044-5: 2017

CEB
SPECIFICATION

LIGHT WEIGHT REINFORCED CONCRETE POLES FOR NON-COASTAL AREAS

CEYLON ELECTRICITY BOARD
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CONTENTS

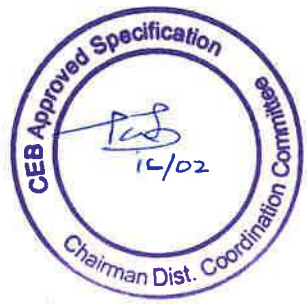
SPECIFICATION FOR LIGHT WEIGHT REINFORCED CONCRETE POLES FOR NON-COASTAL AREAS

1.0 SCOPE

This specification covers the design, materials, manufacture, inspection, testing, drawings, and delivery of Light Weight Reinforced Concrete Poles to be used in the low voltage distribution system of Ceylon Electricity Board.

2.0 SYSTEM PARAMETERS

(a)	Nominal voltage	230V/400V
(b)	System highest voltage	240V/440V
(c)	System frequency	50 Hz
(d)	Number of phases	3
(e)	Method of earthing	Effectively earthed
(f)	System faults level	25 kA



3.0 SERVICE CONDITIONS

(a)	Annual average ambient temperature	30 °C
(b)	Maximum ambient temperature	40 °C
(c)	Maximum relative humidity	90%
(d)	Environmental conditions	Humid tropical climate with heavily polluted atmosphere
(e)	Operational altitude	From M.S.L. to 1900 m above M.S.L.
(f)	Isokeruanic (Thunder days) level	100 days

4.0 APPLICABLE STANDARDS

The equipment and components supplied shall be in accordance with the latest editions of the standards specified below or any other relevant international standards equal or superior to below standards, and amendments thereof.

(a)	BS EN 1992-1-1:2004	Design of concrete structures. General rules and rules for buildings.
(b)	BS 197-1:2011	Cement- Composition, specifications and conformity criteria for common cements.
(c)	BS 4449:1997	Specification for carbon steel bars for the reinforcement of concrete.
(d)	BS EN 12620:2002	Aggregates for concrete.
(e)	BS EN 932-6:1999	Tests for general properties of aggregates. Definitions of repeatability and reproducibility.
(f)	BS EN 934-2:2009	Admixtures for concrete, mortar and grout. Concrete admixtures. Definitions, requirements, conformity, marking and labeling.
(g)	BS EN 12350-1:2009	Testing fresh concrete – Sampling.
(h)	BS EN 12350-2:2009	Testing fresh concrete - Slump-test.
(i)	BS EN 12390-1:2012	Testing hardened concrete. Shape, dimensions and other requirements for specimens and moulds.

(j)	BS EN 12390-2:2009	Testing hardened concrete. Making and curing specimens for strength tests.
(k)	BS EN 12390-3:2009	Testing hardened concrete. Compressive strength of test specimens.
(l)	BS EN 1008:2002	Mixing water for concrete. Specification for sampling, testing and assessing the suitability of water, including water recovered from processes in the concrete industry, as mixing water for concrete.
(m)	BS EN 206:2013	Concrete - Specification, performance, production and conformity.

However in the event of discrepancy, details given in this CEB specification supersede above standards.

5.0 DESIGN LOADINGS

Each pole shall be able to withstand at least 2.5 times the design working load in the transverse direction, and 25% of the transverse loading in longitudinal direction.

The ultimate design load used for designing each class of pole shall be that calculated by applying a point load of 2.5 (factor of safety) times the appropriate standard design working load when the pole is held in the test frame specified in the Clause 12 of this specification.

6.0 STANDARDIZED TYPES/SIZES OF LIGHT WEIGHT CONCRETE POLES

Pole Height (m)	Buried Length (m)	Working Load (kg)	Pole top dimensions (mm)	Pole bottom dimensions (mm)	Drawings
6	1	50	100x100	134x134	See Annex-A1
8.3	1.4	100	120x115	145x193	See Annex-A2

7.0 CONCRETE MATERIALS

7.1. General

All materials shall conform to the relevant standards referred in this specification. However, CEB reserves the right to inspect, and if deem to be necessary, to test samples from raw materials stockpiled for use, in any of the contractor's work sites. In the event of such samples not conforming to the standards given herein, CEB may inform same, to the contractor, in writing. On the receipt of such complaint, the contractor shall make immediate arrangements to remove those unsuitable materials completely from the work site, and replace them with materials conforming to the standards, at the contractors own expense.

