JCA Architects

Project Opera, Bank Place, Rutland St., Patrick St., Ellen St. and Michael St., Limerick

Architectural Heritage Report

21 SUNDAYS WELL ROAD, CORK

TEL 353 021 4393800
FAX 353 021 4854145
Email architects@jca.ie

22 November 2018

CONTENTS

Introduction

The following report has been prepared by Jack Coughlan Architects and comprises a study of the existing buildings located on the site of the proposed Project Opera development for Limerick City and County Council. The area of redevelopment comprises a site having Bank Place to the north, Ellen St. to the south, Michael St. to the east and Rutland and Patrick St. to the west.

This report includes a study of the surviving historic buildings on the site, based on both desk-top surveys (including historic Ordinance Survey maps and Goad Insurance plans) and on-site investigations and recording carried out by this practice originally in 2007, and again in late 2016, early 2017 and 2018. JCA have been consulted at all stages of the design process by the design architects, AECOM Architects and Coady Architects, in preparation for the planning submission for the redevelopment of this site which includes the refurbishment and extension of existing Georgian terraced houses, the former Town Hall, the former Quinn's Bar (9 Ellen Street) and the Granary building.

The following report includes an assessment of the historic buildings located on this site, including the chronological development of these buildings and a description of the historic fabric which survives today. A more detailed description of each of the existing buildings on the site is provided in individual building records (JCA's Existing Buildings Individual Records June 2018), to be submitted as a separate document to this EIAR Chapter. An overview of each building (including plans indicating the location of significant surviving fabric) is also provided as a separate report (JCA's Existing Historic Buildings Overview, June 2018).

The original building methodologies and fabric of each of the existing buildings have been examined. An outline approach and conservation methodology for the repair and upgrading of the historic fabric to be retained in the redevelopment was also compiled and is included in this report.

The site to be developed includes two buildings and one doorway which are Protected Structures on the current Development Plan for the city, and eight buildings (including the three protected structures) which are included on the National Inventory of Architectural Heritage's Interim Survey for Limerick City. There are a significant number of additional existing buildings of architectural, historical and streetscape value surviving to the proposed development site. (Fig. 1).

Fig. 1: Existing buildings located to the proposed Project Opera development site. The buildings coloured green represent existing structures of architectural and historical significance located to the site. The hatched green areas to the rear of the main buildings indicate mews buildings, out buildings or later extensions to the main historic buildings facing the streets.

The grey buildings represent existing structures which are not considered to be of architectural significance, and which generally comprise 20th century structures.

The buildings marked with ● are Protected Structures.

The buildings marked with ■ are included on the National Inventory of Architectural Heritage.

Historical Context and Evolution of the Project Opera Site

The proposed development site is located within the northernmost section of the Georgian expansion of Limerick located outside of the city walls. A large tract of land, which became known as Newtown Pery, began to be developed with buildings catering for the expanding merchant class in the city by a man called Edmond Sexton Pery in the years following the demolition of the city walls from 1760. Until this time any large-scale building outside of the city walls, at that time classified as a Royal Fortress, was forbidden, but from 1769 Pery's development of this area commenced.

The area around Arthur's Quay and Bank Place were the first phases of the Newtown Pery project with construction started in 1769. Originally built as a small rectangular square, open to the Abbey River on the north side, only three of the houses from this scheme remain. These houses on Bank Place form the northwest corner of the Project Opera site but are outside of the proposed development. A further terrace of houses adjoined these three surviving houses, extending to the west, but was demolished in the mid-20th century and replaced by the former Cahill May Roberts offices and warehouses. (Fig. 2).

The northeast corner of the proposed Project Opera development site comprises the granary building, to the western end of Bank Place. The granary building is one of the earliest known multiple storey warehouses to be built in Limerick. The ground on which the building was constructed was bought by Philip Roche in 1787. A date stone on the corner of the existing granary building bears the inscription 'Michael Street 1787'. Although this is set in to the building it may be the date that the street was laid out rather than the building constructed, although it is likely that the granary was built in the late 1780s. Philip Roche was a well-known and successful merchant who carried out large scale business as an exporter of flax, cereals, seed, etc. He is likely to have chosen this site for the large warehouse because of its proximity to the old harbour, now the location of the potato market a few hundred yards to the north west.

Fig. 2: Bank Place.

It was at this time, c.1769, that the Custom House, now in use as the Hunt Museum, was begun. Designed by the Sardinian born architect, Davis Ducart, the rear of the building faces Bank Place and Rutland St, while the main elevation overlooks the river.[1] The former Custom House is one of the earliest buildings constructed in Newtown Pery, and arguably the most architecturally significant. This building is situated across Rutland Street to the west of the Project Opera site. (Fig. 3)

Fig. 3: The former Custom House, now Hunt Museum, as viewed from Bank Place.

The development of terraced housing, each building of three storeys over basement, continued southwards along Rutland Street. Two buildings are retained from this period, Numbers 4 and 5 Rutland Street, with Number 5 Rutland Street retaining significant original features including a limestone door case to the house entrance and its original staircase. On either side of this pair of houses the eighteenth century buildings have been replaced with 20th century buildings.[2] Nos. 4 and 5 Rutland Street are similar in scale and proportion to the three houses which have been retained to Bank Place, and are good examples of the style of terraced house constructed in the early phase of the Newtown Pery development.

Further south along Rutland Street, and to Patrick Street and Ellen Street, the houses become a little less grand in scale and are more typical of the later-18th and early 19th century terraced house. (Fig.4)[3] Internally the surviving joinery is more delicate, the architraves are not lugged (as to No. 5 Rutland Street) and the staircases have slender, turned spindles to the balustrades. The exception to this is the house found at No. 1 Patrick Street which retains a cut limestone block-and-start limestone door surround to the

[1] Dictionary of Irish Architects, Irish Architectural Archive.
[2] A carved limestone Venetian door case with overlight and side lights, dated 1806, has been reset in to the façade of a 20th century building at No. 6 Rutland Street, and is included on the NIAH Reg. No. 21513008.
[3] Catholic timber merchants, Patrick Arthur and his son Francis, were responsible for much of the development to Patrick Street, Francis Street and Arthur's Quay. NIAH, Introduction to the Architectural Heritage of Limerick City, p.32.

laneway and a number of lugged architraves internally, suggesting an earlier date of construction closer to the houses found further north at Bank Place and northern Rutland Street.

Fig. 4: Typical late-18th century terraced houses, Patrick Street.

The earliest buildings (4 and 5 Rutland Street) are similar in scale to each other but retain slight variations in the size of their window openings to the front elevations. As no internal features survive to No. 4, it is not clear to what extent they may have shared internal detailing. However, some of the surviving terraced Georgian buildings to these streets comprise pairs of houses, sharing floor levels and shared internal decorative details. These pairs comprise buildings constructed in the later 18th and/or early 19th century, with variations to the plans depending on the phases of construction. Numbers 8 and 9 Rutland Street form a pair adjacent to the Town Hall, with identical plans and sharing a staircase design. Futher south, Nos. 4 and 5 Patrick Street were evidently built as a pair and although No. 5 has lost most of its interior finishes, what is retained is identical to No. 4. The plans of these buildings are mirrored (as are Nos. 8 and 9 Rutland Street), resulting in a shared party wall with chimney stacks incorporated and representing an economical house plan. Although a number of pairs of buildings do exist, there is no regular pattern of handed or mirrored plans on any of the streets. Ellen Street retains the most complete terrace of Georgian houses, but even here the development appears to have been piecemeal, with a variety of plan types used and the brick type differing from one end of the street to the next. This suggests that speculative housing was not constructed on any large scale to this area.

In addition to the surviving terraced Georgian houses, the proposed development site also incorporates a significant commerical building, the former Town Hall. Located on Rutland Street, the front elevation of this building was designed to be seen on approach from Arthur's Quay, by way of Francis Street. Built in 1805, this building was financed by a powerful and prominent group of merchants who had been meeting in the Mayoralty House on Quay Lane on the Island, which was the earlier commercial centre of the city

prior to the Georgian regeneration in the Newtown Perry area in the 18th century. The Town Hall, or Commercial Buildings, was built to provide themselves with more commodious premises that were also beyond the reach of the Corporation. Incorporated as a Chamber of Commerce in 1815, this institution remained in this building until 1833, when they moved to their current premises on O' Connell Street. While in use as the Commercial Buildings it was described as having the 'most spacious and elegant coffee rooms in Ireland, and a number of fine apartments appropriated to the business of the Chamber of Commerce'

Following the Chamber of Commerce's move to their new premises, the building was somewhat neglected for several years, and sublet to various tenants. The Limerick Evening Post, Clare Sentinel and The Star newspapers were published in part of the building at various times. Maurice Lenihan, in his History of Limerick published in 1866 wrote that 'the great room which had been a coffee room was used as a sugar store; the offices in the rere and beneath were neglected.'

The next phase of this building's history began in 1843, when the Reformed Corporation, at that time still occupying the City Exchange on the Island (adjacent to St. Mary's Cathedral), decided to occupy the former Commercial Buildings as the new Town Hall. It is described by Maurice Lenihan as being

> ..an excellent Town Hall with Council Chamber, Mayors, Town Clerks, Treasurers, etc. and offices; apartments for the sergeants-at-mace in charge; a watch house and a lock up underneath. A news room, which for the size is one of the best adapted for the purpose in Ireland, occupies a large portion of the ground floor.

The Corporation remained in the building until 1983, when the former Town Hall was sold and underwent extensive renovations before beginning use as a college.

Fig. 5: William Turner, The Chairing Parade of Thomas Spring Rice MP for Limerick in 1820.

Like Patrick Street, the southern boundary of the proposed development site, Ellen Street, is lined with Georgian terraced houses of the late-18th or early-19th century. The eastern end the street is currently terminated by a distinctive building faced with cut limestone. This building, found at 9 Ellen Street, comprises for the most part the complex of buildings which formed John Quinn and Co.'s Wholesale Grocers and Wine Stores, established in the late 19th century. These buildings, however, incorporate an earlier structure which is likely to date from the early 19th century and is illustrated on the first edition Ordnance Survey map, surveyed 1840-41. The building is only outlined on this early OS map, and may indicate that the building was incomplete in some way, or under construction or remodelling. The earlier buildings appear to be two separate blocks having a carriage way between the two, leading from Ellen Street through to the rear yard. In the 19th century the two buildings were joined above this carriage way to provide additional accommodation and to link the two halves, and at some stage, maybe at a later date, the carriage arch was filled in.

At the time of the first edition Ordnance Survey map, Michael Street did not extend south as far as Ellen Street, only continuing to the eastern side of the granary buildings. (Fig. 6) The southern section of this street was not formed until the end of the 19th century.

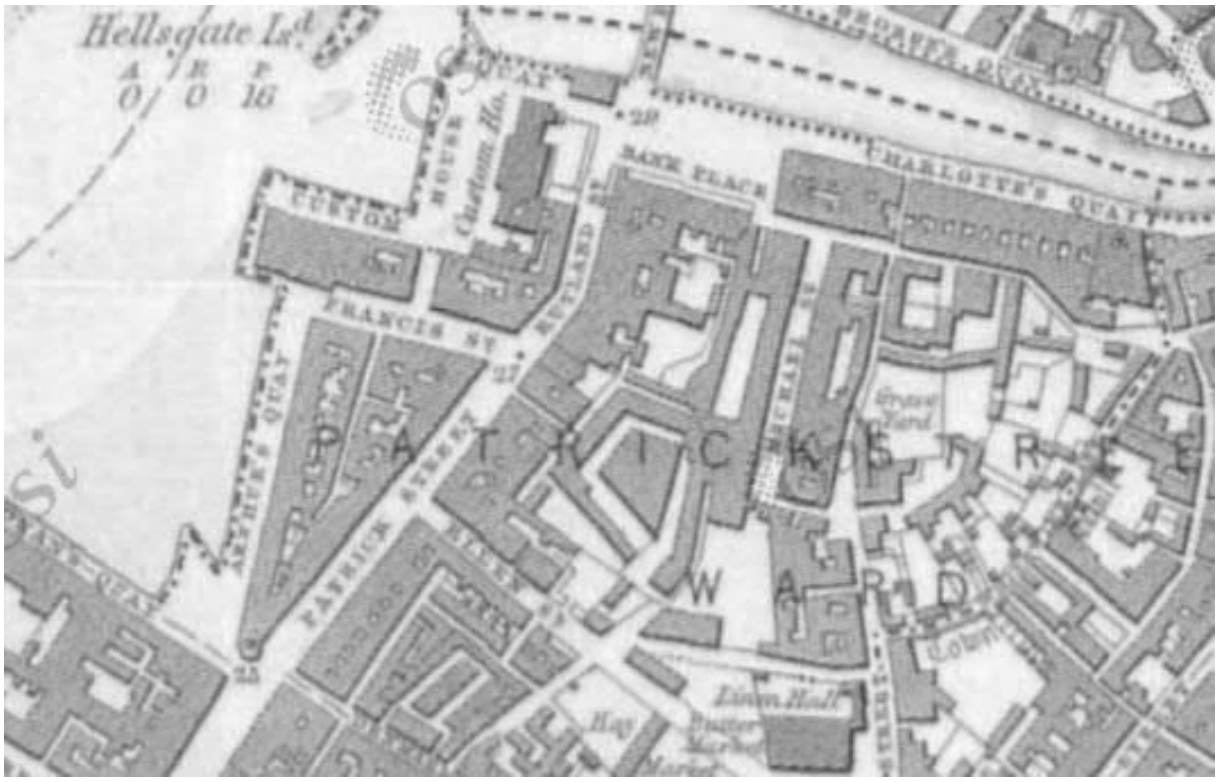


Fig. 6: Extract from the first edition Ordnance Survey map, surveyed 1840-41.

