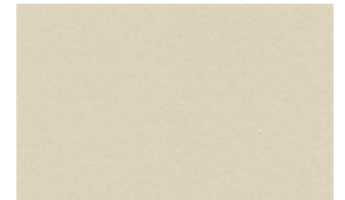


35 Front St. South, Mississauga
Proposed Balcony Guard Design and Colour



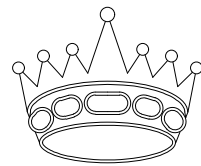
Micas — UC70129BC

Washington White
- UC70129BC



Add Sample

Full Height Aluminum Panel Guard - Colour to be Washington White to match existing balcony guards



REGAL WINDOWS & RAILINGS SYSTEMS INC.

177 DRUMLIN CIRCLE, CONCORD, ONT.

PHONE# (905) 738-4375 FAX # (905) 738-4860

SHOP DRAWINGS

Aluminum Railings Replacement

35 FRONT STREET S, MISSISSAUGA

Submitted By: REGAL Windows & Railings Systems Inc.

DESIGN CRITERIA FOR RAILINGS:

THE APPLICABLE LOADS ACCORDING TO THE O.B.C. ARE AS FOLLOWS:

- (1) LATERAL 0.75 kN/m OR A CONCENTRATED LOAD OF 1.0 kN APPLIED AT ANY POINT, WHICHEVER GOVERNS.
- (2) INDIVIDUAL ELEMENTS WITHIN THE GUARD, INCLUDING SOLID PANELS AND PICKETS, DESIGNED FOR A LOAD OF 0.5 kN APPLIED OVER AN AREA OF 100mm BY 100mm LOCATED AT ANY POINT IN THE ELEMENT OR ELEMENTS SO AS TO PRODUCE THE MOST CRITICAL EFFECT. WIND PRESSURE q 1/50: 0.44 kPa, EXPOSURE FACTOR: ROUGH TERRAIN, IMPORTANCE CATEGORY: NORMAL, DESIGN LOADS BASED ON NBC COMMENTARIES FIGURE I-15
- (3) 1.5 kN/m VERTICAL LOAD APPLIED AT THE TOP OF THE RAIL.
- (4) DESIGN OF GUARDS ARE BASED ON LIVE LOADS CONSIDERED IN COMBINATION WITH WIND LOADS IN ACCORDANCE WITH DIV. B, 4.1.3.2. REQUIREMENTS

RAILING ENGINEER'S REVIEW NOTES:

DESIGN

- (i) DESIGN AS PER OBC 2012 CLAUSE 4.1.5.14 AND SUPPLEMENTARY STANDARD SB - 13 AND CSA A500.
- (ii) DESIGN OF RAILING SYSTEM BASED ON THEORY AND/OR PHYSICAL TESTING.
- (iii) DESIGN ASSUMPTIONS:

CONCRETE SLAB: NORMAL-WEIGHT CONCRETE
 MINIMUM COMPRESSIVE STRENGTH 35 MPa
 IN DRY SERVICE CONDITIONS
 IN STRUCTURALLY GOOD CONDITION
 MEETS APPLICABLE DESIGN STANDARD REQUIREMENTS

WALLS: IN GOOD CONDITION TO ALLOW SCREW ATTACHMENT

SITE INSPECTIONS

- (i) OWNER/CONSULTANT SHALL BE RESPONSIBLE TO VERIFY THE ADEQUACY OF THE EXISTING CONCRETE SLAB AND WALLS, AND THAT THE SLAB AND WALLS MEET THE REQUIREMENTS NOTED UNDER DESIGN ASSUMPTIONS ABOVE.
- (ii) PROGRESS AND FINAL SITE INSPECTIONS BY OTHERS.
- (iii) REGAL SHALL REPORT ANY DISCREPANCIES TO RAILING ENGINEER AND OWNER/CONSULTANT.

