

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

CARRIAGEWAY CONSTRUCTION

FULL DEPTH CARRIAGEWAY CONSTRUCTION

SURFACING: 40MM THICK STONE MASTIC ASPHALT 10MM TO SURF SUPPLIED AND LAID IN ACCORDANCE WITH THE GENERAL REQUIREMENTS OF THE SPECIFICATION FOR HIGHWAY WORKS AND BS EN 13108

BINDER: 60MM THICK DENSE MACADAM 0/20MM AGG. 100/150 PEN SUPPLIED AND LAID IN ACCORDANCE WITH THE SPECIFICATION FOR HIGHWAY WORKS

150MM THICK DENSE MACADAM 0/32MM AGG. 160/220 PEN SUPPLIED AND LAID IN ACCORDANCE WITHTHE SPECIFICATION FOR HIGHWAY WORKS

SUB BASE: 360MM THICK SUB-BASE IN TYPE 1 GRANULAR MATERIAL, LAID AND COMPACTED TO THE SPECIFICATION FOR HIGHWAY WORKS CLAUSES 701, 801, & 805. CBR HERE ESTIMATED AS 2% TO BE ESTABLISHED ON SITE PRIOR TO RESURFACING WORKS. CONTRACTOR TO REFER RESULTS TO A REPRESENTATIVE OF THE LOCAL AUTHORITY AND THE DESIGN MANUAL FOR ROADS AND BRIDGES VOLUME 7, SECTION 2, PART 3 CHAPTER 3 FOR FURTHER GUIDANCE ON SUB-BASE CAPPING RELATIONSHIP. TO BRAM 'ARMY' GEOTEXTILE MEMBRANE TO BE LAID BENEATH CAPPING/SUB BASE LAYER TO MANUFACTURER'S PROPRIETRY REQUIREMENTS.

NARROW WIDENING

AS FULL DEPTH CARRIAGEWAY CONSTRUCTION BUT BASE LAYER AND SUB BASE/CAPPING REPLACED WITH 350MM ST4 CONCRETE OR 500MM SAND BLINDING COURSE INCORPORATING 300MM SURFACE/BINDER STEPPED TIE IN

PLANE, REGULATE AND INLAY

EXISTING SURFACE AND WHERE REQUIRED BINDER LAYERS PLANED OFF TACK COATED AND REPLACED WITH REQUIRED DEPTH OF REGULATING SURFACE/BINDER LAYER AS SPECIFIED ABOVE.

KERBS FOOTWAYS AND PAVED AREAS

FLEXIBLE FOOTWAY CONSTRUCTION

SURFACE COURSE:- 10MM THICK AC 6 DENSE SURF 160/220, SUPPLIED AND LAID IN ACCORDANCE WITH THE SHW AND EN13108

BINDER COURSE:-50MM THICK 20MM AC 20 DENSE BIN (60MM THICK AT VEHICLE CROSSINGS)SUPPLIED AND LAID IN ACCORDANCE WITH THE SHW AND EN13108

SUB BASE:- 150MM TYPE 1 SUB BASE 200MM AT VEHICULAR CROSSINGS, SUPPLIED AND LAID IN ACCORDANCE WITH THE SHW.

FOOTWAY SURFACE PLANE REGULATE AND RELAY

EXISTING FOOTWAY SURFACE COURSE REMOVED, PREPARED, TACK COATED THEN OVERLAIN WITH REQUIRED DEPTH OF REGULATING DENSE SURFACE LAYER AS SPECIFIED ABOVE.

KERBS

ALL KERBS, CHANNELS, EDGINGS ETC TO BS 7263-3:2001

HB2 PRECAST CONCRETE 'HALF BATTERED' KERB 125x255, BS REF 'HB2' SET WITH 125MM FACE UNLESS OTHERWISE INDICATED

EF PRE-CAST CONCRETE 'FLAT TOP EDGING 200x50, BS REF 'EF', FLUSH WITH FOOTWAY SURFACE

DN DROPPED KERB CONSISTING OF PRECAST CONCRETE 'SMALL RADIUS' KERBS 125 X 150, BS REF 'BN', AND TAPER KERBS 125 X 255/150, BS REF 'DL1', 'DR1'

