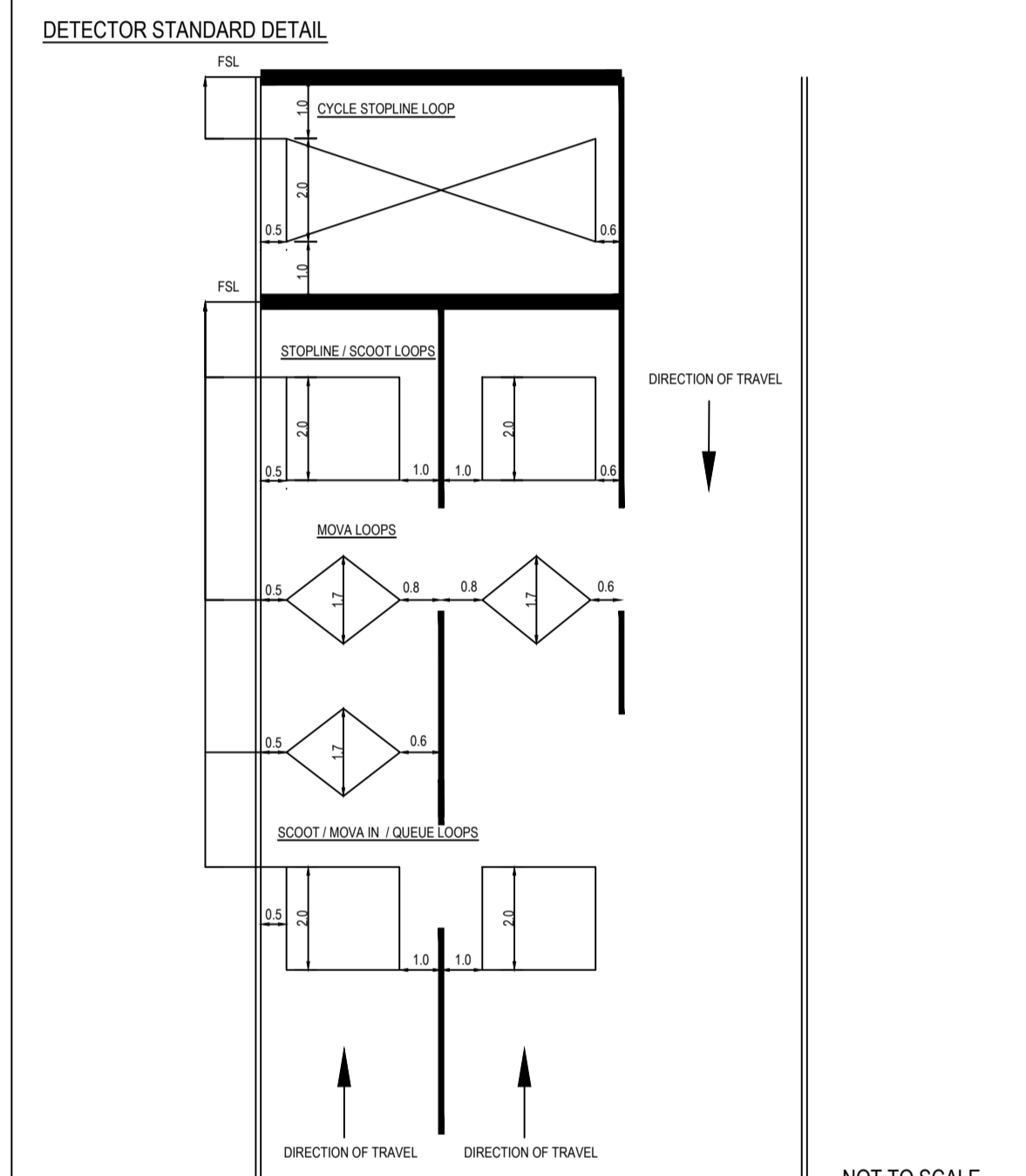


- TRAFFIC SIGNAL ITEMS - NEW**
- 4.2m Non-Passive Straight Traffic Signal Pole
 - 3.9m Non-Passive Low Level Access Traffic Signal Pole
 - 2.0m Non-Passive Stub Traffic Signal Pole
 - ▶ Primary ELV RAGA Signal Head with Ahead Arrow Green Aspect
 - ▶ Secondary ELV RAGA Signal Head with Ahead Arrow Green Aspect
 - ▶ Primary ELV RAGA Signal Head with Right Turn Green Arrow Aspect
 - ▶ Secondary ELV RAGA Signal Head with Right Turn Green Arrow Aspect
 - ▶ Primary ELV RAGA Signal Head with Ahead & Left Green Arrow Aspects
 - ▶ Secondary ELV RAGA Signal Head with Ahead & Left Green Arrow Aspects
 - ▶ Primary ELV RAGA Signal Head with Left Turn Green Arrow Aspect
 - ▶ Secondary ELV RAGA Signal Head with Left Turn Green Arrow Aspect
 - ▶ No Right Turn Box sign [NRT]
 - ▶ No Left Turn Box sign [NLT]
 - ▶ Ahead Only Box sign [AO]
 - ▶ No U Turn Box sign [NUT]
 - ▶ Turn Left Box sign [TLT]
 - ▶ ELV Farside Pedestrian RMGM with ELV PCATS Countdown Indicator
 - ▶ ELV Farside Pedestrian RMGM/Cyclists Aspects with ELV PCATS Countdown Indicator
 - ▶ ELV Wait Indicator & Push Button Unit & Tactile Device
