

**ROAD MARKINGS KEY**

- Existing items
- Items to be refreshed
- New items
- Items to be removed

- ROAD MARKING NOTES**
- All dimensions in metres unless otherwise stated.
  - Do not scale. This drawing is to be read in conjunction with all other contract drawings and documents.
  - All works to be in accordance with the Specification for Highway Works and Standard Construction Drawings.
  - All road markings are to comply with The Traffic Signs Regulations and General Directions 2016. Markings are to be thermoplastic screed with applied solid glass beads unless otherwise stated.
  - The removal of any road markings should be carried out by the method of hydroblasting in accordance with Essex Highways current standards.
  - Existing stop lines are 200mm wide.
  - Drawings of existing Statutory Undertakers plant have been obtained and are included in the drawings provided to the Contractor. The Contractor shall be responsible for ensuring that all Statutory Undertakers plant is located prior to commencing works and the protection of such plant is required.
  - For additional details refer to the following drawings:  
Junction Traffic Signal Approval Drawing No. 300481-3J21-51-001  
Site Clearance Works Drawing No. 300481-3J21-02-001  
Traffic Signal Ducting Works Drawing No. 300481-3J21-05-001  
Kerbing and Footway Works Drawing 300481-3J21-11-001

**LOCATION OF 7014 SIGN ON SOUTHERN APPROACH?**

Ensure all excavation in the vicinity of underground services is in accordance with the HSE's HSG47 'Avoiding Danger from Underground Services' document and the Ringway Jacobs 'Avoidance of Underground Services' document

**SAFETY, HEALTH & ENVIRONMENTAL INFORMATION**

In addition to the hazards normally associated with the types of work detailed on this drawing, note the following significant risks:

**CONSTRUCTION**

**Ref 2.1** Underground High Voltage (HV) electricity cables located in the carriageway and footway on the northern approach of St. Botolph's Street and in the carriageway, footway and crossing island of Osborne Street.

**Ref 2.2** Underground Low Voltage (LV) electricity cables located in footways on the northern approach of St. Botolph's Street and in the carriageway and footway of Osborne Street via the crossing island.

**Ref 2.5** Cadent LP mains located in both footways of St. Botolph's Street and in the carriageway and footway of Osborne Street via the crossing island.

**Ref 2.7** Anglian Water mains located in the carriageway of St Botolph's Street and Osborne Street via the crossing island.

**Ref 2.8** BT underground cables located in the carriageway and footway of St Botolph's Street and Osborne Street.

**MAINTENANCE / CLEANING**

**OPERATING**

**DEMOLITION / ADAPTATION**

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement. Should the Contractor or other party undertaking the works require any further information or clarification in respect of the Residual Risks associated with the construction of this project, then the Contractor shall contact the Overseeing Organisation for the Works.

Rev	Date	Description of revision	Drawn	Checked	Reviewed	Approved

**DRAWING STATUS**

**FOR CONSTRUCTION**

**Essex Highways**

Essex Highways, Seax House, Victoria Road South, Chelmsford, CM1 1QH.  
Tel: 0345 6037631 © Essex County Council

**SCHEME TITLE**

**3J21 ST. BOTOLPHS STREET/ OSBORNE STREET, COLCHESTER**

**DRAWING TITLE**

**ROAD MARKING DRAWING**

DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
BC	JB			
DATE	DATE	DATE	DATE	DATE

**DRAWING UNITS U.M.O.**

**DIMENSIONS IN MILLIMETRES LEVELS IN METRES**

SCALE AT A1 (841x594mm)

