



Cambridge Market Square – Setts & Fountain

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Conservation Accredited Engineer



MARKET SQUARE RESIDENT - ROLAND – 4.22am 30 MAY 2022

MEETING OBJECTIVES:

To provide an overview of the work to date to understand the historical development of Market Square from the late 19th Century with particular focus on the Leicester Pink Granite Setts and the remains of the 1850's Fountain.

To outline the extent of alteration and disturbance of the setts, drawing on the Oxford Archaeology Report and Photogrammetry model.

To outline the structural condition of the fountain, comparing the stonework recorded during the works in 2000-02 to the current stonework.

Finally, to confirm the next steps being considered by Cambridge City Council based on recommendations from Wright Consulting.

Agenda

- Introduction
- Historical Development
- Sett Type & Bonding
- Extent of Alteration
- Stat Services access & capacity
- Fountain – Condition & Repair
- Discussion

3.0 Context

3.1 Cambridge Market Square: Changes Over Time

The Cambridge market was founded in Saxon times and continued to grow through to the Middle Ages. As an important trading hub, largely due to the River Cam, Cambridge was an important centre for East Anglia. Stourbridge Fair, which became one of the biggest fairs in England, was located on the banks of the River Cam due to its strategic location, being accessible by river and by being close to the city. The legacy of the market and the Guildhall stems from this growth in trade, which principally emerged through local need and custom. In 1201, through Royal Charter, Cambridge's Guild Merchant was confirmed and in 1207 the Charter of King John granted Cambridge the right to elect a mayor, giving Cambridge relative independence for trade and control of goods.

Various items were sold in the market, such as fruit and vegetables, fish, fabric and hot food, and this market trading is still the same today. Streets were often named after the goods that were sold there, for example "Peas Hill", 'Peas' is a corruption of the Latin 'pisces', meaning fish.

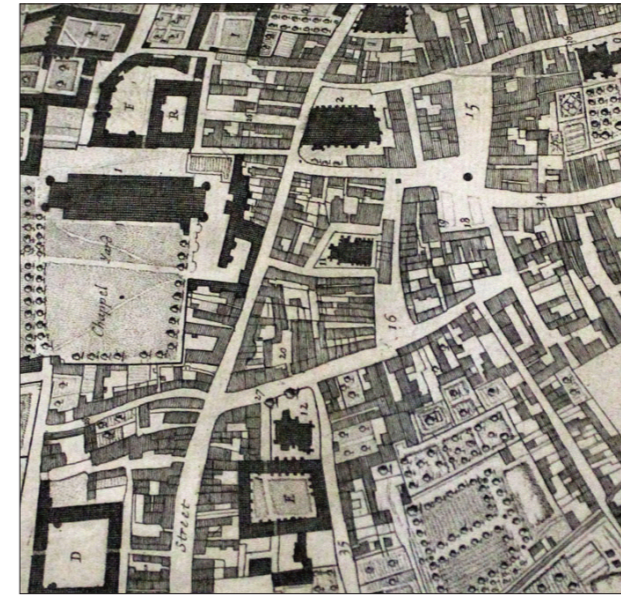
The market was an important place for the Jewish community in the 1100s, who had dwellings located where the Guildhall is now, and importantly had a Synagogue on this site where they lived and worked. The Edict of Expulsion issued by King Edward I in July 1290 expelled Jewish people from the Kingdom of England, resulting in a significant change to Market Square. The site became a Tollbooth and a Gaol for the market traders, after which a building was erected for the Council that is the Guildhall today.

Due to the importance of the market almost all of the town's most significant civic buildings were located around the square. These included Great St Mary's Church, the Guildhall and the Gaol. The market was now the centre of the city, becoming a space of trading, civic uses, announcements and justice. Queen Mary I ordered that the leading Protestants of Cambridge be burnt at the stake in the marketplace.

Before 1849, due to the street pattern of the day, Cambridge market was orientated in an L-shape stretching from Petty Cury to the northern end of Peas Hill. This was due to two rows of terraces, running north to south, being located where the market stands today. By 1688 these terraces had evolved into more developed city blocks and this evolution can be seen in the 1575 and 1688 maps of the area. In 1849 the 'Great Fire of Cambridge' resulted in many of these surrounding buildings becoming damaged or destroyed, the legacy of which is the configuration of space seen today.