 - ▶ Extended Rotated Cowls
 - ▶ Extension Bracket
 - ▶ Junction Traffic Signal Controller Cabinet Installed on NAL Controller Base
 - ▶ Electric Feeder Pillar (FP)
 - ▶ Photo-Electric Cell (PE)
 - ▶ MOVA Loop (IN & X)
 - ▶ SCOOT (SC) / MOVA (IN & X) / Stop Line Loop
 - ▶ Advanced Cycle Stop Line Loop
 - ▶ Intervisibility Zone
- CIVIL ENGINEERING ITEMS - NEW**
- 1x50mm Black Duct
 - 1 x 100mm Dia. HDPE Traffic Signal Ducting
 - 2 x 100mm Dia. HDPE Traffic Signal Ducting
 - 4 x 100mm Dia. HDPE Traffic Signal Ducting
 - Carriageway Loop Chamber 50mm Dia. Underkerb Duct
 - 450 x 450mm Twin-Walled Duct Chamber
 - 600 x 600mm Twin-Walled Duct Chamber
 - RS115x750 Pole Retention Socket
 - Pole Number
 - Red Tactile Paving (400x400mm)
 - Stainless Steel Studs
 - High Friction Surface (Proposed by the client)
 - Hard Standing Area
- EXISTING CIVIL ENGINEERING ITEMS - TO BE RETAINED**
- 1 1 x 100mm Dia. HDPE Traffic Signal Ducting
 - 2 2 x 100mm Dia. HDPE Traffic Signal Ducting
 - 4 4 x 100mm Dia. HDPE Traffic Signal Ducting
 - Carriageway Loop Chamber 50mm Dia. Underkerb Duct
 - Large Duct Box (600x600x750mm)
 - RS115x750 Pole Retention Socket

