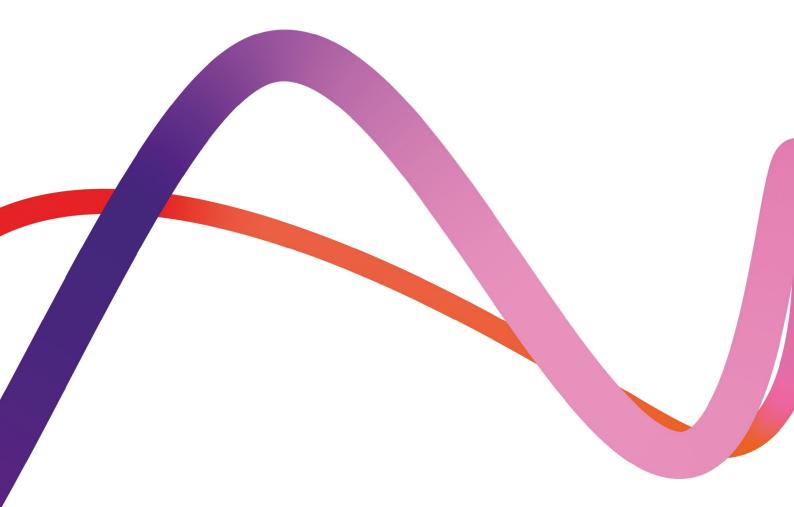
### Medworth Energy from Waste Combined Heat and Power Facility

PINS ref. EN010110

Document Reference: Vol 6.3

Revision 1.0 June 2022



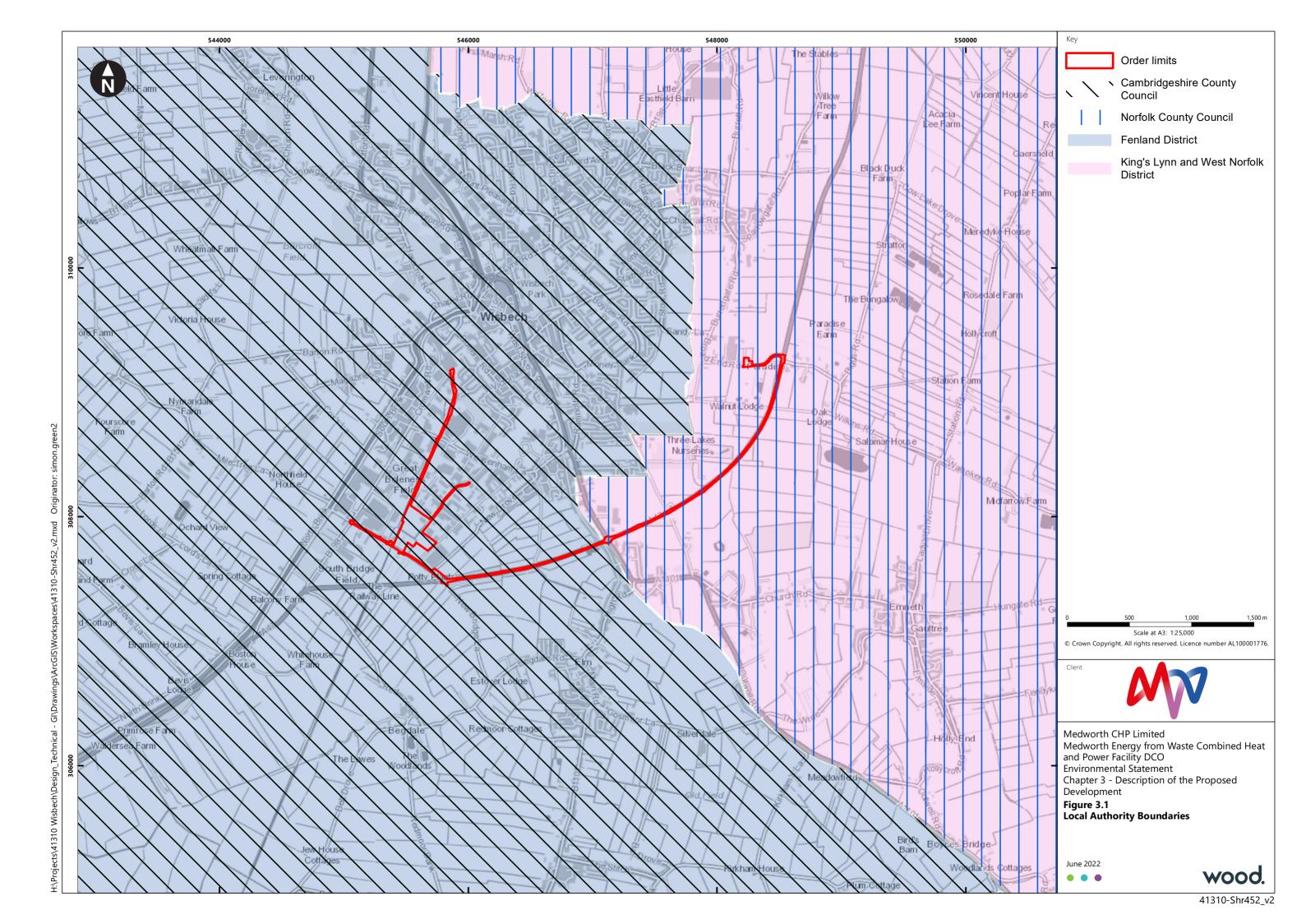


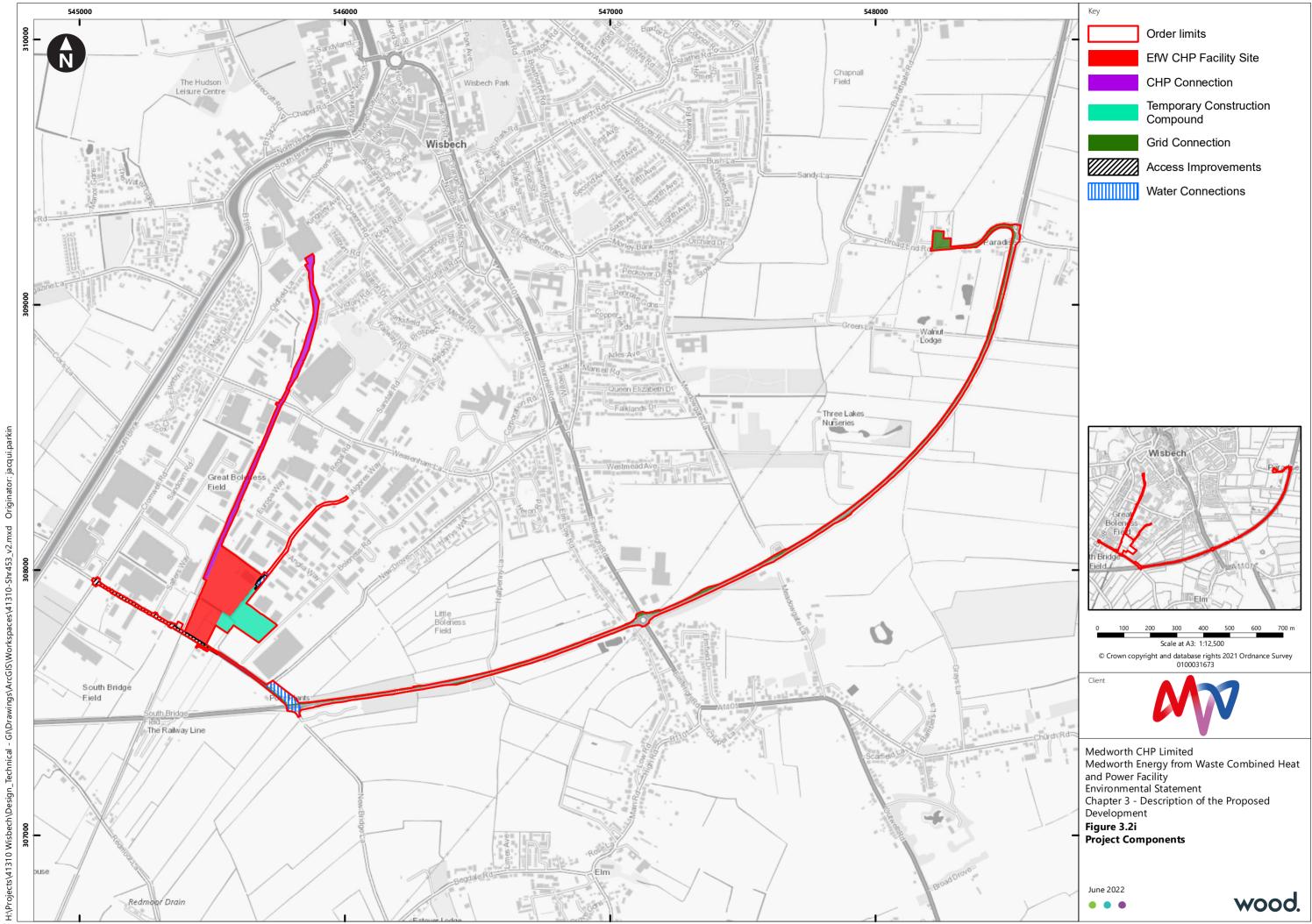
# **Environmental Statement Chapter 3 Description of the Proposed Development Figures**

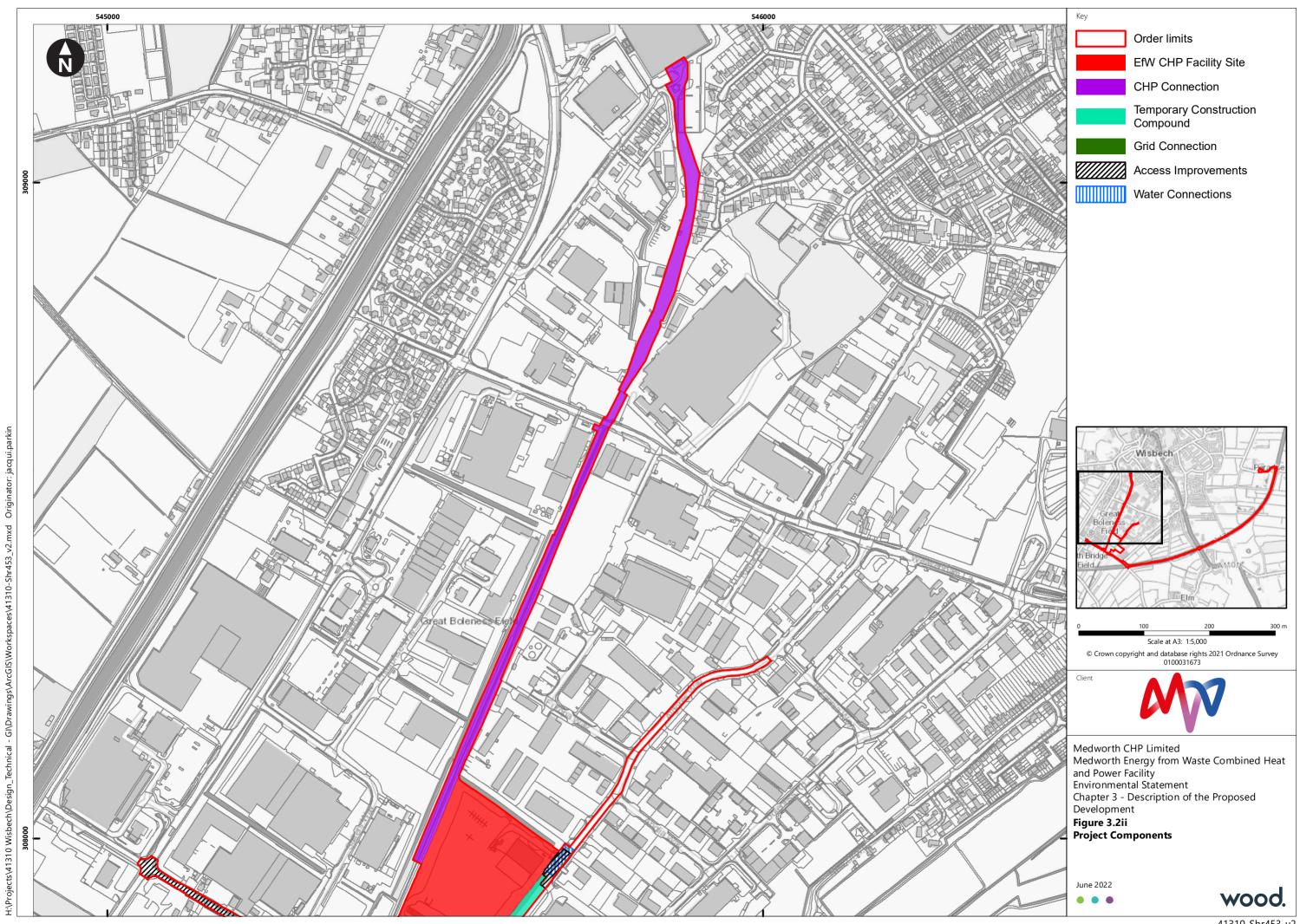
Regulation reference: The Infrastructure Planning (Applications: Prescribed Forms

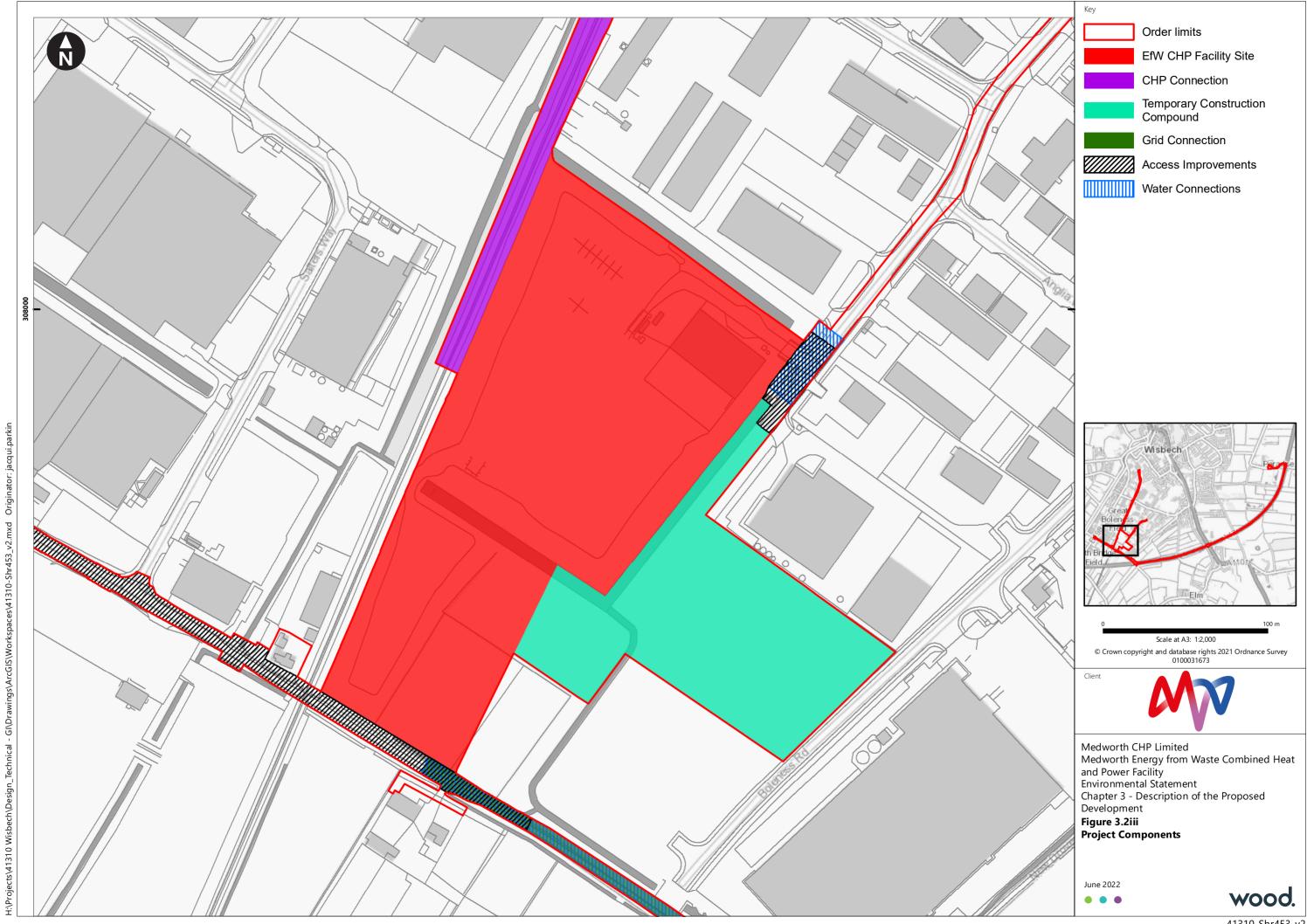
and Procedure) Regulations 2009 Regulation 5(2)(a)

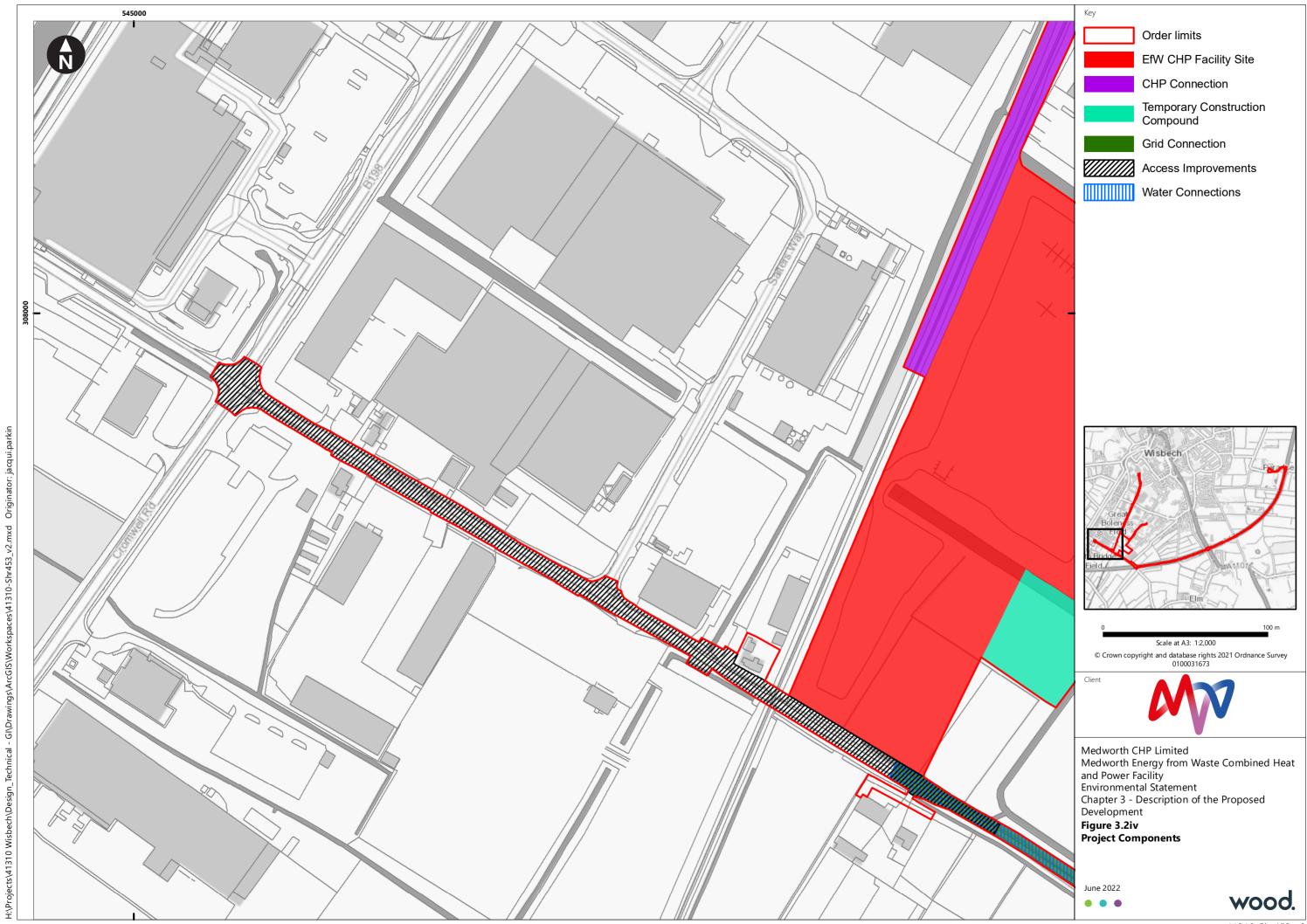
We inspire with energy.