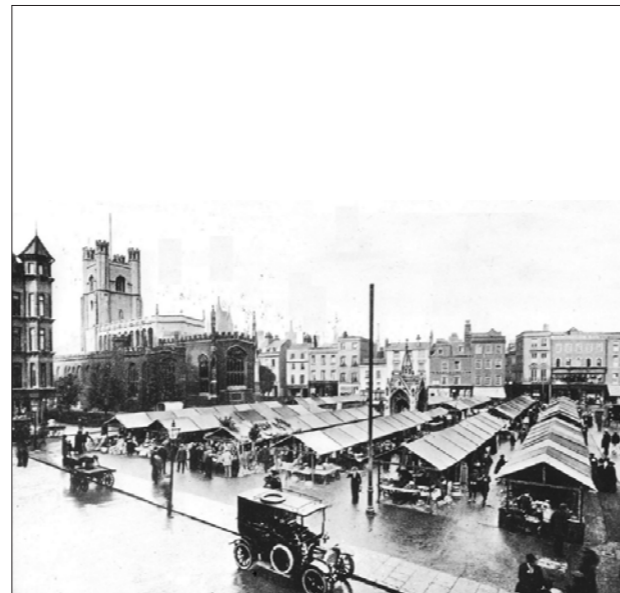
1575, Extract from Brown Hogenberg map



1688, Extract from David Loggan map
Map of Cambridge with the previous Market Place layout and the first fountain location resulting from the Hobson's Conduit.



1841, Frederick Mackenzie
Illustration of the market with the Hobson's Conduit.
View from the eastern side of Market Place.



1905, Historic photograph of the Market Place and the current fountain with its original stone canopy. View from the Guildhall.

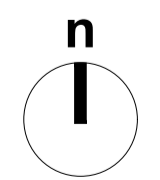
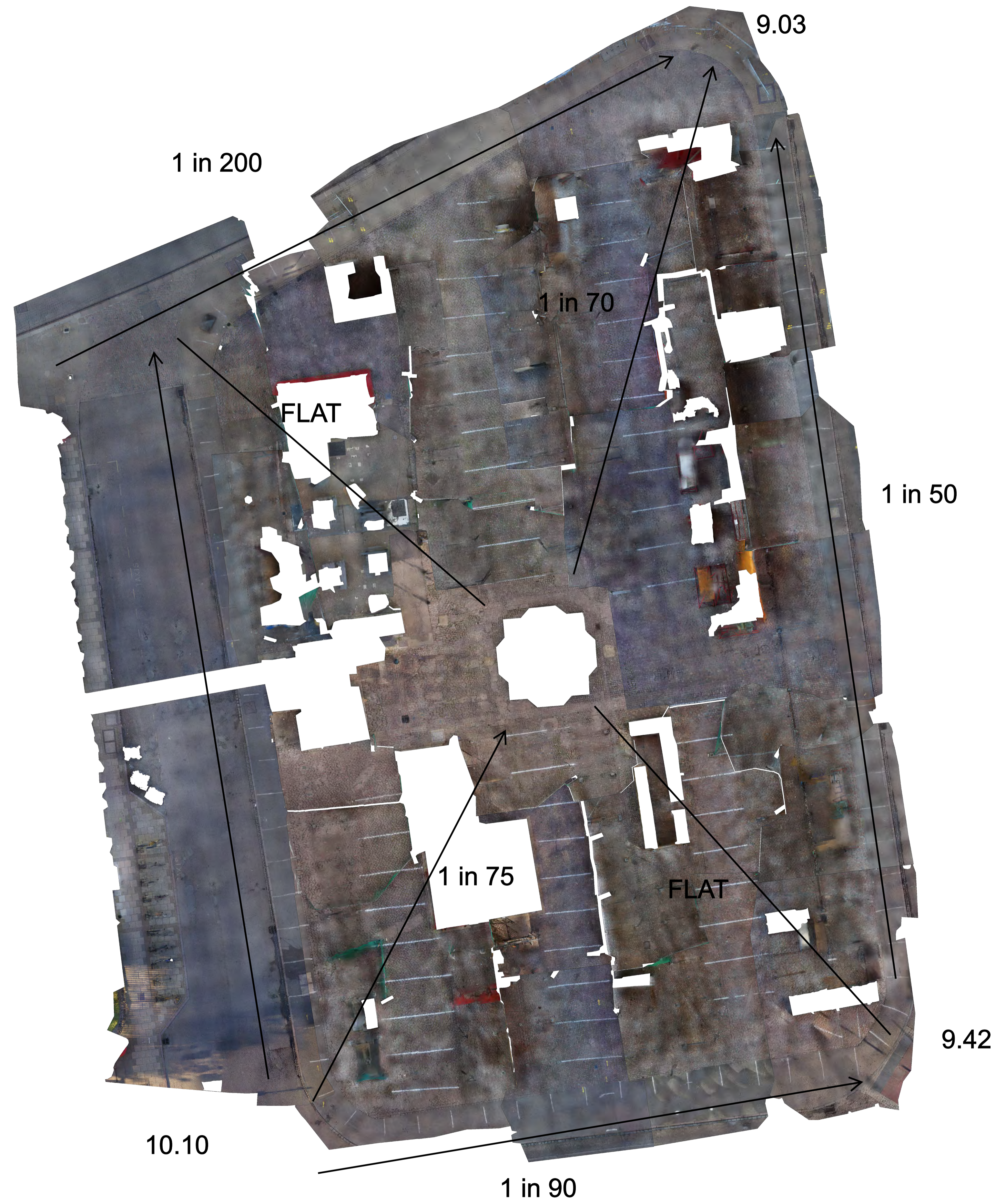


1921, Historic photograph of the Market Place free of stalls. The image show the current fountain with its original stone canopy.



