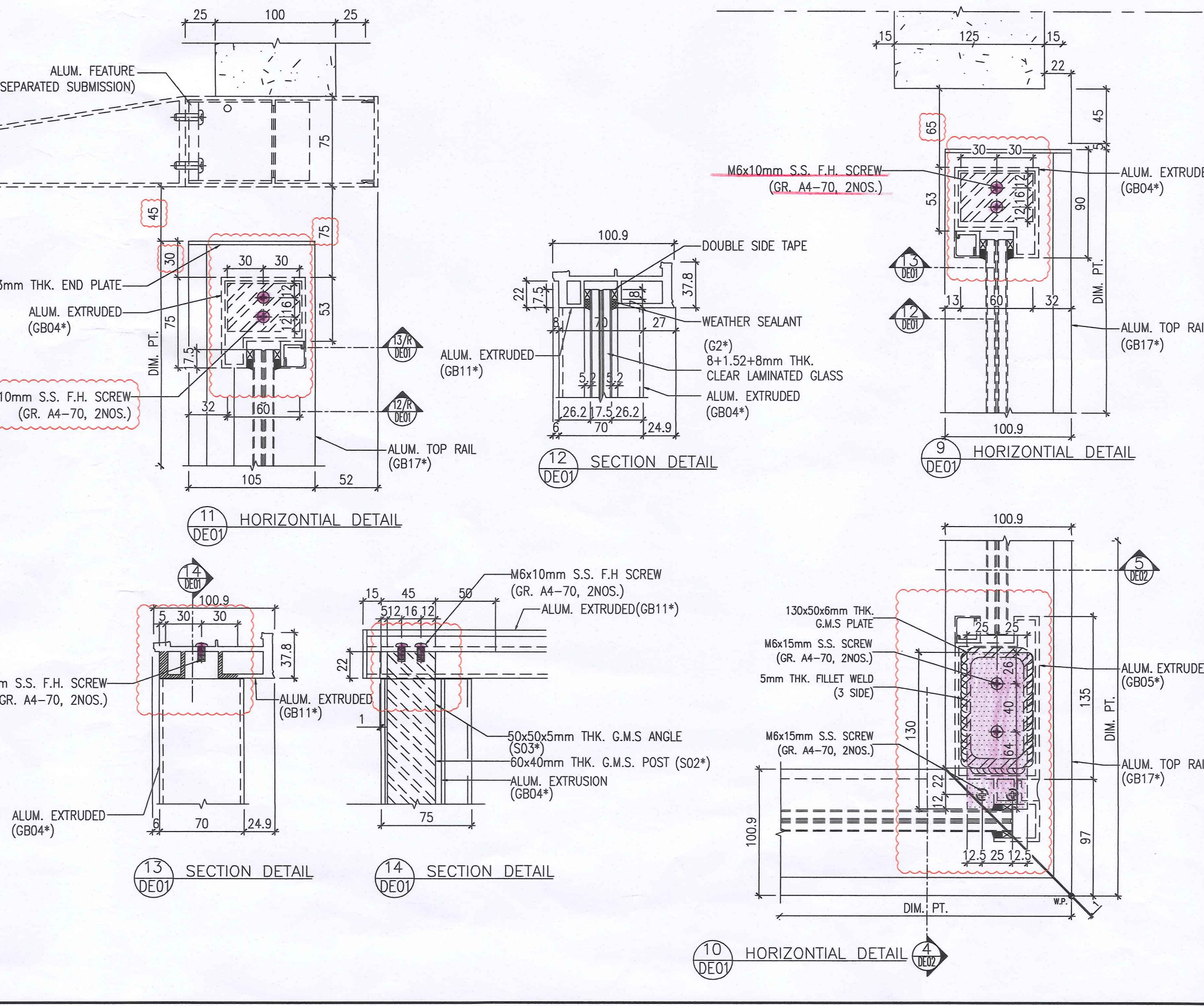
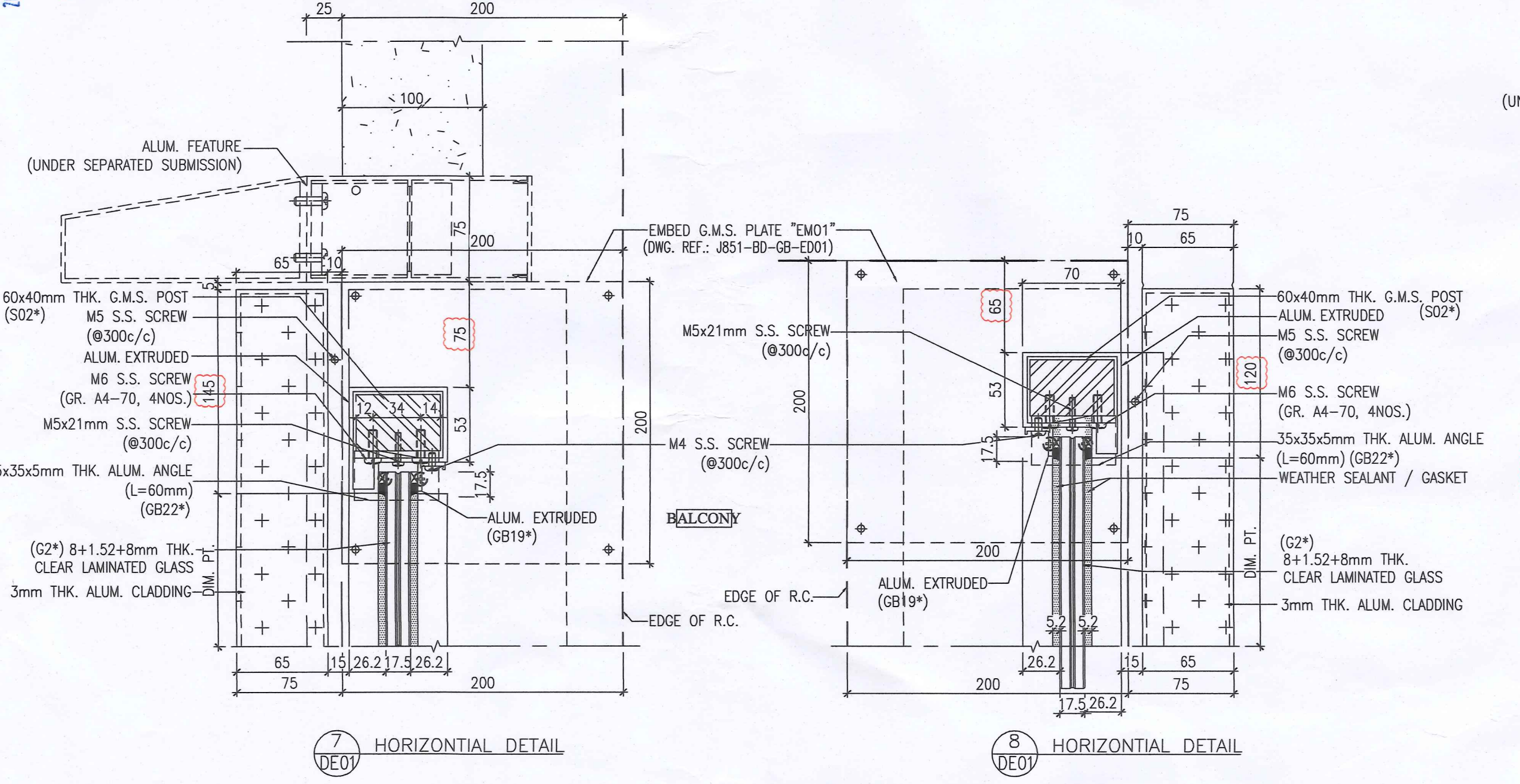
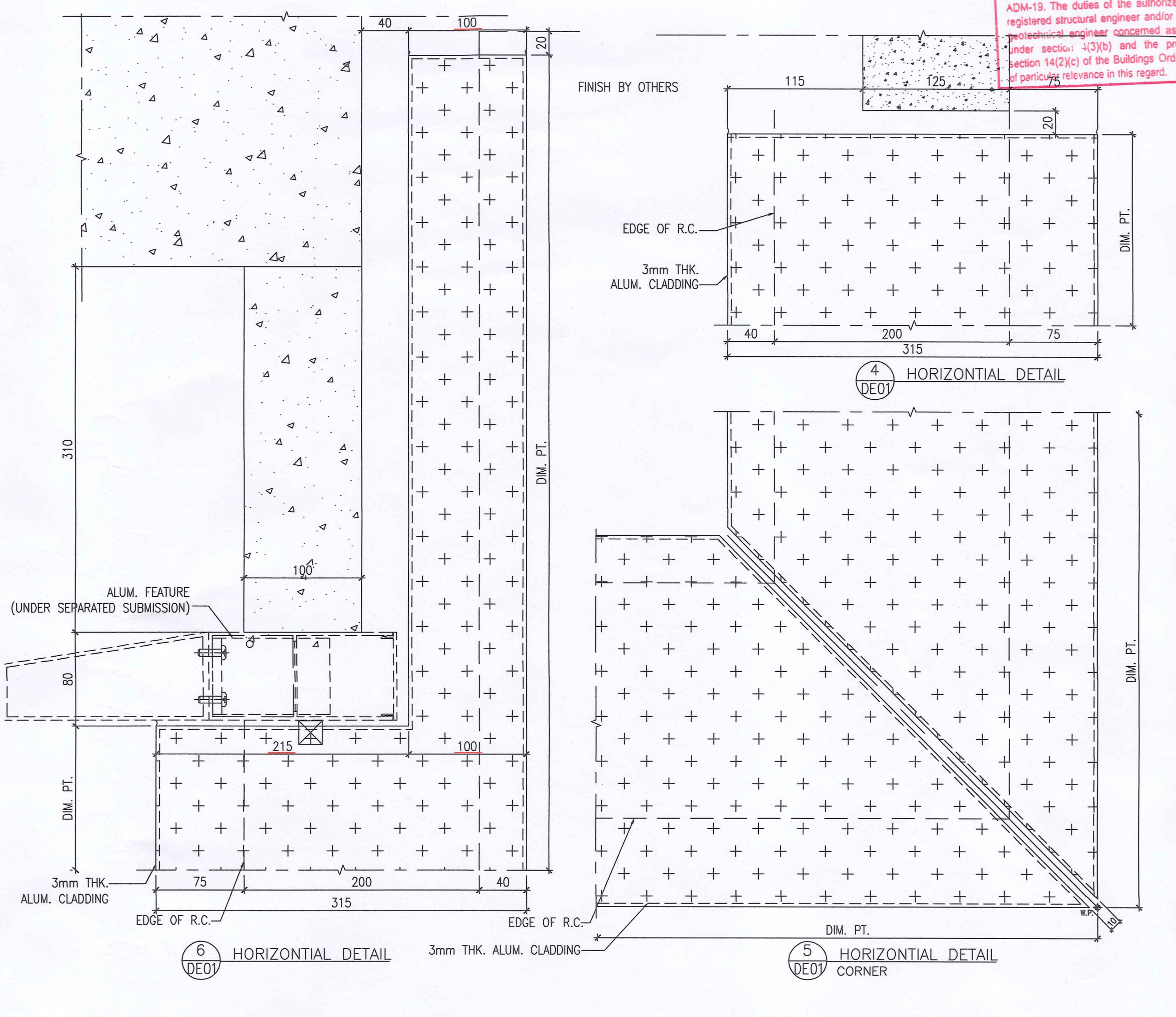