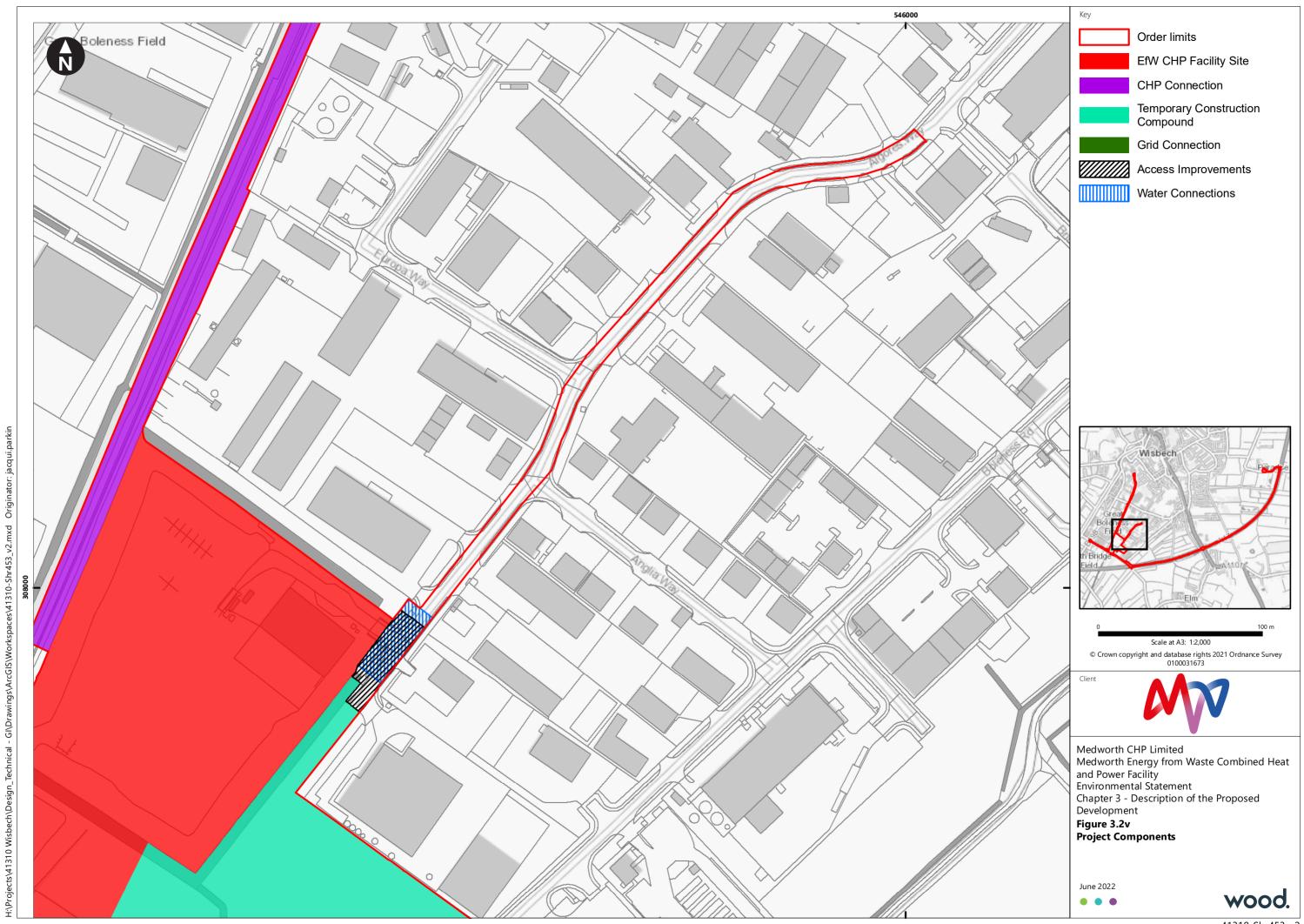


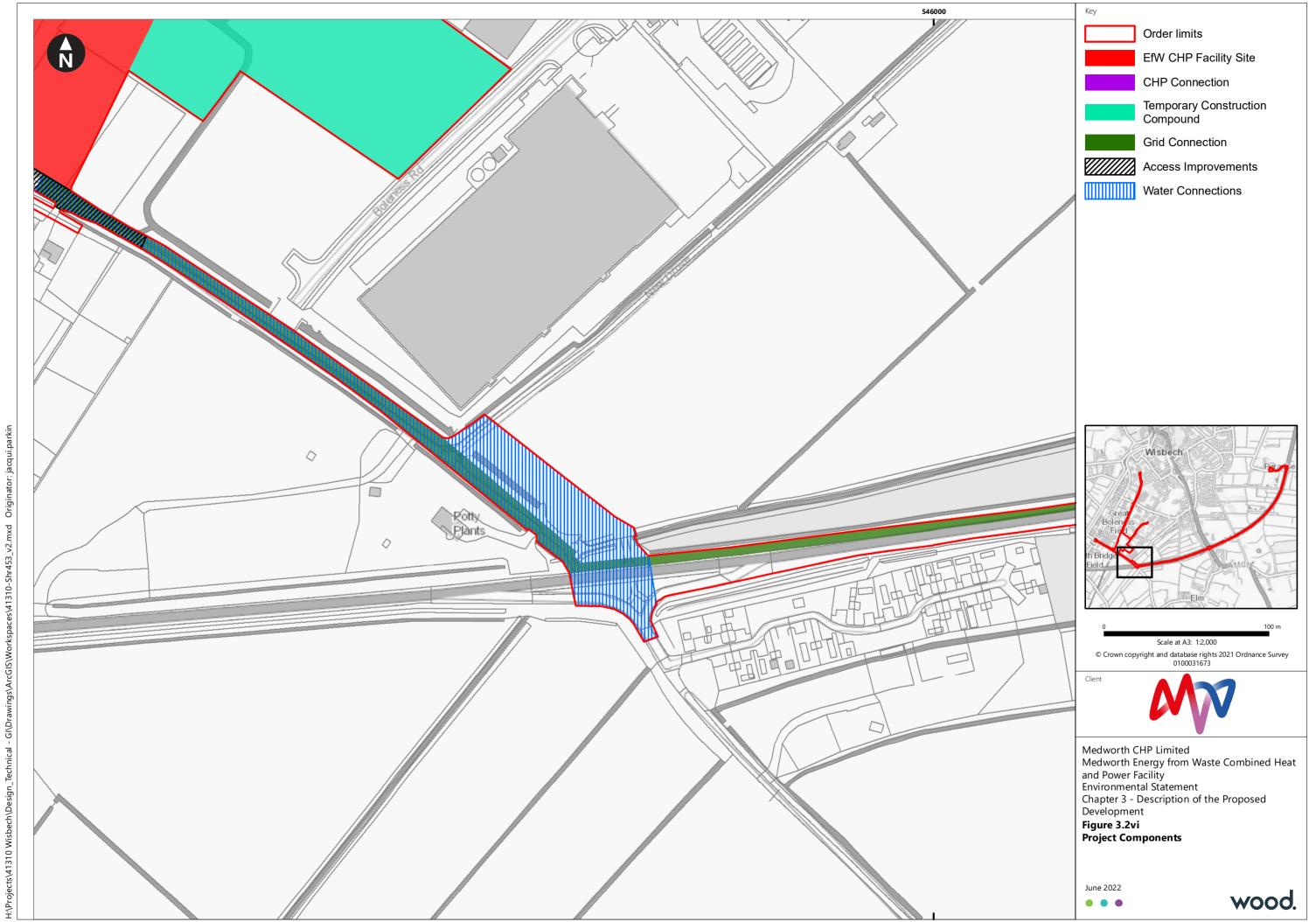


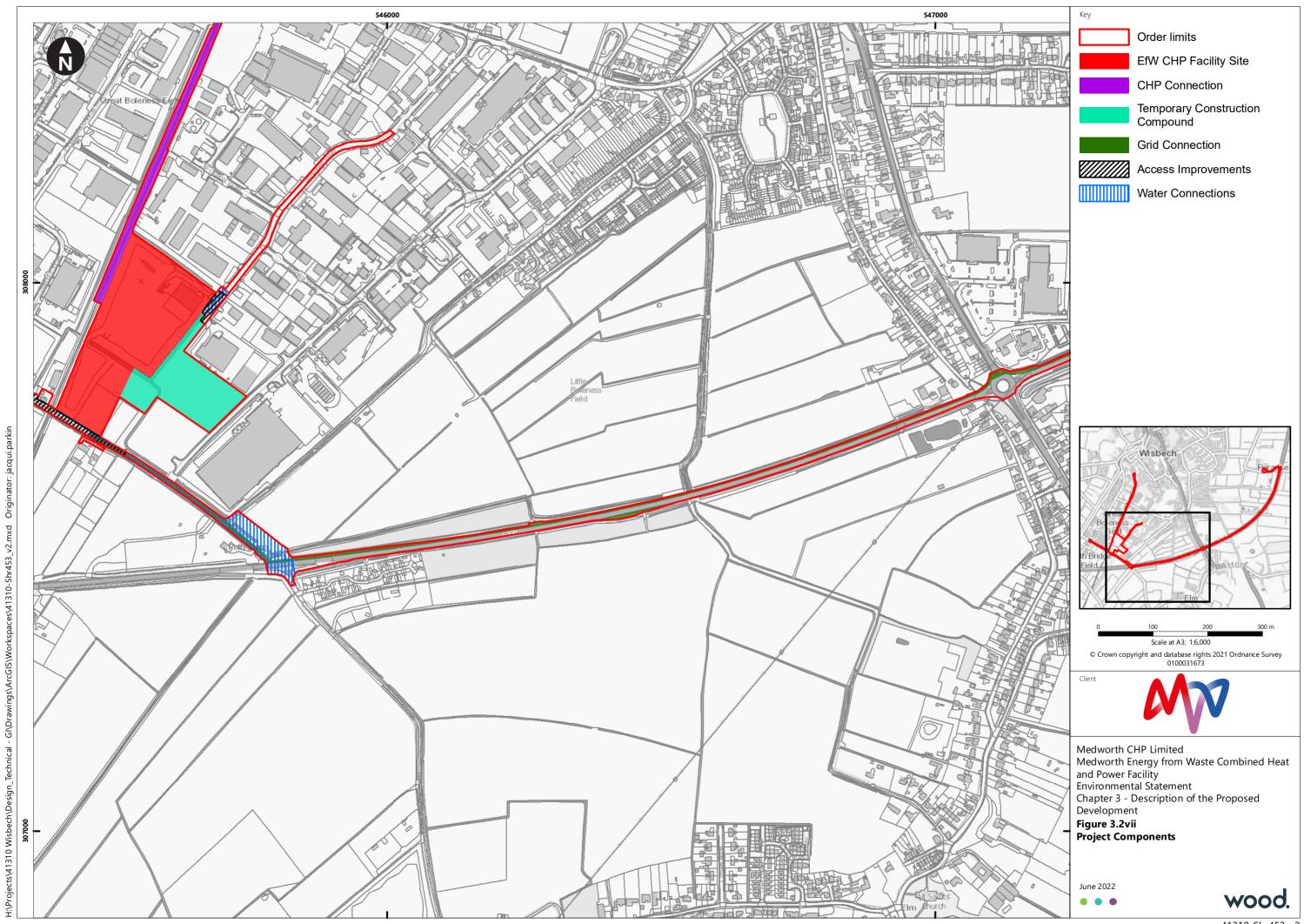


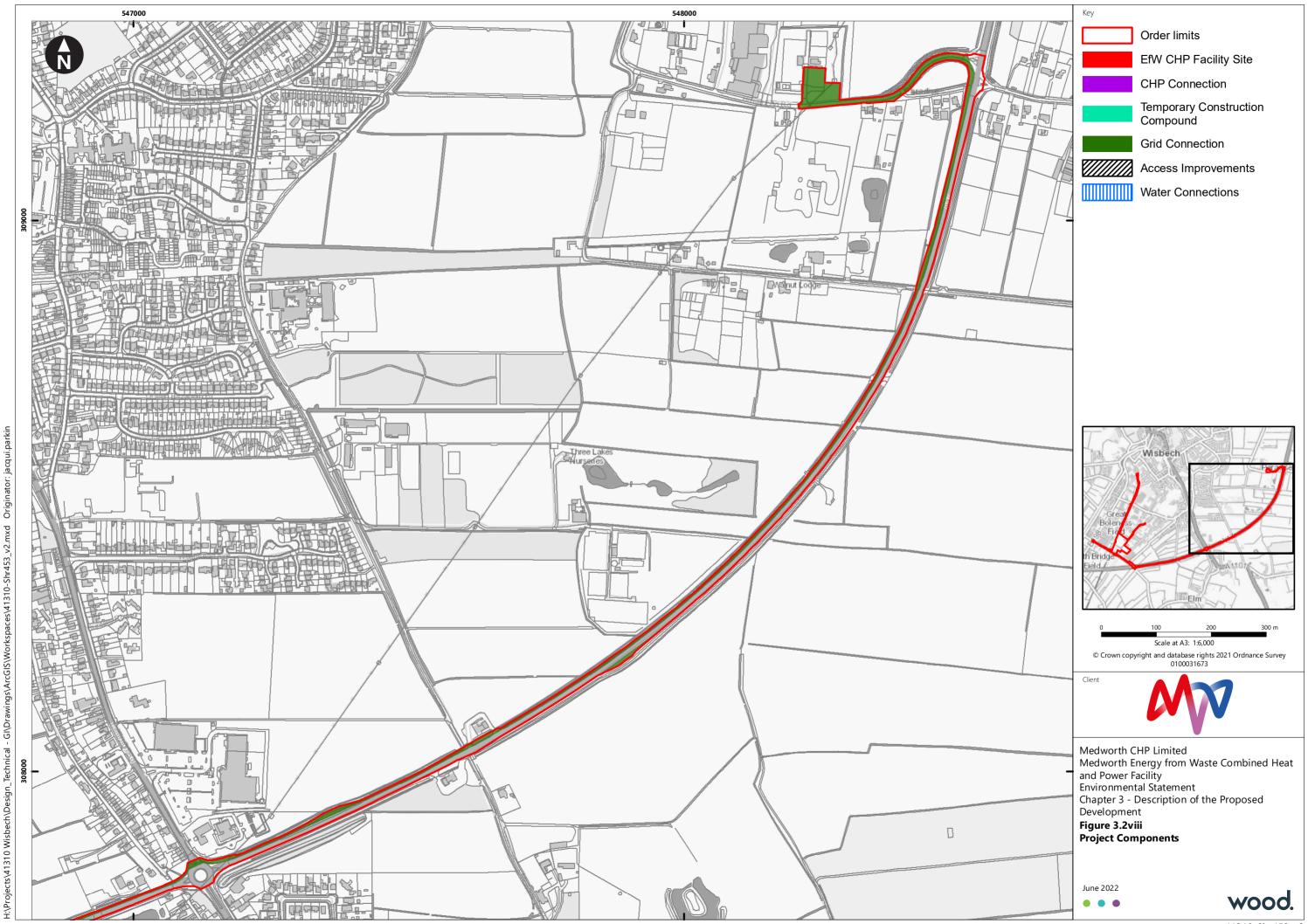




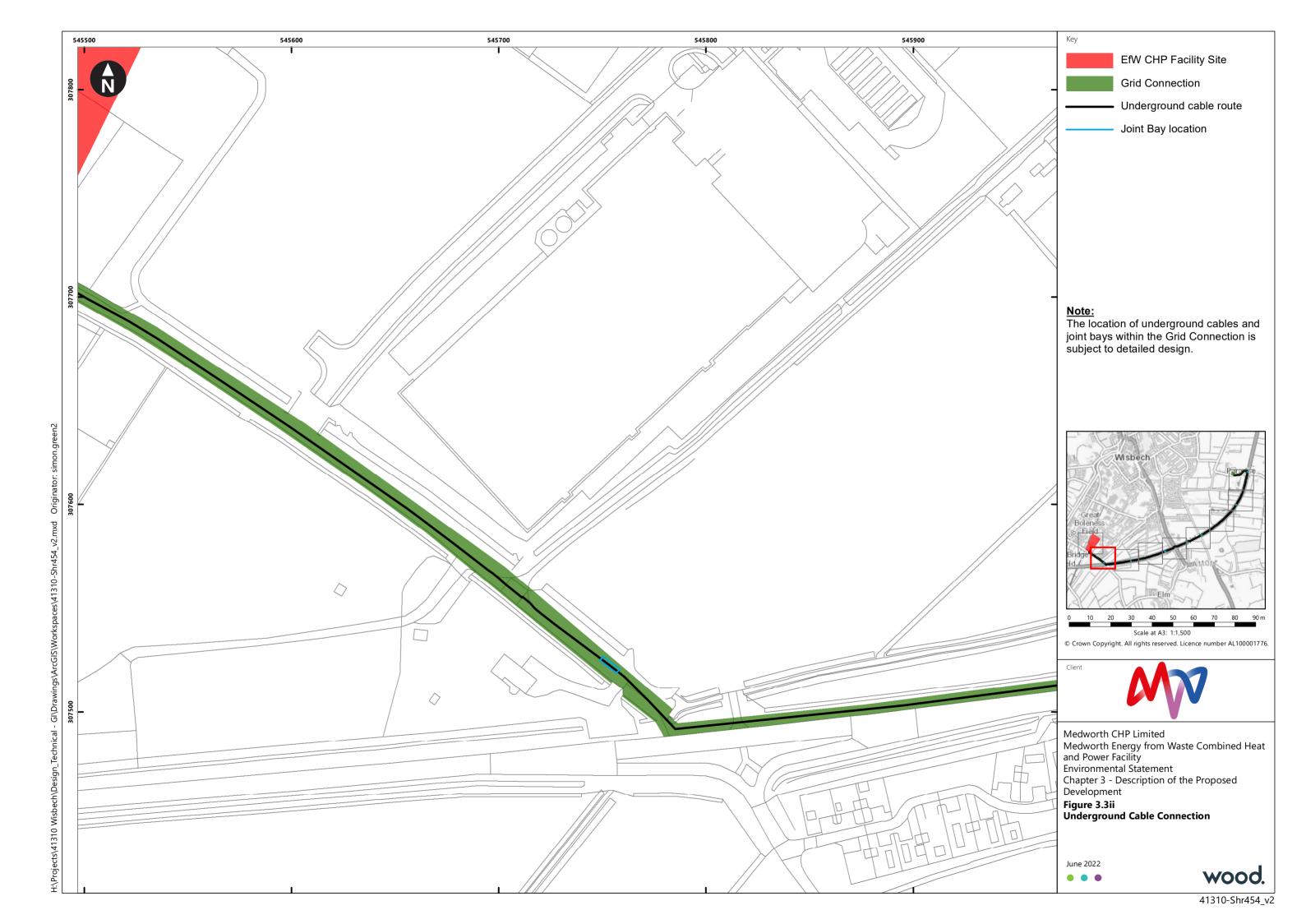


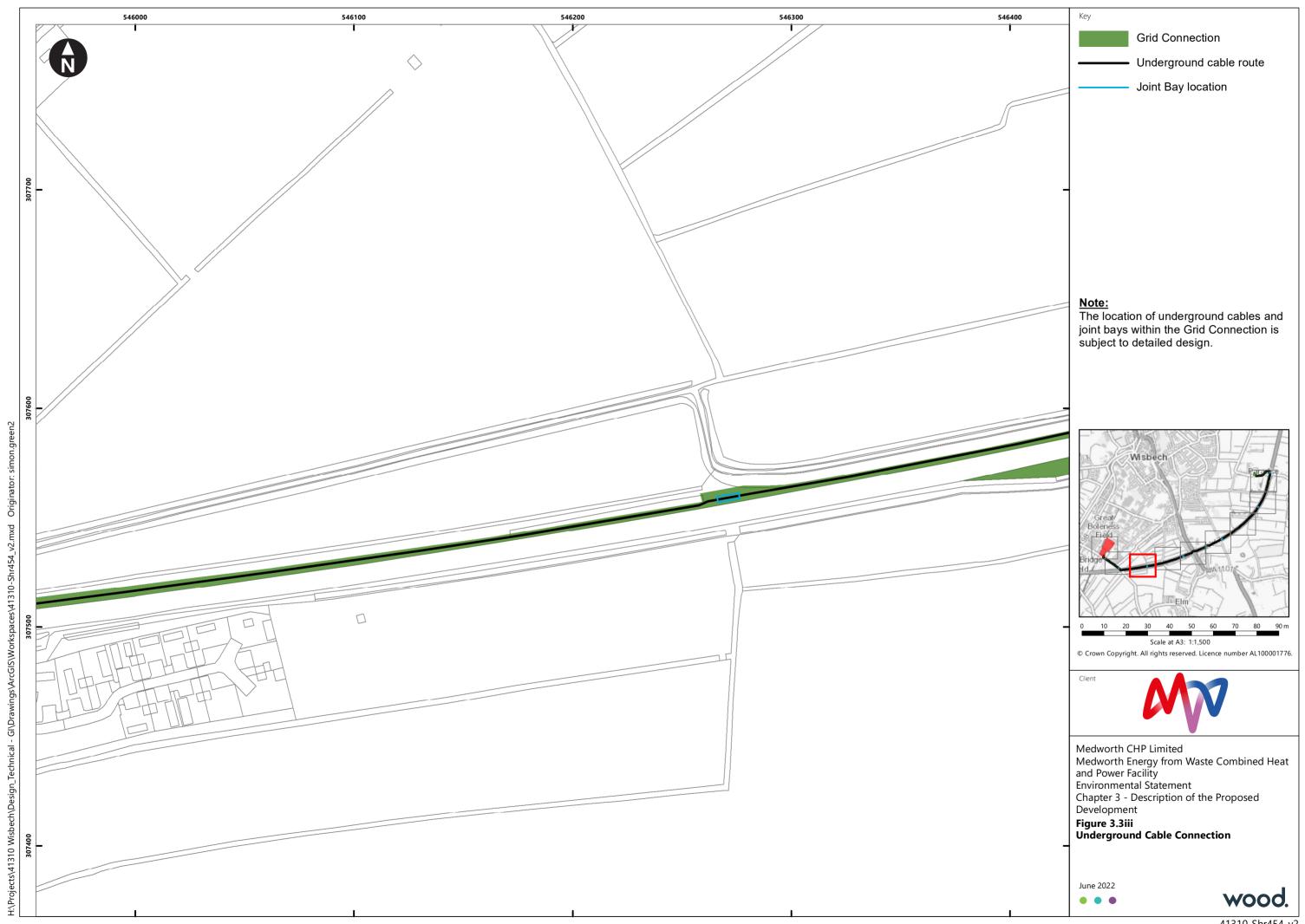




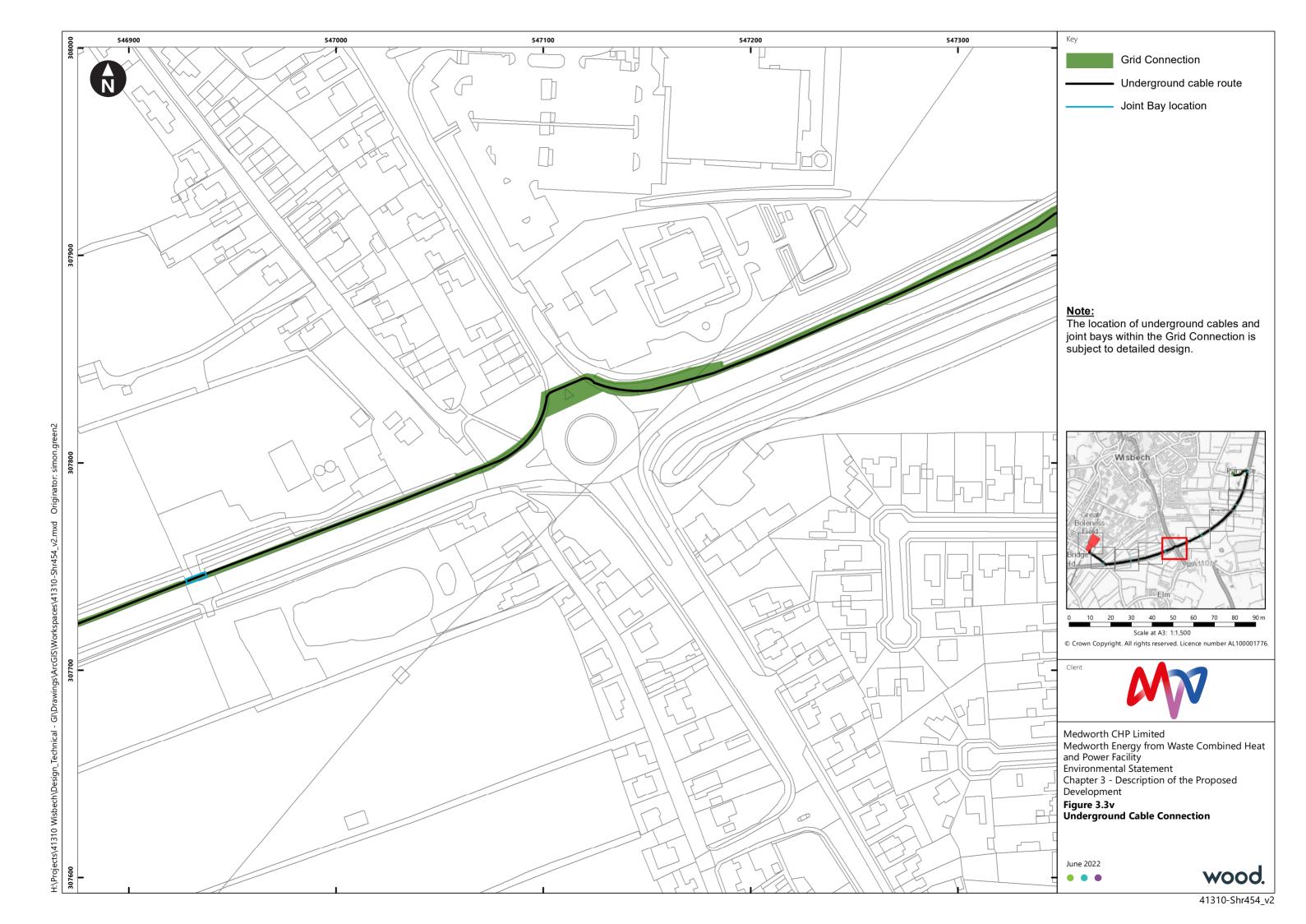


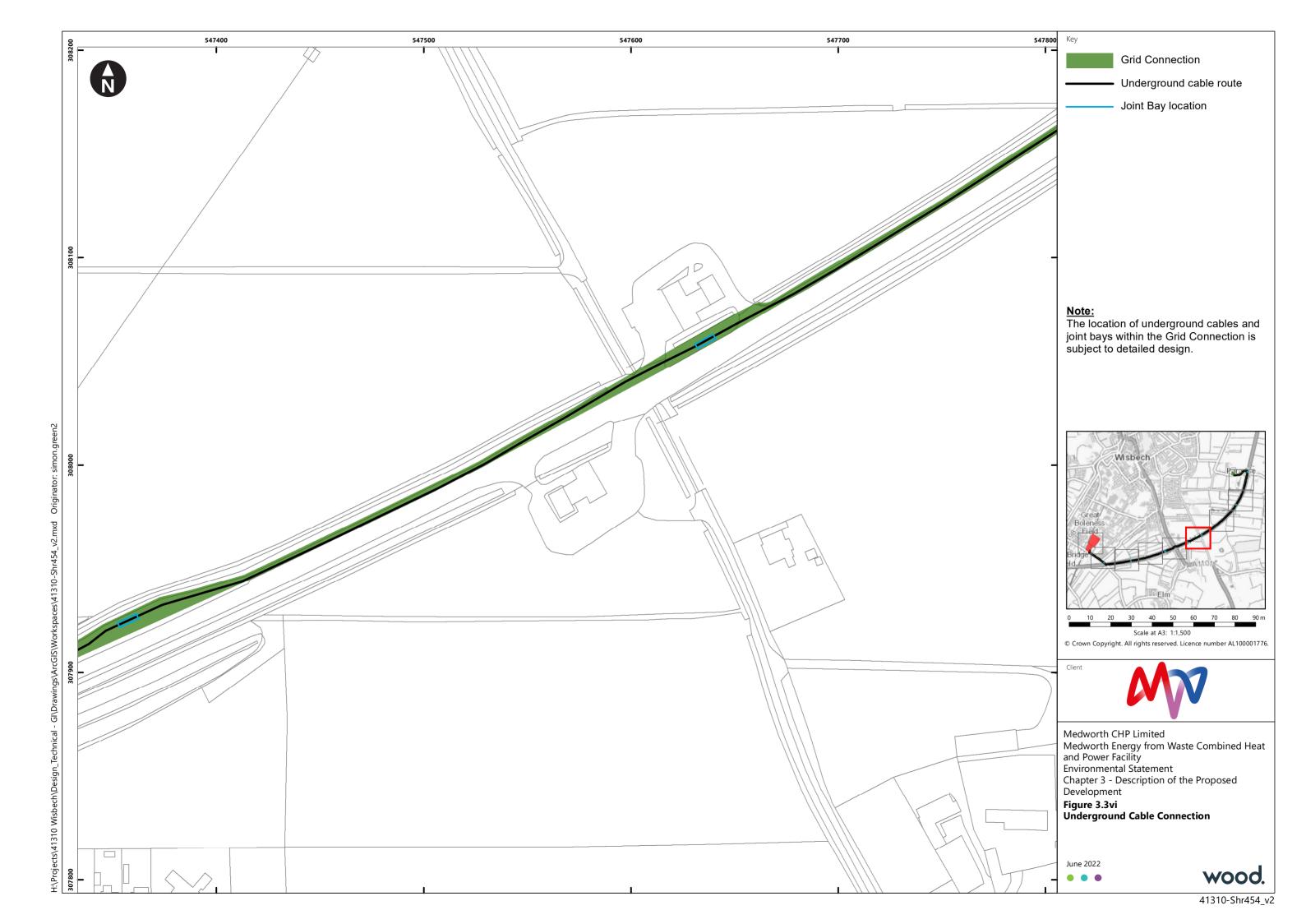










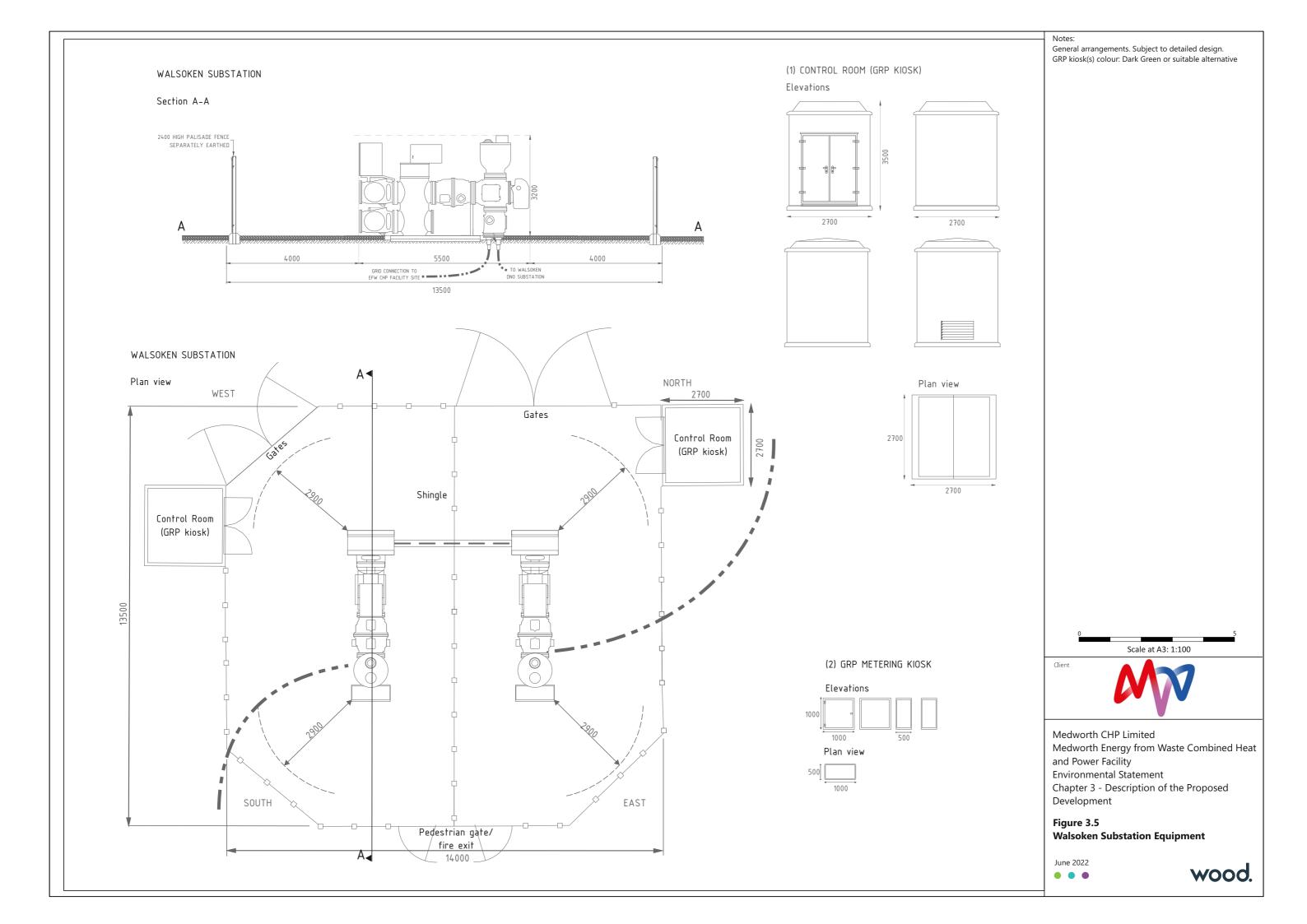


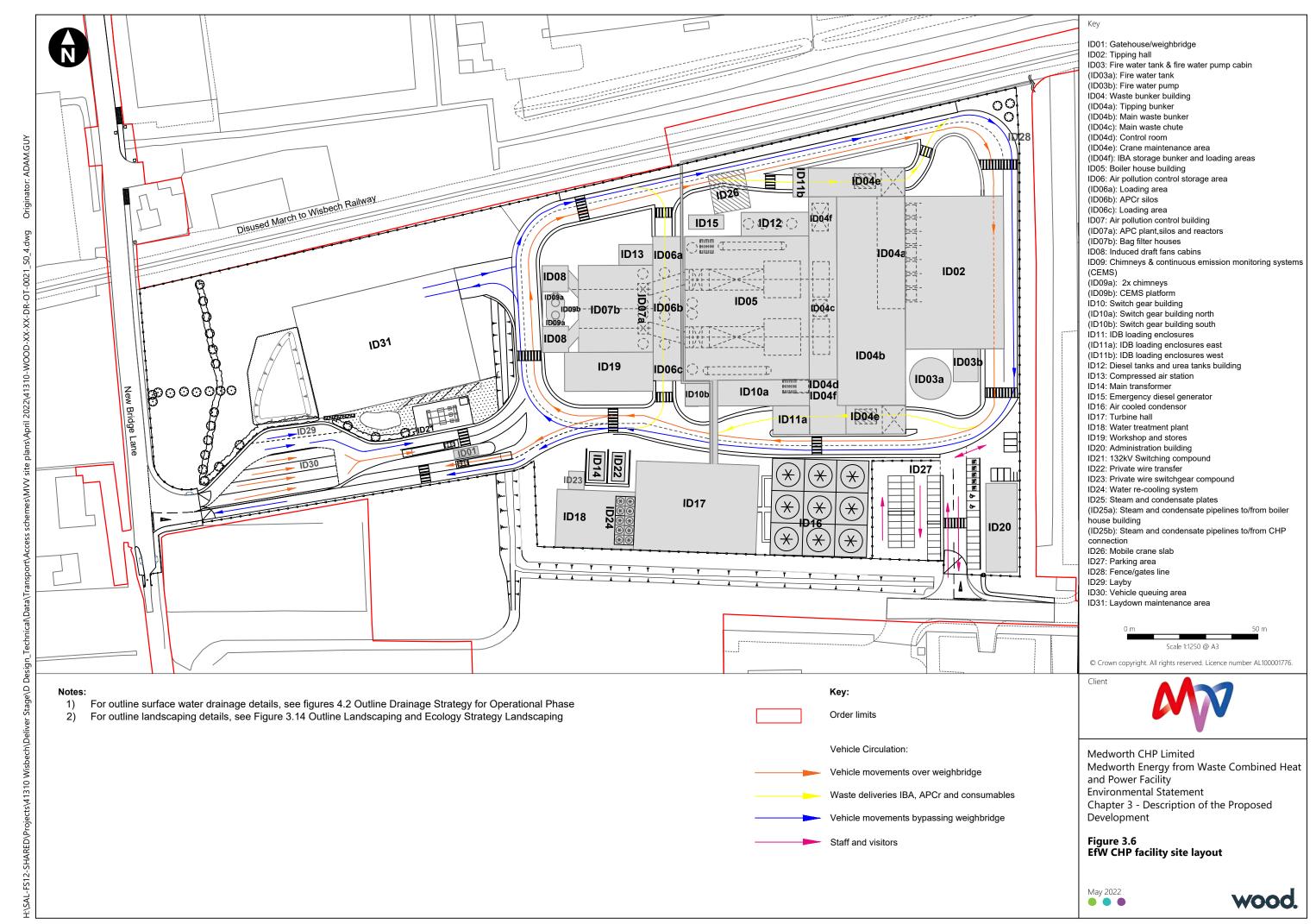


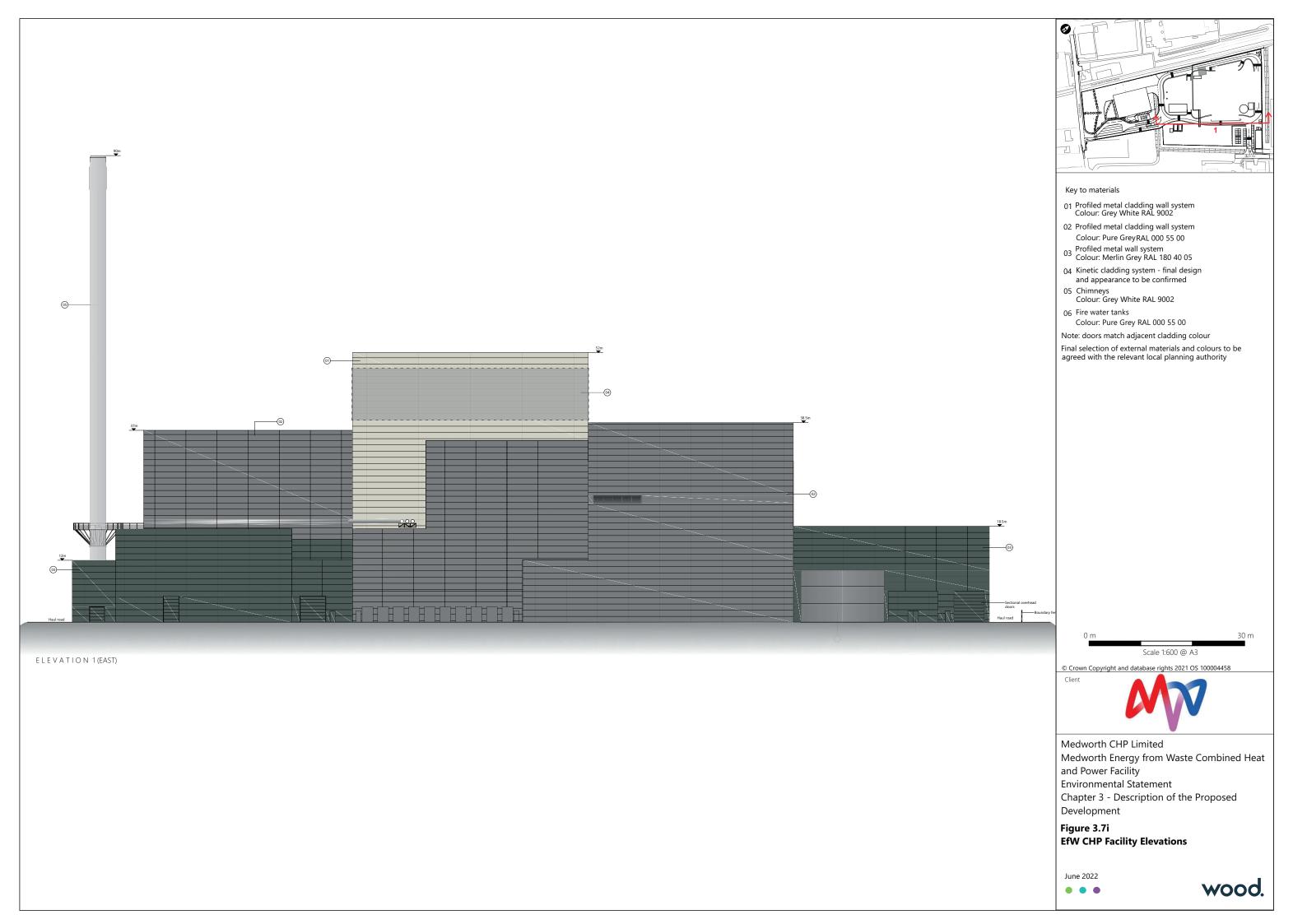


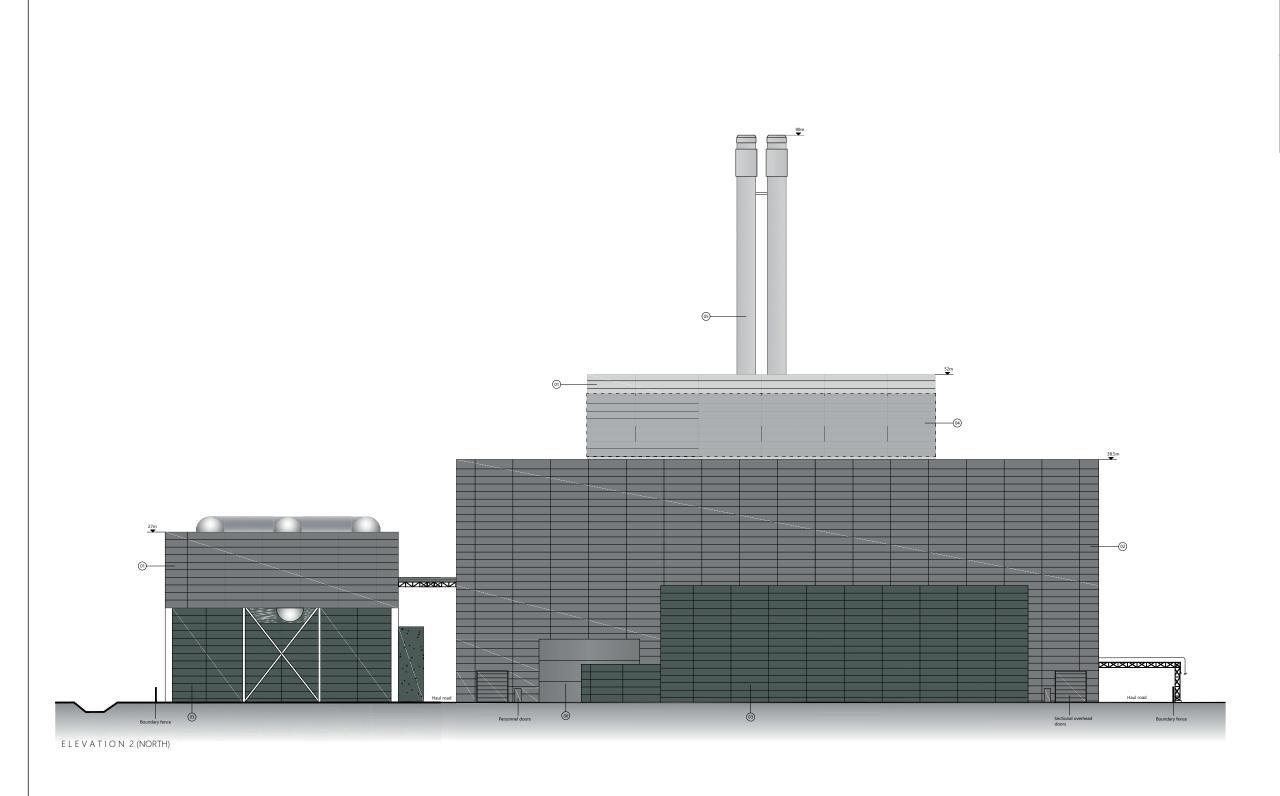


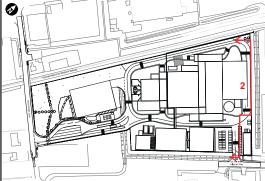












### Key to materials

- 01 Profiled metal cladding wall system Colour: Grey White RAL 9002
- 02 Profiled metal cladding wall system Colour: Pure GreyRAL 000 55 00
- 03 Profiled metal wall system Colour: Merlin Grey RAL 180 40 05
- 04 Kinetic cladding system final design and appearance to be confirmed
- 05 Chimneys Colour: Grey White RAL 9002
- 06 Fire water tanks Colour: Pure Grey RAL 000 55 00

