

- DO NOT SCALE OFF THIS DRAWING. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE IF IN DOUBT ASK.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS', ENGINEERS' AND OTHER SPECIALISTS' DRAWINGS AND SPECIFICATIONS.
- THE BASE SPECIFICATION FOR DRAINAGE WORKS SHALL BE THE WATER AUTHORITY ASSOCIATION'S 'SENSENS FOR ADOPTION' (LATEST EDITION).
- FOR DETAILS OF GROUND CONDITIONS, REFER TO SITE INVESTIGATION REPORT.
- THE FOLLOWING PIPE STRENGTHS SHALL BE ADOPTED UNLESS NOTED OTHERWISE:-  
 - PIPES UP TO AND INCLUDING 150mm Ø TO BE PN4 TO BS EN 1329, OR CLAYWARE TO BS EN 295 CLASS 160.  
 - PIPES 150mm Ø UP TO AND INCLUDING 225mm TO BE CLAYWARE TO BS EN 295 CLASS 160.  
 - 300mm Ø TO BE CLAY TO BS EN 295 CLASS 160 OR CONC. TO BS 5911 CLASS M.  
 - PIPES OVER 300mm Ø TO BE CONCRETE TO BS 5911 CLASS M.
- ALL PIPES RUNS TO BE LAD WITH FLEXIBLE JOINTS.
- ALL PIPES ENTERING AND EXITING MANHOLES ARE TO BE CONNECTED WITH PIPE SIFTS LEVEL UNLESS NOTED OTHERWISE.
- BEDDING AND SURROUND TO BE AS FOLLOWS:

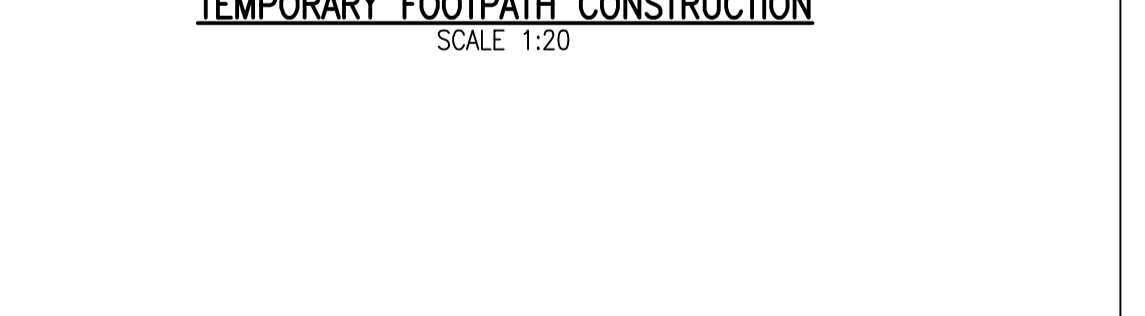
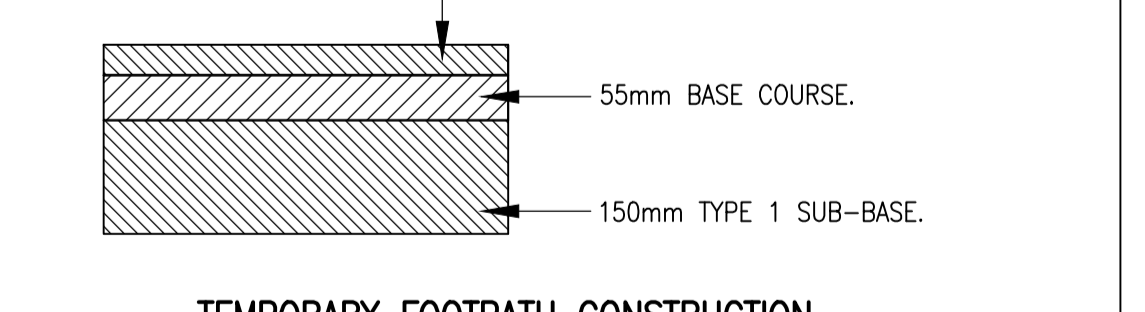
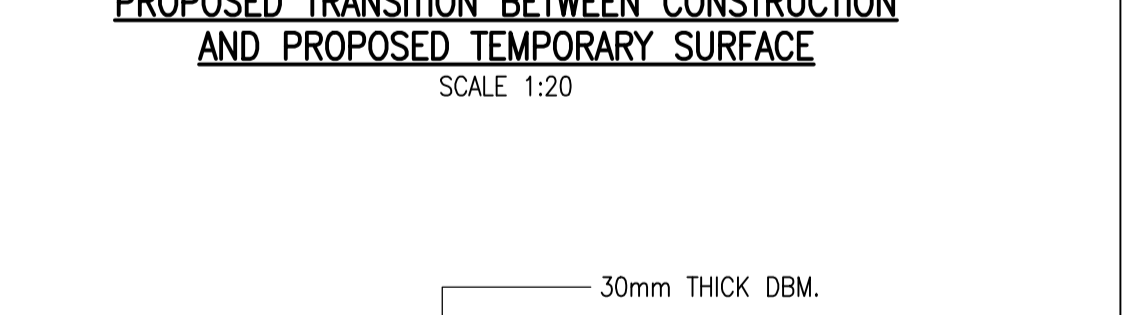
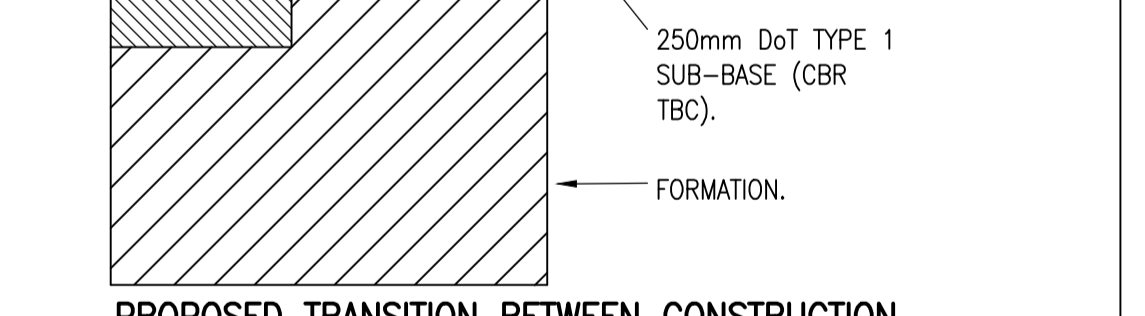
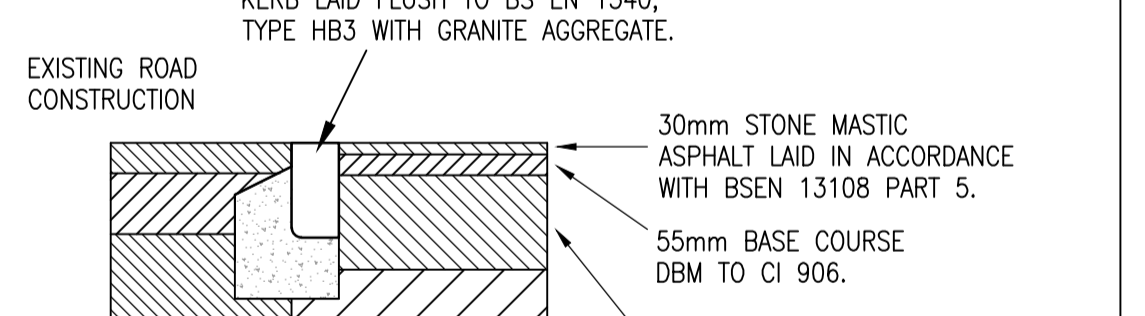
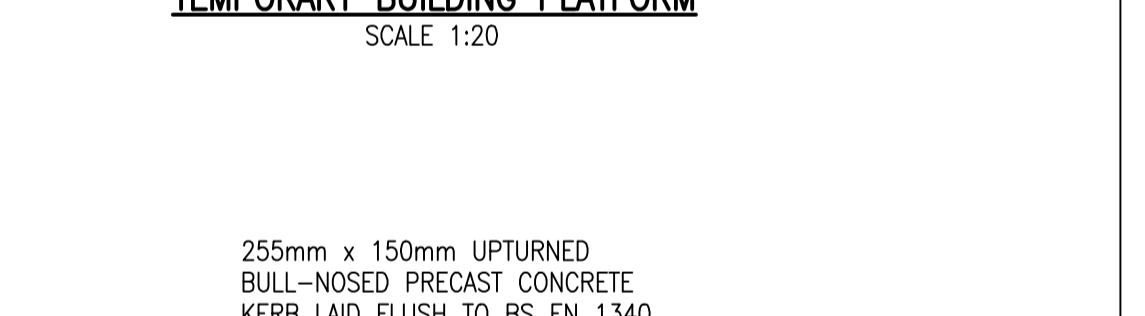
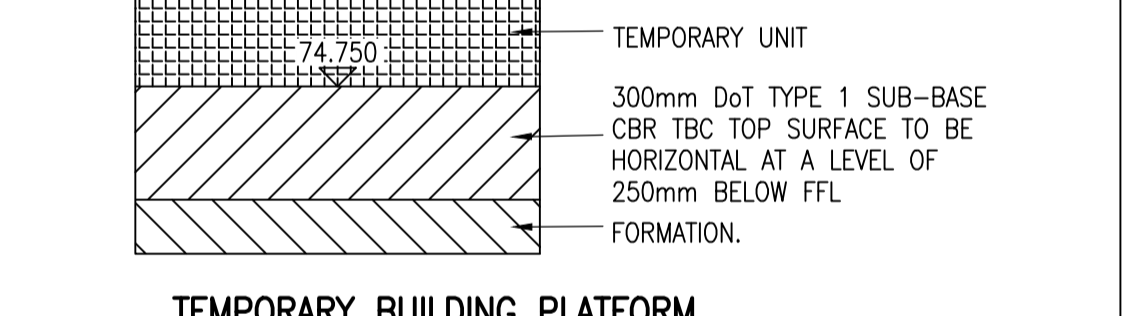
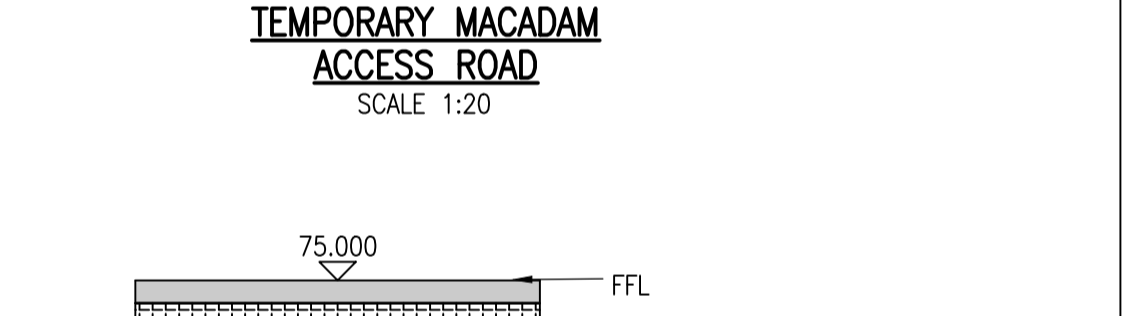
