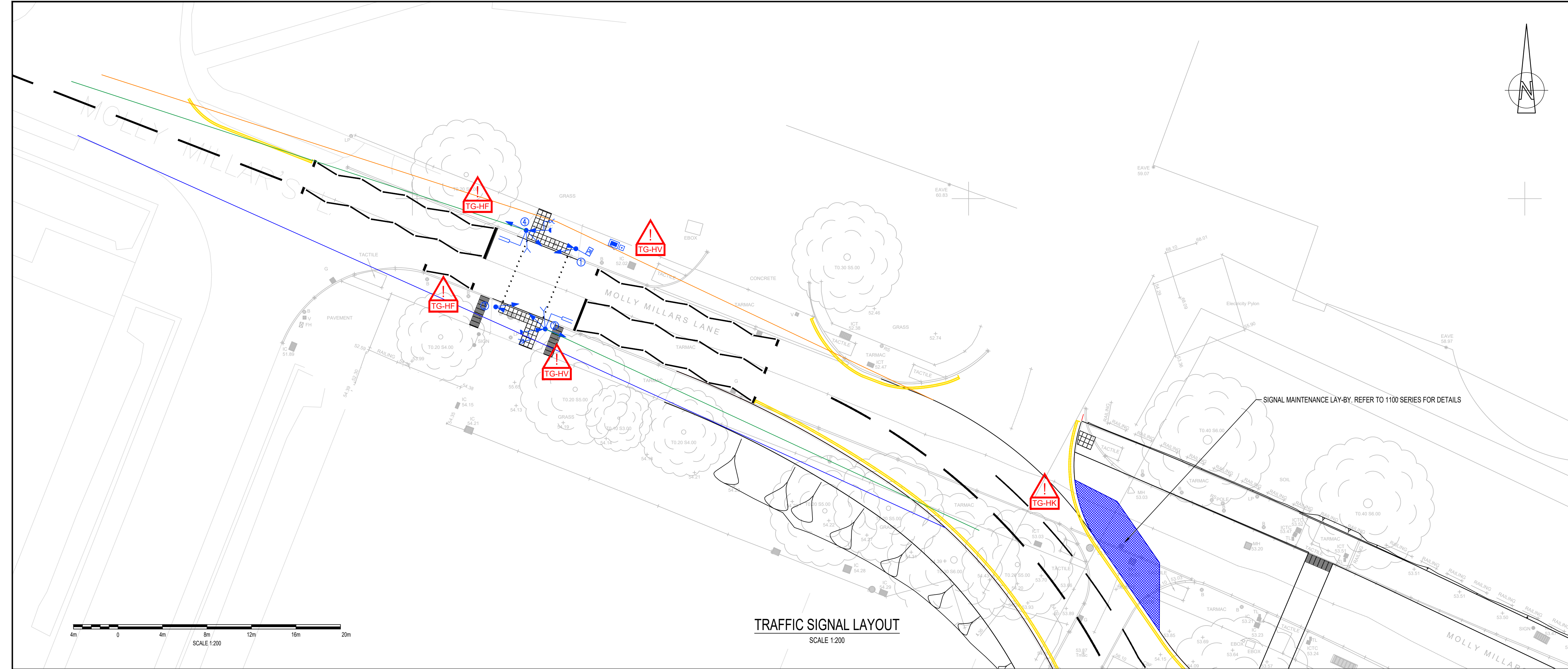
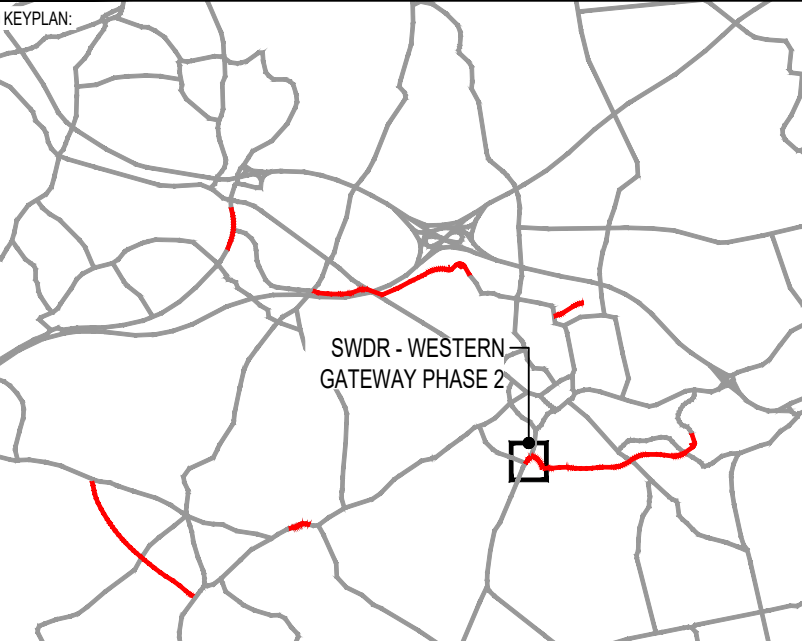