From the first edition Ordnance Survey map it can be seen that the historic buildings retained to the proposed Project Opera development site had been constructed by this date (1840-41). To the interior of the site were muse buildings and outbuildings associated with the terraced houses facing on to the streets, and also a number of industrial or warehouse buildings. The uses of some of these buildings are described on the larger scale (five feet to one statute mile, 1:1056), prepared for Limerick city in 1870. (Fig. 7, below).

The majority of the buildings to the interior of the site at this time comprised bonded warehouses (bonding stores on this map), and there was also a large corn store entered off the eastern end of Ellen Street. Various carriage arches off Ellen Street and the laneway to the rear of Patrick Street gave access to these buildings.

The floor plan of the ground floor of the Town Hall is also visible on the OS map of 1870 (Fig. 7, below). The Georgian terraced buildings on to Bank Place can be seen and have railings and steps to the basement areas to the front of the main entrances.

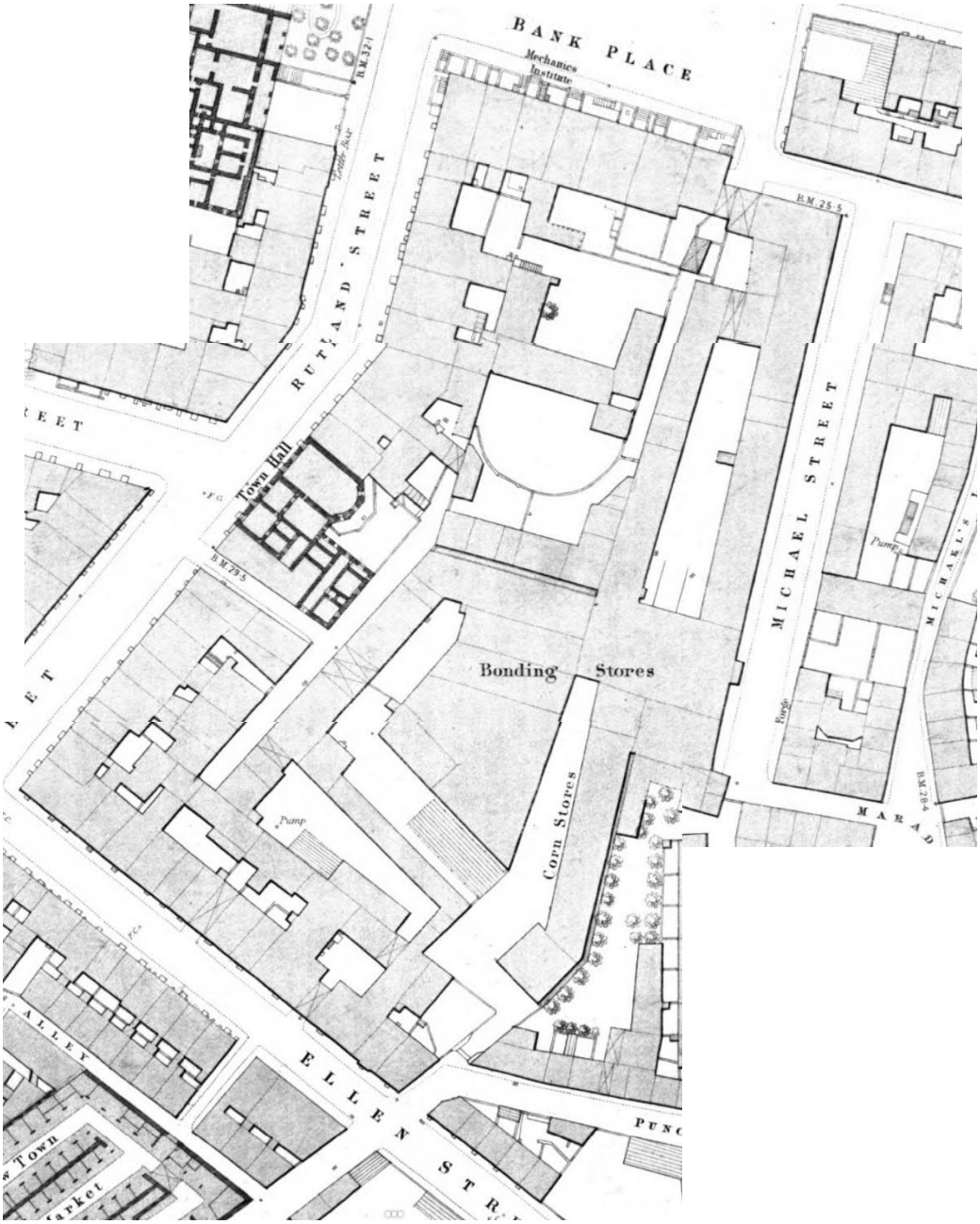


Fig. 7: Detail from Ordnance Survey Map, 1870 (1:1056), showing the proposed development site. Note Michael Street did not continue as far south as Ellen St. at this time. Only remnants of the bonded stores and corn stores illustrated in this map remain today.

Additional information, including uses of buildings, can be found on the 1897 Goad Fire Insurance Plan of Limerick, originally produced to aid insurance companies in assessing fire risks. (Fig. 8) The building footprints, their use (commercial, residential, educational, etc.), the number of floors and the height of the building, as well as construction materials (and thus risk of burning) and special fire hazards (chemicals, kilns, ovens) were documented in order to estimate premiums. Names of individual businesses, property lines, and addresses were also often recorded. All of the terraced houses had commercial units to the ground floors by this time.

While a number of Georgian buildings to this site were demolished in the 20th century, those retained can easily be identified from Ordnance Survey maps and Goad Insurance Plans (Figs. 7 & 8) and continue to contribute to the character and streetscape of this area of the city. The industrial buildings to the centre of the site have not survived to the same degree, with only partial elements of the bonded warehouses and corn stores visible today.

Fig. 8: Goad Insurance Plan showing the buildings to the site, 1897. Pink indicates a brick, stone or concrete building, while yellow indicates a wooden structure.

Extent of the Historic Fabric Retained

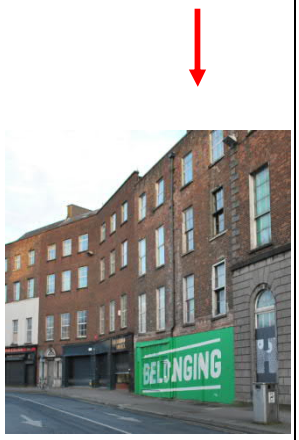
The proposed development site comprises a large block of land situated with its northern boundary on Bank Place, opposite the Abbey River, and with its southern side to Ellen Street. Michael Street, Rutland Street and Patrick Street form boundaries on both sides.

The site is located on and between several streets which were first developed in the latter half of the 18th century. As a result, terraced Georgian buildings are currently found to Ellen Street, Patrick Street and Rutland Street. In addition to the terraced houses there is a late-18th century stone granary building on Michael Street and the early-19th century former Town Hall on Rutland Street. There are several modern buildings constructed in the 1980s and early 1990s to replace demolished terraced houses, and a large office and storage building (Cahill May Roberts c.1970s) to Bank Place. To the centre of the site, remains of several large stone warehouses and high stone walls have been incorporated into modern storage buildings. None of the 20th century buildings are considered to be of architectural significance.

The condition of the existing buildings on the site varies, as does the extent of surviving historic fabric to the interiors of these structures. A full record for each building has been provided separately to this report as part of the planning application documentation which includes a photographic and written record of both the interiors and exteriors of each building (JCA's Existing Buildings Individual Records June 2018). For the sake of this Architectural Heritage Report a summary of the information provided in these individual reports is provided below. Please also refer to JCA's Existing Historic Buildings Overview, June 2018.

Address	Building Description	RPS	NIAH Candidate Protected Structure	Condition Issues/LCC Remedial Works/Survey Notes
4 Rutland St 	The buildings on Rutland Street are some of the earliest surviving Georgian terraces in Limerick city, having being built following the construction of the Mathew Bridge in 1761-62. 4 Rutland Street is a three-bay four-storey over basement red brick building built as a townhouse. Moulded stone limestone sills retained to the brick front elevation. Largely rebuilt, including roof and rear elevation. New wall mid-plan. Front rooms (to Rutland St) retained, rear area including staircase rebuilt. Ground floor all new finishes.	N/A	N/A	LCC remedial works not carried out to this building. Some staining to plasterboard indicating water ingress accelerating in recent years (not visible in 2007 when initially surveyed)

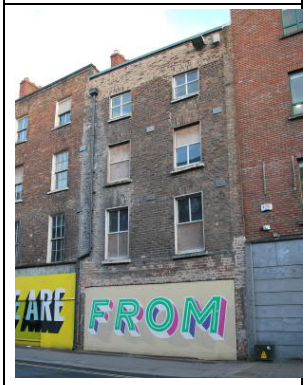
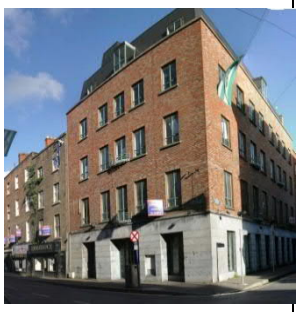
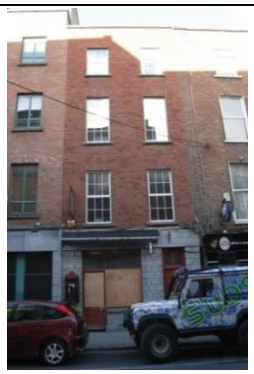
5 Rutland St 	The buildings on Rutland Street are some of the earliest surviving Georgian terraces in Limerick city, having being built following the construction of the Mathew Bridge in 1761-62. 5 Rutland Street is a three-bay four-storey over basement red brick building built as a townhouse, which retains its original limestone doorcase incorporated within a partially surviving nineteenth-century shopfront. Significant internal joinery surviving, including the original mid-18th century staircase.	N/A	Reg. No. 21513009 Candidate Protected Structure	LCC remedial works not carried out to this building. Building is generally as per initial inspections, with further water ingress visible to the party wall with No. 4.. The basement and shop have been cleared out and have not been in use for a number of years. Opening up of some of the plasterboard linings has revealed some additional features, such as dado rails in place to upper floor rooms. Elements of early roof structure are also in situ. The top flight of the staircase has been badly damaged by the insertion of a crude fire lobby. The balustrade to this area was removed causing damage to the balusters. The balustrade is retained to the building and all elements not in situ should be placed in to safe keeping for later restoration.
6 & 7 Rutland St 	The building comprises a five-storey over basement building on the site of two earlier residential plots. It is situated at a point along Rutland Street where the street kinks which results in a non co-linear façade line. It comprises in-situ reinforced concrete (RC) structure with external RC columns and 4no. internal columns supporting flat RC slabs Historic door case set in front elevation, in the Palladian style with a double fluted limestone Doric pilaster and window either side of the main doorway.	Doorway RPS 317	Reg. No. 21513008 (Doorway)	LCC remedial works not carried out to this building.

Address	Building Description	RPS	NIAH Candidate Protected Structure	Condition Issues/LCC Remedial Works/Survey Notes
8 Rutland St  	Late-18th/e. 19th C, No. 8 Rutland Street retains many interior features, particularly the staircase and joinery items. Terraced two-bay four-storey over basement building having exposed Flemish bond brick front and rear elevations. A pair with No. 9. 20th century two-storey concrete block flat roofed outbuilding to rear, having concrete floors and a corrugated roof. This building forms part of No. 9 Rutland Street	N/A	N/A	LCC remedial works carried out. Work has heavily damaged lath and plaster and cornices to ceilings which were intact when initially surveyed in 2007, but has stabilised the building and allows access. The roof is leaking and some areas of floors are water damaged at the upper level. Joinery items such as staircase, window and door architraves recorded in 2007 are still in situ. Some water ingress has caused the deterioration of the condition since the 2007 survey, but not to the extent of No. 9 Rutland St, which is a pair with this building. Basement intact and in original form. Props to brick arch to underside of pavement above.
9 Rutland St  	Late-18th/e. 19th C, No. 9 Rutland Street has been very heavily altered to the basement and ground floors. Terraced two-bay four-storey over basement building having exposed Flemish bond brick front and rear elevations. A pair with No. 8.	N/A	Reg. No. 21513007 Candidate Protected Structure	LCC remedial works carried out. Work has damaged lath and plaster and cornices to ceilings but has stabilised the building and allows access. Wide brick arch to rear return, first floor, has been propped. The building has deteriorated since the 2007 record was made. There has been a high level of water ingress to the party wall with No. 8 which has severely affected floor timbers. Dry rot fruiting bodies in this area, including to LCC remedial works support. Fireplace to the front room, first floor, has been removed. Elements of the balustrade have been lost to upper floors. Wall and ceiling linings (modern and historic) have been removed to most areas. Internal walls are brick nogged.