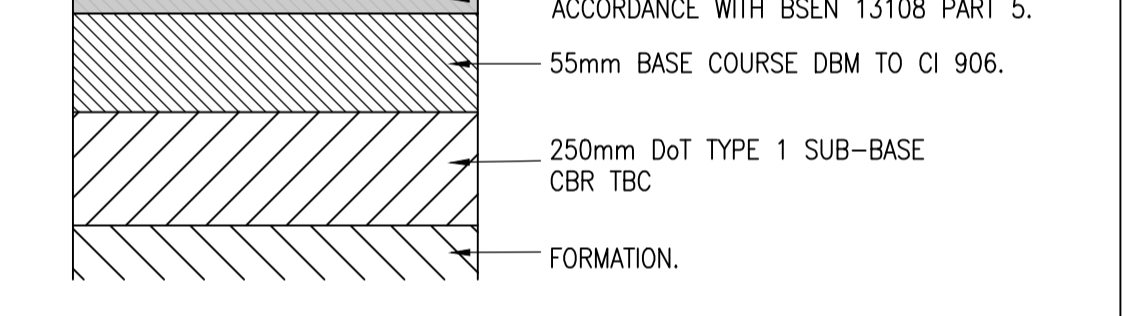
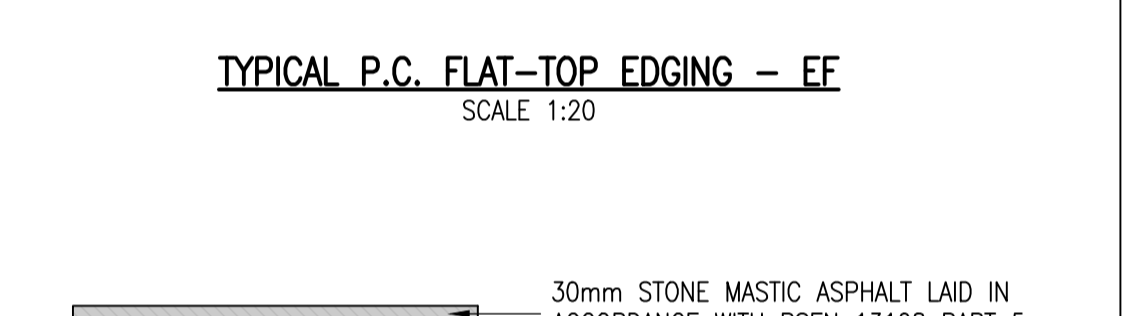
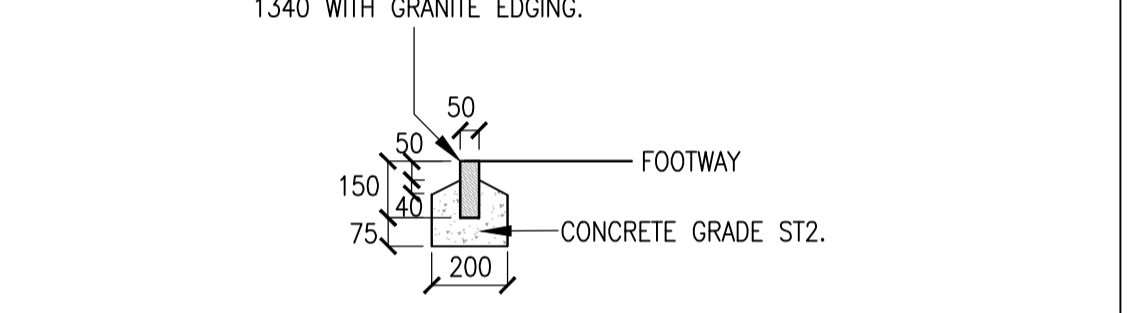
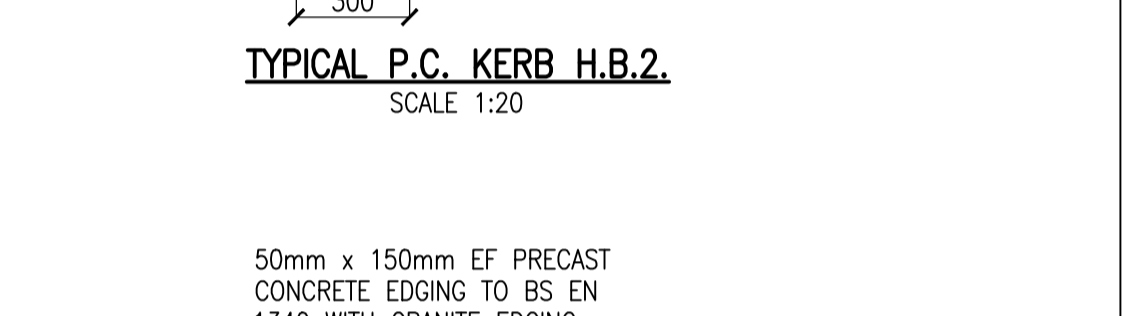
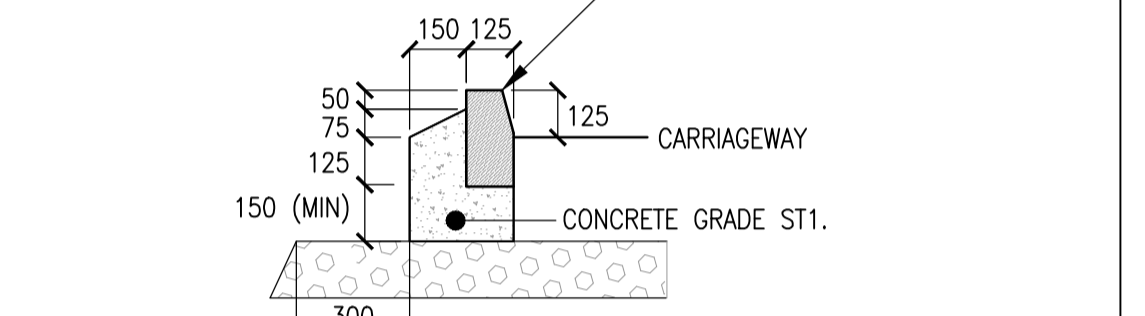
Location	Cover to Soffit
Roads	>1.2m
	<1.2m
Hard and soft landscaping	>0.6m
	<0.6m

