

BAYHEAD ROAD: ROAD SIGNAGE & LINE MARKINGS LAYOUT PLAN (0+000m TO 0+300m)

SCALE - 1:500

NOTES FOR ROAD SIGNAGE AND ROAD MARKINGS:

SIGNAGE:

1. ALL SIGNAGE TO CONFORM TO COLTO SECTION 5600 - ROAD SIGNS UNLESS VARIED HERE BELOW.
2. **MATERIALS:**
   - ALL SIGNS SHALL BE STEEL PLATE AND SHALL BE 1.4mm THICK PRE-PAINTED GALVANIZED PLATE (ISCOR G275 CHROMADEK OR APPROVED EQUIVALENT), WHICH HAS BEEN TREATED ON BOTH SIDES WITH AND EPOXY PRIMER FOLLOWED BY A SILICON POLYESTER TOP COAT. THE TOTAL DRY THICKNESS OF THE TREATMENT SHALL BE AT LEAST 25µm.
   - BACKGROUND OF RETRO-REFLECTED MATERIAL SHALL BE CLASS III.
   - LETTERING, SYMBOLS NUMBERS, ARROWS, EMBLEMS AND BORDERS SHALL BE OF RETRO-REFLECTIVE MATERIAL CLASS III.
3. **ROAD SIGNAGE SIZES:**
   - CIRCULAR : 600mm DIA.
   - RECTANGULAR REGULATORY : HEIGHT = 600mm WIDTH = 450mm
   - TRIANGULAR REGULATORY & WARNING : 900mm SIDE LENGTH
4. **INSTALLATION:**
   - POSTS AND SUPPORTS SHALL BE TIMBER AND COMPLY TO COLTO S602 (H) AND BE CCA TREATED.
   - MINIMUM DIA OF SUPPORT SHALL BE A MINIMUM OF 125MM (RANGE 125-150mm).
   - MINIMUM HEIGHT TO BOTTOM OF LOWEST SIGN TO BE 2.2m.
   - INSTALLATION OF SIGNS SHALL BE AS PER DWG:
   - CONTRACTOR TO CONFIRM THE PRESENCE OF EXISTING SERVICES PRIOR TO INSTALLATION OF EACH SIGN BASED ON DRAWINGS AVAILABLE. FOR UNCERTAIN LOCATIONS, THE CONTRACTOR MUST PROVE FOR SERVICES PRIOR TO INSTALLING THE SIGN.
   - FINAL POSITION OF EACH SIGN SHALL BE MARKED OFF AND THEN APPROVED BY THE NEC 3 SUPERVISOR PRIOR TO BEING ERECTED.

MARKINGS:

1. ALL SIGNAGE TO CONFORM TO COLTO SECTION 5700 - ROAD MARKINGS UNLESS VARIED HERE BELOW.
2. SETTING OUT OF LINE MARKING TO BE BASED ON BEST FIT CENTER LINE WITH ALL OTHER LINES SET OUT FROM THE CENTER LINE.
3. PRE-MARKING FOR LINE MARKING, LETTERING AND ISLANDS TO BE APPROVED BY THE NEC 3 SUPERVISOR PRIOR TO APPLICATION OF FINAL ROAD MARKINGS.
4. PRE-MARKING TO TAKE PLACE PRIOR TO OPENING TO ANY PUBLIC TRAFFIC. TEMPORARY LINE MARKING USING CONVENTIONAL ROAD MARKING PAINT WILL ONLY BE PERMITTED UNDER DIRECT INSTRUCTION OF THE NEC 3 SUPERVISOR.
5. **PAINT:**
   - ROAD MARKINGS SHALL CONFORM TO EN 1436 AND SHALL BE DEFINED AS THERMOPLASTIC ROAD MARKING PAINT.
   - PLASTIC ROAD-MARKING MATERIAL (HOT-MELT PLASTIC (ALSO KNOWN AS THERMOPLASTIC) AND TWO-COMPONENT (ALSO KNOWN AS COLD PLASTIC)) IS USED, THE CONTRACTOR SHALL OBTAIN AN APPROVED GUARANTEE FROM THE MANUFACTURER THAT THE PAINT COMPLIES WITH THE SPECIFICATION.
   - ROAD MARKING PAINT SHALL BE TYPE 1 AS SPECIFIED IN SANS 731-1. ONLY PAINT, MANUFACTURED IN A SANS APPROVED AND ACCREDITED FACILITY SHALL BE ACCEPTED. THE NO-PICK-UP TIME OF ROAD-MARKING PAINT SHALL COMPLY WITH THE CLASS 1 REQUIREMENT IN ACCORDANCE WITH SANS 731-1.
   - THE VISCOSITY OF THE PAINT SHALL BE SUCH THAT IT CAN BE APPLIED WITHOUT BEING THINNED DOWN."
   - THERMOPLASTIC ROAD MARKING MATERIAL SHALL COMPLY WITH THE REQUIREMENTS OF EN 1436, AND EN 1423: 1998 FOR DROP-ON GLASS BEADS FOR ROAD MARKING AND ANTI-SKID AGGREGATES AND MIXTURES THEREOF. BLENDING OF THERMOPLASTIC ROAD MARKING MATERIAL AND GLASS BEADS SHALL COMPLY WITH EN 1424: 1998.
   - THE BINDER SHALL BE AN ELASTICIZED SYNTHETIC RESIN AND THE MATERIAL SHALL BE REFLECTORIZED BY MIXING IN 25% BY MASS CLASS A GLASS BEADS IN ACCORDANCE WITH EN 1424: 1998. AN ADDITIONAL TOPPING OF GLASS BEADS SHALL BE APPLIED TO THE HOT SURFACE OF THE MATERIAL FOR INSTANT RETRO-REFLECTIVITY.
   - THE WHITE ROAD MARKING MATERIAL SHALL CONTAIN 6% BY MASS MINIMUM TITANIUM DIOXIDE CONTENT AND SHALL HAVE A SKID RESISTANCE OF 45 S.R.T. - UNITS OR HIGHER. SABS METHOD 1248: 1995 SHALL BE USED FOR DETERMINATION OF TRAFFIC WEAR INDEX: INDICATION OF DURABILITY.
   - THE FOLLOWING MINIMUM LUMINATION VALUES ARE REQUIRED FOR THE COMPLETED PRODUCT:
     - 250 MCD/m^2.LUX & 120 MCD/m^2.LUX FOR WHITE & YELLOW LINES RESPECTIVELY, AT 30 DAYS AFTER APPLICATION.
     - 200 MCD/m^2.LUX & 100 MCD/m^2.LUX FOR WHITE & YELLOW LINES RESPECTIVELY, AT 6 MONTHS AFTER APPLICATION.
   - DETERMINATION OF COEFFICIENT OF RETRO-REFLECTED LUMINANCE BY MEANS OF PORTABLE RETRO-REFLECTOMETER SHALL BE CARRIED OUT USING SANS 6261: 2008. APPLICATION OF THE PERMANENT ROADMARKING WILL THUS HAVE TO BE PERFORMED WITHIN THE FIRST 6 MONTHS OF THE 12 MONTH OF THE MARKING BEING APPLIED.
   - TWO-COMPONENT COLD PLASTIC ROAD MARKING MATERIAL SHALL BE USED FOR SYMBOLS, ARROWS AND LETTERS (HAND PAINTED MARKINGS) UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER."
   - COLD PLASTIC ROAD MARKING MATERIAL SHALL BE USED FOR SYMBOLS, ARROWS AND LETTERS (HAND PAINTED MARKINGS) AND SHALL CONSIST OF A SOLVENT-FREE REACTIVE ACRYLIC RESIN, STUFFING, BEADS AND PIGMENT TO WHICH A HARDENER SHALL BE ADDED. APPLICATION IS CARRIED OUT USING A TROWEL. MATERIAL APPLIED BY PAINT BRUSH SHALL NOT BE USED.
   - COLD PLASTIC ROAD MARKING MATERIAL SHALL BE REFLECTORIZED BY MIXING IN 25% BY MASS (OR 400G/M^2) CLASS A GLASS BEADS IN ACCORDANCE WITH EN 1424: 1998. AN ADDITIONAL TOPPING OF GLASS BEADS IS APPLIED TO THE WET SURFACE OF THE MATERIAL AFTER APPLICATION AND WILL COMPLY WITH EN 1423: 1997."

