SYSTEM 1: FRAMELESS

BUDGET ESTIMATE (Excluding GST)	COST RANGE
Stainless steel components	$ 890,000 to $ 910,000
Powder coated aluminium	$ 960,000 to $ 970,000



DESCRIPTION

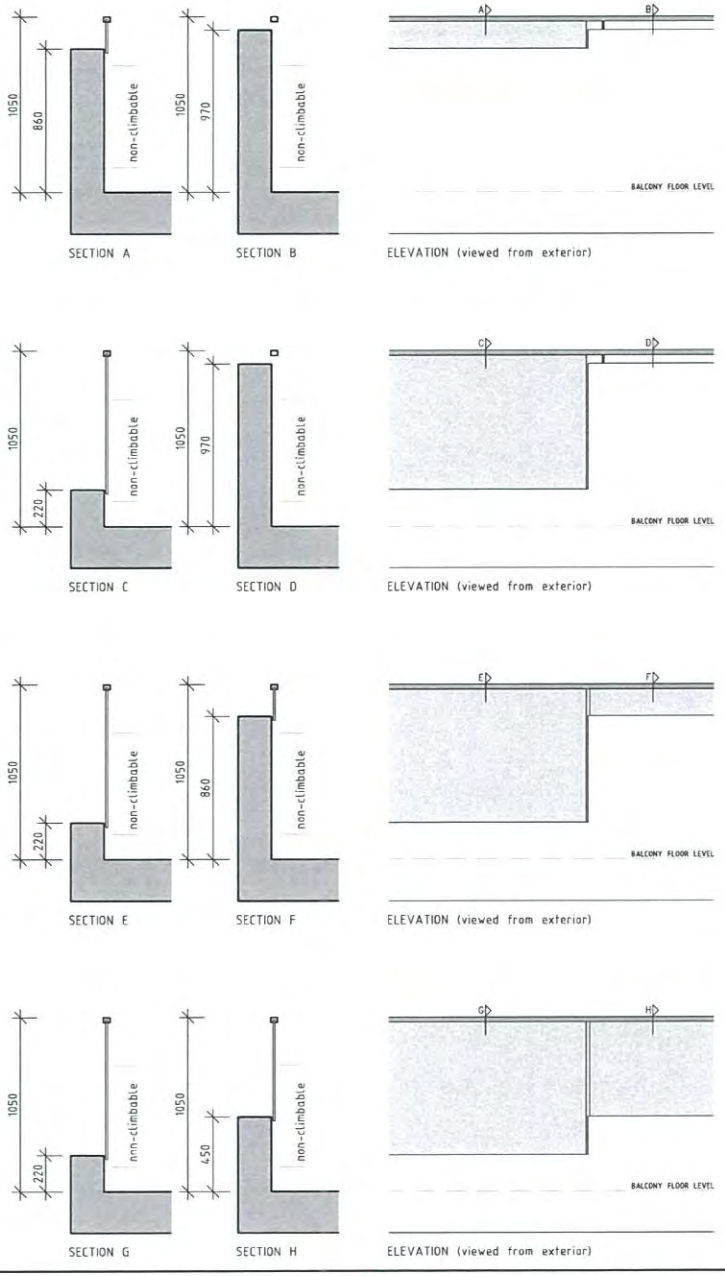
- Glass supported without vertical posts
- Bottom of glass aligned with top of concrete hob to eliminate 'climbability' issue
- Glass fixed to concrete hob via various methods
- Capping channel or handrail required- mounted on top of glass full length of balustrade
- Component materials can be either stainless steel or powder coated aluminium

ADVANTAGES

- Eliminates 'climbability' issue
- Simple fixing methods available
- No vertical posts required
- Minimal metal components used
- Maintenance risk reduced through use of minimal metal components
- Mounting method reduces space lost on balcony
- Required capping channel or handrail protects top of glass from damage
- Fall restraint provided by capping channel if glass panel breaks
- Modernized and elegant look

DISADVANTAGES

- Need to make good existing post holes in hob



ANNEXURE 'A'

OPTION 1 - FRAMELESS

CM+A
COLLARD MAXWELL ARCHITECTS
A BN 54 000 901 057
Level 8, 44 Miller St North Sydney 2060

PROJECT:
REPLACEMENT OF EXISTING BALUSTRADES

COTE D' AZUR, CRONULLA

SYSTEM 1a: FRAMELESS

BUDGET ESTIMATE (Excluding GST)	COST RANGE
Stainless steel components	$ 1,090,000 to $ 1,160,000



