

TONY MALKIN CONSULTING



LODEMATIC SITE REDEVELOPMENT PRIMROSE ROAD, CLITHEROE UTILITY SERVICES INFRASTRUCTURE ASSESSMENT

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T: 07565 524999

E: tony@tonymalkinconsulting.co.uk

W: tonymalkinconsulting.tel



LODEMATIC SITE REDEVELOPMENT
PRIMROSE ROAD, CLITHEROE
UTILITY SERVICES INFRASTRUCTURE ASSESSMENT

CONTENTS

EXECUTIVE SUMMARY	3
INTRODUCTION	4
Scope of Development	4
Utility Service Records	4
ELECTRICAL SUPPLIES	5
Existing	5
Considerations and Constraints	6
Availability	7
GAS SUPPLIES	8
Existing	8
Considerations and Constraints	8
Availability	8
WATER SUPPLIES	9
Existing	9
Considerations and Constraints	9
Availability	10
TELECOMMUNICATIONS	10
Existing	10
Considerations and Constraints	10
Availability	10
DEVELOPMENT CONSIDERATIONS	11
APPENDICES	
A Proposed Development Location Plan	12
B Proposed Development Proposals	13
C Electricity Northwest Record Plan	14
D Northern Gas Record Plan	15
E United Utilities Water Record Plan	16
F BT Openreach Record Plan	17

**LODEMATIC SITE REDEVELOPMENT
PRIMROSE ROAD, CLITHEROE
UTILITY SERVICES INFRASTRUCTURE ASSESSMENT**

EXECUTIVE SUMMARY

The proposed redevelopment site area has available existing Utility Company statutory electrical, gas, water and telecommunication services local to the site.

These services are considered capable of serving the proposed re-development on the proposed site, subject to the respective utility service being extended into the site location

The existing electric, gas, water and telecommunications services are all located within the Primrose Road/Woone Lane highway zone, and consequently close to the proposed re-development site. It is considered that their extension into the site will be relatively simple.

It is assumed that at this time (September 2014), the existing buildings within proposed redevelopment area are currently supplied with live electric, gas, water and telecom services, and it is recommend that these are maintained live and are not disconnected prior to the redevelopment construction stage commencement, otherwise the current 'authorised capacity' may be lost. This is particularly pertinent in respect to the ENW electrical supply

In conclusion, the proposed development site is capable of being provided with mains electrical, gas, water and telecommunication utility services

Refer to the respective sections of this report for greater detail of the existing utilities, their associated considerations and constraints and availability..

PROPOSED DEVELOPMENT

PRIMROSE ROAD CLITHEROE

UTILITY SERVICES INFRASTRUCTURE ASSESSMENT

INTRODUCTION

Scope of Assessment

The purpose of this utility assessment is to determine the overall scope of the Statutory Utility Company infrastructure services networks within the vicinity of the proposed re-development, including the recorded location of existing apparatus, associated constraints, their current capability and the potential available capacity to serve the proposed development.

The utility networks comprise:-

- Electricity North West (ENW) electrical network supplies
- National Grid Gas (NGG) gas network supplies
- United Utilities Water (UUW) water network supplies
- BT Openreach (BTOR) telecommunications networks

The assessment has been undertaken to provide an overview for the purpose of enabling an informed judgement on the feasibility of supplying the development and for the development's viability purposes.

Site Location

The proposed re-development site is on land off Primrose Lane, Clithereo, bounded by the existing properties of Lodematic.

Refer Appendix A – Proposed Development Site Plan

Scope of the Development

It is understood that the scope of the proposed development is for dwellings of differing types and sizes.

Initial contact and has been made and liaison undertaken with the respective statutory utility companies to determine the scope of their existing network distribution apparatus, associated considerations and constraints, and their ability to serve the development.

Utility Services Records

As part of this assessment, copies of the Utility Company network record maps have identified, applied for, purchased, obtained and reviewed.

These records identify the respective utility company's network supply apparatus, being:-

- Electrical high voltage (HV) & low voltage (LV) underground distribution cables and substation etc.
- Gas medium (MP) and low pressure (LP) underground distribution pipes, governors and control valves,
- Water distribution pipes, pressure reducing valves, control valves and fire hydrants,
- Telecom voice and data cables and their ducts, chambers and posts.

All copies obtained from the utility company are included in this report for reference purposes.

