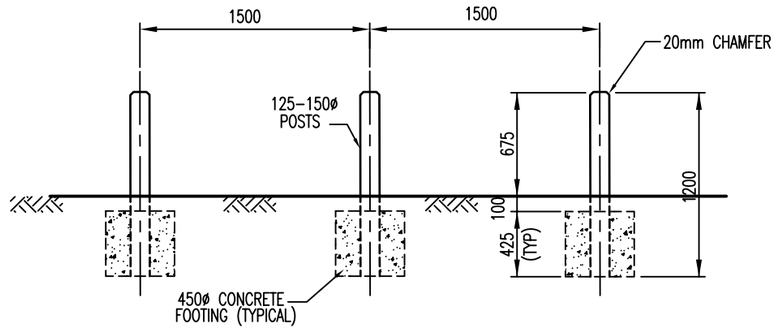
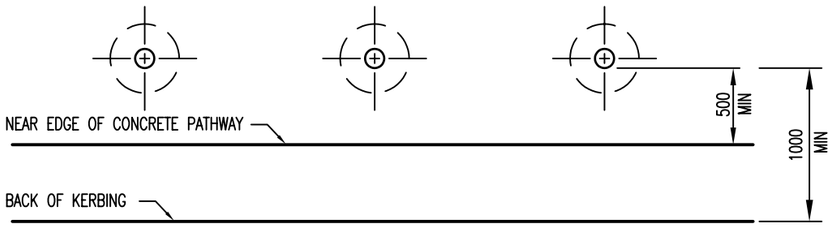
No	REVISION	BY	DATE	AUTH
0.	ISSUED	J.W.T.	8/2001	
1.	POST AND RAIL FENCING REMOVED. // NO CONCRETE FOOTING SPECIFICATION ADDED.	J.W.T.	11/2003	



ELEVATION

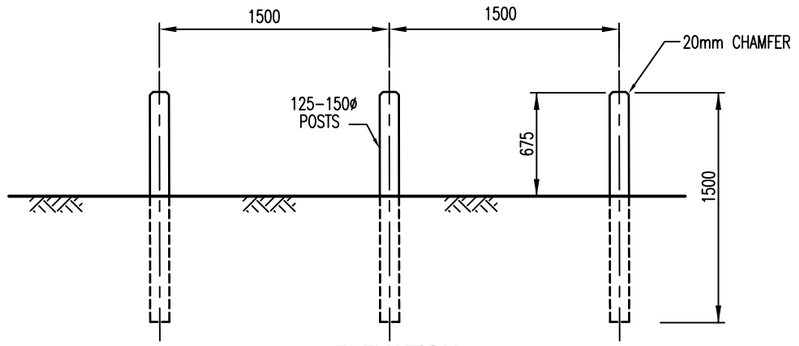
SCALE 1 : 40



PLAN

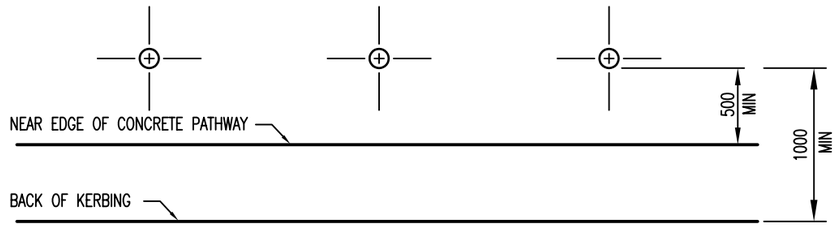
SCALE 1 : 40

BOLLARDS (CONCRETE FOOTING)



ELEVATION

SCALE 1 : 40



PLAN

SCALE 1 : 40

BOLLARDS

NOTES:

1. ALL POSTS SHALL BE TANOLITH TREATED PINE.
2. THE DIAMETER OF EACH TIMBER POST SHALL NOT VARY BY MORE THAN 25mm OVER A 2m LENGTH. (OR 12.5mm PER METRE LENGTH)
3. ALL UPRIGHT MEMBERS SHALL BE VERTICAL WITHIN A TOLERANCE OF 1 in 100.
4. THE BASE OF FOOTING HOLES SHALL BE ADEQUATELY COMPACTED BY RAMMING.
5. CONCRETE SHALL BE MIXED IN THE PROPORTIONS OF FOUR (4) PARTS BY WEIGHT OF CLEAN DUST FREE AGGREGATE (NOT EXCEEDING 20mm IN SIZE) PLUS TWO (2) PARTS BY WEIGHT OF CLEAN DUST FREE SAND PLUS ONE (1) PART BY WEIGHT OF MASONRY CEMENT, WITH WATER CONTENT SUFFICIENT TO ENSURE A SLUMP OF NOT MORE THAN 100mm USING THE AUSTRALIAN STANDARD SLUMP TEST CONE.
6. CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 20 MPa AT 28 DAYS.

CAUTION:

7. THE INSTALLATION OF BOLLARDS SHOULD NOT INTERFERE WITH EXISTING SERVICES INCLUDING STORMWATER DRAINAGE. INSTALLER IS RESPONSIBLE FOR CONTACTING SERVICES AUTHORITIES TO DETERMINE LOCATIONS AND DEPTHS OF SERVICES PRIOR TO BOLLARD INSTALLATION.

* INDICATES SIGNATURES ON ORIGINAL ISSUE OF DRAWING.

DATUM: N/A	GRID: N/A	SURVEYOR: N/A	DESIGNED: C.O.W	APPROVED: * T. QUINN 8/8/2001 COORDINATOR
SCALE: 1:40 (400 0 400 800 1200 1600 SCALE IN MILLIMETRES)			DRAWN: C.O.W	APPROVED: * R. KORENHOF 23/8/2001 MANAGER INFRASTRUCTURE
DESIGN ARCHIVE:			DESIGN CHECKED: DESIGNER	
DRAWING ARCHIVE: *\FINAL STANDARD DRAWINGS			STANDARDS/DOCUMENT CONTROL: * J. TRIMMER 8/8/2001 INFRASTRUCTURE TECHNICAL OFFICER	APPROVED: * D. BLAIR 23/8/2001 DIRECTOR TECHNICAL SERVICES

FENCING

BOLLARDS

LOCALITY: STANDARD

CITY OF WANNEROO
TECHNICAL SERVICES
INFRASTRUCTURE SERVICES

FILE No.	DRAWING No	SHEET	REVISION	ORIGINAL DRG.SIZE
	TS 01 - 1 - 1			A3