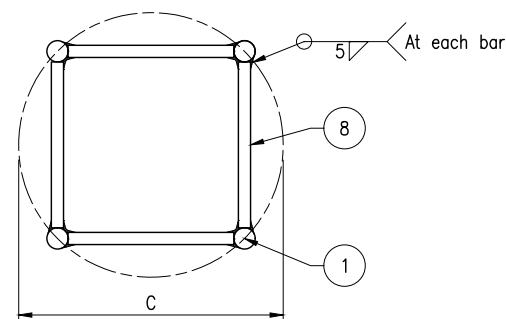


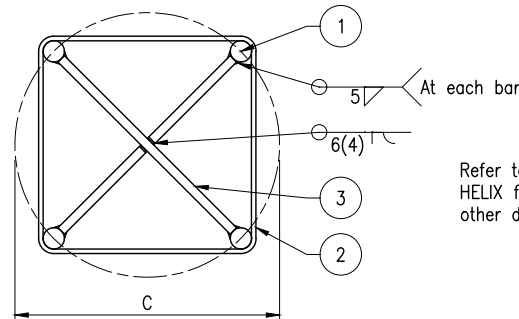
ELEVATION
SQUARE HELIX (210 or 211)

CIRCULAR HELIX DETAIL

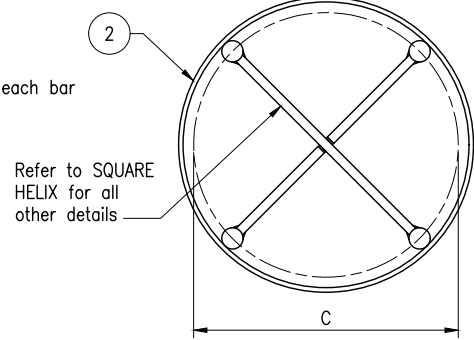
CIRCULAR HELIX DETAIL
ALTERNATIVE CAGE



SECTION A
SPIDER CAGE
AT TOP OF BAR

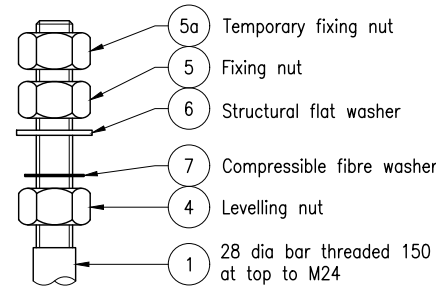


SECTION B
SQUARE HELIX
AND SPIDER CAGE



SECTION B
CIRCULAR HELIX
AND SPIDER CAGE

MATERIAL LIST					
ITEM	No OFF	ITEM DESCRIPTION	MATERIAL DESCRIPTION	LENGTH	GRADE
1	4	Bar threaded 150 at top to M24	28 dia deformed bar	To suit each standard cage	D500N
2	1	Square or circular helix, refer Section B	6 dia round wire at 150 pitch	To suit each standard cage and PCD	R250N
3	–	Spider cage: 3 off for 2600 cage, 4 off for 3000 and 3600 cages, 5 off for 4500 cage	12 dia round bar, welded together in pairs as shown and to threaded bar to form anchor cage	Cut to suit PCD	R250N
4	4	M24 levelling nuts	M24 hex, high strength	–	Class 8
5	4	M24 fixing nuts	M24 hex, high strength	–	Class 8
5a	4	M24 temporary fixing nuts	M24 hex, high strength	–	Class 8
6	4	M24 structural flat washers	To suit M24 threaded bar	–	Class 8.8
7	4	Compressible fibre washers	To suit M24 threaded bar	–	–
8	1	Spider cage, at top of anchor cage only	16 dia round bar, welded as shown to form anchor cage	Cut to suit PCD	R250N



DETAIL 1

- * To achieve NON-STANDARD CAGE LENGTHS between each of the standard lengths, the following options may be used:
- Trim a 4500 long anchor cage at bottom to the required length for 4400 up to 3700 lengths.
 - Trim a 3600 long anchor cage at bottom to the required length for 3500 up to 3100 lengths.
 - Trim a 3000 long anchor cage at bottom to the required length for 2900 up to 2700 lengths.
 - Trim a 2600 long anchor cage at bottom to the required length for 2500 up to 2000 lengths.
 - Extend a 2600, 3000, 3600 long anchor cage using extension as detailed in Standard Drawing 1680.
 - Extend old stock 2000 or 3000 long anchor cage using suitable extension as detailed in Standard Drawing 1680.
 - Fabricate non-standard length anchor cage using the details on this drawing, modified to suit.