Refer to Appendices C, D, E & F

ELECTRICAL SUPPLIES

Existing

The existing electrical networks and apparatus within the vicinity of the site are owned and operated by Electricity North West (ENW) and comprise of high and low voltage (HV & LV) transmission, transformer apparatus and distribution cables.

Refer to Appendix C – Electrical North West Record Plan.

The specific elements of the existing ENW apparatus is as follows:-

- ENW network substation (ref, Commercial Mills 455059) located adjacent to the North East end of the site within its own rectangle plot.
- HV (Coloured red) ring main distribution cables supplying the substation and linking it to the district HV network. These cables are NOT confined to just the Substation plot and sections of the cables routed within the 'Red Line' site boundary plan.

Refer also to the 'Considerations and constraints' below.

- LV (Coloured orange) distribution cables radiate from the network substation supplying both adjacent building and existing building within the proposed redevelopment site. There appears to be one or more LV cables routed through the 'Red Line' site boundary plan; in addition to the LV cable supplying the existing buildings within the site boundary.

Refer also to the 'Considerations and constraints' below.

The ENW record plan identifies the location of their apparatus in general terms only, and if their precise position and depth is required for any purpose, then they will be required to be accurately identified using specialist electronic search and survey techniques, recommended to be undertaken in conjunction with a topographical survey.

Considerations and Constraints

- The HV and LV cables located with the Primrose Road and Woone Lane highway zone are protected by the Utility Company's statutory rights to be located within a 'Public Highway'. Any highway alteration required by the redevelopment proposals, in particular if effecting the line and depth of cover of cable may trigger a requirement for diversions.
- The network substation and its site plot, will almost certainly either have a long lease agreement or is owned outright by ENW. Given it being outside the 'Red Line' plan, then the latter is assumed to apply, albeit no legal search has been undertaken.

No impingement on this plot or the apparatus contained within caused by adjacent workings would not be permitted without prior agreement, similar to that under 'boundary' constraints.

It is recommended that sight or a copy of the land owners current agreement with ENW is obtained in order to determine the specific constraints in this location.

- The HV & LV cables indicated on the ENW plan as being routed through the proposed site, are located immediately south of the network substation plot. It is anticipated that ENW have formal easement agreements for these cables, however no legal search has been undertaken and it is recommended that this is done to verify whether ENW have a right route cable in this location. The lack of agreement would enable a 'notice of removal/negotiation' to take place to the benefit of the development new supply
- There also appears to be a number of HV and LV cables routed immediately adjacent to the 'Red Line' boundaries on all sides of the redevelopment site. It is recommended that a legal search is undertaken in the first instance to determine if there are associated easement or wayleaves, and thereafter a specialist ground search to determine their actual position, as they may have some impingement on any proposed redevelopment works.

The LV cables supplying existing buildings with the 'Red Line' boundary are not considered an issue given that it is recommended that the replacement/diversion of these form part of the application and installation for new supplies to serve the redevelopment proposals.

- Any alteration of the access with/from Primrose Road may impact on the position and/or depth of the existing cables requiring their alteration/diversion, and therefore it is recommended that any works in this location is minimal so as not to impact on the cables.
- Consideration should be given to the close proximity of electrical transformer and transmission cables and the presence and possible impact of their electro-magnetic field, which is considered by some to related to health considerations where in close proximity, albeit not currently substantiated. Electro-magnetic fields also can be the cause of interference for communication signals. The publication 'Electric and Magnetic Fields' produced by the Energy Network Association June 2013, is an qualified source of information and provides a rational perspective for consideration.

Availability

The electrical supply demand/load for the proposed redevelopment is directly dependent on the actual design and construction proposals.

However, informal liaison with the ENW network engineers, albeit without the release of any actual redevelopment proposals, have indicated that a scope of proposals as defined on the Taylor Young plans, ref Pre-App App 4, Option F 3.006 would be able to be supplied from the existing adjacent substation with new LV cables to the required supply/entry positions

This is feasible given the overall capability of the substation, the relatively modest new electrical load that the development proposals will require, as compare to that envisaged having being required for the previous use of the existing building.

To support this an enquiry has been submitted to Electricity North West for confirmation, is also coupled with them providing an associate budget cost

However, the available capacity will only reflect the current situation as of October 2014 and not a guarantee of availability at a future date, given that another development in the locality could apply for and be allocated the substation's current spare capacity.