Note: doors match adjacent cladding colour

Final selection of external materials and colours to be agreed with the relevant local planning authority



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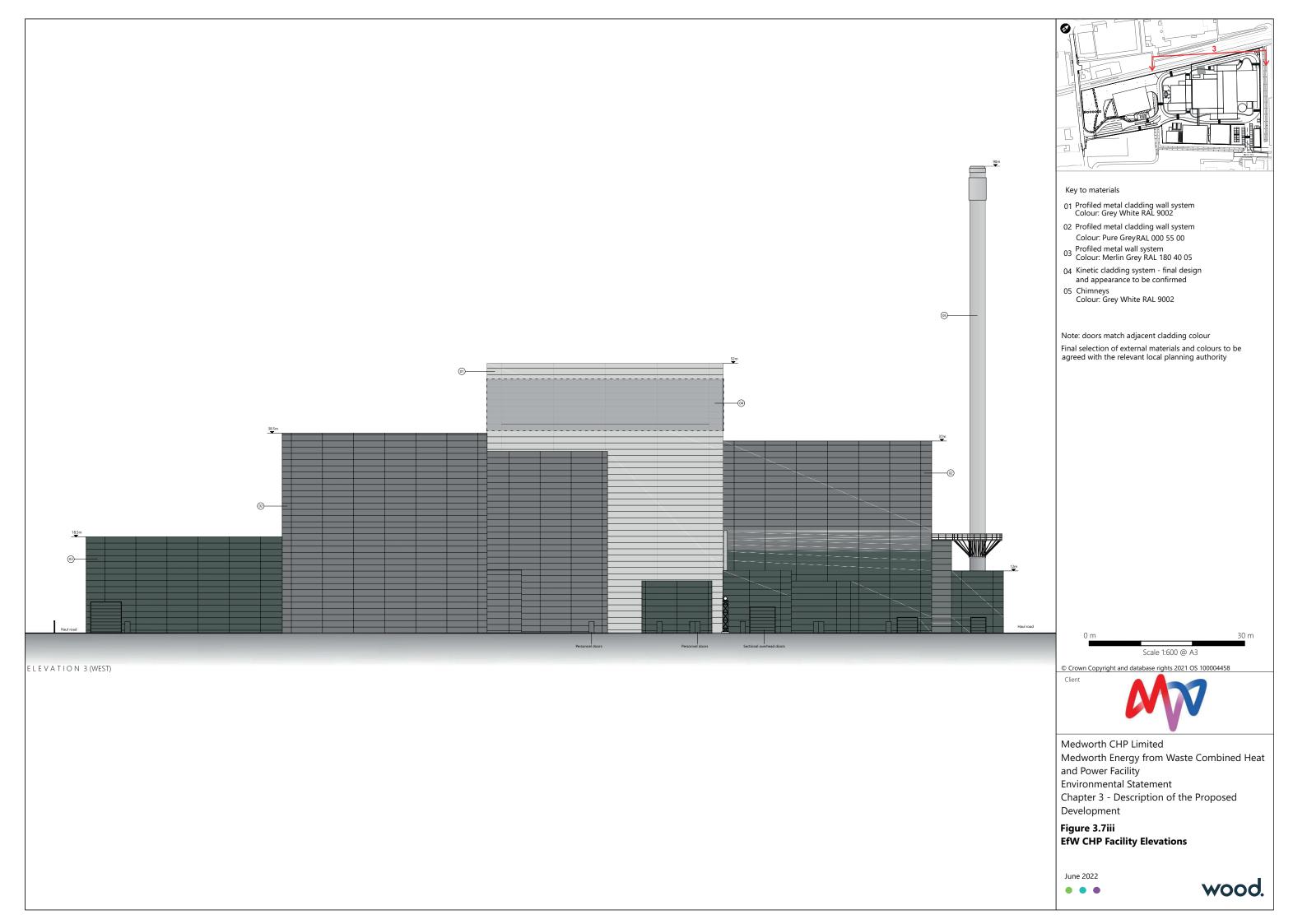
Chapter 3 - Description of the Proposed Development

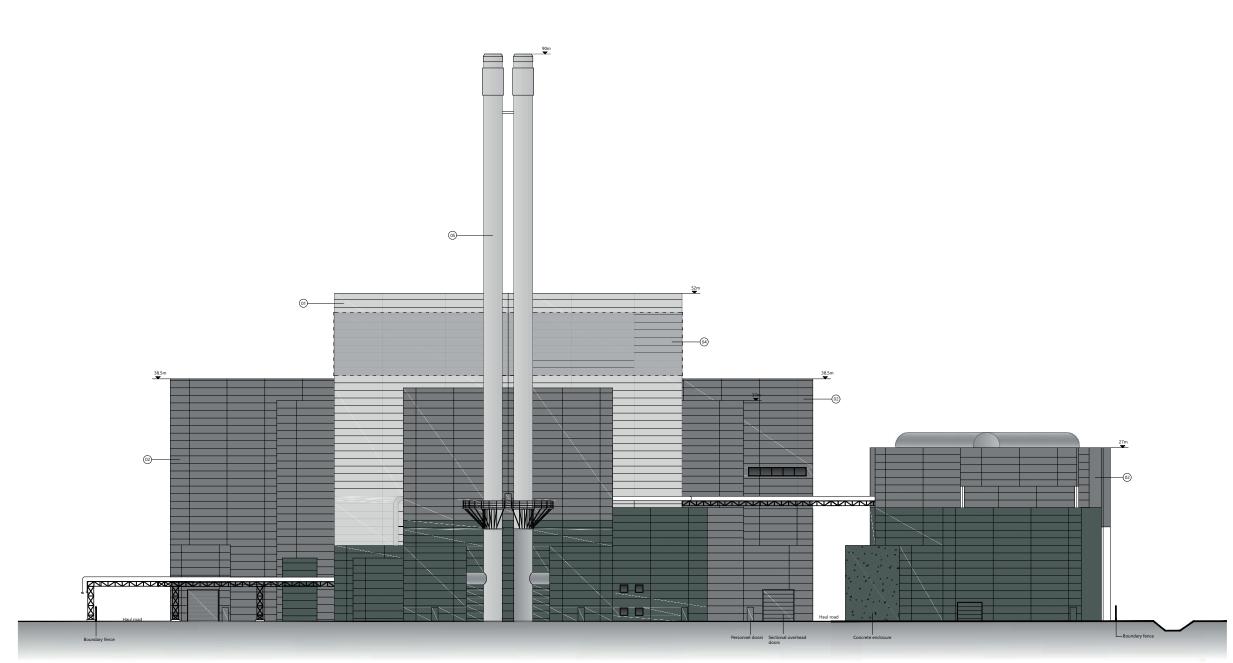
Figure 3.7ii **EfW CHP Facility Elevations** 

June 2022

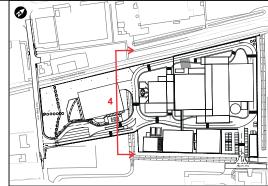








ELEVATION 4 (SOUTH)



### Key to materials

- 01 Profiled metal cladding wall system Colour: Grey White RAL 9002
- 02 Profiled metal cladding wall system Colour: Pure GreyRAL 000 55 00
- 03 Profiled metal wall system Colour: Merlin Grey RAL 180 40 05
- 04 Kinetic cladding system final design and appearance to be confirmed
- 05 Chimneys Colour: Grey White RAL 9002

Note: doors match adjacent cladding colour

Final selection of external materials and colours to be agreed with the relevant local planning authority