Address	Building Description	RPS	NIAH Candidate Protected Structure	Condition Issues/LCC Remedial Works/2017 Survey Notes
Town Hall 	Built in 1805, this building was financed by a powerful and prominent group of merchants. The Town Hall, or Commercial Buildings, were built to provide themselves with more commodious premises that were also beyond the reach of the Corporation. Incorporated as a Chamber of Commerce in 1815, until 1833. The adjacent building to the south, a two-bay four-storey building located on the corner of Rutland Street and Glover's Lane, has been heavily altered.	RPS 014	Reg. No. 21513006	LCC structural remedial works not carried out to this building. Some works to roof undertaken. The condition of the building has deteriorated in recent years due to water ingress, but no internal fabric of significance has been removed. Dry rot is visible to the top floor. Main roof timbers appear sound. Brickwork to the rear elevation is in poor condition and has been further damaged over the past 10 years by the cementitious pointing. Will require extensive repairs. Interior of bomb shelter has been cleared out following a flood to the interior since originally recorded by JCA.
1 Patrick St 	Likely 18th century. No. 1 Patrick Street is a terraced two-bay four-storey over basement house having a shopfront and retail unit inserted to the ground floor, probably in the late-19th century. The main entrance is located off Glovers Lane, and comprises a round headed cut stone lugged architrave incorporating a fanlight.	N/A	N/A	LCC remedial works have been carried out, including insertion of steel frames to support walls and to prop floors and the removal of cementitious render to the parapet and its repair. Floors are in very poor condition. Internal linings have been removed to the ground floor, including the lath and plaster ceiling, exposing the wall fabric and floor joists. Part of the external wall to the laneway is constructed of stone. Sections of run plaster cornice and later moulded timber cornice have been exposed

Address	Building Description	RPS	NIAH Candidate Protected Structure	Condition Issues/LCC Remedial Works/ Survey Notes
2 Patrick St 	Likely e. 19th C. No. 2 Patrick Street is a terraced two-bay four-storey over basement house having a shopfront and retail unit inserted to the ground floor, probably in the later 19th century. There is a pitched M-profile roof having imitation slate and shared with No.3 Patrick Street. Two-storey flat roofed extension to rear. This building, along with No. 3 Patrick Street, has been stripped out and all finishes internally are modern, including the staircase and partition walls.	N/A	N/A	LCC remedial works have been carried out, including propping of floors. Condition has deteriorated in recent years. All modern internal finishes. Ground and first floors are of concrete with new timber floors over.
3 Patrick St 	No. 3 Patrick Street is a terraced two-bay four-storey over basement house having a shopfront and retail unit inserted to the ground floor, probably in the later 19th century. There is a pitched M-profile roof having imitation slate and shared with No.2 Patrick Street. Limestone cills to windows of front elevation. Two-storey brick structure having lean-to corrugated roof adjoining to rear. This building, along with No. 2 Patrick Street, has been stripped out and all finishes internally are modern, including the staircase and partition walls	N/A	N/A	LCC remedial works have been carried out, including propping of floors. Condition has deteriorated since initial 2007 survey. Remedial works have exposed structural fabric. Some original lath and plaster ceilings and timber floors retained to this building (ground and first and hall), with new floors laid over (which has altered floor levels).

Address	Building Description	RPS	NIAH Candidate Protected Structure	Condition Issues/LCC Remedial Works/Survey Notes
4 Patrick St 	Late 18th/e.19th C. No. 4 Patrick Street is a terraced two-bay four-storey over basement house having a shopfront and retail unit inserted to the ground floor, probably in the 19th century. The front elevation is of exposed Flemish bond brick with the rear elevation of rubble stone construction having brick to the window openings. Stone cornice running across Nos. 4 and 5 Patrick Street. Exterior mews building retained. Built as a pair with No. 5. Shop front, shop fittings and interior fabric of significance.	N/A	Reg. No. 21513005 Candidate Protected Structure	No structural LCC remedial works carried out to the building. Metal roof constructed to the mews building (this was previously a slate roof). All fabric has been retained to the main building, but the condition has deteriorated in recent years. Evidence of water ingress to corner of front room, against party wall with No. 3. Damage to this corner on all floors. Severe subsidence of floors. Shop fittings and shop display window are also retained. Floor has been lost to the mews building.
5 Patrick St 	Late 18th/e.19th C. No. 5 Patrick Street is a terraced two-bay four-storey over basement building having an exposed Flemish bond brick front elevation and a mixed rubble limestone and brick (to surrounds) rear elevation. Stone cornice running across Nos. 4 and 5 Patrick Street. Pitched roof having imitation slate and brick (rebuilt) chimneystack. Limestone cills to windows of front and rear elevation. 20th century two-storey concrete block flat roofed extension to rear, having concrete stairs and floors. Major alterations have been carried out to the interior of No. 5, However, some original elements remain intact.	N/A	Reg. No. 21513069 Candidate Protected Structure	LCC remedial works have been carried out, including propping of floors, but not to all areas. Condition has deteriorated considerably in recent years. Sheeted timber ceiling to the shop floor visible above suspended ceiling. Double leaf panelled doors between main rooms of first floor area retained with architrave. One architrave to front room lost since initial survey. Remainder of building has a high level of modern finishes. Staircase is modern.

Address	Building Description	RPS	NIAH Candidate Protected Structure	Condition Issues/LCC Remedial Works/Survey Notes
6 Patrick St  	Late 18th/e. 19th C. No. 6 Patrick Street is a terraced two-bay four-storey over basement house having a shopfront and retail unit inserted to the ground floor. The front elevation is of exposed Flemish bond brick with the rear elevation of rubble stone construction. There is a modern single storey flat roofed extension to the rear. The interior of No. 6 lost many of its original fixtures and fittings when it was converted to flats.	N/A	N/A	LCC remedial works carried out. Work has extensively damaged the lath and plaster and cornices to ceilings but has stabilised the building and allows access. Modern internal partitions cut down in height. Staircase is retained but is in poor condition. Condition deteriorates further on upper floors. High level of deterioration of fabric since initial survey.
7/8 Patrick St 	This building was constructed c.1990, and formally opened in June of 1991 as an AIB bank. It was built following the demolition of a large stucco fronted building on this corner site. This former building appears to have been a 19th century remodelling of existing Georgian terraced houses.	N/A	N/A	LCC remedial works not carried out to this building. Not inspected by JCA Feb. 2017
3 Ellen St 	3 Ellen Street is a two-bay four story terraced building which has copied the Georgian proportions of the neighbouring buildings to the front facade. The building is narrow and deep, and projects to the rear much further than the adjoining Georgian buildings.	N/A	N/A	LCC remedial works not carried out to this building. Not inspected by JCA Feb. 2017

Address	Building Description	RPS	NIAH Candidate Protected Structure	Condition Issues/LCC Remedial Works/Survey Notes
4 Ellen St 	E. 19th C, No. 4 Ellen Street is a terraced two-bay four-storey over basement house having a modern shopfront inserted to the ground floor. The front elevation is of exposed Flemish bond brick with the rear elevation of rubble stone construction having brick to the window openings.	N/A	N/A	LCC remedial works carried out. Floors reinforced. Parapet rebuilt.
5 Ellen St 	E. 19th C,No. 5 Ellen Street is a terraced single bay four-storey over basement house having a small modern shopfront inserted to the ground floor. The front elevation is of exposed Flemish bond brick with the rear elevation of rubble stone construction having brick to the window openings.	N/A	N/A	LCC remedial works carried out. Floors reinforced allowing access throughout. Parapet rebuilt. Original roof lost – metal profile roof.
6 Ellen St 	E. 19th C., No. 6 Ellen Street is a terraced single bay four-storey over basement house having a small modern shopfront inserted to the ground floor. The front elevation is of exposed Flemish bond brick with the rear elevation of rubble stone construction having brick to the window openings.	N/A	N/A	LCC remedial works carried out. Floors reinforced allowing access throughout. Parapet rebuilt. Original roof lost – metal profile roof.

Address	Building Description	RPS	NIAH Candidate Protected Structure	Condition Issues/LCC Remedial Works/Survey Notes
7 Ellen St 	No. 7 Ellen Street is a terraced three-bay four-storey over basement house having a modern No. 7 Ellen Street is a terraced three-bay four-storey over basement house having a modern shopfront to the ground floor. The front elevation is of exposed Flemish bond brick with the rear elevation of rubble stone construction having brick to the window openings and carriage arch. shopfront to the ground floor	N/A	N/A	LCC remedial works carried out. Floors reinforced allowing access throughout. Parapet rebuilt. Original roof lost (with the exception of two principal trusses)– metal profile roof. Deterioration halted by these works. Remedial works removed the arch to the carriage arch off the street, steel beam inserted.
8 Ellen St 	No. 8 Ellen Street is a terraced two-bay four-storey over basement house having a shopfront inserted to the ground floor, probably in the later 19th century. The front elevation is of exposed Flemish bond brick with the rear elevation of rubble stone construction having brick to the window openings. Rear as to Ellen St. 5-7	N/A	N/A	LCC remedial works carried out. Floors reinforced allowing access throughout. Parapet rebuilt. Original roof lost - metal profile roof. Deterioration halted by these works.
9 and 9a Ellen St 	The building found at 9 and 9a Ellen Street originally comprised the complex of buildings which formed John Quinn and Co.'s Wholesale Grocers and Wine Stores which was established in the late 19th century. Upper floors of thick timber boards supported on cast iron columns. Stone flags and brick wine vaults to basement.	N/A	Reg. No. 21513018 Candidate Protected Structure	No LCC remedial works carried out. Structural condition of the building generally good. Small area of water ingress visible at upper level, party wall with No. 8. Upper floors retain post and truss structure and original floor boards. Cellar also intact.

Address	Building Description	RPS	NIAH Candidate Protected Structure	Condition Issues/LCC Remedial Works/Survey Notes
Granary 	The granary building is one of the earliest known multiple storey warehouses to be built in Limerick. The ground on which the building was constructed was bought by Philip Roche in 1787. The interior of the granary was almost completely gutted during the 1980s conversion, with all floors, supporting piers or columns, stairs etc. removed. The only internal element to be retained was the brick vaulting to the basement/lower ground floor.	RPS 272 Gate piers and iron gates within curtilage .	Reg. No. 21513017 Limestone gate piers and decorative gates included on NIAH listing.	LCC remedial works not carried out to this building.
Interior of Site 	Variety of buildings not considered of architectural significance, including Workspace which was constructed in the 2nd half of the 20th century built against an earlier stone wall to the Eastern side, and Bogue's Yard which comprise a collection of single and an two storey lean-to and double pitched roof structures.	N/A	N/A	LCC remedial works not carried out to buildings in this area.
Cahill May Roberts 	This building comprises a three-storey office block to the front of a large single storey open plan warehouse building. The office building is a concrete frame structure having a glazing system that incorporates spandrel panels between the floors. The warehouse structure is of reinforced concrete piers with concrete block infill, supporting a steel truss roof and corrugated fibre cement roof cladding.	N/A	N/A	LCC remedial works not carried out to this building.

Assessment of the Significance of the Existing Buildings

Three of the structures on the site are included on Limerick City's Development Plan 2010-2016 Record of Protected Structures, while eight structures are included on the National Inventory of Architectural Heritage which the current Development Plan recognises come with a ministerial recommendation for inclusion on the RPS. It should be noted that one of the structures on the RPS comprises an 18th century doorway reconstructed in a late-20th century building.

Prior to 2010 the site was located within an Architectural Conservation Area but does not at present fall within an ACA. It is located within the Zone of Archaeological Potential forming the medieval core of the city, but there are no recorded monuments within the site area.

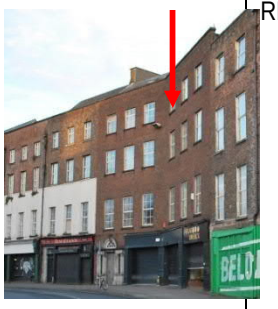
The significance of the surviving buildings is increased where substantial interior fabric is retained, such as an original staircase, early timber joinery, plasterwork to ceilings, historic shop fittings, etc. Therefore, while two terraced houses may have been constructed as a pair, the overall significance of each house may differ where one building has retained more of its original interior fittings and fixtures than the other. The individual levels of significance are not necessarily reflected by the building's inclusion on the National Inventory of Architectural Heritage's survey which only aims to include a representative selection of buildings and is not based on access to the interiors.

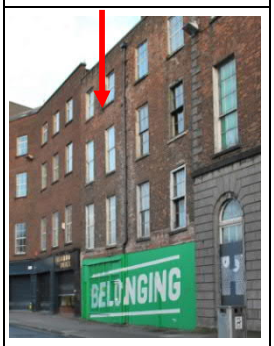
For this reason, JCA prepared four categories (A, B, C and D) for the existing buildings on the Project Opera site to illustrate their individual level of architectural, historical and cultural significance, based on detailed inspections of each structure. The categories are as follows:

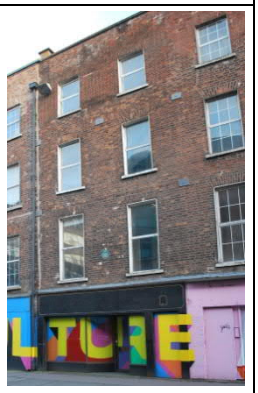
Category A	a) Full conservation scope of works merited. These buildings have retained plan forms intact and substantial internal fabric. Of architectural and/or social and historical significance. b) A Protected Structure (regardless of the extent of historic fabric retained).
Category B	Full conservation scope of works merited for building envelope, including the roof (where the historic roof is retained), in order to conserve their streetscape value and original external character. The plan form to these buildings is intact and some internal features survive. Greater flexibility to internal works is acceptable to these buildings (in comparison to Category A), while respecting the plan form. This would extend to the use of modern materials, contemporary joinery and finishes as appropriate.
Category C	Full conservation scope of works merited for street elevations only in order to protect the Georgian streetscapes in which they are located. The original plan form and spatial qualities of the buildings in this category have been lost. They have substantial or total loss of internal fabric. Greater flexibility to treatment of internal spaces, including alteration to plan form, acceptable for these buildings.
Category D	Not of architectural, social or historical significance. Demolition acceptable from an architectural conservation perspective.

Fig. 9: Plan of the proposed development site, showing the categories of significance of each existing building located on the site.