7.2. Reinforcing Steel

Steel reinforcement conforming to BS 4449, shall be as follows:

(a) Hot rolled mild steel round bars
(b) High yield steel either (i) cold worked deformed bars or (ii) hot rolled bars

Test certificates for steel shall be supplied to the CEB in accordance with BS 4449 and shall be issued by an accredited independent testing laboratory acceptable to the CEB.

Steel reinforcing bars shall be free from pitting, loose rust, mill scale, oil, grease, mortar, earth, paint or any harmful material.

7.3. Cement

Portland cement conforming to BS 197-1 shall only be used for casting of poles under this contract and shall pass the following tests;

(a) Fineness
(b) Chemical composition
(c) Compression strength
(d) Setting time
(e) Soundness

These tests shall be conducted at the expense of the contractor. Once approved, the quality of the cement used shall not be changed without approval of the CEB.

7.4. Aggregates

The aggregate shall be clean, hard and durable and shall not include any harmful extent such as dust, mud, organic substances, clay lumps, stone mica particles and salt. The nominal maximum size of the coarse aggregates shall be 20 mm.

The Contractor shall furnish the following data of aggregate source for approval.

(a) Shape
(b) Surface texture
(c) Silt content
(d) Salt content
(e) Grading curves
(f) Flakiness Index
(g) Impact value
(h) Water absorption
(i) Soundness

The fine and coarse aggregates shall comply with BS EN 12620.

7.5. Water

The water used for the making concrete, mortar and grout shall be clean, fresh and free from injurious amounts of oil, vegetable or organic matter or any other deleterious substance in suspension or in solution. The mix water shall be continuously monitored for salt content and the concrete mix so designed to limit total salt content.

The water should comply with the requirements of BS EN 1008.

7.6. Admixtures

All admixtures shall comply with BS EN 934-2.

Any admixtures containing calcium chloride shall not be permitted in the concrete used to manufacture pre-stressed concrete poles.

No admixtures shall be added to the concrete mix without prior approval of the CEB.

CEB Approved Specification
12/02
Chairman Dist. Coordination Committee

8.0 STORAGE AND PROTECTION OF MATERIALS

8.1. Cement

Cement shall be stored in a suitable weather-tight enclosure on a broad platform raised off the ground. The enclosure should be such that free circulation of air around the bags of cement is kept to a minimum.

Any cement that has become damp, caked or lumpy shall not be used.

8.2. Aggregates

Both fine and coarse aggregates shall be separately stored so that they are kept clean and free from contamination and are not subjected to intermingling. Where a clean hard surface is not available for the stockpiles, the bottom 150 mm of the aggregate piles which are in contact with the ground shall not be used.

Heaps of fine aggregate shall be capable of draining freely. Wet fine aggregate shall not be used until it has drained sufficiently to ensure proper control of the water/cement ratio.

8.3. Reinforcing Steel

All reinforcement shall be stored clear off the ground on sufficient supports to prevent distortion of bars and in clean dry place. Grease, oil, paint or any other substance that affects the bonding of reinforcement shall not be allowed to come in contact with them. If it does, then all such substances shall be cleaned off from the reinforcement before use.

9.0 MANUFACTURE

9.1. Covers

The **minimum cover** from the outermost reinforcing steel (including stirrups) to the nearest permanent surface of the concrete member shall be 20mm. All steel shall be accurately placed and shall be held in position during manufacture.

9.2. Spacing

The clear spacing between two parallel reinforcing bars shall not be less than the greatest of the nominal bar diameter or 1.33 times the maximum nominal size of the aggregate or 25 mm.

9.3. Stirrups and ties

Bends in stirrups and ties shall have a diameter on the inside of the bar not less than the diameter of enclosed bar or two times the diameter of the stirrup or tie, whichever is the greater as per the corresponding drawing.

The ends of the stirrups and ties shall be anchored with a minimum of 90° bend plus a straight extension of 8 bar diameters but not less than 65 mm. They shall be firmly attached to the main reinforcement using soft wire ties.

9.4. Welding

Any form of welding or tack-welding of reinforcement will not be permitted.

9.5. Mixing, placing and curing concrete

9.5.1. Mix design

Concrete used for casting of poles shall possess the following minimum qualities as per BS EN 206-2013

(a) Minimum cement content - 330 kg/m^3

Minimum cement content for 6m Pole - 28 kg
Minimum cement content for 8.3m Pole - 58 kg

(b) Maximum free water-cement ratio - 0.5

(c) Minimum strength at an age of 28 days - 25 N/mm^2

(d) Nominal maximum aggregate size - 20mm

The concrete mix proposed by the Contractor shall be a standard tested design, and the details of the mix design shall be submitted to the CEB with following information.

