

Z:\projects\4289 DD S278 Crabtree Farm, Lancashire, John Hardie\CADD\EDDISONS DRAWINGS\S278 Crabtree Farm, Lancashire Mastercopy (4289) Rev A.dwg

1. ALL ADOPTABLE SEWERS AND ASSOCIATED WORKS ARE TO COMPLY FULLY WITH 'SEWERS FOR ADOPTION' 17th EDITION. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE ON-SITE DRAWINGS PRIOR TO UNDERTAKING ANY WORKS AND ANY DISCREPANCIES WITH BOUNDARIES, FENCIBLES, EARTHWORKS OR OTHERWISE REPORTED IMMEDIATELY TO THE ENGINEER PRIOR TO WORKS COMMENCING.
2. ALL HIGHWAY AND DRAINAGE WORKS TO BE TO ADOPTABLE STANDARDS AND SHALL COMPLY FULLY WITH THE LOCAL AUTHORITY SPECIFICATION, APPROVED STANDARD DETAILS AND THE RELEVANT SECTIONS OF THE DESIGN MANUAL FOR ROADS AND BRIDGES SPECIFICATION FOR HIGHWAY WORKS AND BRITISH STANDARDS CONTRACTOR TO ENSURE POSITIVE DRAINAGE TO ALL GULLIES PRIOR TO UNDERTAKING ANY PAVEMENT WORKS.
3. ANY PRIVATE WORKS ARE TO COMPLY FULLY WITH THE LATEST EDITIONS OF THE BUILDING REGULATIONS
4. ALL EXISTING STATIONS, INVERT LEVELS AND DRAINAGE NETWORK TO BE CHECKED BY THE CONTRACTOR AT THE START OF WORKS AND ANY DISCREPANCIES NOTIFIED TO THE ENGINEER. ALL LEVELS ARE BASED ON TOPOGRAPHICAL SURVEY INFORMATION PROVIDED BY OTHERS. ANY DISCREPANCIES BETWEEN THIS AND OTHER DRAWINGS TO BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION
5. ALL MATERIALS TO BEAR THE RELEVANT B.S. KITE MARK AND COMPLY FULLY WITH THE SPECIFICATIONS. ALL MATERIALS TO BE AGREED WITH THE OVERSEEING LOCAL AUTHORITY REPRESENTATIVE PRIOR TO ORDERING. ALL CONCRETE & CONCRETE PRODUCTS MUST USE SULPHATE RESISTANT CEMENT (UNLESS THE SITE INVESTIGATION REPORT PROVES THAT SULPHATE ATTACK FROM SOILS AND GROUNDWATER WILL NOT OCCUR)
6. ALL STATUTORY CONSENTS, OPENING NOTICES ETC. AS REQUIRED UNDER HIGHWAYS ACTS AND WATER INDUSTRIES 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., NHBC OR STATUTORY AUTHORITY AS APPLICABLE.
7. CONTRACTOR TO MAKE ADVANCE ALLOWANCE FOR THE MANAGEMENT AND COORDINATION OF STATUTORY UNDERTAKERS DIVERSIONS WITHIN THEIR PROGRAMME OF WORKS. PRESENCE OF STATUTORY UNDERTAKERS EQUIPMENT IN THE HIGHWAY SHOULD BE VERIFIED BY THE CONTRACTOR ON SITE 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 PIPEWORK OR CABLEING. 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 APPROPRIATE PROTECTION / DIVERSION MEASURES (INCORPORATING SPLIT DUCT AND 150MM CONCRETE SURROUND OR SIMILAR STATUTORY APPROVED METHOD) IS TO BE PUT IN PLACE BY THE CONTRACTOR (UNLESS STATED OTHERWISE) WHERE STATS EQUIPMENT ARE FOUND TO BE WITHIN THE AREA OF HIGHWAY WORKS.
8. PRIOR TO ORDERING THE CONTRACTOR IS TO AGREE ALL SIGN POSTLIGHTING COLUMN MATERIALS AND FINISHES WITH THE LOCAL AUTHORITY. ALL SIGNS TO COMPLY WITH BS EN 12899:2007 AND ITS NATIONAL ANNEX. TYPE OF POSTS, FINISHES AND LIGHTING UNITS/COLUMNS TO BE AGREED WITH LA STREETLIGHTING ENGINEER PRIOR TO ORDERING. CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE PROVISION OF ALL REQUIRED EQUIPMENT AND ELECTRICAL FEEDS TO LIGHTING AND ANY SIGNALS PRIOR TO WORKS COMMENCING. CONTRACTOR TO MAKE ALLOWANCE FOR ANY LEAD-INS WITHIN THEIR PROGRAMME.
9. ALL ROADMARKINGS TO BE Laid IN ACCORDANCE WITH THE REQUIREMENTS OF THE TRAFFIC SIGNS MANUAL CHAPTER 5. TRAFFIC SIGNS REGULATIONS AND GENERAL DIRECTIONS. ROADMARKING MATERIALS, LAYING AND PERFORMANCE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF BS EN 1436. ALL ACCESS COVERS WITHIN THE VICINITY OF THE WORKS TO HAVE HIGH FRICTION COVERS AND AGREED WITH LA ENGINEER. PSV OF ALL LINING AND COVERS TO SUIT ADJACENT SURFACING
10. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL ADVANCE NOTICES ARE IN PLACE AND TRAFFIC MANAGEMENT AGREED FOR THE WORKS PRIOR TO COMMENCING. THE CONTRACTOR IS TO MAKE ALLOWANCE FOR THE ADVANCE PROVISION OF ALL ELECTRICAL WORKS AND EQUIPMENT FOR SIGNALS AND STREETLIGHTING WITHIN THEIR PROGRAMME OF WORKS

