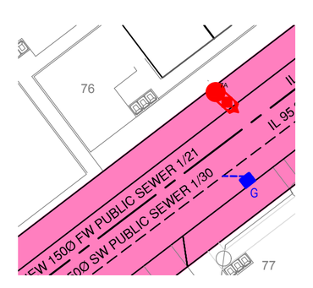
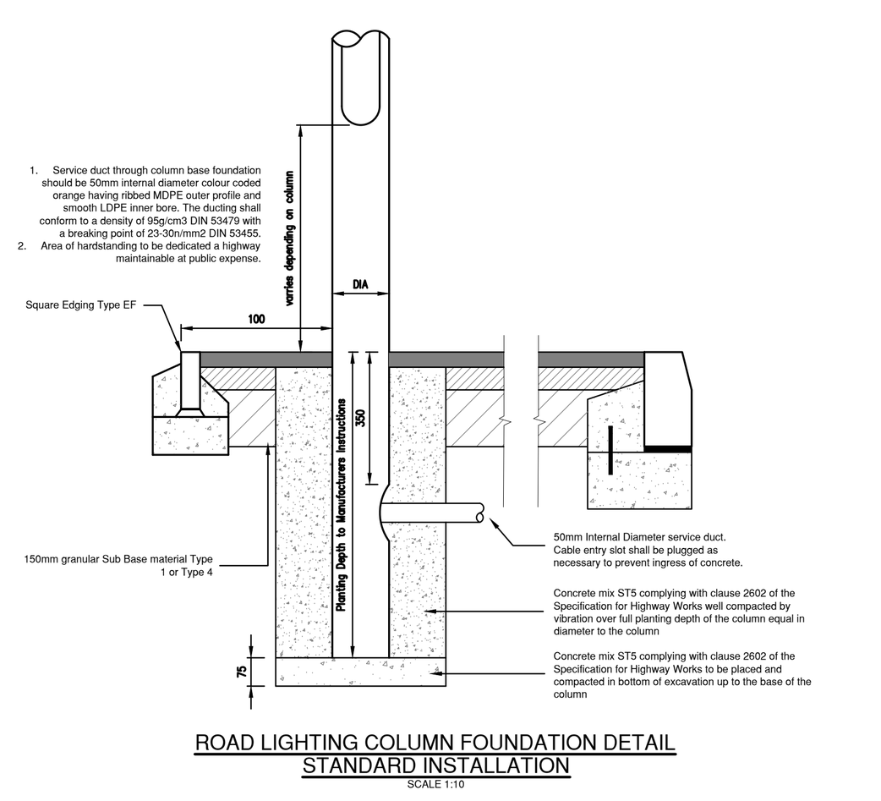
A0

CDM - Residual Risk # XX
'Live Services'



LUMINAIRE A

TYPE OF COLUMN	URBIS DLED TYP 12 (TUBULAR 6m COLUMN TO DURHAM SPECIFICATION
LAMP(S)	NEUT_WH
LAMP FLUX (klm)	1.18
MAINTENANCE FACTOR	0.87
NO. IN PROJECT	50