Therefore it is recommended that the progress of any other potential developments are monitored and if deemed to be progressing ahead of this development, an formal application be made to ENW for a quote, which once received reserves the available capacity for the term of the quotation; normally being five months.

GAS SUPPLIES

Existing Networks

The existing gas networks and apparatus in the vicinity of the site are owned and operated by National Grid Gas (NGG) and comprise of low (LP) and medium (MP) pressure gas distribution apparatus pipework.

Refer to Appendix D – National Grid Gas.

The specific elements of the National Grid Gas apparatus are a:-

- 315 PE (polyethylene) MP (Medium Pressure) main within Primrose Road and Woone Lane on the East side of highway zone.
- 90 PE LP (low pressure) main (inserted within a former 7" cast iron pipe) within Primrose Road running South and into the common access entrance/track on the south west side of the proposed re-development, eventually entering the propose development site as a 63 PE pipe.

From the 90 PE LP, a 3" PE LP branch pipe extends into the entrance/access track on the North west side of the redevelopment to a capped termination position.

The NGG record plan identifies the location of their apparatus in general terms only, and if their precise position and depth is required for any purpose, then they will required to be accurately identified where required using specialist electronic search and survey techniques

Considerations and Constraints

- The LP and MP mains within the Primrose Road and Woone Lane highway zone are protected by the Utility Company's statutory rights to be located within a Public Highway.
- An alteration of the access from Primrose Road/Woone Lane may impact on the position and/or depth of the existing 315 & 90 PE mains, requiring their alteration/diversion and therefore it is recommended that any works in this location is minimal so as not to impact on the existing gas services.

Availability

The supply demand of the development is directly dependent on the actual construction proposals, and from informal consultation with NGG, it is understood that the existing

network mains within the Primrose Road highway zone are understood to be capable of serving the proposed development.

It is envisaged that the site will either supplied from the 90 PE LP or a connection to the 315 PE MP main incorporating a MP/LP governor installation, which would require a location position within the site

WATER SUPPLIES

Existing Networks

The existing water networks and apparatus in the vicinity of the site are owned and operated by United Utilities Water (UUV) and comprise of mains distribution pipes.

Refer to Appendix E – United Utilities Water Record Plan.

The specific elements of the United Utilities Water apparatus are a:-

- 6" CI (cast iron) main within the Primrose Road and Woone Lane highway zone extending in both directions from the site
- An unspecified sized branch pipe from the 6" CI main extending along the entrance/access track on the Northwest side of the site
- An unspecified sized branch pipe from the 6" CI main extending along the entrance/access track on the Southeast side of the site supplying a number of metered supplies within the redevelopment site area

The UUV record plan identifies the location of their apparatus in general terms only, and if their precise position and depth is required for any purpose, then they will required to be accurately identified where required using specialist electronic search and survey techniques

Considerations and Constraints

- The water mains within the Primrose Road highway zones are protected by the Utility Company's statutory rights to be located within a Public Highway.
- An alteration of the access with/from Primrose Road/Woone Lane may impact on the position and/or depth of the existing 315 & 90 PE mains, requiring their alteration/diversion and therefore it is recommended that any works in this location is minimal so as not to impact on the existing water services.

Availability

The supply demand of the development is directly dependent on the actual construction proposals, however from informal consultation with UJW, it is understood that the existing main within the Primrose Road and Woone Lane highway zone is understood to be capable of serving the proposed development.

It is envisaged that the existing supplies would be altered/cut back to provide a new single supply into the site area prior to individual connection serving the individual properties

TELECOMMUNICATIONS

Existing Networks

The existing telecommunications network comprises of BT Openreach (BTOR) cable ducts, chambers, poles and overhead cable located within and adjacent to the public highway local to the proposed development.

Refer to Appendix F – BT Openreach Record Plans

These cable ducts and chambers and the overhead cables, carry both BT and other telecommunication service provider's voice and data cables networks.

Considerations and Constraints

- A BT telecom pole is located within the Primrose highway zone immediately adjacent to the south east boundary of the 'red line' site area. The overhead cable supported by this pole is suspended over the site area, albeit at the perimeter.

Subject to whether these will impede the development proposals, including any access restriction, diversions may be necessary.

- An alteration of the access with/from Primrose Road/Woone Lane may impact on the position of the telecom pole and any associated underground chamber/ducts requiring its alteration/diversion.