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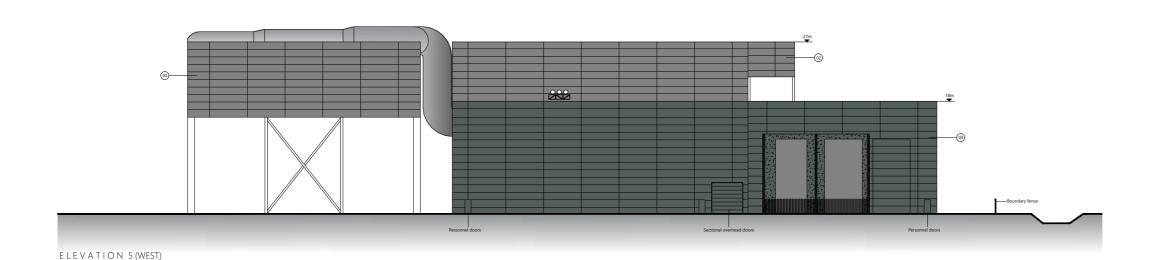
Chapter 3 - Description of the Proposed Development

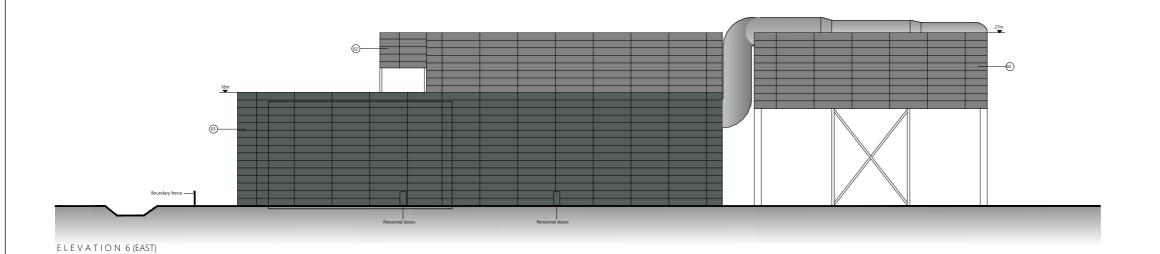
Figure 3.7iv EfW CHP Facility Elevations

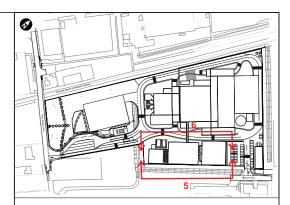
June 2022











### Key to materials

- 01 Profiled metal cladding wall system Colour: Grey White RAL 9002
- 02 Profiled metal cladding wall system Colour: Pure GreyRAL 000 55 00
- 03 Profiled metal wall system
  Colour: Merlin Grey RAL 180 40 05

Note: doors match adjacent cladding colour

Final selection of external materials and colours to be agreed with the relevant local planning authority



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Chapter 3 - Description of the Proposed Development

Figure 3.8

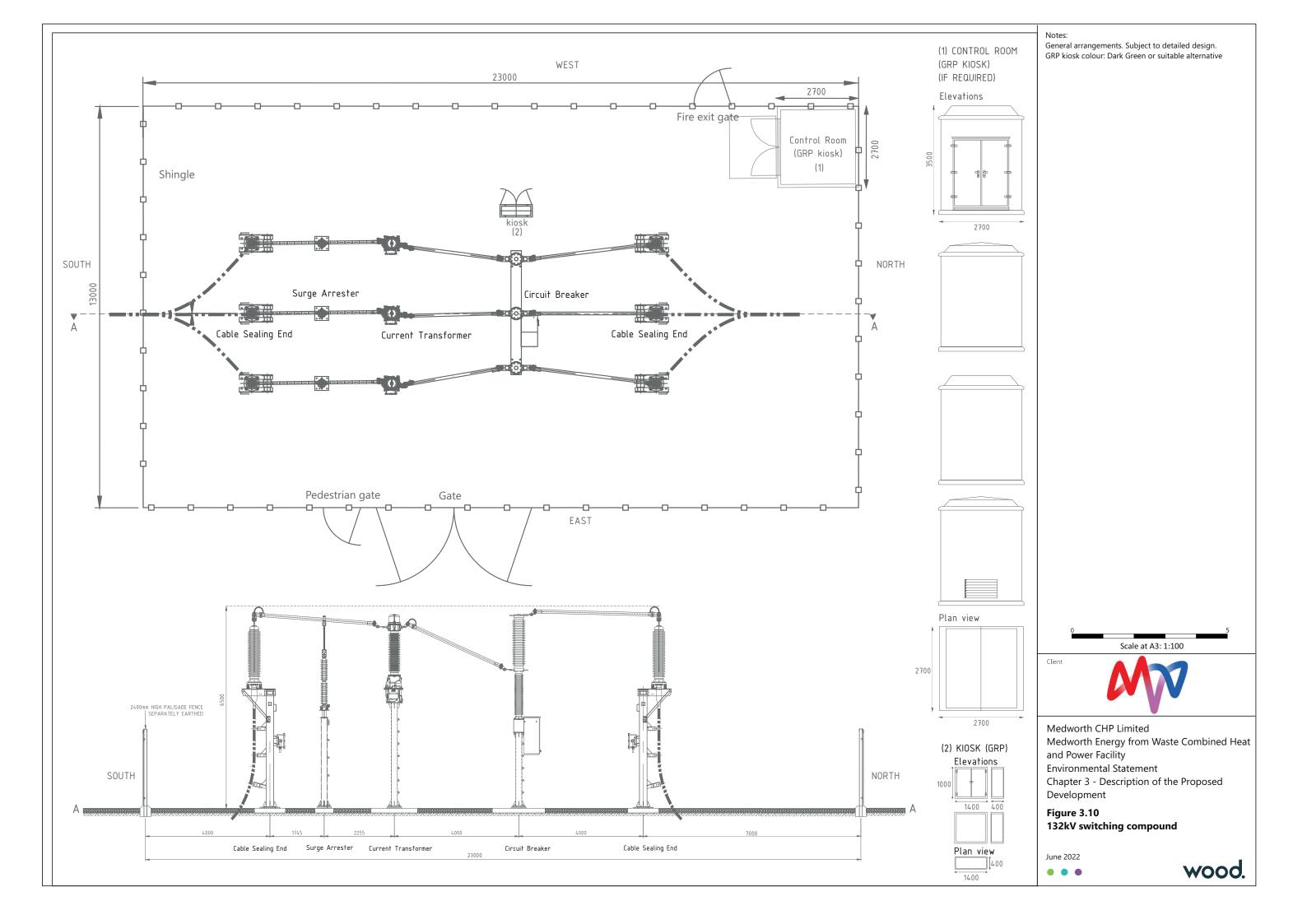
Air cooled condenser, turbine hall, water treatment plant and ancillary buildings elevations