(a) Source, nature and grading of both the fine and coarse aggregates.

(b) Type and supplier of the cement to be used

(c) Proportions by weight of fine and coarse aggregates

(d) Weight of cement per cubic meter of concrete.

(e) Water-cement ratio by weight

(f) Estimated slump of the mix

(g) Arithmetic mean compression strength of the mix at 7 days and 28 days using either cylinder compression test or cube compression samples plus the standard deviation of the test strengths of the number of cylinders and cubes tested.

(h) Any admixtures used

The ratio of the weight of the fine aggregates (sand) to the total weight of aggregates shall be between 0.35 and 0.50. All testing costs shall be borne by the contractor.

9.5.2. Concrete mixing

All concrete shall be mixed in weigh batch mixing machines. The machine shall have a large water storage tank with a gauge so that a predetermined quantity of water can be injected direct into the mixer drum.

The dry concrete shall be mixed until a uniform colour is obtained. After the addition of the water the concrete shall be mixed until a uniform colour is achieved. The total water in the mix shall not exceed the amount used in the trial mix.

Water contents of the aggregates should be considered in determining the quantity of water to be added. The amount of water shall be sufficient to ensure thorough hydration, good workability and high strength.

9.5.3. Workability

The consistency of the concrete shall be such that it can be readily worked into the corners and angles of the form work and around reinforcement without segregation of the materials or bleeding of free water at the surface. On striking the form work it shall present a face which is uniform, free from honeycombing, surface crazing or excessive dusting.

9.5.4. Transport of concrete mix

The concrete shall be discharged from the mixer and transported to the works in such a way to as to prevent adulteration, segregation or loss of ingredients, and ensure that the concrete is of the required workability at the point and time of placing.

9.5.5. Placement and compaction

Placement rate of concrete shall be such that concrete is at all times plastic and flows readily into the space between reinforcements. No concrete that has partially hardened or been contaminated by foreign materials shall be deposited in the moulds, nor shall re-tempered concrete or concrete that has been re-used after initial set be used.

The placement of concrete in the moulds shall be completed within half an hour after the introduction of water to the cement and aggregate in the concrete mixer. Each mould shall be filled with concrete in continuous operation. Construction joints will not be permitted in the

poles. If there is an interruption during the placement of concrete into the mould such pole shall be discarded.

All concrete shall be consolidated in the moulds using high frequency vibrators. The vibration applied shall be uniform along the length of the mould and shall be carefully controlled so that adequate consolidation is achieved without segregation of the mixed ingredients by over vibration.

9.6. Dimensional tolerances

Recommended dimensional tolerance shall be as follows:

Length	±15mm	
Cross section	+4mm -2mm	Overall dimensions and dimensions of parts such as webs etc.
Straightness	±15mm	Deviation from a straight line joining the top and the widest dimensions at the butt end
Hole size	-0 mm , +2mm	
Relative position of holes	±5mm	
Location of reinforcement	±3mm	Specified covers shall not be reduced

Any poles with dimensional deviations falling short, of the aforesaid will be rejected.

9.7. Marking of poles

Following data of the pole should be clearly and indelibly marked at a position approximately 1.5m above the ground level, by **embossing** the marks on **fresh** concrete, just after the casting of pole. Subsequent marking on cement motor/grout applied **later** into the pole is **not** allowed.

(a) Letters "CEB", Date of manufacture, Identification Mark of Manufacturer and the Serial No. of the Pole (Given by the CEB) - No two poles belonging to same manufacturer could bear the same Serial Number.

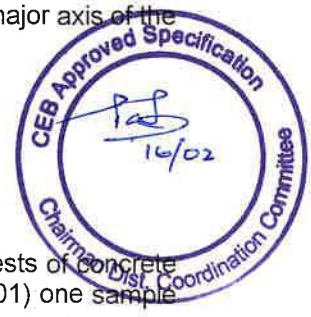
(b) **Length of pole** in meters and its **design working load** as defined in this Specification - for example a 8.3 meter pole with a 100 kg working load shall be marked as 8.3m/100 kg.

Note: A performed template indicating (a) and (b) above may be used for this purpose.

9.8. Lifting, handling and shifting

Poles shall not be lifted or handled until the concrete has attained sufficient strength. Pole shall be held from at least two points while lifting.

