

APPENDIX A: St Francis' Abbey Historic Sources

In 1544 a Grant of King Henry VIII of the Black and Grey Friaries and their possessions to the Sovereign, Burgesses and Commons of Kilkenny.

CR/C9 – Copy of a translation of a Grant made by King Henry the 8th to the Sovereign- Burgesses and Commons of the Town of Kilkenny of the Black and Grey – Friaries and their possessions in the 35th year of his Reign

'And the whole House [Satis] site? boundary ambit and precincts of the late Monastery or House of Franciscan Friars of Kilkenny, aforesaid in the said County, Commonly called the Grey Friars of Kilkenny. And the whole Church Belfry Dormitory, Hall, Chapter House, three Chambers a Kitchen, a House called the Garnen with three cellars under same House, and an enclosure within the Site of said late monastery or House, and all Edifices Messuages Gardens Lands tenements Orchards and hereditaments whats occurs with this appertaining in or within the Site Bounds Circuit and precincts of said late Monastery or House'.

CR/C18 – Letter Patent of Charles I (1640-1693)

'... also all the houses scite ambit and precincts of the late Monastery or house of Franciscan Friars of Kilkenny aforesaid commonly called the Grey Friars of Kilkenny Late in the sais County and now in the County of the City of Kilkenny and all the churches belfries Domitories halls the Chapter House three bedrooms one kitchen a house called the garner with three cellars under said house and an enclosure within the said Scite of said Monastery or house of Grey Friars and also all the house edifices gardens orchards lands tenements and hereeditaments with their appurtenances within the said Scite ambit and precincts of the said late monastery or house of Grey Friars and all the castles messuages lands tenements mills weirs'.

CR/H 2 relates to a volume entitled 'Folio Volume containing entries of leases and fee farms No 13' entries appear under the headings; 'The Comon Lande, St. John's Lande, the Freren Landes' dating to 1500-1678. The document discusses the leases on Grey Friar Abbey amongst other matters.

The following are leases dating from 1592 that relate to land holdings in and around St Francis' Abbey then referred to as 'Grey Friar Abbey':

CR/I 24 - 18th July 1592 Lease past to John Rothe Fitz Jerkin, Burgess of two messuages, part of the ' Grey Fryers land' for 61 years at 7 shillings and 4 pence.

CR/I 30 – 4th July 1595 Lease past to Katherin Ronan of Kellis (Kells) single woman, Patrick Gaffney her son, Walter Johns of Kellis and Margaret Ronan his wife, of a messuage and garden situated in the precinct of the late Monastery or house of the Grey Friars of Kilkenny, together with a 'little void or wast place' situated between the said house and the west end of the abbey, for 58 years at 1 shillings and 8 pence per annum.

CR/ I 60 - 19th October 1632 Lease past to Richard Roth Fitz Edward, Alderman of a messuage a void room or garden situated within the precinct of the late dissolved

house or Franciscan Abbey of the city, together with the cloister of the abbey, for 99 years 4 score and 19 years.

CR/I 103 - 4th July 1753 Lease past to William Archbold, Esquire, of the Franciscan Abbey situated in St Mary's parish for ever at the yearly rate of 4 pounds.

'Known by the name of the Franciscan Abbey not in the possession of the said William Archbold Smithwick Lying and being in the Parish of St Mary in the said City Together with all and Singular the houses Buildings Rights Members Appurtenances Privileges and Advantages.... To hold the said Houses, Gardens, Orchards and Buildings and every part and parcels thereof with the appurtenances'.

CR/H6 relates to a book that documents - A Concise History of the Corporation of Kilkenny with Catalogues of its Ancient Charters, Grants and Minute Books 1873.

Appendix B Irish Historic Towns Atlas Kilkenny Gazetteer

The following information was extracted from the Irish Historic Towns Atlas Kilkenny, Topographical Information by John Bradley (2000). It relates to features noted to lie within the Masterplan area. These structures/features and associated references are included in a gazetteer format.

Mills

St Francis' Abbey Corn Mill, Water gate E., part of St Francis' Abbey Brewery (q.v.) Grefryrs Mylle 1541 (Extents Ir. Mon. possessions, 200). Edmund Smithwick, oatmeal miller, 1846, 1856 (Slater). Corn mill 1850 (Val. 1), 1858-1910 (Val. 2).

Mill race, from Breagagh R., Water Gate W. to River Nore: water course, property of St Francis' Abbey (see 11 Religion) 1540 (Carrigan, iii, 107); 1758 (Rocque); mill race 1841-1946 (OS).

Forges and smithies

Horse Barrack Lane N., in part of former starch factory (q.v.) 1869-1901 (Val. 2), 1871 (OS). Horse Barrack Lane, site unknown. Peter Dowling 1884 (Bassett, 141). Horse Barrack Lane, site unknown. Patrick Hennebery 1884 (Bassett, 141).

Distilleries

Parliament St E., on site of later St Francis Abbey Brewery (q.v.).1824 (Pigot). Distillery, malt house, corn stores and water mill 1827 (KM 24.1.1827). Incorporated in St Francis' Abbey Brewery (q.v.) in 1827 (Halpin, 587). Location unknown. Rectifying distillery 1829 (KM 12.8.1829).

Breweries

St Francis Abbey Brewery, Parliament St E., in S. part of St Francis' Abbey (see 11 Religion). St Francis Abbey Brewery, opened by Edmund Smithwick incorporating earlier distillery (q.v.) in 1827 (Halpin 586-7); 1831 (KJ 1841; Smithwick Brewery 1871 (OS). St Francis' Abbey Brewery, 4 malt houses, saw mills, 2 steam engines, water wheel 1884 (Egan, 142-3). St Francis' Abbey Brewery 1900-46; brewery 1983 (OS) St Francis' Abbey Brewery 2000

Woollen manufactories

Chancellor's Woollen Factory, Vicar St E. Chancellor's Mills 1830; Chancellor's Mills, grist, tuck and spinning mills 1841 (KJ 24.31830, 31.7.1841) Chancellor's Woollen Factory 1841; woollen factory 1871 (OS). Closed in c. 1881 (Val. 2). Incorporated in chancellor's Mill (q.v.) by 1946 (OS).

Starch manufactories:

Parliament St E., associated with St Francis' Abbey Brewery (q.v.). 1841 (OS), 1870; closed in c. 1882 (Val. 2).

Services

Bull Inn, St Canice's Place S. (04306335). Bulles Inn, opened in 1602 9Prim, 1862, 177). Closed by 1833 (KJ 9.2.1833). In ruins 1862 (Prim 1862, 1770). Part extant 2000.

Transport

Irishtown Bridge, Breagagh R., Irishtown to Water Gate (04406250). Bridgec. 1207; Cotterell's Bridge 1269, 1352 (Berry, 124; Liber primus, 25). Repaired in 1568 (Ainsworth, 33). Widening ordered in 1759 (KCM 5.4.1759). Bridge at Water Gate 1833 (KJ 27.2.1833). Unnamed 1841-1999 (OS) Irishtown Bridge 2000.

Bridge, Breagagh R., King St to St Francis' Abbey, associated with Grey Freren Gate. Said to have been built before 1540 (Hogan, 1884, 393).

Residences

St Francis' Abbey (house), Parliament Street E., in St Francis Abbey brewery. Smithwick residence 1837 (KJ 15.11.1837).

Streets

Horse Barrack Lane 'Road leading to monastery of the Friars Minor, 1498 (Liber primus, 103). Graiefreryn Street or Lane 1615 (Healy 389). Lane to the horse barracks 1715 (CB 17.9.1715). Horse Barrack Lane 1786 (FLJ 22.7.1786), 1835; St Francis Street 1830; St Francis Abbey Street 1840 (KJ 29.4.1835, 4.12.1830, 17.6.1840). Horse Barrack Lane 1841 (OS).

Religion

St Francis Abbey, Water Gate E. Franciscan friary founded by Richard Marshal in c 1231-4; new chancel built in 1321; new cemetery added in 1331; chancel extended in 1347; friary: church, belfry, barn, cemetery, Dr Clinton's chamber, garret chamber, granary with 3 cellars, kitchen, orchard with 2 small closes containing 2 acres, 1 water course, suppressed in 1540; granted to mayor and citizens in 1543 (Carrigan ii, 104-10). Reoccupied in 1553, vacated in 1559, reoccupied by 1599; new friary built in 1612 (Jennings, 146, 176). Chamber, chapter house, choir, cloister, Grey Freren park, kiln, nave, steeple, void room c. 1633 (Ledwich, 409-10). Closed in 1650 (Jennings, 180). 'Mary' Abbey c. 1655(DS). Assigned as site of cavalry barracks in 1698 (CB 16.9.1698). Franciscan Abbey 1708 (Pratt). Roof and gallery timbers removed in c. 1719 (KCM 19.9.1719). St Francis Abbey 1758 (Rocque). Church nearly entire, unroofed with tower 1837 (Lewis, ii 115). St Francis' Abbey, in ruins 1841-1999 (OS). Remains of chancel, tower, vaulted chamber 2000.

St Francis' Well: c. 1633 (Ledwich, 410), 1837 (Lewis, ii, 115); spring 1841; St Francis Well 1871-1946 (OS); built over by 1977 (Lanigan and Tyler, 26).

The Franciscan friary lay within a one hectare precinct occupying the north-eastern corner of Hightown, bounded on the north by the Breagagh River and on the east by the Nore. The site is low-lying and on soft alluvial soil subject until recently to severe winter flooding. Referenced to the 'angled lane leading to the friars Minor' suggest that access to the church during the medieval period was via Jenkin's Lane, now the southern part of The Ring, while a bridge over the Breagagh gave access, through Grey Freren Gate, from

Irishtown. The founder appears to have been Richard Marshal, Lord of Kilkenny from 1231 to 1234. But the first definite reference to the Franciscans at Kilkenny, does not occur until 1245. The surviving remains consist of the thirteenth- century choir with an east end added in the 1320's and a belfry started in the 1340s but left unfinished until the fifteenth century because of the Black Death.

Defence

St Francis' Tower, Parliament street E. (06106330). Tower, site of, 1900-46; built over by 1983 (OS).

Evan's Turret, Horse Barrack Lane N. Turret 1841; unnamed 1871-1999 (OS). Extant 2000.

Horse barracks, Water Gate E. Built in c 1700 (CB 16.9.1698, 5.4.1700); 1758 (Rocque). Extended in 1758 (KCM 20.5.1758); 1787 (FLJ 24.2.1787). Closed in c. 1800 on construction of infantry barracks (q.v.) Old cavalry barracks, sold to corporation for 200 in 1829 (KCM 12.5.1829). Old horse barracks 1841 (OS), 1872 (Val. 2) in ruins 1900; demolished, replaced by ballroom by 1946 (OS).

Gardens

Grey Freren park, Water Gate E., associated with St Francis Abbey, site unknown c. 1633 (Ledwich 409-410).

Orchard

Chancellors orchard, Vicar St. E. (04956410). 1654 (CS), 1781 (Ledwich 486, 1843 (KJ 17.5.1843).

Appendix C County and City Gaol Records

Inspector-General's report of the state of the prisons of Ireland for the year 1807-1808

Redmond Duffy local inspector and Rich Elseworth gaoler (360)

'A new gaol was begun for this county, under the superintendence of Mr Robertson, the architect, about 5 years ago, the work is nearly finished... supposed ... be fit for the reception of prisoners about mid-summer and may serve as a model for strength and accommodation to the other counties in Ireland'.

Thomas Hutchinson local inspector, William Montgomery gaoler (361)

'This gaol is kept clean and regular, the inspector is very attentive and the gaoler humane and vigilant, when the new county gaol is occupied, the corporation should purchase the old county yard, and add it to the airing ground for the city prisoners. The walls of it should be raised'.

Report on the General State of Prisons of Ireland 1818 App.

Thomas Hutchinson local inspector, Thomas Tallant gaoler

'I visited this gaol in January 1818, it had a disorderly appearance, occasioned by the county yards being left in an unfinished state, the debtors are obliged for air and exercise to use the female court, which often occasions improper conversations to pass between the sexes. A wall is absolutely necessary to mask the adjoining brewery; until this is built the gaol cannot be considered secure. The cells and rooms of the prison were clean, and the gaol very healthy, but the halls were certainly dirty, by reason of the courtyards not being flagged or gravelled'.

First Report of the Inspectors General on the General State of Prisons of Ireland 1823... 'If the wall recommended in the yard adjoining the brewery is built the lasses will have their separate yards.....'

Second Report of the Inspectors General on the General State of Prisons of Ireland 1824... 'The situation of this gaol is indifferent, it being the ground floor of the county and city courthouse, it is however more open to the rear than would appear by viewing it from the street, and with a well regulated system of yards, may afford air sufficient for the health of the prisoners. Stones have been drawn to build a wall recommended in my last report and before the erection thereof the grand jury propose to employ the prisoners in breaking stones and laying a solid foundation in the yards for a dry gravelling floor.

Third Report of the Inspectors General on the General State of Prisons of Ireland 1825 recommendation to build the walls some feet higher to prevent escape also to erect a chapel and infirmary which the law requires.

Eight Report of the Inspectors General on the General State of Prisons of Ireland 1830 This building shall be converted into a female prison – house of correction.

Tenth Report of the Inspectors General on the General State of Prisons of Ireland 1832

'There is no boundary wall and the yard is surrounded by buildings giving every facility to escape.....'

In subsequent years, the gaol is described as being not fit for purpose.

In documented leases the land to the rear of the court house is described as consisting of the 'shed, yard and garden behind Grace's old Castle, with the passage coming into the yard (9th March, 1840 from William Hawkesworth to Sir Jonah Wheeler (Commissioners appointed by the Grand Jury of the County of Kilkenny for the purpose of purchasing or renting premises for building of new Court-houses and Prisons in said county, pursuant to the provisions of the Acts of 7th George IV).