TACTILE PAVING

TACTILE PAVING CONCRETE 'BLISTER' TACTILE BLISTER PAVING FLAGS ON 50MM 4:1 RANDOMENT BED ON 150MM TYPE 1 GRANULAR SUB-BASE MATERIAL TO CLAUSE 803

HIGH FRICTION SURFACE DRESSING TO HAPAS CATEGORY 1, MIN PSV 70, MAX AAV 14, BUFF RED OR BLACK CALCIUM GUYANESE BAUXITE, COMPRISING A TWO COMPONENT, SOLVENT MODIFIED EPOXY BINDER AND A GRADED 14MM TO 6MM CALCINED BAUXITE AGGREGATE DETERMINED IN ACCORDANCE WITH BS 812 PART 114

OUTFALL POINT TO CONNECT INTO EXISTING GULLY TAIL PIPE LOCATION AND NATURE OF GEWEH TO BE CONFIRMED ON SITE PRIOR TO COMMENCING ANY DRAINAGE WORKS.

EXISTING GULLY GRATING AND FRAME TO BE REMOVED TO TIP AND POT FILLED WITH MIX GT2 CONCRETE TO BELOW FORMATION LEVEL.

REV.	DETAILS	DRAWN	CHECKED	DATE
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GENERAL

1. ALL ADOPTABLE WORKS ARE ASSOCIATED WORKS ARE TO COMPLY FULLY WITH "GUIDES FOR ADOPTION" STANDARDS DATED MARCH 2006.

2. ALL HIGHWAY WORKS TO BE TO ADOPTABLE STANDARDS AND SHALL COMPLY FULLY WITH THE LOCAL AUTHORITY SPECIFICATION AND WHERE NECESSARY THE RELEVANT SECTIONS OF THE DESIGN MANUAL FOR ROADS AND BRIDGES, SPECIFICATION AND WRITTEN STANDARDS.

3. ALL PRIVATE WORKS ARE TO COMPLY FULLY WITH THE LATEST EDITIONS OF THE BUILDING REGULATIONS.

4. ALL EXISTING INVERT LEVELS TO BE CHECKED BY THE CONTRACTOR AT THE START OF WORKS AND ANY DISCREPANCIES NOTIFIED TO THE ENGINEER. ALL LEVELS ARE BASED UPON TOPOGRAPHICAL SURVEY INFORMATION PROVIDED BY OTHERS.

5. ALL MATERIALS TO BEAR THE RELEVANT B.S.STANDARD AND COMPLY FULLY WITH THE SPECIFICATION. ALL CONCRETE & CONCRETE PRODUCTS MUST USE SULPHATE RESISTANT CEMENT (OFSETS THE TEST PROTECTION REPORT PROVES THAT SULPHATE ATTACK FROM SOILS AND GROUNDWATER WILL NOT OCCUR)

6. ALL STATUTORY COMPANYS., UNDERGROUND SERVICES ETC. AS REQUIRED UNDER HIGHWAYS ACTS AND WATER BOUNDARIES ACTS., ARE TO BE OBTAINED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF THE WORKS UNLESS OTHERWISE STATED. ALL WORKS ARE TO BE INSPECTED BY L.A., WHO OR STATUTORY AUTHORITY AS APPLICABLE.

7. PRESENCE OF STATUTORY UNDERGROUNDS & OVERHEAD SERVICES ON THE HIGHWAY SHOULD BE VERIFIED BY THE CONTRACTOR OR NOT PRIOR TO STARTING ANY WORKS. THE LOCATION OF STATUTORY PLANT SHOWN ON ANY PLANS IS INDICATIVE ONLY AND SHOULD NOT BE RELIED UPON FOR THE LOCATION OF ANY PIPE WORK OR CABLING. THE CONTRACTOR SHOULD CONFIRM THE LOCATION OF ALL STATS PLANT BY HAND DUG TRIAL TRENCHES PRIOR TO COMMENCING ANY WORKS. ALLOWANCE FOR THE PRESENCE OF ALL STATS PLANT SHOULD BE MADE IN THE CONTRACTORS PRICES. ALL STATS PLANT SHOULD BE PROTECTED DURING CONCRETE SURROUNDED OR TAKEN BY STATUTORY APPROVED METHODS AS SET BY PLACE BY THE CONTRACTOR UNLESS STATED OTHERWISE WHERE STATES REQUIRED ARE FOUND TO BE WITHIN THE AREA OF HIGHWAY WORKS.