DO NOT SCALE

- NOTES:
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
 - ALL LEVELS ARE IN METRES AOD UNLESS NOTED OTHERWISE.
 - THIS DRAWING SHALL ONLY BE USED FOR THE DESIGN ELEMENT STATED IN THE DRAWING TITLE.
 - FOR DETAILS OF HIGH FRICTION SURFACING REFER TO 700 SERIES.
 - FOR DETAILS OF TACTILE PAVING REFER TO 1100 SERIES.
 - DRAWING TO BE READ IN CONJUNCTION WITH DRAWINGS
WMHP-TG-WG2-DR-HI-1201,
WMHP-TG-WG2-DR-HI-1211,
WMHP-TG-WG2-DR-HI-1221,
AND SPECIFICATION
WMHP-TG-WG2-SP-HI-1201.
- LEGEND
- PRIMARY RAG SIGNAL HEAD
 - 4m POLE STRAIGHT WITHOUT SLOT BUT WITH MID-ACCESS FILLED WITH A STANDARD MATCHING COLOUR VENTED POLE CAP
 - TRAFFIC SIGNAL POLE NUMBERING
 - MVD (STANDARD BEAM)
 - ON-CROSSING DETECTOR
 - PHOTO ELECTRIC CELL
 - PROPOSED CONTROLLER ON NAL ROOT
 - PROPOSED POWER PILLAR
 - NEARSIDE PUSHBUTTON WITH AUDIBLE AND TACTILE DEVICES
 - NEARSIDE TOUCAN SIGNAL WITH WITH COMBINED PUSHBUTTON AND AUDIBLE AND TACTILE DEVICES
 - MAINTENANCE VEHICLE PARKING BAY
 - PEDESTRIAN VISIBILITY AT APPROACH TO CROSSING - DESIRABLE MINIMUM X DISTANCE = 2 m, Y DISTANCE = 43 m SSD ACCORDING TO MFS, AS REQUIRED BY CD 143
 - SHARED USE VISIBILITY AT APPROACH TO CROSSING - ABSOLUTE MINIMUM X DISTANCE = 2.5 m, Y DISTANCE = 43 m SSD ACCORDING TO MFS, AS REQUIRED BY CD 143
 - PRIMARY SIGNAL HEAD VISIBILITY AT APPROACH TO CROSSING - DISTANCE = 43 m SSD ACCORDING TO MFS, AS REQUIRED BY CD 123