The following table details sources relation to Grace's Castle, City and County Gaol and Courthouse

Location	Dates	Sources	Date of Source	Comment of source
Grace's Castle [Parliament Street East]	c. 1211	Ledwich	1804	William Grace (le Gras) builds castle
	1566	Calendar of Patents of Elizabeth Ireland. 1566 [Chk list of buildings owned by Corp. in Ms]	1566	[Ownership transfer to Kilkenny corporation as goal (see note*below)]
	1678	Ormonde Leases	1678	Grace's Castle [leased to High Sheriff]
	1697	Ormonde Deeds	1830	[back of Grace's Castle let to Richard Connell]
	c. 1708	Pratt	1708	'Grace's Castle and county Gaol'
	1786	Finn's Leinster Journal	9/9/1798	'Grace's old castle'
	April 1798	Neely + Finn's Leinster Journal	1989 1798	[A meeting of the magistrates held at Grace's Old Castle]
	15 th January 1828	The presentments of Grand Jury of the county of Kilkenny	1833	'A meeting if the magistrates held at Grace's Old Castle.'
	1831	Kilkenny Journal	26/10/1831	
	1837	Lewis	1837	'The courthouse, called Grace's Old Castle' [city and county-at-large courts]
	1841	Ordnance Survey	1841	'Grace's old Castle or County Courthouse. City Gaol'
County Gaol [Parliament Street East]	1691	Rental	1691	Grace's Castle/county gaol
	Unknown date pre-1708	Ledwich	1804	William[le Gras] erected a castle in the city; this old building, some years ago, was pulled down and a court house and prison erected on its site at the expense of the county
r	1780-1807	Pratt	1708	'Grace's castle and county

Location	Dates	Sources	Date of Source	Comment of source
				Gaol'
	1735	Kilkenny Corporation Minutes	24/9/1735	'County Gaol'
	1758	Rocque Map	1758	'County Gaol'
	1781	Samuel Byron Map	1781	'County Gaol'
	1800	Tighe	1802	'To be closed'
Court house [Parliament Street East]	1752	Pococke	1891	[County courthouse and gaol being built]
	1756	Watters	1875	'county courthouse'
	1786	Finn's Leinster Journal	9/9/1786	'County courthouse'
	1789	Finn's Leinster Journal	6/5/1789	[used as] 'Theatre'
	1790	Ni Chinneide and de Montbret	1974	A new prison is being built.
	1792	Finn's Leinster Journal	9/10/1792	'New gaol' + 'some plans of material service to the court house'
	9 th October 1794	British Association [2ndary] Carrigan	1878 1884	'First Assizes and quarter sessions for the city at city courthouse'
	1795	Inspector- General of Prisons report + Tighe	1796 1802	[possibly at Parliament Street End as Old Tholsel demolished 1795 see note †] 'City gaol built' [on model of county gaol]
	1807	Tighe Inspector-General's Report + Lewis	1802 1807 + 1837	[old county gaol (+ courthouse) 'becomes City Gaol' (+courthouse)] [new county gaol (architect William Robertson) opens in summer 1807 at Stephen Street West Kilkenny Begun 1802]
	1807	Inspector-Generals reports	1808	[city and (old) county gaol yards in proximity on site at Parliament St.]
	1807	Accounts of presentments passed by the Grand Juries	1807	'Improvements done to the city gaol' [£120]
	1822	Brewer + Kilkenny City Presentments	1823 + 1830	'Recently completed by Mr. Robertson, the architect'
	1823-1824	Inspector- General's Report Pigot	1823 + 1824	[court house above city gaol] 'ground floor of city and county courthouses'
	1841	Ordnance Survey	1841	'Grace's old Castle or County Courthouse. City Gaol' [1841 OS including debtors airing ground, women's airing ground.]
	1843	Inspector-General Reports	1843	[proposals to amalgamate county and city gaols under consideration] '£48 5s for repairs. 1 kitchen lately built. 16 cells; 2 rooms for females; 5 dayrooms; 3 yards; 2 rooms used for an hospital.'

Location	Dates	Sources	Date of Source	Comment of source
	1855	The Builder	1855	Burnham designs addition to courthouse
	1858	Inspector-General's reports	1859	'An enlargement of the building attached to the county court house having been lately completed, a considerable portion of it embracing 2 stories'
	1861, 9 th May	Inspector-General's reports	1862	City and county gaols amalgamated
	1865	Lyons	1993	Court house sold for £1200 from Hawksworth
	1871	Ordnance Survey	1871	[Bridewell] [note city and county gaol amalgamated by this time in Stephen Street]
	1884	Bassett	1884	'Old Bridewell'
	1946	Ordnance Survey	1946	'Bridewell'

Mapping

Location	Dates	Sources	Date of Source	Comment of source
*Note County Gaol [Abbey Street North]	1609-1698 ?	Neely, + Bradley	1989 2000	'County gaol'
† City gaol [south end of High Street west side]	1626-1796	Simington, Rocque. Ainsworth, Hogan, Tighe + British Association	1656 1758 1978 1795 1800 1878	'City Gaol' (also 'comon gaol' [under old Tholsel location of city courthouse])
County Gaol [Stephen Street west]	1807 -1948	Inspector-General Report; Lewis + Ordnance Survey	1808 1837 + 1871 1946	[County gaol later county and city gaol post-1843 but not later than 1871]

Appendix D: Detailed Results of Window Samples, Boreholes and Test Pits

Window Samples

WS01 (Inspection Pit)	Pit dimensions: 1.05m x 0.42m x 1.3m	
Depth	Description	Interpretation
0.0m-0.3m	Re-enforced concrete	Modern surface.
0.3-0.6m	Brown silty clay with c. 80% rounded stones	Modern fill.
0.6-1.3m	Black silty clay with round and angular-shaped stones. Inclusions of mortar, red brick fragments.	Early modern fill material
WS01 (Borehole)	Dimensions: 100mm	
Depth	Description	Interpretation
1m-2m	Black silty clay with round and angular-shaped stones. Inclusions of mortar, red brick fragments	Early modern fill material
2m-3m	Compact grey clay	Natural
3m-4m	Compact orange clay (upper 0.5m); sand and gravels (lower 0.5m)	Natural
4m-5m	Sand and gravels	Natural
5m-6m	Sand and gravels	Natural

WS02 (Inspection Pit)	Dimensions: 0.94m x 0.48m x 1.m	
Depth	Description	Interpretation
0.0m-0.45m	Re-enforced concrete and hardcore.	Modern surface
0.45m-1m	Dark brown black coarse sandy clay with occasional red brick fragments and mortar.	Early modern made-up ground
WS02 (Bore Hole)	Dimensions: 100mm	
Depth	Description	Interpretation
1.2m-2.2m	Grey sandy clay with mortar(1.2-1.7m); grey brown clay (1.7m-2.2m)	Early modern made-up ground.
2.2m-3.2m	Grey brown clay.	Natural
3.2m-4.2m	Grey brown clay.	Natural
4.2m-5.2m	Sand and gravels.	Natural
5.2m-6.2m	Sand and gravels.	Natural

WS03 (Inspection Pit)	Dimensions: 0.93m x 0.42m x 1.2m	
Depth	Description	Interpretation
0.0m-0.3m	Re-enforced concrete and hardcore.	Modern surface
0.3m-0.6m	Loose grey brown clay sand with rounded stones (80%)	Modern surface
0.6m-0.8m	Concrete	Modern fill
0.8m-1.2m	Black sandy clay with red brick fragments, mortar.	Early modern made-up ground.
WS03	Dimensions:	

(Bore Hole)	100mm	
Depth	Description	Interpretation
1.2m-2.2m	Grey sandy clay with mortar(1.2-1.7m); grey brown clay (1.7m-2.2m)	Early modern made-up ground.
2.2m-3.2m	Grey brown clay.	Natural
3.2m-4.2m	Grey brown clay.	Natural
4.2m-5.2m	Sand and gravels.	Natural
5.2m-6.2m	Sand and gravels.	Natural

WS04 (Inspection Pit)	Dimensions: 0.9 m x 0.48m x 1.2m	n/a	
Depth	Description	Interpretation	Finds
0.0m-0.4m	Re-enforced concrete and hardcore.	Modern surface	N/A
0.4m-1.2m	Grey brown coarse sandy clay with small round stones. Frequent red brick and mortar, shell	Early modern made-up ground	Clay pipe stem; animal bone.
WS04 (Bore Hole)	Dimensions: 100mm		
Depth	Description	Interpretation	Finds
1.2m-2.2m	Light grey clay with red brick fragments and mortar.	Early modern made-up ground	None.
2.2m-3.2m	Grey sandy clay.	Natural	None
3.2m-4.2m	Sand and gravels	Natural	None
4.2m-5.2m	Sand and gravels.	Natural	None
5.2m-6.2m	Sample Fail	Natural	None

WS05 (Inspection Pit)	Dimensions: 1m x 0.48m x 1.2m	
Depth	Description	Interpretation
0.0m-0.3m	Re-enforced concrete and hardcore.	Modern surface
0.30m-0.55m	Grey clay with mortar, red brick and angular stones	Modern made-up ground
0.55m-1.2m	Grey brown clay with occasional mortar and red brick fragments.	Early modern made-up ground
WS05 (Bore Hole)	Dimensions: 100mm	
Depth	Description	Interpretation
1.2m-2.2m	Compact grey brown clay with mortar and occasional red brick	Early modern made-up ground.
2.2m-3.2m	Very compact green grey clay.	Natural
3.2m-4.2m	Grey green sand and gravels.	Natural
4.2m-5.2m	Grey sand and gravels.	Natural
5.2m-6.2m	Grey sand and gravels.	Natural

WS06 (Inspection Pit)	Dimensions: 0.9m x 0.48m x 1.2m	
Depth	Description	Interpretation
0.0m-0.3m	Re-enforced concrete and hardcore.	Modern surface
0.3m-0.85m	Grey brown coarse sand and rounded	Modern made-up

	stones.	ground
0.85m-1.2m	Coarse sand with red brick fragments and mortar.	Early modern made-up ground.
WS06 (Bore Hole)	Dimensions: 100mm	
Depth	Description	Interpretation
1.2m-2.2m	Coarse sand with red brick and mortar.	Early modern made-up ground.
2.2m-3.2m	Light grey sandy clay, changing to mid grey at approx. 3m.	Natural
3.2m-4.2m	Dark grey sand with some organic clay at approx. 4m.	Natural
4.2m-5.2m	Dark grey-black sandy silt and stone.	Natural, possibly river silts
5.2m-6.2m	Dark grey-black sandy silt and stone.	Natural, possibly river silts

WS07 (Inspection Pit)	Dimensions: 0.95m x 0.40m x 1.2m	
Depth	Description	Interpretation
0.0m-0.18m	Re-enforced concrete and hardcore.	Modern surface
0.18m-0.83m	Grey sand and gravels with pieces of concrete. Occasional red brick fragments	Modern made-up ground
0.83m-0.1.2m	Red brick pieces and fragments and mortar.	Early Modern made-up ground
WS07 (Bore Hole)	Dimensions: 100mm	
Depth	Description	Interpretation
1.2m-2.2m	Mortar and red brick (upper 0.5m) / compact fine grey green clay (lower 0.5m)	Early modern made-up ground/natural
2.2m-3.2m	Compact grey green clay.	Natural
3.2m-4.2m	Compact grey green clay (upper 0.5m) / sand and gravels (lower 0.5m)	Natural
4.2m-5.2m	Sand and gravels	Natural
5.2m-6.2m	Sand and gravels	Natural

WS08 (Inspection Pit)	Dimensions: 0.93m x 0.42m x 1.1m	
Depth	Description	Interpretation
0.0m-0.3m	Re-enforced concrete and hardcore.	Modern surface
0.3m-0.9m	Grey coarse sand with rounded stones. Occasional red brick fragments	Early modern made-up ground
0.9m-1.1	Organic black clay with visible plant remains.	Natural
WS08 (Bore Hole)	Dimensions: 100mm	
Depth	Description	Interpretation
1.1m-2.1m	Black clay with occasional red brick, mortar and angular stones.	Early modern made-up ground

2.1m-3.1m	Yellow clay with stone	Natural
3.1m-4.1m	Rounded stones and gravels.	Natural
4.1m-5.1m	Rounded stones and gravels.	Natural
5.1m-6.1m	Coarse sand and pebbles	Natural

WS09 (Inspection Pit)	Dimensions: 0.95m x 0.5m x 1m		
Depth	Description	Interpretation	Finds
0.0m-0.3m	Re-enforced concrete and hardcore	Modern surface	N/A
0.3m-1m	Brown grey clay with small gravels (80%). Inclusions of red brick fragments and mortar.	Early modern made-up ground.	Clay pipe stem (1 No.), ceramic (1 No.)
WS09 (Borehole)	Dimensions: 100mm		
Depth	Description	Interpretation	Finds
1.2m-2.2m	Compact dark clay with occasional red brick and mortar fragments.	Early modern made-up ground	None
2.2m-3.2m	Compact dark brown clay with rounded pebbles	Natural	None
3.2m-4.2m	Grey clay with gravel stones	Natural	None
4.2m-5.2m	Grey clay with gravel stones	Natural	None
5.2m-6.2m	Coarse sand and gravels	Natural	None

WS10 (Inspection Pit)	Dimensions: 0.8m x 0.5m x 1.2m		
Depth	Description	Interpretation	Finds
0.0m-0.35m	Tarmac and hardcore.	Modern surface	N/A
0.35m-1.2m	Grey clay with red brick fragments, mortar and slate	Early modern made-up ground.	Glass
WS10 (Bore Hole)	Dimensions:		
Depth	Description	Interpretation	Finds
1.2m-2.2m	Grey clay with occasional red brick fragments and mortar.	Early modern made-up ground.	None
2.2m-3.2m	Compact light grey clay sand.	Natural	None
3.2m-4.2m	Compact light grey clay sand.	Natural	None
4.2m-5.2m	Sand and gravels.	Natural	None
5.2m-6.2m	Sand and gravels	Natural	None

WS11 (Inspection Pit)	Dimensions: 0.83m x 0.42m x 1.2m		
Depth	Description	Interpretation	
0.0m-0.3m	Re-enforced concrete and hardcore.	Modern surface	
0.3m-0.85m	Dark grey brown clay sand with frequent red brick and mortar.	Modern made-up ground	

0.85m-1.2m	Light grey brown clay with rounded stones	Natural
WS11 (Bore Hole)	Dimensions: 100mm	
Depth	Description	Interpretation
1.2m-2.2m	Compact grey clay.	Natural
2.2m-3.2m	Grey green sandy clay.	Natural
3.2m-4.2m	Compact orange brown clay.	Natural
4.2m-5.2m	Sand and gravels.	Natural
5.2m-6.2m	Sand and gravels.	Natural

WS12 (Inspection Pit)	Dimensions: 1m x 0.5m x 1.2m		
Depth	Description	Interpretation	Finds
0.0m-0.3m	Re-enforced concrete and hardcore.	Modern surface	N/A
0.3m-1.2m	Modern hardcore material with occasional red brick fragments.	Modern made-up ground	Ceramics (1 No.)
WS12 (Bore Hole)	Dimensions: 100mm		
Depth	Description	Interpretation	Finds
1.2m-2.2m	Grey clay, sand and gravels with occasional mortar and red brick fragments	Modern made-up ground/natural interface.	None
2.2m-3.2m	Grey clay sand and gravels.	Natural	None
3.2m-4.2m	Wet grey clay with rounded stones.	Natural	None
4.2m-5.2m	Grey sand and gravels.	Natural	None
5.2m-6.2m	Fine sand and gravels.	Natural	None

WS13 (Inspection Pit)	Dimensions: 0.94m x 0.44m x 1.2m		
Depth	Description	Interpretation	Finds
0.0m-0.36m	Re-enforced concrete and hardcore.	Modern surface	N/A
0.36m-0.76m	Loose grey brown clay with small stones. Inclusions of mortar, red brick.	Early modern made-up ground	Glass, clay pipe stem, bone.
0.76m-0.1.2m	Dark grey clay with occasional red brick fragments	Early modern made-up ground	None
WS13 (Bore Hole)	Dimensions: 100mm		
Depth	Description	Interpretation	Finds
1.2m-2.2m	Dark grey clay with stones.	Natural	None
2.2m-3.2m	Grey sandy clay with stones.	Natural	None
3.2m-4.2m	Yellow brown sand and gravels.	Natural	None
4.2m-5.2m	Yellow brown sand and gravels.	Natural	None
5.2m-6.2m	Sand and gravels.	Natural	None

WS14 (Inspection Pit)	Dimensions: 0.95m x 0.45m x 1.2m	
Depth	Description	Interpretation
0.0m-0.4m	Re-enforced concrete and hardcore.	Modern surface
0.4m-1.2m	Grey sand and angular stones with occasional large stones.	Modern made-up ground
WS14 (Bore Hole)	Dimensions: 100mm	
Depth	Description	Interpretation
1.2m-2.2m	Concrete and sand	Modern made-up layer
2.2m-3.2m	Grey green silty clay	Natural
3.2m-4.2m	Sand and gravels	Natural
4.2m-5.2m	Sand and gravels	Natural
5.2m-6.2m	Sand and gravels	Natural