Pole shall be transported on vehicles that provide full length support without any overhang. Any pole that shows signs of any damage shall be rejected. While lifting and shifting, major axis of the pole shall be kept vertical as much as possible.



10.0 CONCRETE SAMPLING AND TESTING

10.1. General

A random sampling procedure, to obtain the samples for compression strength tests of concrete has to be adopted the minimum frequency of sampling of the concrete shall be (01) one sample

per (50) fifty poles, but not less than one sample per day, whichever is higher. "Casting of Samples" is described in clause 10.2. Contractor shall make arrangements to carry out the compression strength test as per BS 12390-3, for each of above samples, at an accredited independent testing laboratory acceptable to CEB.

The concrete shall be considered acceptable when the test results are in accordance with BS 206-2013.The cost of these tests shall be borne by the contractor.

In the event the above tests results are not in accordance with the relevant standards the poles so manufactured shall be rejected.

10.2. Casting of samples

Samples for compression strength tests shall be moulded in 150mm cubes, 100mm diameter x 200mm high cylinders or 150mm diameter x 300mm high cylinders. The date of casting of the sample shall be clearly and indelibly marked on the fresh concrete. Subsequent marking on freshly applied motor/grout layer is not allowed. For the purposes of this specification, to convert from cylinder strength to cube strength, table 12 of BS EN 206-2013 shall be used.

A sample shall consist of 4 cubes or cylinders made concurrently from the same batch of concrete. Two of the cubes or cylinders shall be used to establish the 28 day compression strength and the other two of the cubes or cylinders shall be used to establish the rate of gain in strength approx. 7 days of the concrete.

10.3. Acceptance criteria for compression strength

The concrete shall be considered acceptable when tested and found satisfactory according to stipulations in BS EN 206-2013.

10.4. Cost of testing

All testing shall be carried out in an accredited independent testing laboratory acceptable to CEB at the expense of the contractor in accordance with standards specified.

11.0 POLE LENGTH AND SHAPE

The pole shape shall be conforming to details stipulated in clause 6 and shall have a tapering section/sections from bottom to top. The manufacturer shall submit a detailed description of the method of pole fabrication including the details of moulds.

12.0 INSPECTION & TESTING OF POLES

12.1. General

The CEB reserves the right to inspect plant and machinery and raw materials used for the manufacture of poles. At any time the contractor shall provide access to the plant to the CEB representative. Facilities as necessary labor, gauges, tools, materials testing equipment etc. for testing and inspection of poles shall be provided free of charge by the Contractor.

The CEB reserves the right to reject any pole which does not conform to the CEB specification.

12.2. Testing of poles

One-in-hundreds of each type of poles selected at random will be tested in the following manner. (One additional pole has to be manufactured for each batch of hundred poles or part thereof for testing purposes)

A pole shall be tested in the horizontal position only. The pole is to be held rigidly at the butt end in accordance with the supported length, 1/9th of the total length of each pole.

For horizontal testing, provision may be made by suitable supports to neutralize the bending moment induced by the weight of the pole.

"Apply the test load at a point 0.60m from the top of the pole and raise it in increments of 10% of the ultimate load. Take measurements of deflection after each increment of 10% of the ultimate load. At 40% and at 60% of ultimate load reduce the load to zero and measure the permanent set. Then increase the load in steps of 10% of the ultimate load until failure occurs, maintaining each load above 60% of the ultimate load for at least two minutes (failure load is the load at which the dynamometer indicates no further increase in load)".

The whole batch of 100 would be acceptable to the CEB, if the tested pole passes the criteria given in (a), (b), (c), (d) and (e).

(a) During the application of load upto 40% of the ultimate load, the pole shall not have developed any hair cracks.

(b) The permanent set recorded, after removal of a test load of 60% of ultimate load shall not exceed 10% of the deflection recorded for same test load.

(c) The hair cracks produced while loading upto 60% of the ultimate load, shall clearly close up on removal of the test load.

(d) The test load at failure shall exceed the ultimate load.

(e) On breaking the concrete after failure it shall be established that the following requirements are in accordance with the corresponding specification of Pole.

i) Type, diameter, length number of bars and positioning of the main reinforcement.

ii) Type, diameter, shape and spacing of stirrups.

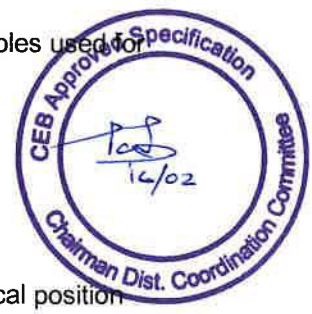
iii) Length and correct positioning (staggered) of lap joints.