1960, Historic photograph of the Market Place where stalls and vehicles were part of the market landscape. View from the Guildhall.

OVERALL GROUND LEVELS
ACROSS MARKET SQUARE



NOTES
 Do not scale from this drawing, use figured dimensions only.
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 All drawings to be read in conjunction with other contract documentation.
 Any discrepancies to be reported to the Contract Administrator before any work commences.
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client: CAMBRIDGE CITY COUNCIL		Wright Consulting	
project: MARKET SQUARE		Colliers Lane Slow-cum-Quy Cambridge CB25 9AU	
discipline: STRUCTURAL ENGINEERING		T: 07957 430 204 aw@awcoe.co.uk	
drawn: JHF	chk'd: AW	date: APR 2022	scale: @ A1 N.T.S.
project no. --	dwg no. S002	rev. P1	status: PRELIMINARY

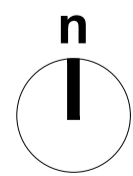
P1	05/04/2022	PRELIMINARY ISSUE.	JHF	AW
rev.	date	description	dwn	chk'd

GENERAL GROUND LEVEL
WEST TO EAST

LOCAL GROUND LEVELS CHANGES

GENERAL GROUND LEVEL SOUTH TO NORTH

TOPOGRAPHY SUMMARY - RIDGE AND TROUGH OUTLINES CREATES NARROW LINES FOR STALLS



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project: MARKET SQUARE

dwg title: PHOTOGRAPHIC SURVEY

discipline	STRUCTURAL ENGINEERING	drawn	JHF	chk'd	AW	date	APR 2022	scale	@ A1
project no.	--	dwg no.	S002	rev.	P1	status	PRELIMINARY		N.T.S.

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LARGER SETTS - 3" TO 3.5" x 5" to 12" LAID IN STAGGERED APPROXIMATELY HALF BOND

LARGER SETTS - 3" TO 3.5" x 5" to 12" LAID IN STAGGERED APPROXIMATELY HALF BOND

TARMAC OVER SETTS?

BASEMENT TOILETS & STORAGE

SMALLER SETTS - 2.5" TO 4" SQUARE OR RECTANGULAR LAID IN STAGGERED BOND

FOUNTAIN

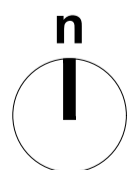
CONCRETE HARDSTANDING

CONCRETE HARD STANDING

LARGER SETTS - 3" TO 3.5" x 5" to 12" LAID IN STAGGERED APPROXIMATELY HALF BOND

SMALLER SETTS - 2.5" TO 4" SQUARE OR RECTANGULAR LAID IN STAGGERED BOND

PHOTOGRAPHIC SURVEY MARKED UP WITH SETT SIZE AND SURFACE FINISH



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project no.	dwg no.	rev.	status
--	S002	P1	PRELIMINARY

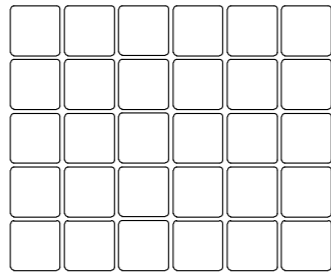
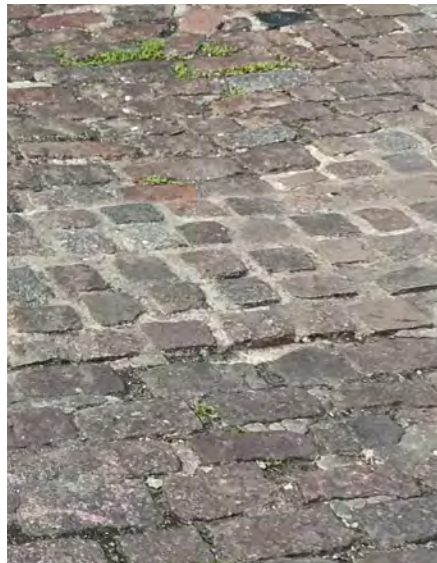
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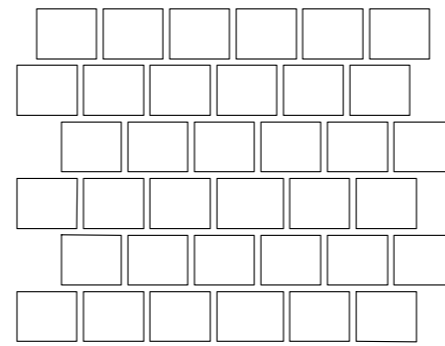
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Existing setts