WS15 (Inspection Pit)	Dimensions: 0.92m x 0.41m x 1.1m		
Depth	Description	Interpretation	Finds
0.0m-0.15m	Re-enforced concrete and hardcore.	Modern surface	N/A
0.15m-0.45m	Orange coarse sand with rounded stones (50%)	Modern made-up ground	None
0.45m-0.9m	Grey sand with small rounded and angular stones	Modern made-up ground	None
0.9m-1.1m	Grey sand and gravel with some organic clay. Occasional mortar fragments.	Early modern made-up ground.	Ceramic (1 No.)
WS15 (Bore Hole)	Dimensions: 100mm		
Depth	Description	Interpretation	Finds
1.2m-2.2m	Dark grey sand and gravels.	Natural	None
2.2m-3.2m	Light brown sand and gravels.	Natural	None
3.2m-4.2m	Brownish yellow sand and gravels.	Natural	None
4.2m-5.2m	Brownish yellow sand and gravels.	Natural	None
5.2m-6.2m	Coarse grey sand with large rounded stones.	Natural	None

WS16 (Inspection Pit)	Dimensions: 0.84m x 0.52m x 1.2m		
Depth	Description	Interpretation	Finds
0.0m-0.45m	Re-enforced concrete and hardcore.	Modern surface	N/A
0.45m-0.65m	Dark grey clay with red brick fragments, mortar and some charcoal.	Early modern made-up ground	Ceramics (1 No.); Animal bone.
0.65m-0.1.2m	Sand and gravel, occasional red brick fragments.	Early modern made-up	None

		ground	
WS16 (Bore Hole)	Dimensions: 100mm		
Depth	Description	Interpretation	Finds
1.2m-2.2m	Grey black sand and gravels.	Natural	None
2.2m-3.2m	Grey clay with medium-sized stones.	Natural	None
3.2m-4.2m	Rounded stones, sand and gravels	Natural	None
4.2m-5.2m	Gravels and coarse sand.	Natural	None
5.2m-6.2m	Fine and coarse sand.	Natural	None

WS17 (Inspection Pit)	Dimensions: 1m x 0.52m x 1.2m		
Depth	Description	Interpretation	
0.0m-0.35m	Re-enforced concrete and hardcore.	Modern surface	
0.5m-0.75m	Coarse grey clay sand with rounded stones and occasional red brick fragments	Early modern made-up ground	
0.75m-0.9m	Mortar, red brick fragments and occasional coal pieces	Early modern made-up ground	
0.9m-1.2m	Grey/green clay coarse sand with rounded stones. Occasional slate.	Early modern made-up ground	
WS17 (Bore Hole)	Dimensions: 100mm		
Depth	Description	Interpretation	
1.2m-2.2m	Compact grey clay with angular stones.	Natural	
2.2m-3.2m	Grey brown clay with small stones	Natural	
3.2m-4.2m	Grey blue clay with stone (90%)	Natural	
4.2m-5.2m	Sand and gravels.	Natural	
5.2m-6.2m	Sand and gravels	Natural	

WS18 (Inspection Pit)	Dimensions: 1.08m x 0.42m x 1.2m		
Depth	Description	Interpretation	
0.0m-0.32m	Re-enforced concrete and hardcore.	Modern surface	
0.32m-0.77m	Purple clay sand with angular stones (90%)	Modern made-up ground.	
0.77m-1.2m	Grey clay sand with rounded stones (80%). Moderate red brick fragments	Modern made-up ground.	
WS18 (Bore Hole)	Dimensions: 100mm		
Depth	Description	Interpretation	
1.2m-2.2m	Compact grey clay with occasional red brick fragments.	Early modern made-up ground.	
2.2m-3.2m	Grey green sandy clay with small angular stones.	Natural	
3.2m-4.2m	Sand and gravels	Natural	
4.2m-5.2m	Sand and gravels	Natural	
5.2m-6.2m	Sand and gravels	Natural	

Bore Holes

BH01 (Inspection Pit)	Dimensions: 0.94m x 0.47m x 1m	
Depth	Description	Interpretation
0.0m-0.32m	Re-enforced concrete and hardcore.	Modern surface
0.32m-1.0m	Grey clay with rounded stone and gravels.	Modern made-up ground
BH01 (Bore Hole)	Dimensions: 100mm	
Depth	Description	Interpretation
1.2m-2.2m	Compact grey clay with small rounded stones. Some red brick fragments and mortar.	Early modern made-up ground.
2.2m-3.2m	Grey green sandy clay.	Natural
3.2m-4.2m	Yellow grey clay sand and stone.	Natural
4.2m-5.2m	Coarse sand and gravel.	Natural
5.2m-6.2m	Coarse sand and gravel.	Natural

BH02 (Inspection Pit)	Dimensions: 0.96m x 0.5m x 1.2m	
Depth	Description	Interpretation
0.0m-0.45m	Re-enforced concrete and hardcore.	Modern surface
0.45m-1.05m	Grey brown sandy clay with mortar and rounded stones	Modern made-up ground
1.05m-1.2m	Coarse sand with rounded stones.	Early modern made-up ground
BH02 (Bore Hole)	Dimensions: 100mm	
Depth	Description	Interpretation
	Abandoned due to difficult ground (deep concrete)	

BH02(b) (Inspection Pit)	Dimensions: 0.9m x 0.43m x 1.2m	
Depth	Description	Interpretation
0.0m-0.3m	Re-enforced concrete and hardcore.	Modern surface
0.3m-0.6m	Coarse sand, rounded stones	Modern made-up ground.
0.6m-0.75m	Concrete	Modern made-up ground.
0.75m-1.2m	Grey brown coarse sand with rounded stones.	Modern made-up ground.
BH02 (b) (Bore Hole)	Dimensions: 100mm	
Depth	Description	Interpretation
1.2m-2.2m	Grey gravelly sand (to 1.5m); dark brown silty clay with inclusions of small stones and patches of mortar (to 1.6m);	Early modern made-up ground.

	grey gravelly sand.	
2.2m-3.2m	No sample	Natural
3.2m-4.2m	Gravels with frequent stones and dark grey silty clay	Natural (riverine silts)
4.2m-5.2m	Dark grey silty clay.	Natural
5.2m-6.2m	Very wet coarse sand gravels.	Natural
6.2m-7.2m	Coarse grey sandy gravels	Natural
7.2m-8.2m	Coarse grey sandy gravels	Natural
8.2m-9.2m	Coarse grey sand.	Natural
8.2m-9.2m	Coarse grey sand.	Natural

BH03 (Inspection Pit)	Dimensions: 0.91m x 0.42m x 1.2m		
Depth	Description	Interpretation	Finds
0.0m-0.5m	Re-enforced concrete and hardcore.	Modern surface	N/A
0.5m-0.70m	Concrete	Modern made-up ground	None
0.70m-1.2m	Grey clay sand with large rounded stones (80%). Red brick fragments.	Modern made-up ground	Glass, pottery.
BH03 (Bore Hole)	Dimensions: 100mm		
Depth	Description	Interpretation	Finds
1.2m-2.2m	Hardcore	Modern made-up ground	None
2.2m-3.2m	No sample	N/A	N/A
3.2m-4.2m	Sand and gravels.	Natural	None
4.2m-5.2m	Clay sand and pebbles	Natural	None
5.2m-6.2m	Sand and gravels	Natural	None
6.2m-7.2m	Silty sand	Natural	None
7.2m-8.2m	Silty sand	Natural	None
8.2m-9.2m	Silty sand and gravels.	Natural	None

Summary of Groundwater monitoring boreholes (BH A-E):

Five boreholes were dug for the purpose of installing groundwater monitoring wells as requested by the EPA, three to the south of the River Breaghagh, and two to the north (Appendix 1). The boreholes involved hand-digging an inspection pit of 0.5m x 0.5m to a depth of 1m and then drilling a 100mm casing containing a plastic sleeve to depths of 6-8m. In four of the five boreholes, natural was reached between 1.8-2m below bgl. In borehole A (BHA) to the north of the river, natural was reached at 3.4m below bgl. In all of the boreholes the upper deposits were made up of modern fill including red brick, slate and mortar and nothing of archaeological interest was noted.

Detailed Results of Groundwater Monitoring Boreholes

BHA	Dimensions: 100mm diameter	
Depth	Description	Interpretation
0.0m-0.2m	Re-enforced concrete.	Modern surface.
0.2-0.6m	Cobbles and sandy gravel with inclusions of red brick and occasional slate.	Modern fill.
0.6-1.25m	Brown grey gravelly sand with inclusions of slate, red brick, mortar, glass, plastic and charcoal.	Modern fill.
1.25-1.4m	Dark brown grey silty clay with inclusions of mortar and wood fragments.	Modern fill.
1.4-1.65m	Mid-dark brown grey silty clay with inclusions of mortar and wood fragments.	Modern fill.
1.65-2.4m	Brown-grey loose silty sandy coarse gravel with frequent stones, red brick fragments and mortar.	Modern fill.
2.4-2.6m	Dark brown black organic clayey silt with bits of wood and red brick, within coarse gravel.	Modern fill.
2.6-3.4m	Brown grey coarse gravelly sand with some stones, mortar and burnt bone.	Modern fill.
3.4-4.0m	Yellow grey coarse gravel.	Natural.
4.0-4.25m	Yellow grey fine gravel and sand.	Natural.
4.25-4.4m	Fine grey sand.	Natural.
4.4-4.9m	Medium coarse grey sand.	Natural.
4.9-6.0m	Brown-grey medium sand.	Natural.

BHB	Dimensions: 100mm diameter	
Depth	Description	Interpretation
0.0m-0.3m	Re-enforced concrete.	Modern surface.
0.3-0.9m	Brown medium sand and cobbles.	Modern fill.
0.9-1.0m	Dark grey coarse sand with inclusions of red brick fragments and a mix of rounded cobbles and angular stones, average diameter 6-7cms.	Modern fill.
1.0-1.4m	Mixed stony material with inclusions of mortar, red brick and gravel.	Modern fill.
1.4-1.8m	Fine grey sandy clay, with inclusions of mortar & occasional charcoal.	Modern fill.
1.8-2.0m	Fine yellow silty sand.	Natural.
2-3m	Brown silty clay with stones, changes to light grey sandy gravel and then to	Natural.

	medium grey sand with decomposed organic matter and snail shells and finally to mid grey stones and fine sand close to 3m.	
3-4m	Yellow grey gravel, sandier in the last 20cms.	Natural.
4-5m	Fine grey gravel, sandier towards 5m.	Natural.
5-6m	Coarse grey sand to around 5.2m and then stony gravel to 6m.	Natural.
6-7m	Light brown sandy gravel, changing to fine light brown sand from 6.35m.	Natural.
7-8m	Fine light brown sand.	Natural.

BHC	Dimensions: 100mm diameter	
Depth	Description	Interpretation
0.0m-0.2m	Re-enforced concrete.	Modern surface.
0.2-0.45m	Brown medium sand and cobbles.	Modern fill.
0.45-1.0m	Mix of mid grey coarse sandy gravel with stones, red brick fragments and bits of mortar, slate and cinder.	Modern fill.
1.0-1.4m	Mix of mortar, red brick, slate and gravel.	Modern fill.
1.4-1.6m	Dark brown silty sandy clay with red brick, mortar and charcoal.	Modern fill.
1.6-1.85m	Light grey brown silty sandy clay with some stones and flecks of mortar.	Modern fill.
1.85-1.95m	Mid-grey silty sandy clay with inclusions of mortar and red brick.	Modern fill.
1.95-2.9m	Light grey fine silty clay.	Natural.
2.9-3.4m	Coarse stony gravel.	Natural.
3.4-6.9m	Coarse gravelly sand with some fine gravel. Includes bands of grey and brown-yellow sandy gravel.	Natural.
6.9-7m	Coarse mid-brown sand.	Natural.

BHD	Dimensions: 100mm diameter		Figure: Appendix 1
Depth	Description	Interpretation	Finds
0.0m-0.2m	Re-enforced concrete.	Modern surface.	N/a
0.2-0.55m	Grey brown, mix of mortar, stones and brown silty sand with flecks of red brick.	Modern fill.	None.
0.55-0.9m	Light grey sandy gravel with stones and occasional bits of red brick.	Modern fill.	None.
0.9-1.0m	Black silty clay with mortar & red brick inclusions.	Modern fill.	None.
1.0-1.5m	Black silty sand with frequent mortar & cinders.	Modern fill.	Modern pottery.
1.5-2.0m	Mid grey silty sand with frequent bits of mortar and red brick, roots and wood fragments, charcoal.	Modern fill.	Modern pottery.
2.0-2.1m	Light grey medium sand	Natural.	N/a

2.1-2.9m	Mid grey silty clay, becoming yellow towards 2.9m.	Natural.	N/a
2.9-3.8m	Light grey sandy gravel.	Natural.	N/a
3.8-4.1m	Grey medium sand.	Natural.	N/a
4.1-5.0m	Mid grey coarse sand and gravel.	Natural.	N/a
5.0-5.2m	Yellow-grey gravel and sand with stones.	Natural.	N/a
5.2-6.0m	Brown medium sand.	Natural.	N/a

BHE	Dimensions: 100mm diameter	
Depth	Description	Interpretation
0.0m-0.25m	Re-enforced concrete.	Modern surface.
0.25-0.7m	Coarse sand and gravel with rounded cobbles, inclusions of mortar & redbrick fragments.	Modern fill.
0.7-0.9m	Concrete.	Modern fill.
0.9-1.6m	Mixed grey brown coarse silty sand containing mortar, red brick and some stones. Layer of mortar within, at 1.3-1.4m.	Modern fill.
1.6-2.0m	Dark grey brown sandy silty clay with inclusions of cinder, mortar and decaying organics (twigs).	Modern fill.
2.0-2.6m	Lighter grey sandy silty clay with some coarse gravel.	Natural.
2.6-2.9m	Light yellow grey silty clay, occasional dark brown patches of decayed organics.	Natural.
2.9-3.0m	Grey sandy silty gravel.	Natural.
3.0-4.65m	Medium yellow-grey silty sandy finely coarse gravel with occasional cobbles.	Natural.
4.65-5.6m	Fine medium grey sand.	Natural.
5.6-6.0m	Brown grey silty sandy gravel.	Natural.
6.0-7.0m	Grey brown medium sandy gravel with some cobbles.	Natural.
7.0-7.6m	Mid brown grey slightly silty coarse gravelly sand.	Natural.
7.6-8.0m	Fine brown grey silty sand.	Natural.