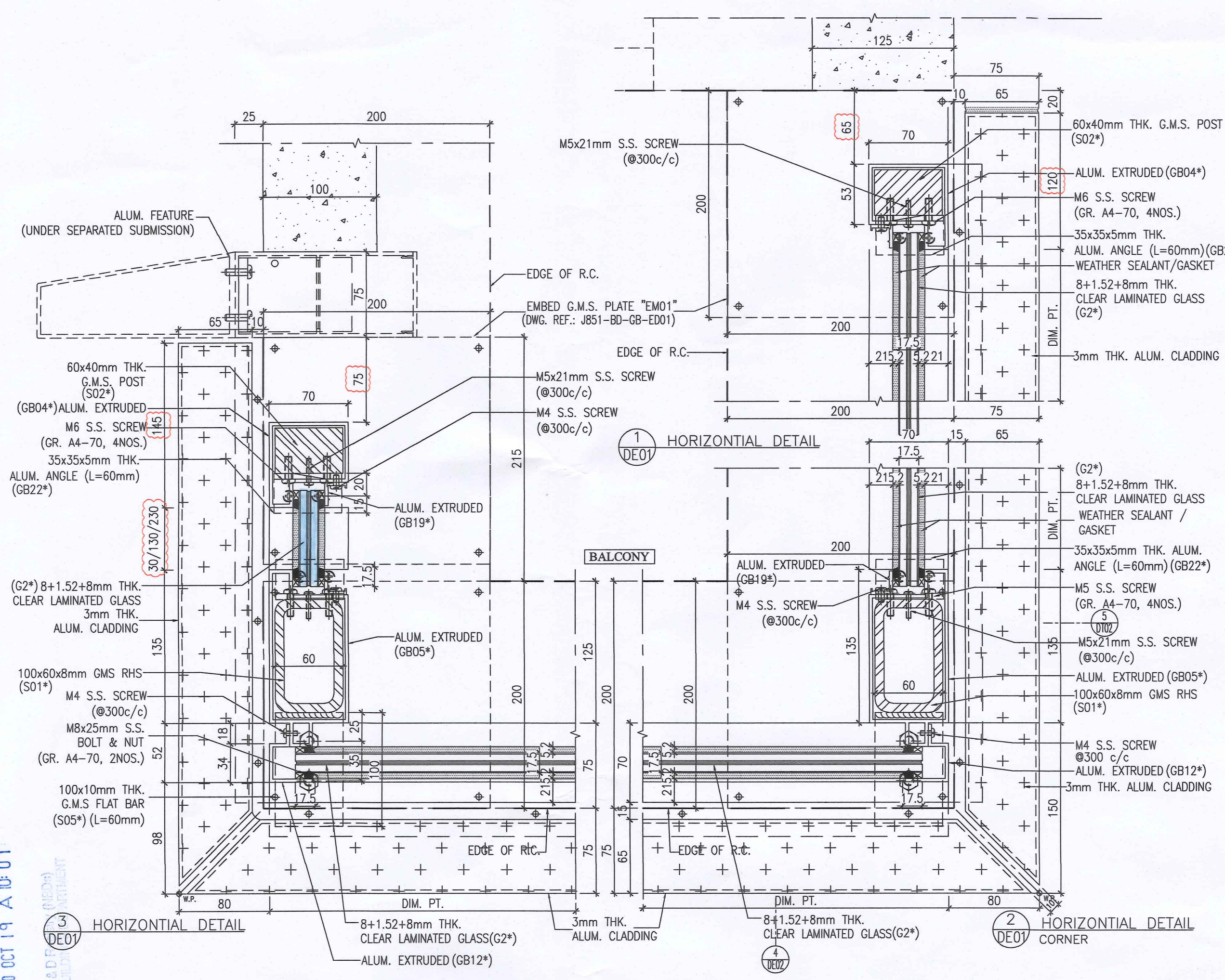
**美特鋁質有限公司**  
MIDI ALUMINIUM FABRICATOR LTD.

