THOMAS LUI

BUILDING TECH III

PROFESSOR KING

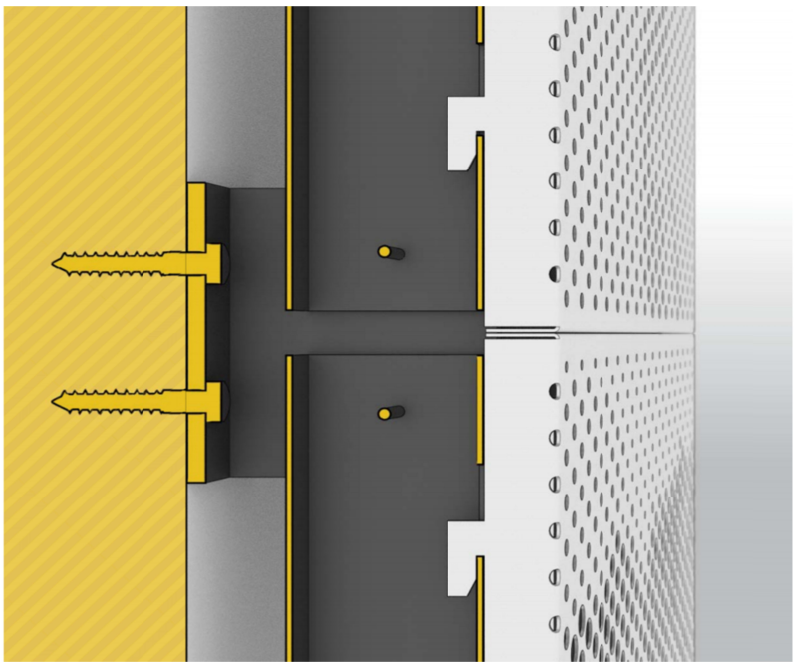
5/10/2018

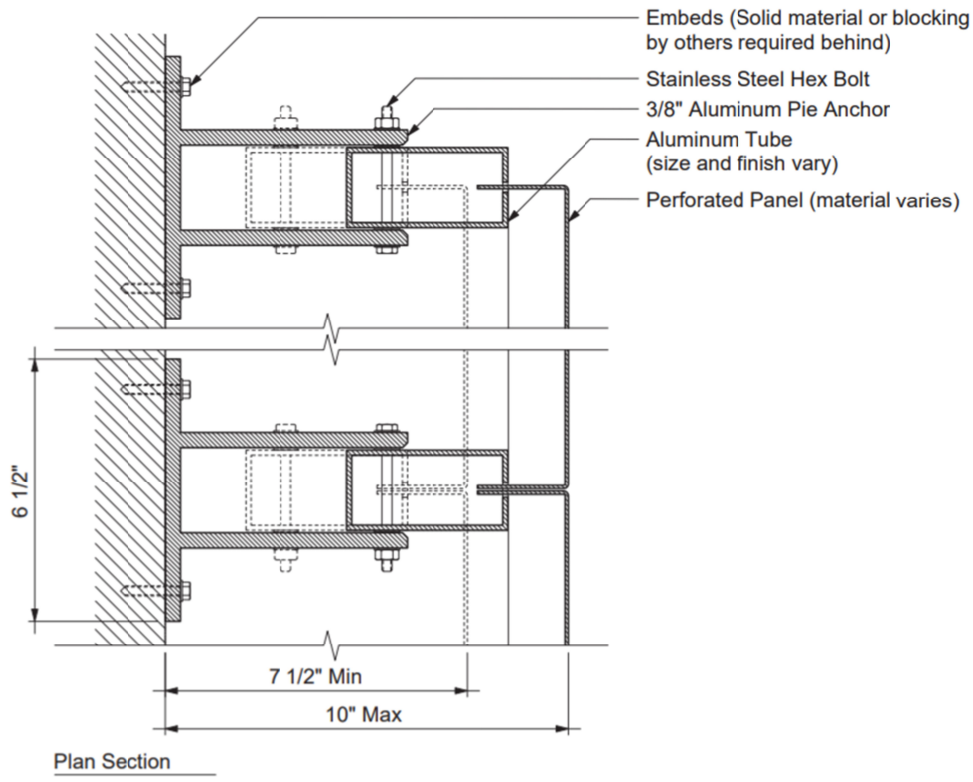
EXTERIOR WALL ASSEMBLY DETAILS

IMAGEWALL™

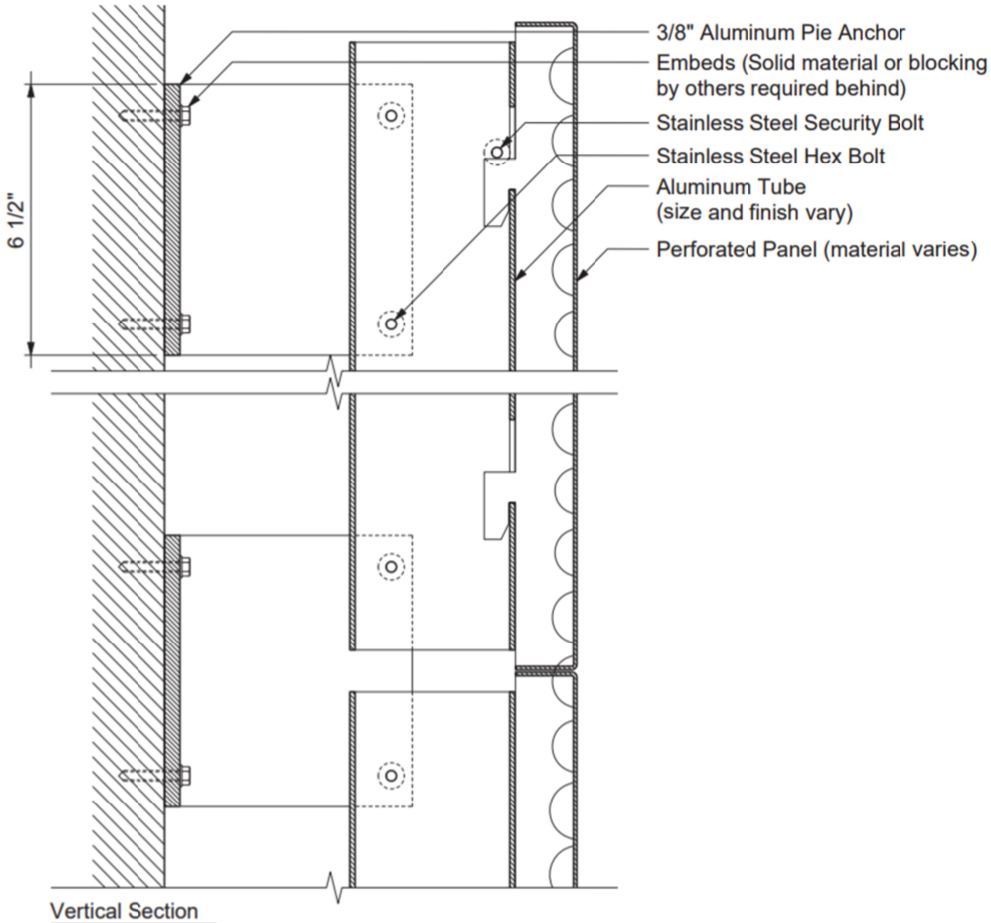
CUSTOM PERFORATED METAL RAIN SCREEN

A PERFORATED STAINLESS STEEL RAIN SCREEN PANEL CONSISTS OF A THIN PRE-BENT STAINLESS STEEL VENEER PANELS CONNECTED TO MALE OR FEMALE ALUMINUM METAL FRAME EXTRUSIONS WITH 3/8" STAINLESS STEEL HEX BOLTS AND ATTACHMENT CLIPS FOR RIGIDITY OF CONNECTION. THIS CONNECTS TO THE ALUMINUM STANDOFF BRACKETS WHICH ARE FASTENED WITH EMBEDDED SCREWS CAPPED WITH A LOCKING BOLT TO THE SUBSTRATE WHICH ATTACHES TO THE STRUCTURE OF THE BUILDING. THERE SHOULD BE AN AIR GAP BETWEEN THE PANEL AND THE SUBSTRATE ALLOWING WATER TO DRAIN TO THE OUTSIDE. THIS SYSTEM ONLY SUPPORTS ITS OWN WEIGHT AND THE WEIGHT OF WIND LOADS. THE ALUMINUM METAL FRAME HAS INSERTION SLOTS THAT ARE SELF-LOCKING COMPATIBLE WITH THE PRE-BENT STAINLESS STEEL PANELS. AT THE BOTTOM OF THE SYSTEM THE SUBSTRATE BEHIND IS TYPICALLY AIR AND WATER SEALED ALLOWING RAIN TO MOVE AWAY FROM THE BUILDING. IN MOST CASES THESE METAL PANELS ARE SECURED TO A CONTINUOUS RIGID INSULATION LAYER THAT IS ATTACHED WITH ANGLE EXTRUSIONS, BEHIND IT WOULD BE A WATER CONTROL LAYER, SHEATHING AND FINALLY TO THE METAL STUDS IN THE BUILDING. OFTEN THE BOTTOM OF A RAIN SCREEN WALL HAS FLASHING AND A DRAINAGE PLANE FOR WATER TO FALL DOWN.