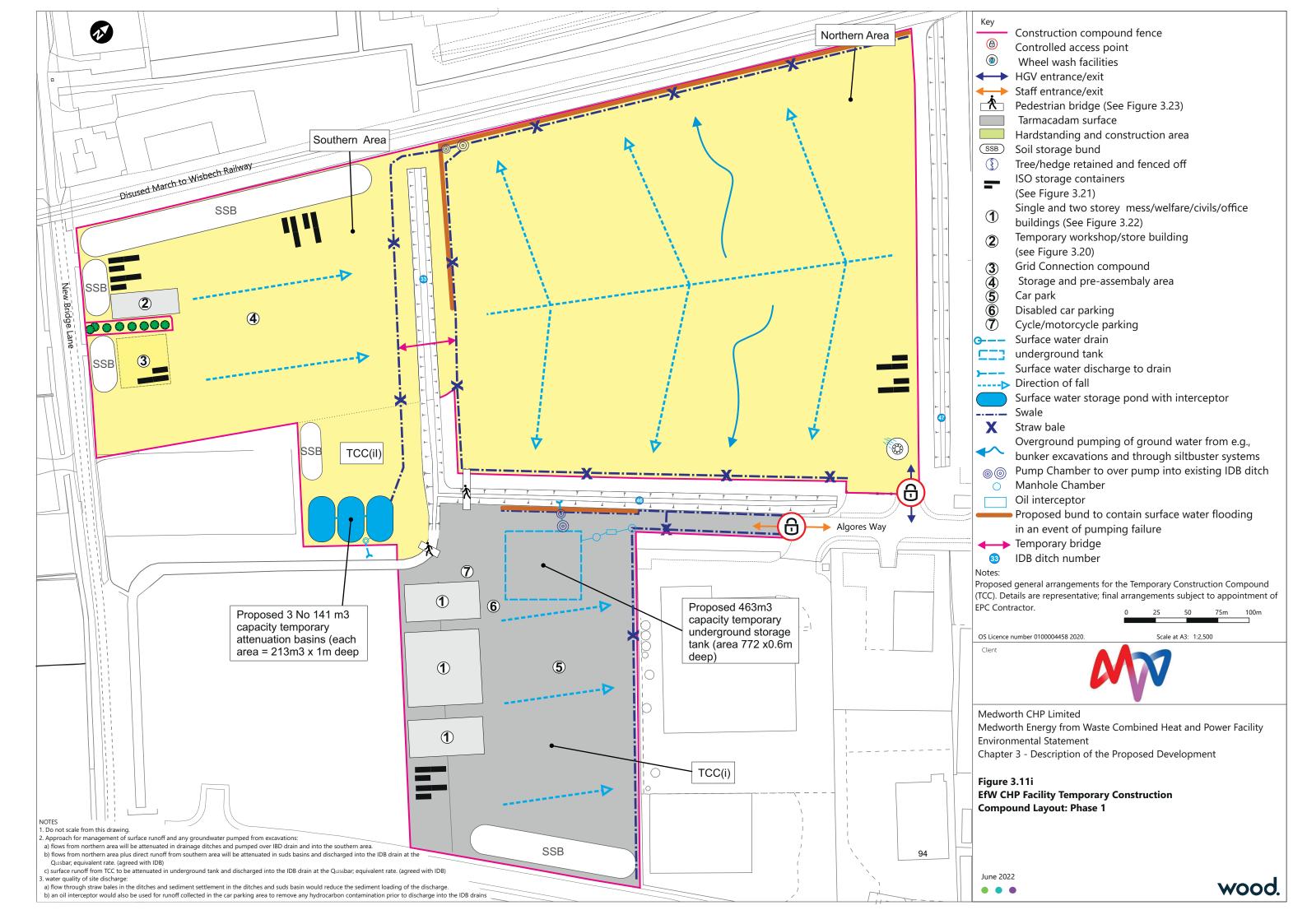
June 2022

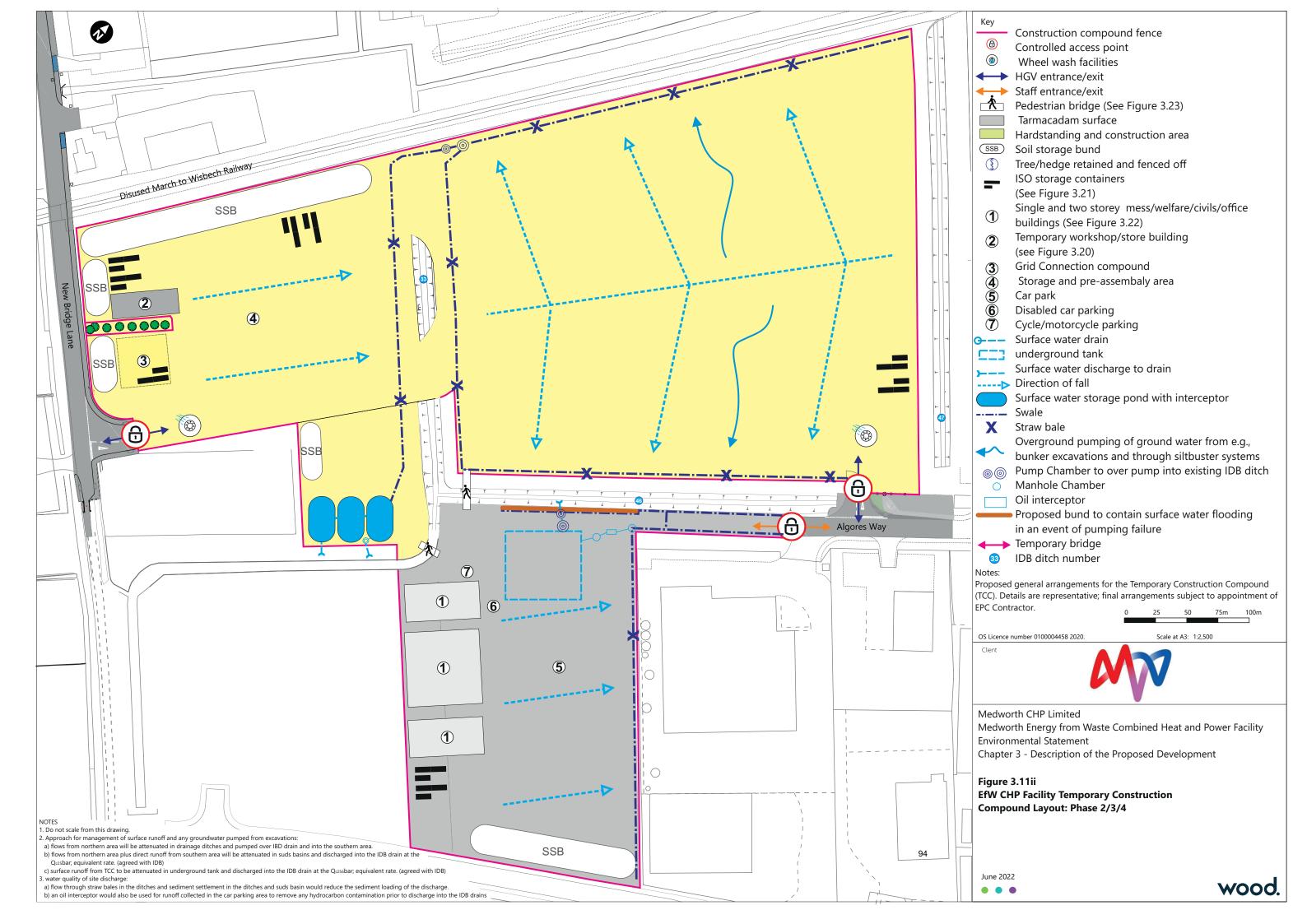


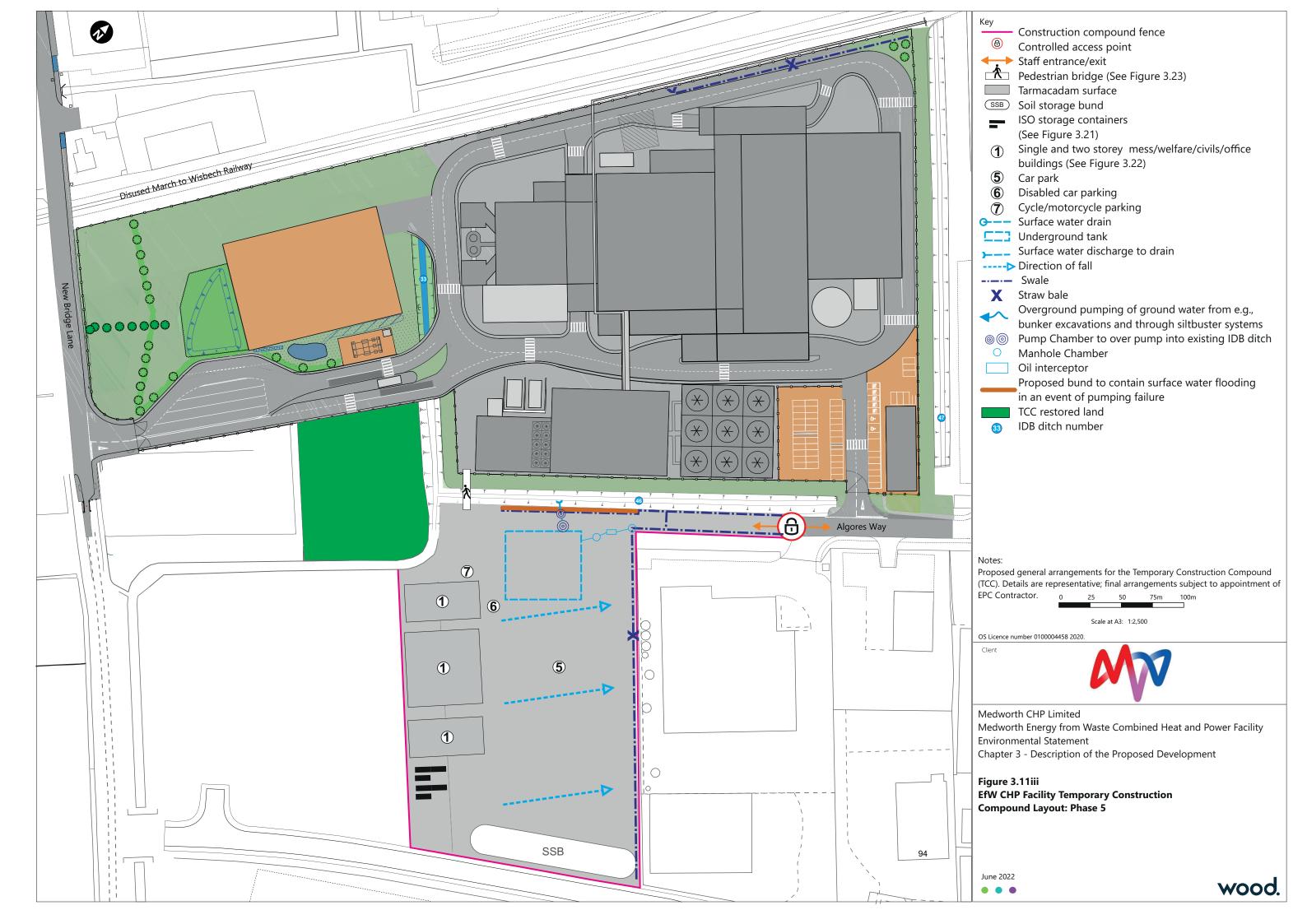


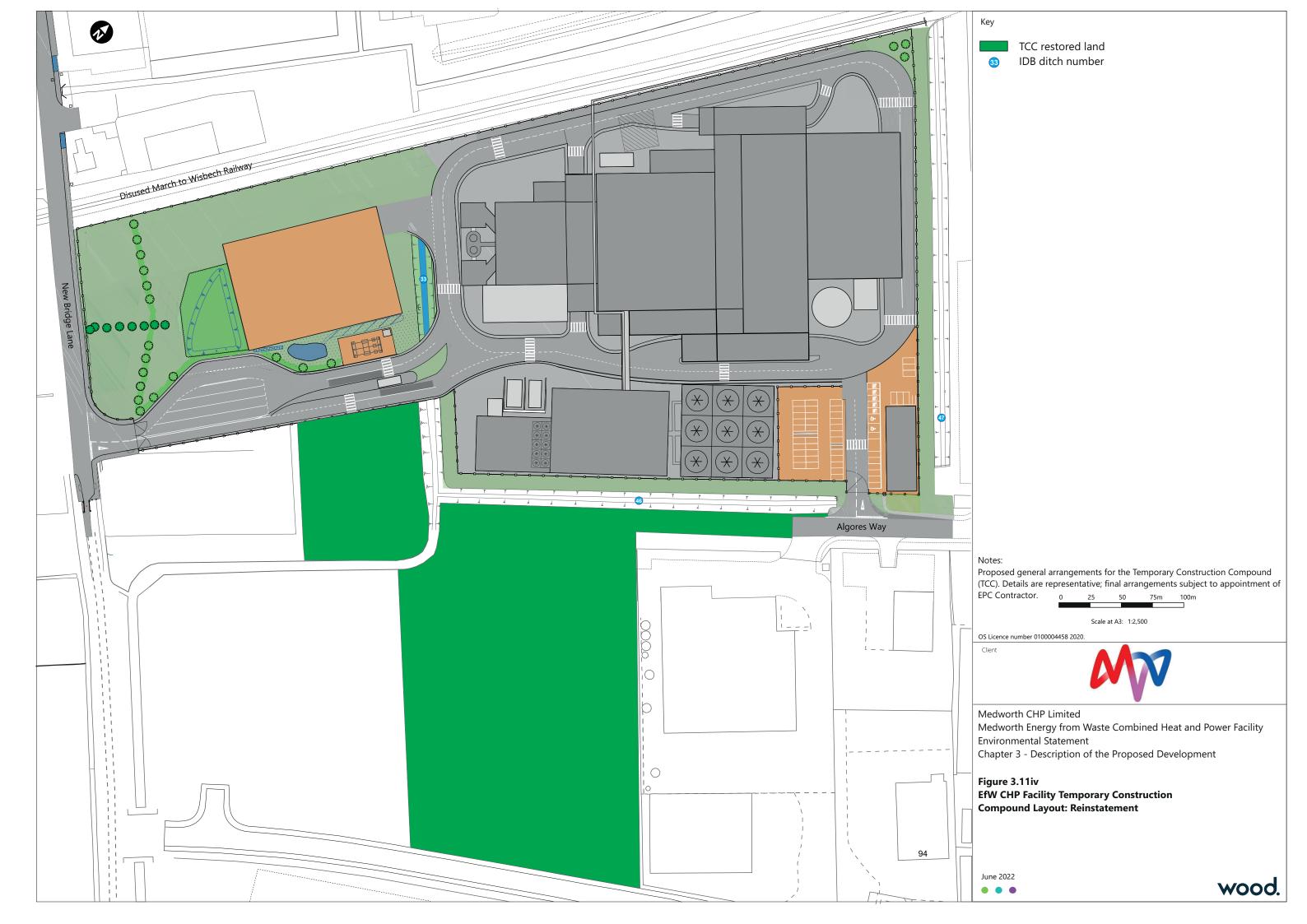


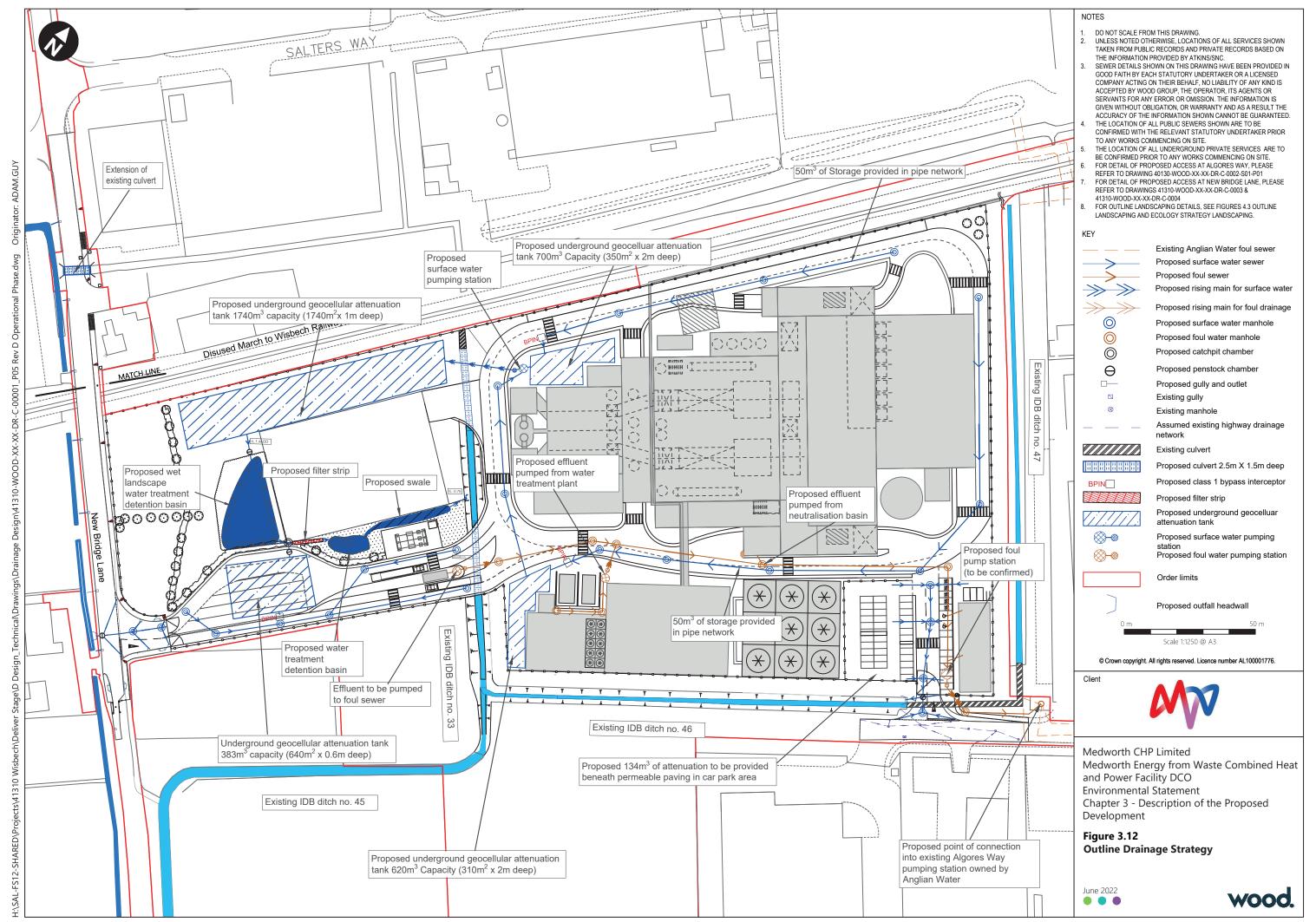


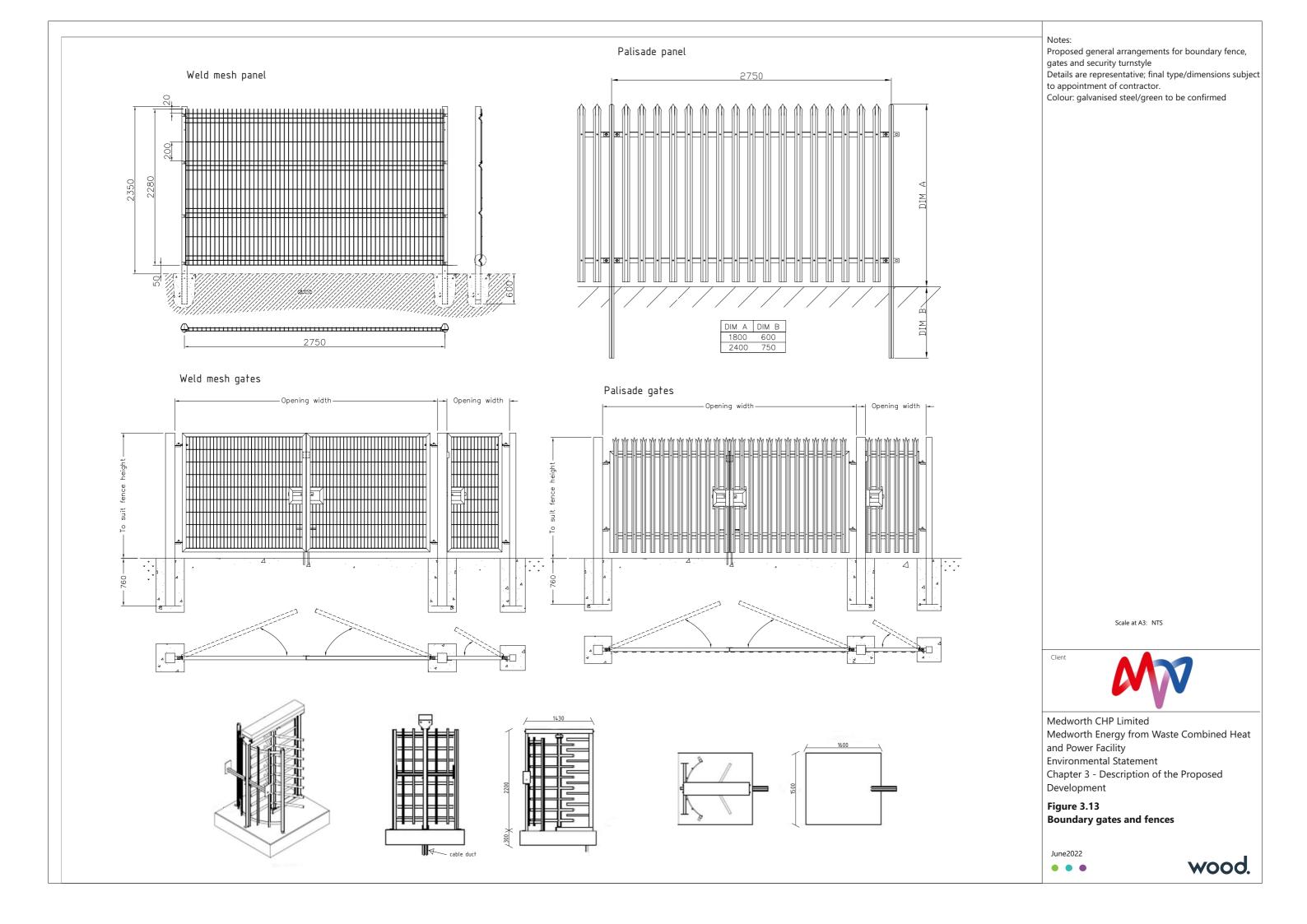


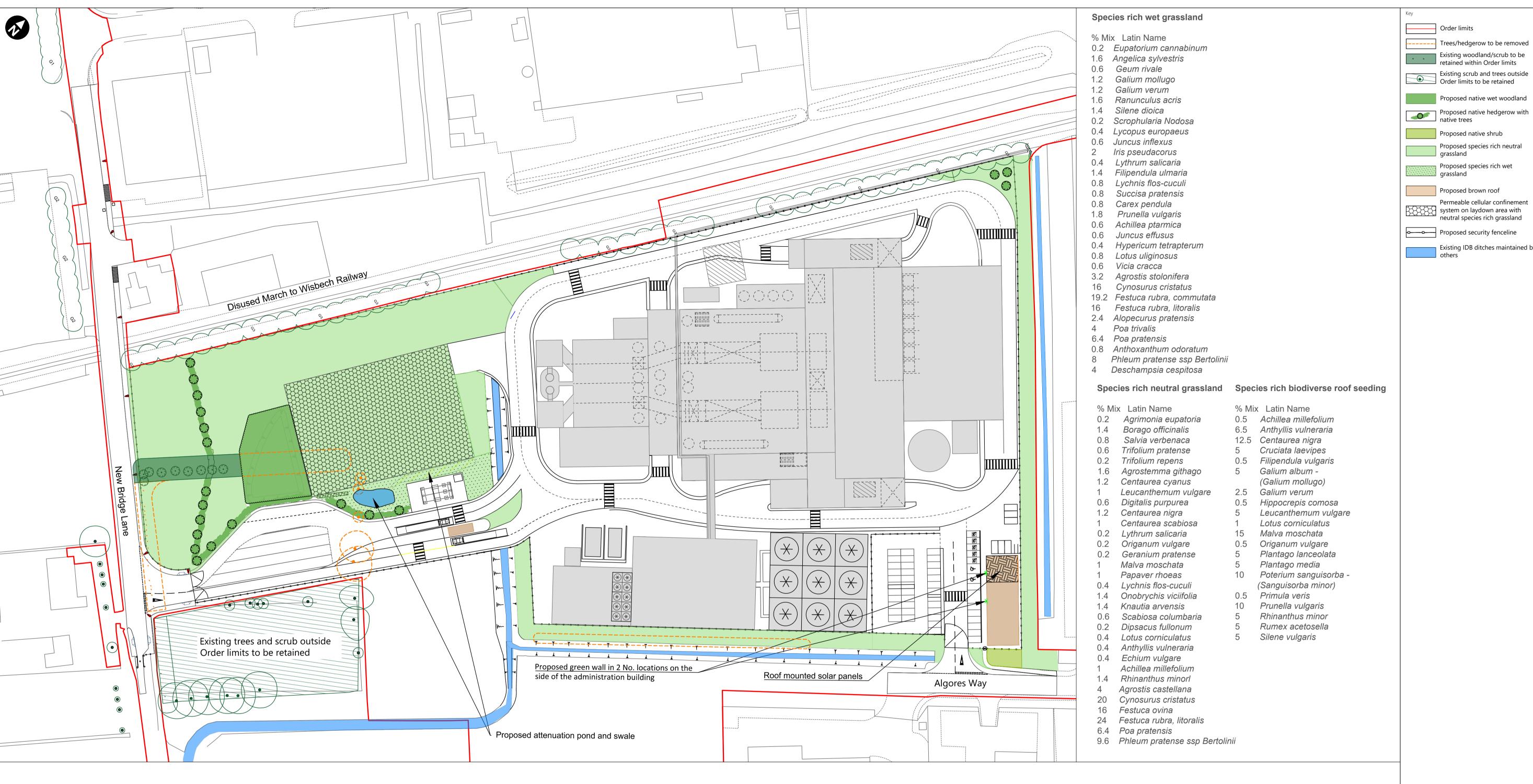












Native Wet Woodland Species Mix - (Planted at 2m centres)			
Species	Height	Specification	Mix
Alnus glutinosa	60-80cm	1+1: Transplant	20%
Betula pubescens	60-80cm	1+1: Transplant	15%
Cornus sanguinea	60-80cm	1+1: Transplant	15%
Crataegus monogyna	60-80cm	1+1: Transplant	15%
Prunus spinosa	60-80cm	Branched, 2 breaks	5%
Rhamnus frangula	60-80cm	1+1: Transplant	10%
Salix caprea	60-80cm	1+1: Transplant	5%
Salix cinerea	60-80cm	1+1: Transplant	5%
Viburnum opulus	60-80cm	1+1: Transplant	10%

Hedgerow trees			
Species	Specification	Girth	Height
<i>Acer campestre</i> "Streetwise"	Heavy standard	12-14cm	350-400cm
Sorbus aucuparia 'Cardinal Royal'	Heavy standard	12-14cm	350-400cm
Prunus padus 'Albertii'	Heavy standard	12-14cm	350-400cm

ro	w at 6 plant	s per m)	
Species	Height	Specification	Mix
Cornus sanguinea	60-80cm	1+1: Transplant	5%
Corylus avellana	60-80cm	1+1: Transplant	10%
Crataegus monogyna	60-80cm	1+1: Transplant	30%
Euonymus europaeus	60-80cm	1+1: Transplant	10%
Ilex aquifolium	60-80cm	1+1: Transplant	10%
Ligustrum vulgare	60-80cm	1+1: Transplant	5%
Lonicera periclylmenum	60-80cm	1+1: Transplant	5%
Prunus spinosa	60-80cm	Branched, 2 breaks	10%
Rosa canina	60-80cm	1+1: Transplant	5%