TRAFFIC SIGNAL NOTES

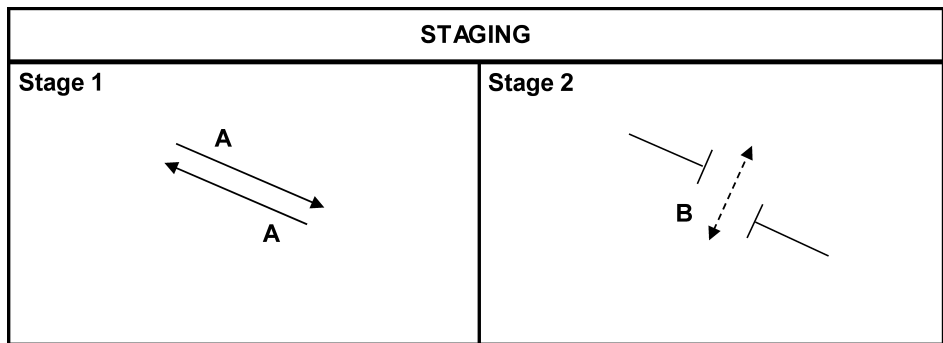
- THE SITE IS A NEW ELV NEARSIDE TOUCAN CROSSING RUNNING VA WITH REMOTE MONITORING. ON-CROSSING DETECTION IS UTILISED BUT KERBSIDE DETECTION IS NOT.
- NEARSIDE TOUCAN SIGNALS AND PUSHBUTTONS WITH COMBINED PUSHBUTTON AND AUDIBLE AND TACTILE DEVICES ARE UTILISED. AUDIBLE DEVICES SHALL BE TIMETABLED NOT TO OPERATE OVERNIGHT.
- ALL TRAFFIC SIGNAL HEADS SHALL BE INSTALLED WITH 2.3m CLEARANCE TO THE UNDERSIDE.
- ALL SECONDARY HEADS SHALL BE FITTED WITH PRIMARY HOODS.
- ON-CROSSING DETECTORS SHALL BE AGD326 OR AGREED EQUIVALENT. WHERE NECESSARY PEDESTRIAN DETECTION SHALL BE INSTALLED ON EXTENDED BRACKETS TO ENSURE CLEAR VISIBILITY OF THE REQUIRED DETECTION AREA.
- ALL SIGNAL HEADS, NEARSIDE SIGNALS AND PUSHBUTTONS SHALL BE LED.
- NO SIGNAL EQUIPMENT SHALL BE INSTALLED WITH LESS THAN 450mm CLEARANCE FROM THE KERBFACE.
- THE CONTROLLER CABINET SHALL BE A LARGE FORM CASE WITH A NAL 'CABINET STYLE' BASE APPROPRIATE FOR THE CONTROLLER TYPE.
- LABELLING:
 - THE CONTROLLER CABINET SHALL BE LABELLED WITH THE SITE REFERENCE USING BLACK LETTERS OF 75MM X-HEIGHT IMPRINTED ON A WHITE BACKGROUND AND WITH A BS7671 ELECTRICITY HAZARD WARNING SYMBOL BELOW.
 - THE POWER PILLAR SHALL BE LABELLED WITH THE SITE REFERENCE USING BLACK LETTERS OF 75MM X-HEIGHT IMPRINTED ON A WHITE BACKGROUND AND WITH A BS7671 ELECTRICITY HAZARD WARNING SYMBOL BELOW; AND
 - ALL POLES TO HAVE POLE NUMBERS WHICH SHALL BE FIXED BEFORE THE SITE ACCEPTANCE TESTING (SAT).
- ALL POLES SHALL BE MID-ACCESS FITTED WITH A STANDARD MATCHING COLOUR VENTED POLE CAP. POLES SHALL NOT BE PRE-DRILLED FOR PUSHBUTTONS AND SHALL NOT HAVE CABLE ENTRY SLOTS.
- ALL POLES SHALL BE INSTALLED TWISTED BY 45 DEGREES TO CORRECT CLEARANCE OF SIGNAL HEADS FROM EDGE OF CARRIAGEWAY.
- EACH POLE SHALL BE SEPARATELY CABLED FROM THE CONTROLLER.
- POLES, CONTROLLER, CONTROLLER NAL BASE AND POWER PILLAR SHALL BE FINISHED BLACK.
- A 4G STRATOS UNIT SHALL BE SUPPLIED, INSTALLED AND CONFIGURED TO THE READING BOROUGH COUNCIL (RBC) CLOUD-BASED SYSTEM. A STRATOS 4G AERIAL SHALL BE FIXED TO THE OUTSIDE OF THE CONTROLLER CASE AND BLACK IN COLOUR. SIM CARDS SHALL BE FREE ISSUED BY THE LOCAL AUTHORITY.
- THE LOCATION OF THE CONTROLLER, POWER PILLAR AND ALL POLES AND THE ALIGNMENT OF SIGNAL HEADS AND NEARSIDE TOUCAN SIGNALS AND PUSHBUTTONS SHALL BE AGREED ON SITE WITH THE LOCAL AUTHORITY TRAFFIC SIGNAL ENGINEER.
- DNO SUPPLY ARRANGEMENT TO BE AGREED/ARRANGED BY THE CONTRACTOR.
- ALL WORKS SHALL COMPLY WITH THE APPENDIX 12/5 WORKS SPECIFICATION AND ALL OTHER RELEVANT ENGINEERING DETAILS AND DRAWINGS. THE SCHEME SHALL BE CARRIED OUT IN ACCORDANCE WITH THE DMRB CODE OF PRACTICE.

POLE SCHEDULE												
POLE REF	POLE TYPE	TRAFFIC SIGNAL HEADS			TOUCAN EQUIPMENT		DETECTION		SETTING OUT			COMMENTS
		HEAD REFERENCE	HEAD TYPE	PRIMARY HEAD WITH PRIMARY HOODS	NEARSIDE TOUCAN SIGNAL	NEARSIDE PUSHBUTTON	ON-CROSSING DETECTOR	MVD	CLEARANCE STOPLINE TO STUDS	CLEARANCE POLE FROM STUDS	CLEARANCE POLE FROM KERB FACE	
1	4m	1	RAG+	-	-	YES	-	-	-	0.50m	0.60m	HEAD ALIGNED TO POINT AT THE BUSINESS CENTRE ENTRY/EXIT ROAD. PE ON THIS POLE
2	4m	1	RAG+	YES	YES	-	YES	YES	3.00m	0.50m	0.60m	
		2	RAG+	-								
3	4m	1	RAG+	-	-	YES	-	-	-	0.50m	0.60m	HEAD ALIGNED TO POINT AT THE INTERSURGICAL ENTRY/EXIT ROAD
4	4m	1	RAG+	YES	YES	-	YES	YES	3.00m	0.50m	0.60m	
		2	RAG+	-								

