



Derby City Licensed Premises Cumulative Impact Zone

Summary of data sample:

Data reports were generated to show a comparison between two 18 month periods of both crime and police reported incidents.

Date ranges chosen were **01/06/15 – 01/12/16** and **12/11/17 – 12/05/19** respectively. Time range = **22:00hrs – 06:00hrs (NTE)**

Note – The Performance Team could only supply incident data for date range Jun 15 to Dec 16 from 11/10/16 – 01/12/16 due to the change over to the Controlworks Command & Control system in early Oct 16.

The crime data was filtered down by '**Crime Tree Level 3**' category to identify and exclude the types of crime not considered to have a causal relationship with the number of Licensed Premises within the CLZ. **No filtering was applied to incident data.**

Crime Categories Included:

ALL OTHER THEFT OFFENCES
CRIMINAL DAMAGE
DRUG POSSESSION
OTHER SEXUAL OFFENCES
POSS. OF WEAPON OFFENCES
PUBLIC DISORDER
RAPE
ROBBERY OF BUSINESS PROPERTY
ROBBERY OF PERSONAL PROPERTY
THEFT FROM THE PERSON
VIOLENCE WITH INJURY
VIOLENCE WITHOUT INJURY

Crime Categories Excluded:

ARSON
BICYCLE THEFT
BURGLARY
DRUG TRAFFICKING
MISC. CRIMES AGAINST SOCIETY
SHOPLIFTING
VEHICLE CRIME

Current CIZ:

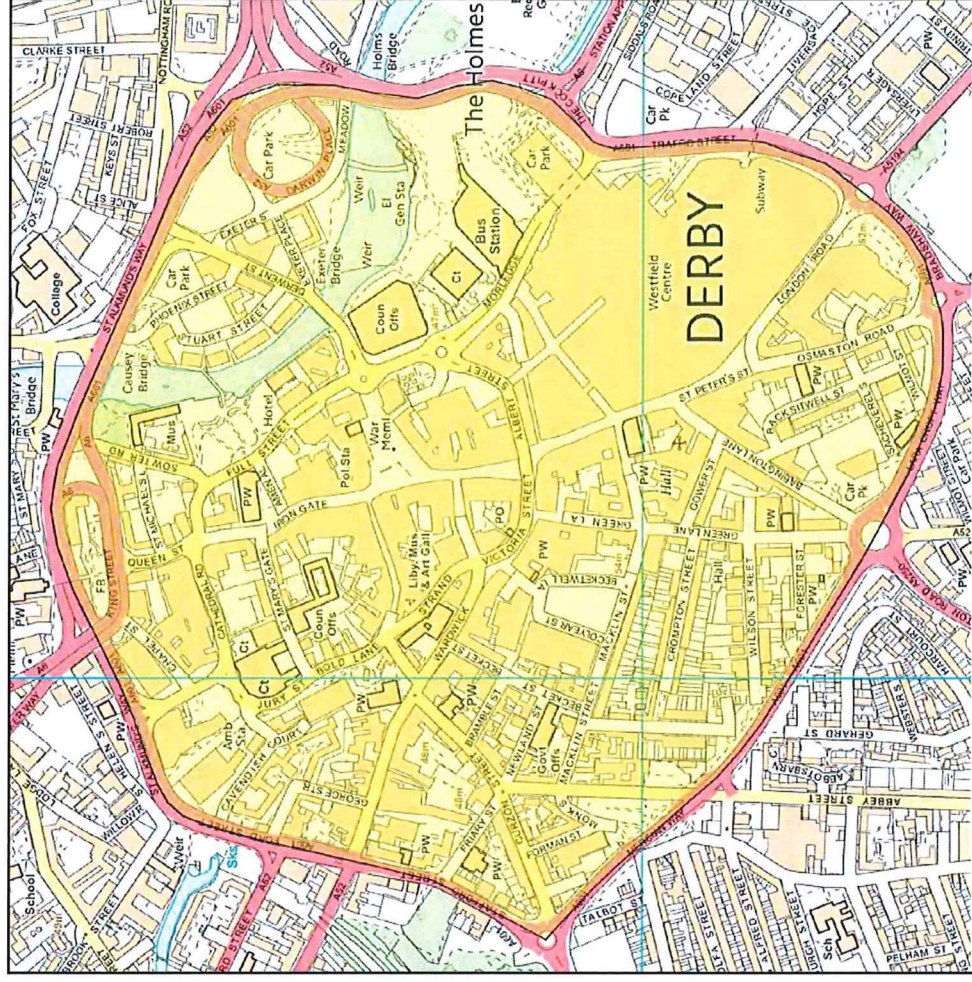
211 (23.4%) Licensed Premises within current CIZ – Area = 0.9 sq km (1.15% Unitary Auth. area)

821 (15.7%) Crimes (from relevant categories) for 01/06/15 - 01/12/16

1031 (19.8%) Crimes (from relevant categories) for 12/11/17 - 12/05/19

298 (13.7%) Incidents (all categories) only for 2016 due to CW going live Oct '16 (effectively 21/2 months of data)

2852 (12.5%) Incidents (all categories) for 12/11/17 - 12/05/19



Proposed CIZ (for comparison):

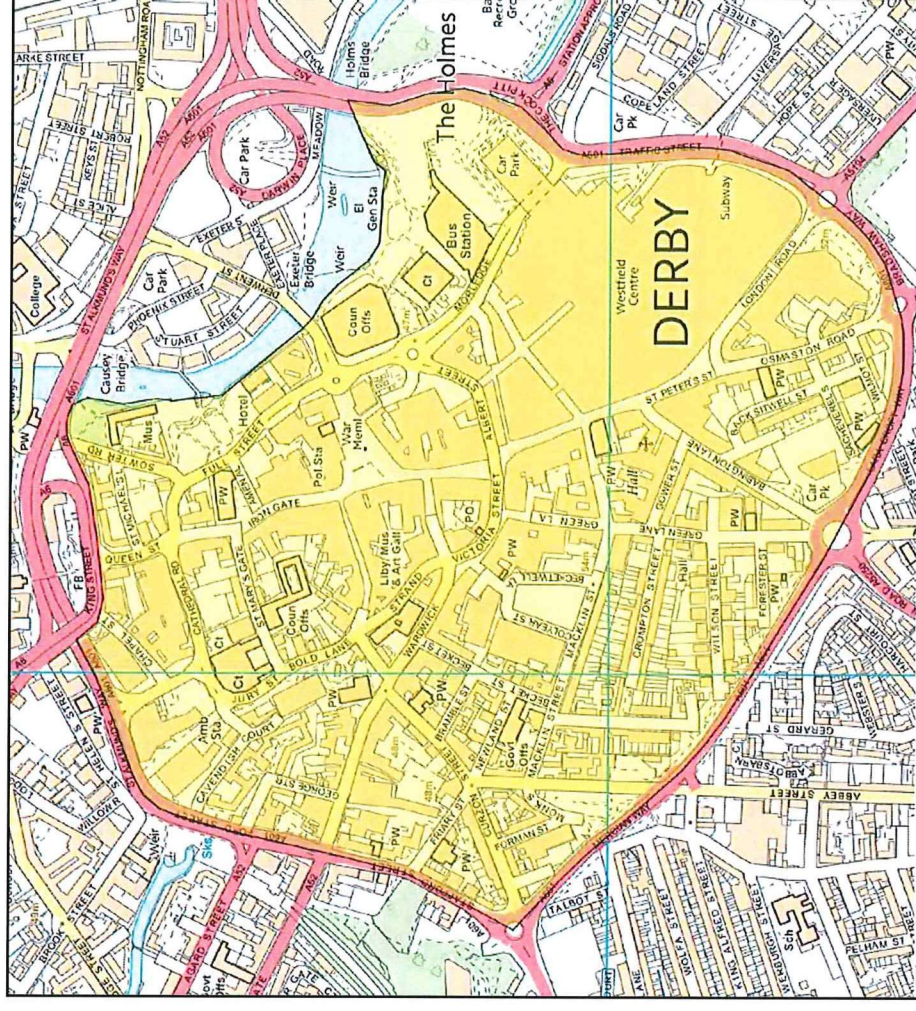
208 (23.1%) Licensed Premises within proposed CIZ –
Area = 0.78 sq km (1% Unitary Auth. area)