Units 6-8, Sunray Industrial Centre, 1/F  
610, Cha Kwo Ling Road, Kowloon  
Tel: 23489211-4 Fax: (852) 27727666

PROJECT :  
**RESIDENTIAL DEVELOPMENT AT TSING YI TOWN LOT 190 SAI SHAN ROAD**

TITLE :  
**TYPICAL DETAIL FOR GLASS BALUSTRADE & ALUM. CLADDING (1 OF 2)**

JOB NO. : J-851  
DRAWN BY : LS DATE : 26-11-2019  
CHKD BY : SCALE A1: 1:3 A3:  
DWG. NO. : J851-BD-GB-DE01 REV. : A



2020 OCT 19 A 10:01  
RECEIVED BY  
R&D DEPT  
CMA

B.D. REF : BD 3/9169/16

F.S.D. REF :

Note :

- 1. All dimensions are in mm.
- 2. All elevations are viewed from outside.
- 3. All dimensions to be verified on site before fabrication.

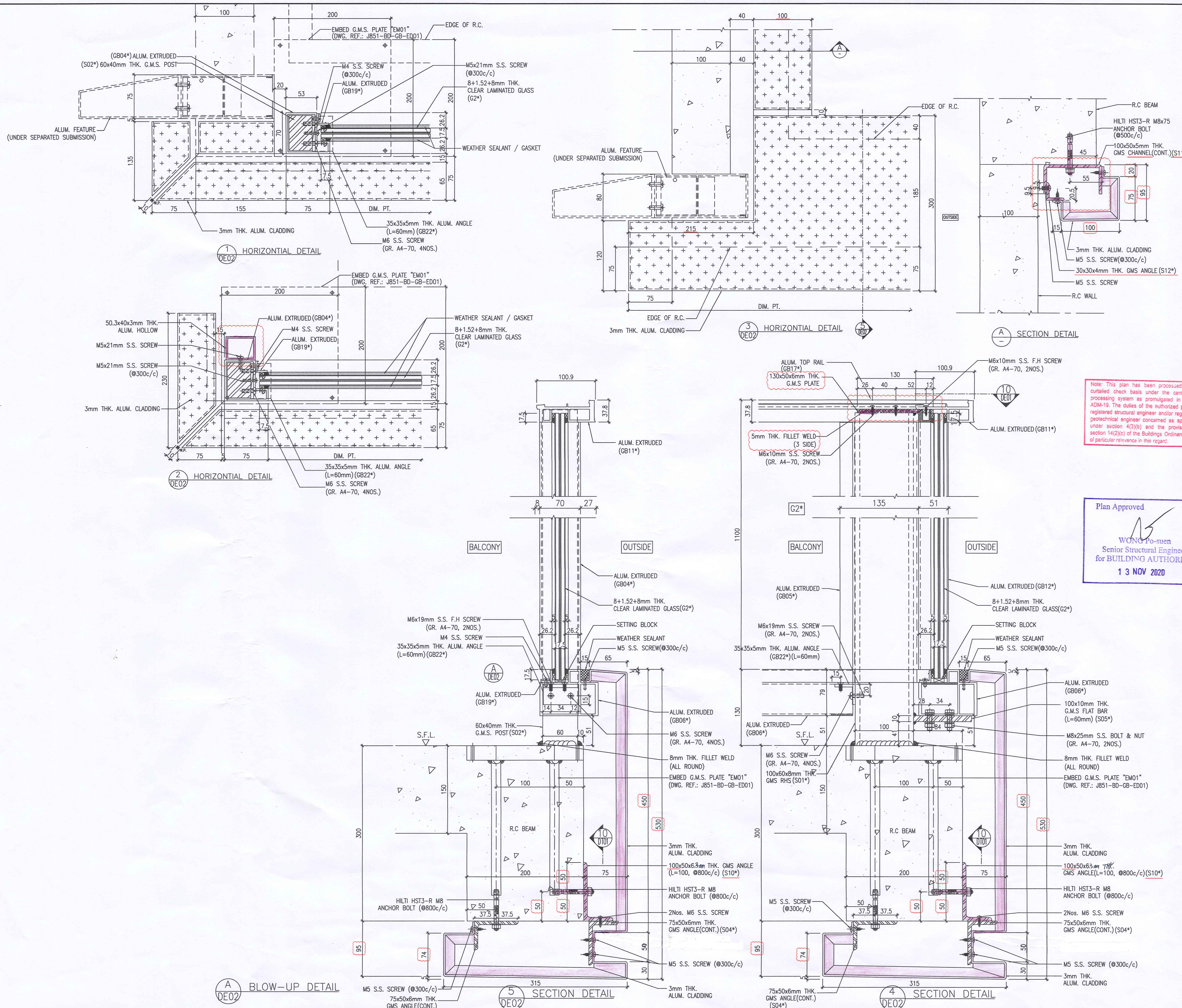
GENERAL NOTES

STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

Legend :

- 1. F.F.L.-- Finished Floor Level
- 2. S.F.L.-- Structural Floor Level
- 3. (R) -- Reversed Detail

X1 -- DETAIL MARK NO.  
 X001 -- REFER SHEET NO.



Note: This plan has been processed on a curtailed check basis under the centralized processing system as promulgated in PNAP ADM-19. The duties of the authorized person, registered structural engineer and/or registered geotechnical engineer concerned as specified under section 4(3)(b) and the provision of section 14(2)(c) of the Buildings Ordinance of particular relevance in this regard.

Plan Approved  
 WONG Po-suen  
 Senior Structural Engineer  
 for BUILDING AUTHORITY  
 13 NOV 2020

LEUNG CHI HUNG BEN  
 Registered Structural Engineer

BD AMENDMENT

No.	DATE	REVISED	BY
A 10-9-2020	1st BD Amendment		

CLIENT : 佳明集團控股有限公司  
 GRAND MING GROUP HOLDINGS LIMITED  
 MAIN CONTRACTOR : GRAND TECH CONSTRUCTION CO. LTD.

ARCHITECT : WONG TUNG & PARTNERS LIMITED  
 ARCHITECTS & PLANNERS

STRUCTURAL ENGINEER :  
 CMA C M WONG & ASSOCIATES LTD  
 TEL: (852) 2322 0668  
 E-mail: cmawong@cmawong.com

美特鋁質有限公司  
 MIDI ALUMINIUM FABRICATOR LTD.  
 Units 6-8, Sunray Industrial Centre, 1/F  
 610 Cha Kwo Ling Road, Kowloon  
 Tel: 23489211-4 Fax: (852) 2727666