Test Pits

TP01 (Test pit)	Dimensions: 1m x 0.7m x 2.6m		
Depth	Description	Interpretation	Finds
0.0m-0.2m	Tarmac and hardcore	Modern surface	N/A
0.2m-0.45m	Grey black gravel and sand	Modern made-up ground	None
0.45m-0.55m	Deposit of dumped red brick fragments and mortar	Modern made-up ground	None
0.55m-0.9m	Mid grey brown sandy clay	Modern made-up ground	None
0.9m-1.35m	Grey silty clay with some inclusions of mortar and slate fragments	Modern made-up ground	None
1.35m-2.5m	Very fine dark black-brown silty clay, inclusions of slate, red brick, animal bone	Organic deposit, post medieval or later, possibly related to a flood event	Pottery (Brownware)
2.5m-2.6m	Fine brown silt	River deposit, possibly related to a flood event	None
2.6m	Mid grey sandy gravel	Natural	None

TP02 (Test pit)	Dimensions: 1.5m x 0.7m x 1.5m		
Depth	Description	Interpretation	Finds
0.0-0.2m	Re-enforced concrete and hardcore.	Modern surface	N/A
0.2m-0.7m	Loose light brown sand and gravel, occasional red brick fragments and flecks of mortar throughout.	Modern made-up ground	None
0.7m-0.95m	Loose dark grey black sandy clay mixed with red brick and mortar.	Early modern made-up ground	None
0.95m-1.5m	Dark brown mottled silty clay with flecks of mortar and red brick. At c.1m some large stones at the north end of the test pit may represent the face of a wall oriented roughly SW-NE.	Early modern made-up ground, possible stone wall	Modern pottery, glass

TP03 (Test pit)	Dimensions: 1.5m x 0.65m x 2.35m		
Depth	Description	Interpretation	Finds
0.0m-0.2m	Re-enforced concrete and hardcore.	Modern surface	N/A
0.2m-1m	Loose light brown sand and gravel, occasional red brick fragments.	Modern made-up ground, possibly river gravels	None
1m-1.9m	Dark grey black silty clay,	Early modern	Modern

	inclusions of red brick, slate and wood fragments.	made-up ground	pottery, glass, oyster shell
1.9m-2.35	Fine grey silty clay	River silts	None

TP04 (Test pit)	Dimensions: 1m x 0.7m x 0.6m		
Depth	Description	Interpretation	
0.0m-0.2m	Re-enforced concrete and hardcore.	Modern surface	
0.2m-0.4m	Loose light brown gravel and sand	Modern made-up ground	
0.4m-0.6m	Loose grey gravel and sand	Modern made-up ground	
0.6m	Concrete slab	Modern surface	

TP05 (Test pit)	Dimensions: 1m x 0.7m x 2.25m		
Depth	Description	Interpretation	Finds
0.0m-0.5m	Re-enforced concrete and hardcore.	Modern surface	N/A
0.5m-1.35m	Loose light brown gravel and sand	Modern made-up ground	Modern pottery
1.35m-1.8m	Loose dark brown silty clay with frequent inclusions of mortar and red brick.	Modern made-up ground	Modern pottery, animal bone
1.8m-2.3m	Mid-dark grey silty gritty clay with frequent inclusions of red brick fragments and mortar	Modern made-up ground	Modern pottery
2.3m-2.55m	Grey gravel	Natural	None

TP06 (Test pit)	Dimensions: 1.5m x 0.7m x 2.25m		
Depth	Description	Interpretation	Finds
0.0m-0.2m	Re-enforced concrete and hardcore.	Modern surface	N/A
0.2m-1.35m	Loose light brown gravel and sand, inclusions of mortar, red and yellow brick, slate and plastic.	Modern made-up ground	Modern pottery,
1.35m-1.95m	Mid-dark brown silty clay with flecks of mortar and red brick.	Modern made-up ground	None
1.95m-2.25m	Fine dark grey silty clay	Post medieval or later, possibly related to a flood event	Pottery (Brownware) and clay pipe stem fragments (x2)

TP07 (Test pit)	Dimensions: 1.5m x 0.7m x 0.65m		
Depth	Description	Interpretation	
0.0m-0.25m	Re-enforced concrete and hardcore.	Modern surface	
0.25m-0.65m	Loose mid brown gravel and sand	Modern made-up ground	

0.65m	Concrete slab	Modern surface
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TP08 (Test pit)	Dimensions: 1m x 0.7m x 2.4m		
Depth	Description	Interpretation	Finds
0.0m-0.25m	Re-enforced concrete and hardcore.	Modern surface	N/A
0.25m-1.1m	Mid brown rubble material with lots of mortar, yellow and red brick, slate fragments Loose light brown gravel and sand, inclusions of mortar, red and yellow brick, slate and plastic.	Modern made-up ground	Early modern white glazed yellow brick (stamped "J & M Craig Kilmarnock Scotland) dates to early 19 th -early 20 th Century.
1.1m-2.2m	Dark brown silty clay with lumps and flecks of mortar and animal bone.	Modern made-up ground	Modern glass bottle
2.2m-2.4m	Grey brown sandy clay.	Natural	None

TP09 (Test pit)	Dimensions: 1.5m x 0.7m x 2.4m		
Depth	Description	Interpretation	Finds
0.0m-0.25m	Re-enforced concrete and hardcore.	Modern surface	N/A
0.25m-0.4m	Black loose gravel.	Modern made-up ground	None
0.4m-1.2m	Loose mid brown gravel and sand, inclusions of mortar, red brick, slate and plastic.	Modern made-up ground	Modern pottery
1.2m-2.4m	Dark brown sandy clay with bits of mortar and red brick, slate, plastic, re-bar, wire, animal bone.	Modern made-up ground, dumped rubbish	Bead (probably modern), modern glass

TP10 (Test pit)	Dimensions: 1.9m x 0.6m x 2.2m		
Depth	Description	Interpretation	Finds
0.0m-0.3m	Re-enforced concrete and hardcore.	Modern surface	N/A
0.3m-0.8m	Loose mid brown sand and gravel, inclusions of mortar flecks.	Modern made-up ground	Modern pottery
0.8m-1.8m	Loose dark brown sandy silt, flecks and lumps of mortar.	Modern made-up ground	None
1.8m-2.2m	Mid grey silty clay, inclusions of animal bone, burnt bone and flecks of charcoal.	River silts, possibly an archaeological layer.	None

TP CB (Test pit)	Dimensions: 2m x 4m x 3.1m		
Depth	Description	Interpretation	Finds





0.0m-0.5m	Re-enforced concrete and gravel.	Modern surface	N/A
0.5m-1.1m	Loose mid brown sand, gravel and water rolled stones.	Modern made-up ground	None
1.1m-1.8m	Grey gravelly sandy silt, red brick and mortar fragments.	Modern made-up ground	None
1.8m-2m	Dark brown organic peaty material with inclusions of oyster shell, animal bone, glass and red brick fragments.	Early modern occupation layer	Glass, red brick fragments
2m-2.8m	Stony grey black silty grey clay with mussel shell inclusions.	River silts related to a flood event, possible archaeological layer.	None
2.8m-3.1m	Dark brown-black soft clayey silt with inclusions of seashell, animal bone and charcoal.	Possibly an archaeological layer / river silts related to a flood event.	None
3.1m	Grey sandy gravel	Natural	N/A




Appendix C Archaeological Investigations within and adjacent to the Masterplan area - Adjacent to the Masterplan



Licence No	KKAP Ref	Description	Archaeologist	Location	Date
03E1901	KKAP-022	Excavation of Vicar's Choral building of St. Canice's cathedral. Post-medieval wall.	Emmet Stafford, Catherine McLoughlin	15-16 Vicar Street	2004
	KKAP-023	Testing of Vicar's choral building	John Tierney	15-16 Vicar's street	2003
97E0481	KKAP-154	Kilkenny Main Drainage Battered medieval wall at Mill Lane, organic possible Early Medieval deposits at St. Canice's place and culverted mill-race at Parliament Street	Patrick J. H Neary	Mill Lane, St Canice's Place	1997-1999
	KKAP-175	Industrial mill and weir complex including 17th century rectangular mill-building, mill-race and waterwheel pit. Late 17th century 'deflection dam' and wattle panelling. Extensive remodeling occurred after the 1763 flood	Paul Stevens and Brenda O'Meara	NOR-2, NOR-4 The Mill Island and Green's Bridge Weir (Part of Green's Bridge Mills)	2001-2002
00E0170	KKAP-026	Four walls and remains of cobbled surface of post-medieval date. Medieval deposits beneath stone building and cobbles.	Mary Henry	19 Vicar Street	2000
04E0615	KKAP-131	Architectural recording of a 'free-standing arch' for Watergate bridge	Kevin Lohan	Irishtown Bridge	2004
95E0062	KKAP-155	Reclamation deposits overlying medieval organic material	Margaret Gowen	Kytler's Inn, 25-26 St Kieran's Street	1995
00E0027	KKAP-041	Archaeological excavation was undertaken to facilitate the construction of manholes for the Kilkenny Main Drainage scheme. Seven stratigraphic layers were identified, all of which were archaeologically sterile. A stone flag floor, associated with a Georgian house, was identified at a depth of 2m below the current ground surface.	Emer Dennehy	33 Parliament Street	2000
06E1190	KKAP-045	Interior of Tudor house, mortar and brick layers	Sheila Lane	38 Parliament Street	2006
00E0128	KKAP-046	Build level of Tudor house and medieval deposits	Paul Stevens	39 Parliament Street	2000
99E0713	KKAP-124	Organic reclamation deposits of possible medieval date. Post-medieval deposits	Mary Henry	Green Street	1999
04E1618	KKAP-223	No finds or features of an archaeological nature were noted in testing	Sheila Lane	Winston's Department Store	2004
00E0406	KKAP-076	Late Medieval timber structure, timber bridge foundations, medieval wall	Paul Stevens	BRE-6 Banks of the river Breaghagh Gardens Townland	2000
98E0167	KKAP-009	Medieval Housing and Reclamation	Hilary Opie	1-13 Kieran Street	1998
97E0334	KKAP-010	Medieval Housing and Reclamation	Ruairi O'Baoill	10-13 Kieran Street	1997
07E0549	-	Five test trenches revealed a burial, a number of medieval deposits, a well and post medieval wall	Maedbh Saunderson	Courthouse test excavation	2007




08E0462	-	Excavation revealed over 1000 contexts, 200 excavated features, 4000 sherds of medieval pottery, 2000 sherds of post-medieval pottery. Almost 500 pieces of well-preserved wood consisting of stakes, timbers, artefacts. Medieval domestic activity included wood lined cesspits and burgage plots. 23 burial (probable felons) were revealed from the prison context of the site	Maedbh Saunderson	Courthouse excavation	2008
Investigation within the Masterplan Area					
Licence No	KKAP Ref	Description	Archaeologist	Location	Year
99E0385	KKAP-190	Archaeological test-excavations and monitoring was undertaken on the Breagagh river where it passes through St. Francis' friary. The works formed part of an assessment that was undertaken in advance of the removal of the river bed due to PCB contamination. Test pit No 4 yielded 2 sherds of medieval pottery	Margaret Gowen, Paul Stevens	River Breagagh at St. Francis' Abbey Brewery	1999
95E0242	KKAP-198	Reclamation with decayed timbers	Margaret Gowen	St Francis' Abbey Brewery	1995
98E0069	KKAP-204	Test-excavations were undertaken in advance of the construction of a small extension to the fermentor block of the brewery in St. Francis' Abbey. Nothing of archaeological interest was noted	Margaret Gowen	St. Francis' Abbey Brewery	1998
04E0694	KKAP-203	Reclamation and the possible residual remains, in the form of limestone building rubble, of the 18th-century horse barracks.	Kevin Lohan	St. Francis' Abbey Brewery	2004
04E0694	KKAP-205	19th and 20th reclamation	Brenda O'Meara	St Francis' Abbey Brewery	2004
97E0099	KKAP-206	A single test-pit was excavated prior to the redevelopment of a fermentor block. A hard, compact, yellow boulder clay was identified 2.57m below existing ground level. This was sealed by a black organic silty clay, 1.32m deep. The uppermost 1.25m of fill consisted of demolition rubble, hard-core and thick concrete slab.	Edmond O'Donovan	St. Francis' Abbey Brewery	1997
99E0148	KKAP-207	An organic silt, possibly a medieval reclamation layer, was discovered at the base of the excavated cutting, 2.50m. Two layers of post-medieval build-up were also recorded.	Edmond O'Donovan	St. Francis' Abbey Brewery	1999
-	KKAP-184	Part of cloister and north transept of St. Francis' friary	Marcus O'hEochaidhe	St Francis' Abbey	1963
	KKAP-130	Monitoring of river-gravel extraction revealed a sword fragment. A survey of the Town Wall and Evan's tower was also undertaken	Ian W. Doyle	Diageo Complex, River Breagagh	2001 01E0632
07E1061	-	Six test trenches were excavated and two walls were revealed in Trench 1, wall revealed at 43.1m OD (0.6mbgl) and Trench 4, wall revealed 42.55m OD (1.7m bgl)	Niklagh Gilligan	Diageo Complex	2008



01E0303	KKAP-209	Stone jetty and timber platform	Niall Brady	NOR-10 Bateman Quay	2001
01E0554	KKAP-177	18th century stone jetty, private mooring, river wall	Paul Stevens	NOR-9 Bateman Quay	2001
01E0555	KKAP-080	Excavation and full building survey of a semi-circular riverside revetment wall and associated early modern Pleasure House	Paul Stevens	NOR-6 Bateman Quay	2001-2002
01E1166	KKAP-079	Series of post-medieval, parallel riverside walls and the truncated remains of a 'pleasure house'	Paul Stevens	Bateman Quay	2002
10E323	-	Underwater investigation did not reveal any archaeological features	ADCO	KCAS	2010
unknown	-	Six test trenches were excavated and four revealed archaeology relating to 18 th -19 th century building material/ structures	Colm Flynn	KCAS	2012
unknown	-	Identification of 2 stone walls thought to be 18 th -19 th in date and part of a structure.	Colm Flynn	Diageo complex – Visitor Attraction Project	2014
14E0250	-	A series of 19 th and 20 th century walls, box drains and culverts were uncovered, which tie into Rocque's map of 1758. The outfall area was previously disturbed, a possible riverine deposit (a dark grey brown silt) was detected below c.1.5m	Gill McLoughlin	Diageo complex - monitoring an underground ESB cable and outfall upgrade	2014
13E0270	-	18 window samples, 8 boreholes, 11 test pits and a programme of river bank sampling	Gill McLoughlin and Mark Moraghan	Monitoring of geotechnical test pits and boreholes	2013-2014
Ministerial Consent (C607)	-	Stone revetment wall to the east of Evan's Tower was revealed for a length of 1.6m, depth of 1.1m and was oriented northwest-southeast (5 courses were uncovered).	Gill McLoughlin	Monitoring on the banks of the river Nore	2014



