

V.I.A.C. (VEHICLE IMPACT ABSORPTION COLUMN) DESIGN PERFORMANCE:

THE MANUFACTURER SHALL SUPPLY EVIDENCE OF TESTING WHICH DEMONSTRATES THE ADEQUACY AND SUITABILITY OF THE COLUMN AS BEING IMPACT ABSORBENT.

TYPICAL OF THE PERFORMANCE REQUIRED IS THAT FOR FRONTAL IMPACT OF A VEHICLE OF 1200kg MASS IMPACTING AT 60km/h, THE COLUMN WILL PRODUCE DECELERATIONS, MEASURED AT THE VEHICLE FLOOR PAN, NO GREATER THAN 10G AVERAGED OVER ANY 50 MILLISECOND PERIOD, NOR GREATER THAN 10G FOR ANY PERIOD LONGER THAN 10 MILLISECONDS. THE TENDERER SHALL SUBMIT CALCULATIONS OR TEST RESULTS TO PROVE COMPLIANCE WITH WIND LOAD CRITERIA.

NOTES:

- THE DESIGN IS INDICATIVE ONLY AND THE BELOW REQUIREMENTS ARE MINIMUM REQUIREMENTS. POLE MANUFACTURER / SUPPLIER TO DESIGN POLE, FOOTINGS AND ALL ATTACHMENTS IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS BELOW AND PROVIDE DESIGN DRAWINGS AND NT SECTION 40 STRUCTURAL DESIGN CERTIFICATION.
- ALL WELDING AND WELD PREPARATION SHALL BE IN ACCORDANCE WITH AS1554.
- CIRCUMFERENTIAL WELDS TO BE JOGGLED BUTT TYPE. LONGITUDINAL WELDS TO BE SINGLE BUTT TYPE. ALL WELDS TO BE MADE BY CONTINUOUS AUTOMATIC PROCESS AND ARE NOT TO BE DRESSED SMOOTH.
- AFTER FABRICATION ALL COMPONENTS TO BE ACID DE-SCALED AND HOT DIPPED GALVANIZED MINIMUM 450g/sq.m TO AS4680.
- WIND LOADING TO COMPLY WITH THE REQUIREMENTS OF AS/NZS 1170.1:2011 INCLUDING:
 - IMPORTANCE LEVEL 2 WITH PARAMETERS AS SHOWN IN THE WIND LOADING CRITERIA TABLE BELOW.
 - DEFLECTION LIMIT = 2% OF NOMINAL LENGTH.
 - 4.5m OUTREACH ARMS AS SHOWN ON STANDARD DRAWING 11 OR AS OTHERWISE REQUIRED / SPECIFIED FOR THE PROJECT.
 - MINIMUM ALLOWANCE FOR LUMINARIES TO BE WIND AREA OF 0.15sqm AND WEIGHT OF 15kg (UNLESS PROJECT SPECIFIC LUMINARIES REQUIRES LARGER VALUES) AND DRAG COEFFICIENT OF 1.2 (OR AS OTHERWISE ADVISED BY LUMINARIES MANUFACTURER).
 - ALLOWANCE FOR REQUIRED ATTACHMENTS AS APPROPRIATE FOR PROJECT INCLUDING CCTV CAMERAS, BANNERS, WEATHER STATION, EQUIPMENT BOXES, MASTS ETC.
- COLUMNS ARE TO CONFORM TO THE REQUIREMENTS OF AS4100 AND AS1798.
- COLUMNS ARE TO HAVE CONTINUOUS TAPER OVER THEIR ENTIRE LENGTH AND A STEEL THICKNESS OF NOT LESS THAN 3mm.
- TWO PIECE COLUMNS MUST BE ASSEMBLED PRIOR TO DELIVERY.
- ACCESS DOORS ARE NOT INTERCHANGEABLE. ENSURE THAT INDIVIDUAL COLUMNS AND DOORS ARE SUITABLY MATCHED AND MARKED.
- EQUIPMENT ACCESS DOOR TO BE PROVIDED (DETAIL C) HAVING 'TAMPER PROOF' LOCKING DEVICE. DOOR ACCESS SCREW TO BE M10 STAINLESS STEEL I.S.O. METRIC BUTTON HEAD SOCKET TYPE.
- ALL COLUMNS ARE TO BE MANUFACTURED TO ACCEPT THE MOUNTING OF OUTREACHES AS SHOWN ON SHEET E11.
- ALL POLE MANUFACTURERS SHALL COMPLY WITH ISO 3834.

WIND LOADING CRITERIA			
TERRAIN CATEGORY	A4	B	C
ULTIMATE LIMIT STATE	AVERAGE RECURRENCE INTERVAL OF 500 YEARS WITH $V_{500} = 45\text{m/s}$	AVERAGE RECURRENCE INTERVAL OF 500 YEARS WITH $V_{500} = 57\text{m/s}$	AVERAGE RECURRENCE INTERVAL OF 500 YEARS WITH $V_{500} = 69.3\text{m/s}$
SERVICEABILITY LIMIT STATE	AVERAGE RECURRENCE INTERVAL OF 25 YEARS WITH $V_{25} = 37\text{m/s}$	AVERAGE RECURRENCE INTERVAL OF 25 YEARS WITH $V_{25} = 39\text{m/s}$	AVERAGE RECURRENCE INTERVAL OF 25 YEARS WITH $V_{25} = 47\text{m/s}$
DESIGN HEIGHT	AS APPROPRIATE FOR THE POLE		
TERRAIN CATEGORY	AS DETERMINED BY STRUCTURAL ENGINEER AS APPROPRIATE FOR THE SITE		
$M_{Z,CAT}$	AS DETERMINED BY STRUCTURAL ENGINEER FOR THE HEIGHT AND TERRAIN CATEGORY		
M_S	1	1	1
M_T	AS DETERMINED BY STRUCTURAL ENGINEER FOR THE LOCAL TOPOGRAPHY		
M_D	AS DETERMINED BY STRUCTURAL ENGINEER AS APPROPRIATE FOR THE WIND DIRECTION	AS DETERMINED BY STRUCTURAL ENGINEER AS APPROPRIATE FOR THE ELEMENT UNDER CONSIDERATION	

SCALE: N.T.S.

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