DESCRIPTION

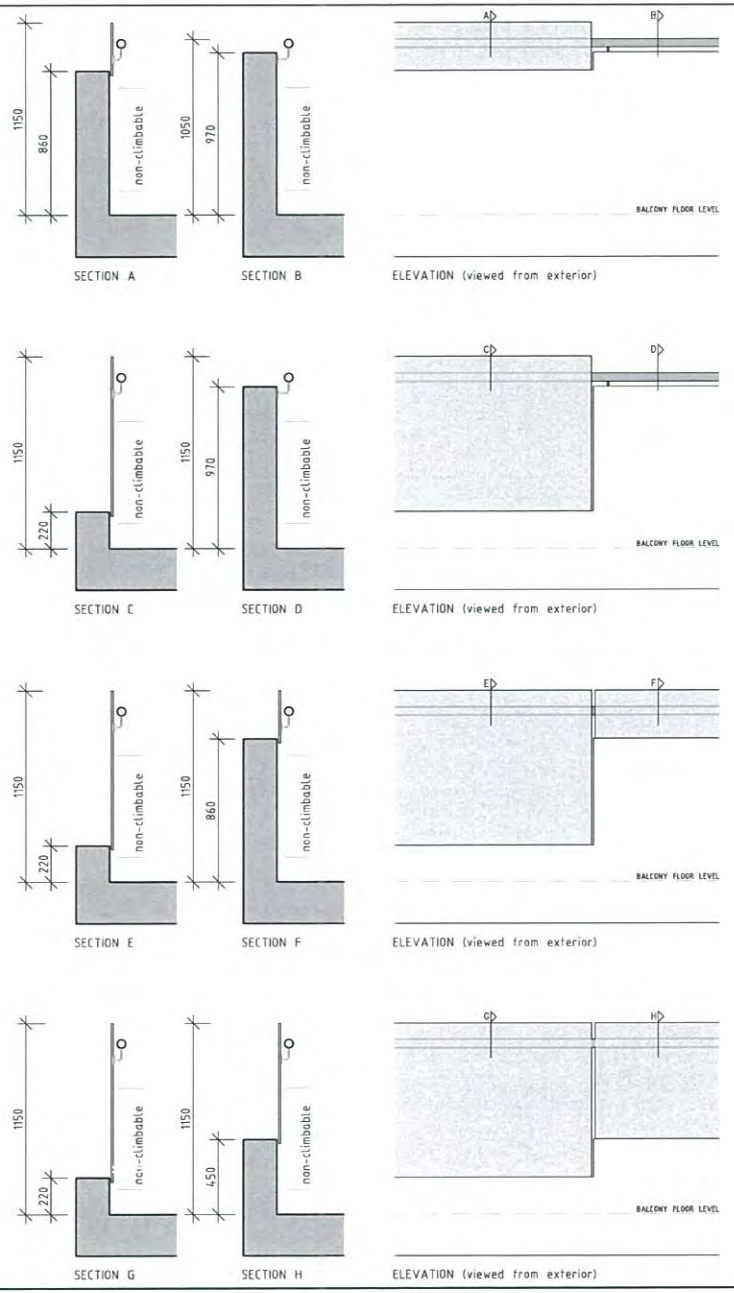
- Glass supported without vertical posts
- Bottom of glass aligned with top of concrete hob to eliminate 'climbability' issue
- Glass fixed to concrete hob via various methods
- Handrail required- mounted on face of glass for full length of balustrade
- Component materials can be either stainless steel or powder coated aluminium

ADVANTAGES

- Eliminates 'climbability' issue
- Simple fixing methods available
- No vertical posts required
- Minimal metal components used
- Maintenance risk reduced through use of minimal metal components
- Mounting method mitigates loss of space on balcony
- Fall restraint provided by handrail if glass panel breaks
- Modernized and elegant look
- Higher glass for safety

DISADVANTAGES

- Higher glass increases cost
- Fixing of handrail through glass not recommended as errors on set out are likely to lead to abortive work
- Need to make good existing post holes on hob



ANNEXURE 'B'

OPTION 2 - FRAMELESS WITH HANDRAIL

CM+A
COLLARD MAXWELL ARCHITECTS
ABN 54 000 901 057
Level 3, 44 Miller St North Sydney 2060

PROJECT:
REPLACEMENT OF EXISTING BALUSTRADES

COTE D' AZUR, CRONULLA

SYSTEM 2: SEMI-FRAMELESS

BUDGET ESTIMATE (Excluding GST)	COST RANGE
Stainless steel components	$ 1,430,000
Powder coated aluminium	$ 975,000