CABLE SCHEMATIC

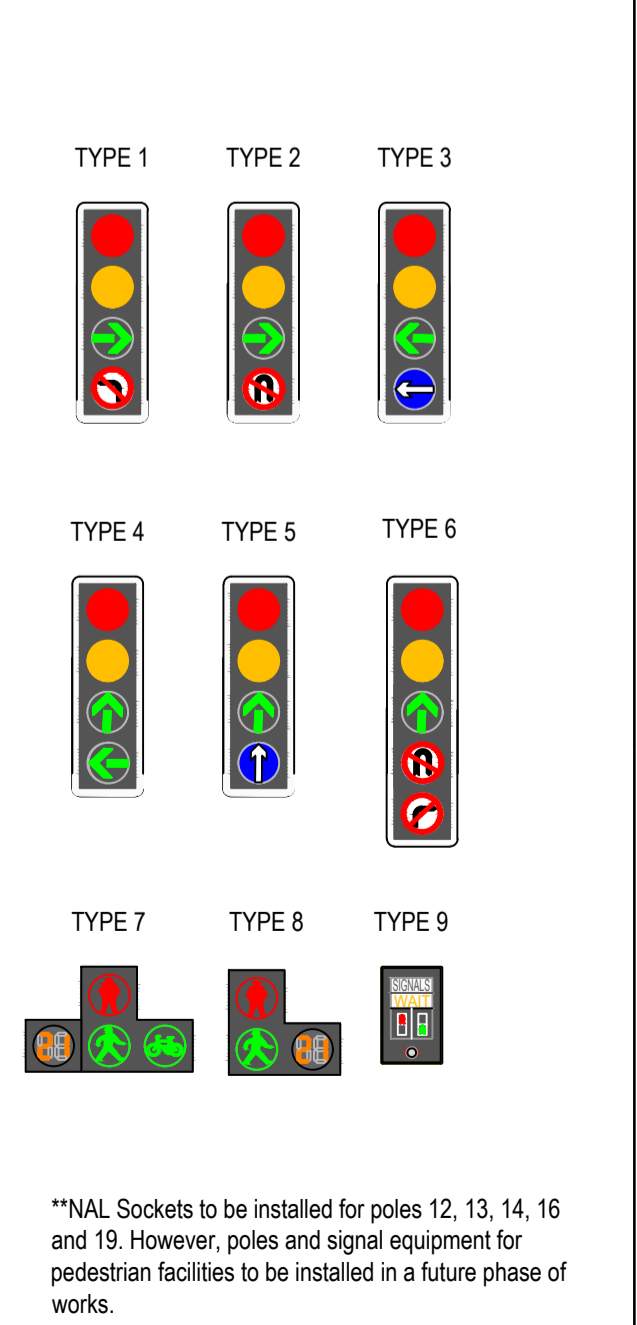
SC20	—	SC10	2 pair	12 Core (1)
AIN30	—	AIN10	2 pair	12 Core (2)
AX40	—	AX20	2 pair	16 Core (3)
BIN50&SC30	—		1 pair	20 Core (4)
BX60	—	BX80	2 pair	20 Core (5)
BSL70&SC40	—		2 pair	16 Core (6)
BSL90&SC50	—		2 pair	16 Core (6)
CIN100&SC60	—		1 pair	16 Core (7)
CX110	—		1 pair	C 12 Core (8)
CCSL130	—	CSL120&SC70	1 pair	N 16 Core (9)
CCO0	—		1 pair	T 16 Core (10)
FIN11&SC11	—		1 pair	L 12 Core (11)
FX21	—		1 pair	L 20 Core (15)
FSL31&SC21	—		1 pair	L 20 Core (17)
GIN41&SC31	—		1 pair	L 20 Core (18)
GX81	—	GX51	2 pair	L 20 Core (18)
GSL91&SC61	—	GSL61&SC51	2 pair	L 12 Core (20)
GIN71&SC41	—		1 pair	L 20 Core (21)
HIN101&SC71	—		1 pair	L 20 Core (21)
FX131	—	FX111	2 pair	L 12 Core (22)
HSL141&SC81	—	HSL121&SC81	2 pair	L 20 Core (23)



POLE SCHEDULE

Pole	Dist from kerb (m)	Dist from tactile (m)	Dist from Stopline (m)	Head Type
1	0.9	0.45	-	9
2	As Shown	-	-	5
3	0.9	0.45	-	5,7,9
4	0.9	0.45	-	5,9
5	As Shown	-	-	5,6
6	0.9	0.45	-	4,7,9
7	Center of the island	-	2.2	6
8	0.9	-	2.2	4
9	0.9	0.45	-	1,8,9
10	0.9	0.45	-	1,8,9
11	0.9	-	1.7	4
12*	0.9	0.45	-	-
13*	0.9	0.45	-	-
14*	0.9	0.45	-	-
15	0.9	0.45	-	4
16*	0.9	0.45	-	-
17	0.9	0.45	-	3
18	0.9	0.45	-	3
19*	0.9	0.45	-	-
20	Center of the island	As Shown	-	3
21	Center of the island	1.5	2.5	2,5
22	Center of the island	1.7	2	2
23	0.9	-	1.5	2,5

*distance to centre of pole



NOTES

GENERAL

- These works should be completed in accordance with this drawing, associated technical note (858435436-SIE-00-XX-TN-Y-0002) and local authority specification (SCC Traffic Control Systems specification for the Supply and Installation of Traffic Signals). Any deviation should be discussed and agreed with the designer/local authority representative prior to commencing works.
- Drawing to be reproduced in colour.
- A full electrical design for the traffic signal system has not been completed as part of the traffic signal design. It is the responsibility of the traffic signal contractor to complete an electrical design in accordance with BS7671. On completion of the installation a fully completed electrical installation certificate should be provided to the highway authority, signed by the electrical design team, installation team and the inspection and testing team.

CIVILS

- A duct survey has been carried out and existing ducting has been proven. Existing duct chambers must be cleared of any dirt/debris. Existing ducting shall be utilised and proposed ducting shall be tied in with the existing duct network as shown on the signal drawing.
- Ducts in the carriageway to have a minimum of 750mm cover, ducts in the footway/verge to have a minimum of 450mm cover.
- All proposed poles to be installed in NAL RS115x750DF pole retention sockets and are to be positioned to allow a minimum of 400mm clearance from the edge of any equipment to the edge of the carriageway. Final position to be agreed with the SCC representative prior to installation.
- If signal poles are located on the green verge a suitable size hard standing area must be built around it for ladder support and maintenance.
- Coloured High Friction Surfacing indicated on the drawing has been proposed by the client.
- Civils, including ducting, duct chambers and NAL sockets for the crossings on Forge End to be installed. Signal equipment for crossings and civils including tactile paving and pedestrian studs to be added in a future phase.