ANCHOR CAGE DETAILS

POLE VERTICAL SECTION HEIGHT m	HINGED POLE VERTICAL SECTION HEIGHT m	PCD 'C'	PART No ++
7, 8.5, 10	8, 10, 12	350	210
13	15	500	211

++ Refer Standard Drawing 1699 Parts List

NOTES:



- SCOPE: This Standard Drawing provides fabrication details of the anchor cage in accordance with MRTS92.
- ANCHOR CAGES may be of either square or circular helix reinforcing. Pole height, PCD and Part No are shown in the Anchor Cage Details table.
- TOLERANCE: General $\pm 5\text{mm}$ PCD $\pm 1\text{mm}$.
- SELECTION OF CAGE LENGTH shall be in accordance with the footing details on the relevant TMR Standard Drawing.
- STANDARD ANCHOR CAGES are to be fabricated in the following lengths: 2600, 3000, 3600 and 4500. Refer to Drawing 2 of this Standard Drawing for depiction of all cage lengths. Extensions to Anchor Cages shall be to Standard Drawing 1680 for use with standard cages to achieve the required length up to 4500. Current stocks of 2000 and 3000 length cages may continue to be used with suitable extensions until exhausted. Refer to Note on this drawing for how to achieve Non-standard cage lengths.
- REINFORCING STEEL shall be in accordance with Standard Drawing 1044, and with MRTS71 and AS/NZS 4671. Deformed bars Grade D500N. Round bars Grade R250N. All carbon reinforcing steel shall be ACRS certified. Bars shall be threaded in accordance with AS 1275 before galvanising. Prior to galvanizing all weld splatter and welding slag is to be removed. Completed anchor cage shall be hot dip galvanised to AS/NZS 4680.
- Nuts Class 8 and structural washers for Class 8.8 bolts shall be supplied in accordance with MRTS78. Assembly testing of threaded bar and nut shall be in accordance with MRTS278 with test loads as for Class 4.6 bolts. All nuts and washers shall be hot dip galvanized to AS 1214.
- WELDING symbols conform to AS 1101.3. All welding to AS/NZS 1554.3. Welding consumables to be controlled hydrogen type G493 to AS/NZS ISO 14341-B or T493 to AS/NZS ISO 17632-B.
- LIFTING POINTS on cages shall comply to details shown on Drawing 2 of this Standard Drawing and are required on cages greater than 4m.
- Anchor cages shall be labelled for identification in accordance with MRTS71.
- DIMENSIONS are in millimetres unless shown otherwise.