Availability

For the proposed development to be served with voice and data services, entry ducts will be required to connect to the existing below ground cable duct and chamber networks within the Woone Lane road highway zone, and extended to the site.

The extension of the below ground will likely trigger the rational of the telecom services in the immediate vicinity, potentially replacing the current overhead telecom lines.

An informal check has been undertaken to identified the potential providers in the locality, specifically with regard to the available level of telecom cable services available, and it is determined that currently 'superfast broadband' is available, having circa 28 to 37Mbps download speeds.

An alternative option also is for properties to individually select a satellite provider in conjunction with the associated equipment.

DEVELOPMENT CONSIDERATIONS

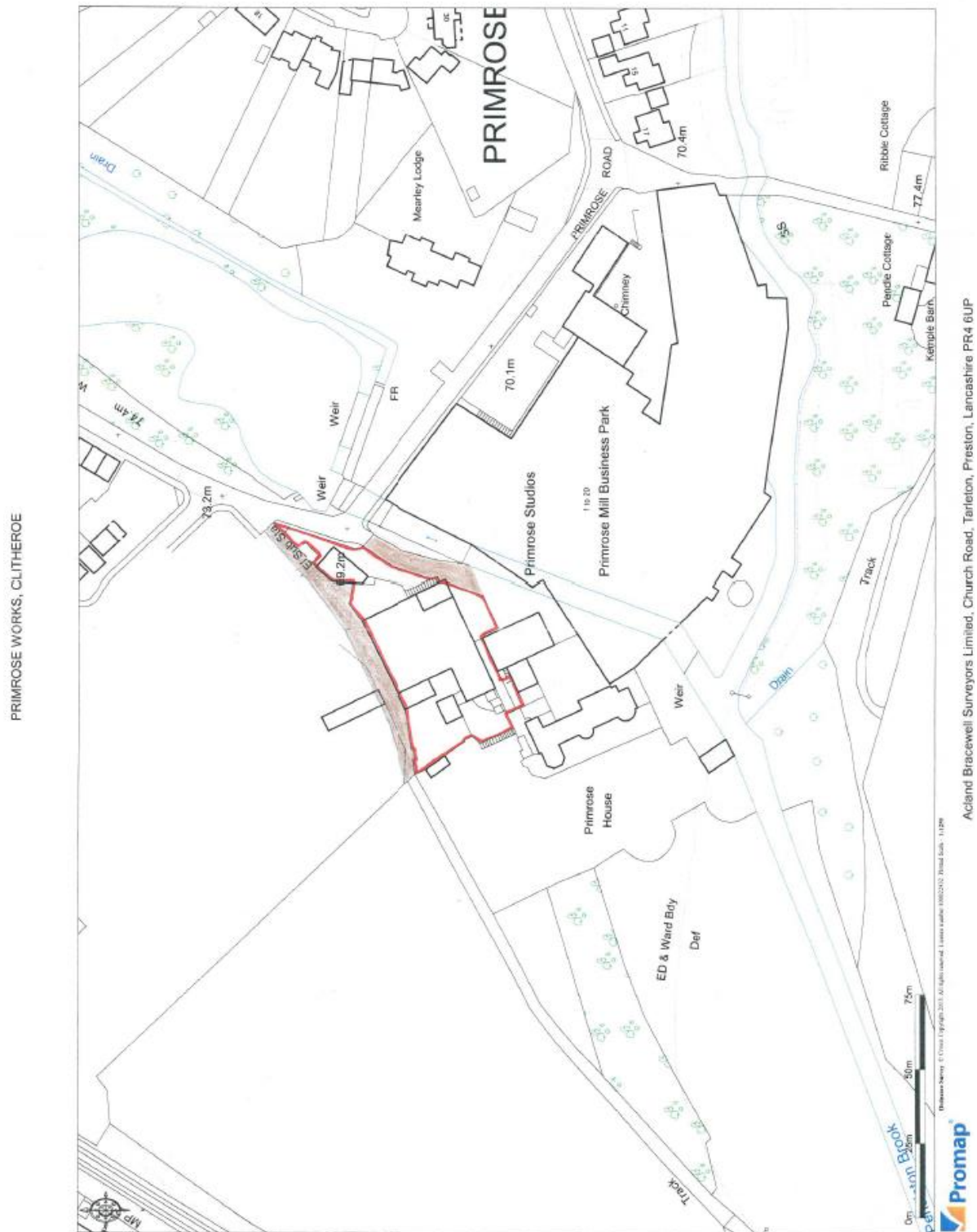
This utility supply assessment report is based on the respective Utility Company records and the statutory requirement for them to provide connections where planning and development is approved.