DISCLAIMER

- (i) THE RAILING ENGINEER IS ONLY RESPONSIBLE FOR THE DESIGN REVIEW OF THE RAILING SYSTEM BASED ON THE DESIGN PARAMETERS PROVIDED IN THE SHOP DRAWINGS.
- (ii) THE RAILING ENGINEER MANDATE DOES NOT INCLUDE PROVIDING DOCUMENTS GENERATED DURING COMMISSION OF THE ENGINEERING SERVICES OR PROVIDING DOCUMENTS NOT CONSIDERED PART OF THE SHOP DRAWINGS.
- (iii) THE SHOP DRAWINGS ARE INTENDED FOR USE BY REGAL FOR FABRICATION AND INSTALLATION OF THE RAILING SYSTEM.

GENERAL NOTES :

- THE CONCRETE STRENGTH IS ASSUMED NOT TO BE LESS THAN 35 MPa.
(CHECKING OF THIS STRUCTURAL ADEQUACY IS NOT REGAL'S RESPONSIBILITY)
- ALL RAILING MEMBERS TO BE REGAL TYPICAL EXTRUSIONS AS DETAILED.
- ALL DIMENSIONS SHOWN WILL BE VERIFIED BY REGAL ON SITE PRIOR TO FABRICATION.
- ALUMINUM ALLOY FOR RAILING POSTS AND TOP RAIL TO BE OF 6061-T6 ALLOY.
YIELD TENSILE STRENGTH: 276MPa (40000psi)
- ALUMINUM ALLOY FOR ALL OTHER MEMBERS TO BE OF 6005-T6 ALLOY.
YIELD TENSILE STRENGTH: 240MPa (34800psi)
- BASE PLATES TO BE 5" x 5" WITH A MINIMUM WALL THICKNESS OF 3/8" T6 WITH UPTURNS THAT ARE MINIMUM 2-1/8" HIGH.
- POST SIZE TO BE 1-1/4" x 2" WITH A MINIMUM WALL THICKNESS OF .210".
- ALUMINUM FINISH 2605 DURANAR XL WASHINGTON WHITE UC7019BC.
- ALL WELDING TO BE DONE WITH GAS METAL ARC WELDING (MIG) APPLYING THE STANDARD FOR WELDED ALUMINUM CONSTRUCTION CSA-W59.2-M91 (R2003)
WELDING OPERATORS AND PROCEDURES USED TO BE QUALIFIED TO STANDARD CSA-W47.2 (R2003)
- ANCHOR BOLTS USED ARE 304 S.S. THREADED RODS 4-1/2" x Ø1/2" WITH 'REDHEAD' EPCON A7+ ADHESIVE SYSTEM. MIN TORQUE = 22 Ft-Lb. MAX TORQUE = 25 Ft-Lb. EMBEDMENT=3"
- FOR DIVIDERS ANCHORS USED ARE Ø1/2" S.S. WEDGE ANCHORS WITH EMBEDMENT= 3" (2 PER SHOE)
- ANCHOR BOLTS TO BE CAPPED WITH SILICON BEAUTY CAPS ADHERED WITH SILICON.
- SHEET ALUMINUM USED AT RAILING PANELS ARE CSA TYPE 3003
- ALUMINUM FULL PLATE / STRIP SHIMS WILL BE USED AS PER SITE CONDITIONS.
- RIGID PVC EXTRUSION UV RESISTANT, CHEMICAL RESISTANT GASKET - SHORE A DUROMETER HARDNESS.
- NUTS, LOCK WASHERS, WASHERS USED ARE 304 S.S.



ENGINEERING COMPANY:

BRAMPTON MATERIALS ENGINEERING.
 8 AUTOMATIC ROAD, UNIT 10A, BRAMPTON, ON. L6S 5N4
 Tel: (905) 230-0247, info@bramptonme.ca

NOTE : ALL DIMENSIONS SHOWN TO BE VERIFIED BY REGAL ON JOB SITE PRIOR TO FABRICATION.