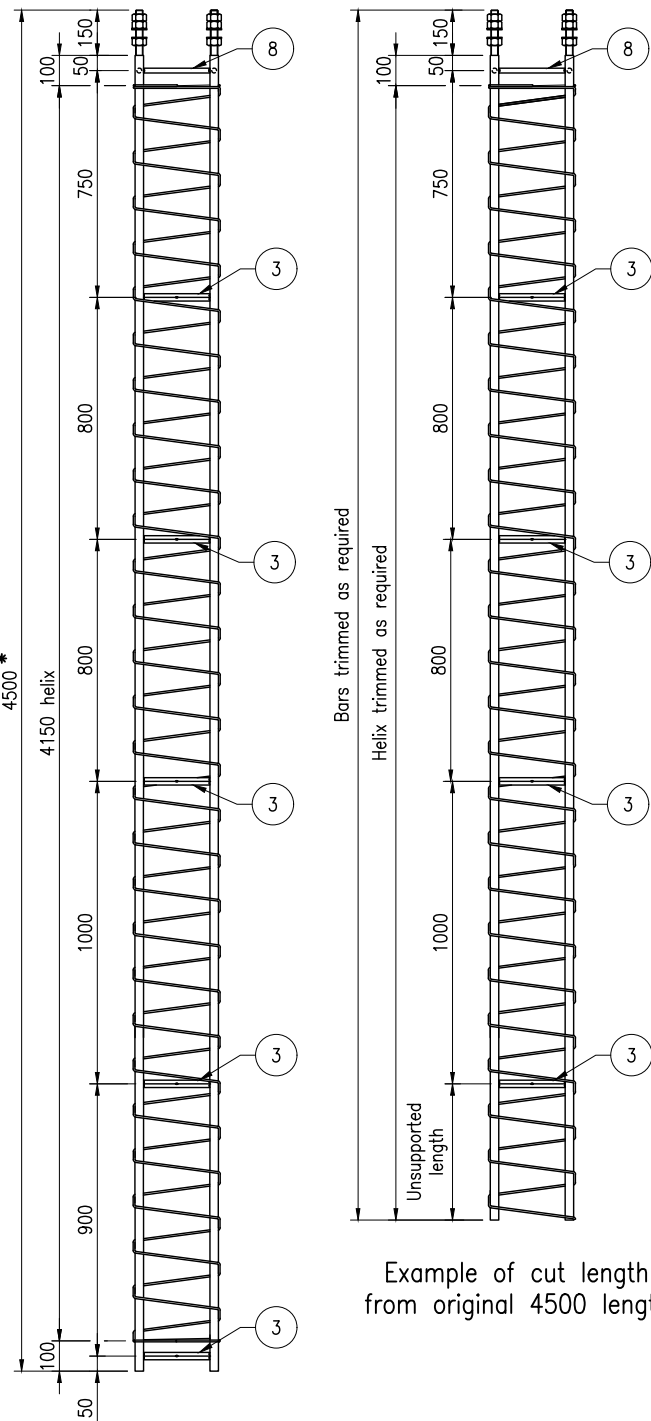
REFERENCED DEPARTMENTAL STANDARD DRAWINGS:

- 1044 Reinforcing Steel – Lap Lengths
- 1680 Extension to Light Pole and Mast Arm Anchor Cages
- 1699 Traffic Signals/Road Lighting/ITS – Parts List

REFERENCED DEPARTMENTAL SPECIFICATIONS:

- MRTS71 Reinforcing Steel
- MRTS78 Fabrication of Structural Steelwork
- MRTS92 Traffic Signal and Road Lighting Footings
- MRTS278 Supply of Structural Fasteners

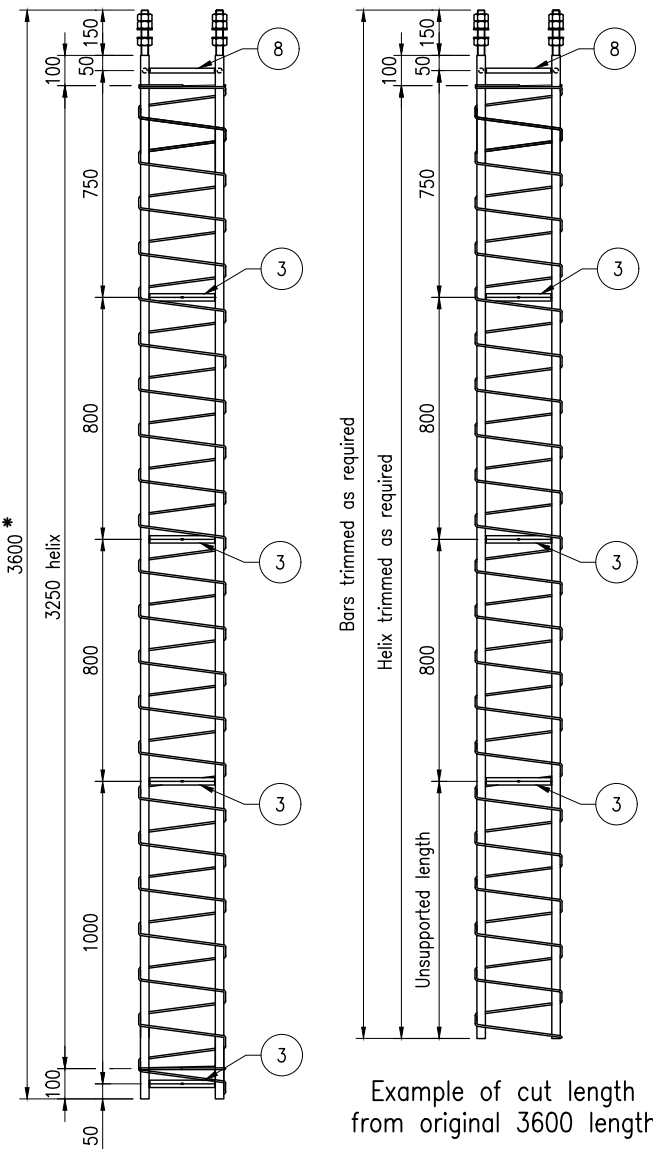
Department of Transport and Main Roads		  © The State of Queensland (Department of Transport and Main Roads) 2025 https://creativecommons.org/licenses/by/4.0/	
ROAD LIGHTING/ITS		Standard Drawing No 1328 Date 3/2025	
LIGHTING/CAMERA POLE ANCHOR CAGE FABRICATION DETAILS DRAWING 1 OF 2			
		A3 Not to Scale	<div><div>K</div><div>L</div><div>M</div><div>N</div><div></div><div></div></div>