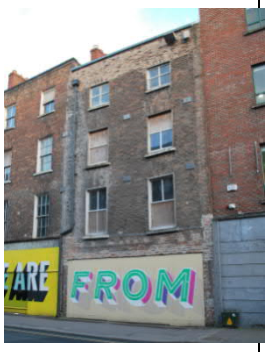
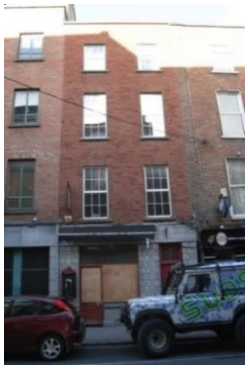
The following table includes information on the significance of each building, categorising each with one of the four categories of significance outlined above.

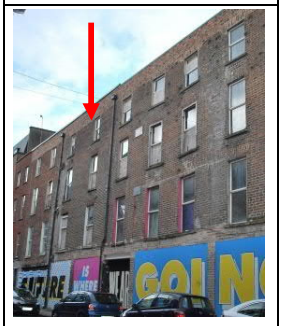
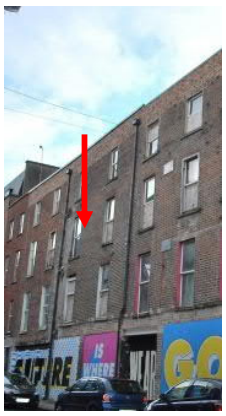
Address	RPS	NIAH Candidate Protected Structure	Conservation Category	Assessment of Significance
4 Rutland St 	N/A	N/A	C	Heavily modified internally, with a new staircase and wall partitions inserted, although the basement is retained (with modifications) and the vault beneath the street is still extant. The front elevation is retained, while the rear elevation and roof have been reconstructed. The roof profile also has been altered in the reconstruction. Some remnants of original cornices visible above suspended ceiling to ground floor. Early timber boards retained to first floor, front room. Other early features may be retained behind modern finishes.
5 Rutland St 	N/A	Reg. No. 21513009 Candidate Protected Structure	A	Of high architectural significance. Retains original 18th century features including the staircase, lugged architraves and run plaster cornices. Plan form intact. One of the earliest buildings retained to the site, comprising an early phase of the Newtown Pery development. Limestone door surround to Rutland St. retained, and elements of historic shopfront.
6 & 7 Rutland St 	Doorway RPS 317	Reg. No. 21513008 (Doorway)	D (with exception of the salvaged Georgian doorway)	E. 19th century carved stone door case set in front elevation has been salvaged from an earlier building and is of high architectural and artistic merit. With the exception of the doorway, this building is not considered of architectural or historical significance. Doorway should be relocated/reused in the new scheme.

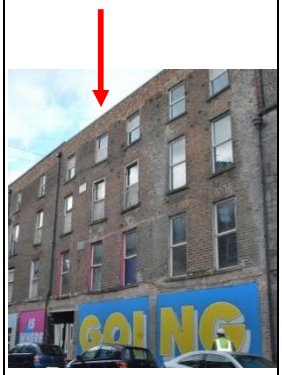
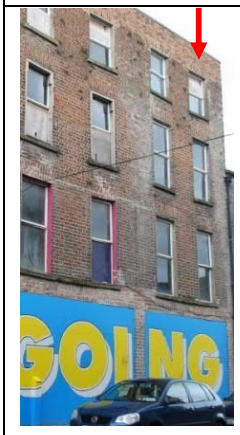
Address	RPS	NIAH Candidate Protected Structure	Conservation Category	Assessment of Significance
8 Rutland St 	N/A	N/A	A	This building retains the majority of its original fabric, both in terms of structure and internal fittings and fixtures. Planform is intact. Staircase is retained. Basement is intact an in its original form. Linings have been removed to the ground floor revealing brick nogged walls, original timber door architrave and remnants of lath and plaster ceilings. Some wall plaster removed to upper floors revealing original brick nogged internal walls. One of a pair with No. 9. Poor condition of the historic fabric may limit the extent of conservation, despite the significance of the building.
9 Rutland St 	N/A	Reg. No. 21513007 Candidate Protected Structure	B	Inclusion on NIAH survey and a candidate for inclusion on the RPS in the current Development Plan. Plan form and some interior elements retained, including the staircase. Ceilings have been removed. The significance of the building is compromised by its poor condition. One of a pair with No. 8.
Town Hall 	RPS 014	Reg. No. 21513006	A * *The adjoining building to the laneway (Glover's Lane) is not considered to share this level of significance.	Of high architectural, historical and social significance. While in use as the Commercial Buildings it was described as having the 'most spacious and elegant coffee rooms in Ireland, and a number of fine apartments appropriated to the business of the Chamber of Commerce' Although internal alterations have been carried out, the external appearance has remained intact and modern internal partitions could be removed to restore main chamber rooms.

Address	RPS	NIAH Candidate Protected Structure	Conservation Category	Assessment of Significance
1 Patrick St 	N/A	N/A	B	Although there have been alterations to the interior, and some sub-divisions of larger rooms, significant original or early features are also retained, including the staircase and lugged architraves. Some of the surviving fabric indicates an early date of construction for this building, with a later 18th century phase of refurbishment which is similar in style to No. 4 Patrick St. (staircase design). The original house may date to the original laying out of Patrick St in 1768. Lugged architraves, size of original chimney breasts and block and start stone doorcase to the laneway all indicate a mid-18th century date. Partition wall and sheeted timber ceilings removed to the top floor, revealing a hand finished large central roof truss may indicate an earlier gable fronted arrangement to the house, altered in the later Georgian period to conform to the terrace.
2 Patrick St 	N/A	N/A	C	Significant as one of a terrace of Georgian houses. Social/Historical significance for connection with Maurice Linehan. Front and rear elevations retained. Internal fabric has been lost and roof altered. Maurice Linehan, historian, wrote his History of Limerick at this house.

Address	RPS	NIAH Candidate Protected Structure	Conservation Category	Assessment of Significance
3 Patrick St 	N/A	N/A	C	Significant as one of a terrace of Georgian houses. Front and rear elevations retained. Internal fabric has been lost with the exception of an area of original fabric to the front, ground and first floors. Roof altered.
4 Patrick St 	N/A	Reg. No. 21513069 Candidate Protected Structure	A	Of architectural, social and historical significance. The building retains a very high level of historic features internally, including joinery to all rooms, doors, staircase, early decorative finishes and shop fittings. Retains historic/original roof. Retains large mews building to the laneway behind. Birth place of Catherine Hayes, opera singer. Pair with No. 5.
5 Patrick St 	N/A	N/A	B	This building does not retain the level of internal historic fabric as No. 4. However the plan form is largely intact and significant elements such as the arched doorway with double panel doors (as per No. 4) are retained. Original staircase has been removed. Basement retains flag floor. Significant as a pair with No. 4.

Address	RPS	NIAH Candidate Protected Structure	Conservation Category	Assessment of Significance
6 Patrick St 	N/A	N/A	C	Some internal features of significance are retained to this building, including the staircase, fireplaces and some cornices (now heavily damaged). The poor condition of the building and the subsequent structural interventions have affected the overall significance of this building. The building retains streetscape value for its Georgian façade.
7/8 Patrick St 	N/A	N/A	D	The building does not retain any fabric that would be deemed to be of historical or architectural significance.
3 Ellen St 	N/A	N/A	D	The building does not retain any fabric that would be deemed to be of historical or architectural significance. The interior comprises all modern finishes. No access has been retained to the basement of the previous Georgian house, and therefore it is not known if, or to what extent, any of it was retained.

Address	RPS	NIAH Candidate Protected Structure	Conservation Category	Assessment of Significance
4 Ellen St 	N/A	N/A	B	This building retains its original roof trusses. Staircase is modern to lower floors, original stair intact to upper floors. Plan form is retained. Remains of a substantial building can be seen to the rear of this terrace of houses on Ellen Street. This can be seen to have been a large stone building, having brick to the openings.
5 Ellen St 	N/A	N/A	B	The building appears to comprise half of a larger, two bay building which was subdivided. The building is in poor condition but retains early features and finishes, including a staircase. The rear elevation forms a complete elevation with the adjoining terraced buildings on Ellen Street, without singular yards or other divisions between the properties.
6 Ellen St 	N/A	N/A	B	The building appears to comprise half of a larger, two bay building which was subdivided. The building is in poor condition but retains early features and finishes including a staircase. The rear elevation forms a complete elevation with the adjoining terraced buildings on Ellen Street, without singular yards or other divisions between the properties.

Address	RPS	NIAH Candidate Protected Structure	Conservation Category	Assessment of Significance
7 Ellen St 	N/A	N/A	A	Building has intact plan form to upper floors and retains much original fabric including staircase, doors, architraves and fireplaces. The house is the largest on the street, having three bays and incorporates a carriage arch. Remains of a substantial building can be seen to the rear of this terrace of houses on Ellen Street. This can be seen to have been a large stone building, having brick to the openings.
8 Ellen St 	N/A	N/A	A	The rear elevation forms a complete elevation with the adjoining terraced buildings on Ellen Street, without singular yards or other divisions between the properties. The interior of this building retains the majority of its original features, including the staircase, doors, fireplaces, cornices, timber floors, etc.
9 and 9a Ellen St 	N/A	Reg. No. 21513018 Candidate Protected Structure	A	This complex of buildings is likely to incorporate an earlier structure (predating John Quinn's) dating from the late 18th or early 19th century. Historic cellars are intact, including flag stone floors and brick cellars. Historic roof trusses and post and beam floors also survive. Quality of the stone façade makes this a landmark building on the street. Basement extends along Ellen St under pavement across Nos. 7 & 8, extending in to the front area of these basements.

Address	RPS	NIAH Candidate Protected Structure	Conservation Category	Assessment of Significance
Interior of Site 	N/A	N/A	D	The building does not retain any fabric known to be of historical or architectural significance.
Stone remnants of large buildings and laneway to interior of site.  	N/A	N/A	C/D	The laneway is significant as the original service access and access to the mews buildings of the town hall and all of the Georgian buildings along Patrick and Rutland St. Rear yard associated with Ellen St terraced buildings forms part of their original curtilage. Tall limestone walls, some with infilled carriage arches and window openings largely formed part of a large bonded warehouse complex of buildings situated here in the 19th century. Remnants only now retained.
The Granary 	RPS 272	Reg. No. 21513017 Limestone gate piers and decorative gates included on NIAH listing.	A	No internal fabric of architectural significance known to survive, with the exception of the ground floor vaulted ceiling. Form and external elevations largely complete. Façade and carriage arch to Bank Place and long elevation to Michael St. also have high streetscape value. Gates shown on 20th century Goad Plans but not on earlier maps.
Cahill May Roberts 	N/A	N/A	D	The building does not retain any fabric known to be of historical or architectural significance.

Potential of the Existing Historic Buildings to the Site

The existing buildings on the Project Opera site hold great potential and their integration in to a new scheme to develop this site will have a high positive impact on the streetscapes within which they are located. The majority of the building stock comprises terraced Georgian houses of four storeys over basement. Often built as pairs, and therefore sharing floor levels, these buildings have the potential to be linked for use as a single building. Alternatively, they may be integrated in to new developments to the rear by way of links or walkways, which will allow the existing buildings to retain their original forms while becoming integrated into larger units.

A number of these Georgian terraced houses have previously undergone extensive internal works, in some cases losing original floors, internal walls and staircases. Such buildings have the potential for a higher level of intervention, while maintaining their street elevations and external Georgian proportions. The separate hall doors and retail unit entrances of the majority of these buildings will allow flexibility in terms of access off the street. Suitable ground floor uses such as small retail units, cafes etc will allow for the retention of the historic proportions of the street elevations of these buildings and encourage live shopfronts and interaction between the buildings and the streets onto which they front.

The Town Hall, a protected structure, has been heavily modified internally but retains a large, open well staircase. By restoring its original proportions and large chamber rooms this building has the potential to provide suitable accommodation for a range of uses, including possible public, retail or cultural uses. Furthermore its location in the site provides the possibility of interaction between the rear elevation of the building and the proposed public plaza to the centre of the site.

The Granary building, an 18th century warehouse, is currently in use as offices with public access to the ground floor. All internal partitions are of modern construction and may be retained to continue use as small office units or removed to open up the floors to open plan accommodation. Retail or bar use to the vaulted ground floor may continue. Part of the building is currently occupied by the City Library, the majority of which is located within a mid-20th century extension to the west. This 20th century building could be replaced with a new structure while continuing to share circulation spaces with the existing building. The granary building has the potential to function independently or in conjunction with a new building located to the west.

No 9 Ellen Street, historically a wholesale grocers and wine store, and later a bar, comprises several large open plan spaces arranged around a private courtyard, and has the potential for reuse for a variety of uses which would allow for the retention and restoration of the historic fabric. It most obviously lends itself to continued use as a bar, which could maximise the potential of both the cellar area and the courtyard.

Finally, there are a number of 20th century buildings on the site, most of which were constructed following the demolition of Georgian buildings, at a time when such structures were less valued. The replacement buildings were not designed with regard to the surrounding historic environment, and in general have not had a positive impact on the streetscapes in which they are located. Replacement of these buildings with structures more sympathetic to the surviving historic buildings on this site and the immediate surroundings will have a long term, positive impact on this area of the city.

Conservation Approach

The proposed development of the site has been prepared following a thorough investigation of the existing historic building fabric retained to the Project Opera site. Despite the fragile condition of the buildings, many of which have not been in use for many years (particularly the upper floors of the terraced houses), the decision to retain the majority of the existing buildings for reuse within the proposed development was accepted by the design team.

The significance of the surviving Georgian buildings to the site is two-fold. While the individual buildings are architecturally significant in themselves, particularly where they retain substantial internal fabric or are of social significance, the historic building stock to the site is collectively of historical and architectural significance and contributes considerably to the Georgian character of Limerick city.