Rhamnus frangula	60-80cm	1+1: Transplant	5%
Viburnum opulus	60-80cm	1+1: Transplant	5%

Species	Height	Mix
Corylus avellana	45-60cm	35%
Euonymus europaeus	45-60cm	10%
Ilex aquifolium	30-45cm	20%
Sambucus nigra	40-60cm	5%
Taxus baccatta	40-60cm	10%

## Green Wall - climbing plants (3 No. single species

group planted per panel)			
Species	Height	Container	No.
Jasminum officinale	150-200cm	10L pot	3
Trachelospermum jasminoides	150-200cm	10L pot	3



Order limits

Trees/hedgerow to be removed

Proposed native wet woodland

Proposed native shrub

Proposed brown roof

grassland

Proposed species rich neutral grassland

Proposed species rich wet

Permeable cellular confinement

Existing IDB ditches maintained by

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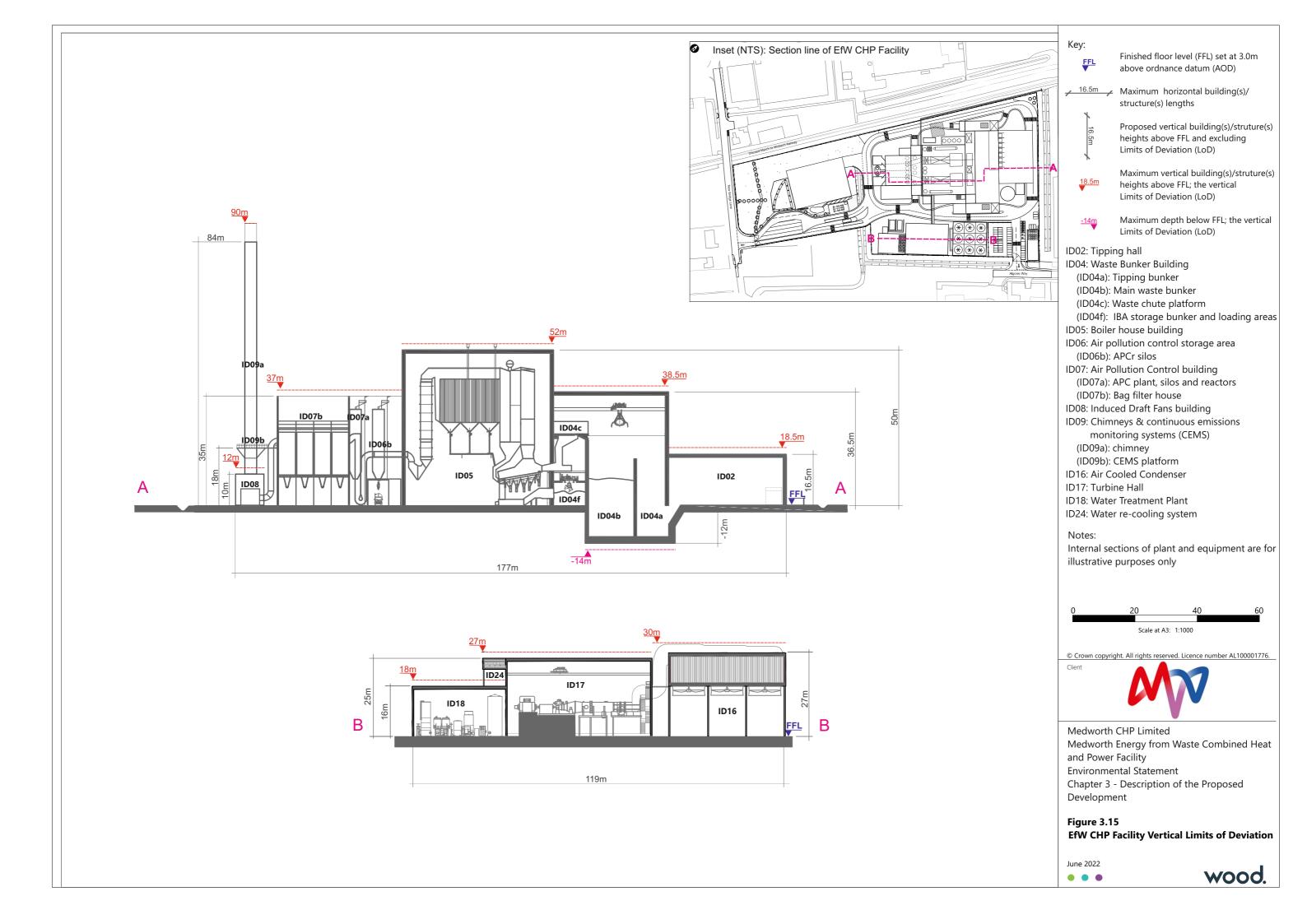


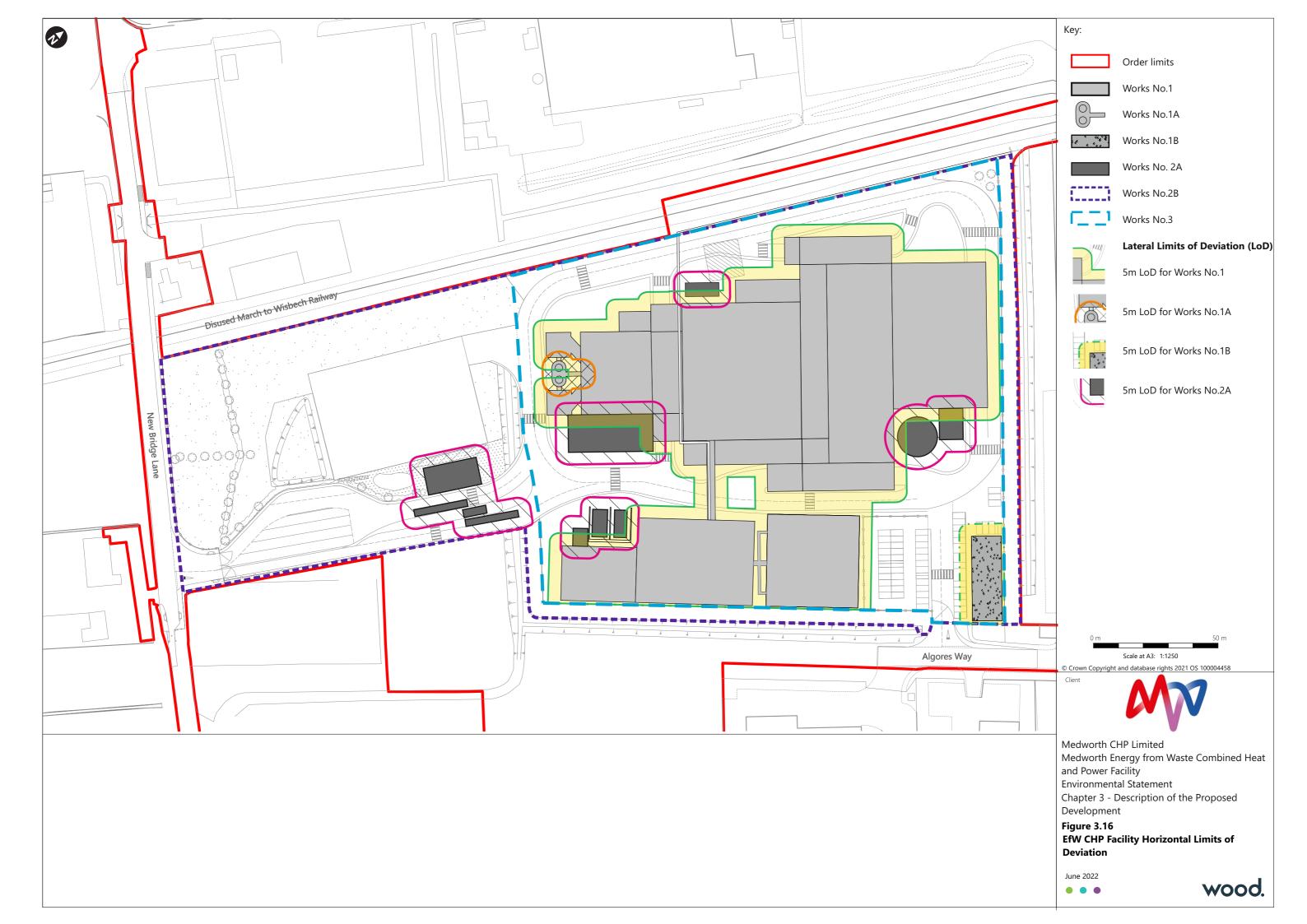
Medworth CHP Limited Medworth Energy from Waste Combined Heat and Power Facility DCO **Environmental Statement** Chapter 3 - Description of the Proposed Development

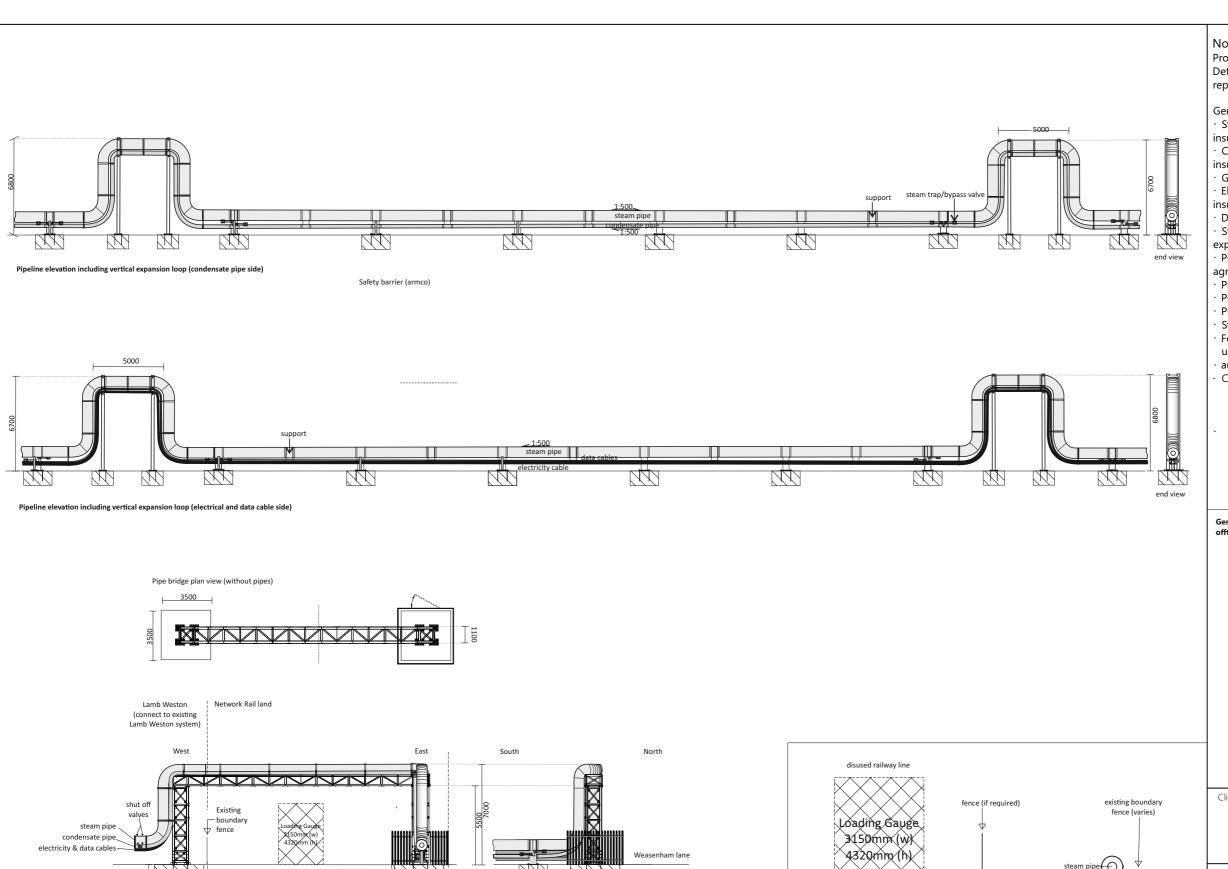
Figure 3.14 **Outline Landscape and Ecology Strategy** 









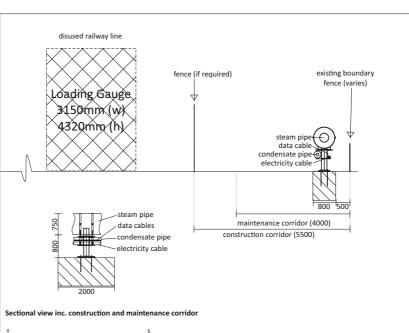


Pipe bridge elevation view (west) across disused

railway line to Lamb Weston connection point

17000

Pipe bridge section view (north) across disused railway line to Lamb Weston connection point



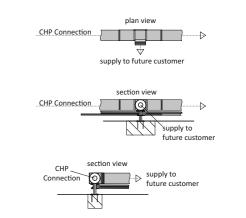
### Notes:

Proposed general arrangements for CHP pipeline. Details and location of infrastructure are representative. Subject to detailed design.