NIAH Reg No.	Address	Date	Categories of special Interest	Rating	Original Use	Description	Coordinates	Photo
12004 007	Green's Bridge	1765 - 1770	Architectural Technical	National	Bridge	Five-arch rubble limestone Classical-style road bridge over river. Built 1766 by William Colles (c.1710-70) to designs prepared by George Smith (fl. 1763-7) after the Roman Bridge at Rimini. Finely-carved limestone dressings exhibiting high quality stone masonry. The graceful profile of the arches identifies the civil engineering heritage significance of the site.	250558, 156536	
12003 050	Hillman Humber and Commer, Green Street	1940 - 1960	Architectural	Regional	Garage	Detached four-bay two-storey gable-fronted garage, c.1950. Pitched (gable-fronted) roof behind parapet with cast-iron rainwater goods. Painted rendered walls with channelling to ground floor. Square-headed openings with fixed-pane windows.	250399, 156511	
12003 025	Vicar Street	1890 - 1910	Artistic Technical	Regional	Vent Pipe	A vent pipe of significance for the associations with a sewage system developed in Kilkenny c.1900. Raised elements together with a profiled parapet indicate the equal importance placed on aesthetic effects as well as functionality.	250375, 156460	
12000 002	19 Vicar Street	1840 - 1860	Architectural	Regional	House	End-of-terrace three-bay two-storey house, c.1850. Pitched slate roofs with clay ridge tiles, rendered chimney stacks, and cast-iron rainwater goods on rendered eaves. Square-headed window openings with cut-stone sills and moulded rendered surrounds. Renovated, c.1950, however retaining the original composition attributes elsewhere together with substantial quantities of the historic fabric the house continues to make a pleasing impression	250420, 156386	


						in an historic streetscape.		
12000 001	24 Vicar Street	1900 - 1910	Architectural	Regional	House	Attached two-bay two-storey house, built 1905, with two-bay two-storey return to east. Hipped slate roof with terracotta ridge tiles. Painted rendered, ruled and lined walls with rendered vermiculated quoins to ends. A pleasant small-scale house distinguished in the streetscape on account of attributes including camber-headed openings with one incorporating an elegant bipartite arrangement, subtle decorative render detailing, and so on, all of which enhance the architectural design value of the composition.	250402, 156379	
12000 258	20 Vicar Street	1890 - 1910	Architectural	Local	House	End-of-terrace three-bay two-storey house, c.1900, possibly originally two separate single-bay two-storey houses incorporating fabric of earlier house, pre-1840, on site. Hipped and pitched slate roof with clay ridge tiles. Square-headed window openings and door opening with moulded rendered surround. Interior with remains of timber panelled reveals/shutters to window openings. Road fronted with concrete footpath to front.	250427, 156371	
12000 003	D. Walsh, Saint Canice's Place	1790 - 1810	Architectural	Regional	House	Terraced three-bay three-storey house, c.1800. Pitched slate roof with clay ridge tiles. Square-headed window openings with cut-stone sills. Ground floor remodelled, c.1975. Road fronted with concrete footpath to front. A well-appointed substantial house incorporating Classically-derived proportions with the diminishing in scale of the openings on each level lending an elegant formal quality to the street scene. The survival of the original composition attributes to the upper floors together with most of the early fabric	250410, 156317	



						significantly enhances the contribution the site makes to the character of the streetscape.		
12000 004	Phil Treacy, 11 Irishtown	1840 - 1860	Architectural	Regional	House	A well-composed Classically-proportioned substantial house lending a formal quality to the streetscape. Terraced three-bay three-storey house, c.1850, possibly originally with shopfront to ground floor. Pitched (shared) slate roof with decorative terracotta ridge tiles. Painted rendered. Square-headed window openings and square-headed door opening with timber panelled door having overlight. Road fronted with concrete footpath to front. The original form of the upper floors survives substantially intact together with much of the early fabric both to the exterior and to the interior, thereby significantly enhancing the character of the site.	250413, 156310	
12000 005	Phil Treacy, 12 Irishtown	1840 - 1860	Architectural	Regional	House	Terraced three-bay three-storey house, c.1850, possibly originally with shopfront to ground floor. Pitched (shared) slate roof with decorative terracotta ridge tiles. Square-headed window openings with cut-stone sills, moulded rendered surrounds, and one-over-one timber sash windows. Square-headed openings to ground floor remodelled, c.1950, with fixed-pane timber window to left ground floor, and glazed timber panelled double doors to right ground floor having fascia over. Interior with timber panelled shutters to window openings. Road fronted with concrete footpath to front.	250416, 156301	


12000 006	Antique Clique (The), 16 Irishtown	1840 - 1860	Architectural Artistic	Regional	House	Terraced three-bay two-storey house, c.1850. Pitched slate roof with clay ridge tiles, painted rendered walls and square-headed window openings. Timber shopfront, c.1900, to ground floor with pilasters, fixed-pane timber windows, timber panelled door, glazed timber panelled door to house, and fascia over having moulded cornice. Road fronted with concrete footpath to front. A modest-scale house retaining most of the historic composition attributes together with substantial quantities of the early fabric including a fine shopfront of artistic design merit displaying good quality craftsmanship while maximising on the streetscape presence of the site at street level.	250426, 156278	
12000 007	Irishtown Bridge, Irishtown, Watergate	1565 - 1570	Archaeological Technical	National	Bridge	Two-arch rubble stone bridge widened in 1759 after reconstructed in 1568. Incorporating fabric of earlier bridge, 1352. A bridge has existed on site since 1207 with the early provenance serving to identify the archaeological significance of the site. Meanwhile the traditional construction in unrefined rubble stone produces an appealing, if subtle textured visual effect in the street scene.	250438, 156254	
12000 099	James Hughes, 31 Parliament Street	1890 - 1910	Architectural	Regional	House	An appealing modest-scale building possibly originally built as two separate houses successfully navigating an important corner site through the use of a chamfered side elevation. Detached four-bay two-storey house, c.1900, on a corner site probably originally two separate two-bay two-storey houses with two-bay two-storey chamfered side (north-west) elevation. Renovated, c.1925. Pitched slate roofs with clay ridge tiles, painted rendered	250468, 156223	



						walls and square-headed window openings. Square-headed openings to ground floor remodelled, c.1925. Road fronted on a corner site with concrete footpath to front.		
12000 097	Kilkenny Tourist Hostel, 35 Parliament Street	1815 - 1835	Architectural	Regional	House	An attractive middle-size range built as an extension to the house adjacent to south (12000096) incorporating Classically-derived proportions, thereby contributing to the formal quality of Parliament Street. End-of-terrace two-bay three-storey over basement house, c.1825, built as extension to house to south. Reroofed c.1925. Pitched roof with replacement artificial slate, painted rendered walls and square-headed window openings with six-over-six (first floor) and three-over-three (top floor) timber sash windows. Road fronted with sections of wrought iron railings to front on unpainted rendered parapet having cut-limestone coping.	250483, 156186	
12000 096	Kilkenny Tourist Hostel, 35 Parliament Street, Kilkenny, County Kilkenny	1765 - 1785	Architectural	Regional	House	An attractive middle-size house built as one of a pair (with 12000095) incorporating Classically-derived proportions, thereby contributing to the formal quality of Parliament Street. Terraced two-bay three-storey over basement house, c.1775, originally end-of-terrace. Pitched slate roof with clay ridge tiles. Painted rendered walls, square-headed window openings with six-over-six (first floor) and three-over-three (top floor) timber sash windows. Round-headed door. Road fronted with sections of wrought iron railings to front on limestone ashlar parapet having cut-limestone coping.	250490, 156182	




12000 095	36 Parliament Street	1765 - 1785	Architectural Historical Social	Regional	House	<p>An attractive middle-size house built as one of a pair (with 12000096) incorporating Classically-derived proportions, thereby contributing to the formal quality of Parliament Street. The retention of much of the early fabric both to the exterior and to the interior further enhances the contribution the house makes to the historic quality of the streetscape. The house remains of additional importance for the historic use as a Royal Irish Constabulary Barracks during the War of Independence (1919-21). Terraced two-bay three-storey over basement house, c.1775. Renovated, c.1825. Pitched roof with replacement slate. Painted rendered walls with rendered quoins. Square-headed windows with six-over-six (first floor) and three-over-three (top floor) timber sash windows. Round-headed door opening. Road fronted with sections of wrought iron railings to front on limestone ashlar parapet having cut-limestone coping.</p>	250494, 156174	
12000 094	McGrath, 37 Parliament Street	1765 - 1785	Architectural Artistic	Regional	House	<p>A pleasant house of modest character possibly originally built as a smaller composition as suggested by the variance in the proportions of the openings in the upper floors together with some discrepancies in the treatment of the wall surface: the resulting tiered effect produced by the stepping-in of the openings presents a distinctive quality in the street scene. Terraced three-bay three-storey house, c.1775, possibly originally three-bay two-storey. Reroofed, c.1925, possibly with top floor added. Painted rendered walls. Square-headed window openings with six-over-six (first floor) and two-over-two (top floor) timber sash windows.</p>	250492, 156166	


						Timber shopfront, c.1900. Road fronted with concrete footpath to front.		
12000 093	Ristorante Da Pino/James Harte and Son, 38 Parliament Street	1715 - 1735	Architectural Archaeological	Regional	House	A well-appointed middle-size house originally forming part of a larger composition with the range adjacent to south (12000092) representing the continuation of a long-standing presence on site: incorporating substantial portions of the late sixteenth-century Red Lion Inn the house forms an important element of the archaeological heritage of Kilkenny. Terraced two-bay three-storey over basement house, c.1725, originally forming part of larger five-bay three-storey house with building to south with single-bay three-storey return to east incorporating fabric of medieval inn, c.1575, having two-bay single-storey range to east. Renovated, c.1850. Reroofed, c.1950. Painted rendered walls to front (west) elevation with exposed random rubble stone walls to remainder. Square-headed window openings to front (west) elevation with cut-stone sills with chamfered reveals, chamfered mullions, and hood mouldings. Timber shopfront to ground floor. Road fronted with concrete footpath to front.	250501, 156162	




12000 092	James Harte and Son, 39 Parliament Street	1715 - 1735	Architectural Archaeological	Regional	House	<p>A well-appointed middle-size house originally forming part of a larger composition with the range adjacent to north (12000093) representing the continuation of a long-standing presence on site: incorporating substantial portions of the late sixteenth-century Red Lion Inn the house forms an important element of the archaeological heritage of Kilkenny. Terraced three-bay three-storey over basement house, c.1725, originally forming part of larger five-bay three-storey house c.1575, Renovated, c.1850. Reroofed, c.1950. Pitched (shared) roofs with replacement artificial slate, c.1950. Painted rendered wall to front (west) elevation with exposed random rubble stone walls to remainder. Square-headed window openings to return and to range to east with cut-stone surrounds having chamfered reveals, chamfered mullions, hood mouldings over, and replacement timber casement windows. Square-headed door opening with timber panelled door having overlight. Road fronted with concrete footpath to front.</p>	250499, 156155	
12000 091	Sherry Fitzgerald McCreery, 40 Parliament Street,	1790 - 1810	Architectural Artistic	Regional	House	<p>An elegantly-composed substantial house built as one of a pair (with 12000090) incorporating Classically-derived proportions enhancing the formal quality of the streetscape of Parliament Street. Exhibiting high quality stone masonry a finely-carved doorcase accommodating two door openings (a characteristic of Kilkenny) and further enlivens the external expression of the composition. The house potentially represents an important element of the archaeological legacy of Kilkenny City. Terraced</p>	250507, 156152	




						two-bay four-storey over basement red brick house. Pitched (shared) slate roof behind parapet. Red brick Flemish bond walls with square-headed window openings with cut-stone sills, red brick voussoirs, six-over-one (first floor), three-over-six (second floor) and three-over-three (top floor) timber sash windows. Square-headed door opening in shared elliptical-headed doorcase with three cut-limestone steps, cut-limestone engaged Tuscan columns supporting frieze, timber panelled door, and shared fanlight having cut-limestone archivolt. Interior with entrance hall having carved timber architraves to door openings with timber panelled doors, plasterwork cornice to ceiling having decorative plasterwork rosette, and timber panelled shutters to window openings. Road fronted with sections of wrought iron railings to front on rendered plinth having cut-limestone coping.		
12000090	Michael Buggy, 41 Parliament Street,	1790 - 1810	Architectural Artistic	Regional	House	An elegantly-composed substantial house built as one of a pair (with 12000091). Terraced two-bay four-storey over basement red brick house, c.1800, with single-bay four-storey return to east. Pitched (shared) slate roof behind parapet. Red brick Flemish bond walls. Square-headed window openings with six-over-one (first floor), three-over-six (second floor) and three-over-three (top floor) timber sash windows. Square-headed door opening (shared with 12000091). Interior with entrance hall having carved timber architraves to door openings with timber panelled doors, plasterwork cornice to ceiling having decorative plasterwork rosette, round-headed door	250506, 156145	


						opening to stair hall having fanlight, carved timber staircase, and timber panelled shutters to window openings. Road fronted with sections of wrought iron railings to front on rendered plinth having cut-limestone coping.		
12000089	Kilkenny County Enterprise Board, 42 Parliament Street,	1765 - 1785	Architectural	Regional	House	<p>A well-composed substantial house built as one of a pair (with 12000088) incorporating Classically-derived proportions with the resulting diminishing in scale of the openings on each floor enhancing the elegant formal quality of the streetscape.</p> <p>Terraced three-bay three-storey over basement red brick house, c.1775. Pitched (shared) slate roof with clay ridge tiles. Red brick Flemish bond walls with cut-limestone chamfered, quoins to ends. Square-headed window openings with cut-stone sills, six-over-six and three-over-three (top floor) timber sash windows. Round-headed door opening with Gibbsian surround. Road fronted with sections of wrought iron railings to front on cut-limestone plinth.</p>	250511, 156140	
12000088	Smithwick, 43 Parliament Street	1765 - 1785	Architectural	Regional	House	<p>A well-composed substantial house built as one of a pair (with 12000089) incorporating Classically-derived proportions with the resulting diminishing in scale of the openings on each floor enhancing the elegant formal quality of the streetscape of Parliament Street.</p> <p>Terraced three-bay three-storey over basement red brick house, c.1775, with single-bay three-storey recessed end bay to right having round-headed carriageway to ground floor. Pitched slate roofs (shared to main block) with clay ridge tiles. Red brick Flemish bond walls with cut-limestone dressings. Square-headed</p>	250514, 156133	


						<p>window openings with replacement one-over-one timber sash windows, c.1900, on ground floor. Round-headed door opening with Gibbsian surround. Road fronted with sections of wrought iron railings to front on cut-limestone plinth.</p>		
12000 086	Jenkin's Lane	1865 - 1885	Architectural	Regional	Cobbles/Flags/Paving/Kerbing	<p>Section of limestone cobbling, c.1875, with cut-limestone flagged wheel tracks. An appealing, if subtle feature in the street scene representing a traditional method of paving using locally-sourced materials: the resulting pattern displays a pleasant character lacking in the modern coverings applied to roads and streets.</p>	250532, 156145	
12000 087	E. Smithwick and Sons Limited, Jenkin's Lane	1865 - 1885	Architectural Artistic	Regional	Gates/Railings/Walls	<p>A robustly-detailed gateway c.1875, forming a picturesque feature in the streetscape of Jenkin's Lane: decorative accents with particular emphasis on the Classically-derived rendered dressings contribute significantly to the artistic design value of the composition while exhibiting high quality craftsmanship. Comprising segmental-headed carriageway with pair of painted rusticated rendered piers and timber double doors. Lane fronted</p>	250542, 156146	
12000 085	Saint Francis's Abbey Brewery, 44 Parliament Street	1880 - 1885	Architectural	Regional	Office	<p>Attached four-bay three-storey office building, built 1882. A well-composed middle-size building making a distinctive impression in the streetscape of Parliament Street on account of the variety of materials employed in the construction representing a characteristic of the late nineteenth-century High Victorian period: the resulting combination of limestone with red, yellow and vitrified blue brick produces an appealing polychromatic visual effect enhancing the architectural design</p>	250532, 156129	

						importance of the composition. Finely-carved details displaying high quality stone masonry in locally-sourced County Kilkenny limestone further enliven the external expression of the building while the retention of substantial quantities of the early fabric ensures that the site contributes positively to the historic character of the street scene.		
12000 084	Kilkenny City Courthouse, Parliament Street	1790 - 1795	Architectural Artistic Archaeological Historical Social	National	Court House	An edifice of national significance in the architectural heritage of Kilkenny occupying a site having origins in the thirteenth-century Grace's Castle reputedly surviving to the present day in fragments in the basement level. Subsequently yielded by James Grace (n. d.) for adaptation to use as a bridewell or gaol the building represents one of the earliest-surviving civic institutions in the locality. Converted to use as a courthouse possibly to designs prepared by Sir Jerome Fitzpatrick (n. d.) with an internal configuration highlighting the prevailing influence of James Gandon's (1743-1823) contemporary (1784) Waterford City Courthouse (demolished pre-1849) the composition as it appears today is primarily the product of a comprehensive redevelopment in the early nineteenth century to designs prepared by William Robertson (1770-1850): the resulting Classical scheme surmounting a somewhat haphazard base forms an elegantly distinctive focal point in the centre of Parliament Street.	250547, 156112	
12000 236	Parliament Street	1881 - 1901	Artistic Historical Social	Regional	Post Box	Freestanding cast-iron pillar post box, between 1881-1901, with raised "VR" royal cipher, moulded necking, and shallow domed capping. Road fronted on concrete brick cobbled	250521, 156098	No image