PROJECT : RESIDENTIAL DEVELOPMENT AT TSING YI TOWN LOT 190 SAI SHAN ROAD

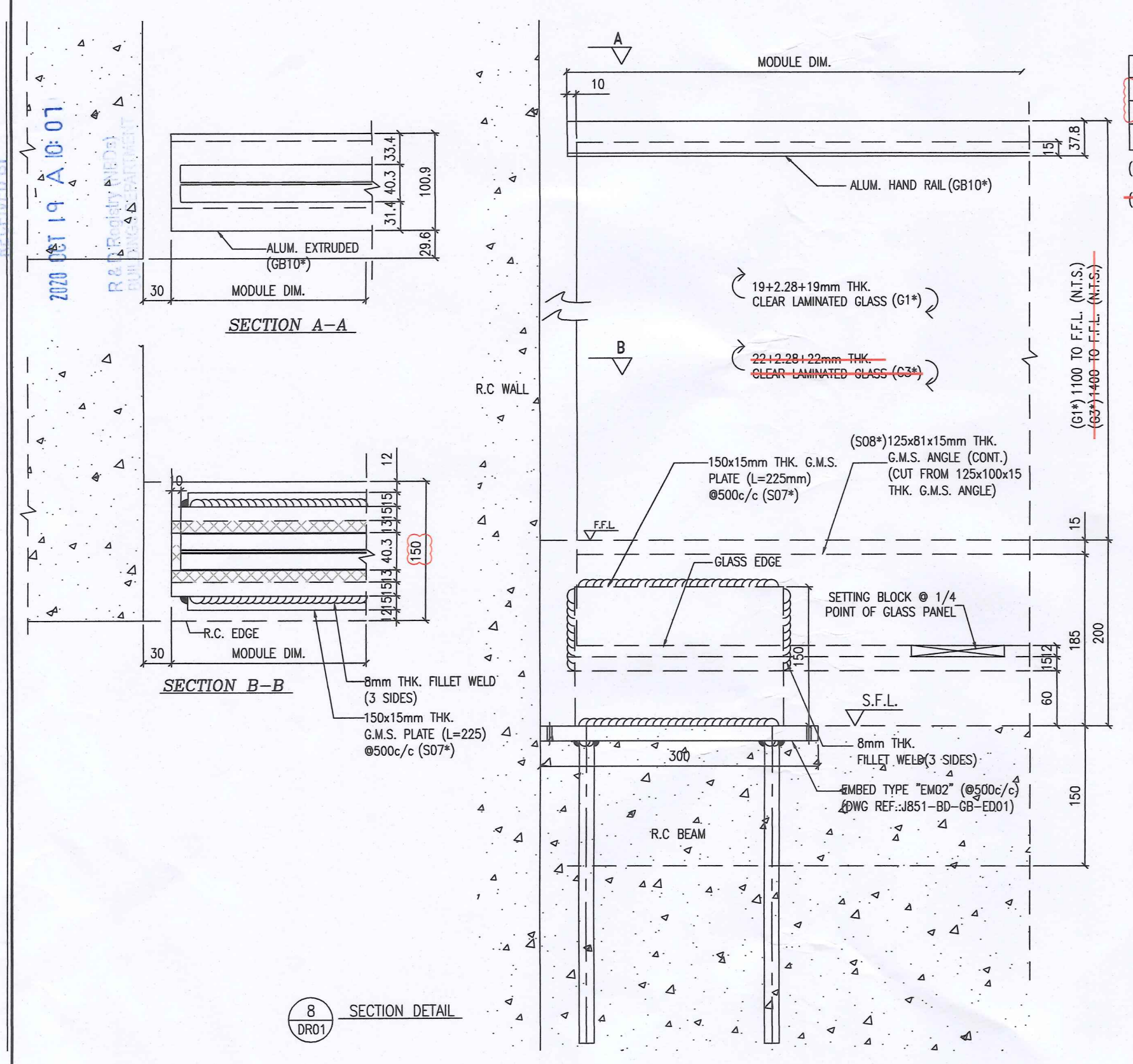
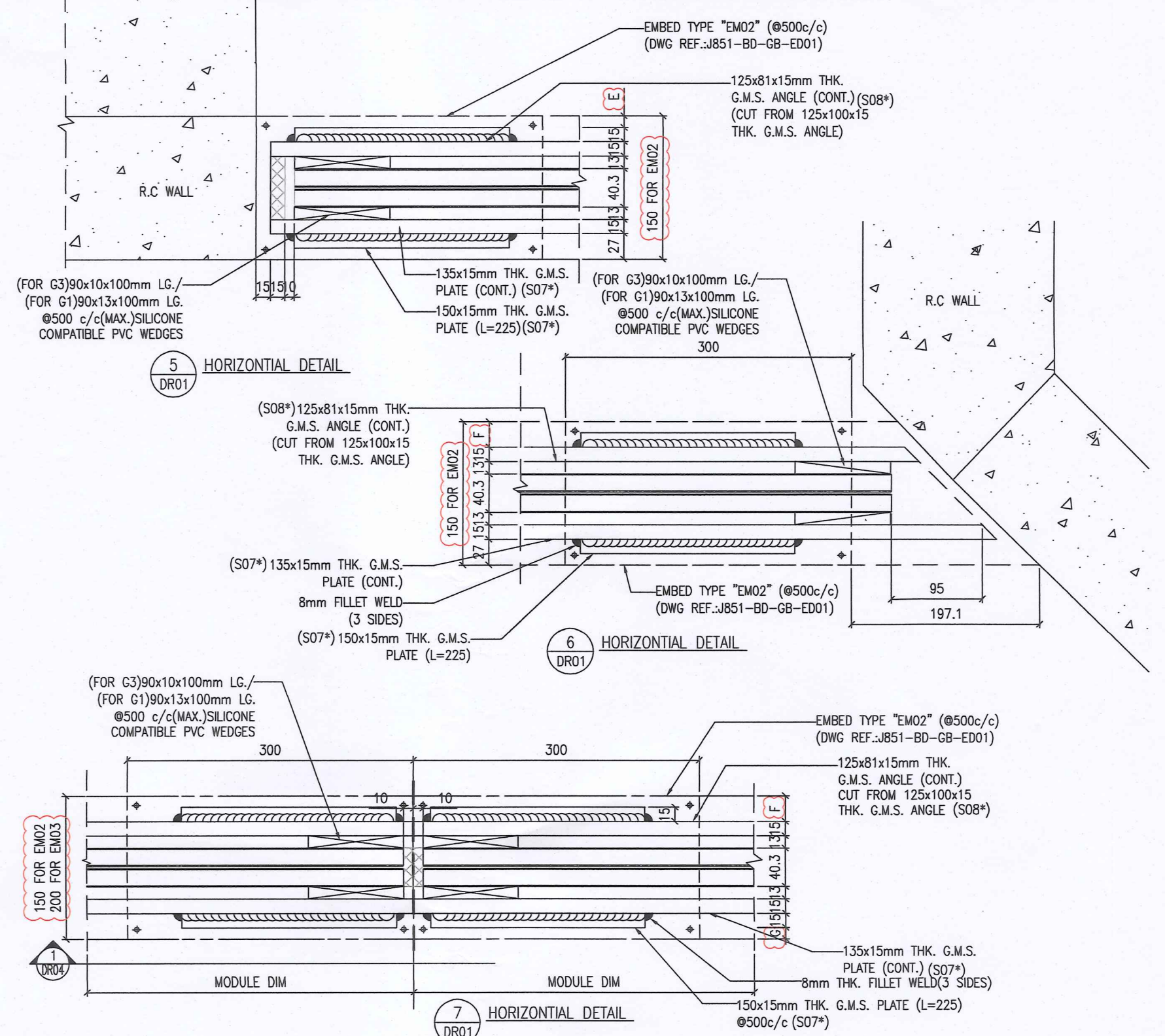
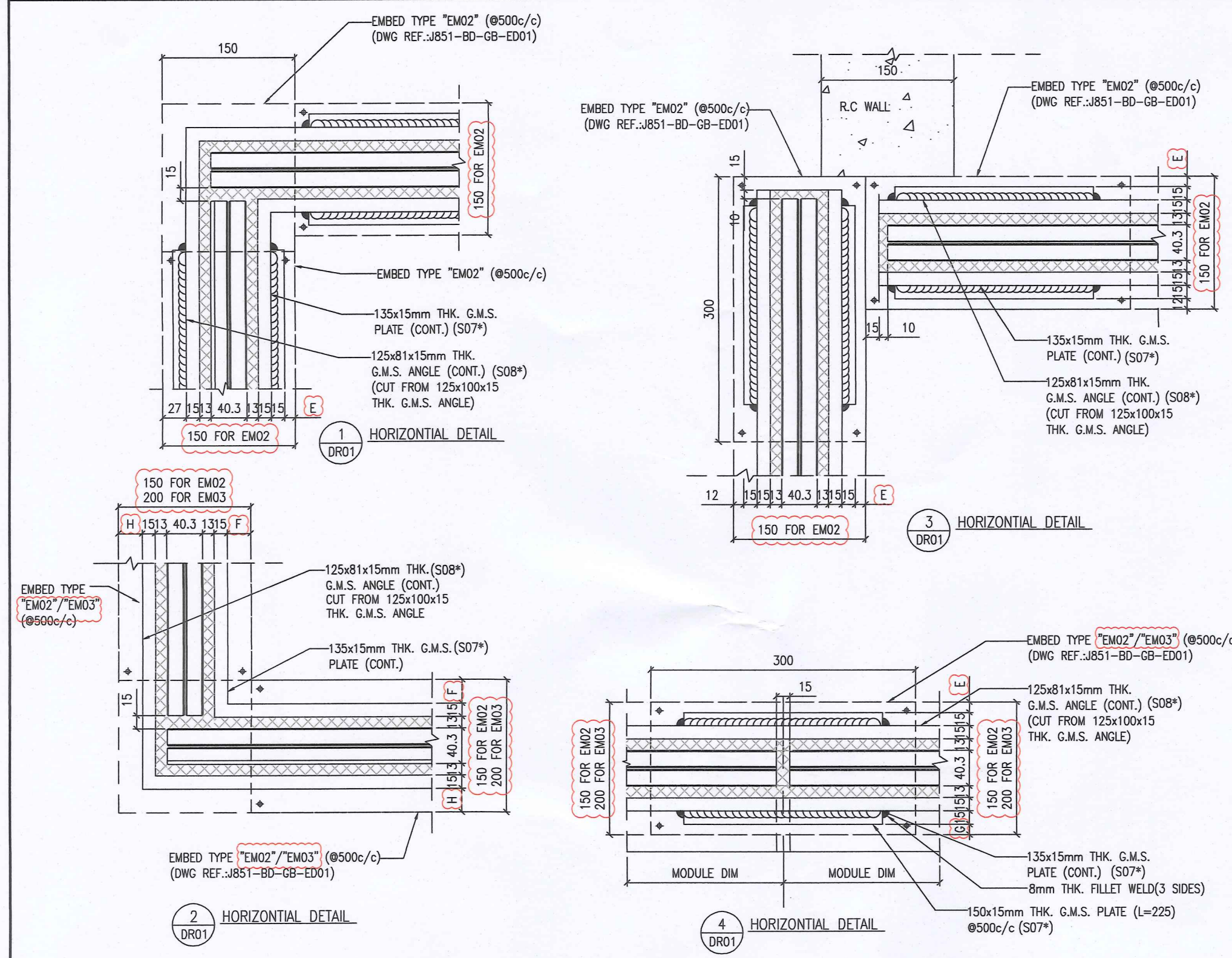
TITLE : TYPICAL DETAIL FOR GLASS BALUSTRADE & ALUM. CLADDING (2 OF 2)