808 (15.5%) Crimes (from relevant categories) for
01/06/15 - 01/12/16

1005 (19.3%) Crimes (from relevant categories) for
12/11/17 - 12/05/19

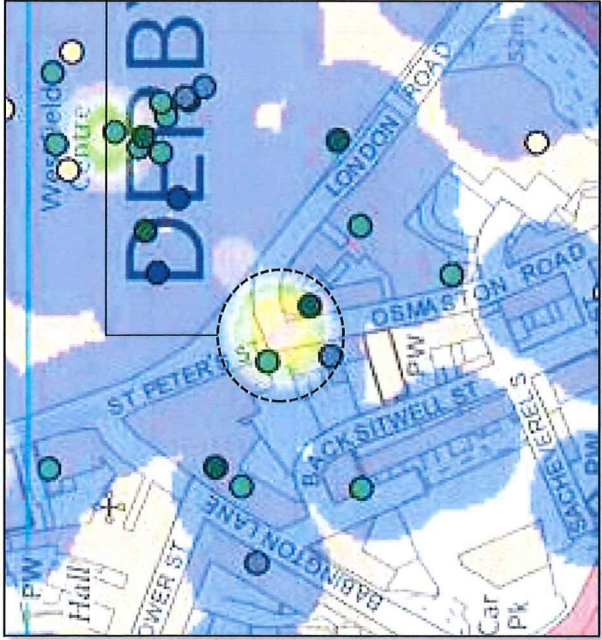
291 (13.4%) Incidents (all categories) only for 2016
due to CW going live Oct '16
(effectively 21/2 months of data)

2774 (12.1%) Incidents (all categories) for
12/11/17 - 12/05/19



Factors effecting spatial spread of data

The co-ordinate dataset used to geocode on-street crimes & incidents is derived from the AddressBase® product and locates relevant crime/incident records to the start point of a given street. On shorter streets this doesn't really present an issue to localised hotspot analysis. On longer roads/thoroughfares, particularly longer urban roads (where there is a greater likelihood of incidents occurring along their length regularly), it can have a significant impact on spatial analysis results - something which needs to be taken into account when interpreting the hotspot results - (i.e an incident *may* have actually occurred a significant distance from where the hotspot indicates).



The left screenshot illustrates how the current practice of aggregating crime/incidents to the start co-ordinates of long urban roads, in this case, London Road (approx. length 2.5 miles) and Osmaston Road (approx. length 2.3 miles) inevitably skews the hotspot analysis results within the current CIZ.

The issue is further compounded by the fact that both London and Osmaston Road effectively begin at 'The Spot' and are assigned the same start point co-ordinates! (as below sample shows):