The information provided does not replace a requirement for a legal land search to be undertaken to identify land ownership, covenants, rights of way, wayleaves, easements, rights under Acts of Parliament.

No site surveys have been undertaken, and it is recommended that these are undertaken, in conjunction with the topographical survey information, incorporating below ground services search/identification techniques

With regard specifically to the existing utility service connections, it is recommended that the site owner provides/obtains confirmation of current or past utility agreements/bills, and make them available as part of the redevelopment proposals.

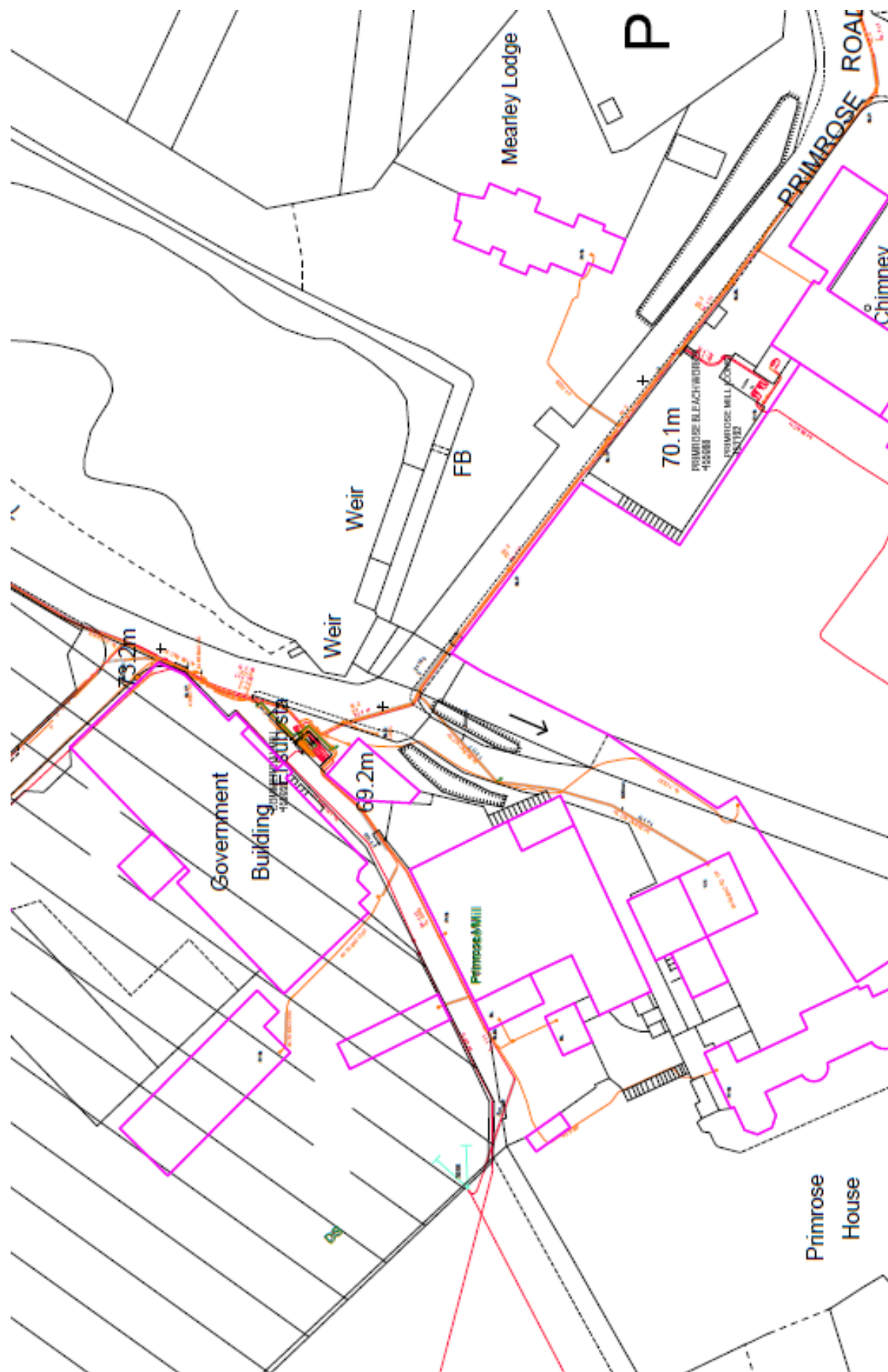
APPENDIX A – Proposed Development Location Plan