JOB NO. : J-851  
 DRAWN BY : LS DATE : 26-11-2019  
 CHKD BY : SCALE A1: 1:4 A3:  
 DWG. NO. : J851-BD-GB-DE02 REV. : A

RECEIVED BY  
 2020 OCT 19 10:07  
 R.S.D. Righty (RSD) ALUMINIUM FABRICATOR

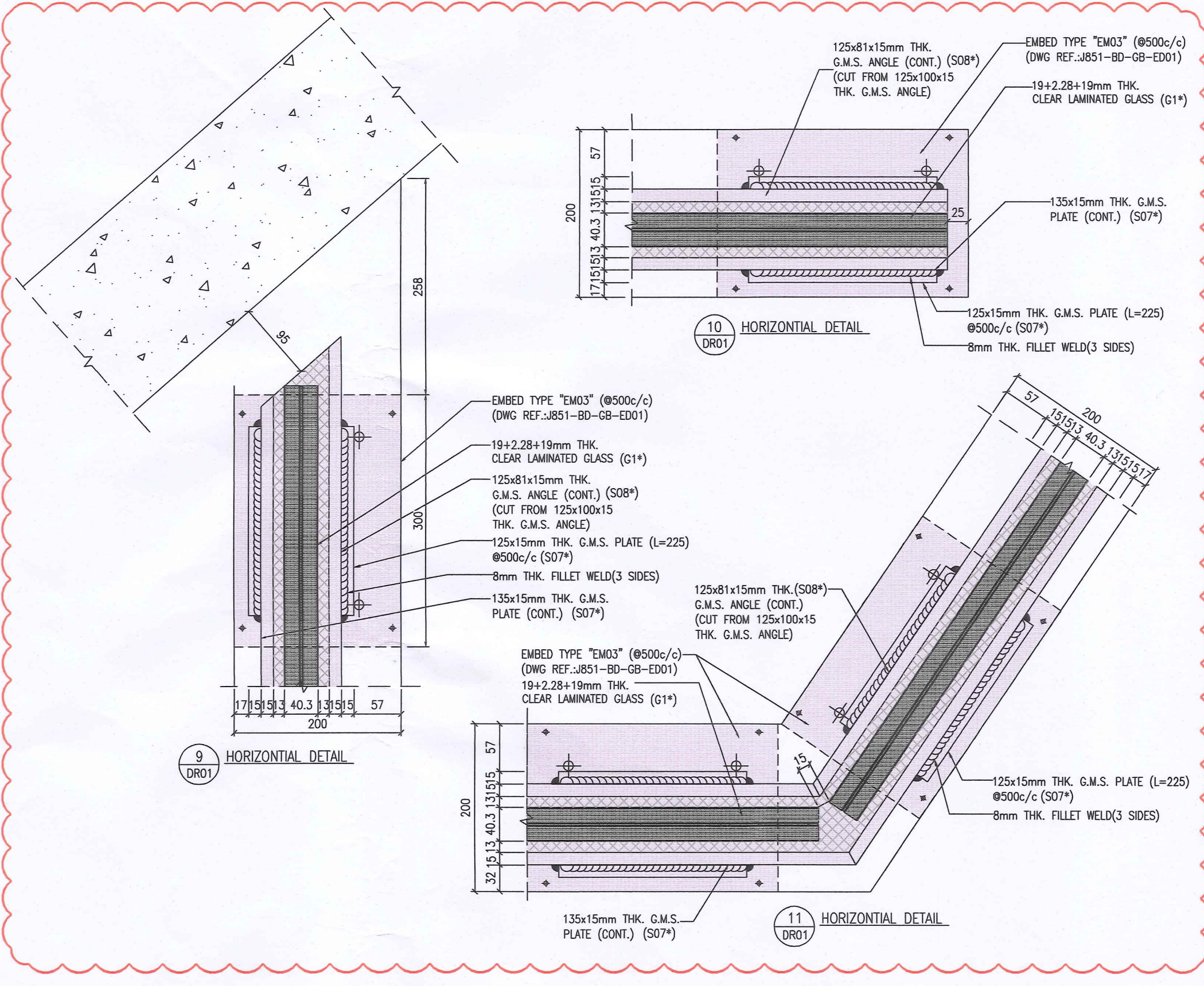






GLASS TYPE	A	B	C	D	E	F	G	H
(G1*) FOR EM02	40.3	13	31.4	33.4	12	27	12	27
(G1*) FOR EM03	40.3	13	31.4	33.4	57	17	17	32
(G3*)	46.3	10	28.4	30.4	/	/	/	/

(G1\*) = 19+2.28+19mm THK. CLEAR LAMINATED GLASS  
 (G3\*) = 22+2.28+22mm THK. CLEAR LAMINATED GLASS



B.D. REF : BD 3/9169/16  
 F.S.D. REF :  
 Note :  
 1. All dimensions are in mm.  
 2. All elevations are viewed from outside.  
 3. All dimensions to be verified on site before fabrication.

**GENERAL NOTES**  
 STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

**Legend :**  
 1. F.F.L. --- Finished Floor Level  
 2. S.F.L. --- Structural Floor Level  
 3. (R) --- Reversed Detail  
 X1 --- DETAIL MARK NO.  
 X001 --- REFER SHEET NO.

LEUNG CHI HUNG BEN  
 Registered Structural Engineer

**BD AMENDMENT**

NO.	DATE	REVISED	BY
A	10-9-2020	1st BD Amendment	

CLIENT :  
**佳明集團控股有限公司**  
 GRAND MING GROUP HOLDINGS LIMITED

MAIN CONTRACTOR :  
**GRAND TECH CONSTRUCTION CO. LTD.**

ARCHITECT :  
**WONG TUNG & PARTNERS LIMITED**  
 ARCHITECTS & PLANNERS

STRUCTURAL ENGINEER :  
**CMA C M WONG & ASSOCIATES LTD**  
 Senior Structural Engineer  
 for BUILDING AUTHORITY  
 13 NOV 2020