KEY:
a) PE = PHOTO ELECTRIC CELL;
b) 4m = 4m (NOMINAL) STRAIGHT POLE; AND
c) + = 2.3m CLEARANCE TO THE UNDERSIDE OF THE HEAD

CROSSING SCHEDULE					
CROSSING REF.	PHASE	TYPE	DESCRIPTION	WIDTH	NUMBER TACTILE PAVING BLOCKS
1	B	TOUCAN	ACROSS MOLLY MILLARS LANE	4.00m	10

NOTES:
1) TACTILE PAVING BLOCKS ARE 400mm x 400mm SQUARE AND COLOURED RED.



SIGNIFICANT RESIDUAL HAZARDS

RESIDUAL HAZARD	STAGE	SUGGESTED CONTROL MEASURE
STRIKING UNDERGROUND SERVICES	C	HAND DIGGING AND CAT SCANNING TECHNIQUES SHALL BE UNDERTAKEN TO LOCATE SERVICES/UTILITIES. MARK UP ON SITE IF REQUIRED. NO WORKS TO BE UNDERTAKEN WITHOUT A VALID PERMIT TO DIG.
ELECTROCUTION OF OPERATIVES - LARGE PLANT OR INFRASTRUCTURE STRIKING OVERHEAD CABLES (WHICH EXTENDS ACROSS AND ALONG MOLLY MILLARS LANE BEFORE CROSSING FINCHAMPSTEAD ROAD (NORTH OF THE ROUNDABOUT))	C	ALL WORKERS WORKING IN THE VICINITY ARE TO BE AWARE OF THE LOCATION OF OVERHEAD CABLES AND THE ELECTRICITY PYLON AT ALL TIMES DURING THE WORKS. ENSURE THAT THE PROCEDURES SET OUT IN GUIDANCE NOTE GS6 ARE CARRIED OUT AND A SAFE SYSTEM OF WORK IS IN PLACE.
DANGER TO NMU'S IN CASE OF SIGNAL HEAD FAILURE	C	NEARSIDE AND FARSIDE SECONDARY SIGNAL HEADS ARE PROVIDED IN ORDER TO IMPROVE OVERALL VISIBILITY TO SIGNAL HEADS AS WELL AS PROVIDING BACK UP SHOULD A SIGNAL HEAD FAIL.

NOTE: The above hazards do not include every hazard or assumption, but identify significant residual construction hazards that are not likely to be obvious to a competent contractor and those that could be difficult to manage effectively. Refer also to the designer's risk documentation.

TIMINGS			
PERIOD	PEDESTRIAN	TRAFFIC	TIME (SECONDS)
1	RED	GREEN	MAX 30, MIN 7
2	RED	AMBER	3
3	RED	RED	1GAP, 3 MAX
4	GREEN	RED	6
5	RED	RED	3
6	RED	RED	5
7	RED	RED + AMBER	2

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P03	27/08/2021	BH	REVISED FOR SCO COMMENTS	PR	IR
P02	30/07/2021	ANT	REVISED FOR PLANNING DISCHARGE AND SCO COMMENTS	PR	IR
P01	01/04/2021	ANT	DETAILED DESIGN ISSUE	BH/PRG	JC
REV	DATE	BY	DESCRIPTION	CHK	APP
DRAWING STATUS: SUITABLE FOR EXAMINATION					S8
DESIGNER: Tony Gee and Partners LLP Hardy House 140 High Street Esher, Surrey KT10 9QU Tel: 01372 461600 www.tonygee.com Consulting Civil, Structural and Geotechnical Engineers					
CONTRACTOR: Balfour Beatty					
CLIENT: WOKINGHAM BOROUGH COUNCIL Shute End, Wokingham, Berkshire RG40 1BN Tel: (0118) 974 6000 Web: www.wokingham.gov.uk					
PROJECT: WOKINGHAM MAJOR HIGHWAYS PROGRAMME SWDR WESTERN GATEWAY PHASE 2					
TITLE: ROUNDABOUT ENHANCEMENT MOLLY MILLARS LANE TOUCAN CROSSING SIGNALS LAYOUT SHEET 3 OF 6					
SCALE @ A1: 1:250	CHECKED: PR	APPROVED: IR			
PROJECT NO: C118048	DESIGNED: IR	DRAWN: ANT	DATE: March 21		
DRAWING NO: WMHP-TG-WG2-DR-HI-1233					P03