						footpath.		
12000 083	M.J. Crotty and Sons, 45 Parliament Street	1815 - 1835	Architectural Artistic	Regional	House	A well-appointed substantial house forming an important element of an assemblage of formal Classical quality in the street scene of Parliament Street while serving to frame the adjacent Kilkenny City Courthouse (12000084). Attached two-bay three-storey over basement house, c.1825, on an L-shaped plan with single-bay three-storey return to east. Extensively renovated, c.1875. Pitched slate roof with clay ridge tile. Unpainted rendered walls, square-headed window openings with cut-stone sills. Rendered shopfront, c.1875. Interior with timber panelled shutters to window openings. Road fronted with concrete brick cobbled footpath to front.	250539, 156083	
12000 082	Parliament Street,	1860 - 1865	Architectural Artistic Historical Social	Regional	Gates/Ra ilings/Wa lls	Remains of gateway, dated 1862-3, comprising pair of engaged rock-faced limestone ashlar outer piers with moulded course to plinth, limestone ashlar quoins to corners, cut-stone date stone/plaques, moulding supporting inscribed friezes, and moulded capping having blocking course. The attendant site remains of additional importance in the locality for the historic associations with the Confederation of Kilkenny (1642) together with the connections with Eamon De Valera (1882-1975).	250535, 156077	
12000 113	Daniel W. Bollard, 31- 32 Saint Kieran's Street	1920 - 1930	Architectural Artistic	Regional	House	A well-appointed substantial building forming an attractive component of the streetscape of Saint Kieran's Street identified by features including bipartite window openings recalling the so-called "Kilkenny Window", elegant decorative rendered accents, and so on all of which enhance the architectural design value of the composition. Terraced three-bay two-	250569, 156032	


						storey over basement house with dormer attic, built 1925, with pubfront to ground floor. Pitched roof, painted rendered walls and square-headed window openings. Pubfront to ground floor renovated on a symmetrical plan. Interior with timber panelled shutters to window openings. Road fronted.		
12000 114	29 Saint Kieran's Street	1840 - 1860	Architectural	Regional	House	An appealing house of modest architectural aspirations contributing positively to the visual appeal of the streetscape. Terraced two-bay two-storey house with dormer attic, c.1850, possibly incorporating fabric of earlier range, c.1600, on site. Pitched roof and painted rendered walls with square-headed windows and door. Remodelled, c.1900. Road fronted.	250568, 156020	
12000 115	Lorimat, 28 Saint Kieran's Street, Kilkenny, County Kilkenny	1765 - 1785	Architectural Archaeological	Regional	House	A pleasant small-scale house incorporating the fabric of a late sixteenth- or early seventeenth-century range on site as manifested by a window reputedly surviving in a gable wall, therefore representing an important element of the archaeological heritage of Kilkenny. End-of-terrace two-bay two-storey house with dormer attic, c.1775, probably originally terraced. Extensively renovated, c.1900. Road fronted.	250570, 156015	
12000 116	Kyteler's Inn, Saint Kieran's Street, Kilkenny, County Kilkenny	1250 - 1300	Architectural Archaeological Historical Social	National	House	A substantial building of national significance having origins in the mid fourteenth century, thereby representing an important element of the archaeological heritage of Kilkenny. Originally known as Kyteler's Hall the building remains of additional importance for the associations with Dame Alice Kyteler (1280-1324).	250593, 155989	

						Attached seven-bay single-storey over part-raised basement rubble stone house with dormer attic, c.1275, probably originally detached with single-bay single-storey return to east. Subsequently in use as inn, post-1449. Extensively reconstructed, c.1625. Renovated, c.1950, with some openings remodelled. Renovated, 1966, with some openings remodelled to accommodate alternative commercial use. Refenestrated, c.2000. Road fronted.		
12000 204	Tea House Designs, Bateman Quay, Kilkenny, County Kilkenny	1790 - 1810	Architectural	Regional	Garden Structure Misc	A pleasant small-scale building making a picturesque impression in a site overlooking the River Nore. A number of features enhancing the architectural design importance of the building include the pointed-arch openings lending a Gothic quality to the composition. Detached two-bay single-storey rubble stone Gothic-style tea house, c.1800, with square-headed cut-away corner porch to left. Restored, 1993, to accommodate commercial use. Now disused. Hipped slate roof with clay ridge tiles. Random rubble stone walls repointed, 1993. Pointed-arch window openings with cut-limestone sills. Pointed-arch door opening in square-headed cut-away corner porch having limestone ashlar pier, and replacement glazed timber panelled door, 1993, having overhead. Set back from line of road on bank of River Nore with random rubble limestone boundary wall, 1993, to site.	250677, 156167	

12000 008	Saint Francis's Abbey Brewery, Horse Barrack Lane (off), Kilkenny, County Kilkenny	1870 - 1880	Architectural	Regional	Building Misc	<p>A pleasant modest-scale range also known as "The Sample Rooms" contributing to the group and setting values of the Saint Francis's Abbey complex which has undergone extensive redevelopment over the course of the twentieth century to accommodate an expanding brewery. Detached three-bay single-storey Gothic-style building, c.1875, possibly incorporating fabric of medieval abbey, founded 1231-4, with two-bay single-storey recessed lower entrance bay to left. Pitched slate roofs with clay ridge tiles, and cast-iron rainwater goods. Random rubble limestone walls with cut-limestone quoins to corners. Paired round-headed window openings with cut-limestone flush sills, cut-limestone block-and-start surrounds having chamfered reveals, and fixed-pane fittings having leaded panels. Pointed-arch door opening with cut-limestone block-and-start surround having chamfered reveals, and timber panelled door. Set back from road in shared grounds.</p>	250561, 156294	
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Appendix G – Conservation Drawings

West elevation of turret with City wall in foreground



Stabilisation works required listed in assumed sequence of installation

i) Install 2 vibration monitors, one on tower and one on City wall. Locations to be agreed on site with Engineer and may require additional bracketry to be fixed to masonry to ensure monitor properly secure. Approximate locations shown thus V

A vibration cut off threshold of 4 mm/s peak particle velocity (PPV) will be adhered to. The vibration monitors should be linked to alarm systems such that any exceedance in vibration level is clearly instantly visible and is sufficiently audio alarmed that any personnel in the large car-park area to the west of the tower is alerted. A full record of the monitoring is to be kept and downloaded at regular intervals (minimum daily) and/or on request and made accessible to the design team. Any exceedance of pre-set vibration limits will result in work stoppage, assessment of cause of exceedance and future avoidance of such.

ii) Carefully remove all previous timber stabilisation works to waste and temporarily remove large sign on leaning wall walk wall. **

iii) Cut all remaining vegetation as close to the masonry as possible and cut remaining tree trunks (these will conflict with stabilisation works) to ground level. Drill and treat any tree roots within 2m of upstanding monument. **

iv) Remove loose stone from area onto pallets and place in safe location close to Evans tower but out of way of demolition works. **

v) Digital survey of all upstanding remains. This should be of sufficient resolution that individual stones can be clearly identified. It is understood that the internal faces of the tower are not safely accessible for survey work and therefore there may be some gaps in the record.

** Attendance of Archaeologist required

The works shown are assumed to be carried out as part of 2015 Demolition contract

vi) Erect timber stabilisation works in the form of two sets of shoring to wall walk wall; one prop to wall walk wall and one brace to west wall of tower to stabilise large opening in tower. ** See dfg 102


vii) Some stone may need to be removed during installation of stabilisation works – these should be marked as to location found and removed to pallets in safe close location **

viii) Re-erect signage as required. Preferably adhered to stabilisation works or other non-sensitive nearby walls rather than the monument.

ix) Proceed with adjoining demolition works watching for any exceedance in vibration levels

x) After demolition of adjoining buildings pallets of loose stone retrieved during works should be moved to a secure location not closer than 5m to any part of the tower but not further away than 25m **

South elevation of turret



Notes	<p>1. This drawings to be read with other Engineers and Architects drawings and Specifications.</p> <p>2. For details of timber works see dfg 102</p>
MASTERPLAN REPORT	
April 2015 report Issued for Inclusion in Masterplan	
Scale: nts	Date: Nov 2014
<p>Kilkenny Abbey Quarter</p> <p>Evan's Turret & adjoining City Wall</p> <p>Stabilisation pre nearby demolitions</p> <p>Drawing No. 437 / 101 sheet 1 of 2</p>	
<p>L i s a E d d e n Consulting Structural Engineer Tel:+353 43 867 484 e-mail: lisaedden@eircom.net</p>	

All previous timber works removed



Timber propping:-

- drape plastic approx 300mm wide down / against wall to be propped
- Install timber propping limiting any fixings into existing to the minimum
- Apply gusset plates of plywood and timber folding wedges as necessary to secure propping
- Inject expanding foam between propping and plastic to ensure tight fit to masonry
- Cut back foam and plastic flush with sides of timber

2no props to inner face City wall with hook over top of wall to restrain against movement into wall walk - as previous propping detail



Brace to west aperture of tower

Local propping to end of inner wall walk wall

The works shown are assumed to be carried out as part of 2015 Demolition contract

Concrete pads in ground:-

- carefully scrapping surface down to even level -attendance of Archaeologist required
- lay geotextile on ground,
- placing 3no precast lintels smooth side down
- install timber propping
- place 2 layers 252 mesh cutting around ends of props
- pour concrete min 100mm thick

Materials

Precast concrete lintels 215 x 65mm deep x approx 900mm long laid smooth side down. 30n 20mm aggregate insitu topping min 100mm thick with 2 layers A252 mesh

All new timber to be min structural grade C16 unless stated otherwise and generally 150x75mm Pre treated with cut ends treated on site. Gusset plates of exterior grade plywood min 25mm thick

All timber fixings to be sherardized or zinc coated steel. Generally M8 sherardized coach screws either 80 or 100mm long with large galvanised washers from fixed from each side in predrilled holes.

Any fixing into masonry to be Grade 316 stainless steel. Resin for fixings to be methacrylate type two part resin such HIT HV200 or HV70 as supplied by Hilti or similar approved. Polyester based resin is NOT acceptable. Resin to be applied in strict accordance with manufacturers instructions

Notes

1. This drawings to be read with other Engineers and Architects drawings and Specifications.
2. For assumed sequence of works see drg 101

MASTERPLAN REPORT

April 2013 report Issued for inclusion in Masterplan

Kilkenny Abbey Quarter

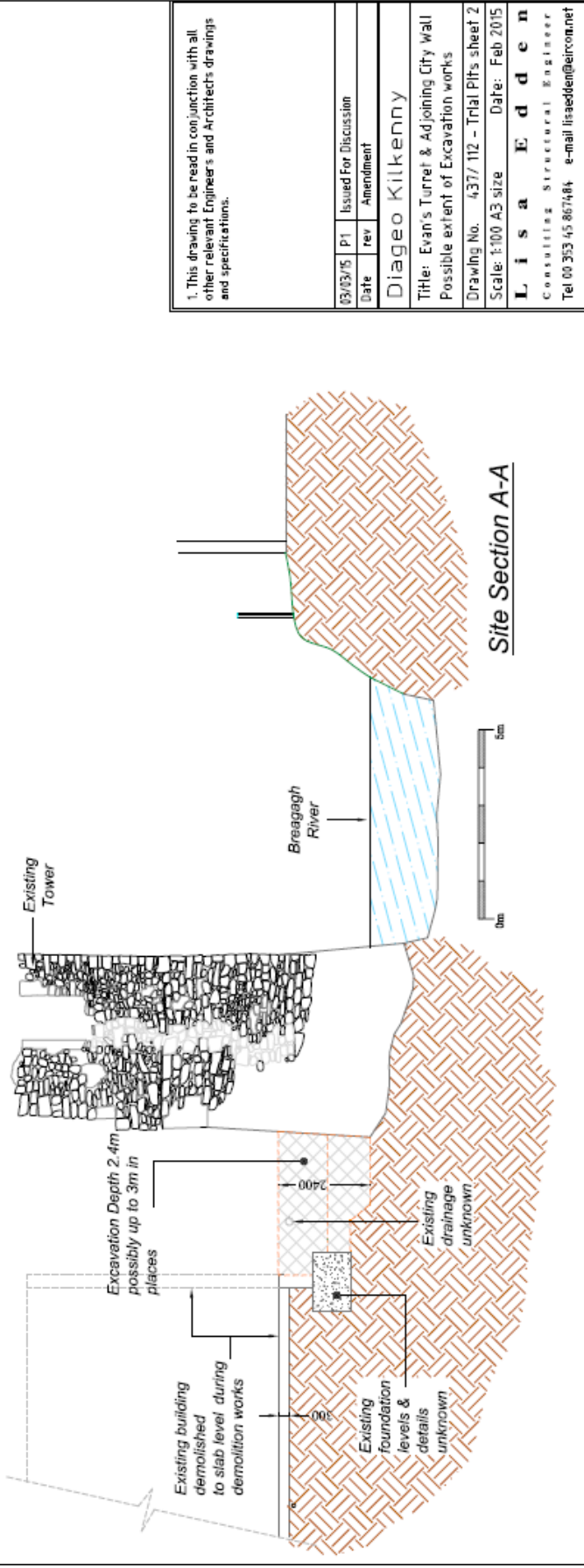
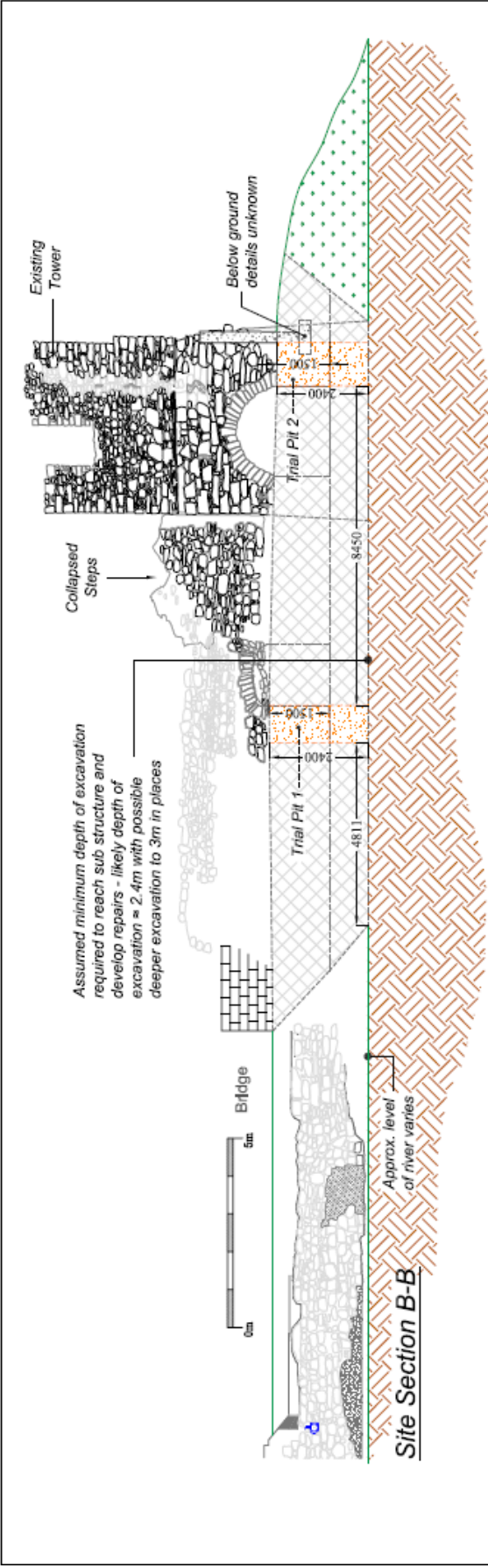
Evan's Turret & adjoining City Wall