C.D.M. REGULATIONS 2015

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. WHEREVER POSSIBLE RISKS HAVE BEEN ELIMINATED FROM THE DESIGN, HOWEVER DUE TO THE VERY NATURE OF THIS TYPE OF WORK IT IS NOT POSSIBLE TO REMOVE ALL THE RISKS FROM THE DESIGN. WE WOULD ALSO RESPECTFULLY REMIND THE CLIENT OF HIS OBLIGATIONS TO TAKE ALL REASONABLE STEPS IN ENSURING THAT ONLY COMPETENT CONTRACTORS WHO HAVE A VALID SAFETY POLICY ARE EMPLOYED. THEY SHOULD ALSO PROVIDE SATISFACTORY RESPONSES AT TENDER STAGE AS TO THE MANNER IN WHICH THEY WILL DEAL WITH THE ELEMENTS OF RISK INVOLVED IN THIS TYPE OF WORK AND IN PARTICULAR THOSE HIGHLIGHTED BY CROFT BELOW:

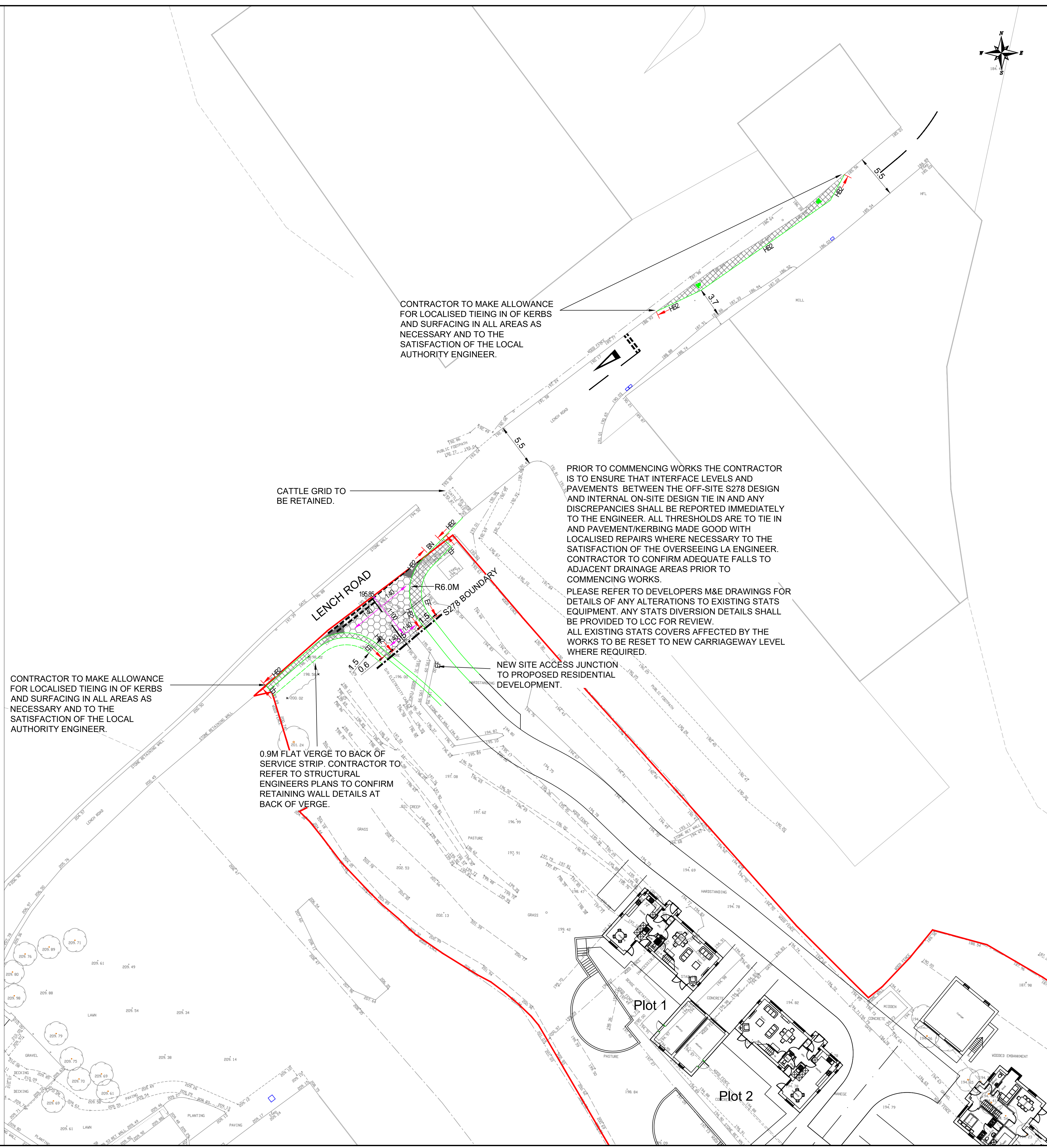
1. TRENCH EXCAVATIONS IN EXCESS OF 1.2M DEEP.
2. GUARDING TO EDGES OF EXCAVATIONS TO PREVENT PEOPLE, MATERIALS AND VEHICLES FALLING INTO EXCAVATION.
3. GUARDING OF EXCAVATIONS OUTSIDE WORKING HOURS TO PREVENT UNAUTHORISED ACCESS.
4. UNDERMINING TO ADJACENT ROADS OR STRUCTURES.
5. CONFINED SPACE OPERATIONS.
6. DEALING WITH EXISTING SERVICES.
7. TRAFFIC MANAGEMENT ON EXISTING HIGHWAYS AND PROTECTION OF SITE PERSONNEL AND MEMBERS OF THE PUBLIC.
8. PROCEDURE TO BE FOLLOWED IN EVENT OF ACCIDENT OR EMERGENCY.
9. METHOD OF WORKING WHERE CONTAMINATED GROUND IS PRESENT ON SITE.
10. CONFIRMATION WILL BE REQUIRED THAT ALL OPERATIVES ARE ADEQUATELY TRAINED. COPIES OF RELEVANT TRAINING CERTIFICATES TO BE SUPPLIED.
11. ANY CONSTRUCTION PERSONNEL, INCLUDING OPERATIVES INTENDING TO CONSTRUCT THE DESIGNS SHOWN ON THIS DRAWING SHOULD ENSURE THAT THEY HAVE BEEN REGULARLY AND THOROUGHLY BRIEFED BY THE PRINCIPAL CONTRACTOR ON ALL HEALTH AND SAFETY MATTERS AND HAVE HAD SIGHT OF:

i) THE FULL DESIGNERS AND CONTRACTORS RISK ASSESSMENTS AND RISK REGISTERS.
 ii) THE DEVELOPED CONSTRUCTION HEALTH AND SAFETY PLAN
 iii) THE CONTRACTORS CONSTRUCTION METHOD STATEMENTS.

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

WARNING - PRESENCE OF EXISTING STATS EQUIPMENT IN THE VICINITY OF WORKS

PRESENCE OF STATUTORY UNDERTAKERS EQUIPMENT IN THE HIGHWAY SHOULD BE VERIFIED BY THE CONTRACTOR ON SITE PRIOR TO STARTED 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 PIPEWORK OR CABLEING. 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 APPROPRIATE PROTECTION / DIVERSION MEASURES (INCORPORATING SPLIT DUCT AND 150MM CONCRETE SURROUND OR SIMILAR STATUTORY APPROVED METHOD) IS TO BE PUT IN PLACE BY THE CONTRACTOR (UNLESS STATED OTHERWISE) WHERE STATS EQUIPMENT ARE FOUND TO BE WITHIN THE AREA OF HIGHWAY WORKS.



NOTES

- CARRIAGEWAY CONSTRUCTION INC SUB-BASE AND CAPPING TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LCC ESTATE ROADS SPECIFICATION 2023 DOCUMENT AS SUPPLIED.
- FULL DEPTH CARRIAGEWAY CONSTRUCTION-NO LIMESTONE AGGREGATE TO BE USED IN SURFACE COURSES OR ANY SURFACES TO BE TEMPORARILY TRAFFICKED. ALL MATERIALS TO BE Laid AND TRANSPORTED BY ACCORDANCE WITH THE SHW. BOND COAT TO BE APPLIED IN BETWEEN ALL BOUNDING LAYERS AS PER BS 6848:2010 SECTION 5.5 AND IN ACCORDANCE WITH THE SHW. CONTRACTOR TO CONFIRM BITMAC SPEC AND PSV WITH CLERK OF WORKS PRIOR TO ORDERING.**
- SURFACE:** 40MM THICK CLAUSE 943 HRA 30/14 40/60 F SURF WITH 20MM PRE-COATED CHIPPINGS PSV MIN 60 TO BS EN 13108-4 AND THE LCC SPEC PROVIDED.
- BINDER:** 50MM THICK MCHW C1906 AC20 DENSE BIN 100/150 REC WTA TO BS EN 13108.
- BASE:** 100MM THICK MCHW C1906 AC 20 DENSE BIN 100/150 REC WTA TO BS EN 13108.
- SUB BASE:** 280MM THICK SUB-BASE IN TYPE 1 GRANULAR MATERIAL. Laid AND COMPACTED TO THE MCHW CLAUSES 803, 804, 806 & 807. CBR HERE ESTIMATED AS 2.5%. ACTUAL CBR TO BE CONFIRMED ON SITE IN ACCORDANCE WITH LCC SPEC AND DMRB RECT'S.
- CAPPING:** 310MM THICK 6F2 CAPPING SUBJECT TO ON-SITE CBR TEST RESULTS. REFER TO LCC SPEC FOR FULL DETAILS OF CAPPING REQD. Laid AND COMPACTED TO THE SPECIFICATION OF HIGHWAY WORKS CLAUSE 613. CBR TO BE ESTABLISHED ON SITE PRIOR TO STARTING 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 AND LANCS SPEC AS SUPPLIED. APPROPRIATE TERRAM MEMBRANE TO BE Laid BENEATH CAPPING LAYER TO MANUFACTURERS PROPRIETARY REQUIREMENTS.