Plan Section

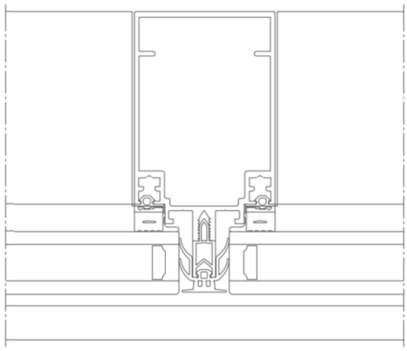


Vertical Section

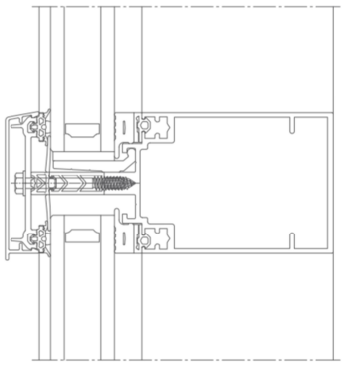
NRGY 62 FL

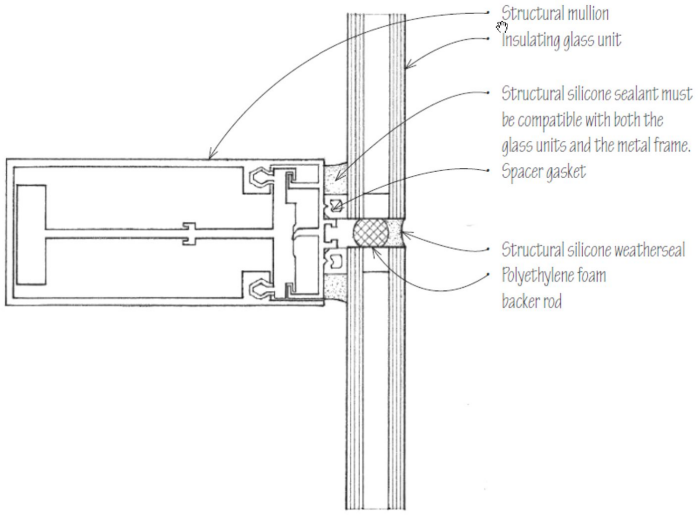
LOW PROFILE CAPPED CURTAIN WALLING

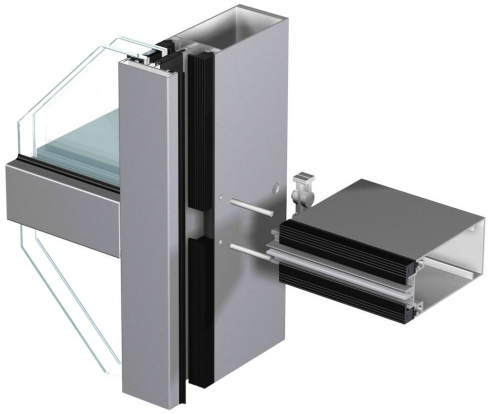
IN A STICK SYSTEM CURTAIN WALL EACH PANE OF TEMPERED VISION GLASS IS ATTACHED TO SPANDREL CONSISTING OF TRANSOMS AND MULLIONS. INTERIOR GLAZING HAS EXTERIOR AND INTERIOR WEDGE SHAPED GASKETS WITH SNAP-ON COVERS TO CONCEAL THE INNER FRAME AND FASTENERS. IN THIS CASE THE VISION GLASS IS DOUBLE PANED ALLOWING FOR AN AIR GAP FOR INSULATION. THIS SYSTEM CONSISTS OF A TRANSOM TO TRANSOM CONNECTION ALLOWING THE PROFILE OF THE SYSTEM TO BE USED VERTICALLY AND HORIZONTALLY. EACH MULLION AND TRANSOM IS ATTACHED WITH METAL CLIPS AND SCREWED INTO A NYLON EXPANDING ANCHOR THAT INTERLOCKS WITH FRAME OF THE METAL CHANNEL. THIS METAL CHANNEL IS SECURED TO THE INTERIOR MULLION TRIM. THESE METAL FRAMES SHOULD HAVE THERMAL BREAKS TO REDUCE HEAT TRANSFER. THE FRAME ATTACHES TO THE ANGLE ANCHORS WHICH ARE CONNECTED