DESCRIPTION

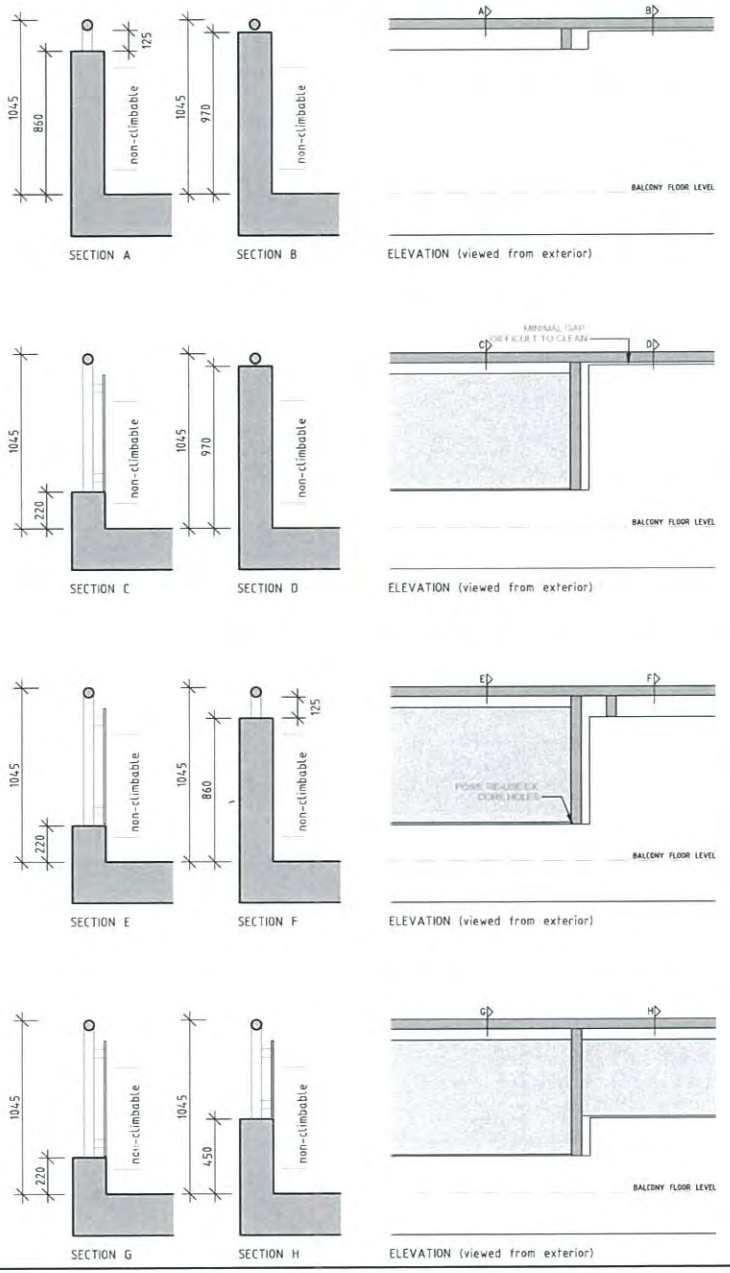
- Glass supported by vertical posts
- Bottom of glass aligned with top of concrete hob to eliminate 'climbability' issue
- Posts may be able to use existing holes in hob (with additional core holding required)
- Capping channel or handrail required- mounted on top of glass or through face of glass full length of balustrade
- Component materials can be either stainless steel or powder coated aluminium

ADVANTAGES

- Eliminates 'climbability' issue
- May be possible to use existing post holes however additional core holding will be required
- Option of using powder coated aluminium or stainless steel components
- Mounting method reduces space lost on balcony
- Required capping channel or handrail protects top of glass form damage
- Fall restraint provided by capping channel or handrail if glass panel breaks
- Glass thickness may be able to be reduced

DISADVANTAGES

- Additional core holding to existing hob will be expensive
- Additional metal components (posts and mounting brackets) will mean additional risk of maintenance and shorter design life expectancy
- Precise site measuring and fabrication required with increased risk of abortive work due to set out errors
- Additional on site installation time required to allow for core holing and make good to hob
- Need to make good existing post holes in hob



ANNEXURE 'C'

OPTION 3 - SEMI-FRAMELESS

CM+A
COLLARD MAXWELL ARCHITECTS
ABN 54 000 901 057
Level 3, 44 Miller St North Sydney 2060