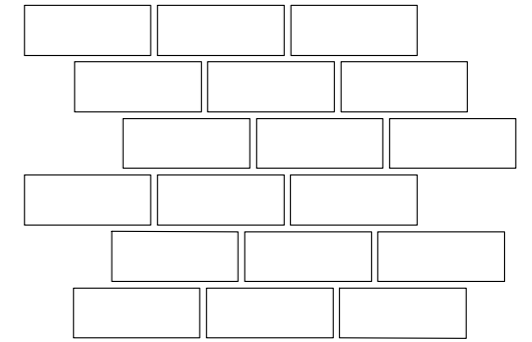
Stack bond (Square setts) limited use



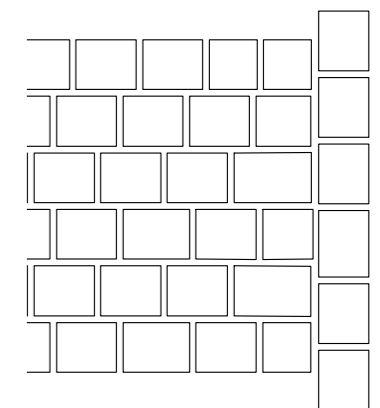
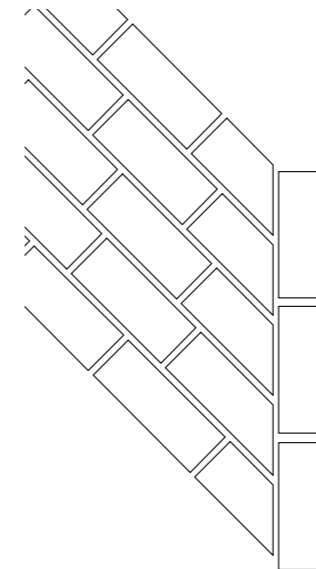
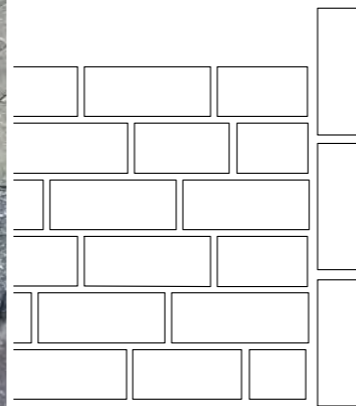
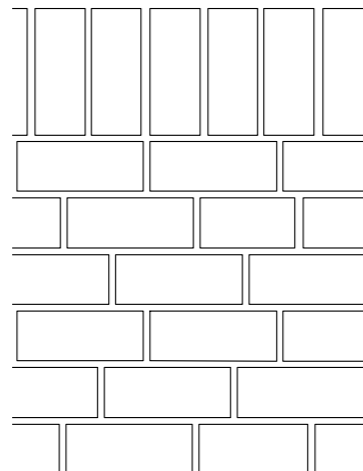
Staggered bond (square setts)



Staggered bond (rectangular setts)