4500 = bar length

4500 STANDARD ANCHOR CAGE

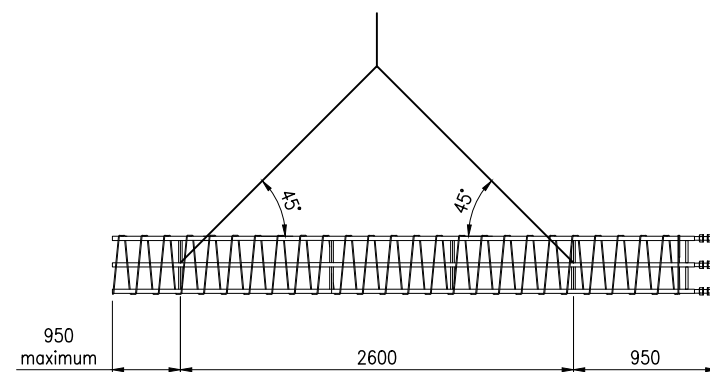
Example of cut length from original 4500 length



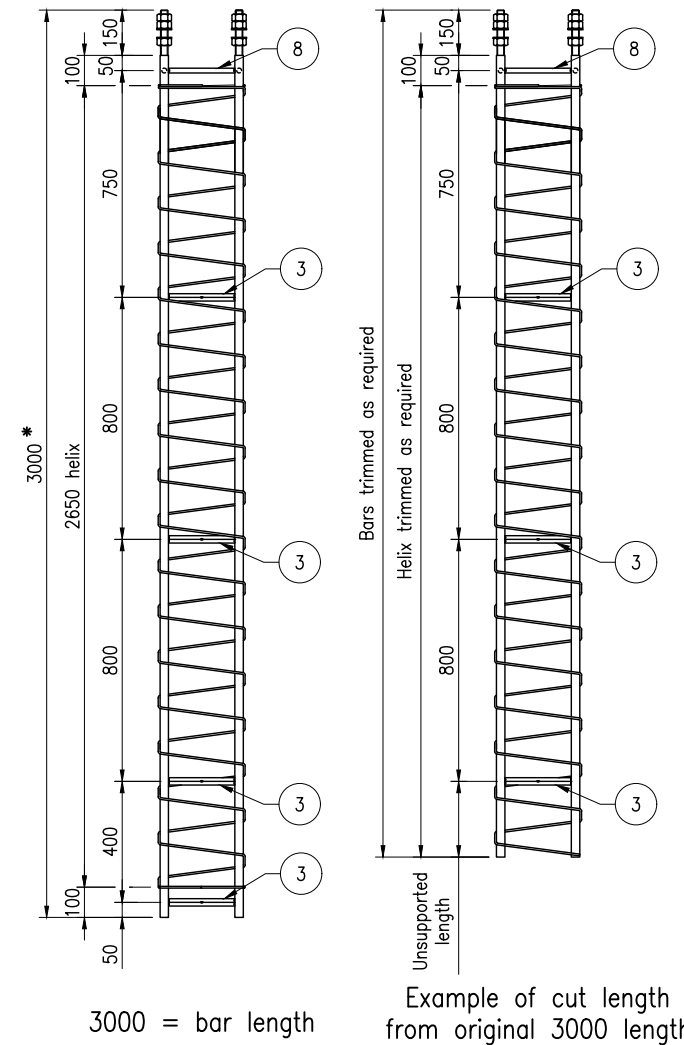
3600 = bar length

3600 STANDARD ANCHOR CAGE

Example of cut length from original 3600 length



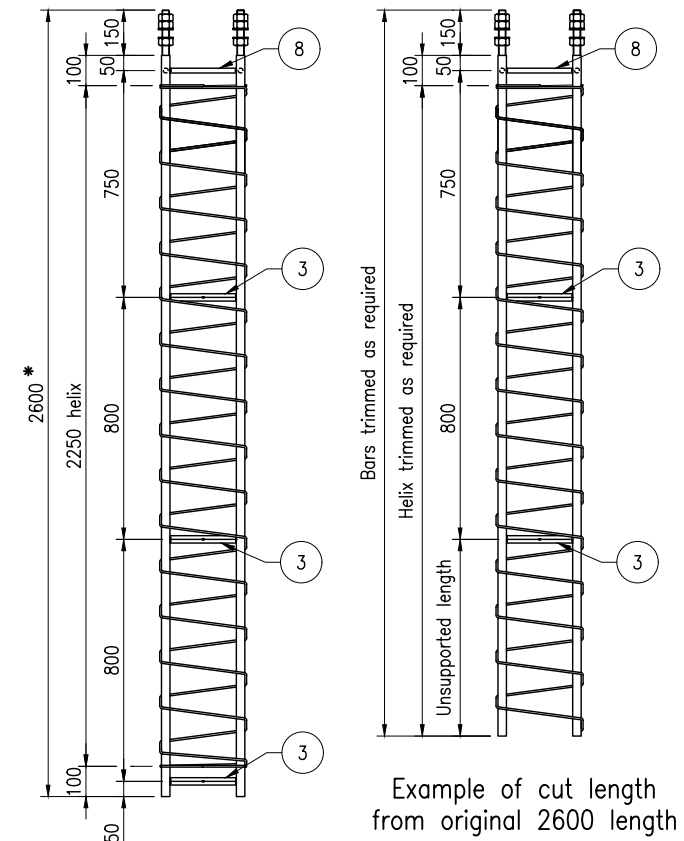
LIFTING DETAILS FOR CAGES 4M AND ABOVE



3000 = bar length

3000 STANDARD ANCHOR CAGE

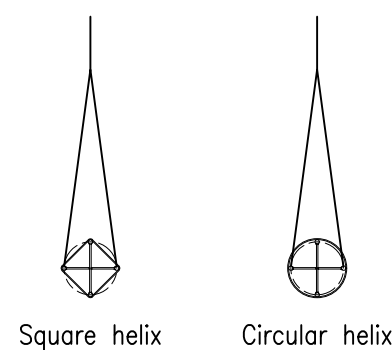
Example of cut length from original 3000 length



2600 = bar length

2600 STANDARD ANCHOR CAGE



Example of cut length from original 2600 length



LIFTING DETAILS IN SECTION

NOTES:

1. Refer Drawing 1 for fabrication details and General Notes.
2. Refer Drawing 1 for information on selection of cage lengths.
3. For non-standard lengths, bars and helix shall be trimmed and sharp edges ground.

Department of Transport and Main Roads		 	
ROAD LIGHTING/ITS		© The State of Queensland (Department of Transport and Main Roads) 2025 https://creativecommons.org/licenses/by/4.0/	
LIGHTING/CAMERA POLE ANCHOR CAGE FABRICATION DETAILS DRAWING 2 OF 2		A3 Not to Scale	Standard Drawing No 1328 Date 3/2025
K	L	M	N