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PROJECT 35 FRONT STREET S, MISSISSAUGA
 ALUMINUM EXTERIOR RAILING REPLACEMENT

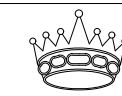
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		2	A00
DATE	SCALE	DRAWN	
OCT. 12, 2022		Neelam	



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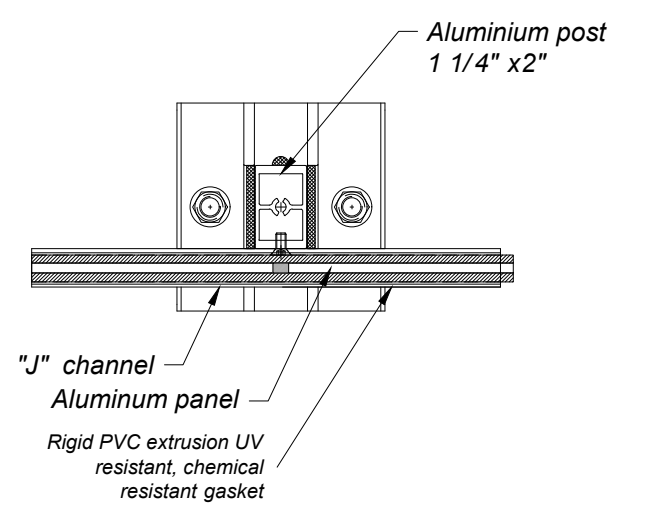
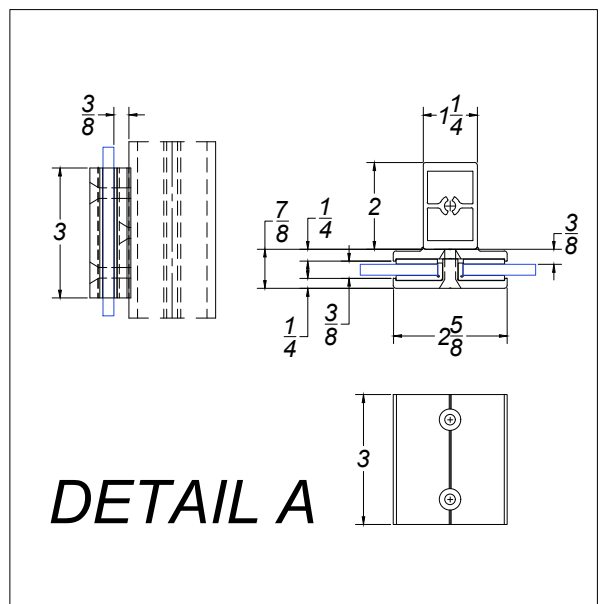
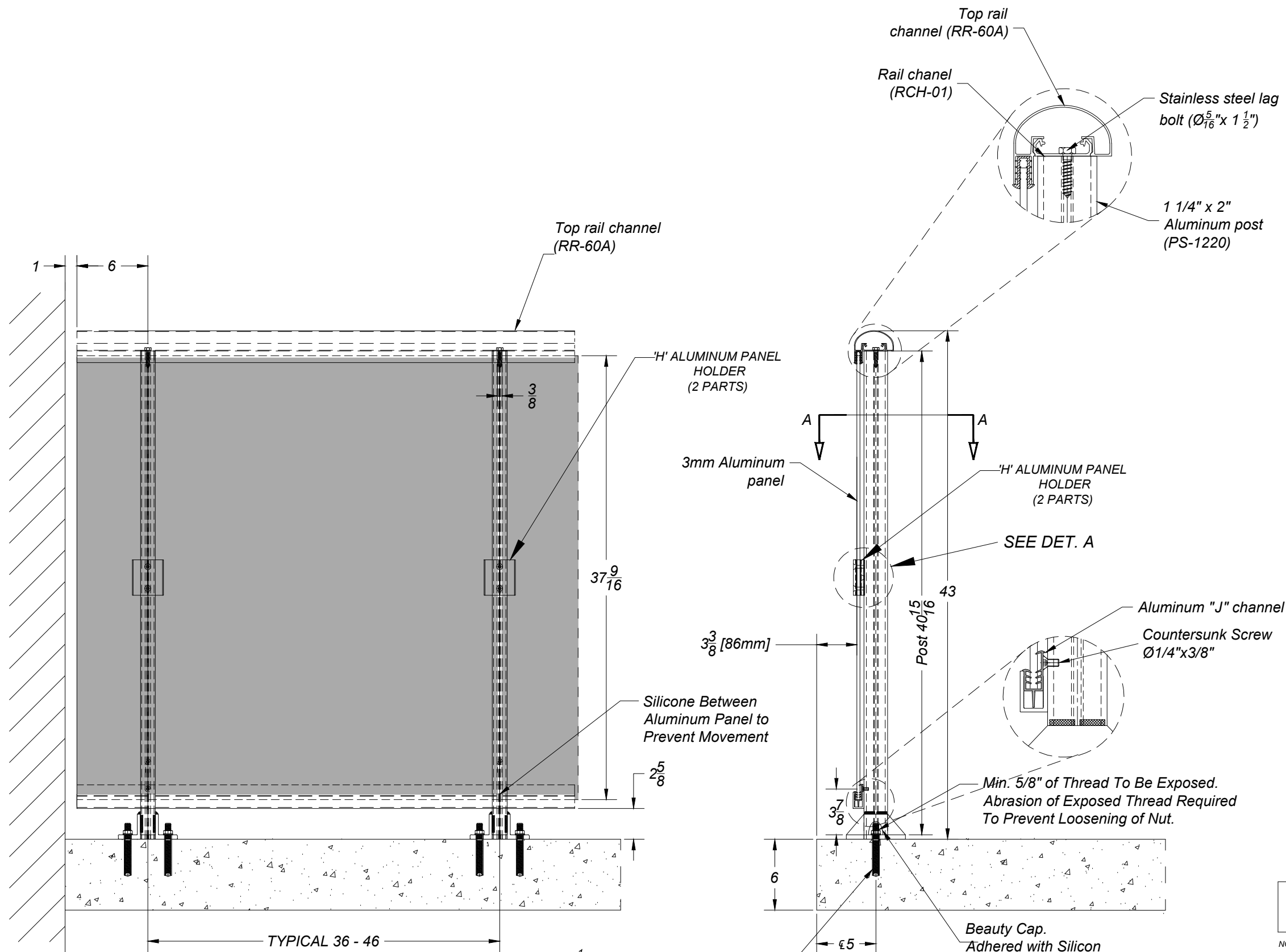