**As detailed**

**DRAWING No.**

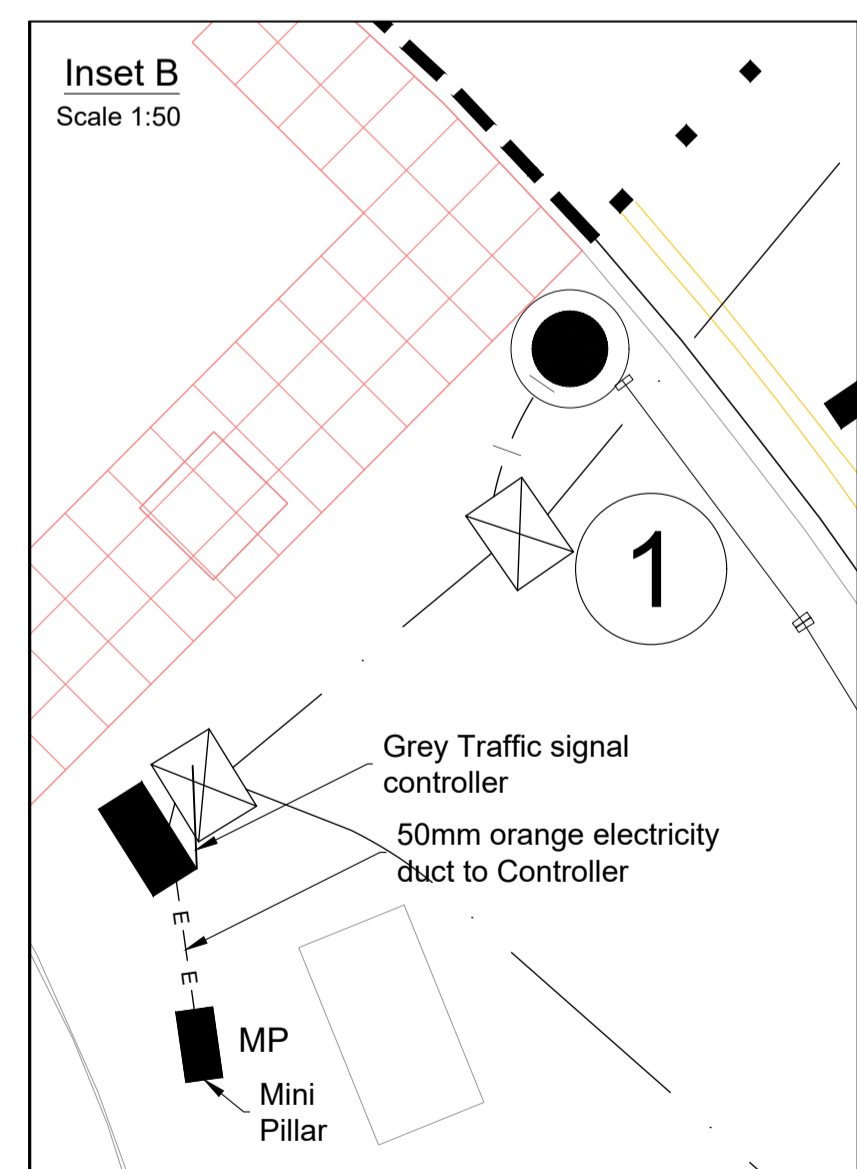