Through the design process, a decision was made to reject the approach of previous schemes on the site where the facades only of some of the Georgian terraced houses were retained, and to adopt the approach of conserving the full envelope of the buildings, including their roofscape, regardless of their inclusion or omission from the Record of Protected Structures or the National Inventory of Architectural Heritage.

All existing buildings to the development site were inspected and recorded, and those which retain significant interior elements were noted. A system of categorising each building in terms of its architectural significance and extent of historic fabric retained was implemented which helped the design team to gain an understanding of the importance of each building within the site. Buildings with particularly sensitive interiors were noted in order to limit interventions in these areas, while structures of lesser significance (such as heavily altered buildings or later additions to the rear of Georgian structures) were identified. This allowed the design architects to identify the areas with scope for new development, whether in the form of interventions to existing structures or locations for potential new buildings.

The primary objective of the process was to conserve the important surviving Georgian streetscapes of Rutland Street, Patrick Street and Ellen Street while also retaining important historic fabric where it survives to individual buildings.

It should be noted that many of the 18th and 19th buildings retained to the site are in a poor state of structural repair. Remedial structural works carried out in c. 2007 to provide access to upper floors, followed by further repairs and interventions to prop floors carried out by Limerick County Council in c. 2014 have resulted in the loss of some internal fabric, particularly ceiling plasterwork. However these works have allowed safe access to the buildings for inspection and have also halted the majority of the decay which was being caused by severe water ingress.

The extent to which historic roof timbers, internal fabric and historic fittings and fixtures can be restored or salvaged to the individual structures will require assessment on a building by building basis. Those buildings which are protected structures or are considered of most architectural, historical or social significance will be prioritised for internal restoration work. Street facades to all buildings will be repaired to best conservation practice.

Conservation Method Statement

The proposal is to upgrade the buildings to contemporary standards whilst retaining salvageable historic fabric and carrying out repairs to fabric to be retained to conservation best practice.

Objectives

1. To maintain the character, streetscape and material qualities of each building.

2. To repair and retain historic fabric where it is retained and where condition allows.

3. To protect each building's character as a living building by maintaining a use compatible with the historic structure. This will necessitate the introduction, in a number of cases, of new circulation cores/atria to the rear of the buildings to provide alternative means of escape, thereby minimizing reliance on the existing building fabric to be upgraded to comply with current building regulations. This approach will balance conservation repair with the desire to retain a building of economic value.

4. To preserve the constructional efficiency of the building. More structures and details may be preserved and retained using historic techniques combined with simple, modern, informed repair, allowing a building to breathe and perform as intended.

5. To spend wisely in terms of investment. Less money may be spent on minimal adaptation of the structure to new use which adds to the building's economic value by not diminishing its historic value.
6.

New Interventions

1. Where the original building is to be integrated by shared access/atria, this will be through the rear. The new connection will be articulated as a modern element and will minimize the removal of original fabric. Atria/new access will be set back from the rear facades and accessed from a minimum number of bridges that will retain the integrity of the rear elevations allowing them to function as weathered facades with functional windows. Existing openings will be used and new openings will be formed only where absolutely necessary. A gap or a light well will be kept so the rear elevation can still be read. The treatment of the rear elevation will be treated as a conservation element where brickwork and fenestration patterns will be respected.

2. The original plan form, where evidence allows, will be followed as far as possible. New rooms will be modern interventions within the existing shell and only introduced where necessary to create a viable building.

3. The insertion of services will follow existing lines and voids to avoid the unnecessary drilling of existing fabric ie. heating, insulation, electricity etc.

4. Where original shopfronts or elements of shopfronts survive such as at no. 5 Rutland Street, these will be retained and conserved. If in a pair as in 4 & 5 Rutland street no. 4 will reflect proportions of 5, but not necessarily be a copy of the early shopfront.

General Principles of Conservation

1. A principle of minimum intervention should be followed with regard to the existing building fabric. The emphasis will be on the repair of surviving existing fabric rather than replacement.

2. Every effort should be made to match existing building technologies. This should extend to the use of traditional, breathable materials such as lime mortars and renders, which will contribute to the long-term preservation of the remaining structure.

3. Where original finishes have been lost to the building and now modern finishes exist it may be allowed to make new interventions and finishes in a contemporary style.

4. New insertions will take on a distinct character from the existing fabric and bear a contemporary identity while respecting the existing fabric.

5. Where fabric is not original, e.g. replacement roofs, a decision may be made to retain as existing as long as they broadly follow historic profiles and are deemed to be structurally sound and in reasonable condition.

6. All work should be undertaken under the supervision of a conservation architect. All works to the building will be documented as they proceed.

7. Periodic recording of the work as it progresses will be undertaken as part of the conservation exercise, with this report updated and the final chapter produced on completion of works.

8. The scope of work outlined is a current assessment of work based on an inspection of the building with minimal opening up. Any discoveries involving the building fabric made during clearing and preliminary work, which have not hitherto been noted, should be examined first by the supervising conservation architect before an on-site decision is made.

Approach to the Repair of Existing Fabric

The following section of the report comprises a summary of the surviving building fabric found to the existing structures on the site, and includes an approach to the retention and repair of the historic building fabric. More detailed repair specifications for this historic fabric, including roofs, masonry, windows and internal plasterwork is included as Appendix I.

Roofs

Roofs are generally finished with slate, both natural and fibre cement (although a number of roofs to Ellen Street are now covered with a corrugated metal sheeting). This is laid down on slate battens supported on rafters which are in turn supported on trusses and purlins. Roofs consist of a combination of early timbers but there are replacement roofs also. Most roof fabric is in poor condition but has had deterioration arrested by the introduction of temporary works such as structural steel and timber beams. Flashings and horizontal weathering courses have been replaced in many instances to weather the building envelope. Notwithstanding this it is likely that much roof fabric will require repair/replacement. Where early timbers are extant, efforts will be made to salvage these and carry out splice repairs on a minimum intervention basis. Roof slate will be salvaged and reused where possible.

Of primary importance is the geometry of the roofs. Their form is often a double 'A' profile held behind parapet walls. It is important that their form is retained as part of the conservation exercise in order to preserved the original character of the structure and the streetscape in which it is located.

External Fabric

Original and early building fabric generally consists of brick external walls with limestone cills and parapet coping stones. Brickwork is generally intact. The condition of brickwork is generally good but severely eroded bricks will require either full replacement or a surface repair with proprietary repair mortar ('plastic' repair) on a localised basis. There is a variety of brickwork pointing mixes and styles.

Generally, mortar pointing remains fair to poor across facades. There is a preference for a flush mortar joint with lime based mixes for repairs. However, repairs and replacement of pointing will be on a case by case basis to ensure building fabric is not damaged in the replacement process. In some cases brick has been over rendered (for a portion of some facades) and consideration could be given to its removal to reinstate the brick finishes.

All chimneys will be retained as part of roofscape conservation works.

Early multiple pane timber vertical sliding sash windows where surviving will be retained and repaired and consideration will be given to removing modern replacements and reverting to similar timber multiple paned windows. Surviving examples can be used as templates.

Elements of early shopfronts where extant will be retained such as corbelled brackets and cornices. New shopfront interventions can be contemporary yet sympathetic to the buildings.

Internal Structure

Original Internal structure largely consists of suspended joisted timber floors, brick nogged partitions and timber open/closed string stairs where extant. Efforts will be made to retain and repair this principal structure for category A and B buildings. Greater flexibility is offered for category C and D buildings where replacement of fabric and modern intervention may be considered.

Many buildings are divided mid plan by a span wall running from basement to attic level. In many cases this wall supports a valley gutter where the double pile roofs meet. It is important that these walls are retained as part of the conservation exercise.

Internal Fabric and Finishes

Efforts will be made to conserve existing original plasterwork where extant. This will extend to lime plaster wall and ceiling flatwork and cornicing where condition allows. In cases where linings have decayed and cornices have been substantially lost new elements may be cast using existing surviving elements as a guide or template for reinstatement. Sound elements will be retained. All internal joinery identified in category A buildings will be retained and repaired. This will include doors and architraves, window linings, stairs, skirtings and floor boarding where extant. Joinery items should be tagged as grounds may need to be replaced and this will facilitate later reinstatement.

Recent stabilisation works, while consolidating the buildings and halting the processes of decay, have damaged some internal fabric. On balance the stabilisation works were essential for the medium term preservation of building fabric until meaningful conservation works can commence in the context of a Planning Approval. The stabilisation will greatly aid the repair works by allowing safe access for the repair of primary structure.

Lime plaster is the preferred treatment of the internal face of external walls rather than dry lining. This will preserve the original room proportions and allow a breathable building fabric.

Reuse of Salvaged Material

The use of salvaged materials during restoration will be carefully documented. Stock brick and rubble stone may be used for conservation repairs. Any decorative stone such as flags, cobble sets and ashlar stone found on the site may be used in the landscape strategy.

The most significant feature of note is the entrance door and surround to 6 Rutland Street which has been described in detail in the separate record for the building in which it is located. It is proposed to number and disassemble this carefully prior to demolition of no. 6, store it off site, and reconstruct it within the façade of the new building proposed for this location.

The buildings to be demolished will afford a large amount of structural materials which can be reused in the repair of buildings to be retained and repaired. This will be especially useful where it is proposed to remove small areas of recent concrete block infill and replace with brick and lime mortar or stone and lime mortar. There is a lesser amount of natural slate, however this again will be removed carefully and should be stored in pallets for reuse. Salvaged items such as cut stone (from carriage arches for example) should likewise be set aside for reuse.

Preliminary Schedule of Works/Method Statement (refer to Appendix I – Schedule of Building Fabric Repair Works)

Structure
Elements of historic structure such as roof framing, timber joisted floors and floor boards, masonry walls and internal brick nogged partitions will be retained and repaired where condition allows.

Internal Joinery
Early staircases, panelled doors and architraves, skirting boards and window linings will be retained and repaired.

Internal Plasterwork
Existing plaster cornices and plaster and lath ceilings will be retained where extant. Lime plaster wall finishes will be retained and repaired where extant.

External Finishes
Existing brickwork will be repaired, replacing damaged, lost and cementitious pointing with lime based pointing. Damaged brick surfaces may be repaired using plastic repair techniques where there is concern for further erosion.

Windows
Early timber sash windows will be retained and repaired. Modern replacement windows (uPVC and others) will be replaced with timber vertical sliding sash windows where deemed appropriate in the context of streetscape presentation of buildings .

Appendix I – Schedule of Building Fabric Repair Works

Schedule of Building Fabric Repair Works

Specification	Sheet number	Building Category
Windows		
Repair of existing New sliding sash	1 2	Where early timber windows survive To replace all modern uPVC/alumin
Roof Slating Works & Repairs	3	All buildings
Leadwork Repair	4	All buildings
Chimney Repair	5	All buildings
Existing Timber Floor upgrading	6	A
Internal Plaster Repair	7	A
Rainwater Goods	8	A, B, C
Conservation Rooflights	9	A
Brick Cleaning	10	A, B, C
Brick Restoration System	11	A, B, C
Painting Specification	12	A
Existing Door Upgrading	13	A, B, C
Salvage of Historic Fabric	15	Site boundary walls (salvage stone), brick, slate,

Sheet 1

Window Repair

Description: Multi-pane vertical sliding sash in box frames-

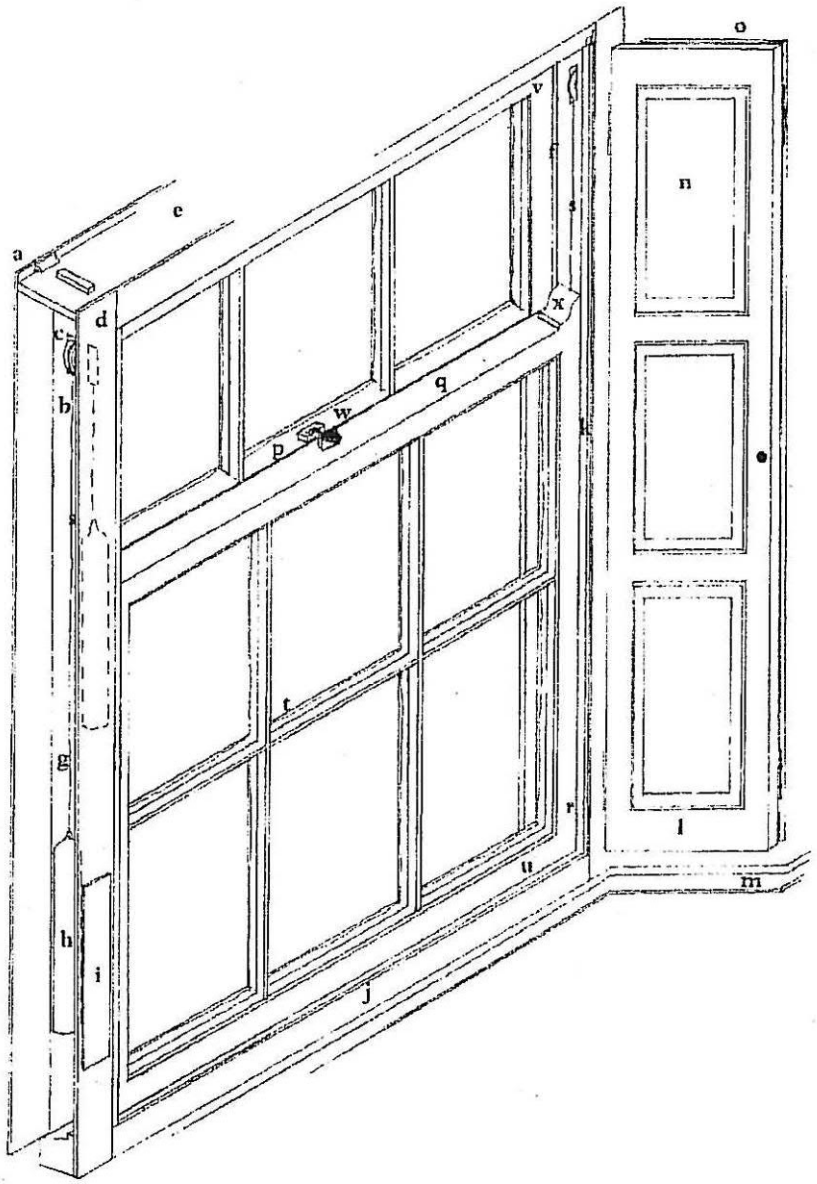
Method Statement:

1. Shutters, architraves, soffit and elbow linings are to be retained insitu.
2. Remove window stop beads and parting beads and detach flax cords from weights to facilitate removal of sashes
3. Allow for putty to be softened, removed and discarded
4. Existing glass to be reused
5. Allow for scarfed repairs in Yellow or Honduras pine or other appropriate timber to replace damaged or rotten sections with matching sectional thickness and moulded profiles
6. Allow for existing glass to be returned to its correct location and linseed oil putty beaded
7. If a sash is severely damaged its complete replacement may only be permitted with consultation with architects
8. Allow for box frames to be repaired as per 4
9. New parting beads and stop beads to be fabricated to incl. routed draught excluders such as brush seals by exitec or eq. approved
10. Sash cords to be renewed with natural flax attached to existing weights (presumed fallen to bottom of sash boxes)
11. Allow for new brass pulleys. Sashes to be brought to full working order and balanced
12. Allow for new brass meeting rail clasps and brass pull rings to bottom rail of lower sash and top rail of upper sash
13. All work to be primed in preparation for paint finish.