12.3. Failure to satisfy acceptance criteria

In the event that a pole does not satisfy any of the above acceptance criteria for the type tests, then one more pole shall be tested for all the five acceptance criteria. If additional pole tested fails to satisfy the acceptance criteria then the entire batch shall be rejected. All the poles rejected shall be marked with a permanent ink, of at a distance of 2.5 m from the bottom of the pole and removed from the site immediately.

12.4. Cost of testing

The cost of testing shall be borne by the contractor. This also includes the cost of poles used for testing.



13.0 TRANSPORTATION

13.1. Transport to site

Pole shall be stored, transported, and handled at all times with its longer axis in vertical position to ensure that the resulting forces are always resisted by the poles stronger direction.

The pole shall be transported on a suitable vehicle supported full length or with limited overhang.

13.2. Lifting and storage

While lifting, the pole shall be held from at least two points and when stacked at the manufacturing plant or at the point of delivery the poles shall be separated by timber bearers

placed between each unit. Timber bearers shall be placed only on lines vertically above each other.

Transporting of poles is deemed to be completed only when the contractor hands over the poles to places nominated in the schedule of this contract. If any damage or cracking occurs to any of the poles before they are handed over to the Engineer such poles shall be rejected. All rejected poles shall be marked with a permanent ink and removed from the site immediately.