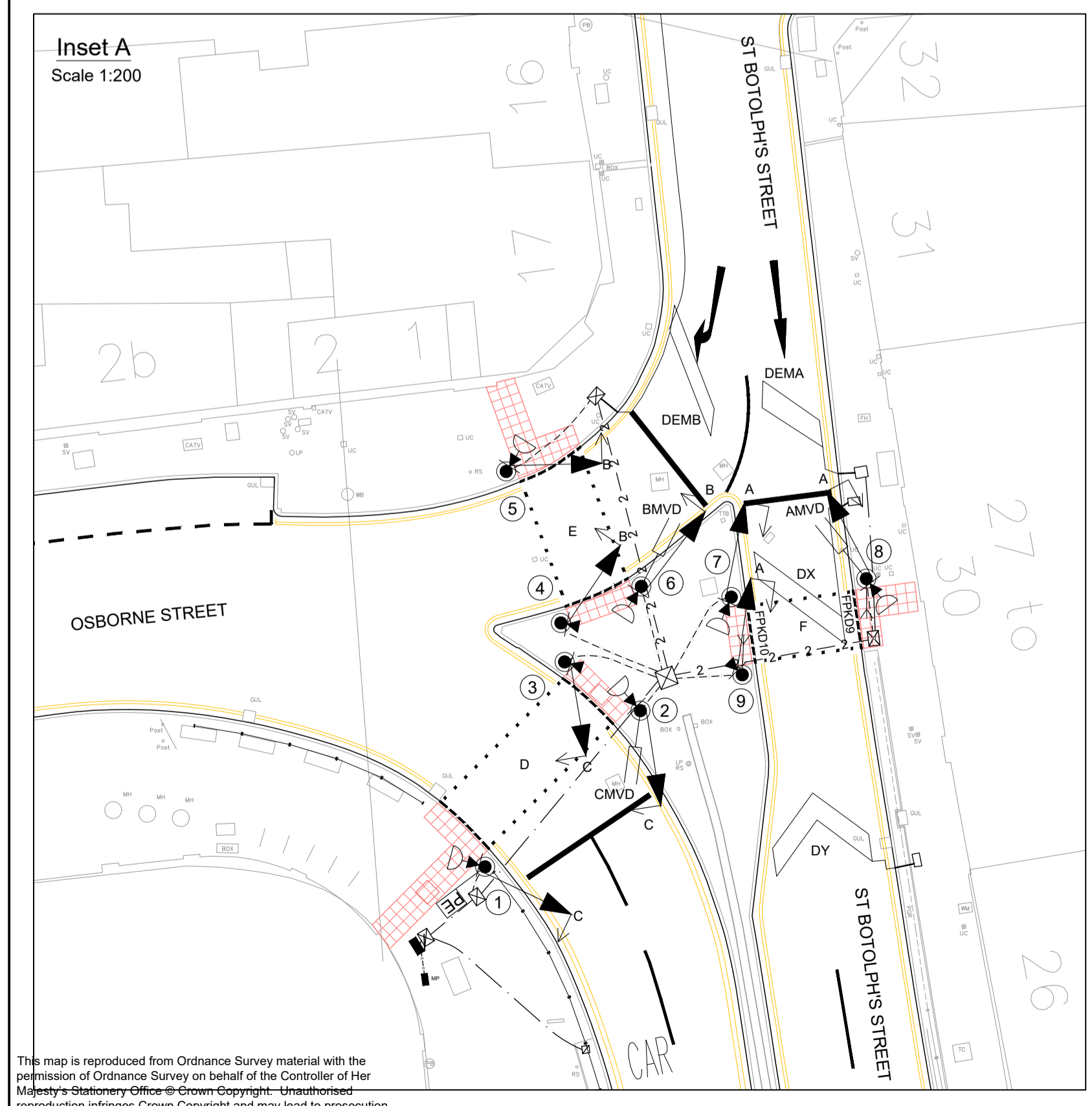
**300481-3J21-12-001**