Edge details



Rotated rectangular setts

Rotated rectangular setts

Square setts

Alternate rows of rectangular setts should be started with cubes or half setts

v2018.0

DATE Nov 2020 DRAWN JH
 SCALE@A3 CHECKED AG
 STATUS Draft APPROVED

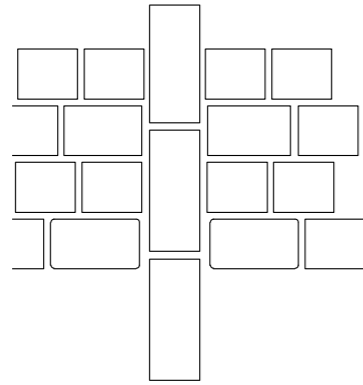
DWG. NO. 7480

PROJECT TITLE
 CAMBRIDGE MARKET SQUARE

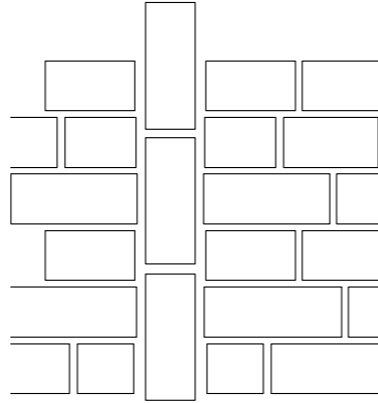
DRAWING TITLE
 Paving concept

Existing setts - dividing details

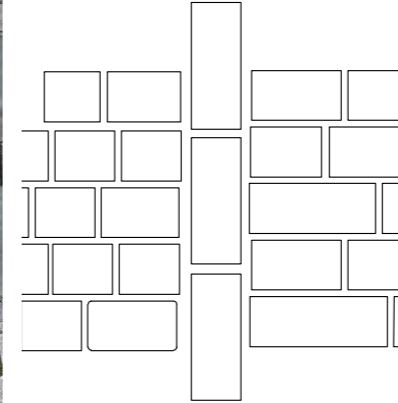
Dividing details



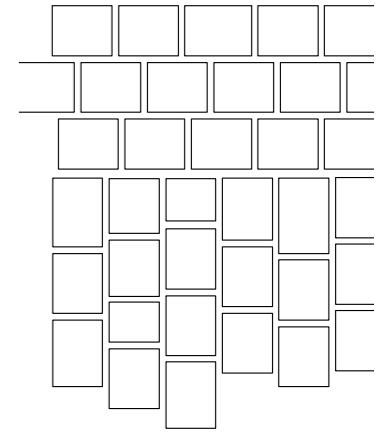
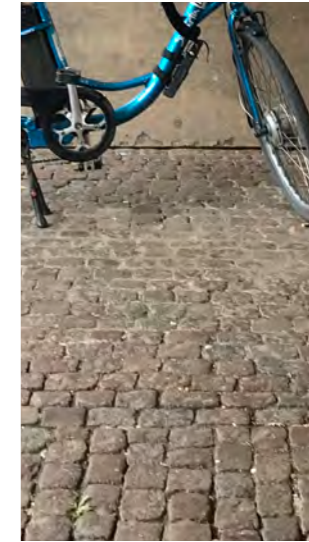
Rectangular sett within square setts



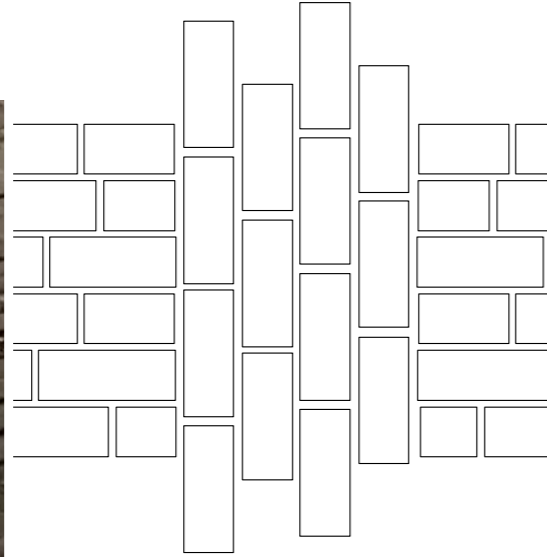
Rectangular sett rotated dividing rectangular setts



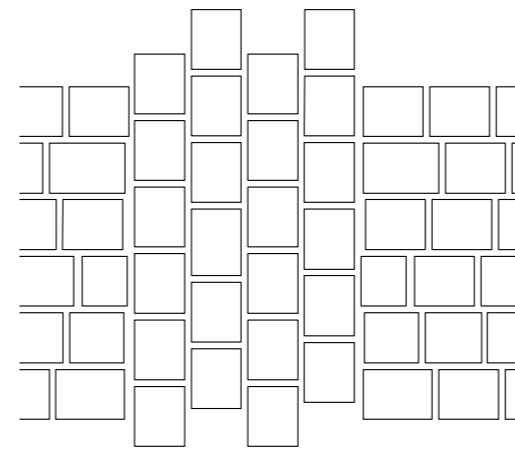
Rectangular sett rotated dividing rectangular and square setts



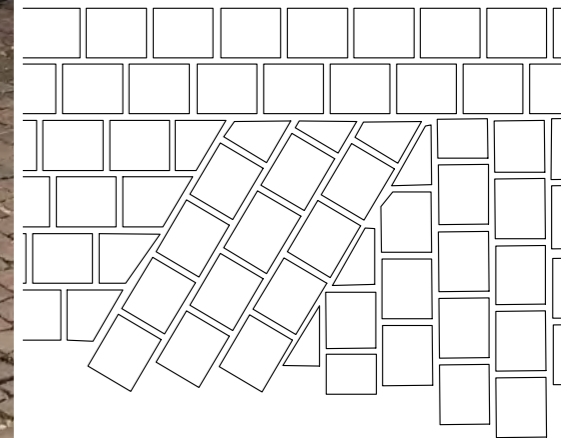
No divide, change of direction of square setts



Band of 4 rectangular setts



Band of 4 square setts



Band of 3 square setts

<https://www.cedstone.co.uk/technical/unbound-laying-method>

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SCALE@A3		CHECKED	AG
STATUS	Draft	APPROVED	