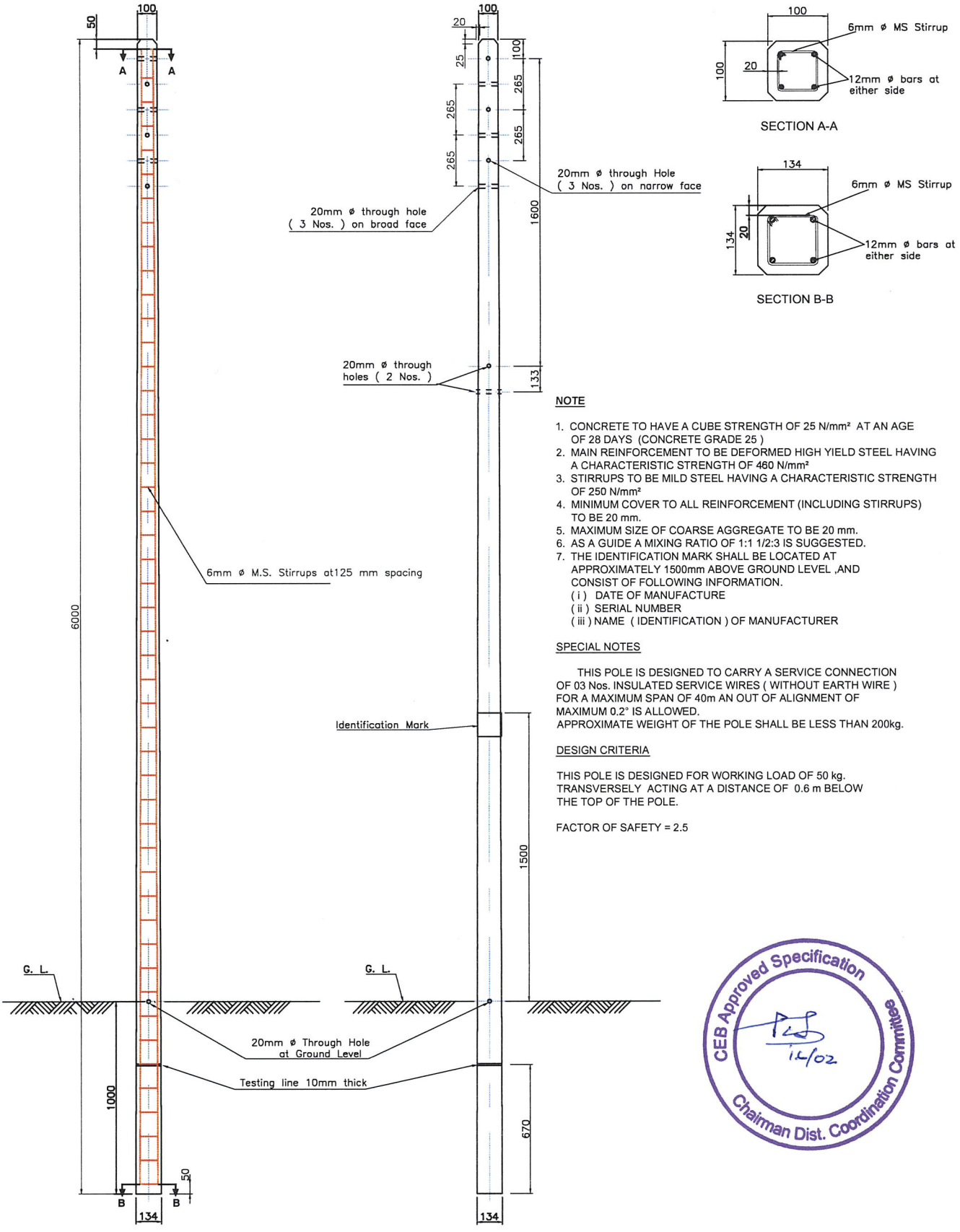
14.0 ANNEX

Annex –A1: Design of 6m, 50kg Light Weight Concrete Pole

Annex –A2: Design of 8.3m, 100kg Light Weight Concrete Pole

Annex –B : Schedule of Guaranteed Technical Particulars

Annex –C: Non-Compliance Schedule



NOTE

1. CONCRETE TO HAVE A CUBE STRENGTH OF 25 N/mm² AT AN AGE OF 28 DAYS (CONCRETE GRADE 25)
2. MAIN REINFORCEMENT TO BE DEFORMED HIGH YIELD STEEL HAVING A CHARACTERISTIC STRENGTH OF 460 N/mm²
3. STIRRUPS TO BE MILD STEEL HAVING A CHARACTERISTIC STRENGTH OF 250 N/mm²
4. MINIMUM COVER TO ALL REINFORCEMENT (INCLUDING STIRRUPS) TO BE 20 mm.
5. MAXIMUM SIZE OF COARSE AGGREGATE TO BE 20 mm.
6. AS A GUIDE A MIXING RATIO OF 1:1 1/2:3 IS SUGGESTED.
7. THE IDENTIFICATION MARK SHALL BE LOCATED AT APPROXIMATELY 1500mm ABOVE GROUND LEVEL ,AND CONSIST OF FOLLOWING INFORMATION.
   (i) DATE OF MANUFACTURE
   (ii) SERIAL NUMBER
   (iii) NAME (IDENTIFICATION) OF MANUFACTURER

SPECIAL NOTES

THIS POLE IS DESIGNED TO CARRY A SERVICE CONNECTION OF 03 Nos. INSULATED SERVICE WIRES (WITHOUT EARTH WIRE) FOR A MAXIMUM SPAN OF 40m AN OUT OF ALIGNMENT OF MAXIMUM 0.2° IS ALLOWED.
APPROXIMATE WEIGHT OF THE POLE SHALL BE LESS THAN 200kg.

DESIGN CRITERIA

THIS POLE IS DESIGNED FOR WORKING LOAD OF 50 kg. TRANSVERSELY ACTING AT A DISTANCE OF 0.6 m BELOW THE TOP OF THE POLE.

FACTOR OF SAFETY = 2.5

CEB Approved Specification
14/02
Chairman Dist. Coordination Committee

ALL DIMENSIONS ARE IN mm.

CEYLON ELECTRICITY BOARD	DISTRIBUTION STANDARDS & SPECIFICATION	SCALE : NOT TO SCALE
	6 m / 50 kg LIGHT WEIGHT REINFORCED CONCRETE POLE	DRAWN : MALITHA
		DATE : JAN 2017
	DESIGNED BY / APPROVED BY	DRG. NO : DS&S/2017/044-5A
DIST. COORDINATION BRANCH	EE (DC) / CHAIRMAN, SPECIFICATION COMMITTEE	CAD NO :