ROAD LIGHTING COLUMN FOUNDATION DETAIL
STANDARD INSTALLATION
SCALE 1:10

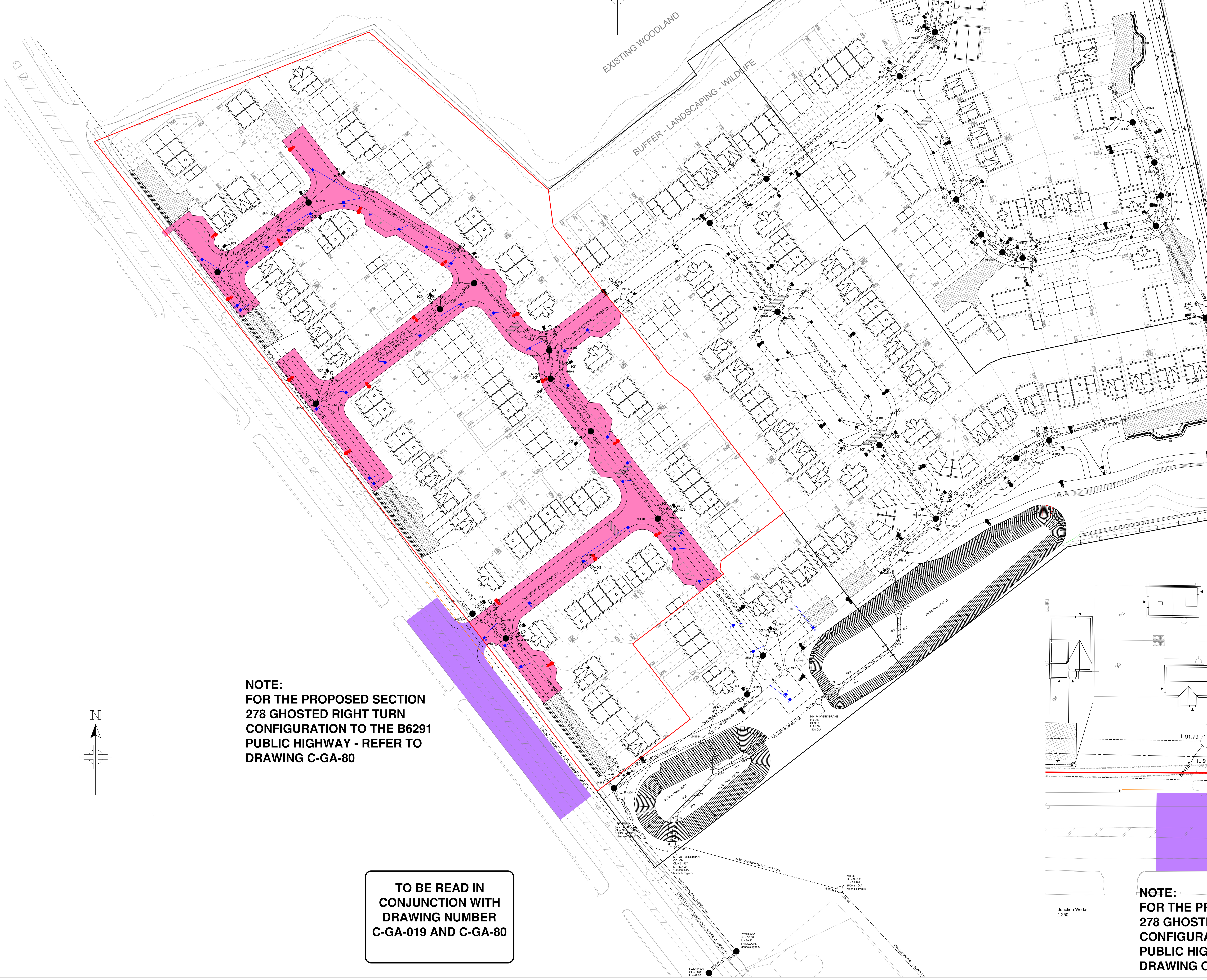
NOTES

All material and installation to be in accordance with Durham County Council street lighting installations for lighting on New Residential Roads and Industrial Estates.

All Luminaires to be supplied with factory pre-set dimming by 25% between 10pm and midnight and by 50% between midnight and 5am.

All columns must be located within the public highway or service margin to be adopted and located either at the rear of the footway (0.1m off back of footway edgings), or if in verge a minimum of 0.8m from the kerb edge to the face of the column. columns should not be located in the vicinity of the vehicle crossings or where they could obstruct driveways, vehicles or wheelchair passage.

All lighting columns must be connected directly to the electricity company's low voltage supply network.