PROJECT :  
 RESIDENTIAL DEVELOPMENT AT  
 TSING YI TOWN LOT 190 SAI SHAN ROAD

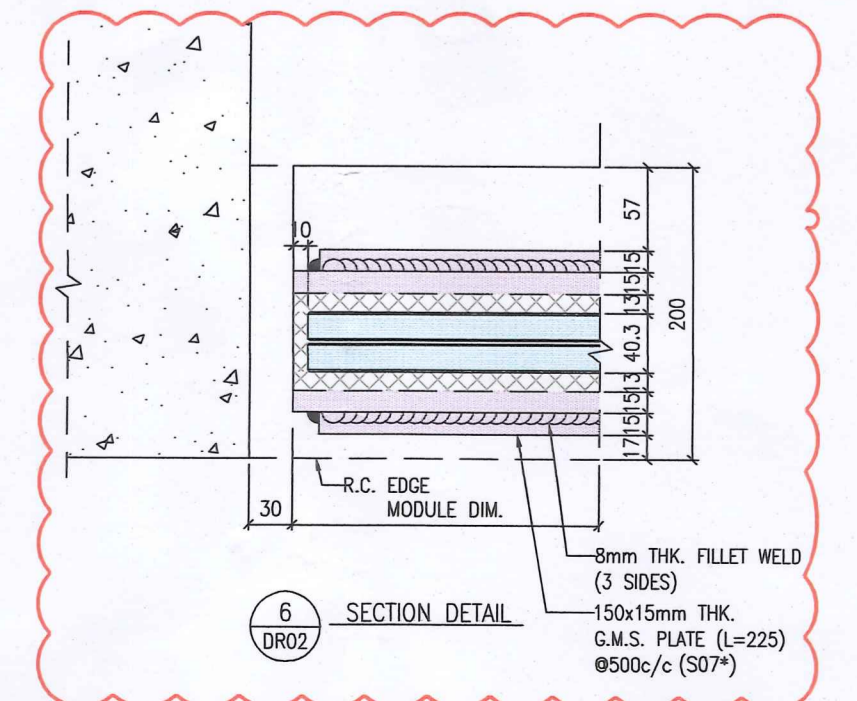
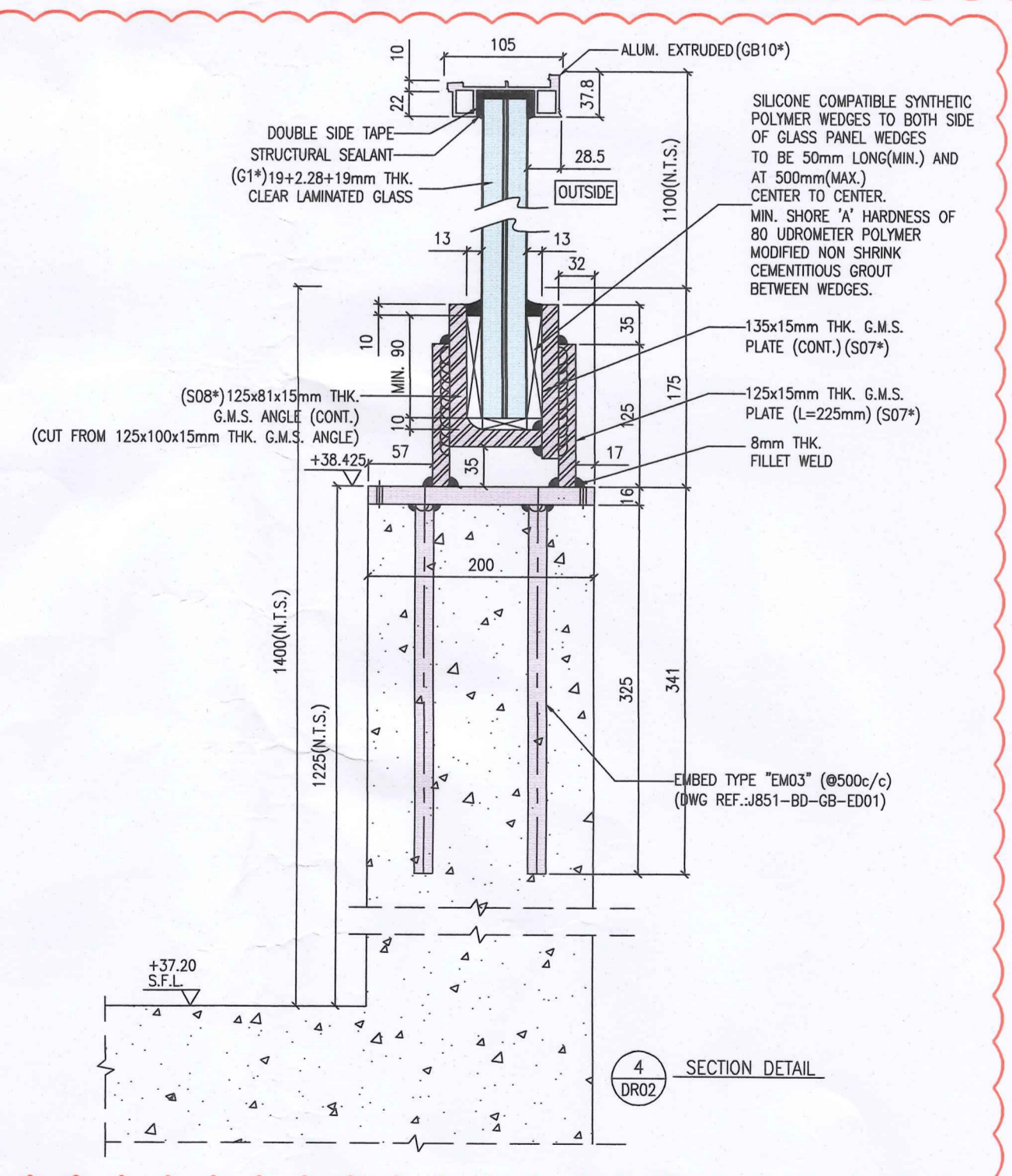
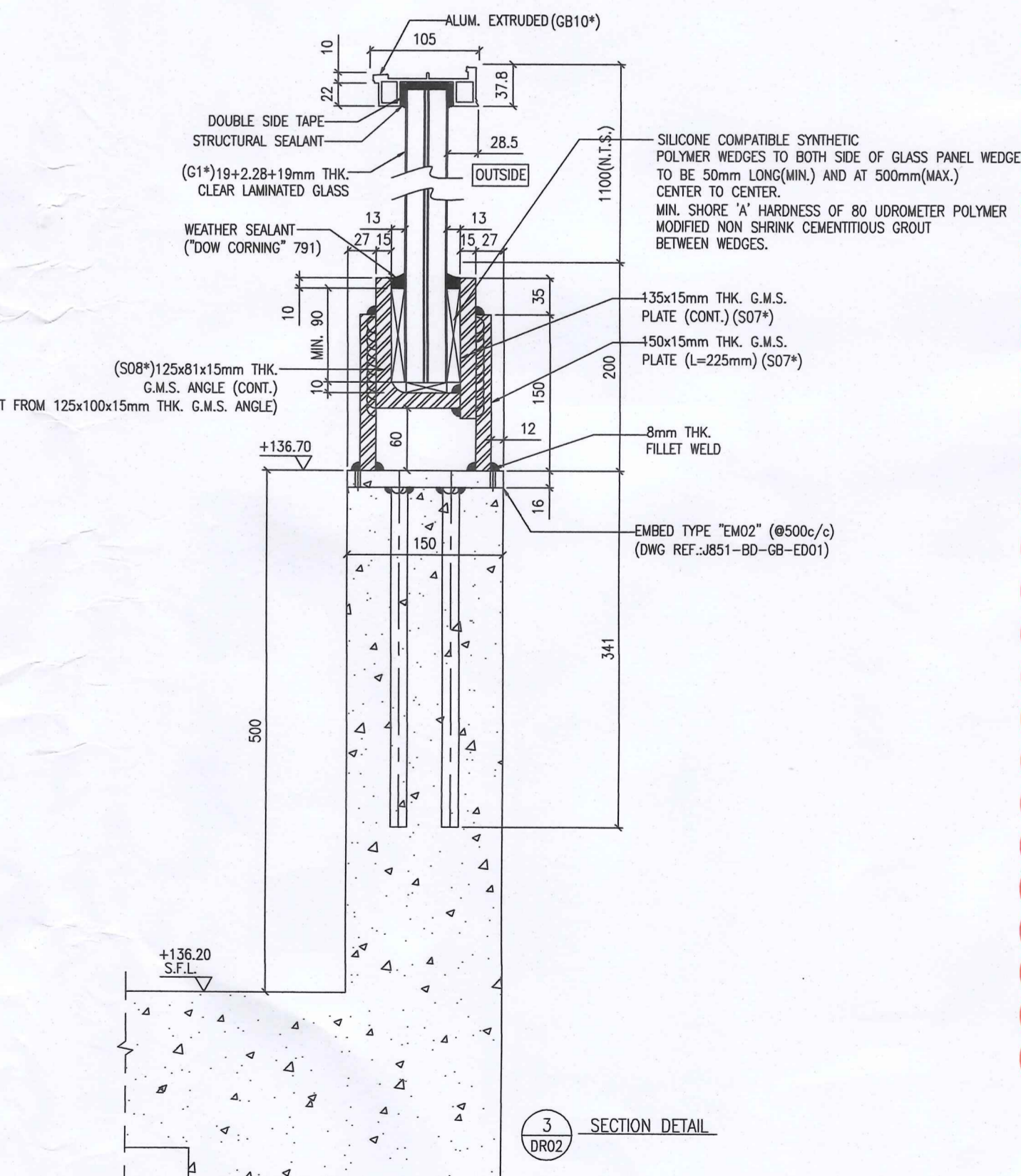