CDM REGULATIONS 2007

IN LINE WITH THE ABOVE REGULATIONS WE ARE OBLIGED TO INFORM THE CLIENT OF THE RISKS THAT MAY BE ENCOUNTERED IN THE CONSTRUCTION OF THESE WORKS, WHILST NOT PLANNED A RISKS HAVE BEEN ELIMINATED FROM THE DESIGN WHERE POSSIBLE TO THE VERY NATURE OF THIS TYPE OF WORK IT IS NOT PLANNED TO REMOVE ALL THE RISKS FROM THE DESIGN, WE WOULD LIKE TO DRAW SPECIFICALLY TO MEMBERS OF THE CLIENT OR HIS DESIGNERS TO TAKE ALL REASONABLY STEPS IN ENSURING THAT ONLY COMPETENT CONTRACTORS WHO HAVE A HEALTH AND SAFETY PLAN & METHOD STATEMENT, ONLY THOSE ARE PROVIDED.

THE FOLLOWING ARE A LIST OF RISKS THAT HAVE BEEN IDENTIFIED AS TO THE DESIGN BUT WILL FINAL WITH THE PLANNERS OR RISK ASSESSORS IN THIS TYPE OF WORK AND IN PARTICULAR THOSE HIGHLIGHTED BY THE DESIGN.

1. TRENCH EXCAVATIONS (FACINGS OF SUPPORT).
2. DUMPING TO EDGES OF EXCAVATIONS TO PREVENT PEOPLE, MATERIALS AND VEHICLES FALLING INTO EXCAVATION.
3. GUARDING OF EXCAVATIONS OUTSIDE WORKING HOURS TO PREVENT UNAUTHORISED ACCESS.
4. LINK MARKINGS TO ADJACENT ROADS OR STRUCTURES.
5. CLEARING SPACE OPERATIONS.
6. LEADING VEHICLE WITH FLASHING BEACONS.
7. TRAFFIC MANAGEMENT ON EXISTING HIGHWAYS.
8. PROCEDURE TO BE FOLLOWED IN EVENT OF ACCIDENT OR EMERGENCY.
9. METHOD OF WORKING WHEN NIGHT WORKING OR LIMITED PERIODS ONLY NEED.
10. CONFIRMATION WILL BE REQUIRED THAT ALL OPERATIVES ARE ADEQUATELY TRAINED, CLOTHED WITH HIGH VISIBILITY CLOTHING WHERE NECESSARY.
11. ANY OTHER RISKS ASSOCIATED WITH THE WORKS OR ANCILLARY WORKS REFERRING TO CONTRACT THE OPERATIONS DESCRIBED ON THIS DRAWING SHOULD ENSURE THAT THEY HAVE BEEN REGULARLY AND THOROUGHLY DISCUSSED BY THE PRINCIPAL CONTRACTOR OR ALL HEALTH AND SAFETY MATTERS AND MADE KNOWN TO ALL.

N.B. THE FULL DESIGNERS AND CONTRACTORS RISK ASSESSMENTS AND RISK REGISTERS.
B) THE DESIGNERS ILLUSTRATION HEALTH AND SAFETY PLAN
B) THE CONTRACTORS CONSTRUCTION METHOD STATEMENTS.

THE ABOVE LIST IS BY NO MEANS EXHAUSTIVE BUT IT GIVES SIGNIFICANT OPERATIONS THAT PRESENT A RISK TO CONTRACTORS AND THE GENERAL PUBLIC.

ROAD MARKING SCHEDULE

DIAG No.	LINE	GAP	WIDTH	SIZE	COLOUR	COMMENTS
1003	600	300	200	-	WHITE	
1004	4000	2000	100	-	WHITE	
1009	600	300	100	-	WHITE	

Note:

THE COLOUR OF PERMANENT ROAD MARKINGS SHALL BE AS SPECIFIED IN THE SCHEDULE ABOVE. ALL PERMANENT WHITE ROAD MARKINGS SHALL BE OF APPLIED THERMOPLASTIC NON-REFLECTIVE MATERIAL TO BS 3262. APPLIED WORKS MARKINGS SHALL BE LAID SAW CHOP AND A MINIMUM OF 1MM THICKNESS IN EXCLUSIVE OF SURFACE APPLIED GLASS BEADS. THE METHOD OF THICKNESS MEASUREMENT IS SHALL BE IN ACCORDANCE WITH BS EN 1436

ROAD MARKING SPECIFICATION - TYPE 1 THERMOPLASTIC

DAY VISIBILITY

1. LUMINANCE FACTOR OF ALL WHITE THERMOPLASTIC ROAD MARKINGS SHALL BE A MINIMUM OF 80, (LUMINANCE WITH TABLE 3 CLASS W3 (PERMANENT).

