

**London Borough of Camden
Housing Department**

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Project Planning Statement

Our ref: BYA/2595/MSC/M/MDW/FAF

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FAO Ms Sarah Freeman – Camden Conservation Officer

**Re: LB of Camden, 1-75 Monica Shaw Court, 31 Purchase Street London NW1 1EY –
75-off Dwelling Conversion To Individual Heat Interface Units (HIU's) From Remote Central
Heating Plant and Installation of Replacement Gas & Domestic Water Services**

Butler & Young Associates are Engineering Consultants representing the technical interests of the London Borough of Camden (Housing Department), at pre-site install stage, as part of an integrated Project Design Team

It is the intention to install heat interface units (HIU's) to serve 75-off individual dwellings all year round with heating and domestic hot water services and a replacement gas service for cooking

All works will be carried out in full accordance with Water Regulations, Institute of Gas Engineers, British Standards, Building Regulation requirements, industry standards and codes of practice

Background and History

The Monica Shaw Court Estate (Blocks 1-4 incl.) and associated central heating system that provides heating and hot water services to all affected dwellings is in excess of 30 years old bringing increased maintenance burdens, costs and the risk of a catastrophic system failure. Temperature and scheduled time-clock control of heating and hot water services is basic or missing altogether both from the dwellings and the central plant

Camden Council have taken the decision to replace the existing heating and hot water services to the estate, including all associated distribution infrastructure by installing replacement heating and hot water services in parallel with the existing system. So that essential services can be maintained over the entire Project programme (12-18 months)

The works will be phased with progressive de-commissioning of the existing system/s as the new systems get commissioned and come "on-line." As existing systems reduce in capacity associated plant performance (existing primary and secondary pump sets) shall be de-regulated and reduced in pump performance capacity until such time the plant becomes redundant.

The London Borough of Camden has identified a cluster of four communally heated estates in Somers Town, Kings Cross, London NW1, of which Monica Shaw Court is one, and which are in close proximity to a new centralised, district heating plant located within Pheonix Court operated by a "third party" (Vital Energi). The district heating network has been installed with the following advantages for LB of Camden and its residents;

- Reduced maintenance burden both within central Plant Rooms and dwellings
- Reduction in carbon emissions thru' more energy efficient heat generation and distribution
- Individual dwelling temperature control and metering of heating and hot water systems



Works will include but not be limited to the following: -

- Removal and replacement of the entire secondary LTHW heating system to the estate
- Removal and disposal of existing central redundant plant; boilers, flues, calorifier, pumps, pipework, valves, pipework, support systems, controls, containment systems, concrete bases, insulation (non-asbestos) etc.
- Supply and installation of new parallel 2 x pipe underground (combined heating F&R and primary HWS), natural gas-cooking only and separate boosted cold water distribution services throughout the estate.
- Supply and installation of new above ground and exposed 2 x pipe distribution mains (combined heating F&R and primary HWS), natural gas -cooking only and separate boosted cold water services throughout the estate.
- Replacement of in-dwelling heating, natural gas and domestic water services and controls, energy metering stations and all associated mechanical and electrical power and controls

The Estate Blocks are designated as follows;

The 75-off dwellings comprise of a mix of flats and maisonettes

Block No1

- Dwellings 1-29

Block No2

- Dwellings 48-75

Block No3

- Dwellings 38-47

Block No4

- Dwellings 30-37

Constraints Associated With Re-use of Existing Piped Services & Associated Service Risers

- Limited or no access to existing pipe service risers both internal and external of dwellings will give rise to increased project costs due to additional intrusive works to expose pipework at all levels of each block and within individual dwellings to assess suitability of use and/or available riser space
- Risk of losing heating and DHWS services for extended periods during the replacement works will be greatly increased due to not paralleling up the existing heating and DHWS systems but instead attempting to re-use the existing distribution pipework