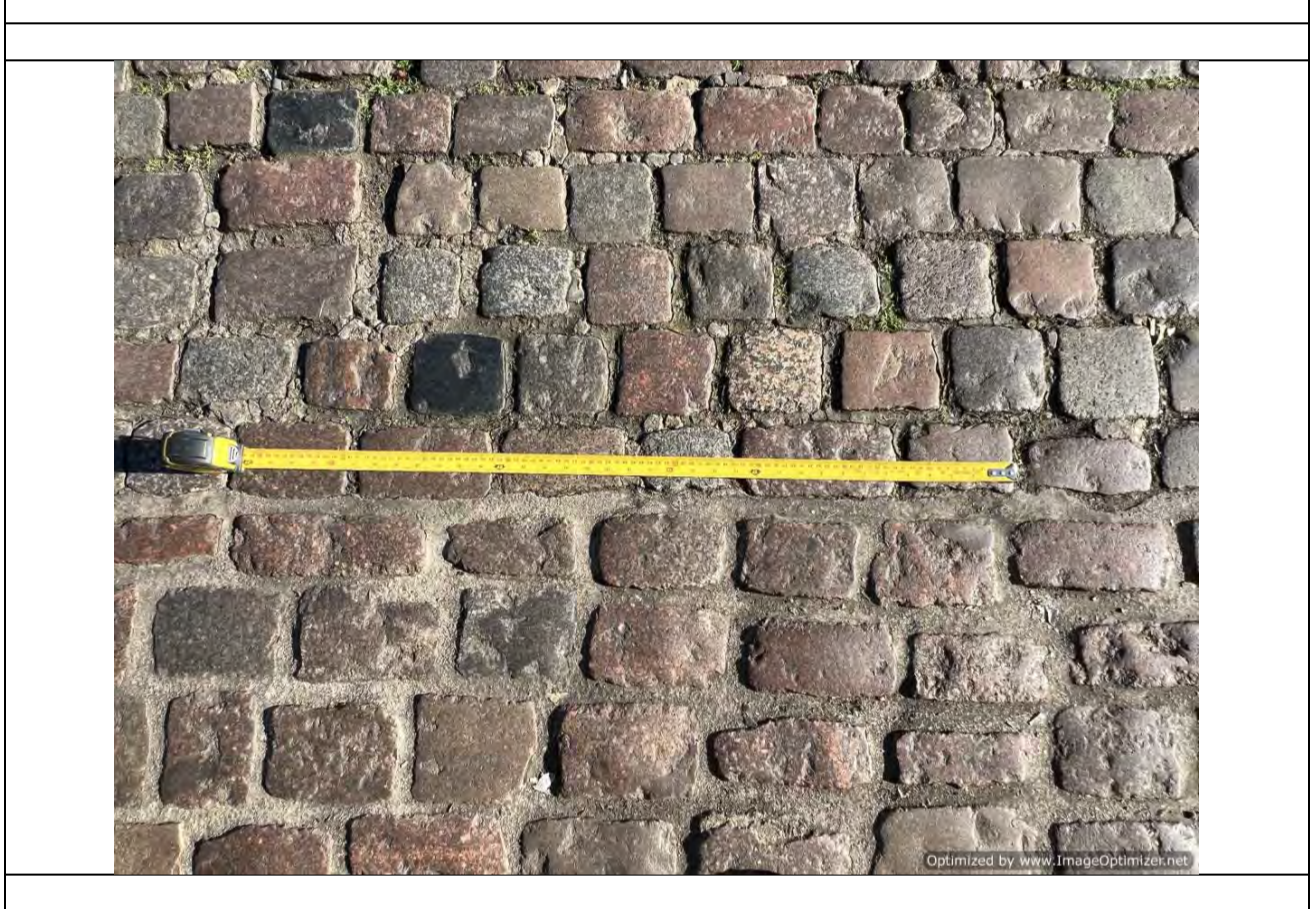
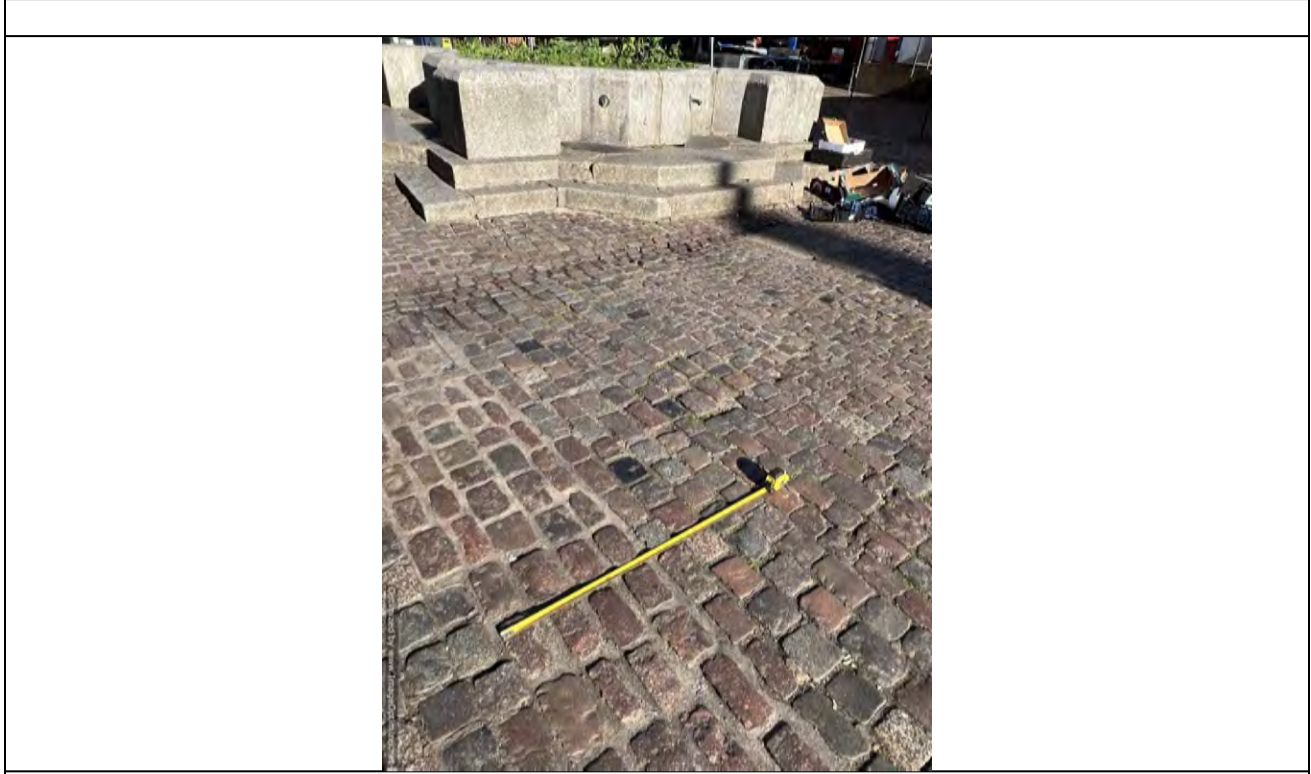
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PROJECT TITLE
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DRAWING TITLE
Paving concept