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PROJECT **35 FRONT STREET S, MISSISSAUGA
ALUMINUM EXTERIOR RAILING REPLACEMENT**

CONTENT: BUILDING	Revision 2	DWG No. A01
DATE OCT. 12, 2022	SCALE	DRAWN Neelam



Elevation for balcony railings

Section in proposed railing

1/2" dia stainless steel threaded rods using REDHEAD' EPCON A7+ADHESIVE SYSTEM, embedded in concrete (2 per post) for 3" Embedment.

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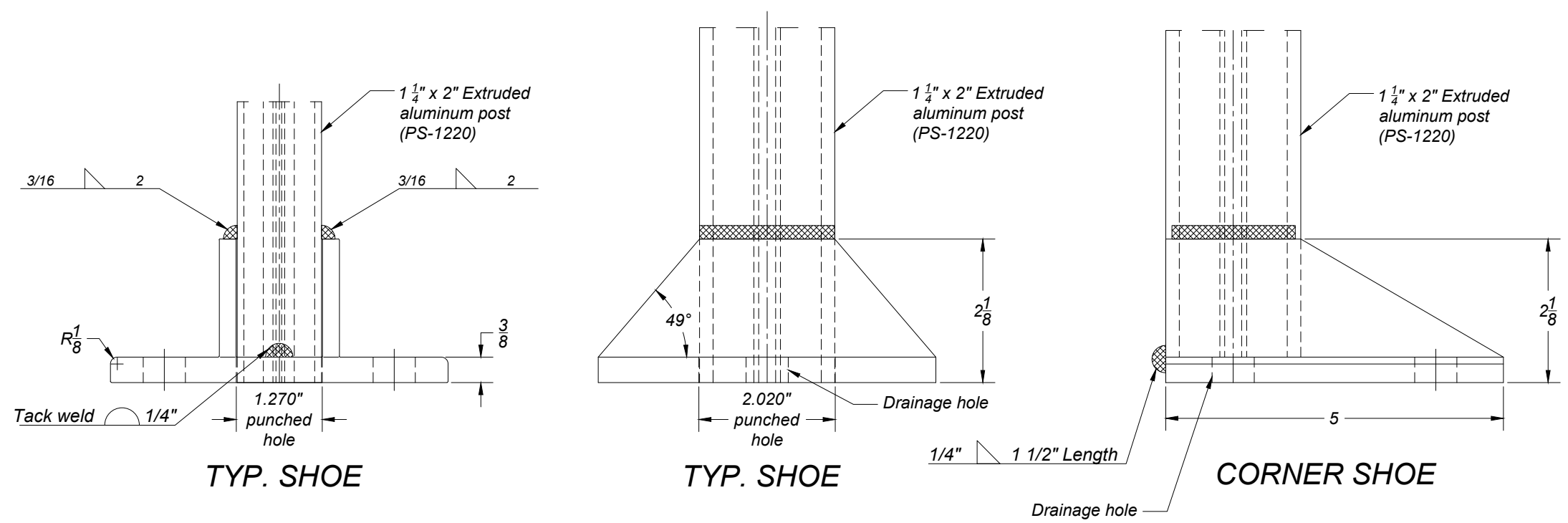
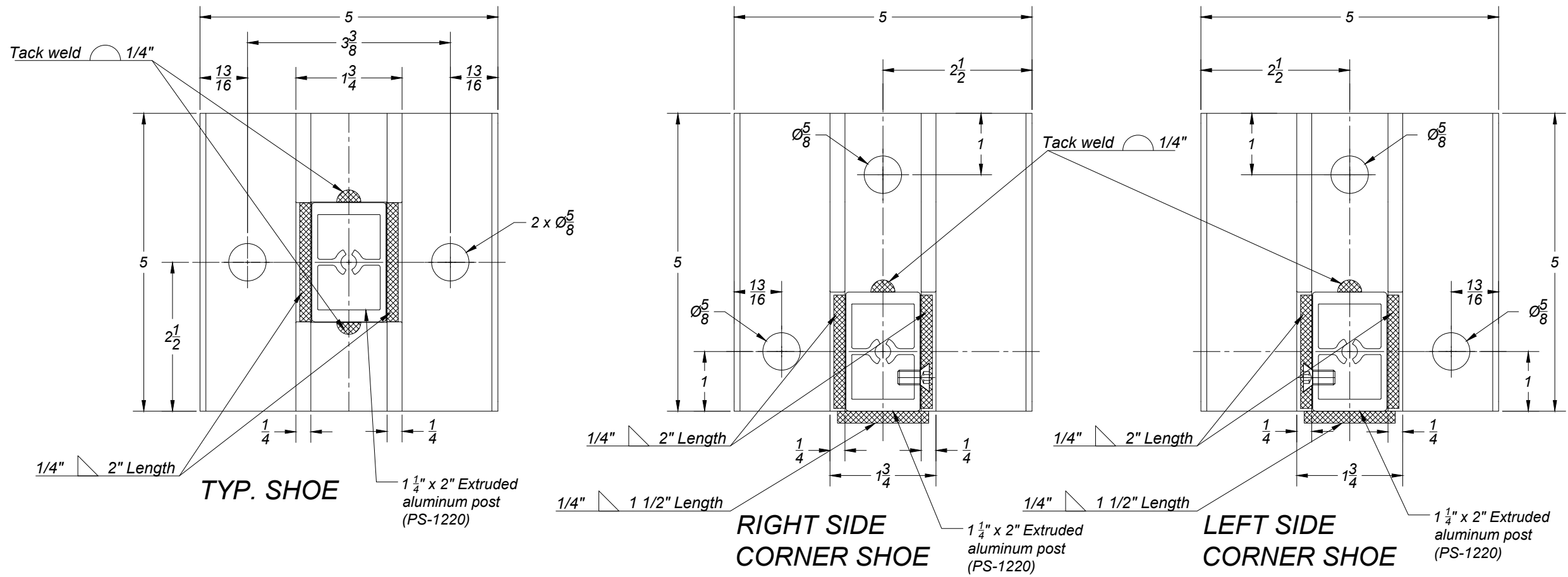
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PROJECT **35 FRONT STREET S, MISSISSAUGA ALUMINUM EXTERIOR RAILING REPLACEMENT**