**REV.**

**-**





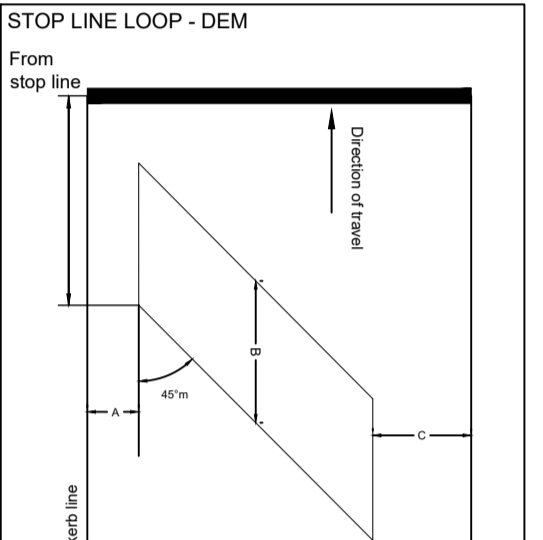
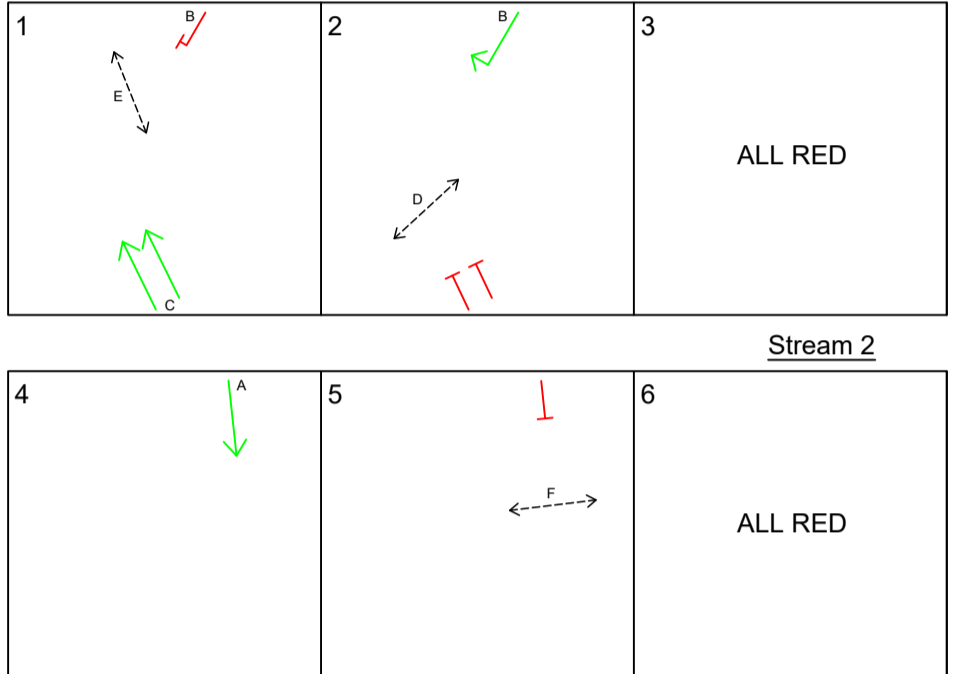


**SIGNAL NOTES**

- Do not scale from this drawing.
- All dimensions in metres unless otherwise stated.
- Grey ELV Traffic Signal Controller to be installed at this site, mounted on a NAL Controller Cabinet base incorporating a duct chamber.
- All signal heads are ELV LED.
- All primary signal heads are side mounted away from kerb.
- All closely associated secondary signal heads are side mounted away from kerb.
- ELV Photo Electric cell to be installed on Pole 1.
- All new signal poles are grey in colour and labelled with an identification number.
- All new 4m signal poles have low level signal terminations with 114mm base and vented pole cap.
- Low level access poles 1, 5, 6 & 9 shall have the access door orientated away from the kerb and facing towards the back of the footway.
- Low level access poles 2, 3, 4, 7, 8 & 10 shall have the access door orientated so facing the inside of the central island.
- All new signal poles are installed in NAL RS115 pole retention sockets.
- Pole 9 to be fitted with NAL RS115 pole retention socket with "T" bend.
- Combined nearside unit with pushbutton and wait indicator mounted on poles 1, 6, 7, 8 & 9 and angled at 30° to line of kerb face.