TO THE CONTINUOUS FIRE STOP SECURED BETWEEN THE WALL AND THE EDGE OF EACH FLOOR SLAB WITH AN ANGLE ANCHOR EMBEDDED INTO THE FLOOR SLAB TO PREVENT THE SPREAD OF FIRE TO THE BUILDING. BETWEEN EACH PANEL OF VISION GLASS THERE IS A SPANDREL THAT IS A PANEL BETWEEN TWO PANES OF VISION GLASS IN A MULTISTORY BUILDING. IN THIS SYSTEM WATER DRAINS EITHER BETWEEN THE MULLIONS OR THROUGH CONCEALED CUTOUTS OR WEEP HOLES WITHIN THE HORIZONTAL SEAL GASKET DIRECTED DOWN TOWARDS DRAINAGE OUTLETS. HORIZONTAL MULLIONS ALSO PROVIDE STRUCTURAL SUPPORT FOR MULTI-PANE WINDOWS AND SHOULD BE SEALED WITH STRUCTURAL SILICONE WEATHERSEAL AND A POLYETHYLENE FOAM BACKERROD.

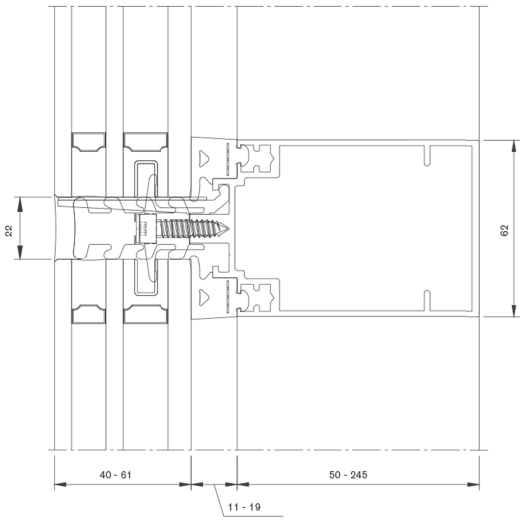


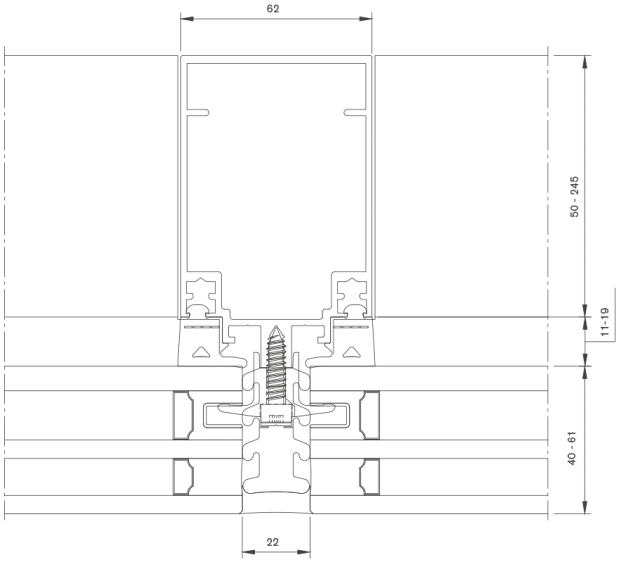
NRGY 62 HL - horizontal line




Structural mullion
Insulating glass unit
Structural silicone sealant must be compatible with both the glass units and the metal frame.
Spacer gasket
Structural silicone weatherseal
Polyethylene foam backer rod




22
62
40 - 61
50 - 245
11 - 19


62
50 - 245
11-19
40 - 61
22