CONTENT:	TYPICAL RAILING	Revision	2	DWG No.	A02
DATE	OCT. 12, 2022	SCALE		DRAWN	





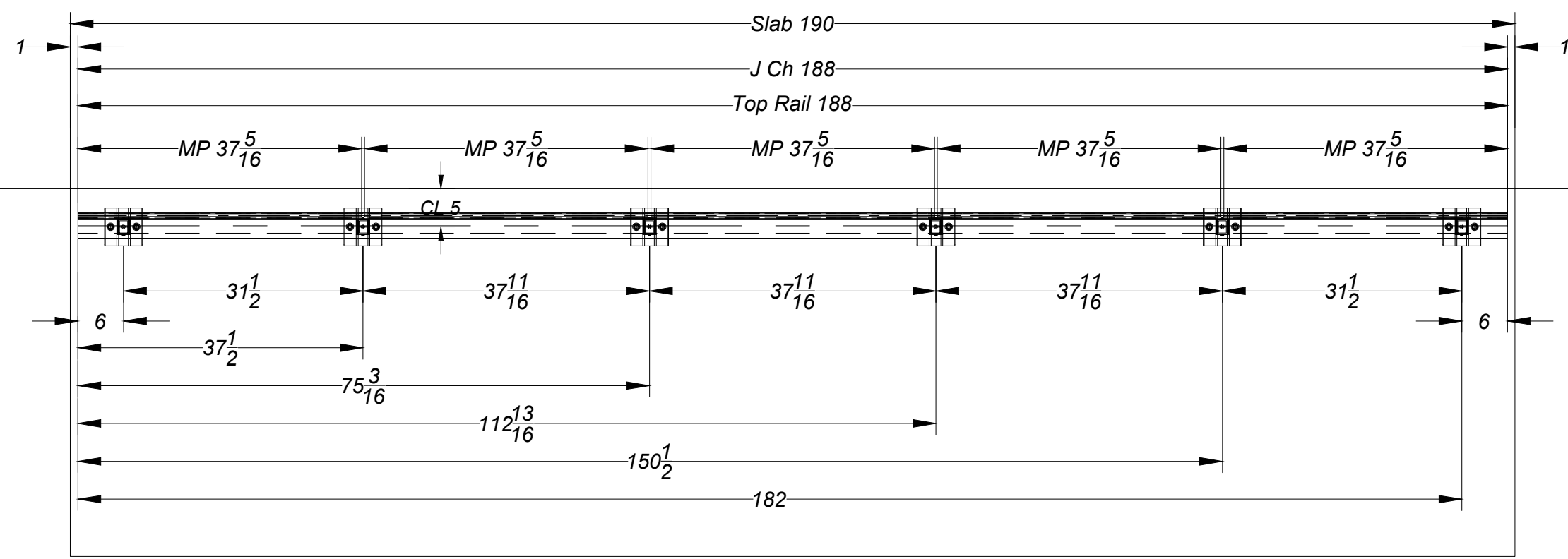
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PROJECT **35 FRONT STREET S, MISSISSAUGA ALUMINUM EXTERIOR RAILING REPLACEMENT**