General Design Parameters: (measurements in mm)

- Steam Pipe diameter: 750 (300 steam pipe and 450 insulation and cladding)
- Condensate pipe: 250 (100 condensate pipe and 150 insulation and cladding)
- Ground clearance: 400 (minimum)
- Electrical export cables: 110 (includes armour and insulation)
- Data cables: c.3 x wires
- Steam trap and bypass valves: either side of expansion loop and bridge
- Pipe cladding: galvanised/coated steel colour to be agreed
- Pipes lengths: 6000 or 12000 prefabricated sections
- Pipe supports spans: 10000
- Protective barrier/fence: Armco or similar
- Steam and condensate pipe gradient: 1:5000
- Foundation slab: subject to ground conditions up to 2000(w) 2000(w) 2000(d)
- auger piles (if required) 5000(d)
- Customer connection details subject to agreement

#### General arrangements for future customer offtake from the CHP Connection





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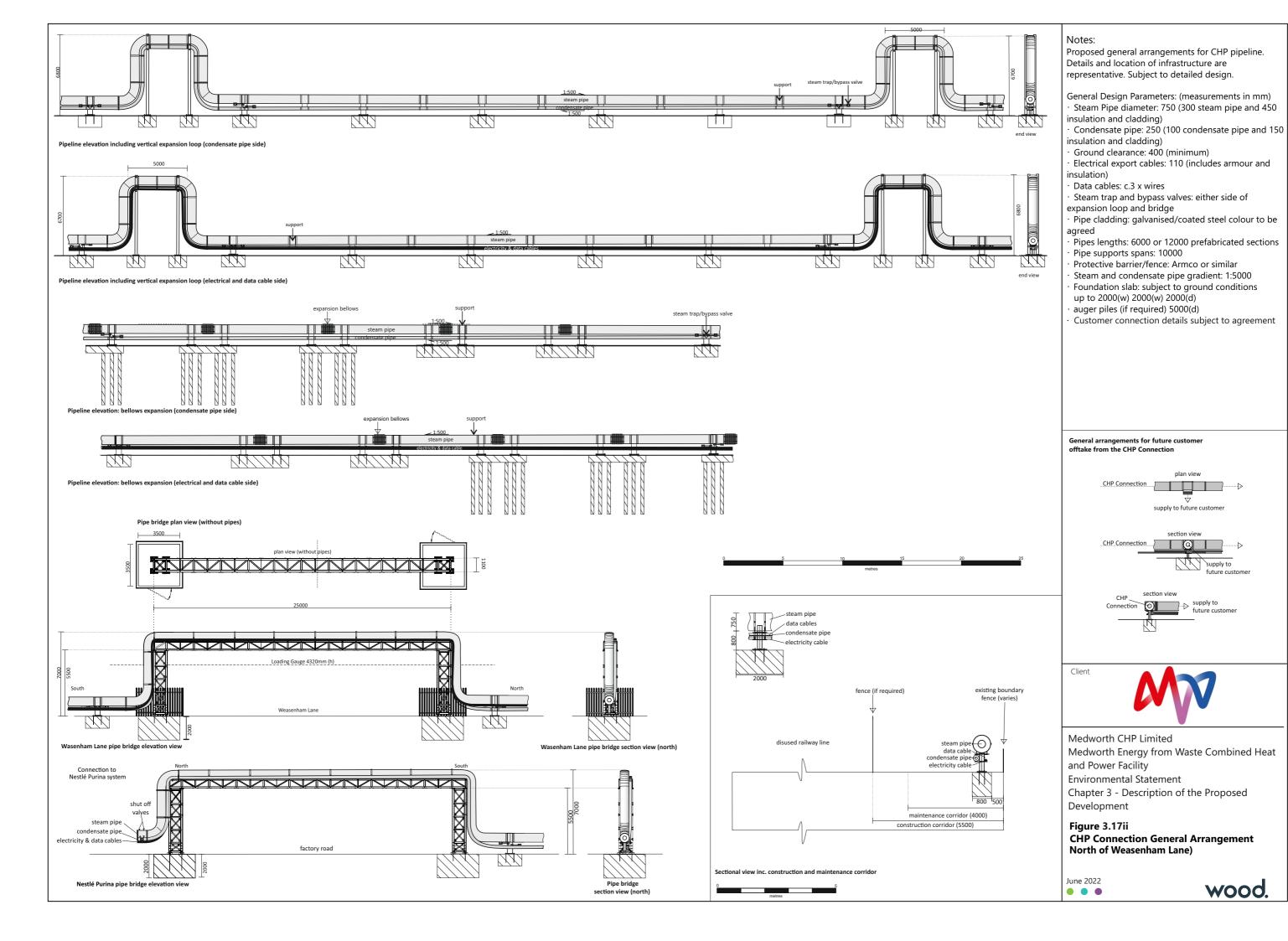
**Environmental Statement** 

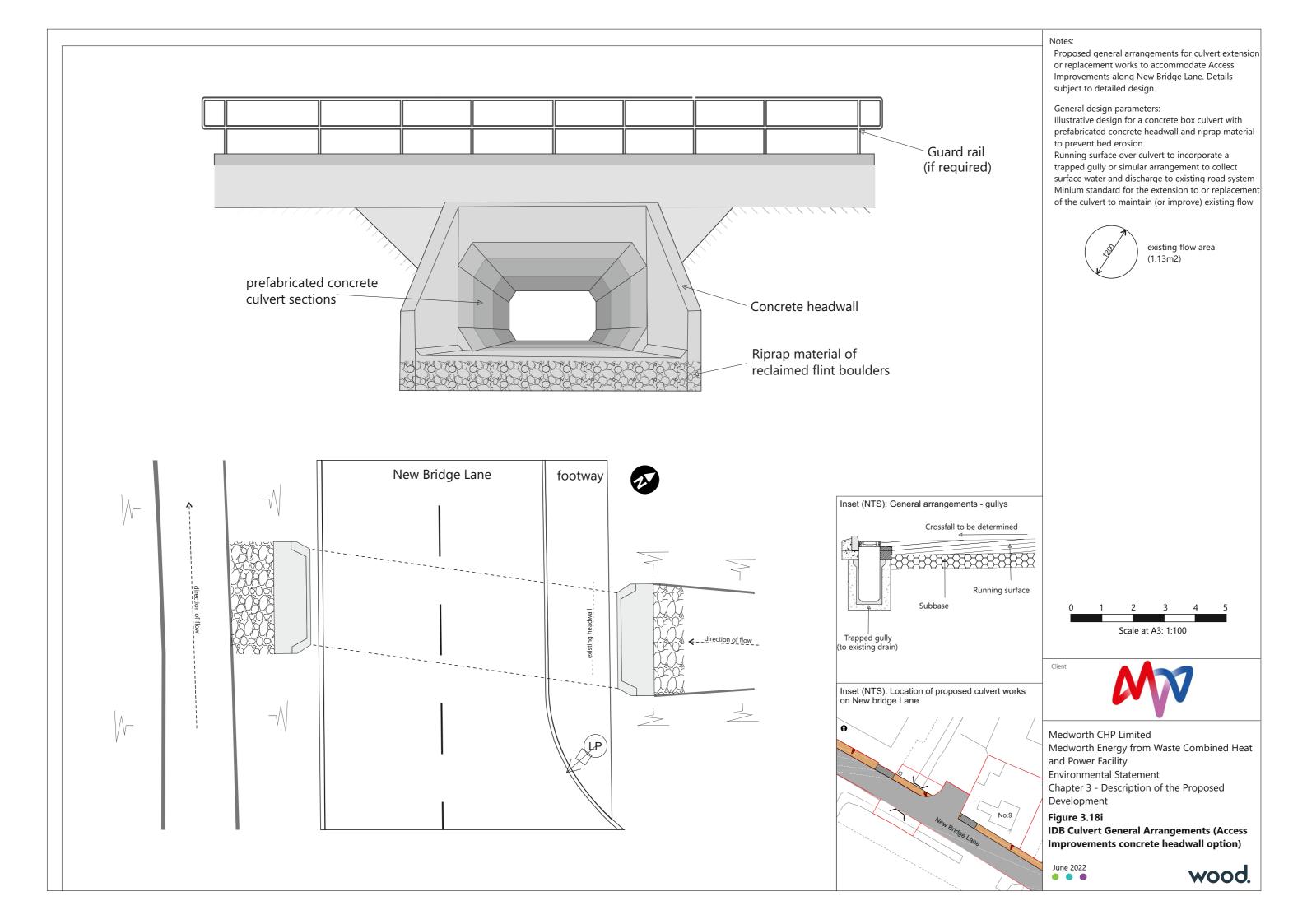
Chapter 3 - Description of the Proposed Development

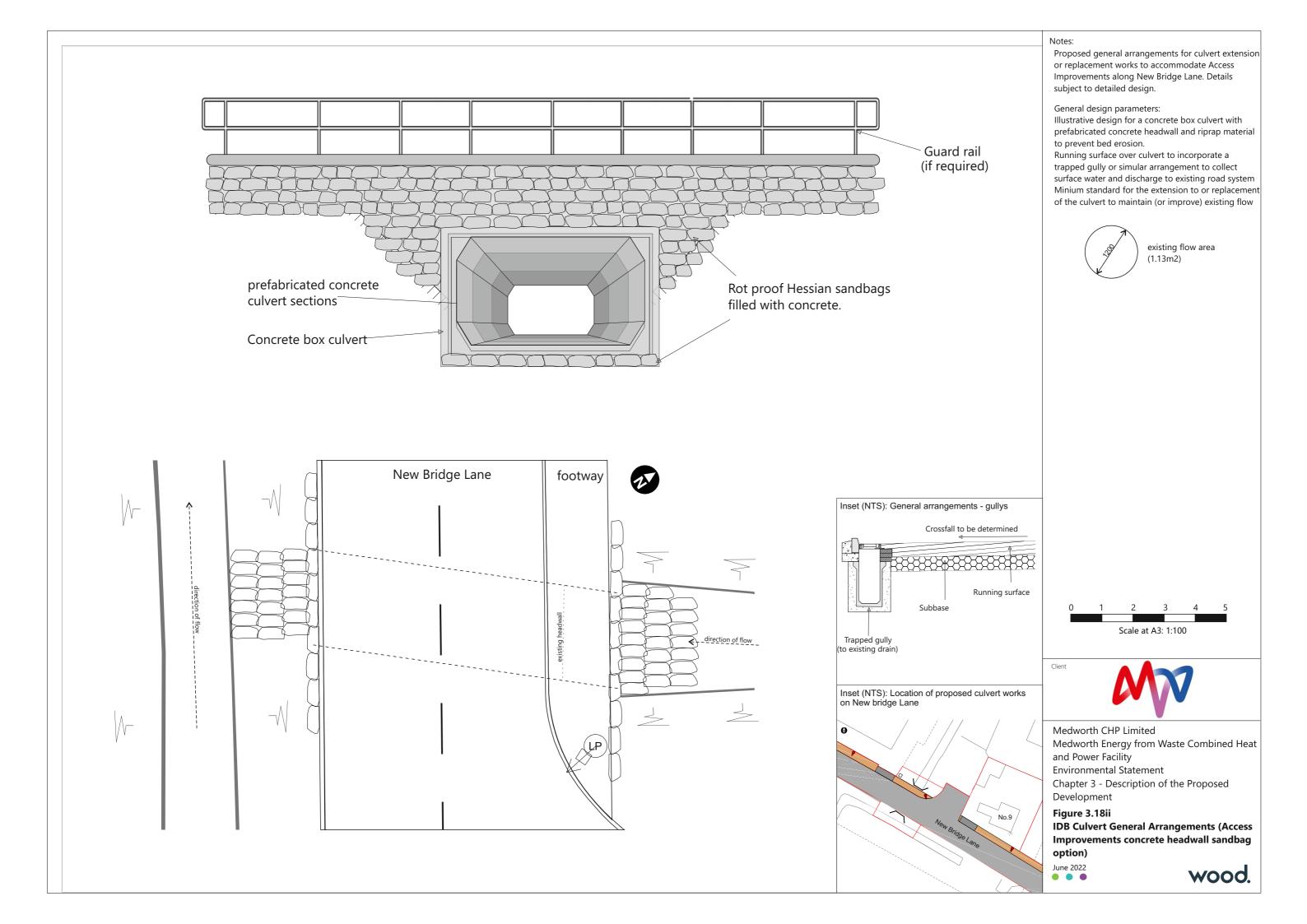
Figure 3.17i **CHP Connection General Arrangement** (South of Weasenham Lane)

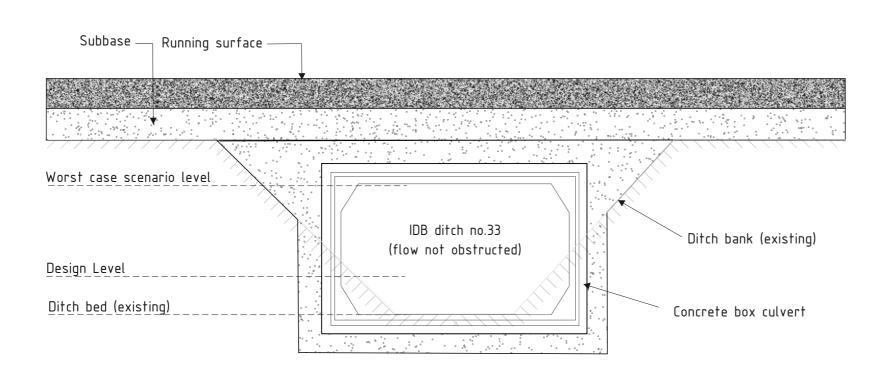
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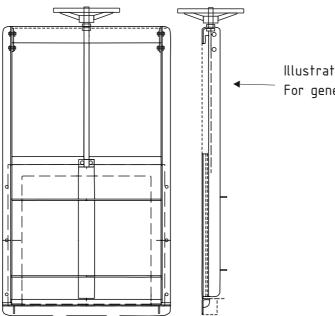












Illustrative example of adjustable weir to be provided For general location, see inset drawing.

Inset (NTS): Location of proposed culvert works on Ditch 33



## Notes:

Proposed general arrangements for culvert extension of IDB ditch no. 33. Details subject to detailed design.

General design parameters:

Illustrative design for a concrete box culvert with prefabricated concrete headwall and riprap material to prevent bed erosion.

Running surface over culvert to incorporate a trapped gully or simular arrangement to collect surface water and discharge to EfW CHP Facility drainage system.

Minium standard for the extension to or replacement of the culvert to maintain existing flow Remove existing and provide replacement adjustable weir.

Scale at A3: illustrative only, not to scale

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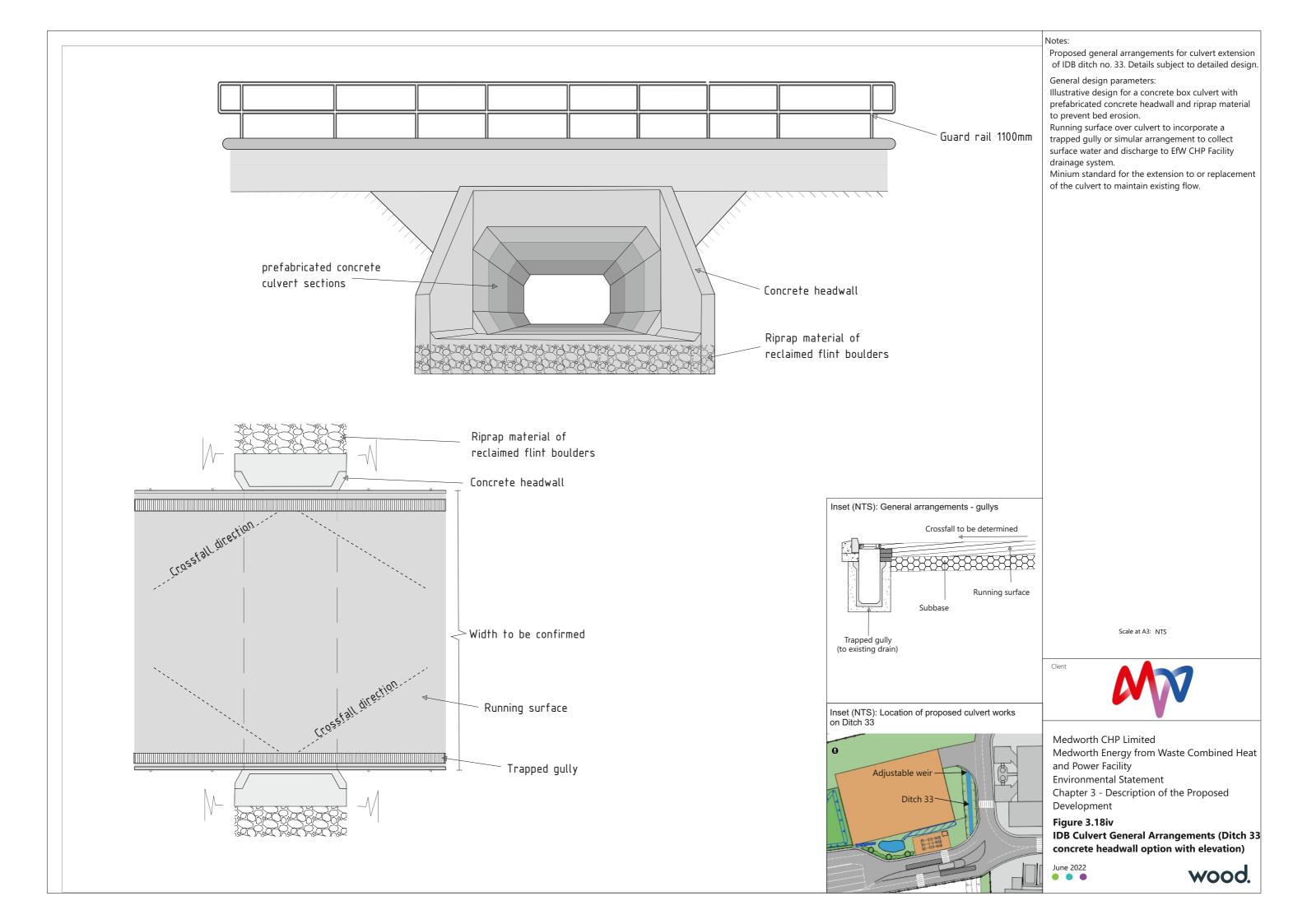
Chapter 3 - Description of the Proposed Development