Stabilisation pre nearby demolitions

Drawing No. 437 / 102 sheet 2 of 2

Scale: nts Date: Nov 2014

L i s a E d c n
Consulting Structural Engineer
Tel +353 45 867 484 e-mail lisaedcn@eircom.net



1. This drawing to be read in conjunction with all other relevant Engineers and Architects drawings and specifications.

03/03/15	P1	Issued For Discussion
Date	rev	Amendment
Diageo Kilkenny		
Title: Evan's Turret & Adjoining City Wall		
Possible extent of Excavation works		
Drawing No. 437/112 - Trial Pits sheet 2		
Scale: 1:100 A3 size		
Date: Feb 2015		
L i s a E d d e n		
Consulting Structural Engineer		
Tel 00 353 45 867484 e-mail lisaiden@eircom.net		

Stabilisation works required listed in assumed sequence of works
 i) Install 1 vibration monitor at the wall base of Bull Inn Wall - see drg 202

Bull Inn wall - see drawing 202
 Vibration monitor located approximately here
 on other side of wall from this photo

All stone walls not specifically marked for demolition to have
 plant growth contained as noted here and to be protected from
 demolition works with suitable exclusion zones or hoardings

- ii) Cut back all tree trunks to approximately 100mm from face of masonry
- iii) Drill approx 16mm diameter holes 75-100mm deep in all trunks greater than 35mm diameter. Hole to be vertical or no more than 30 degrees to the vertical. Where trunks greater than 100mm diameter drill numerous holes
- iv) Insert 300-400mm length 16mm outside diameter coilplex or similar piping into holes. Note - Do not use copper or any piping with significant scrap value
- v) Carefully pour Glyphosate such as Round-up Pro Biactive or similar approved herbicide into pipes such that minimum 100mm head above trunk end. Tape ends with waterproof tape to prevent accidental release of herbicide
- vi) Brush cut ends of all trunks less than 35mm diameter with Glyphosate



West boundary wall parallel to Bull Inn Wall



Notes

- 1. This drawings to be read with other Engineers and Architects drawings and Specifications.
- 2. For other works in area see drgs 202-204

MASTERPLAN REPORT

April 2015 report Issued for Inclusion in Masterplan

Kilkenny Abbey Quarter
Bull Inn & North Boundary Walls
Stabilisation pre nearby demolitions
Drawing No. 437 / 201 sheet 1 of 4
Scale: nts Date: Dec 2014
L i s a E d d e n Consulting Structural Engineer Tel +353 45 867 484 e-mail lisaded@eircom.net

Stabilisation works required listed in assumed sequence of works

- i) Install 1 vibration monitor at the wall base. Approx location shown thus v Actual location to be agreed on site with Engineer
A vibration cut off threshold of 4 mm/s peak particle velocity (ppv) will be adhered to. The vibration monitor should be linked to alarm systems such that any exceedance in vibration level is clearly instantly visible and is sufficiently audio alarmed that any personnel in the vicinity is alerted. A full record of the monitoring is to be kept and downloaded at regular intervals (minimum daily) and/or on request and made accessible to the design team. Any exceedance of pre-set vibration limits will result in work stoppage, assessment of cause of exceedance and future avoidance of such.



- ii) Install propping to wall in location shown - see drg 204
- iii) Saw cut blockwork immediately to left hand side of random rubble wall
- iv) Proceed with adjoining demolition works watching for any exceedance in vibration levels
- v) Leave propping in place at handover of works

Bull Inn Wall



Key Plan

The works shown are assumed to be carried out as part of 2015 Demolition contract

Random rubble wall left as is but to be protected from demolition works with suitable exclusion zones or hoardings
 Note five pipe built into wall to be left in place even if deemed to be asbestos containing as removal will damage wall. Pipe to be removed as part of repair works (Not part of Demolition contact)

Temporary concrete block as ballast for propping placed on top of tarmac - ref drg 204

Notes

1. This drawings to be read with other Engineers and Architects drawings and Specifications.
2. For other works in area see drgs 201 and 203 for details of propping see drg 204

MASTERPLAN REPORT

April 2015 report issued for inclusion in Masterplan

Kilkenny Abbey Quarter

Bull Inn & North Boundary Walls

Stabilisation pre nearby demolitions

Drawing No. 437 / 202 sheet 2 of 4

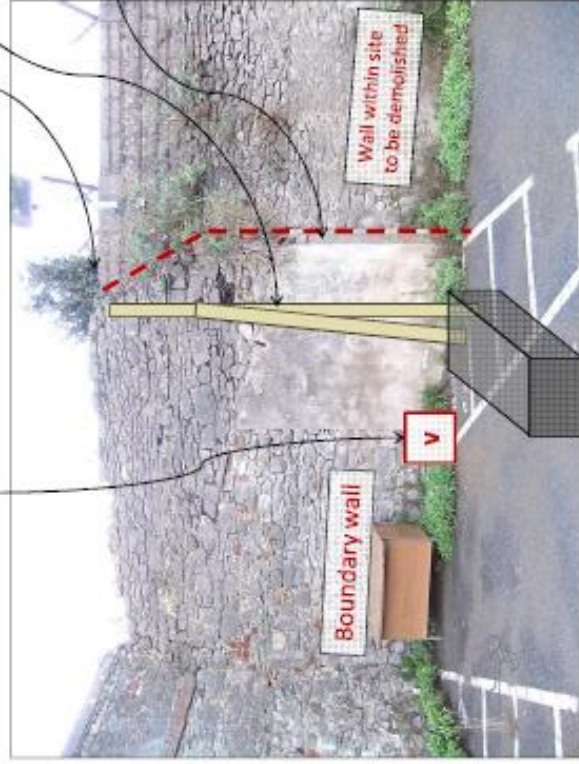
Scale: nts Date: Dec 2014

L i s a E d c n
 Consulting Structural Engineer
 Tel +353 45 867 484 e-mail lisae@ecr.com.net

Stabilisation works required listed in assumed sequence of works

- i) Install 1 vibration monitor temporarily near wall base. v
Approx location shown thus

All vibration cut off thresholds etc to be as for other walls of significance ref Dig 202 but in this case only need to be specifically monitored when works immediately adjacent / or to the wall

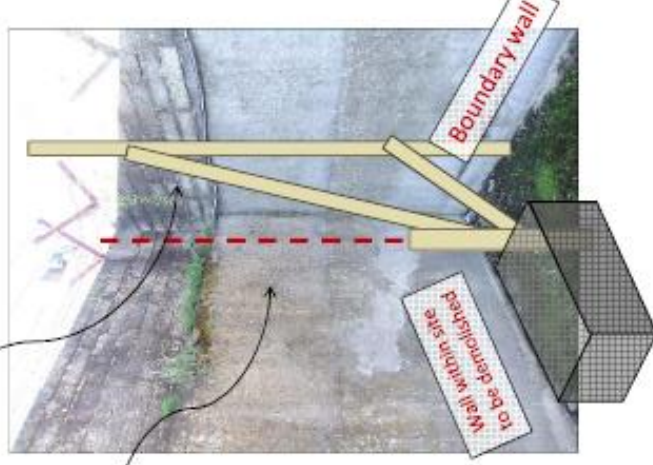


West facing elevation

- ii) Arrange close inspection of wall with Engineer from ladders / MEWP to establish connection of wall at return in wall and whether propping necessary or not.

- iii) if propping deemed necessary install 2 sets of props in locations indicated. Details as dig 204

South and east facing elevations



- iv) Carefully dismantle wall to be demolished immediately adjacent to retained boundary wall by hand with concrete saw cuts as necessary through well cemented blockwork ---
All natural stone and clay brick and any artefacts to be saved. Blockwork may be discarded.

Any tooled stone found during dismantling to be brought to the attention of the Archaeologist including identification of where in dismantled all items found.

- v) Store all stone removed from wall on pallets within 25m of the wall from whence it came but not closer than 5m to any standing wall (This is to allow future access to walls when repair works commence (not part of demolition contract).

Note there may be a requirement to store tooled stone / artefacts separately - refer to Archaeologists

Boundary Wall north end of site adjoining link road



Key Plan

The works shown are assumed to be carried out as part of 2015 Demolition contract

Notes

1. This drawings to be read with other Engineers and Architects drawings and Specifications.
2. For other works in area see digs 201 and 202. For details of propping see dig 204

MASTERPLAN REPORT

April 2013

report

Issued for Inclusion in Masterplan

Kilkenny Abbey Quarter

Bull Inn & North Boundary Walls

Stabilisation pre nearby demolitions

Drawing No. 437 / 203 sheet 3 of 4

Scale: nts Date: Dec 2014

L i s a E d d e n
Consulting Structural Engineer
Tel +353 45 867 494 e-mail lisaedden@arc.com.net

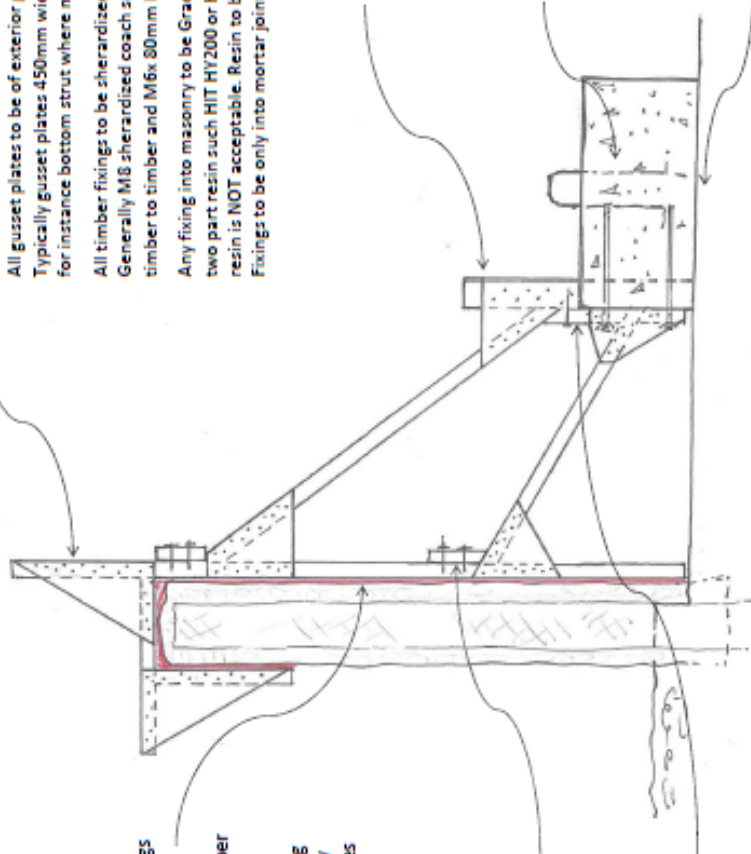
Protection of the masonry:-

This is to give a cushion between timber and masonry and also to ensure full surface of masonry can gain support from the timber without generating any hard spots / point loadings

- drape plastic approx 300mm wide down and against wall to be propped
- install timber propping limiting any fixings into existing to the minimum and into mortar joints only.
- Apply gusset plates of plywood and timber folding wedges as necessary to secure propping
- Inject expanding foam between propping and plastic to ensure tight fit to masonry
- Cut back foam and plastic flush with sides of timber

Short pieces of 150x75 timber coach screwed to main timber props to act as stops. Props ends cut to fit tight to stops

Approx 800mm long section of 150x75 timber coach screwed to timber post to act as fixing point for plywood gusset and bottom stop to long prop



Materials

All new timber to be min structural grade C16 unless stated otherwise and generally 150x75mm Pre treated with cut ends treated on site.

All gusset plates to be of exterior grade plywood min 25mm thick.

Typically gusset plates 450mm wide x 750mm high triangles unless geometry dictates otherwise - for instance bottom strut where minimum dimension to be 450mm

All timber fixings to be sherardized or zinc coated steel.

Generally M8 sherardized coach screws 100mm long with large galvanized washers for fixing timber to timber and M6x 80mm long sherardized wood screws for plywood to timber connections.

Any fixing into masonry to be Grade 316 stainless steel. Resin for fixings to be methacrylate type two part resin such HIT HY200 or HY70 as supplied by Hilti or similar approved. Polyester based resin is NOT acceptable. Resin to be applied in strict accordance with manufacturers instructions Fixings to be only into mortar joints and not stones

150x150 timber post approx 1200mm high fixed to concrete block using Dywidag bars

1 tonne concrete block C25/30 precast concrete Approx 600mm high x 600mm wide x 1200mm long. Details as Demolition Contractors hoarding detail including lifting eye for placing / removal

Note slot for timber upright to be for 150x150 timber post. Minimum 2no Dywidag threaded bars required with large washers under wingnuts for holding timber post in place

Existing tarmac surface to be roughened and all moss etc. to be removed before placing concrete block

Notes

1. This drawings to be read with other Engineers and Architects drawings and Specifications.
2. For assumed sequence of works see dirg 201

The works shown are assumed to be carried out as part of 2015 Demolition contract

Note this assembly should be considered permanent to the "Works" and is to remain in place at end of Demolition Contract.

The main timber struts are to be marked with date of installation Month and year - for instance "FEB 2015"

The design life of this propping is 5 years only it is assumed that more permanent repair works will have been instigated by the end of that period

Kilkenny Abbey Quarter

Bull Inn wall and North Boundary

Stabilisation pre nearby demolitions

Drawing No. 437 / 204 sheet 4 of 4

Scale: ~ 1:25 at A3 Date: Dec 2014

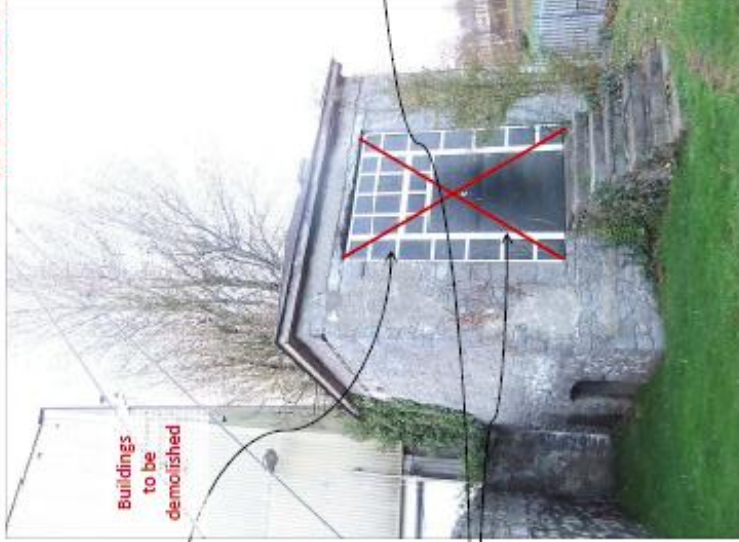
L i s a E d d e n
Consulting Structural Engineer
Tel +353 45 867 484 e-mail lisad@lisaedden.com

MASTERPLAN REPORT

April 2015 report issued for inclusion in Masterplan

Stabilisation works required listed in assumed sequence of works

- i) Install vibration monitoring, located on the Tea House north window sill
- ii) Take down plywood from main door, grill from rear window + give rest of vegetation a close crop including over hanging tree branches
- iii) Digitally survey building - refer to Architect for 3D laser scan survey specification.
This survey should be as detailed as possible to the insitu ceiling plasterwork. However no personnel should enter the building at this stage as ceiling extremely fragile and liable to fall.
- iv) Submit survey to design team and Kilkenny CoCo Planning section for their review
- v) Following survey work proceed with bracing doorway and large rear window ref drg 302 and secure building from unauthorised entry with sheeting fixed over bracing
- vi) When approval received from Kilkenny CoCo on condition survey carefully separate adjoining walls from buildings that are to be demolished to reduce any vibration on Tea House
- vii) Proceed with adjoining demolition works watching for any exceedance in vibration levels
- viii) Leave all bracing and sheeting to openings in place at handover of works



South elevation



North elevation - vegetation to be close cropped

These works shown on Sheets 1 and 2 are assumed to be carried out as part of 2015 Demolition contract

Notes

- 1. This drawings to be read with other Engineers and Architects drawings and Specifications.
- 2. For bracing of openings see drg 302

Vibration Monitoring to be put into place prior to any demolition works but needn't be in place for Survey work or over roof installation. Location to be agreed on site with Engineer

A vibration cut off threshold of 4 mm/s peak particle velocity (ppv) will be adhered to. The vibration monitor should be linked to alarm systems such that any exceedance in vibration level is clearly instantly visible and is sufficiently audio alarmed that any personnel within 50m is alerted. A full record of the monitoring is to be kept and downloaded at regular intervals (minimum daily) and/or on request and made accessible to the design team. Any exceedance of pre-set vibration limits will result in work stoppage, assessment of cause of exceedance and future avoidance of such.