CONTENT:	SHOE DETAILS	Revision	2	DWG No.	A02a
DATE	OCT. 12, 2022	SCALE		DRAWN	



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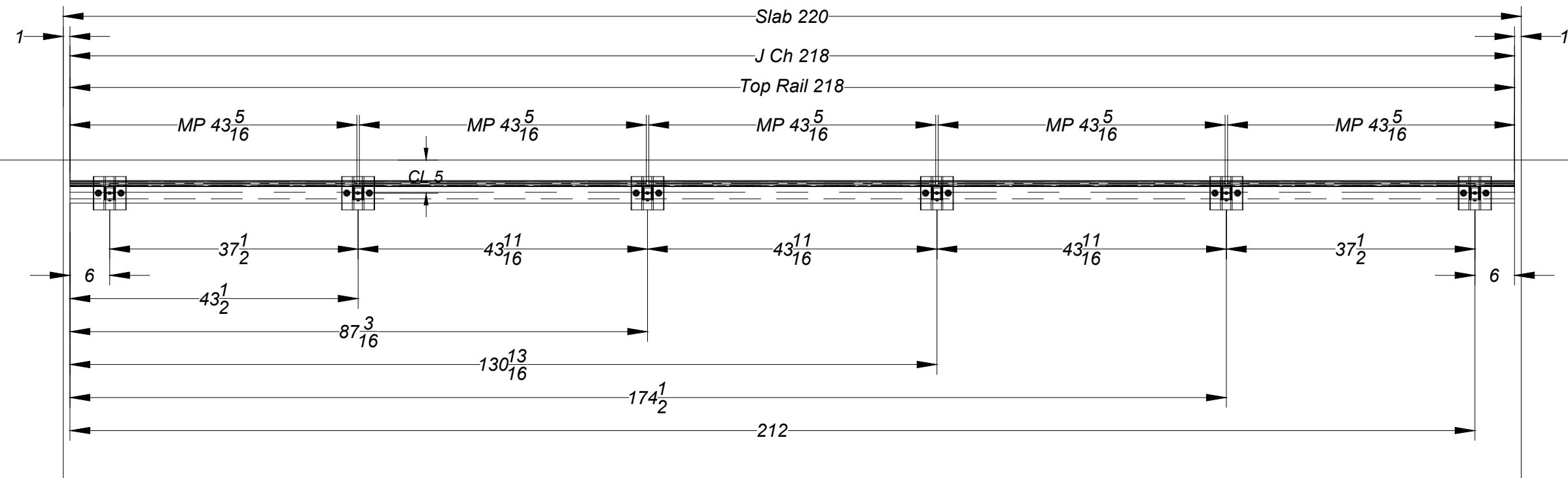


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PROJECT **35 FRONT STREET S, MISSISSAUGA
ALUMINUM EXTERIOR RAILING REPLACEMENT**

CONTENT: BALCONY A	Revision 2	DWG No. A03
DATE OCT. 12, 2022	SCALE	DRAWN Neelam



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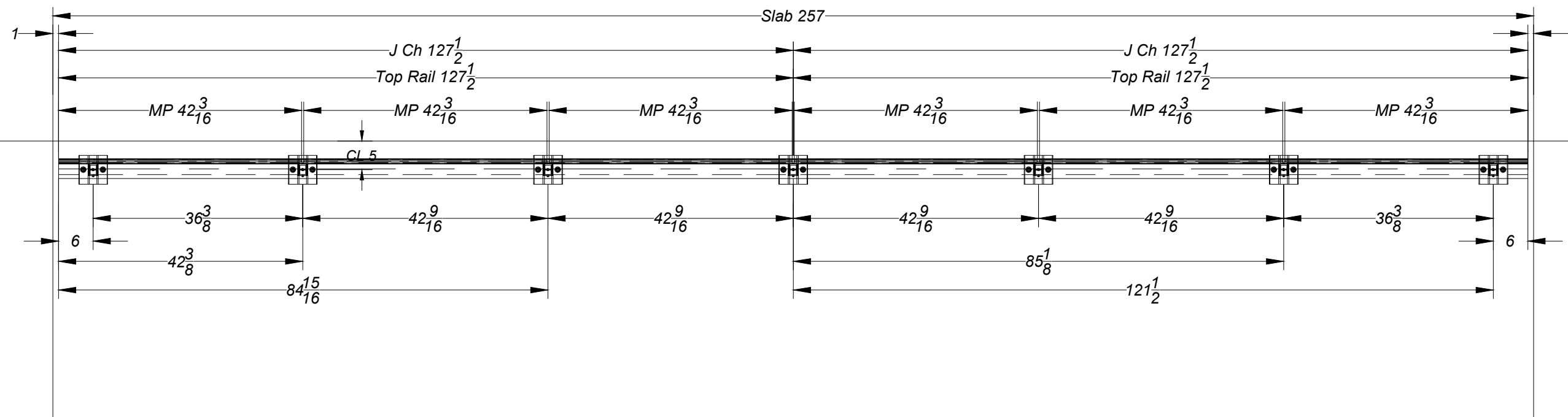
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PROJECT **35 FRONT STREET S, MISSISSAUGA
ALUMINUM EXTERIOR RAILING REPLACEMENT**