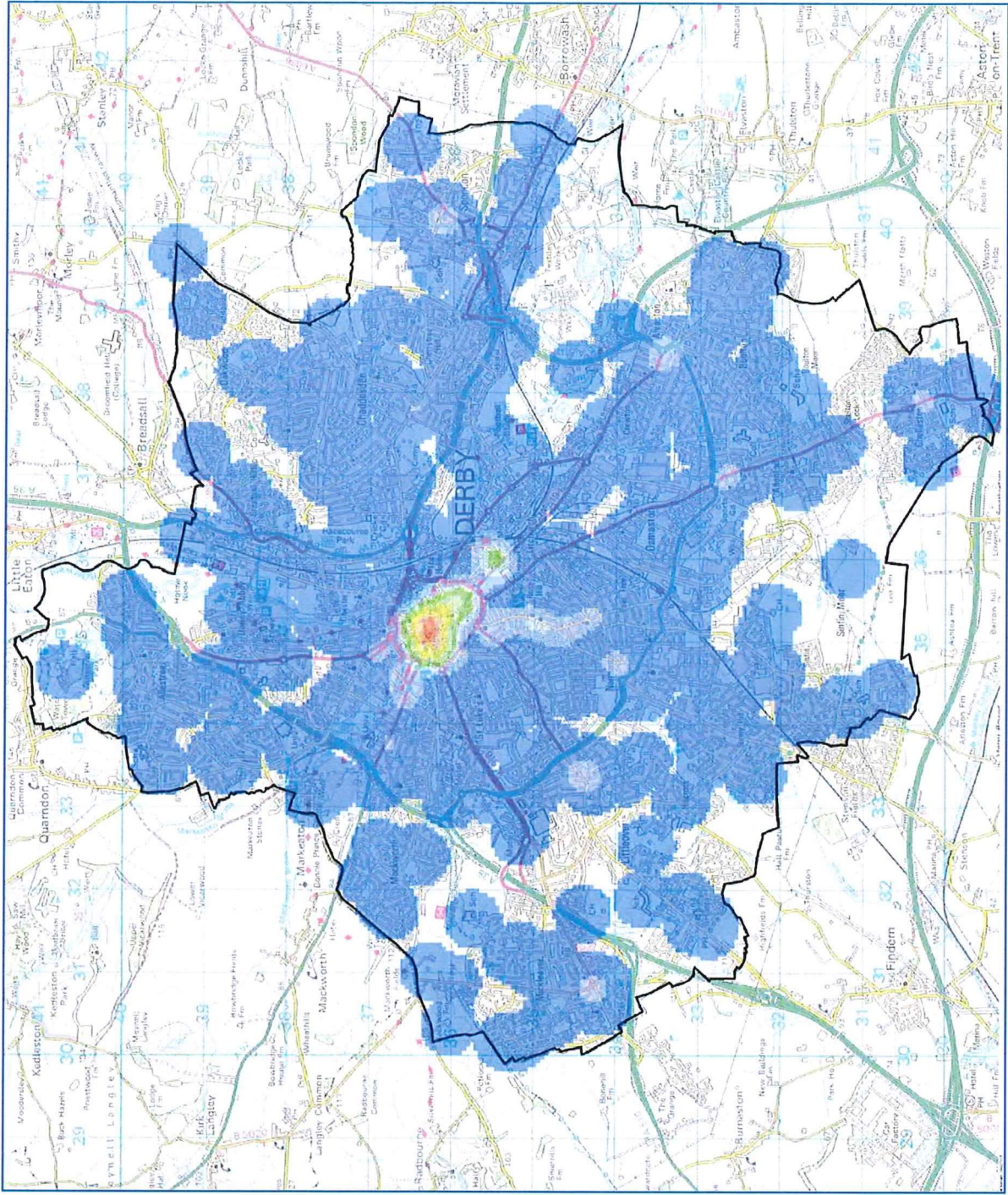
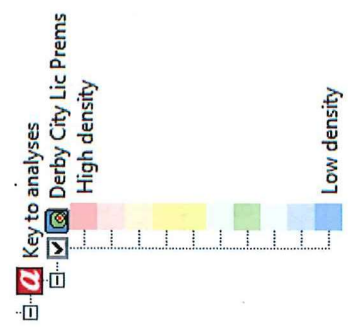
DRUG POSSESSION	, , , STREET RECORD, LONDON ROAD, , DERBY, DERBY CITY, DE12NS	435404	335853
OTHER SEXUAL OFFENCES	, , , STREET RECORD, LONDON ROAD, , DERBY, DERBY CITY, DE12NS	435404	335853
OTHER SEXUAL OFFENCES	, , , STREET RECORD, LONDON ROAD, , DERBY, DERBY CITY, DE12NS	435404	335853
POSSESSION OF WEAPONS OFFENCES	, , , STREET RECORD, LONDON ROAD, , DERBY, DERBY CITY, DE12NS	435404	335853
DRUG POSSESSION	, , , STREET RECORD, OSMASTON ROAD, , DERBY, DERBY CITY, DE12NS	435404	335853
PUBLIC DISORDER	, , , STREET RECORD, OSMASTON ROAD, , DERBY, DERBY CITY, DE12NS	435404	335853
PUBLIC DISORDER	, , , STREET RECORD, OSMASTON ROAD, , DERBY, DERBY CITY, DE12NS	435404	335853
VIOLENCE WITH INJURY	, , , STREET RECORD, OSMASTON ROAD, , DERBY, DERBY CITY, DE12NS	435404	335853

**Density of Licensed Premises
within Derby City as at May 19**

902 Licensed Premises within
Derby City – Area = **78.03** sq km

Density of Licensed Premises heavily concentrated within City Centre

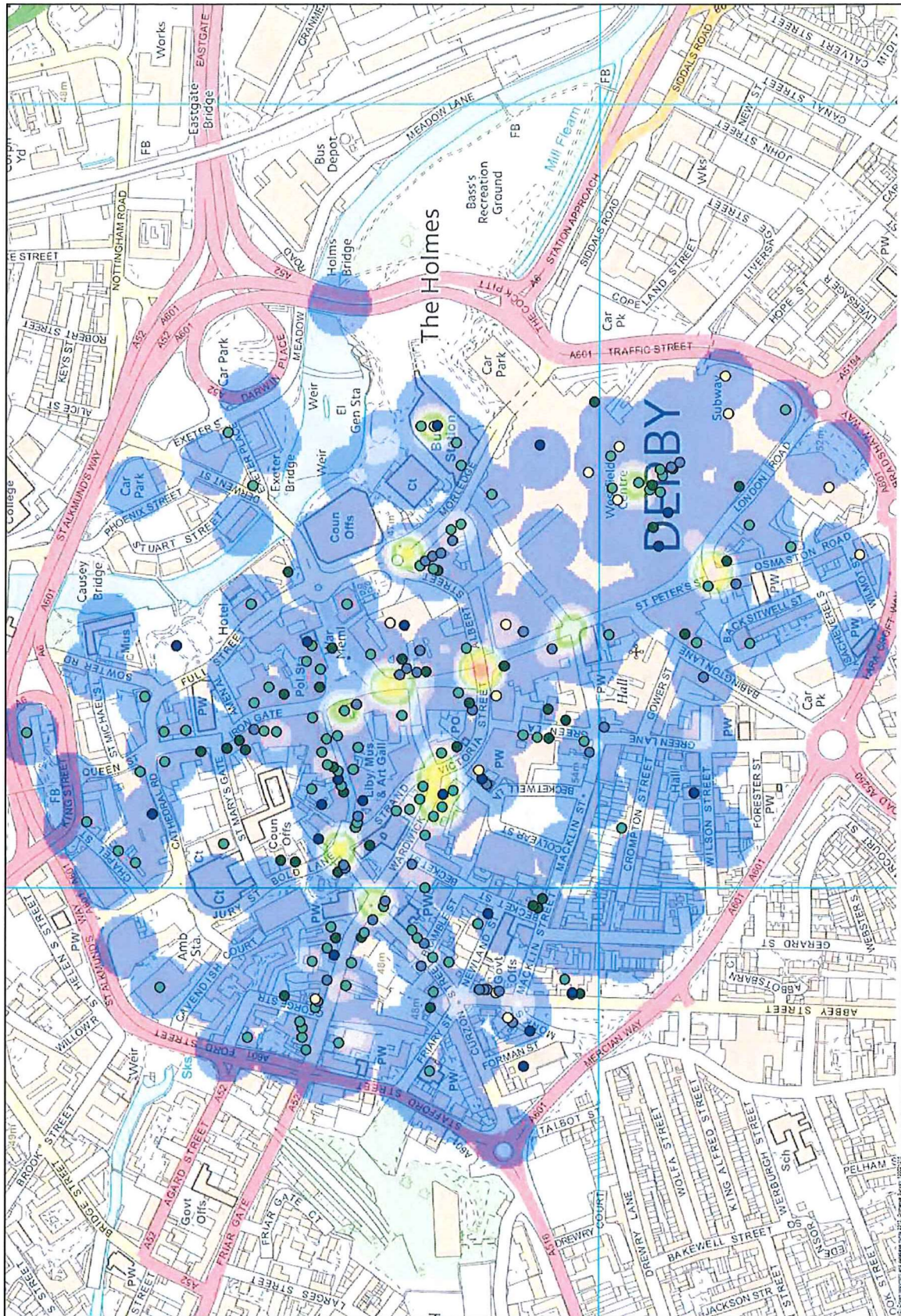
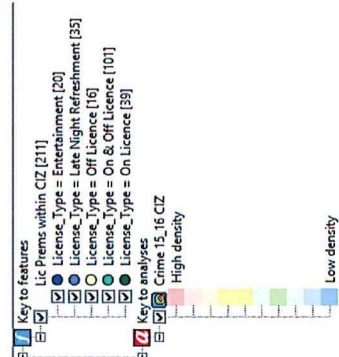
691 (76.6%) Licensed Premises
outside current CIZ area