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14/02
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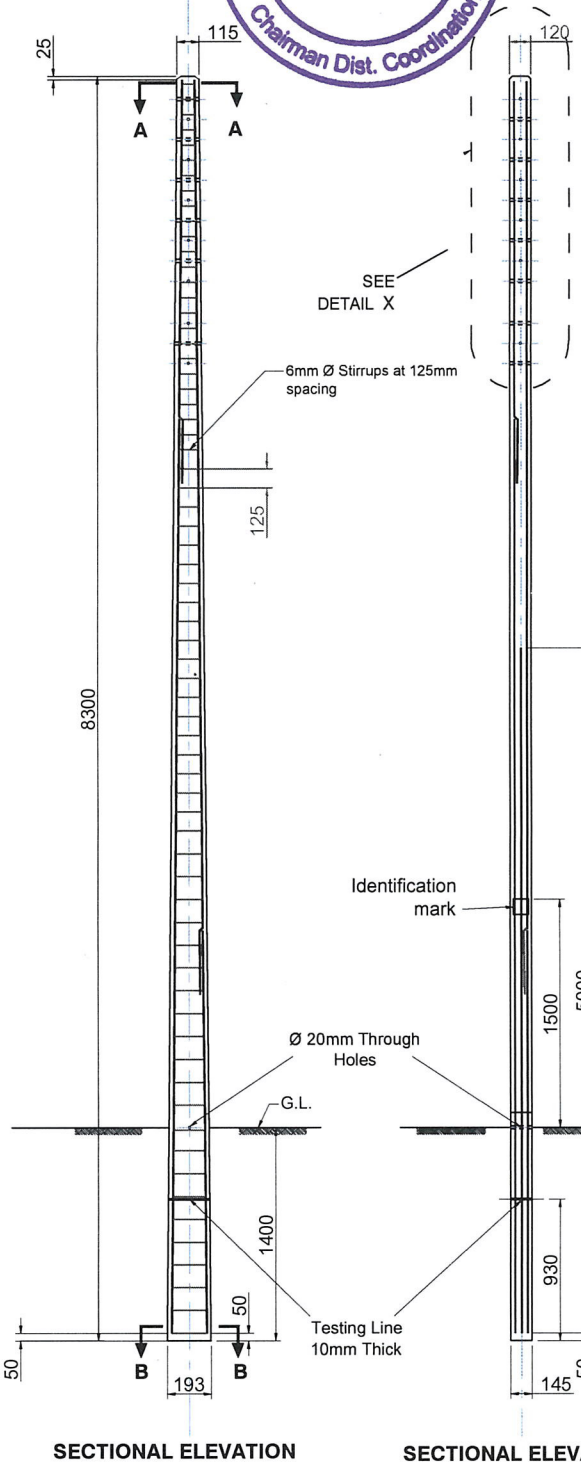
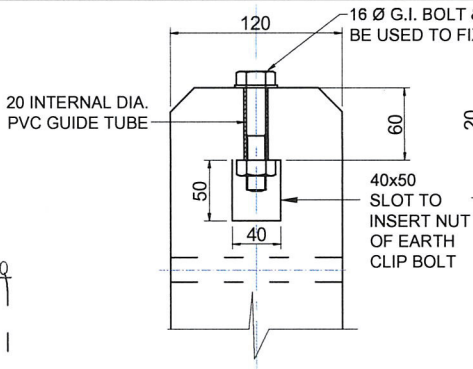
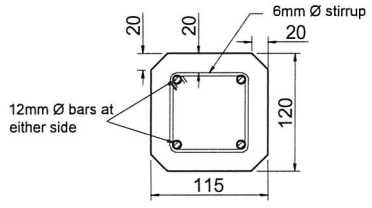