NOTE:
FOR THE PROPOSED SECTION 278 GHOSTED RIGHT TURN CONFIGURATION TO THE B6291 PUBLIC HIGHWAY - REFER TO DRAWING C-GA-80

TO BE READ IN CONJUNCTION WITH DRAWING NUMBER C-GA-019 AND C-GA-80

Durham County Council

REGENERATION & LOCAL SERVICES

Highway layout approved for use in Agreement

J. Hogarth

CORPORATE DIRECTOR OF REGENERATION & LOCAL SERVICES

Date: 27th November 2017

Standard Notes

DO NOT USE THIS DRAWING IN ISOLATION

A. This drawing has been prepared as part of a set, and must therefore be read in conjunction with all other drawings. Any discrepancies or design queries must be reported to the engineer prior to completion of tender and commencement of works. Following completion of tender it is assumed that developer and contractor are in full agreement with the design drawings (with the exception of pre tender queries only).

B. Third party information is used to prepare the engineering design (including, architectural layout, ground investigation, existing utilities records, and specialist design items). The engineering design must therefore be read in conjunction with all third party information prior to commencing work. CK21 Ltd are not responsible for any third party information or details.

C. House type working drawings are to be used in conjunction with the plot setting out drawing.

D. Drawing status will remain preliminary until full technical approval is received from local authority and sewerage undertaker. Works commenced prior to technical approval are done so at risk and may be subject to change.

E. The contractor is expected to prepare appropriate construction method statements for all aspects of appointed work. This should include any temporary protection / works.

F. Land drainage is not permitted to discharge into the public sewer network. Any need for land drainage should be assessed by the ground worker and landscaper during construction and placement of gardens on an individual plot basis. If land drainage designs are required, they should be appointed prior to plot completion.

G. The contractor is expected to cross check all drainage inverts prior to commencing work, this may involve completion of trial holes if invert levels have been interpolated.

H. The contractor must monitor the "as build" progress of each construction stage (roads/sewers/plot works/to enable the next stages of construction to be checked before installation.

I. Contractor to confirm all existing invert levels and existing drainage alignments prior to commencement and confirm if different from that shown on drawings.

J. To be read in conjunction with drainage details drawings.

K. To be read in conjunction with architects ground floor plans showing svp, ss & rwp locations, these drawings responsible for setting out.

L. Plot drainage can be adjusted by contractor on site in agreement with building control & engineer to that shown on ck21 drawing.

M. Possible existing connections utilised dependant on their condition.

N. Provide thresh drainage to all front & rear doors where external gradient falls towards dwelling.

O. Provide channel drains to end of driveways that fall towards the public highway or towards dwelling.

P. All surface water outlets to be trapped.

Q. All drainage to be 110mm dia unless noted otherwise.

R. All lateral drains to be 150mm dia.

S. All drainage to be cctv surveyed upon completion.

Highways
1. All highway works to be carried out in accordance with the current local authority design guide and specification.
2. All excavations below proposed and existing highways to be back filled with granular Type 1 sub base and well compacted in layers not exceeding 150mm, unless otherwise agreed.
3. Highway authority to be notified by the contractor prior to the commencement of works.
4. All construction is to be undertaken in accordance with the current adopting authorities current standard details and under the supervision of the clerk of works. It is the responsibility of the contractor to familiarize themselves with these standards and organise inspections.

