

**London Borough of Camden
Housing Department****Project Planning Statement****Our ref: BYA/2595/LBC/GE/M/MDW/FAF****Rev A - 19th November 2018****FAO Ms Laura Hazleton – Camden Conservation Officer****Re: LB of Camden, Goldington Estate (1-72 Cecil Rhodes & 1-32 Chenies), Goldington Street,
London NW1 1UE –****104-off Dwelling Conversion To Individual Heat Interface Units (HIU's) From Remote Central
Heating Plant and Installation of Replacement 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 104-off individual dwellings all year round with heating and domestic hot water services

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

Background and History

The Goldington Estate (1-72 Cecil Rhodes & 1-32 Chenies incl.) and associated distribution 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 boosted cold water services to the estate, including all associated distribution infrastructure by installing replacement heating and boosted cold 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 Goldington Estate is one, and which are in close proximity to a new centralised, district heating plant located within Phoenix 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 and risk of plant failure both external and internal of 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; 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) 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) and separate boosted cold water services throughout the estate.
- Replacement of in-dwelling heating, 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 104-off dwellings comprise of flats only

Cecil Rhodes Block No1

- Dwellings 1-16 (Ground + 7 Floors)

Cecil Rhodes Block No2

- Dwellings 17-36 (Ground + 9 Floors)

Cecil Rhodes Block No3

- Dwellings 37-56 (Ground + 9 Floors)

Cecil Rhodes Block No4

- Dwellings 57-72 (Ground + 7 Floors)

Chenies Block No1

- Dwellings 1-16 (Ground + 7 Floors)

Chenies Block No2

- Dwellings 17-32 (Ground + 7 Floors)



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 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;**

- (i) Goldington Estate Heating & Domestic Water Services Refurbishment – Planning Drawing
Above Ground Pipe Distribution Routes Building Elevations (1-72 Cecil Rhodes)
Drg No: 2595-BYA-M-201
- (ii) Goldington Estate Heating & Domestic Water Services Refurbishment – Planning Drawing
Above Ground Pipe Distribution Routes Building Elevations (1-32 Chenies)
Drg No: 2595-BYA-M-202
- (iii) Goldington Estate Heating & Domestic Water Services Refurbishment – Planning Drawing
Typical Pipe Concealment Details (Various)
Drg No: 2595-BYA-M-203-Rev A
- (iv) Goldington Estate Heating & Domestic Water Services Refurbishment – Planning Drawing
Typical Pipe Concealment Details (Scale:- 1:20)
Drg No: 2595-BYA-M-204

Estate Plant Room & Proposed Services Pipework Distribution

Replacement heating and domestic water services pipework will exit the Estate Plant Room below ground and branch in two directions;

- North toward Chenies Blocks No1 & No2 via underground pipe service trench, rising up external structure of each communal stairwell (LHS & RHS) via existing bin enclosure and horizontally distributing at soffit level of each Floor Landing before entering individual dwellings at high level. All new pipework will be fully insulated, enclosed within acceptable pipe casing detail and colour finished to suit surrounding fabric. Existing exposed gas distribution pipework will remain as current installation
- South toward Cecil Rhodes Blocks No1, No2, No3 & No4 via underground pipe service trench, rising up external structure of each communal stairwell (LHS & RHS) via existing bin enclosure and horizontally distributing at soffit level of each Floor Landing before entering individual dwellings at high level. All new pipework will be fully insulated, enclosed within acceptable pipe casing detail and colour finished to suit surrounding fabric. Existing exposed gas distribution pipework exposed on Cecil Rhodes Blocks will be enclosed within the new pipe casing detail

The mitigation for the new services pipework installation is covered under “constraints associated with re-use of existing piped services & associated service risers” above