SIGNING AND LAYOUT

- All proposed road markings to be laid in accordance with the 'Traffic Signs Regulations and General Directions 2016'.
- Road markings have been designed and supplied by others.

SYSTEMS

- SCC representative to attend FAT and SAT. Siemens Traffic Solutions Design Engineer can attend FAT if required, contact 01202 78200 for a quote.
- This site is to operate under UTC / SCOOT control and MOVA control fall back.
- MOVA dataset to be prepared following FAT. MOVA validation to be carried out over a single consecutive PM and AM peak period. Validation report to be supplied no later than 2 weeks following validation.
- UTC database preparation and SCOOT validation to be carried out over a single consecutive PM and AM peak period. Validation report to be supplied no later than 2 weeks following validation.
- MOVA and SCOOT validations must be added to the supply and installation works.

BUS PRIORITY

- Local or central Bus Priority Trapezoid shall be in use subject to confirmation. Contact SCC for any details of bus priority.

TRAFFIC SIGNAL EQUIPMENT

- All traffic signal equipment to be ELV (Extra Low Voltage).
- All poles, controller cabinet and electric feeder pillar to be black in colour.
- Traffic signal poles to be numbered as shown.
- Height of all red aspects to be consistent across the site. Distance between the bottom of the signal head and finished surface level to be a minimum of 2.3m.
- Extended, rotated cowls shall be installed on signal aspects on pole 22.
- All traffic signal heads to be fitted with high visibility backing boards.
- In general, push button units (pbu) are to be installed at 30 degrees to the carriageway edge. Exact orientation of pbu to be agreed on site with SCC representative prior to installation.
- All push buttons to be fitted with rotating tactile cones. Tactile cones must be fully monitorable type.
- All poles to be non-passive steel poles. Refer to drawing for pole type.
- The contractor is responsible for the provision of a suitable 230V 50Hz electrical supply, to be terminated into the adjacent electrical supply pillar (supplied by the signals contractor). The signals contractor will connect to the main supply via a 45amp rated lockable isolator.
- Traffic signal cable to be armoured 1.5mm² in accordance with the electrical design developed by the traffic signal contractor. Minimum of 25% or 4 spare cores to be maintained to each pole.
- Loop feeder cable to be non-armoured.
- All loop positions and dimensions are shown indicatively on the drawing. For exact loop dimensions refer to the standard detail drawing and detection schedule tables. They are to be set on site by a suitably trained engineer.
- Siemens semi-integral Stratos Outstation with UTM/C/UTC/ latest MOVA licence, existing ADSL router is to be reused. If router not available, a compatible router should be installed.

COMMUNICATIONS

- Existing communication line to be utilised and terminated in the new controller positioning.

RISK ASSESSMENT INFORMATION

In addition to the hazards and risks normally associated with the type of works detailed on this drawing, please refer to the Siemens project specific design risk assessment. Where possible, control measures have been introduced to reduce the risk to an appropriate level. Where a residual design risk remains, a risk triangle, as shown above, has been added to the drawing with the design risk assessment reference number shown. No residual construction risks are highlighted on this drawing.

SIEMENS

DRAWING STATUS: **S4 - ISSUED FOR CONSTRUCTION APPROVAL**

CUSTOMER: VECTOS INFRASTRUCTURE LTD

SCHEME TITLE: TRAFFIC SIGNAL DESIGN WORKING TOWN CENTRE DEVELOPMENT VICTORIA WAY / CHURCH STREET WEST / FORGE END WOKING, SURREY

P7	CHANGES TO CONTROLLER LOCATION	JM	MG	DC	DC	29/06/23
P6	CHANGES TO CONTROLLER LOCATION	JM	MG	MG	MG	30/01/23
P5	CHANGES TO THE SIGNAL ASPECTS ON POLES 5, 6, 7, 8 (PHASE B)	JM	MG	MG	MG	16/01/23
P4	PED CROSSING ADDED TO CHURCH ST WEST	JM	MG	MG	MG	28/09/22
P3	PED FACILITIES REMOVED ON FORGE END	LM	SM	MG	MG	17/03/22
P2	UPDATED TO REFLECT LAYOUT CHANGES	SM	MG	SF	SF	31/01/22
P1	FIRST ISSUE	AC	SM	MG	MG	05/02/21
REV	DESCRIPTION	DRN	CHK	APP	DATE	

SCALE AS SHOWN DATE: 21/06/23

PAPER SIZE: A1 DRN: MG

CHK: SL

APP: MG

SHEET: 1 of 1