Licensed Premises with Crime density (01/06/15 – 01/12/16) - Current CIZ

Crime 15_16 = 821 (15.7%)

Crime Tree LV3 15_16 (Current CIZ)	Count	%
ALL OTHER THEFT OFFENCES	77	15.1
CRIMINAL DAMAGE	82	9.4
DRUG POSSESSION	56	17.1
OTHER SEXUAL OFFENCES	20	15.5
POSSESSION OF WEAPONS OFFENCES	16	15.8
PUBLIC DISORDER	67	21.3
RAPE	2	2.7
ROBBERY OF BUSINESS PROPERTY	2	7.7
ROBBERY OF PERSONAL PROPERTY	29	16.5
THEFT FROM THE PERSON	40	50.6
THEFT WITH INJURY	277	18.4
VIOLENCE WITHOUT INJURY	153	13.7
Grand Total	821	15.7

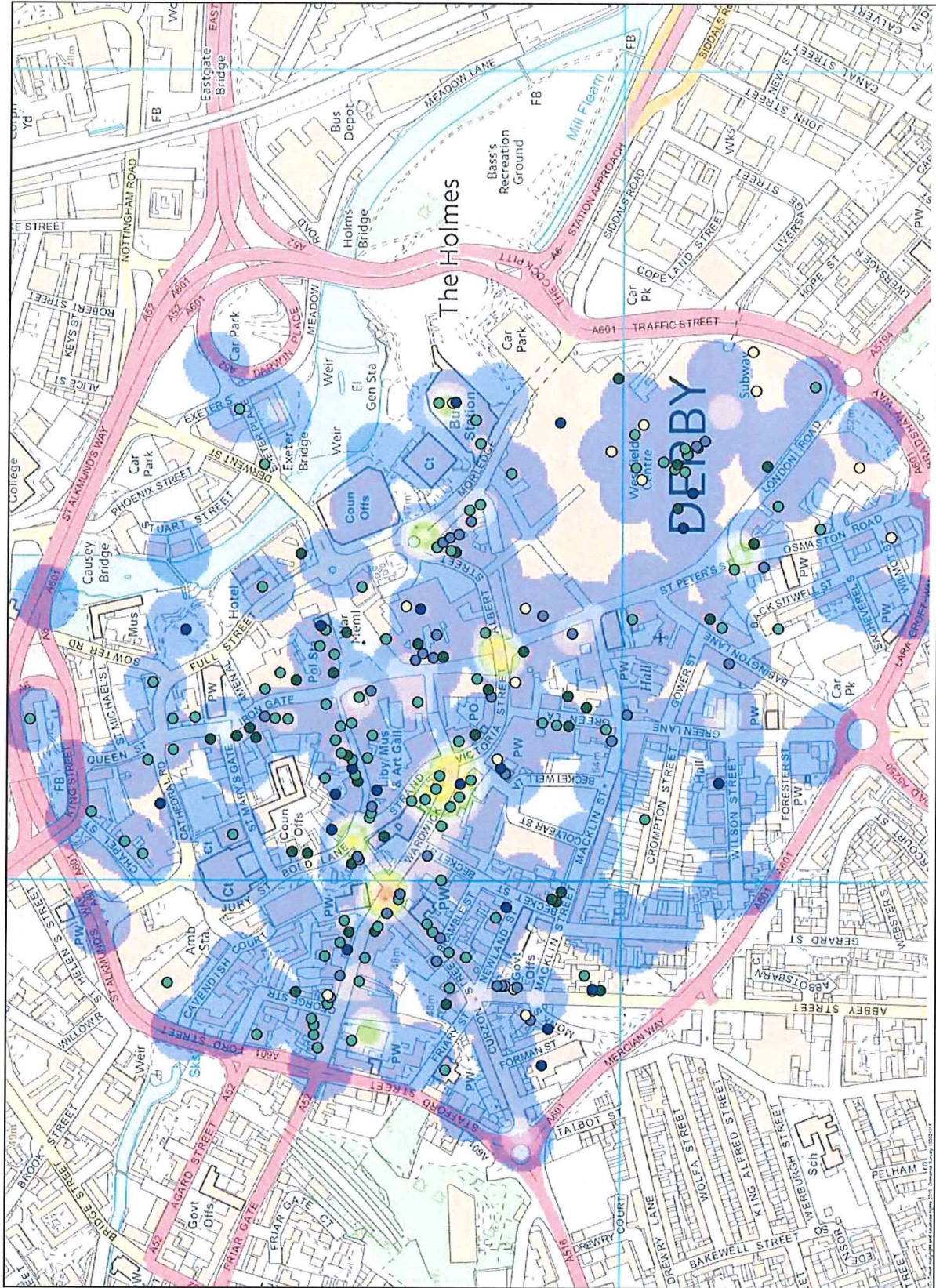


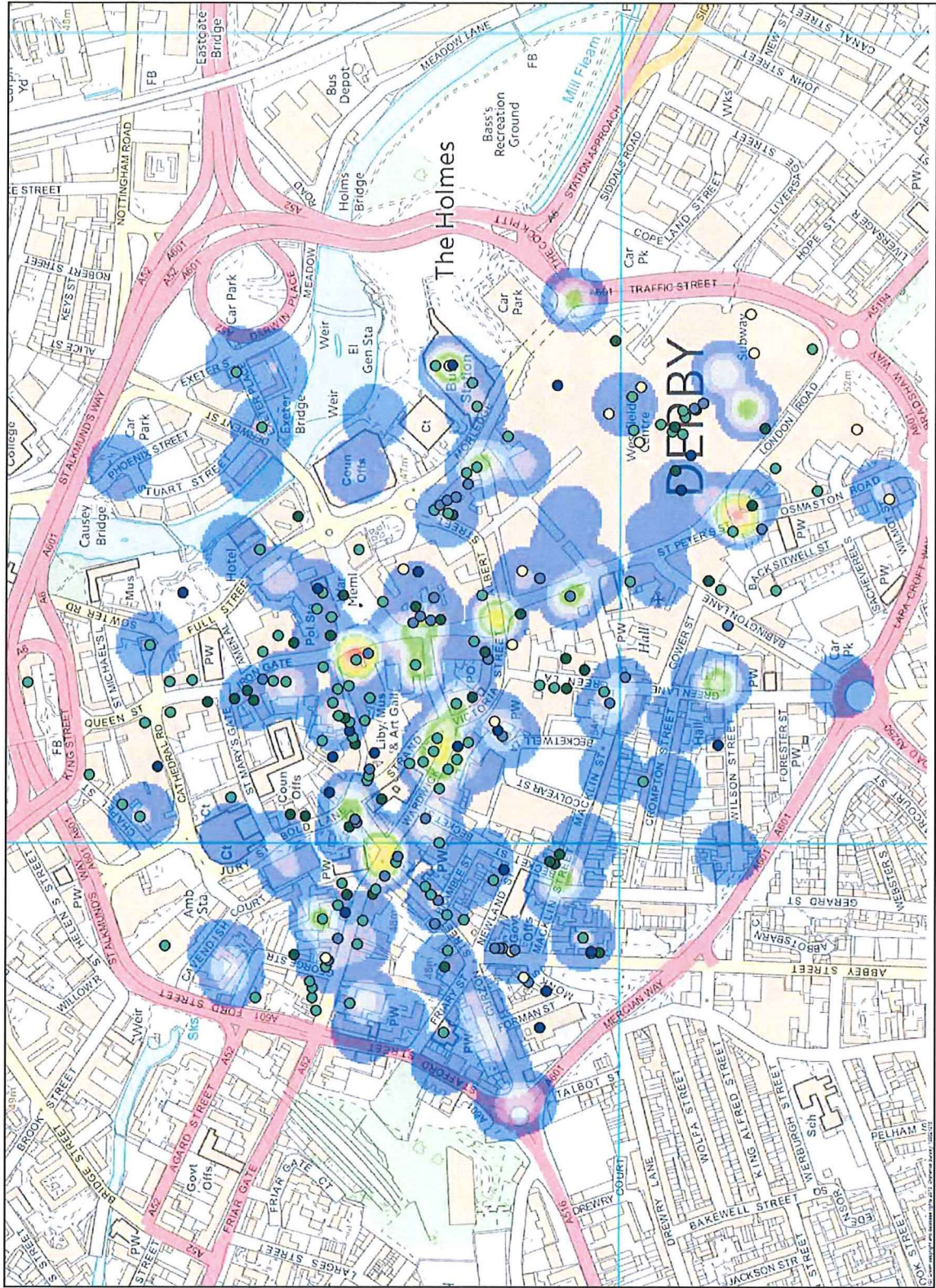
Licensed Premises with Crime density (12/11/17 – 12/05/19) - Current CIZ

Crime 17_19 = 1031 (19.8%)

Crime Tree LV3 17_19 (Current CIZ)	Total	%