PROJECT:
REPLACEMENT OF EXISTING BALUSTRADES

COTE D' AZUR, CRONULLA

SYSTEM 3: FRAMED

BUDGET ESTIMATE (Excluding GST)	COST RANGE
Powder coated aluminium	$ 830,000



DESCRIPTION

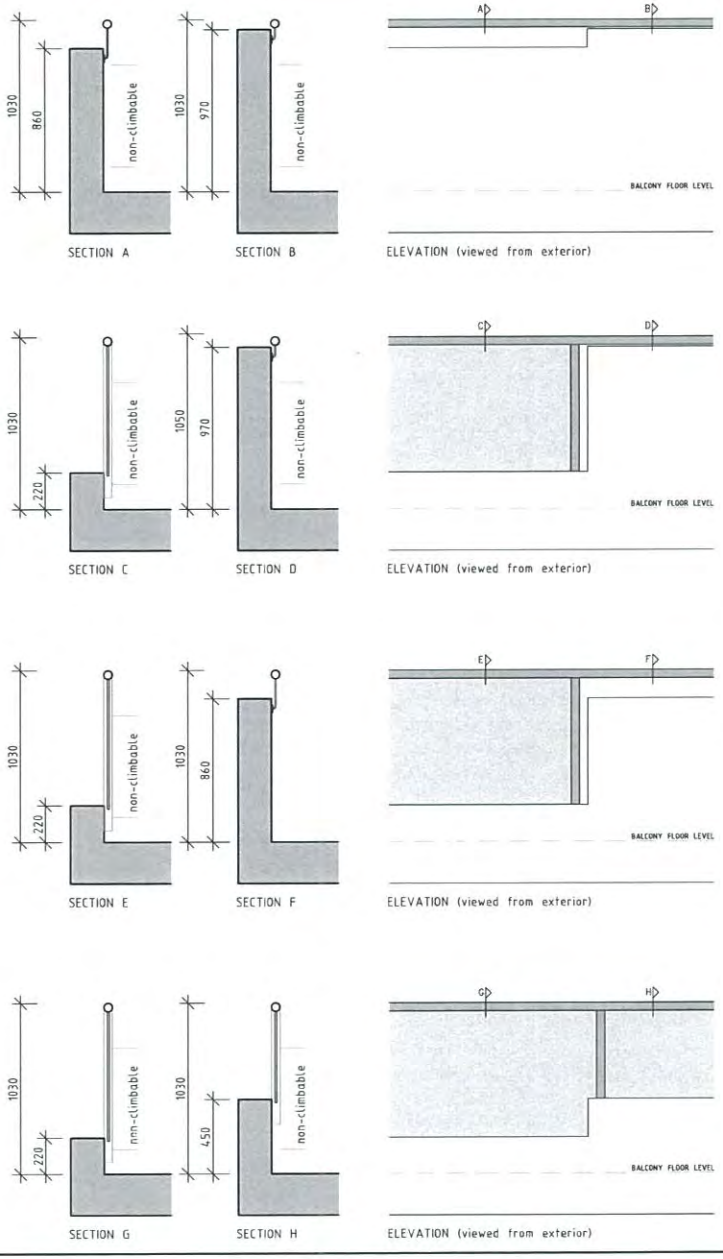
- Glass supported within a framed system comprising vertical posts and horizontal rails
- Frame extends below top of concrete hob and mounted to inside face of hob to eliminate 'climbability' issue
- Posts may be able to use existing holes in hob (with additional core holing required)
- Capping channel or handrail is integrated within the frame for the full length of balustrade
- More likely the component materials would be powder coated aluminium

ADVANTAGES

- Eliminates 'climbability' issue
- Glass edges protected from damage by frame on four sides
- Fall restraint provided by capping channel or handrail if glass panel breaks
- Glass thickness may be able to be reduced as the frame carries some of the load.

DISADVANTAGES

- Make good to existing hob will be required
- Additional metal components (posts and mounting brackets) will mean additional risk of maintenance and shorter design life expectancy
- Loss of space to balcony due to frame being fixed to inside face of existing hob
- Not so elegant and presents a more visually imposing presence when viewed form the ground as well as from inside each apartment
- Less flexibility to deal with curved hob and planter structures



ANNEXURE 'D'

OPTION 4 – FRAMED

CM+A
COLLARD MAXWELL ARCHITECTS
ABN 54 000 901 057
Level 3, 44 Miller St North Sydney 2060

PROJECT:
REPLACEMENT OF EXISTING BALUSTRADES

COTE D' AZUR, CRONULLA