KEY	
—	= ELECTRICAL CABLES & DUCTS - UKPN
—	= FOUL DRAINAGE - HURST SURVEYS 1991
—	= SURFACE WATER DRAINAGE (ABANDONED) - HURST SURVEYS 1991
—	= SURFACE WATER DRAINAGE (CURRENT) - HURST SURVEYS 1991
—	= GAS MAINS - CADENT

- E - STALL ELECTRICAL SUPPLY CABLE
- WM - WATER METER
- FH - FIRE HYDRANT
- G - SURFACE WATER GULLY
- MH - FOUL & SURFACE WATER MANHOLE

PHOTOGRAPHIC SURVEY
 OVERLAID WITH M&E
 SERVICES FROM HISTORICAL
 RECORDS

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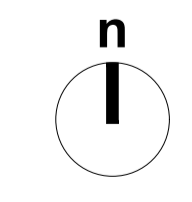
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dwg title: PHOTOGRAPHIC SURVEY (WITH ASSUMED TRENCHES)					
discipline: STRUCTURAL ENGINEERING	drawn: JHF	chk'd: AW	date: APR 2022	scale: @ A1	Colliers Lane Slow-cum-Quay Cambridge CB25 9AU
project no. --	dwg no. S003	rev. P1	status: PRELIMINARY		T: 07957 430 204 aw@awce.co.uk



KEY	
—	= ELECTRICAL CABLES & DUCTS - UKPN
—	= FOUL DRAINAGE - HURST SURVEYS 1991
—	= SURFACE WATER DRAINAGE (ABANDONED) - HURST SURVEYS 1991
—	= SURFACE WATER DRAINAGE (CURRENT) - HURST SURVEYS 1991
—	= GAS MAINS - CADENT

20th & 21st Century Interventions - estimated trench excavation width for M&E services and basement or slab construction.

NOTE: Does not include unknown service routes included water meter, fire hydrant etc.