- Combined nearside unit with pushbutton and wait indicator mounted on pole 2 and angled so parallel to line of kerb face.
- Push button units mounted on poles 3, 4, 5 & 10 and angled at 30° to line of kerb face.
- Tactile rotating cones are installed in all pushbutton units.
- All above ground detection must have clear visibility of the detection zone for full functionality, through use of brackets as necessary.
- All timings on this drawing are minimums unless otherwise stated.
- Red lamp monitoring to be installed at this site.
- The latest version of OTU compatible with Essex Highways' UTC in-station equipment using 4G communications is installed in controller?
- 4G SIM card is provided by Essex Highways for OTU
- The absolute minimum clearance from all street furniture to the edge of the carriageway shall be 460mm.
- All stop lines are 200mm wide.
- The dropped kerb detail and tactile paving layout satisfies the requirements as set out in 'The Guidance on the use of Tactile Paving Surfaces' published by DTI.
- The accuracy of this drawing cannot be guaranteed for the setting out of the civils works.
- For construction and setting out details refer to the following drawings:-  
Site Clearance Works Drawing No. 300481-3J21-02-001  
Traffic Signal Ducting Works Drawing No. 300481-3J21-05-001  
Kerbing & Footway Works Drawing No. 300481-3J21-11-001  
Road Marking Drawing No. 300481-3J21-12-001

**PHASING AND STAGING DIAGRAM**



AWAITING INFORMATION ON SCOOT LOOPS

**POLE SCHEDULE**

Pole number	Pole type	Primary signal heads			Closely associated secondary signal heads			Other equipment					
		Red	Yellow	Green	Red	Yellow	Green	PE Cell	Microwave Vehicle Detector (MVD)	Tactile rotating cones	Combined Puffin Nearside Unit with Push Button and Wait Indicator	Push Button Unit	Pedestrian Kerbside Detector (PKD)
1	4.0m straight low level access	C						✓			✓		
2	4.0m straight low level access	C							✓		✓		
3	4.0m straight low level access				C					✓		✓	
4	4.0m straight low level access					B				✓		✓	
5	4.0m straight low level access					B				✓		✓	
6	4.0m straight low level access		B					✓ (with narrow field of view)		✓		✓	
7	4.0m straight low level access					A				✓		✓	
8	4.0m straight low level access					A		✓ (with narrow field of view)		✓		✓	
9	4.0m straight low level access						A			✓		✓	

**DETECTOR FUNCTION TABLE**

Detector label	Distance from stop line (m)	Phase (s) demanded	Phase (s) extended	All Red extended	Call / Cancel	Detector type	Loop dimensions			Additional notes
							A	B	C	
AMVD	-	C	C	-	-	Above ground detector	-	-	-	MVD to be narrow field of view type
DEMA	3	A	-	-	-	Loop	0.5	1.1	0.5	-
BMVD	-	C	C	-	-	Above ground detector	-	-	-	MVD to be narrow field of view type
DEMB	3	B	-	-	-	Loop	1.5	1.1	0.5	Loop to be cut ensuring 1.0m clearance of ironwork in carriageway
CMVD	-	C	C	-	-	Above ground detector	-	-	-	-
PEDD1	-	D	-	-	-	Push button	-	-	-	-
PEDD2	-	D	-	-	-	Push button	-	-	-	-
PEDD3	-	D	-	-	-	Push button	-	-	-	-
PEDE5	-	E	-	-	-	Push button	-	-	-	-
PEDE6	-	E	-	-	-	Push button	-	-	-	-
PEDF7	-	F	-	-	-	Push button	-	-	-	-
PEDF8	-	F	-	-	-	Push button	-	-	-	-
PEDF9	-	F	-	-	-	Push button	-	-	-	-
FPKD8	-	F	-	-	0/2	Above ground detector	-	-	-	-
FPKD9	-	F	-	-	0/2	Above ground detector	-	-	-	-

**PHASE TIMINGS**

Phase	Minimum Green	Vehicle Green Extension	Pedestrian Minimum Green (Period 4)	Fixed Minimum All Red (Period 5)	Extendable Maximum All Red (Period 6)	Red/Amber to vehicles (Period 7)
A	7	0.2/2.0	-	-	-	-
B	7	0.2/2.0	-	-	-	-
C	7	0.2/2.0	-	-	-	-
D	-	-	5	3	6	2
E	-	-	5	3	5	2
F	-	-	5	3	4	2