SECTIONAL ELEVATION OF BROAD FACE

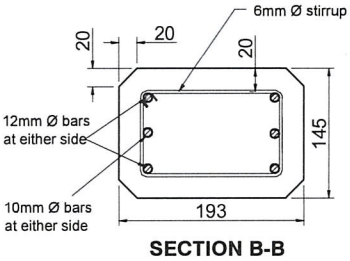
SECTIONAL ELEVATION OF NARROW FACE



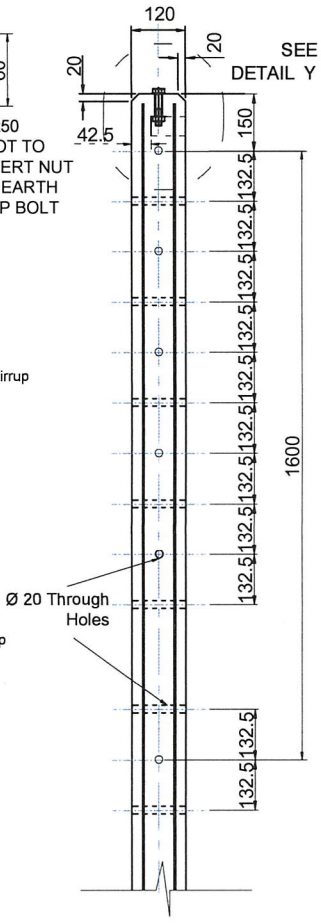
DETAIL Y



SECTION A-A



SECTION B-B



DETAIL X

NOTE

1. CONCRETE TO HAVE A CUBE STRENGTH OF 25 N/mm² AT AN AGE OF 28 DAYS (CONCRETE GRADE 25)
2. MAIN REINFORCEMENT TO BE DEFORMED HIGH YIELD STEEL HAVING A CHARACTERISTIC STRENGTH OF 460 N/mm²
3. STIRRUPS TO BE MILD STEEL HAVING A CHARACTERISTIC STRENGTH OF 250 N/mm²
4. MINIMUM LAP LENGTH OF 10mm/12mm Ø HIGH YIELD STEEL BARS TO BE 41x DIA.
5. MINIMUM COVER TO ANY REINFORCEMENT TO BE 20 mm.
6. MAXIMUM SIZE OF COARSE AGGREGATE TO BE 20 mm.
7. LAPS FORMED IN THE ADJACENT BARS IN THE SAME FACE OF THE POLE MUST BE STAGGERED.
8. AS A GUIDE A MIXING RATIO OF 1:1 1/2:3 IS SUGGESTED.
9. THE IDENTIFICATION MARK SHALL BE LOCATED AT APPROXIMATELY 1500MM ABOVE GROUND LEVEL ,AND CONSIST OF FOLLOWING INFORMATION.
   (i) DATE OF MANUFACTURE
   (ii) SERIAL NUMBER
   (iii) NAME (IDENTIFICATION) OF MANUFACTURER

SPECIAL NOTES

THIS POLE IS DESIGNED TO CARRY A L.T. LINE CONSISTING AT 04 Nos. FLY CONDUCTORS WITH A SINGLE EARTH WIRE, FOR A MAXIMUM SPAN OF 45m. AN OUT OF ALIGNMENT OF MAXIMUM 0.2° IS ALLOWED. THE POLE SHALL BE CASTED SO THAT THE NARROW FACE IS RESTING ON THE BASE PLATE, AND SHALL BE TRANSPORTED RESTING ON THE NARROW FACE WHILE FULL LENGTH OF THE POLE BEING SUPPORTED.

APPROXIMATE WEIGHT OF THE POLE SHALL BE LESS THAN 400 Kg.

DESIGN CRITERIA

THIS POLE IS DESIGNED FOR WORKING LOAD OF 100KG. TRANSVERSELY & 25Kg LONGITUDINALY ACTING AT A DISTANCE OF 0.6 M BELOW THE TOP OF THE POLE.
FACTOR OF SAFETY = 2.5

ALL DIMENSIONS ARE IN mm.

CEYLON ELECTRICITY BOARD	DISTRIBUTION STANDARDS & SPECIFICATION	SCALE : NOT TO SCALE
	8.3 m / 100 kg LIGHT WEIGHT REINFORCED CONCRETE POLE	DRAWN : MALITHA
		DATE : Jan., 2017
	DESIGNED BY / APPROVED BY	DRG. NO : DS&S/2017/044-5B
DIST. COORDINATION BRANCH	E.E. (DS & S) / CHAIRMAN, SPECIFICATION COMMITTEE	CAD NO :

Annex- B

SCHEDULE OF GURANTEED TECHNICAL PARTICULARS
(To be filled by the bidder for each sizes of poles)

1.	Name of the Manufacturer		
2.	Country of Origin		
3.	Length of the pole	m	
4.	Bottom Dimnsions	mm	
5.	Ground line Dimensions	mm	
6.	Top Dimensions	mm	
7.	Pole Ultimate Load	kg	
8.	Nominal weight of the pole	kg	
9.	Whether test certificates for steel as per clause 7.2 are provided with the offer?		
10.	Whether the concrete mix design details as per clause 9.5.1 are provided with the offer?		
11.	Whether all documents related to Pole Length and Shape as per clause 11.0 are provided with the offer?		

....

Signature of the Manufacturer and seal **Date**

I/We certify that the above data are true and correct

....

Signature of the Bidder and seal **Date**

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16/02
Chairman Dist. Coordination Committee

Annex – C

Non-Compliance Schedule

On this schedule the bidder shall provide a list of non-compliances with this specification, documenting the effects that such non-compliance is likely to have on the equipment life and operating characteristics. Each non-compliance shall be referred to the relevant specification clause.

Clause No.	Non-Compliance

.....
Signature of the Manufacturer

.....
Date

I/We certify that the above data are true and correct

.....
Signature of the Bidder and seal

.....
Date