9 Rutland Street

Note:

- Sashes may be removed to workshop off site to facilitate repairs. There location of origin is to be noted by specialist window joiner to ensure they are returned to their correct location. Temp ply to be inserted in ope
- Sash boxes are to be repaired insitu
- Joiner to prepare a schedule of glass for each window to ensure glass is retained
- Any change in specification to be reported to architects



Frame parts

a. outer lining
b. pully stile
c. pully
d. inner lining
e. head piece
f. parting bead
g. weight box
h. weight
i. pocket
j. sill
k. staff bead
l. shutter
m. dado
n. shutter panel
o. shutter leaf

Sash Parts

p. meeting rail top sash
q. meeting rail bottom sash
r. sash stile
s. sash cord
t. glazing bar
u. bottom rail
v. top rail
w. catch
x. horn

Anatomy of a Sash Window

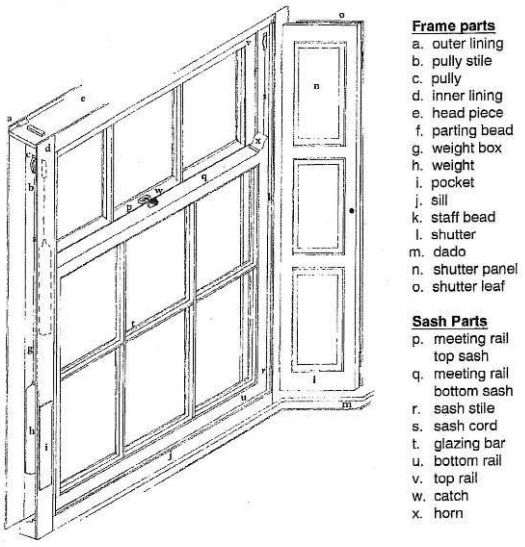
New vertical Sliding sash

Description: Multi-pane vertical sliding sash in box frames-

Location: To be installed to replace uPVC and other modern inappropriate windows

Method Statement:

14. Remove existing modern windows and dispose off site
15. Install new sash boxes with lead or cast iron weights. Box frames to be rebated to reveals
16. Fabricate sashes with glazing bars and horns.
17. Glaze with 3mm horticultural glass and putty bead with linseed oil putty.
18. All timber to be treated s'wood from sustainable sources such as Yellow or Honduras pine.
19. Allow for prime, undercoat and gloss paint finish.
20. Make good to reveals on completion with lime based plaster internally and externally (if required).
21. Sash cords to be natural flax attached to weights
22. Allow for brass pulleys.
23. Allow for brass meeting rail clasps and brass pull rings to bottom rail of lower sash and top rail of upper sash
24. All work to be primed in preparation for paint finish.



Anatomy of a Sash Window

Slating Works Specification &

Repairs to Roof Timbers

Kingpost Roof 9 Ellen Street

Works Description: Roofs have a mixture of stone slate covering (probably Welsh quarry slate such as Penryn Blue Bangors) and modern fibre cement finishes. The intention is to salvage the existing slate for reuse on the building. New slate will be stone slate. Historic roof timbers will be repaired on a minimum intervention basis.

Method Statement:

1 <u>Stripping of existing slate and repairs to roof timber framing</u>

Rear Elevation

1.1 Roofs to be slated with the existing slate salvaged from the building laid in diminishing course work. All other roofs to be slated with Welsh Penryhn Blue Bangor, Princess or Duchess grade slate by Capco or eq. approved.

1.2 Remove existing slate, slate battens and lime parging. Store salvaged slate on vertical timber bearers to be held above damp ground and covered.

1.3	Remove ridge and hip rolled lead and lead linings to valleys and gutters and discard.	
1.4	Remove clay ridge tiles and store for reuse (present on chapel and West annex).	
1.5	Stripped roofs are to have temporary weathering applied to prevent water ingress to the building.	
1.6	Expose roof timbers in order that an assessment can be made as to their condition. All elements are to be fully assessed by the structural engineer in conjunction with a timber decay specialist	4 Patrick Street
1.7	Allow for any necessary timber treatments to eradicate timber decay spores, wood boring insects etc. as directed by timber decay specialist.	**Note:** ▪ Any change in specification to be reported to architects
1.8	Expose wall plates in order that an assessment can be made as to their condition. Any decayed sections to be replaced with treated timber on a damp couse and joined to existingsound timber.	
1.9	All embedded timbers and timber in contact with masonry to be treated with insecticide/fungicide paste.	
1.10	Primary roof timbers such as King post truss bearings and purlin ends to be checked by structural engineer for decay and repaired as necessary. The preferred repair option would entail the use of steel shoes where bearing ends have decayed. This will ensure the maximum retention of historic fabric.	
1.11	Any decayed rafters so found are to be spliced with new treated timber	

		cutting back to sound areas and splicing with new vacuum impregnated timber using galvanised steel bolts with toothed washers. Particular attention to be given to timbers in contact with damp masonry and chimneys. All replacement timbers to be treated with preservative. (Structural engineer to advise)	
	1.12	In select areas where there is excessive bowing in roof, allow for additional 100 x 35mm rafters fixed to side of existing rafters to achieve true alignment. (Structural engineer to advise)	
3.0	<u>Re-slating</u>		
	3.1	Grade and sort slates, discarding slates which sound hollow, with visible cracks or with nail holes broken through to edges.	
	3.2	Contractor to source new stone slate to make up numbers damaged or lost and provide samples to architect for his approval.	
	3.3	Allow for 70% salvage rate of existing slate. Existing slate to be used on North elevations.	
	3.4	Grade slate into thirds seconds and bests with thickest slate (bests) at eaves. Allow for a double course at eaves.	
	3.5	Reslate maintaining a 100mm headlap fixed with stainless steel or copper clout nails to courses on new 50 x 25mm tanalised sw battens over Tyvek breathable roofing membrane to existing timber rafters.	

3.6 Slates to be laid in diminishing course work 3.7 For new slate, nail holes are to be punched from the back of the slate to cause a counter sunk hole. 3.8 Form hips with cut and mitred slates. 3.9 New roll top lead ridges and hips to be installed across main roof. Existing clay ridge tiles on chapel and West wing to be salvaged for reuse. Refer to specification sheet no. 27. 3.10 Allow for 'Ubbink' flush slate vents to vent roof space, by Messrs. Capco Roofing or eq. approved 3.11 Allow for 1 no. new access rooflight CR1 by "Metal Window Company" or equal approved, to position indicated on drawings. THE APPOINTMENT OF A TIMBER DECAY SPECIALIST WILL BE NECESSARY TO WORK IN TANDEM WITH THE ROOFING CONTRACTOR TO ASCERTAIN ANY TIMBER DECAY ONCE THE ROOF HAS BEEN OPENED UP. NO ROOF TIMBERS ARE TO BE REMOVED PRIOR TO INSPECTION BY ARCHITECT AFTER OPENING UP. NO WORKS ARE PROPOSED TO THE BEARING ENDS OF STRUCTURAL TIMBERS. THE COMPLETE WORKS SHALL BE LEFT IN A WATERTIGHT AND WEATHERTIGHT CONDITION	

STANDARDS: THE FOLLOWING ROOFING STANDARDS ARE TO BE COMPLIED WITH BS 680, BS 747, BS 1202, BS 5250, BS 5534, BS 6100, BS 6399, BS 8000.	

Leadwork Repair Specification

Works Description: All existing lead flashings, parapet gutters and dpc to roof fabric to be removed and replaced to specification below

Typical facade

Method Statement:

1 <u>Leadlined parapet gutters</u>

1.1 Remove existing linings and discard. Architect to assess condition of underlying boarding as to its salvage value on opening up.

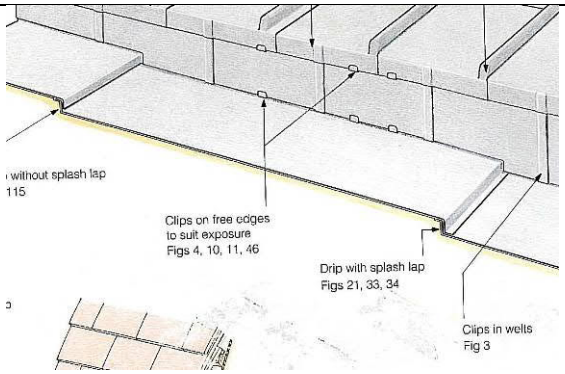
1.2 Clean wall tops of loose plaster and other debris.

1.3 If gutter boarding is deemed by architect to be in poor condition (after inspection) replace with new horizontal 18mm wbp ply boarding across width of gutter top rebated to new 18mm wbp ply boards extending 225mm minimum up behind slates both sides. Inclined boards to have tilting fillets. Gutters to be laid to falls to hopper outlets.

1.4 Lay code 6 lead across horizontal timber surfaces and up sides over tilting fillets to be

welted beneath slates. Sheets to be 1.5m lengths welted in direction of fall. (note: due to risk of water penetration laps are not suitable)

1.5 Where a gutter corner occurs in the fall a 50mm drip is to be introduced with the undercloak lead nailed into the rebate. The minimum fall between drips is to be 1:80.



Parapet Gutter Detail

1.6 with similar fixing clips nailed to stone at 150mm centres.

2.0 <u>Leadlined pitched valley flashings</u>

Ridge and Hip Rolled Lead

2.1 Remove lead from valleys and discard.

2.2 Assess condition of underlying lining boarding. Where boards are rotten and beyond repair discard and install new 18mm w.b.p. plywood lining boards. Lining boards should extend 225mm each side of the centre of the valley with tilting fillets positioned 150mm each side of the centre.

Ridge and Hip Wood Cored Rolls

2.3 Ensure that the valley boards are level with the tops of the rafters and line with code 6 lead on an isolating geotextile membrane. Lead to be laid in maximum 2m lengths with 150mm overlaps and two rows of stainless steel or copper clout nails across the top of each length. Lead to be tucked over tilting fillets and welted under slates.

2.4 Code 6 Lead saddles bossed to shape are to be used where lead lined valleys meet and used to weather the intersection between valleys and horizontal lead lined gutters.

3.0 <u>Lead flashing to masonry abutments</u>

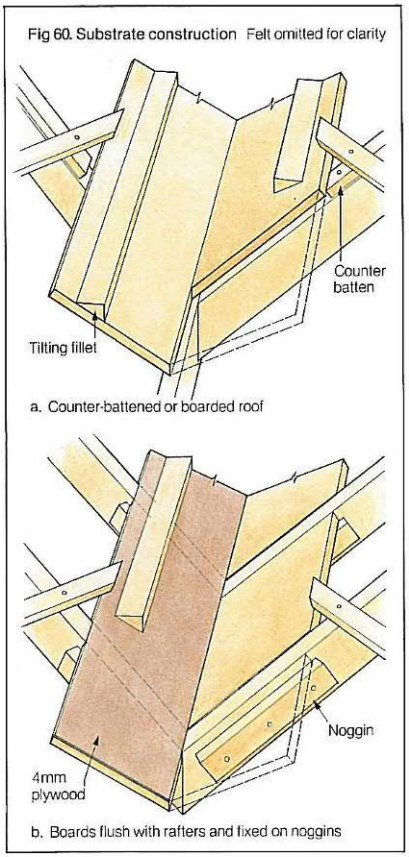
3.1 Cut chase in masonry 100mm above and parallel to the rake of the roof pitch. Chase to be continuous and to a depth of not less than 25mm.

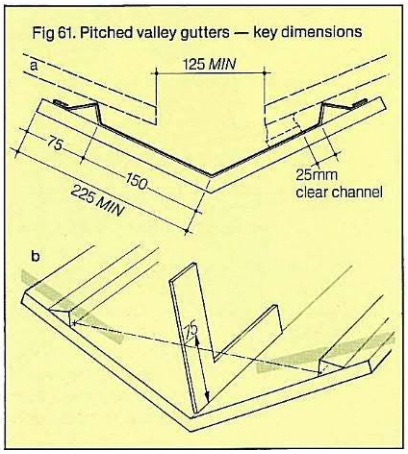
3.2 Provide Code 4 lead soakers to be turned up 75mm under cover flashing.