- THE FOLLOWING CONC. MIXES ARE TO BE USED (IN ACCORDANCE WITH BS 8500):
- | Location                               | Mix Reference |
|--|---------------|
| Concrete surround to pipes             | ST4           |
| Concrete base and surround to manholes | ST4           |

- ALL PRECAST CONCRETE PRODUCTS (I.E. PIPES, MANHOLE RINGS, ETC.) SHALL BE OF SUITABLE CONCRETE MIX TO CATER FOR CLASS 2 SULPHATES.
- PRE-FORMED CHANNELS ARE TO BE USED IN MANHOLES WHERE APPLICABLE.
- GRANULIC CONCRETE BENCHING TO BE STEEPLY TROWELLED TO A DENSE SMOOTH FACE NEATLY SHAPED AND FINISHED TO ALL BRANCH CONNECTIONS AND LAID IN ACCORDANCE WITH THE SPECIFICATION.
- ALL CONNECTIONS TO BE TURNED IN DIRECTION OF FLOW USING PIPE BENDS.
- MANHOLE COVERS AND FRAMES TO BE DUCTILE IRON MEDIUM DUTY GRADE B125 RECTANGULAR TO BS EN 124 POSITIONS OUTSIDE VEHICULAR-TRAFFICKED AREAS, AND HEAVY DUTY GRADE D400 IN VEHICULAR-TRAFFICKED AREAS.
- MANHOLE COVERS AND FRAMES TO BE DUCTILE IRON MEDIUM DUTY GRADE A15 COVERS IN SOFT LANDSCAPING.
- FIRST FLEXIBLE JOINT IN PIPES ADJACENT TO A MANHOLE SHALL BE A MAXIMUM OF 600mm FROM INSIDE FACE OF MANHOLE, CONNECTING TO ROCKER PIPE.
- THE LENGTH OF ROCKER PIPE IS AS FOLLOWS:

Pipe Diameter	Length of Rocker Pipe
150mm-600mm	600mm
675mm-750mm	1000mm
825mm & over	1250mm

- MANHOLES WITH OUTGOING PIPES GREATER THAN 600mm Ø SHALL BE FITTED WITH GUARD BARS, SAFETY CHAINS OR OTHER SAFETY DEVICES.
- THE PRINCIPLE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE EXISTING LINE AND INVERT LEVELS OF ANY CONNECTION POINTS FOR BOTH THE FOUL AND SURFACE WATER SYSTEMS, PRIOR TO UNDERTAKING INSTALLATION OF ANY NEW DRAINAGE WORKS. ANY VARIATION TO THE LEVELS AND POSITIONS INDICATED ON THE DRAWING SHOULD BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER.
- FALL INVERTS SPECIFIED ARE OUTGOING (EXCEPT BACKDROP). ALL PIPES ARE TO BE LAD SIFTS LEVELS UNLESS NOTED OTHERWISE.
- ALL FOUL CONNECTIONS TO BE 150mm DIA. LAD AT A MINIMUM GRADIENT OF 1:40 UNLESS NOTED OTHERWISE. SURFACE WATER PIPE SIZES AS INDICATED.
- FOUL PIPES TO BE EXTERNALLY VENTED (SWP) AT HEAD OF RUN.
- FOR LOCATION OF INTERNAL SWP, SS, ETC., SEE LATEST ARCHITECT'S LAYOUT.
- DRAINAGE INSTALLATION IS TO BE COMPLIANT WITH BUILDING REGS. (PART H).
- INTERNAL FOUL DRAINAGE CONNECTIONS / POSITIONS AND SETTING OUT INFORMATION TO BE CONFIRMED BY THE M&E CONSULTANT / ARCHITECT.



Rev	Date	Description	By	Chkd
A	01/05/19	DRAWING UPDATED TO SUIT ARCHITECT'S LATEST LAYOUT.	K.M.	G.L.
-	08/02/19	FIRST ISSUE.	J.D.	G.L.

Revision Schedule				
Project Title	HATFIELD BUSINESS PARK PLOT 5100			
Drawing Title	TEMPORARY SHOWROOM WORKS PLAN			
Drawn by	K.M. / J.D.	Checked by	G.L.	Project Engineer
Date	FEB 2019	Scale	1:250	Project No
				12690
				Drawing No
				SK110
				Rev
				A

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