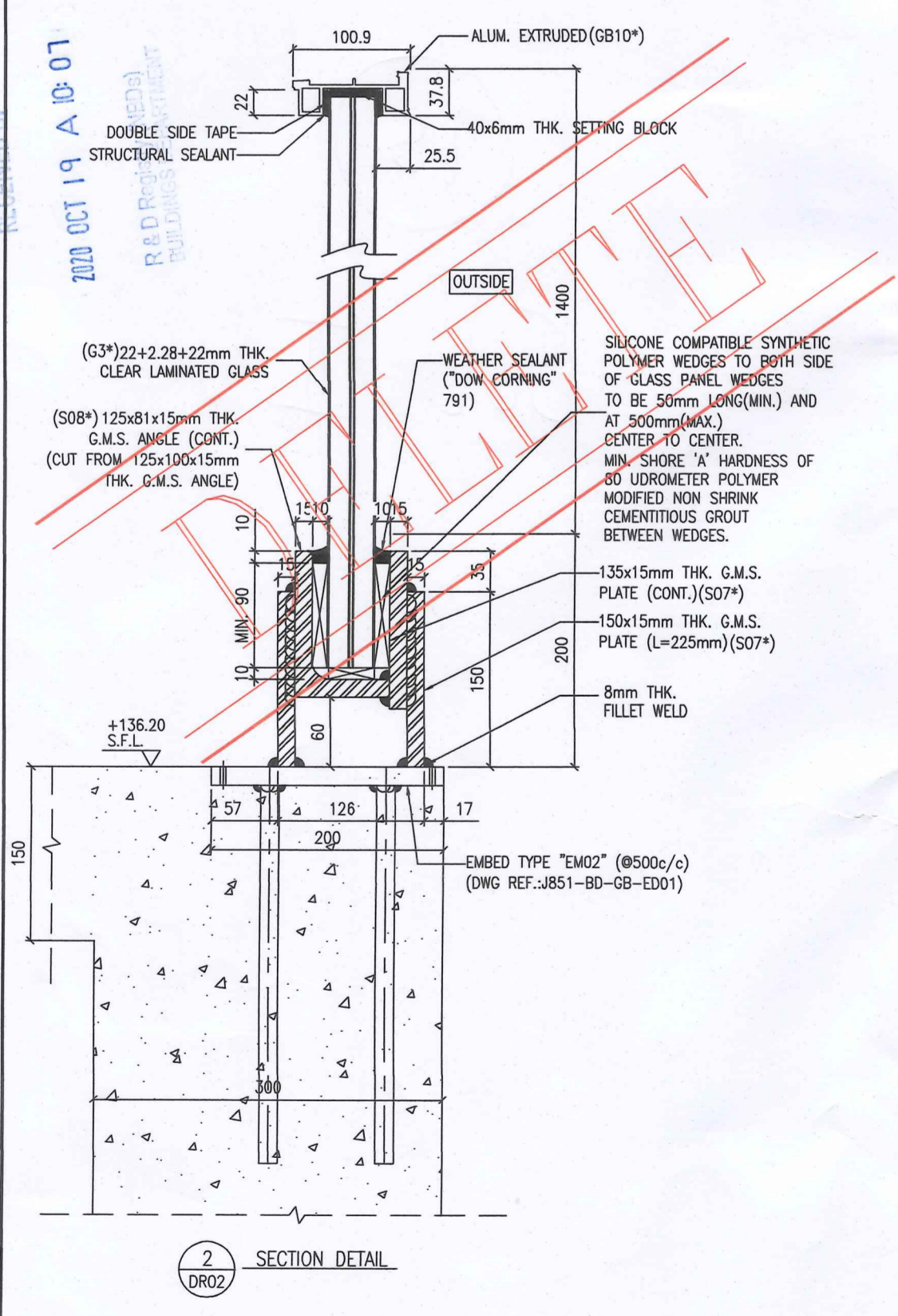
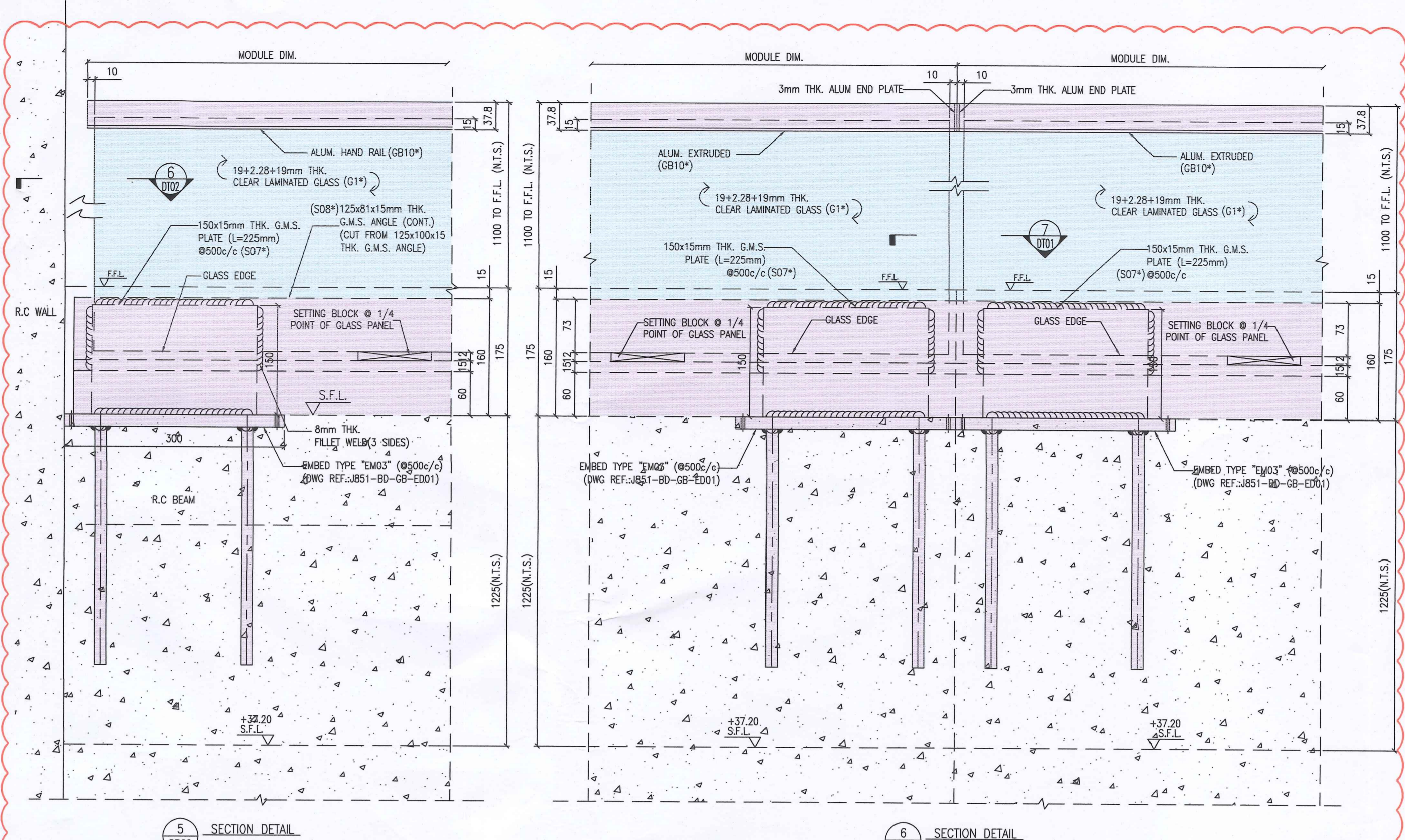
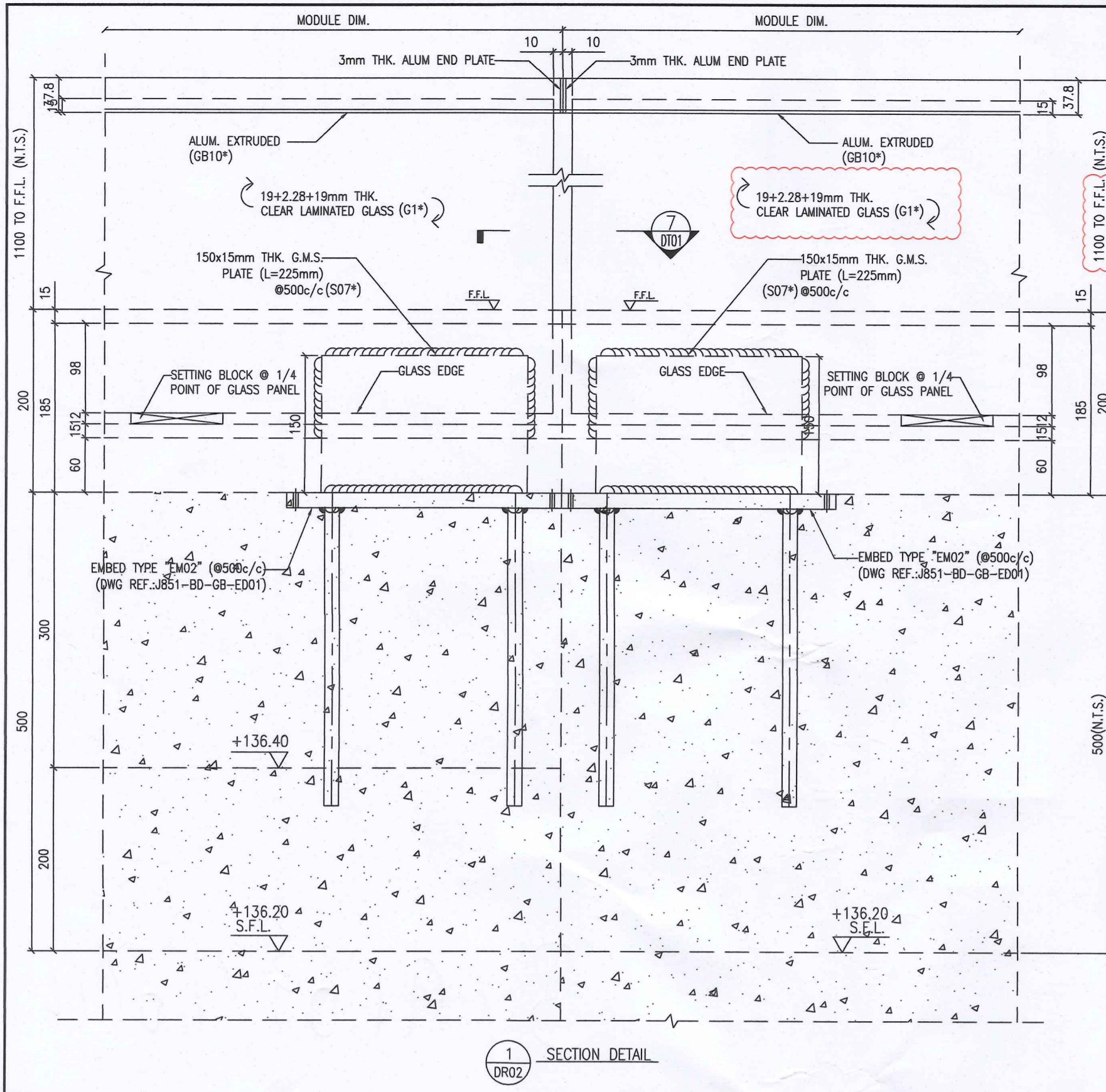
TITLE :  
 DETAIL OF GLASS BALUSTRADE  
 AT FLAT ROOF  
 (1 OF 2)