2. THE LUMINANCE FACTOR OF ALL YELLOW THERMOPLASTIC ROAD MARKINGS SHALL BE A MINIMUM OF 50, (LUMINANCE WITH TABLE 4 CLASS Q3 OF BS EN 1436 (PERMANENT).

NIGHT VISIBILITY

3. IMMEDIATELY AFTER APPLICATION AND THROUGHOUT THE PERIOD OF 24 MONTHS THE RETRO REFLECTION (COEFFICIENT OF LUMINANCE) OF ALL WHITE THERMOPLASTIC RETRO REFLECTIVITY OF ALL WHITE THERMOPLASTIC ROAD MARKINGS SHALL NOT BE LESS THAN 150MCD/M2/LUX, WHEN MEASURED IN ACCORDANCE WITH TABLE 2(CLASS R3 OF BS 6749:84.

SKIDDING RESISTANCE

4. MARKING MATERIALS SHALL BE MEASURED IN ACCORDANCE WITH ANNEX D BS 6749:84.

5. THE SKIDDING RESISTANCE OF ALL LONGITUDINAL ROAD MARKINGS SHALL NOT BE LESS THAN 45, (CLASS 1(R4) WHEN TABLE 7, CLASS S1 OF BS 6749:84.

6. THE SKIDDING RESISTANCE OF ROAD MARKINGS, ARROWS, LETTERS, ROAD WAY TRANSVERSE LINE, HATCHING AND ANY LARGE SURFACE AREA SHALL NOT BE LESS THAN 55, (CLASS 1(R5) WHEN TABLE 7, CLASS S3 OF BS 6749:84 THE SKIDDING RESISTANCE OF ANY HIGH MAINTENANCE METHODS AND AS UP ANTI-SKID SHOULD BE A MINIMUM PSV OF 75.

7. WHERE SPECIFIED, THE SKIDDING RESISTANCE OF TRAFFIC-LINE YELLOW BAR MARKINGS SHALL NOT BE LESS THAN 45, (CLASS 1(R4) WHEN TABLE 7, CLASS S1 OF BS 6749:84, AS DEFINED BY THE HIGHWAYS AGENCY ADVICE NOTE 1/86.

NOTE:

TYPE 1 - THERMOPLASTIC/PLASTIC MATERIAL FOR PERMANENT MARKINGS

8. ALL SPRAYED THERMOPLASTIC, EXTRUDED THERMOPLASTIC AND SOLID PLASTIC MATERIALS SHALL COMPLY WITH THE RELEVANT CLAUSES OF BS 3262.

9. FLUSH PLATES WHITE SHALL A MINIMUM THICKNESS OF 3MM AND SHALL BE OF CAST IRON CONSTRUCTION AND SHALL BE SUPPLIED AND FITTED BY CONTRACTOR. COMPLYING WITH TABLE 1 CLASS D400 OF BS EN 1433.

10. ALL RPM SEMI PLATES TO BE CLASS REF 1 MATERIAL.

11. ALL STONE TO HAVE A MINIMUM CLEARANCE OF 450MM FROM THE CARRIAGEWAY EDGE.

12. MARKING TO BE MINIMUM 150MM THICK EQUIVALENT TO 2 COATS OF PAINT OR AS OTHERWISE AGREED BY THE ENGINEER. ALL MATERIALS USED IN THE LINE OF MARKING ARE ALUMINIUM FLAKE COMPLYING WITH BS 4164 TO BS 6748.



CLIENT:	SAINSBURY'S
PROJECT:	WHITE LION, WITHINGTON
DRAWING TITLE:	GENERAL ARRANGEMENT
SCALES:	1:200 at A1
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