- ALL FULL DEPTH AND INLAY TO INCORPORATE 300MM STEPPED TIE IN CONSTRUCTION. PLEASE REFER TO STANDARD DETAIL AS SUPPLIED. NARROW WIDENING IN AREAS LESS THAN 1.2M**
- AS FULL DEPTH CARRIAGEWAY CONSTRUCTION BUT BASE AND SUB-BASE LAYER REPLACED WITH 450MM S14 CONCRETE PLEASE SEE STANDARD DETAIL.**
- FOOTWAY CONSTRUCTION**
- 25MM THICK AC 6 DENSE SURF 100/150 REC TO BS EN 13108
 50MM THICK 20mm SIZE DENSE BIN 100/150 REC TO BS EN 13108. 70MM AT VEHICULAR CROSSINGS.
 150MM TYPE 1 SUB BASE. 225MM AT VEHICULAR CROSSINGS.
KERBING
- ALL KERBS, CHANNELS, FLAGS, EDGINGS ETC CONSTRUCTED TO THE REQUIREMENTS OF BS EN 1339, 1340, BS 7633 AND BS 7263. ANY GAP BETWEEN KERB AND EXISTING CARRIAGEWAY TO BE FILLED WITH HOT POURED BITUMEN MAX WIDTH 20MM. WHERE THE GAP IS GREATER THAN 20MM IT SHALL BE REINSTATED AS SHOWN IN THE REINSTATEMENT STANDARD DETAIL. ALL NEW TO EXISTING WEARING COURSE JOINTS TO BE SEALED WITH HOT FOUR BITUMEN. WHERE NECESSARY EXISTING SURFACES TO BE SAW CUT TO PROVIDE A NEAT VERTICAL EDGE KERBS IN CONCRETE CARRIAGEWAY TO BE REINSTATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE DMRB AND A METHOD AGREED WITH LOCAL AUTHORITY ENGINEER PRIOR TO CONSTRUCTION.**
- HB2** PRECAST CONCRETE 'HALF BATTERED' KERB 125X255, BS REF 'HB2' SET WITH 100MM FACE UNLESS OTHERWISE INDICATED.
- EF** PRE-CAST CONCRETE 'FLAT TOP' EDGING 50X200, BS REF 'EF'. FLUSH WITH FOOTWAY SURFACE
- BN** DROPPED KERB CONSISTING OF PRECAST CONCRETE 'BULL NOSE' KERB 125 X 150, BS REF 'BN'. AND TAPER KERBS 125 X 255/150, BS REF 'DL1', 'DR1'. KERB SET FLUSH OR 6MM UPSTAND, 25MM UPSTAND AT VEHICLE CROSSOVERS
- DENOTES EXTENT OF NEW KERBING

A	RESURFACING AMENDED	LB	JC	FEB 24
REV	DETAILS	DRAWN	CHECKED	DATE

CLIENT: **JOHN HARDIE**

PROJECT: **CRABTREE FARM, LANCASHIRE**

DRAWING TITLE: **S278 CONSTRUCTION MATERIALS**

SCALES: **1:250 @ A1**

DRAWN: LB	CHECKED: MC	DATE: JAN 24
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DRAWING NUMBER: 4289-D002	REVISION: A
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