JOB NO. : J-851  
 DRAWN BY : LS DATE : 26-11-2019

CHKD BY : SCALE A1: 1:2  
 A3:  
 DWG. NO. : J851-BD-FR-DR01 REV. : A

Note: This plan has been processed on a curtailed check basis under the centralized processing system as promulgated in PNAP ADM-19. The duties of the authorized person registered structural engineer and/or registered geotechnical engineer concerned as specified under section 4(3)(b) and the provision of section 14(2)(c) of the Buildings Ordinance are of particular relevance in this regard.

Plan Approved  
 WONG Po-suen  
 Senior Structural Engineer  
 for BUILDING AUTHORITY  
 13 NOV 2020



B.D. REF : BD 3/9169/16  
 F.S.D. REF :  
 Note :  
 1.All dimensions are in mm.  
 2.All elevations are viewed from outside.  
 3.All dimensions to be verified on site before fabrication.

**GENERAL NOTES**  
 STATEMENT II : THE WORKS SHOWN ON THESE PLANS ARE TYPE II WORKS IN RESPECT OF WHICH THE BUILDING AUTHORITY'S CONSENT IS APPLIED FOR

**Legend :**  
 1. F.F.L.-- Finished Floor Level  
 2. S.F.L.-- Structural Floor Level  
 3. (R) -- Reversed Detail  
 (X1) -- DETAIL MARK NO.  
 (X001) -- REFER SHEET NO.

**BD AMENDMENT**

A 10-9-2020 1st BD Amendment  
 NO. DATE REVISED BY  
 CLIENT : 佳明集團控股有限公司  
 GRAND MING GROUP HOLDINGS LIMITED

MAIN CONTRACTOR : GRAND TECH CONSTRUCTION CO. LTD.  
 ARCHITECT : WONG TUNG & PARTNERS LIMITED  
 ARCHITECTS & PLANNERS

STRUCTURAL ENGINEER : CMA C M WONG & ASSOCIATES LTD  
 WONG Po-suen  
 Senior Structural Engineer  
 for BUILDING AUTHORITY  
 13 NOV 2020

美特鋁質有限公司  
 MIDI ALUMINIUM FABRICATOR LTD.  
 Units 6-8, Sunray Industrial Centre, 1/F  
 610 Cho Kwo Ling Road, Kowloon  
 Tel:23489211-4 Fax:(852)2727666

PROJECT : RESIDENTIAL DEVELOPMENT AT TSING YI TOWN LOT 190 SAI SHAN ROAD

TITLE : DETAIL OF GLASS BALUSTRADE AT FLAT ROOF (2 OF 2)

JOB NO. : J-851  
 DRAWN BY : LS DATE : 26-11-2019  
 CHKD BY : SCALE A1: 1:2 A3:  
 DWG. NO. : J851-BD-FR-DR02 REV. : A

Note: This plan has been processed on a curtailed check basis under the controlled processing system as promulgated in PWD ADM-19. The duties of the authorized person, registered structural engineer and/or registered geotechnical engineer concerned as specified under section 4(3)(b) and the provision of section 14(2)(c) of the Buildings Ordinance shall not be affected in this regard.