ALL OTHER THEFT OFFENCES	75	19.8
CRIMINAL DAMAGE	89	12.3
DRUG POSSESSION	75	19.7
OTHER SEXUAL OFFENCES	23	23.5
POSSESSION OF WEAPONS OFFENCES	53	31.0
PUBLIC DISORDER	91	31.2
RAPE	5	7.0
ROBBERY OF BUSINESS PROPERTY	0	0.0
ROBBERY OF PERSONAL PROPERTY	24	13.0
THEFT FROM THE PERSON	45	48.4
VIOLENCE WITH INJURY	389	22.9
VIOLENCE WITHOUT INJURY	161	14.6
Grand Total	1030	19.8

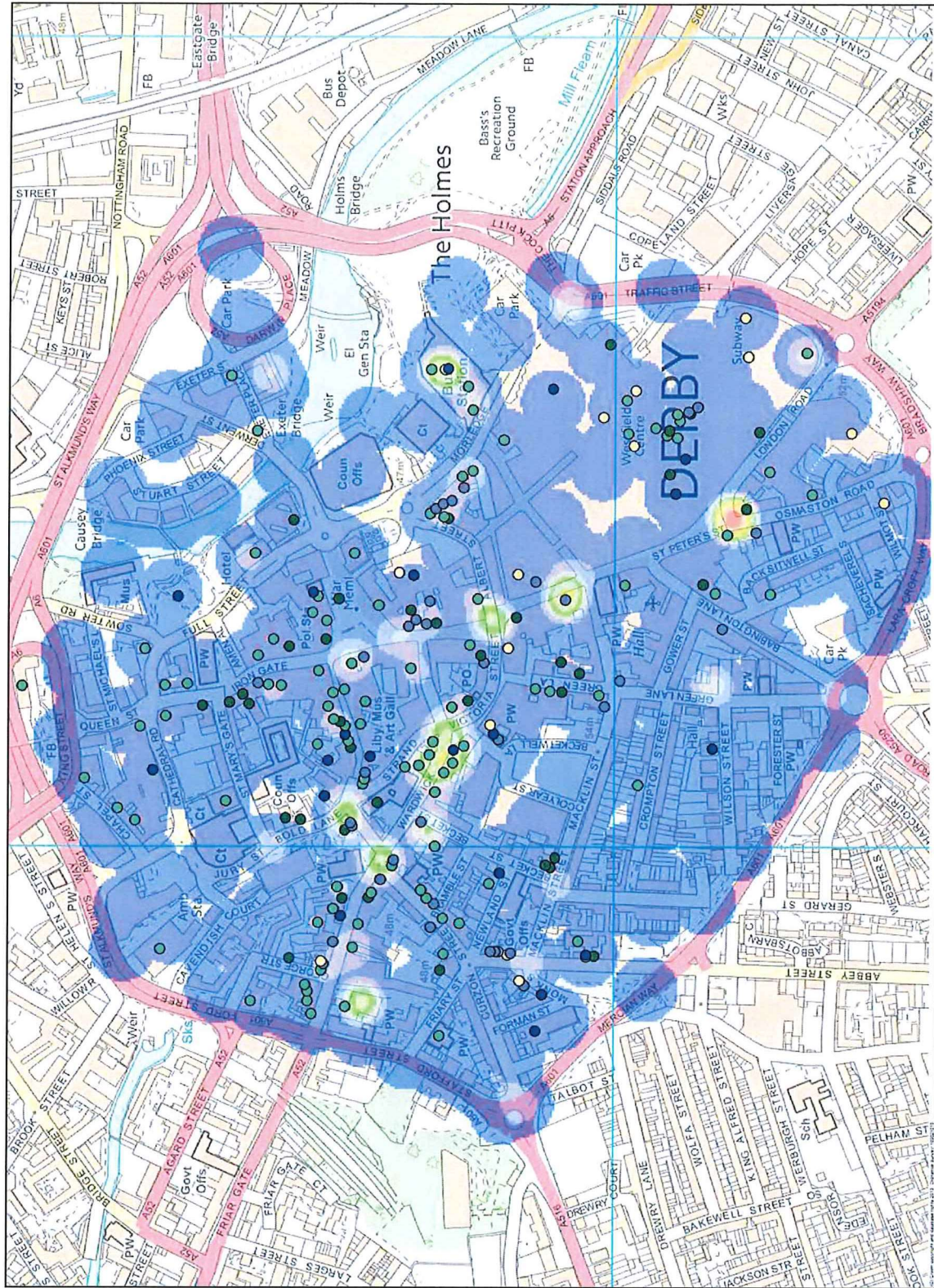
- Key to features**
- ☒ Lic Prems within CIZ [211]
 - ☒ License_Type = Entertainment [20]
 - ☒ License_Type = Late Night Refreshment [35]
 - ☒ License_Type = Off Licence [16]
 - ☒ License_Type = On & Off Licence [101]
 - ☒ License_Type = On Licence [39]
- Key to analyses**
- ☒ Crimes 17_19 CIZ
 - ☒ High density
 - ☒ Low density