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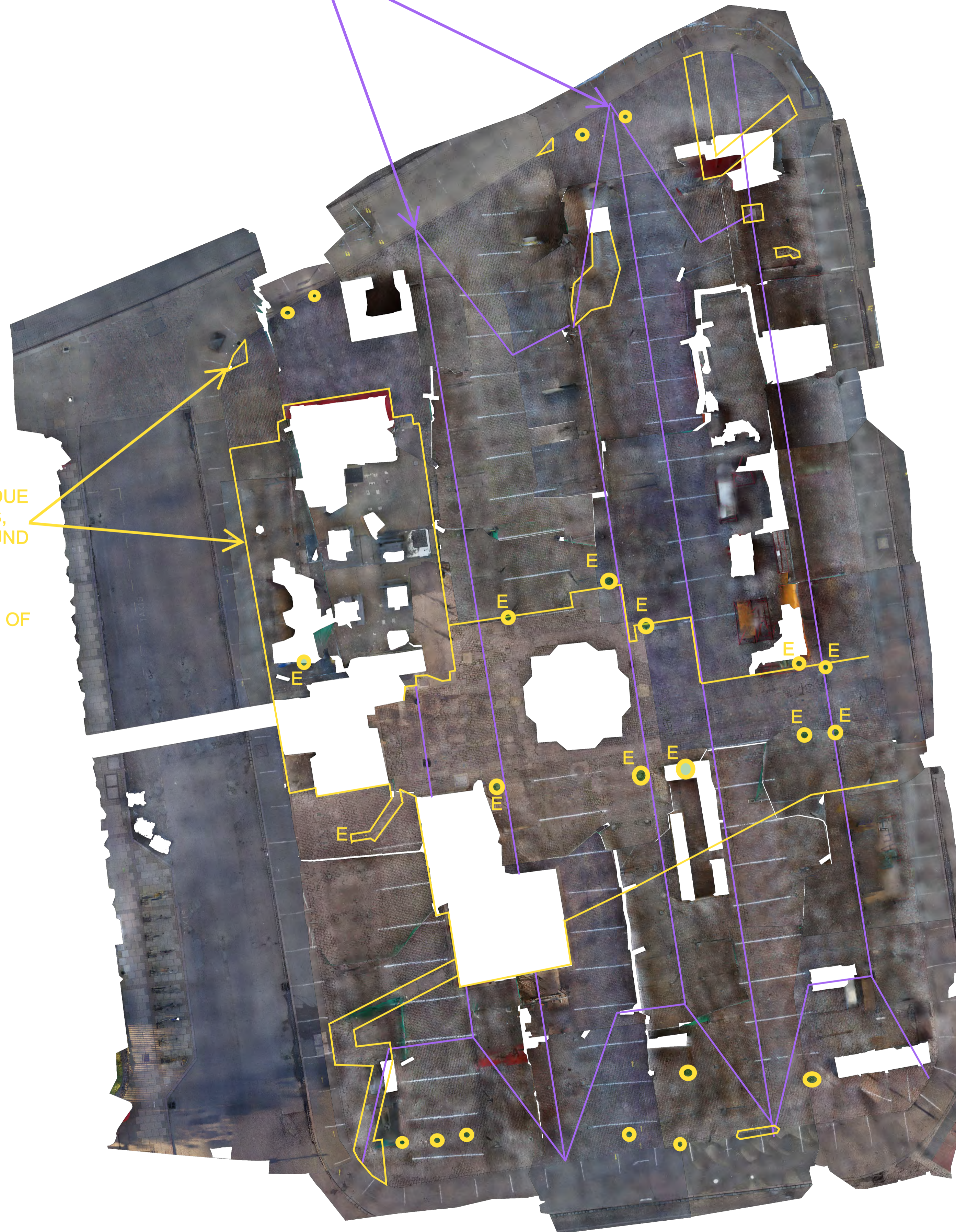


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discipline:	STRUCTURAL ENGINEERING	T: 07957 430 204 aw@awce.co.uk
project no.:	---	dwg no. S003
rev.:	P1	status: PRELIMINARY
date:	APR 2022	scale @ A1 N.T.S.

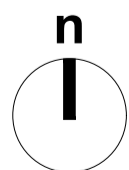
TOPOGRAPHY OF MARKET SET OUT FOR ORIENTATION

AREAS ENLCOSED BY YELLOW LINE ARE AREAS OF SIGNIFICANT DISTURBANCE DUE TO BASEMENT, PREVIOUS POST FIXINGS, ELECTRICAL SERVICES OR UNDERGROUND DRAINAGE INSTALLATION.

NOTE: THERE IS SOME DIFFICULTY IN DISTINGUISHING BETWEEN REPOINTING OF SETTS AND DISBURBANCE DUE TO UNDERGROUND INSTALLATIONS.



PHOTOGRAPHIC SURVEY MARKED UP WITH AREAS OF SIGNIFICANT SETT DISTURBANCE



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client:	CAMBRIDGE CITY COUNCIL	Wright Consulting	
project:	MARKET SQUARE	Colliers Lane Stow-cum-Quy Cambridge CB25 9AU T: 07957 430 204 aw@awce.co.uk	
discipline:	STRUCTURAL ENGINEERING	dwg title:	PHOTOGRAPHIC SURVEY
project no.:	--	dwg no.:	S002
rev.:	P1	date:	APR 2022
status:	PRELIMINARY	scale:	@ A1 N.T.S.

Sett Repair Considerations (not exhaustive):

- 1. Historical development – understand, maintain and repair**
- 2. Square Use – Load carrying capacity of setts, alignment and drainage, stall installation & layout**
- 3. Slip, trip and falls – surface, alignment, level, moisture, holes etc**
- 4. Statutory Services – Access, maintenance, repair and alteration**
- 5. Surface Water Drainage – Inadequate for current rainfall without any future FRA allowances**
- 6. Underground Voids – condition, capacity and reuse - archaeology**
- 7. Fountain – repair and use**
- 8. Respecting the past and repairing for the future – incorporating security, structural & service capacity and environmental health needs**