5. **LINE DIMENSIONS:**
   - NO OVERTAKING LINE : SOLID WHITE (150mm WIDE)
   - LANE DIVIDER LINE : SOLID WHITE, 1.5m LONG AND 1.5m GAP (150mm WIDE) SOLID WHITE SECTION AT STOP STREETS TO BE 9m (150mm WIDE)
   - EDGES (LEFT) : SOLID RED (150mm WIDE)
   - EDGES (RIGHT) - WHERE APPLICABLE : SOLID WHITE (150mm WIDE)
   - ISLANDS : SOLID RED (EDGE WIDTH 150mm), BARS 150mm, INFILLS
     - INFILLS : PERPENDICULAR TO TRAFFIC 400mm SLOPING SIDES 300mm
   - STOP LINES :
     - FRONT FACE TO BE 1.5m BACK FROM ROAD EDGE WHERE THERE IS NO PEDESTRIAN CROSSINGS.
     - LINE IS 300mm WIDE.
     - PEDESTRIAN CROSSING LINES ARE 100mm WIDE
   - ARROWS : ARROW DETAILS ARE AS PER SARTSM VOLUME 2: 2.7.4
     - LANE REDUCTION ARROWS : WHITE (LENGTH 2.5m)
     - MANDATORY DIRECTIONS : WHITE (LENGTH 2.5m)
     - BI FUNCTIONAL ARROWS : WHITE (2.5m)
     - TAPER RATES FOR LANES : 1:25

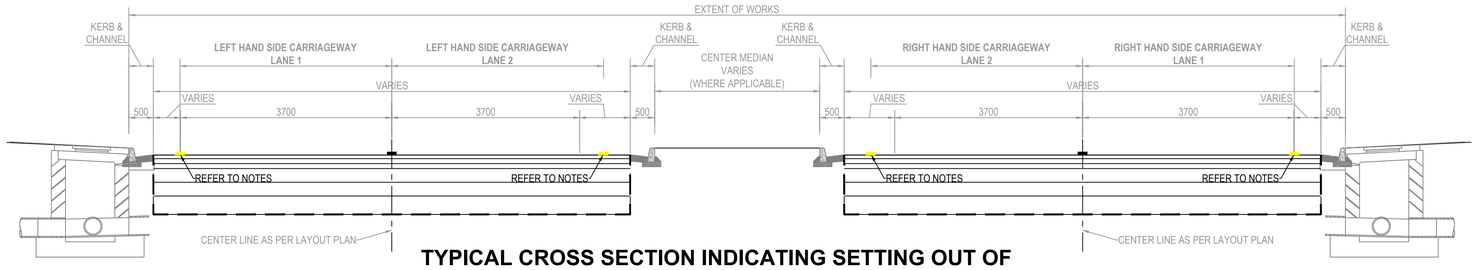
ROAD STUDS:

1. PERMANENT AND TEMPORARY ROAD STUDS SHALL COMPLY WITH THE REQUIREMENTS OF THE EUROPEAN STANDARD FOR ROAD STUDS IS EN 1463.
   - THE ROAD STUDS TO BE USED IN THIS CONTRACT SHALL BE:
     - CENTER LINE : RSA-1 (RED / RED) AS PER SADC-RTES VOLUME1 FIGURE 7.10
     - CENTER ISLAND (WHERE APPLICABLE): RSA-1 (RED / RED)
     - LANE DIVIDER : RSA-3 (WHITE / WHITE)
     - LEFT HAND EDGE : RSA-1 (RED / RED)
   - THE ROAD STUDS TO BE USED ON THIS CONTRACT SHALL BE "RSA-1-R FOR ROAD EDGE LINES AND RSA-3-W FOR CENTER LINES"
   - ROAD STUDS FOR THE AREAS OF APPLICATION SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS SET OUT IN TABLE B5702/1 BELOW WITH REFERENCE TO IS EN 1463.
   - SPACING: CENTER LINE EVERY 9m.