3.3 Provide Code 6 lead cover flashing in 1.5m lengths allowing a lap of 100mm.

3.4 Cover flashing to be turned into chase and held in place with wedges formed of lead sheet folded several times to suit the thickness of the joint. Chase to be closed up with mortar pointing to conceal the wedges.

3.5 Code 7 flashing to be installed at apex of roof connected to a continuous fixing clip 0.46mm stainless steel nailed through slate to rafter centres, and turned up 150mm into chase in chimney and held in place with lead wedges.





Gutter boarding detail

4.0 <u>Leadlined rainwater 'concealed' gutters</u>

4.1 Stone gutters are leadlined and fall to hopper outlets

4.2 Remove existing lead lining and discard. Architect to assess condition of underlying stone gutters.

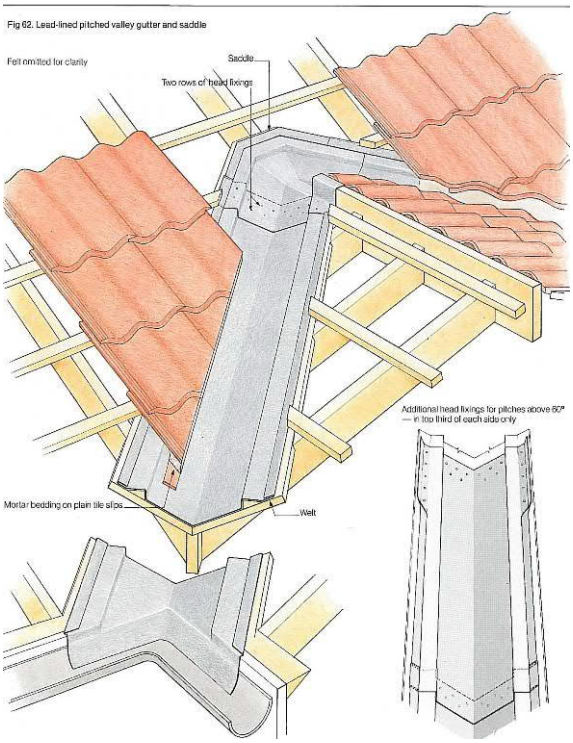
4.3 Clean of loose plaster and other debris.

4.4 Stone to be pointed/sealed as necessary before laying fresh lead.

4.5 Lay code 6 lead across horizontal timber surfaces and up sides over tilting fillets to be welted beneath slates. Sheets to be 1.5m lengths welted in direction of fall. (note: due to risk of water penetration laps are not suitable)

4.6 Where a gutter corner occurs in the fall a 50mm drip is to be introduced with the undercloak lead nailed into the rebate. The minimum fall between drips is to be 1:80.

4.7 Lead to be welted at joints and form drips over leading edge of stone



Gutter leadwork detail

5.0 <u>Lifting of parapet stones and relaying on lead</u>

5.1 Remove any bitumen/torch-on coatings

5.2 Number parapet stones in order that they will be returned to their correct positions.

5.3 When parapets are lifted ensure that any slate or lead dowels are stored for reuse.

5.4 Prepare code 7 lead tray. Corners to be bossed down or leadwelded, coating horizontal surfaces with bitumen to prevent corrosion. Parapet stones to be

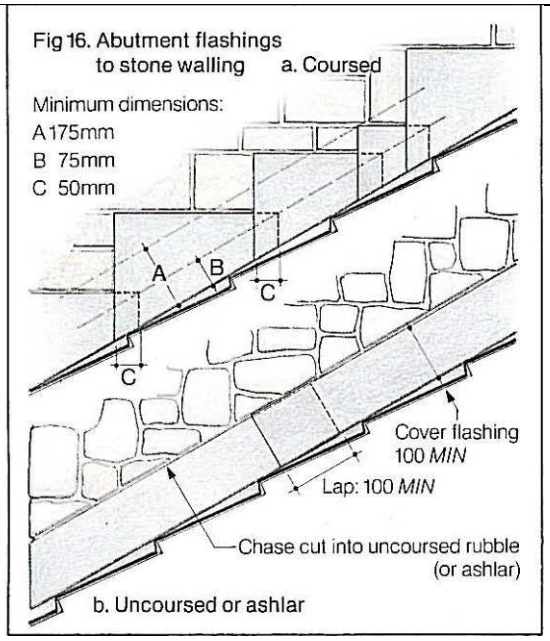
5.5 Relay coping stones with new dowels in present.

5.6 Copings to be lead clad as per parapets (item 7.0) below

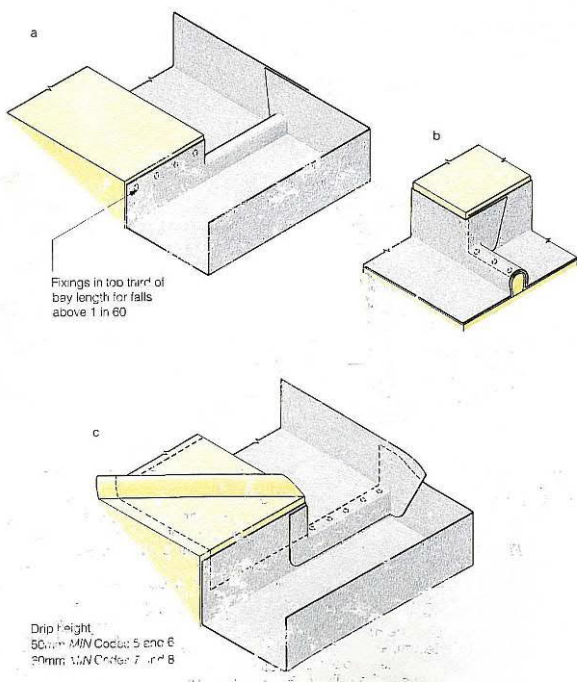
5.7 Allow for new code 7 lead covering over sloping barges to architects details. Maximum length of individual sheets to be 1.5m. Laps to be minimum 150mm with lower sheet fixed to stone with 3 rows of stainless steel screws and overlapping sheet fixed with a continuous fixing clip(0.46mm stainless steel or copper approved) nailed at 150mm centres. Lead to be turned down at sides of stone barges and fixed with similar fixing clips nailed to stone at 150mm centres.

STANDARDS:

ALL LEADWORK WILL COMPLY WITH THE LEAD DEVELOPMENT ASSOCIATION HANDBOOK AND CP



Abutment flashing detail



143. MILLED SHEET LEAD WILL BE MINIMUM CODE 5 TO BS 1178. ALL LEAD UNDERLAYS SHALL BE TO BS1521 CLASS A. COPPER CLIPS ARE TO COMPLY WITH BS 2870.	Stone gutter lining detail **Note:** ▪ Any change in specification to be reported to architects

Chimney Repair Specification

Description: Generally all existing brick chimneys are to be repaired and repointed. Chimneys that are plaster rendered are to have render removed, flashings replaced and re-rendered. In cases where the masonry is loose and damaged and there is risk of moisture penetration the architect may instruct the top few courses of brick to be removed and rebedded on a bitumen coated lead dpc.

Chimney detail

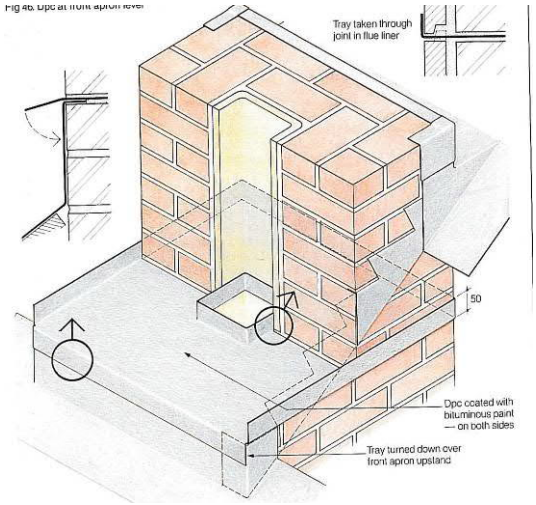
Method Statement:

1. Hack off existing chimney render.
2. Take down chimney to roof ridge level approx. 3 to 4 brickwork courses
3. Insert bitumen coated code 7 dpc tray with circular opes for flues
4. Reinstate brickwork bedded in lime sand mix 1:1:6.
5. Cut chase in chimney 100mm above and parallel to the rake of the roof pitch. Chase to be continuous and to a depth of not less than 25mm.
6. Provide Code 4 lead soakers to be turned up 75mm under cover flashing.
7. Provide Code 6 lead apron flashing and code 6 cover flashing in 1.5m lengths allowing a lap of 100mm.
8. Cover flashing to be turned into chase and held in place with wedges

formed of lead sheet folded several times to suit the thickness of the joint. Chase to be closed up with mortar pointing to conceal the wedges.

9. Plaster chimney lime plaster to the following spc. Lime is to be slaked lime putty and local origin sharp sand(sandstone). Gauge with white cement 1:1:6. Existing plaster band to be reinsted

10. Insert new terracotta flue pots with ventilated stainless steel cowls.

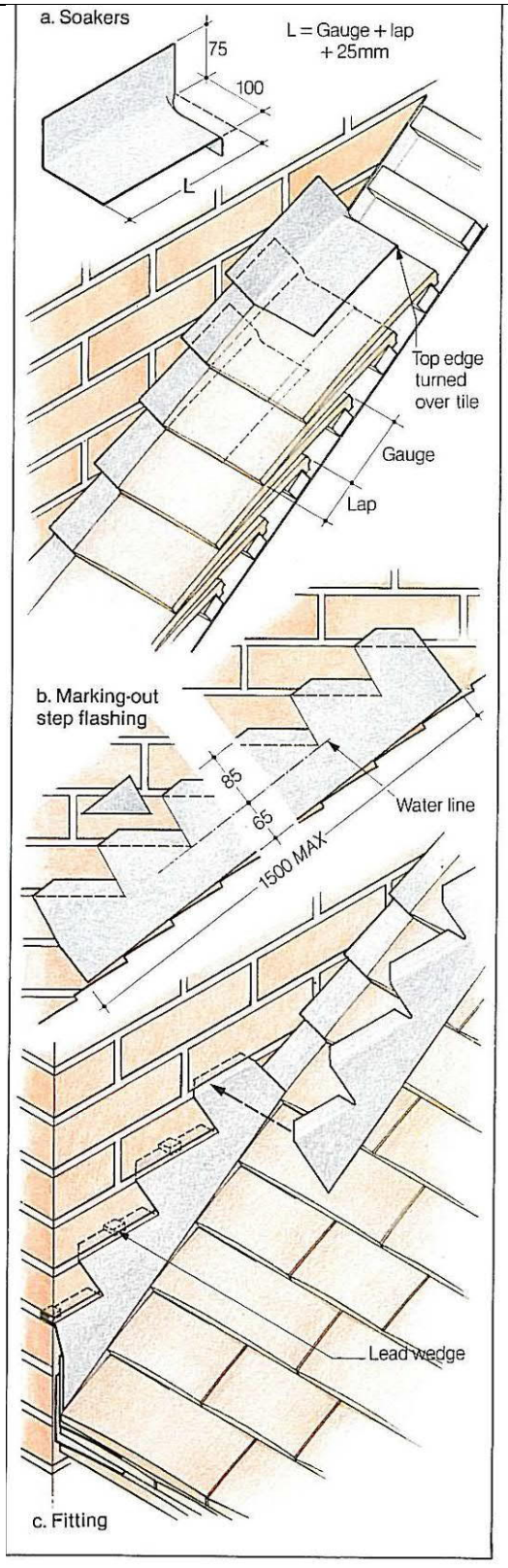


Proposed chimney dpc-bitumen coated lead

Chimney detail

Note:

- contractor to adjust specification to match site condition



Chimney flashing detail

Timber floor Repair & Upgrading

Description: Generally all existing suspended timber floors are to be retained, repaired and upgraded to meet loading requirements.

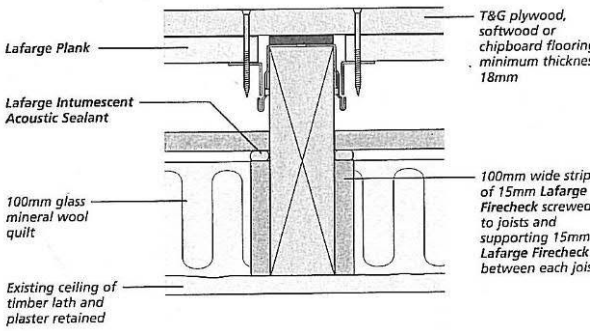
Method Statement:

1. Open up and check selected joist ends embedded in walls for investigation. Cut out defective joist ends and splice with new vacum impregnated timber using bolts with toothed washers.

2. Allow for floor strengthening by inserting new joists parallel to existing and bolting through-to engineers detail (if required)

3. Tie bars may be required from external wall to external wall and should be contained within floor void as per engineers detail. Allow for decorative patras plates on façade.

4. Fire rate floors if required by adopting Lafarge Cormet system which allows for retention of existing ceilings. (see diagram)



Retention of existing ceilings and firerating floor

Internal Lime Plaster Specification

Description:

This specification is intended for repair work to existing plaster surfaces where plaster is damaged, blown or lost. There are a number of substrates-

- brick nogged internal partitions
- Timber stud/lath & plaster stairwell enclosure
- Internal face of external brick walls
- Stone gable walls
- lath & plaster linings to stairwell
- ceilings

The lime plaster specification set out below will be suitable for all the above.