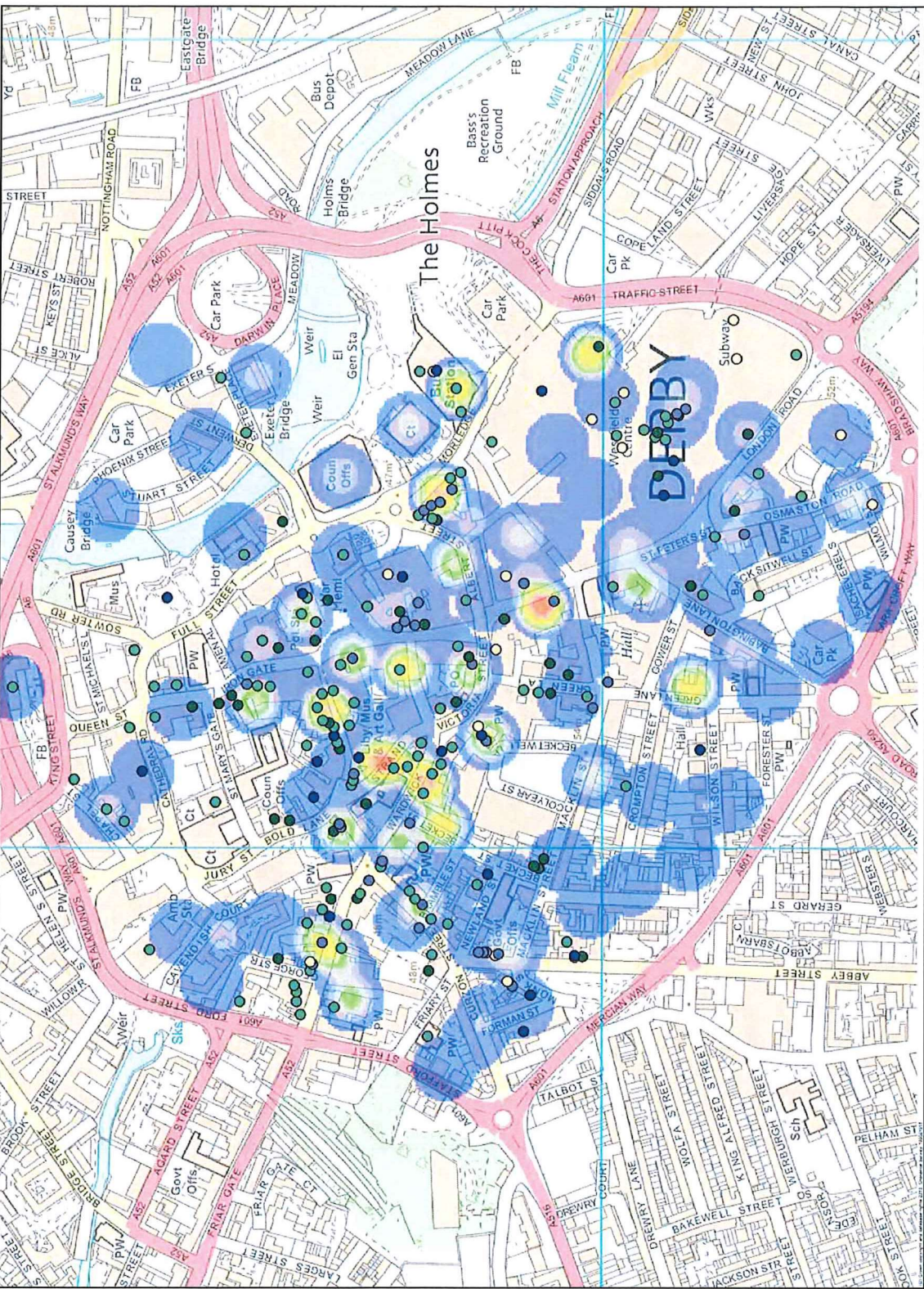
[illegible]

Licensed Premises
with Incident
density (12/11/17 –
12/05/19)
- current CIZ

Incidents 17_19 = 2582 (12.5%)

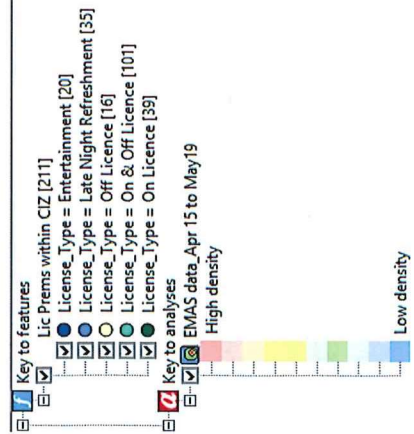


- Key to features**
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 - ☒ Low density