**PERMITTED STAGE CHANGES UNDER ALL MODES**

STREAM 1	TO/FROM		
	1	2	3
1	✓		
2	✓	✓	✗
3	✓	✓	✓

✓ = Permitted stage move  
✗ = Stage move not permitted  
All stages to All Red stage permitted under manual control only

**PHASE INTERGREENS**

A	B C D E F					
	A	B	C	D	E	F
A	-	-	-	-	-	5
B	-	-	5	-	5	-
C	-	5	-	5	-	-
D	-	-	9	-	-	-
E	-	7	-	-	-	-
F	7	-	-	-	-	-

The intergreen values have been taken from the existing Traffic Signal Approval drawing AVTESY/S6611/003 RevA

Essex County Council  
Highways and Transportation Department  
**SIGNAL APPROVAL**

Approval No. \_\_\_\_\_  
Signature \_\_\_\_\_ Date \_\_\_\_\_

Checked Design and Layout \_\_\_\_\_  
ECC Approved \_\_\_\_\_

Essex County Council  
**Road Safety Audit Stamp**

Company: \_\_\_\_\_  
Reference No: \_\_\_\_\_ Stage \_\_\_\_\_  
Initials \_\_\_\_\_ Date \_\_\_\_\_ Comments \_\_\_\_\_

	INITIALS	DATE
INTGRN CALC	PA	15/9/21
INTGRN CHECK	SJC	22/9/21

**MAINTENANCE PARKING REQUIREMENTS**  
MAINTENANCE VEHICLES MAY PARK WITHIN THE VEHICLE LOADING/UNLOADING ZONE LOCATED IN OSBORNE STREET

Ensure all excavation in the vicinity of underground services is in accordance with the HSE's HSG47 'Avoiding Danger from Underground Services' document and the Ringway Jacobs 'Avoidance of Underground Services' document

**SAFETY, HEALTH & ENVIRONMENTAL INFORMATION**

In addition to the hazards risks normally associated with the types of work detailed on this drawing, note the following significant risks:

**CONSTRUCTION**  
Ref 2.1 Underground High Voltage (HV) electricity cables located in the carriageway and footway on the northern approach of St. Botolph's Street and in the carriageway, footway and crossing island of Osborne Street.  
Ref 2.2 Underground Low Voltage (LV) electricity cables located in footways on the northern approach of St. Botolph's Street and in the carriageway and footway of Osborne Street via the crossing island.  
Ref 2.5 Catenary LP mains located in both footways of St. Botolph's Street and in the carriageway and footway of Osborne Street via the crossing island.  
Ref 2.7 Anglian Water mains located in the carriageway of St Botolph's Street and Osborne Street via the crossing island.  
Ref 2.8 BT underground cables located in the carriageway and footway of St Botolph's Street and Osborne Street.

**MAINTENANCE / CLEANING**  
**OPERATING**  
**DEMOLITION / ADAPTATION**

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement. Should the Contractor or other party undertaking the works require any further information and/or clarifications in respect of the Residual Risks associated with the construction of this project, then the Contractor shall contact the Designing Organisation for the Works.

Rev.	Date	Description of revision	Drawn	Checked	Reviewed/Approved

DRAWING STATUS: **FOR APPROVAL**

**Essex Highways**

Essex Highways, Seax House, Victoria Road South, Chelmsford, CM1 1QH.  
Tel: 0345 6037631

© Essex County Council

SCHEME TITLE: **3J21 ST. BOTOLPHS STREET/ OSBORNE STREET, COLCHESTER**

DRAWING TITLE: **JUNCTION TRAFFIC SIGNAL APPROVAL DRAWING**

DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
BC	JB			

DRAWING UNITS U.N.O. DIMENSIONS IN MILLIMETRES LEVELS IN METRES SCALE AT A1 (841X594mm) As detailed

DRAWING No. **300481-3J21-51-001** REV. -

**RINGWAY JACOBS** Integrated expertise

**Essex County Council**