ROAD STUD SPECIFICATIONS

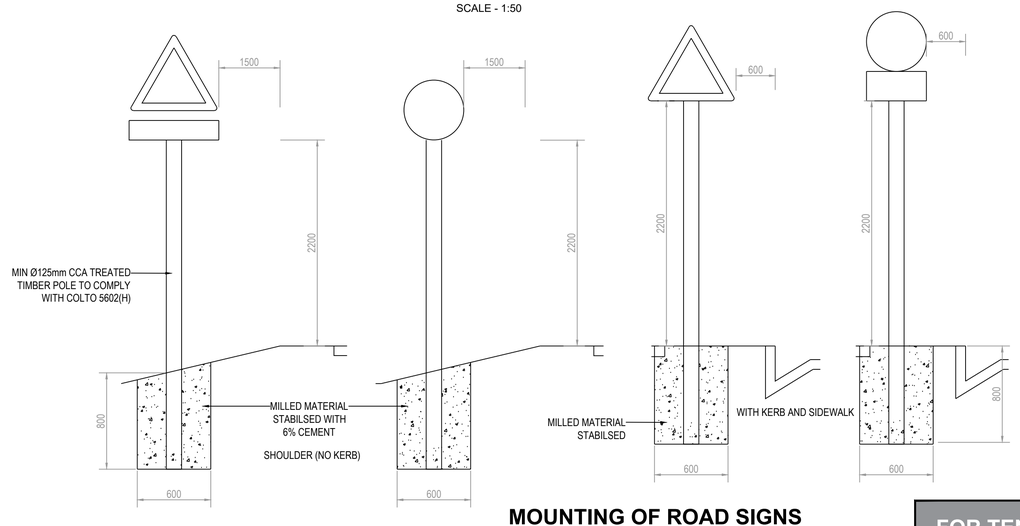
CLASSIFICATION	AREA OF APPLICATION			
	RSA-1	RSA-2	RSA-3	RSA-T
DESCRIPTION	BI-DIRECTIONAL	BI-DIRECTIONAL	CIRCULAR CATS-EYE	BI-DIRECTIONAL
MATERIAL	GALVINISED CAST IRON	PLASTIC	GLASS	PLASTIC
DESIGN	TYPE A	TYPE A	TYPE A	TYPE A
USE	TYPE P	TYPE P	TYPE P	TYPE T
REFLECTOR	TYPE 1	TYPE 1	TYPE 1	TYPE 2
REFLECTIVITY	R1	R1	R1	NOT SPECIFIED
INSTALLATION SYSTEM	ANCHORED	BONDED	EMBEDDED	SELF ADHESIVE OR BONDED
HEIGHT ABOVE ROAD	H3	H3	H3	H1
DIMENSIONS (MIN. FOOTPRINT)	100mm X 80mm	100mm X 100mm	100mm DIA	100mm X 100mm
COLOURS	W - R - Y	W - R - Y	W	W - R - Y
ROAD TRIALS	S1	S1	S1	NOT APPLICABLE

REFER TO COTO CHAPTER 11, SECTION A11.7.5.2, TABLE A11.7.5-1



TYPICAL CROSS SECTION INDICATING SETTING OUT OF PAINTED LINE / ROAD MARKINGS

SCALE - 1:50

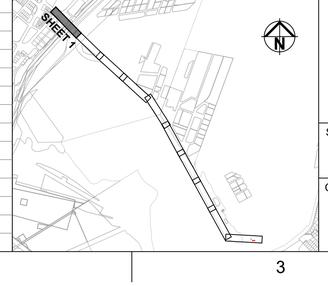


MOUNTING OF ROAD SIGNS

SCALE - DIAGRAMMATIC ONLY

FOR TENDER PURPOSES

SHEET KEY INDEX



DRAWING No. | REFERENCE

REFERENCE DRAWINGS

STATUS

FOR TENDER PURPOSES

CONSULTANT DRAWING No.

No.	DESCRIPTION	BY	CHKD	APPD	DATE
1	ISSUED FOR TENDER PURPOSE ONLY				01 09 2024

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PORT OF DURBAN

REHABILITATION OF BAYHEAD ROAD: ROAD SIGNAGE & LINE MARKINGS LAYOUT PLAN 0+000m TO 0+300m (SHEET 1 OF 10)

PROJECT NUMBER	OD	FBS	DIS	TYPE	DRAWING NO.	SHEET	REV	ID
CE70733	1	401	C	LA	0003	01	.1	