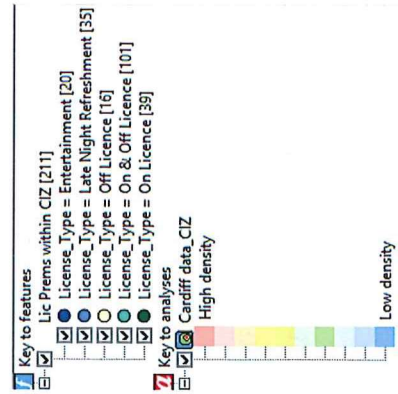
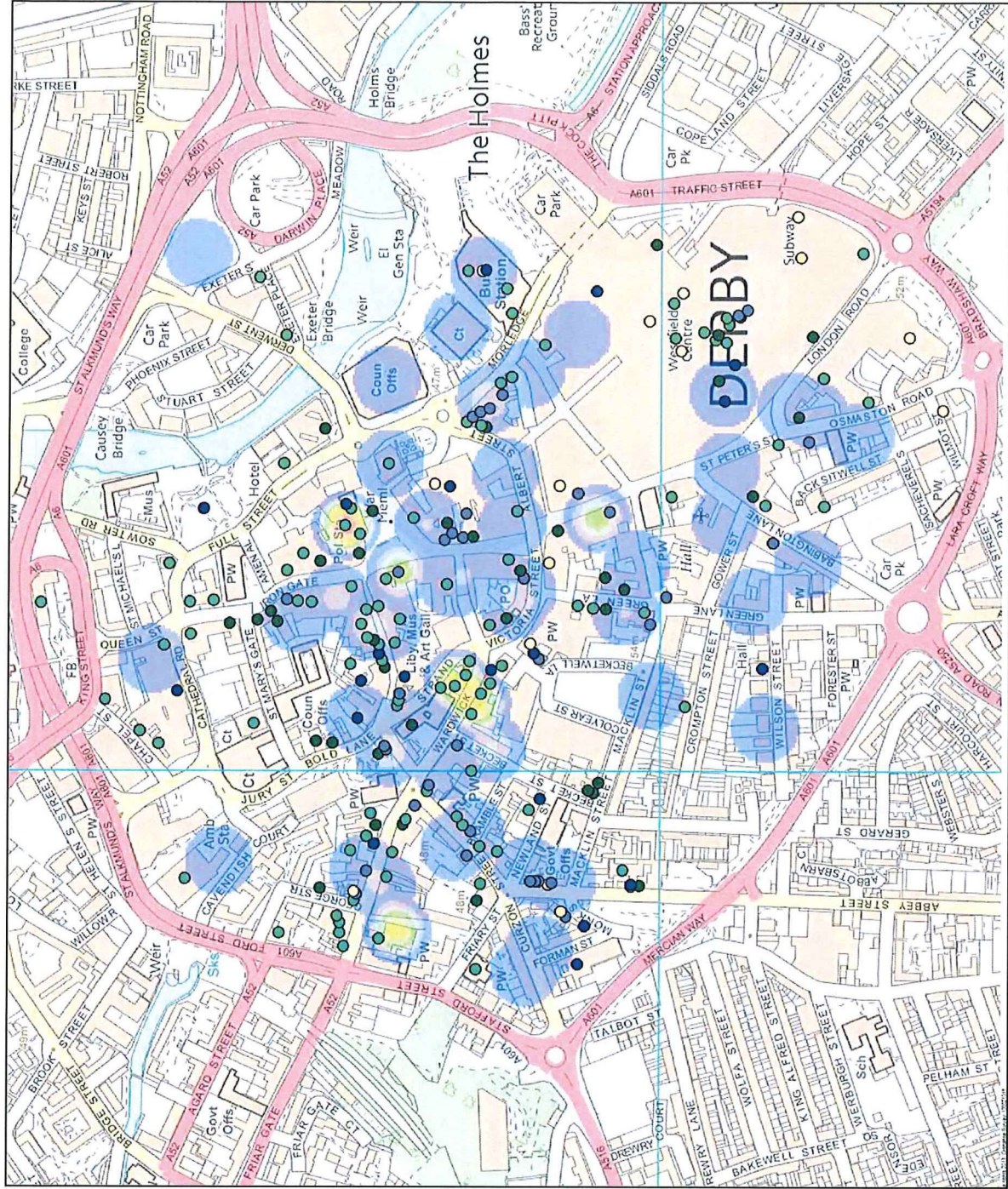
Licensed
Premises with
EMAS Incident
density (Apr 15
– May 19)
- Current CIZ

EMAS data = 428 (26.6%)

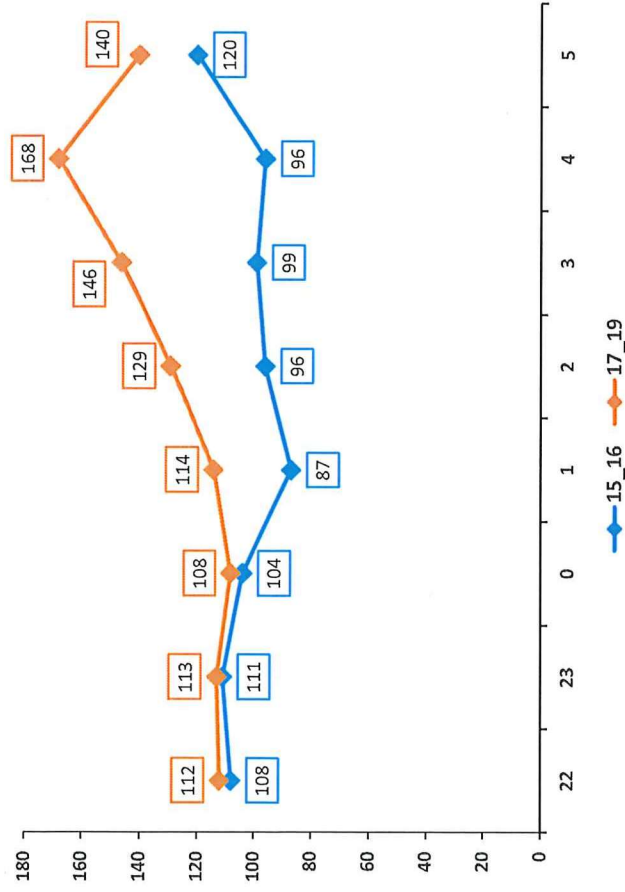


Licensed
Premises with
Cardiff data
incident density
(Apr 15 – May 19)
- Current CIZ

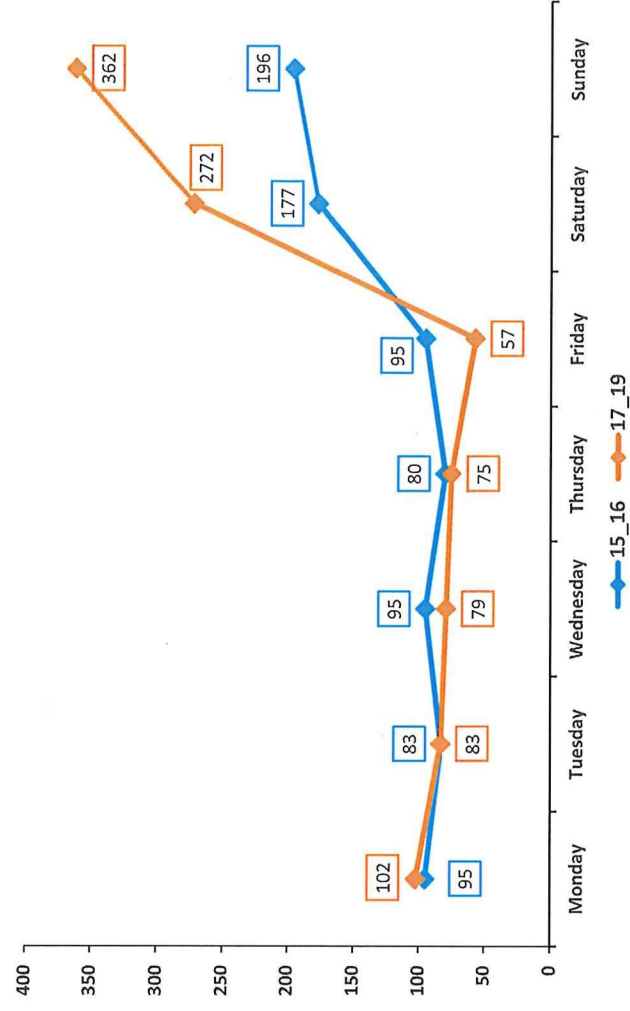
Cardiff data = 244 (45.5%)