MASTERPLAN REPORT

April 2015 report Issued for Inclusion in Masterplan

Kilkenny Abbey Quarter

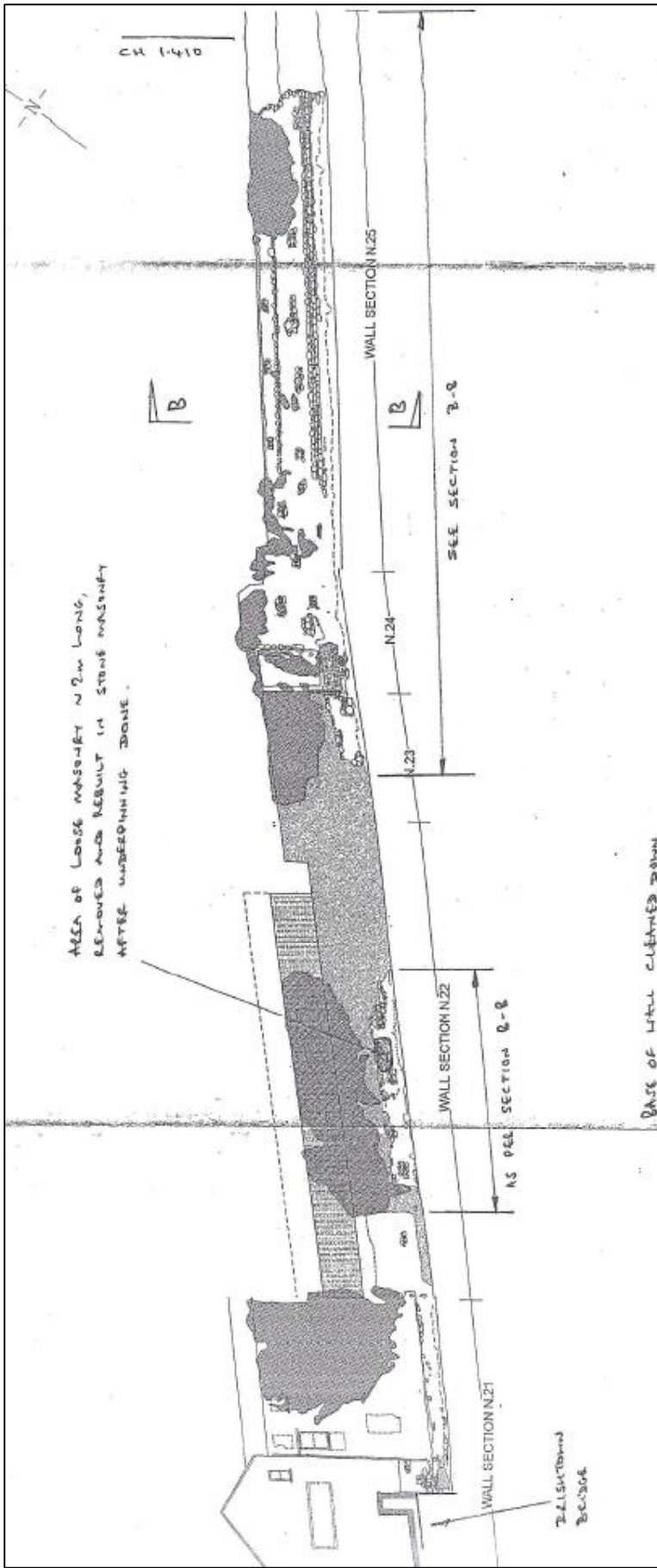
Tea House, Bateman Quay

Stabilisation pre nearby demolitions

Drawing No. 437 / 301 sheet 1 of 2

Scale: nts Date: Dec 2014

L i s a E d d e n
Consulting Structural Engineer
Tel: +353 45 867 484
e-mail: lisadedden@eircom.net



AREA OF LOOSE MASONRY 2.0m LONG,
REMOVED AND RESULT IN STONE MASSIFY
AFTER UNDERPINNING DONE.

BASE OF WALL CLEANED DOWN
TO SOLID GROUND,

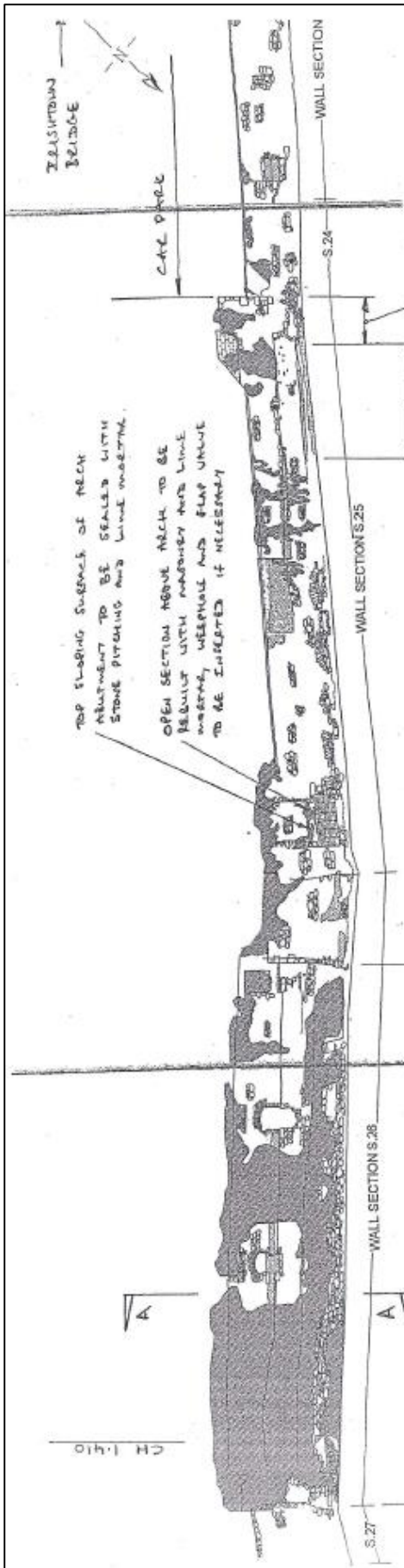
EXISTING FOUNDATION UNDERPINNED
BY FILLING WITH C25 CONCRETE
AND FINISHED IN STONE,
FINISHED AT 1:1 SLOPE WITH
STONE PITCHING TO THE SURFACE

NOTE.

1. UNLESS OTHERWISE NOTED WALLS UP TO FLOOD LEVEL
TO BE REPAIRED AND OPEN SECTIONS REBUILT IN ACCORDANCE
WITH THE SPECIFICATION.

SECTION B-B

SKETCH NO. SITE / BRELINGH / 020
MASONRY WALLS DOWNSTREAM OF IRISH TOWN BRIDGE
- LEFT BANK
DATE 27 / 7 / 04



TOP SLABING SURFACES OF NEAR
ALIGNMENT TO BE SEALED WITH
STONE PUTTING AND LIME MORTAR.

OPEN SECTION ABOVE ARCH TO BE
REBUILT WITH MASONRY AND LIME
MORTAR, WEAPONS AND FLAP UNLIVE
TO BE INSERTED IF NECESSARY

OPEN SECTION ABOVE 0.4x2.1m
REBUILT WITH MASONRY AND
LIME MORTAR.

PROJECTING CONCRETE TO BE
TRIMMED BACK,
FOUNDATION STONES TO BE EXPOSED
AND CLEANED,
OPENINGS TO BE SUPPORTED BY
BUILDING UP UNDERLATH WITH
MASONRY AND LIME MORTAR.

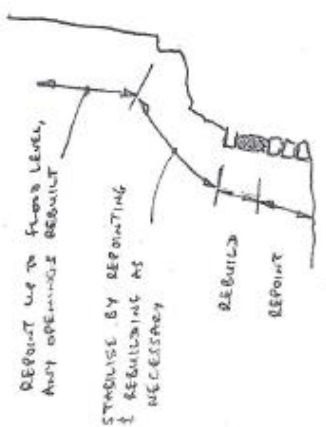
FOUNDATION STONES TO BE EXPOSED AND CLEANED,
OPEN SECTIONS TO BE REBUILT WITH MASONRY
AND LIME MORTAR, GROUT TUBES TO BE
INSERTED INTO VOIDS BEHIND REBUILT SECTIONS
AND BUILT IN,
GROUT TUBES TO BE INSERTED BETWEEN
EXISTING STONES THAT REQUIRE DEEP POINTING,
GROUT TUBES TO BE AT CENTRES NOT
GREATER THAN 1m.

AFTER OPEN AREAS REBUILT AND OPEN JOINTS
POINTED VOIDS TO BE FILLED BY GRANULAR
GRAVEL THROUGH TUBES WITH HIGH FLOW
CEMENTITIOUS GROUT.

REMOVAL OF VEGETATION,
LOW PRESSURE WATER WASH,
RAVE OUT JOINTS,
CLEAN OUT VOIDS,
STONES PROTECTED TO THE FACE OF THE DESIGNER
WALL TO BE SUPPORTED BY REBUILDING BELOW THEM
WITH MASONRY AND LIME MORTAR,
ALL JOINTS TO BE POINTED WITH LIME MORTAR,
ANY AREAS WHERE EXISTING STONES LOOSE TO BE
STABILISED BY POINTING OR REBUILDING IF NECESSARY
TO MAKE WALL SUITABLE FOR USE AS FLOODWALL.

NOTE

1. UNLESS OTHERWISE NOTED WALL UP TO FLOOD LEVEL TO BE REPOINTED
AND OPEN SECTIONS REBUILT IN ACCORDANCE WITH THE SPECIFICATION.



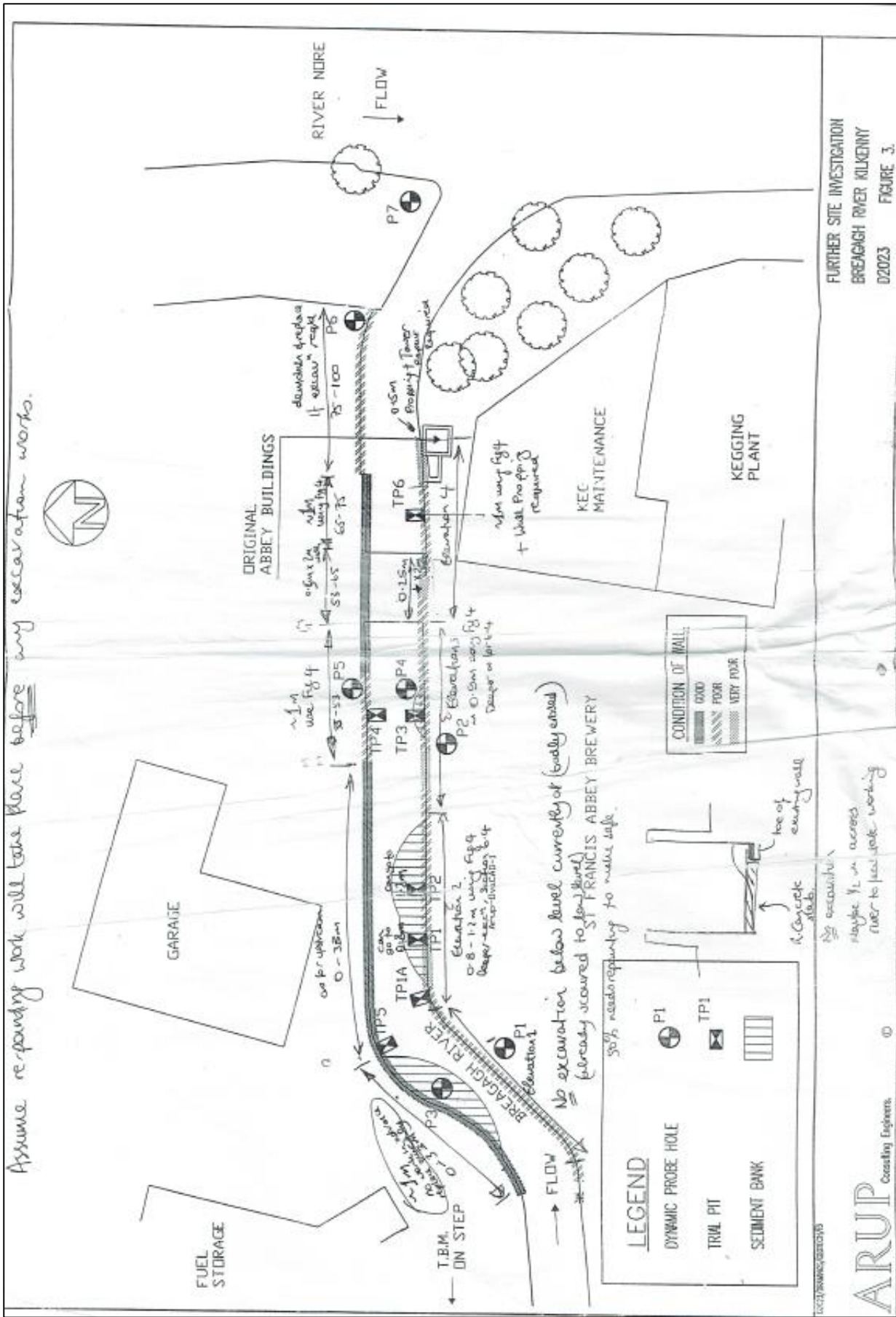
SECTION A-A

REPOINT UP TO FLOOD LEVEL,
AND OPENINGS REBUILT
STABILISE BY REPOINTING
REBUILDING AS
NECESSARY

SKETCH NO. SITE/BLEAGH/O19
MASONRY WALLS DOWNSTREAM OF ZILSHDOWN BRIDGE
- RIGHT BANK

DATE: 27 / 7 / 04

Assume remediation work will take place before any excavation works.



FURTHER SITE INVESTIGATION
BREAGH RIVER KILKENNY
02/2023
FIGURE 3.