Adoptable Drainage
1. All adoptable drainage works to be in accordance with the water authorities publication "Sewers For Adoption 7th Edition" aswell as the approved drawings.
2. Precast concrete manhole rings to comply with the relevant provisions of BS5911: Part 200.
3. All brickwork to be Class B engineering complying with the relevant provisions of BS 3921. Concrete bricks maybe used if their specification is the same as Class B engineering bricks. Please seek approval from relevant water authority before using.
4. Manhole covers and frames shall comply with the relevant provisions of BS EN 124 and be of a non-rocking, non-ventilating design.
5. Ladders that are required in Type 1 manholes are to comply with "Sewers For Adoption 7th Edition".
6. Concrete must be either C20 sulphate resistant portland cement with high strength concrete topping to the benching or C35 ordinary portland cement.
7. 150mm Concrete surround is required around pipes where the depth from finished surface to soffit of pipe is less than 1200mm. This may be reduced to 900mm within open space.
8. The location of existing drainage that is within close proximity to the proposed site works, which is not to be diverted, should be confirmed by the contractor and reported to the developer to ensure it corresponds to that shown on the engineering layout and that no proposed works are affected. The position, line and diameter of all existing drainage apparatus should be confirmed on site prior to the commencement of the works. Any discrepancies must be reported to the engineer immediately. The connection of foul and surface water drainage to the existing public sewer system shall be subject to the approval of the local sewerage undertaker. The contractor is expected to apply for relevant permits prior to commencing the work.
9. Roads and sewers contractor must inform water authority prior to works commencing
10. All construction is to be undertaken in accordance with the current adopting authorities current standard details and under the supervision of the clerk of works. It is the responsibility of the contractor to familiarize themselves with these standards and organise inspections.

Existing Services

Any existing services which may be affected by the proposed works should be located by means of a hand dig in close liaison with the statutory service authorities. The contractor shall inform the developer of any services that may affect the proposed design.

Contractor to notify statutory service authorities prior to commencement of work.