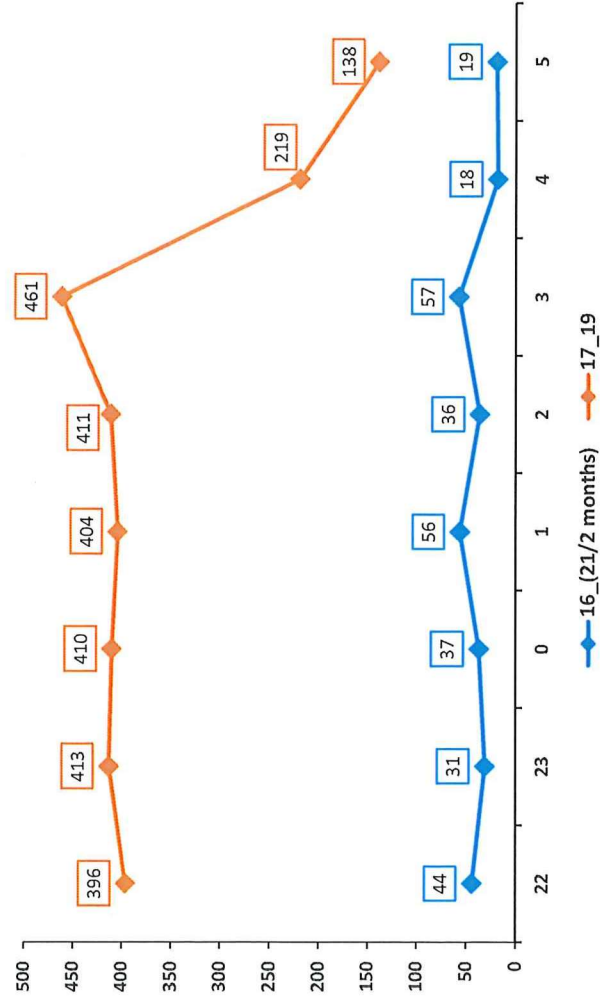
Crime count comparison by Hour



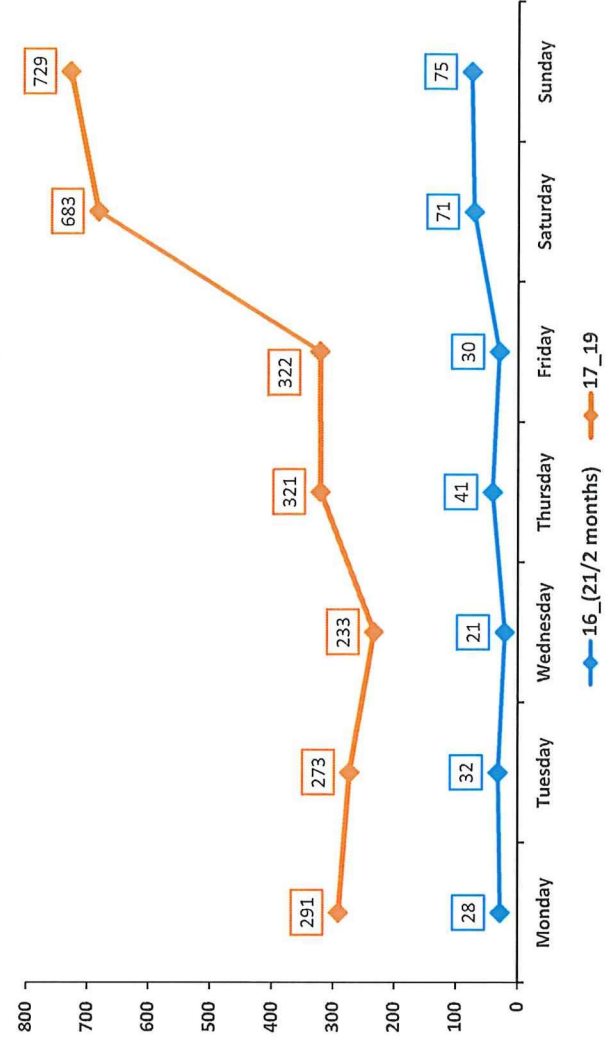
Crime count comparison by Day of Week



Incident count comparison by Hour



Incident count comparison by Day of Week



Data Summary

Count	Derby City	Current CIZ	Proposed CIZ
Crime 15_16	5217	821	808
Crime 17_19	5200	1031	1005
Incidents 16	2176	298	291
Incidents 17_19	22851	2852	2774
EMAS	1611	428	419
Cardiff data	536	244	243
Lic Prems	902	211	208

Percentage %	Derby City (exc. CIZ)(98.85% area)	Current CIZ (1.15% area)
Crime 15_16	84.3	15.7
Crime 17_19	80.2	19.8
Incidents 16	86.3	13.7
Incidents 17_19	87.5	12.5
EMAS	73.4	26.6
Cardiff data	54.5	45.5
Lic Prems	76.6	23.4

Percentage %	Derby City (exc. CIZ)(99% area)	Proposed CIZ (1% area)
Crime 15_16	84.5	15.5
Crime 17_19	80.7	19.3
Incidents 16	86.6	13.4
Incidents 17_19	87.9	12.1
EMAS	74.0	26.0
Cardiff data	54.7	45.3
Lic Prems	76.9	23.1

Count per SQ KM	Derby City Total	Derby City exc. CIZ	Current CIZ	Proposed CIZ
Crime 15_16	67	57	821	808
Crime 17_19	67	54	1031	1005
Incidents 16	28	24	298	291
Incidents 17_19	293	259	2852	2774
EMAS data	21	15	428	419
Cardiff data	7	4	244	243
Lic Prems	12	9	211	208

Percentage Change

Derby City Total			
Crime 15_16	Crime 17_19	% change	
5217	5200	-0.33	
Derby City exc. current CIZ			
Crime 15_16	Crime 17_19	% change	
4396	4169	-5.16	
Derby City exc. Proposed CIZ			
Crime 15_16	Crime 17_19	% change	
4409	4195	-4.9	
Current CIZ			
Crime 15_16	Crime 17_19	% change	
821	1031	25.6	
Proposed CIZ			
Crime 15_16	Crime 17_19	% change	
808	1005	24.4	