CONTENT: BALCONY B	Revision 2	DWG No. A04
DATE OCT. 12, 2022	SCALE	DRAWN Neelam



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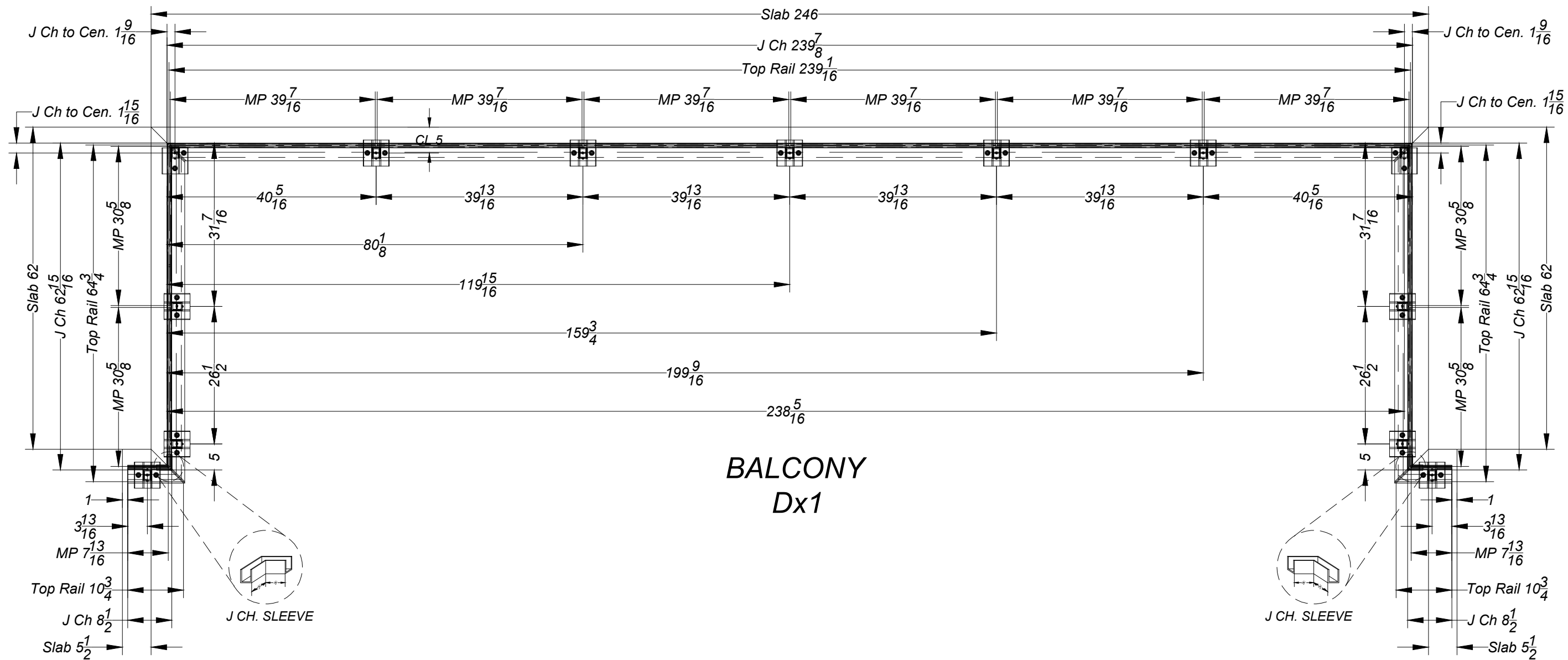
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PROJECT **35 FRONT STREET S, MISSISSAUGA
ALUMINUM EXTERIOR RAILING REPLACEMENT**

CONTENT: BALCONY C	Revision 2	DWG No. A05
DATE OCT. 12, 2022	SCALE	DRAWN Neelam



**BALCONY
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ENGINEERING COMPANY:

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PROJECT **35 FRONT STREET S, MISSISSAUGA
ALUMINUM EXTERIOR RAILING REPLACEMENT**

CONTENT: BALCONY D	Revision 2	DWG No. A06
DATE OCT. 12, 2022	SCALE	DRAWN Neelam