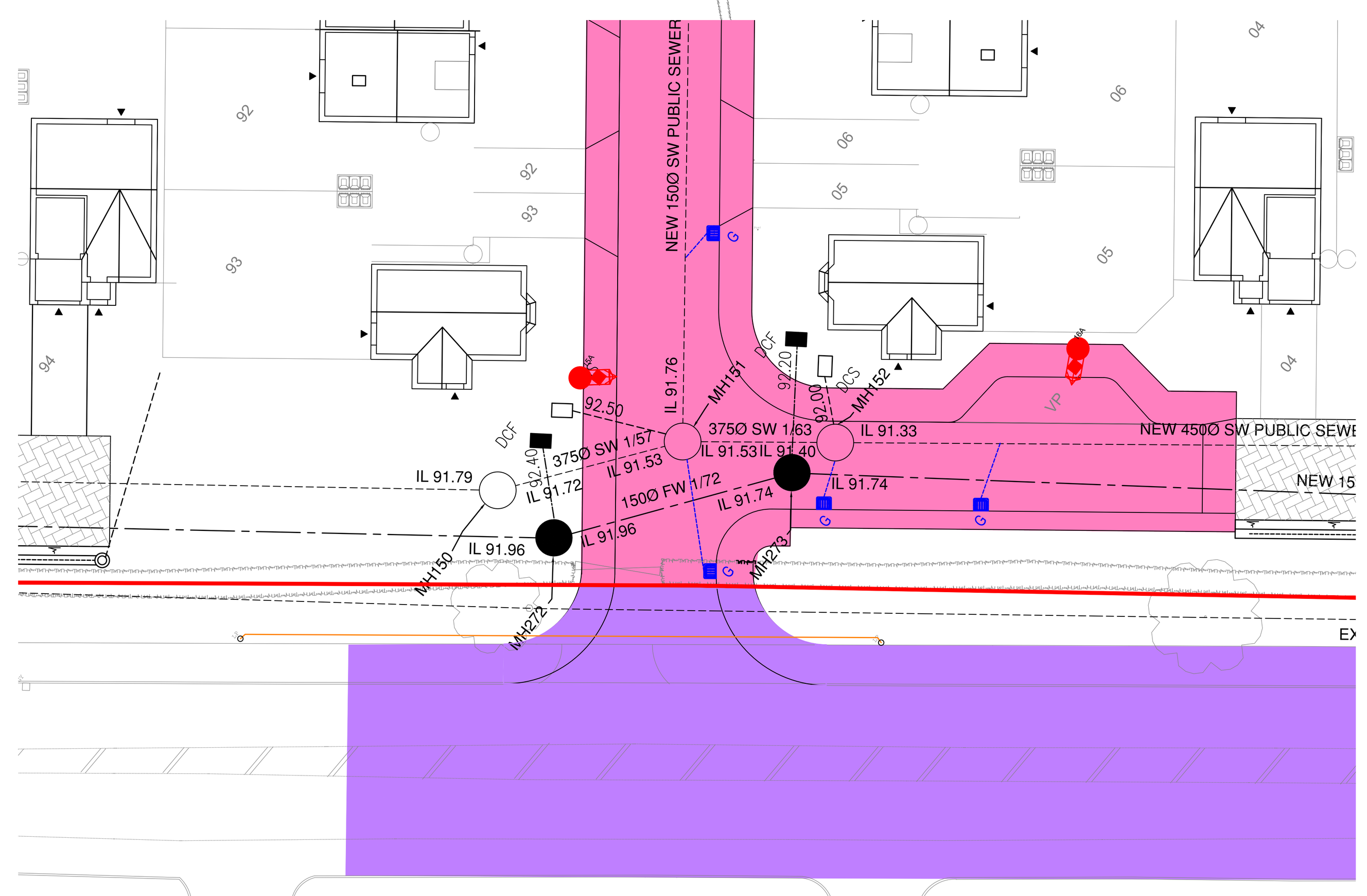
As Constructed Information

Refer to note H above. It is the contractors responsibility to provide the following as constructed drawings to the developer upon the completion of the works covered by the contract :
4. Position/coordinates of all adoptable manholes.
5. Invert and cover levels of all adoptable manholes.
6. New gully positions and connections.
7. Position and depth of service ducts for water, gas, electric, BT, cable and street lighting, stating size and number of ducts.

LEGEND

- PHASED SITE BOUNDARY
- EXISTING PUBLIC SURFACE WATER
- EXISTING PUBLIC FOUL WATER
- EXISTING PUBLIC COMBINED WATER
- PROPOSED ADOPTABLE SURFACE WATER SEWER SYSTEM WITH ASSOCIATED MANHOLES & INPSECTION CHAMBERS
- PROPOSED ADOPTABLE FOUL WATER SEWER SYSTEM WITH ASSOCIATED MANHOLES & INPSECTION CHAMBERS
- BACKDROP MANHOLE
- G PROPOSED SURFACE ROADWATER GULLIES TO BE PROVIDED. CONCRETE TRAPPED 150mm DIA. OUTLET POTS WITH GRATINGS & FRAMES AS PER HIGHWAYS SPECIFICATION.
- MHF = FOUL WATER MANHOLE
- MHS = SURFACE WATER MANHOLE
- FOUL WATER DISCONNECTION CHAMBER (150 DIA DRAIN)
- SURFACE WATER DISCONNECTION CHAMBER (150 DIA DRAIN)

- SECTION 38
- SECTION 278
- PROPOSED STREET LIGHTING



Junction Works
1:250

NOTE:
FOR THE PROPOSED SECTION 278 GHOSTED RIGHT TURN CONFIGURATION TO THE B6291 PUBLIC HIGHWAY - REFER TO DRAWING C-GA-80

Rev	Date	Description	Drawn	Chkd
P5	22/11/2017	L.C. 27A &29A MOVED SLIGHTLY L.C. 8A ADDED TO PHASE 2	KS	MB
P4	10/11/2017	GULLY LOCATIONS UPDATED	KS	MB
P3	01/11/2017	HATCH UPDATED TO REFLECT NEW PARKING BAYS	KS	MB
P2	16/10/2017	VERGE OFF 99-101-105 NOW 1m WIDE RELOCATED L.C. 10A, 11A & 34A	KS	MB
P1	23/08/2017	ISSUED FOR INFORMATION	KS	MB

Project: Parkhill Coxhoe

Client: Keepmoat Homes

Architect: IDP

Title: Section 38 & 278 Layout Phase 1

Scale	Drawn	Date
1:500	KS	Aug 2017

Job Number	Drawing Number	Rev.
17004	C-GA-038A	P5

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Status: Information