- No installing Contractor will give an installation warranty on the re-use of existing heating pipework even if pressure tested locally due to the pipework age, internal condition and limited or no future maintenance access once the pipework is concealed again within risers for the next 30 years
- Existing steel heating pipework is sized for an 11 deg C dT and new pipework will be sized for a 30 C deg dT giving rise to an operating system compromise
- With the unlikely possibility that the existing heating pipework could be re-used this still does not resolve the issue of installing replacement natural gas and BCWS pipework which also forms part of the refurbishment "scope of works"
- LBC would need to evaluate fire compartmentation and fire integrity performance issues between each dwelling and pipe service riser if "opened up" for inspection, installation and maintenance of piped services

Design Scheme Proposals

Accompanying Planning Submission Drawings;

- Monica Shaw Court Heating, Gas & Domestic Water Services Refurbishment – Planning Drawing Typical Pipe Concealment Details (Various)
Drg No: 2595-BYA-M-001-A
- Monica Shaw Court Heating, Gas & Domestic Water Services Refurbishment – Planning Drawing Above Ground Pipe Distribution Routes Building Elevations (Blocks 1-4)
Drg No: 2595-BYA-M-201 (Sheet 1)
- Monica Shaw Court Heating, Gas & Domestic Water Services Refurbishment – Planning Drawing Above Ground Pipe Distribution Routes Building Elevations (Blocks 1-4)
Drg No: 2595-BYA-M-201 (Sheet 2)
- Monica Shaw Court Heating, Gas & Domestic Water Services Refurbishment – Planning Drawing Above Ground Pipe Distribution Routes Building Elevations (Blocks 1-4)
Drg No: 2595-BYA-M-201 (Sheet 4)
- Monica Shaw Court Heating, Gas & Domestic Water Services Refurbishment – Planning Drawing Above Ground Pipe Distribution Routes Building Elevations (Blocks 1-4)
Drg No: 2595-BYA-M-201 (Sheet 5)

Estate Plant Room

Replacement heating, gas and domestic water services pipework will exit the Estate Plant Room at high level and branch in two directions;

- North toward Block No1 via underside of raised podium deck, rising up the end flank wall before horizontally distributing at soffit height of 2nd Floor Landing
- South to Block No2 and Block No3 via underground trenches after dropping into the ground from high level opposite end flank wall of Block No2 (outside existing Estate meter rooms)



- Block No4 will be serviced internally from the Community Centre ceiling void via the existing Plant Room

The mitigation for new services pipework to exit the existing Plant Room at high level is due to the extensive, existing underground services currently located directly in and around the area outside the Plant Room including LTHW heating flow and return, primary DHWS flow and return, natural gas, mains water, foul water drainage, surface water drainage, electrical services and all associated brick built underground service ducts. All existing services are to remain “live” and available until such time that new services render them redundant

Block No1 (Dwellings 1-29)

4-off pipes (heating F&R, gas and boosted water) will be routed on the soffit of the 2nd Floor Landing serving dwellings at this level by installing new pipework over the individual front doors. Piped services will also be extended in the vertical plane to levels above and below the 2nd Floor Landing to serve the remaining dwellings with new service pipework in a similar manner (installed over individual front doors)

All new horizontal and vertical visible service pipework will be installed within purpose constructed and suitable finish pipe concealment casing (Pendock Casing)

Block No2 (Dwellings 48-75)

4-off pipes (heating F&R, gas and boosted water) will be routed underground (buried) before rising up external walls (3-off locations) on the internal side of the Estate within purpose constructed and suitable finish pipe concealment casing (Pendock Casing) serving dwellings at the required levels by installing new pipework over the individual front doors via internal Landing Areas or directly into designated internal living space from outside

Block No3 (Dwellings 38-47)

4-off pipes (heating F&R, gas and boosted water) will be routed underground (buried) before rising up internally utilising existing internal perimeter riser facility due to the low rise design of this block (not multiple dwellings on multiple building levels)

Block No4 (Dwellings 30-37)

4-off pipes (heating F&R, gas and boosted water) will be routed internal of the Community Centre ceiling void via the Estate Plant Room before rising up internally utilising existing internal riser space requiring existing piped services to be “stripped out” with limited impact on residents above due to the number of dwellings served