APENDIX B – Redevelopment Proposals (September 14)

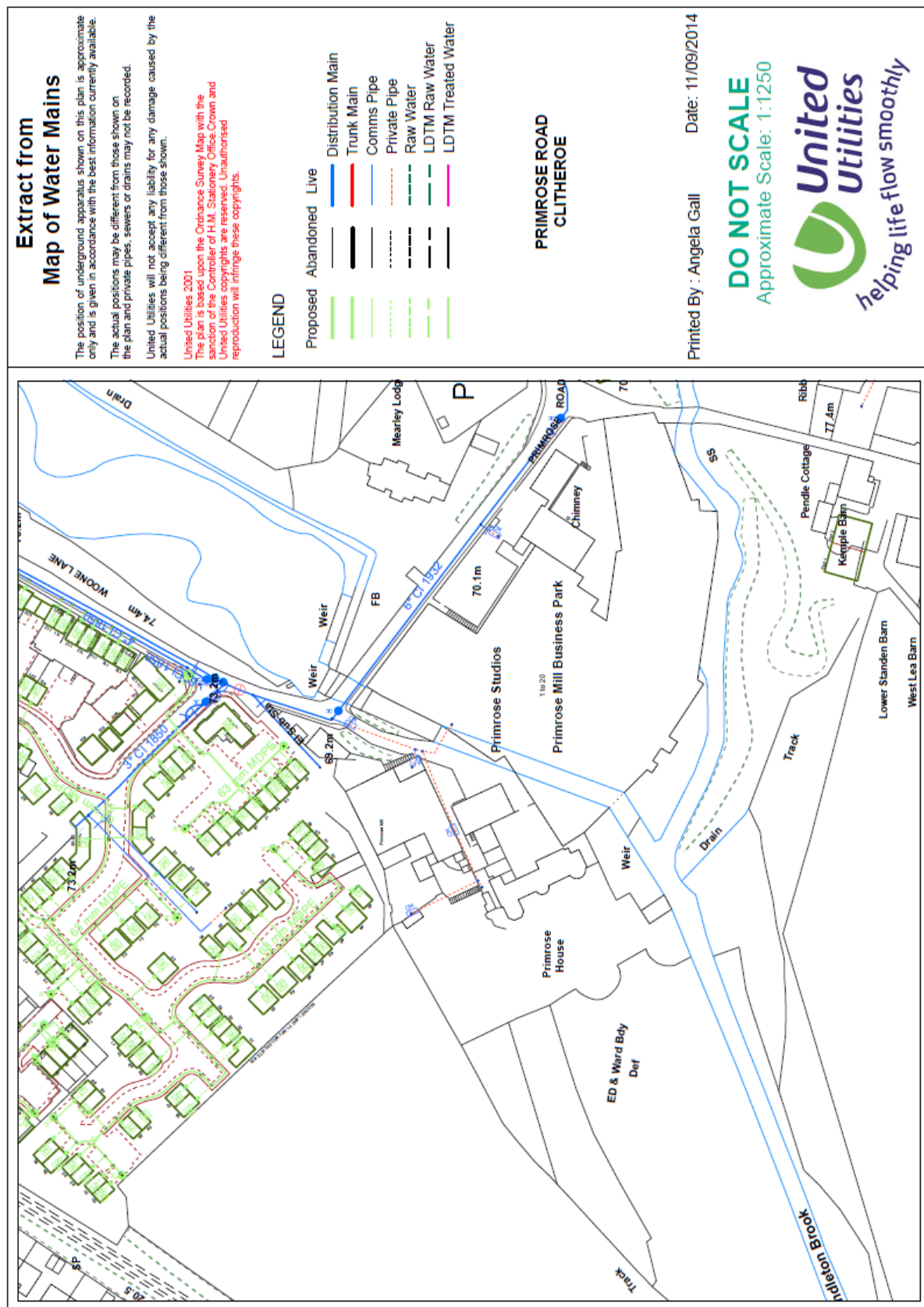


APPENDIX C – Electricity Northwest Record Plan





APPENDIX E – United Utilities Water Record Plan



APPENDIX G – BT Openreach Record Plans