For lath and plaster repair work, timber laths (machine cut or riven) will be first fixed to the substrate, ie existing timber studs in stairwell or floor joists for ceilings.

For decorative work, elements of cornices or central roses that are damaged or lost should be replaced to match by taking a mould to accurately reproduce these elements and screw fixing in place. Simple plaster cornices can be repaired by running insitu.

Method Statement:

Entrance hall 5 Rutland Street

Entrance hall 8 Ellen Street

The specification given is for a lime plaster using mature putty lime. Alternatively feebly hydraulic lime (NHL 2) can be used in the scratch and float coats and pre-prpared ‘setting stuff’ used for the finish coat.

This specification can be used for internal brick nogged partitions, lath and plaster work and the internal face of masonry walls. Internal plasterwork should be applied in three coats: scratch, float and finish;

Detached and bulging areas of plaster should be cut out to regular, square edged profiles. Daubing out where there are large gaps or holes in the plaster may be done before the scratch coat, using 1 part lime putty to 3 parts sand (ordinary plasterers’ sand, clean, well-graded and sharp), with the addition of animal hair (goat or yak). Hair or Forte Fibre should be added in all coats other than the finish coat at 3kg per M3.

Surfaces to be plastered should then be cleaned and pre-wetted. A weak limewash at 1 putty to 9 water should be used.

The scratch coat should then be laid on at 1:3 (Lime putty, sand and hair), and should not exceed 12mm in thickness. It should be finished with a wood float. Any shrinkage should be closed down with the wood float . The scratch coat while still soft should be scratched (diamond style on timber laths). The next coat should only be applied when the scratch coat has set fairly hard.

The scratch coat should then be pre-wet and a float coat applied at 1:3 (lime putty, sand and hair) to an average thickness of c. 8 mm. Close any shrinkage cracks as before and scratch lightly with a devil float.

In winter allow seven days between coats to dry.

Ceiling & cornice 8 Ellen Street

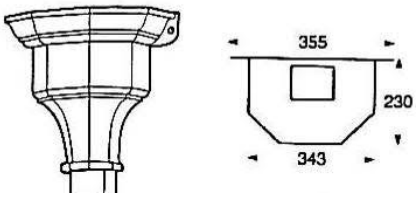
Note:

- Plastering contractor to adjust specification to match site condition
- No further plasterwork to be removed unless directed by architect
- Lath & plaster ceilings if partially detached from joists may be salvaged by securing with stainless steel wire and screws.

The float coat should be pre-wet and finish coat applied to c. 3 mm thick at 1: 3 (1 putty(setting stuff): 3 sand). No hair is used in this coat. The sand should have a maximum particle size of 1 mm. The composition of the lime plaster appropriate to use varies little on the background materials, but the suction rates of these materials can affect drying times. Care should be taken to ensure that plaster dries neither too slowly nor too quickly : where a background material may cause the plaster to dry very quickly, it can be pre-wetted using a weak limewash (1 lime putty: 9 water) to control the rate of drying. Lath & plaster ceilings if partially detached from joists may be salvaged by securing with stainless steel wire and screws. ***Pozzolonic additive such as metastar can be used*** ***Natural Hydraulic Lime (NHL 2) can be used for the scratch and float coat.*** ***Lime Putty (Setting Stuff) should be used for the final finish coat*** ***Two coats may be sufficient depending on condition of existing wall plaster***	

Rainwater Goods

Description: circular down pipes & decorative hopper heads



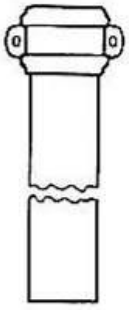
Ref: Ornamental head (ref. HFH2)

H2 325 x 200 x 290mm

Ref: Hargreaves Foundry or eq. approved

Method Statement:

1. Allow for replacement cast-iron rainwater goods in heritage cast iron
2. Allow for 100mm (4”) Circular downipes cast-iron by Alumasc or similar approved.
3. Where extant gutters to be 125mm half round to be bracketed onto walls as per existing detail.
4. make allowance for new hopper heads
5. Caulk joints with butyl mastic, prime and paint.



Ref: single socket eared (ref. HF6RWP4ED)

CAST IRON RAINWATER GOODS SHALL COMPLY WITH BS 416, BS 4602 AND BS 6367.

CURRENT BUILDING REGULATIONS TO BE COMPLIED WITH

Circular down pipes & Fittings

6” gutter 1829mm ref.

Conservation Rooflight

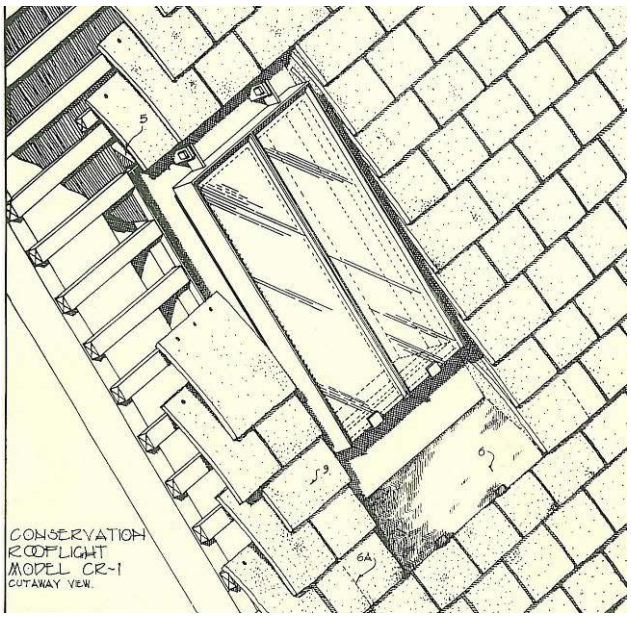
Use: Where there is a requirement for lighting attic apsces.

Dimensions: 625(h) x 465(w)

Description: Low Profile metal rooflight by The Metal Window Company or eq. approved.

Method Statement:

25. Rooflight to be a faithfull reproduction of a low profile Victorian cast iron
26. Rooflight to provide natural light to attic spaces for maintenance
27. One rooflight proposed per pitch



detail view

Note:

- Any change in specification to be reported to architect

Brick Cleaning Specification

Façade areas: All areas of exposed brickwork.

Method Statement:

28. Brick to be washed with warm water at low pressure to remove any debris and loose organic growth
29. The areas of organic growth would then be treated with a biocide spray for 24 to 48 hours. Allow for biocidal treatment with Remmers Intachem Algae-Rem or eq. approved
30. Allow for a low pressure steam wash
31. Chemical clean using Remmers Intachem HD400 or eq. approved
32. Low pressure steam wash
33. Neutralise using Remmers Intachem LC500
34. Low pressure steam wash to give a clean uniform appearance
35. Severe carbon streaking and other deposits may be treated using a Tensid chemical SureKlean 766 to soften ground in staining.
36. Low pressure steam wash
37. A second product will be used to neutralise any residues left behind

Brick Façade detail

Note:

- Reference: JCA Elevation drawing

ONLY CLEANING CONTRACTORS WITH PROVEN CONSERVATION EXPERIENCE TO BE ENGAGED

Provision for repointing brickwork 1. Remove existing damaged mortar. 2. Plugging chisels and club hammers are to be used and care is to be taken not to damage the surrounding brick edges. Mechanical tools are only to be used if authorised by the architect. a. Loose dislodged and decayed mortar to be raked out from joints using a plugging chisel and 2.5lb club hammer. b. Rake out all stone joints to a minimum depth of 25mm depth or equal to the width of the joint whichever the greater. Any brick and stone pinnings that become dislodged to be re-inserted into joint. Brush down to remove loose debris and dust and flush out with water. c. Damp down joints in advance of re-pointing to avoid dewatering of the new mortar. Re-point with a hydraulic lime sand pointing mortar - 1 part NHL 3.5 'Blue Lias' to 2.5-3 parts sand. Pointing irons to place the mortar. Provision for brick repairs Allow for cracked and spalled stone to be repaired with coloured repair mortars by Remmers products or coloured mortars made up on site using mature lime putty, brick dust (colourant), sand and pozollonic additive.	CONTRACTOR TO REFINE SPECIFICATION TO SUIT SITE CONDITIONS ALLOW FOR A SAMPLE AREA TO BE CLEANED FOR ARCHITECTS INSPECTION NO ABRASIVE CLEANING METHODS ARE PERMITTED

Brickwork Repair

Works Description: Brickwork cleaning, repair and repointing.

Patricks street Façade

Method Statement:

1. The brickwork will be first cleaned prior to repairs – see separate specification..
2. Rake out damaged and decayed brickwork mortar and repoint with a lime based mortar.
3. Cutting out decayed, cracked and spalled bricks & making plastic repairs with Keim repair mortar or as per specification below.
4. Piecing-in new handmade conservation brick of similar material and texture maintaining the correct bond.
5. Realigning any cracked and buckled brickwork due to settlement beneath stone cills.
6. Reallign cracked and buckled stone cills. Inject with Keim silicon sealant where cracked.

Façade

Mortar Specification for pointing & brick 'plastic' repairs

The mix is: 2.5 sand to 1 part mature lime putty with 10% Metastar additive.(ie. 9 parts mortar to one part metastar)

Sand: Plastering grade, washed and sharp, red sandstone sand and not green Killarney sand. All local suppliers particularly in the city will stock this.

Pozzolan: Add metastar prior to use. Make up single batch of mortar and add metastar daily as Metastar loses its pozzolonic activity after a day.

Mix in a normal drum mixer, finish off mixing by hand as putty tends to stick to the sides of the mixer ie. tip out onto ground and beat and chop with shovel.

There should be enough water within the putty for mixing. The putty will start stiff but will go sloppy as you mix. Putty that is too wet tends to crack across the joint.

LIGHTLY WIRE BRUSH THE JOINT ON COMPLETION AFTER MORTAR HAS HARDENED.

FOR PLASTIC REPAIRS MIX APPROPRIATE PIGMENT INTO MIX AS ABOVE

ALL MATERIALS ARE AVAILABLE FROM LOCHPLACE BUILDING CONSERVATION OR HUGH DORRIAN/STONEWARE STUDIOS

Rutland Street

Brick Damage- Rutland Street

Brick Damage – 4 Patrick Street

Note:

- Any change in specification to be reported to architects

Paint System

Façade areas:

All internal plaster surfaces and joinery: matt emulsion and oil paints.

All external plaster rendered surfaces:

Allow for Keim mineral paint incl. Keim Grantial masonry paint system to fill hairline cracks in render up to 5mm.

Method Statement:

Internal:

1. Allow for matt emulsion paint to repaired wall surfaces and ceilings.
2. Allow for dead flat oil paints to all joinery- skirting boards, doors, windows and architraves and staircases.

External:

38. All plaster rendered surfaces.

39. For repairs to hairline cracks allow for Keim Fine Finishing Mortar. This is a prebagged cementitous mortar for crack repairs and the filling of holes left after the removal of metal grounds and holes

40. Allow for Keim Granital Grob and Keim Granital finish for all plaster surfaces.

Note:

CONTRACTOR TO REFINE SPECIFICATION TO SUIT SITE CONDITIONS. ADVICE MUST BE SOUGHT FROM KEIM MINERAL PAINTS LTD.

ALLOW FOR A SAMPLE AREA TO BE CLINED FOR ARCHITECTS INSPECTION

Existing Door Upgrading

Description: An intumescent system is to be used to upgrade raised and fielded panel doors to fire rated doors. Envirograf papers to be used in conjunction with intumescent paints to achieve 30 min fire rating.

Ref: Envirograf ES/RFC System Product 103 by Fireseal Ltd. or eq. approved.

Fireseal Ltd.

Togal hse,

Dun Laoghaire

Co. Dublin tel. 01 2800473

Method Statement:

11. Alloe for door leaf to be upgraded using a combination of intumescent papers and paints
12. Allow for frames to be routed to receive an intumescent strip
13. Follow manufactures instructions

Note:

- contractor to adjust specification to match site condition

Panelled doorcase with lugged

Architrave and original door

5 Rutland Street

References:

Dargan, Pat, Exploring Georgian Limerick, Dublin 2012

Department of the Environment, Heritage and Local Government, Architectural Heritage Protection Guidelines for Planning Authorities, Dublin 2004

JCA Architects, Various Reports, including individual building records, historical research, assessments, scope of works, for all existing buildings on site (2007- 2018)

Hill, Judith, The Building of Limerick, Cork 1991

Limerick City Council, Limerick City Development Plan 2010 – 2016, Ch. 10 Built Heritage and Archaeology (and RPS) 2010

Limerick City Council, Opera Site Development Framework, March 2014

Loeber, Campbell et al., Art and Architecture of Ireland – Architecture 1600 – 2000, Vol. IV, RIA 2015

MacLoughlin, Adrian, Streets of Ireland, Dublin 1981

NIAH, An Introduction to the Architectural Heritage of Limerick City, Dublin 2008

NIAH, Interim Survey for Limerick City, 2005

O' Flaherty, Eamonn, Irish Historic Towns Atlas, Limerick, Dublin 2009

Punch Consulting Engineers (with Judith Hill), Opera Quarter – Conservation Issues (unpublished report) c. 2012

Ordnance Survey and other Maps including:

First edition and second edition 6" Ordnance Survey maps (available to view at www.osi.ie)

Town Plans, 1:1056. Five feet to one statute mile, 1870 (available to view at

https://digital.ucd.ie/view/ucdlib:40377)

Goad Fire Insurance Maps 1897 (available to view at http://www.bl.uk/onlinegallery/onlineex/firemaps/ireland/mapsu145ubu4u3uf001r.html)

Historic Photographs:

Historic photographs by Robert French, James P. O' Dea, the A.H. Poole Studio and others (available to view at http://catalogue.nli.ie/)