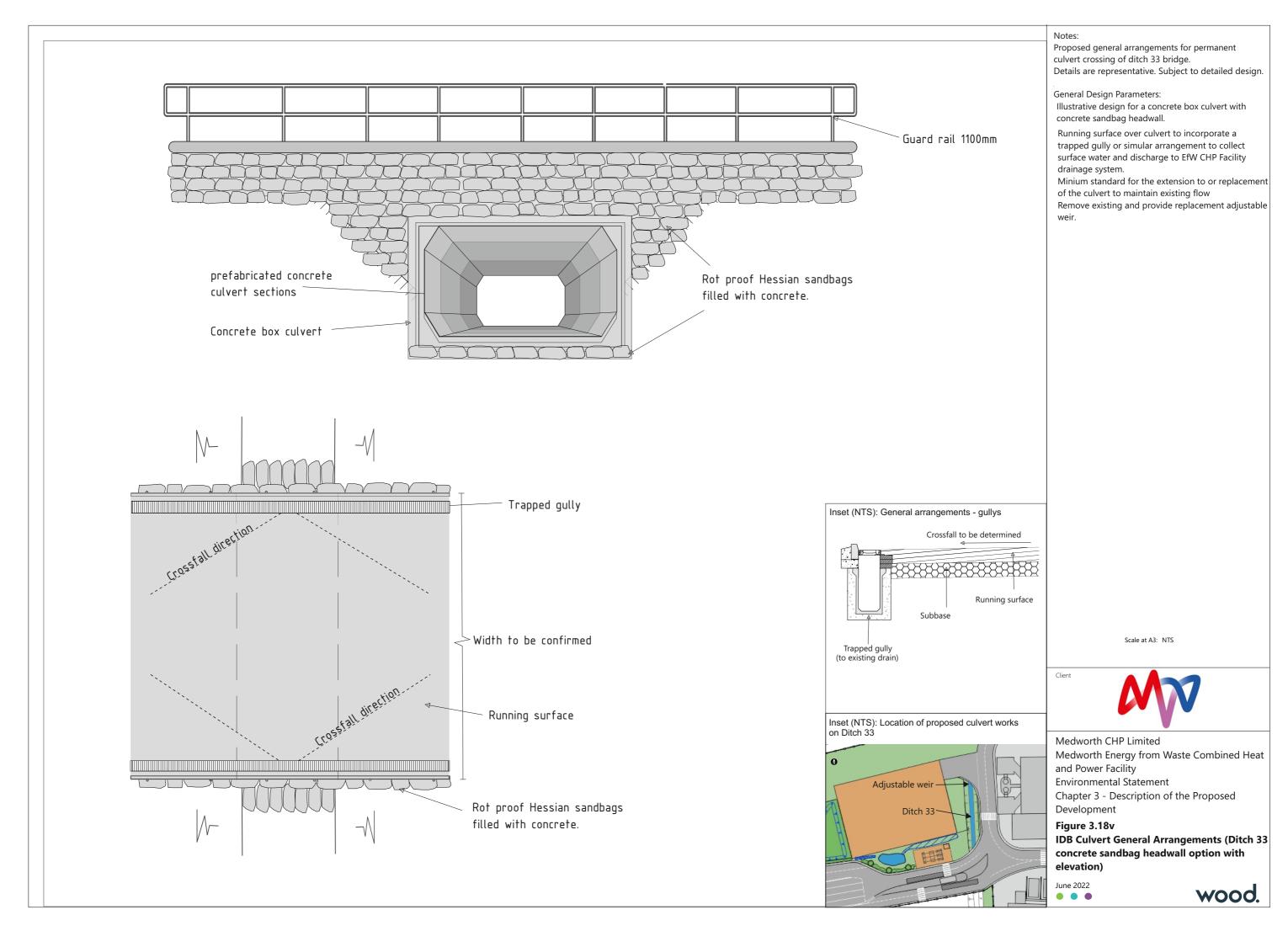
Figure 3.18iii

IDB Culvert General Arrangements (Ditch 33 section and adjustable weir)

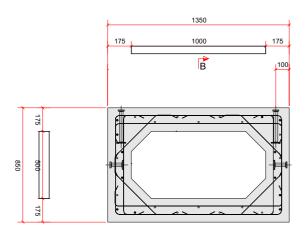






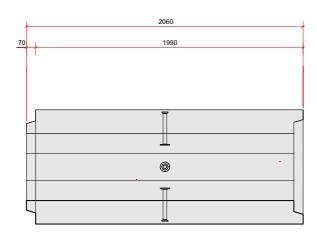


#### BOX CULVERT STANDARD STOCK 1000 x 500 UNIT REF:- BC-0001

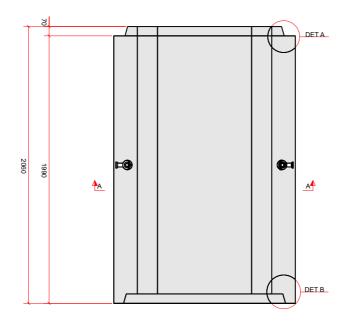


R

SECTION A-A THRO' CULVERT CROSS SECTION



SECTION B-B THRO' CULVERT UNIT LENGTH



INTERNAL DIMENSIONS
(Based on flat invert culvert units)
Key: Flow area m2 / Discharge rate m3/sec

0.46 0.56 0.71 0.86 0.40 0.51 0.67 0.84

 0.56
 0.68
 0.86
 1.04
 1.22

 0.53
 0.67
 0.89
 1.11
 1.33

 0.61
 0.74
 0.93
 1.13
 1.32
 1.52
 1.71

 0.60
 0.76
 1.00
 1.25
 1.50
 1.75
 2.00

 0.76
 0.92
 1.13
 1.37
 1.61
 1.85
 2.09
 2.33
 2.57
 2.81
 3.05

 0.81
 1.03
 1.33
 1.67
 2.01
 2.36
 2.71
 3.06
 3.42
 3.77
 4.12

Width mm (internal span)

1000 1200 1500 1800 2100 2400 2700 3000 3300 3600 3900 4200 4500 4800 5100 540

 0.96
 1.16
 1.43
 1.73
 2.03
 2.33
 2.63
 2.93
 3.23
 3.53
 3.83
 4.13
 4.43
 4.73

 1.10
 1.40
 1.84
 2.32
 2.80
 3.29
 3.79
 4.29
 4.79
 5.30
 5.80
 6.30
 6.81
 7.32

 1.37
 1.73
 2.09
 2.45
 2.81
 3.17
 3.53
 3.89
 4.25
 4.61
 4.97
 5.33
 5.69
 6.05
 6.41

 1.76
 2.37
 3.00
 3.64
 4.29
 4.95
 5.61
 6.28
 6.95
 7.62
 8.29
 8.97
 9.64
 10.32
 11.00

 2.18
 2.63
 3.08
 3.53
 3.98
 4.43
 4.88
 5.33
 5.78
 6.23
 6.68
 7.13
 7.58
 8.03

 3.21
 4.09
 4.98
 5.89
 6.81
 7.74
 8.68
 9.62
 10.57
 11.52
 12.48
 13.44
 14.40
 15.37

DECK / BASE / WALLS

DETAIL A (SPIGOT)

72 20 83

3.17 3.71 4.25 4.79 5.33 5.87 6.41 6.95 7.49 8.03 8.57 9.11 9.65 5.21 6.38 7.57 8.78 10.00 11.24 12.48 13.74 15.00 16.27 17.54 18.82 20.10

 4.34
 4.97
 5.60
 6.23
 6.86
 7.49
 8.12
 8.75
 9.38
 10.01
 10.64
 11.27

 7.83
 9.31
 10.83
 12.36
 13.92
 15.49
 17.07
 18.67
 20.27
 21.89
 23.50
 25.13

 5.69
 6.41
 7.13
 7.85
 8.57
 9.29
 10.01
 10.73
 11.45
 12.17
 12.89

 11.11
 12.94
 14.81
 16.70
 18.62
 20.55
 22.50
 24.46
 26.44
 28.42
 30.41

7.22 8.03 8.84 9.65 10.46 11.27 12.08 12.89 13.70 14.51 15.11 17.32 19.57 21.84 24.14 26.46 28.80 31.16 33.53 35.91

10.82 11.81 12.80 13.79 14.78 15.77 16.76 17.75 25.49 28.52 31.60 34.71 37.86 41.03 44.22 47.43

82 20 73 175 DECK/BASE/WALLS DETAIL B (SOCKET)

8.93 9.83 10.73 11.63 12.53 13.43 14.33 15.23 16.13 19.89 22.50 25.15 27.83 30.54 33.27 36.03 38.80 41.59

12.89 13.97 15.05 16.13 17.21 18.29 19.37 15.05 15.05 16.13 17.21 18.29 19.37 15.05 15.05 16.13 17.21 18.29 19.37 17.21 18.29 19.37 17.20 19.37 17.20 19.37 17.20 19.37 17.20 19.37 17.20 19.37 17.20 19.37 17.20 19.20

PLAN VIEW ON DECK SLAB - 1000 x 500 CULVERT UNIT

# Notes:

General dimensions for pre cast box culverts. Size(s) to be selected is subject to detailed design





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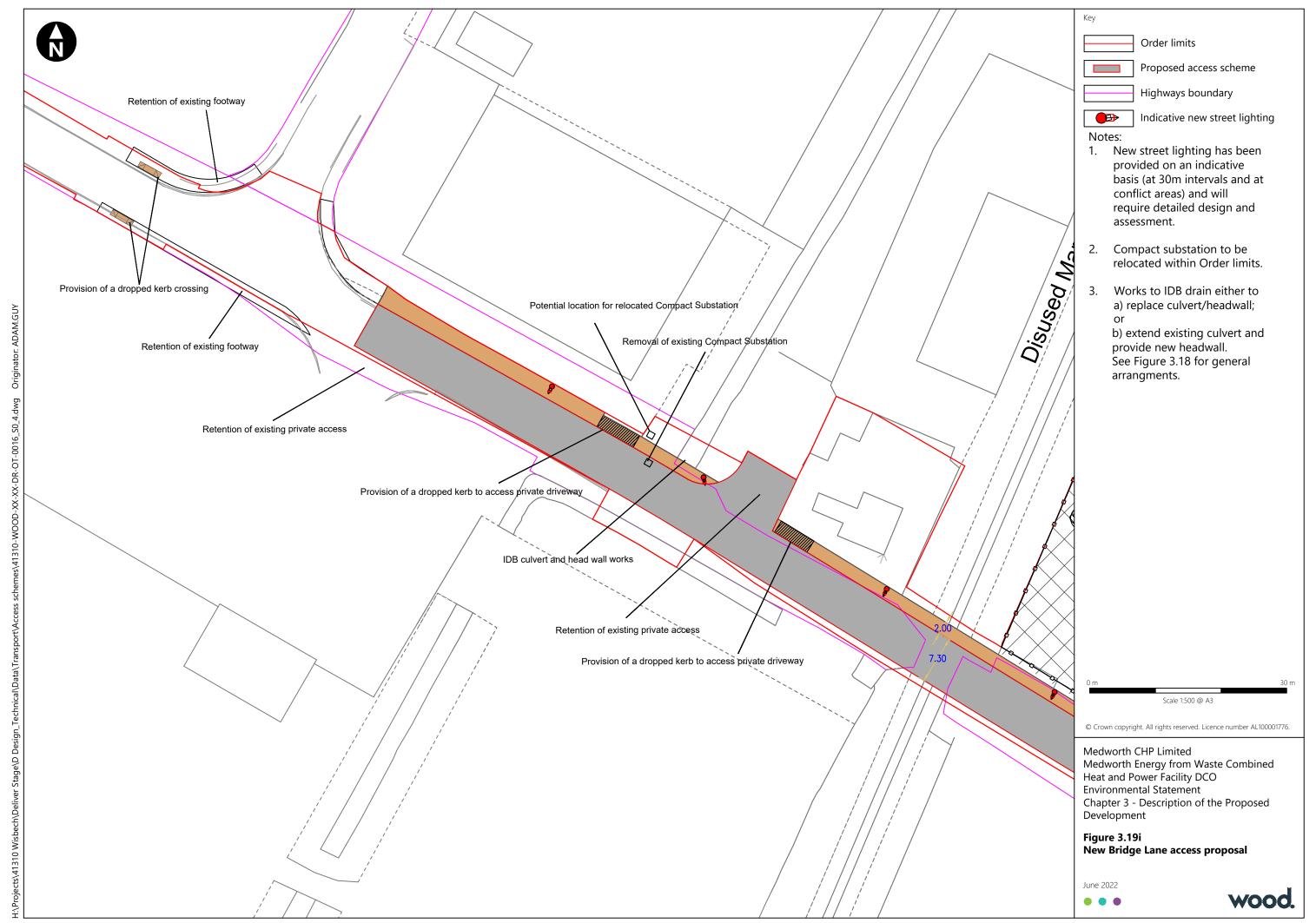
Chapter 3 - Description of the Proposed Development

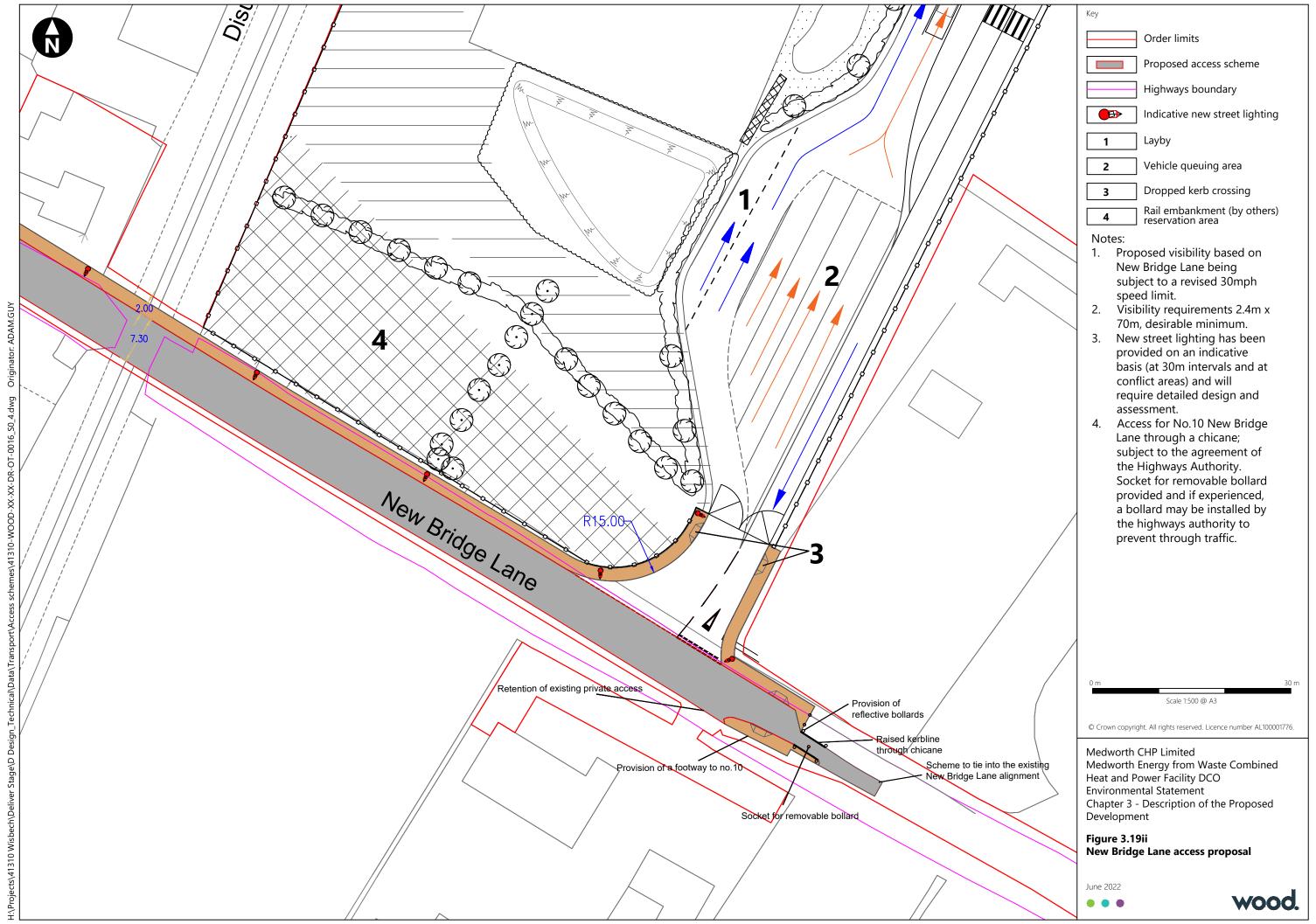
## Figure 3.18vi

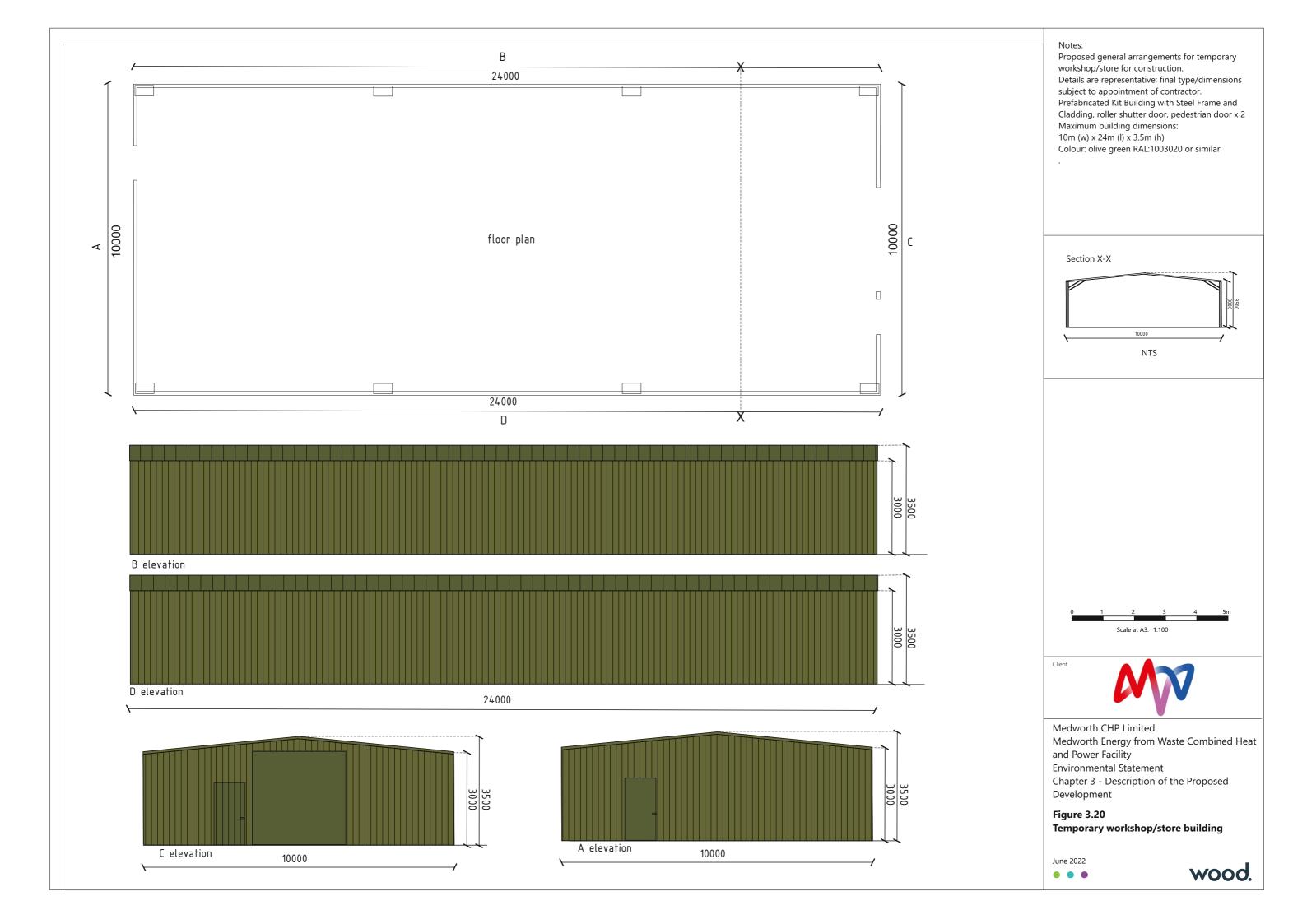
IDB Culvert General Arrangements (Precast Box Culvert dimensions)

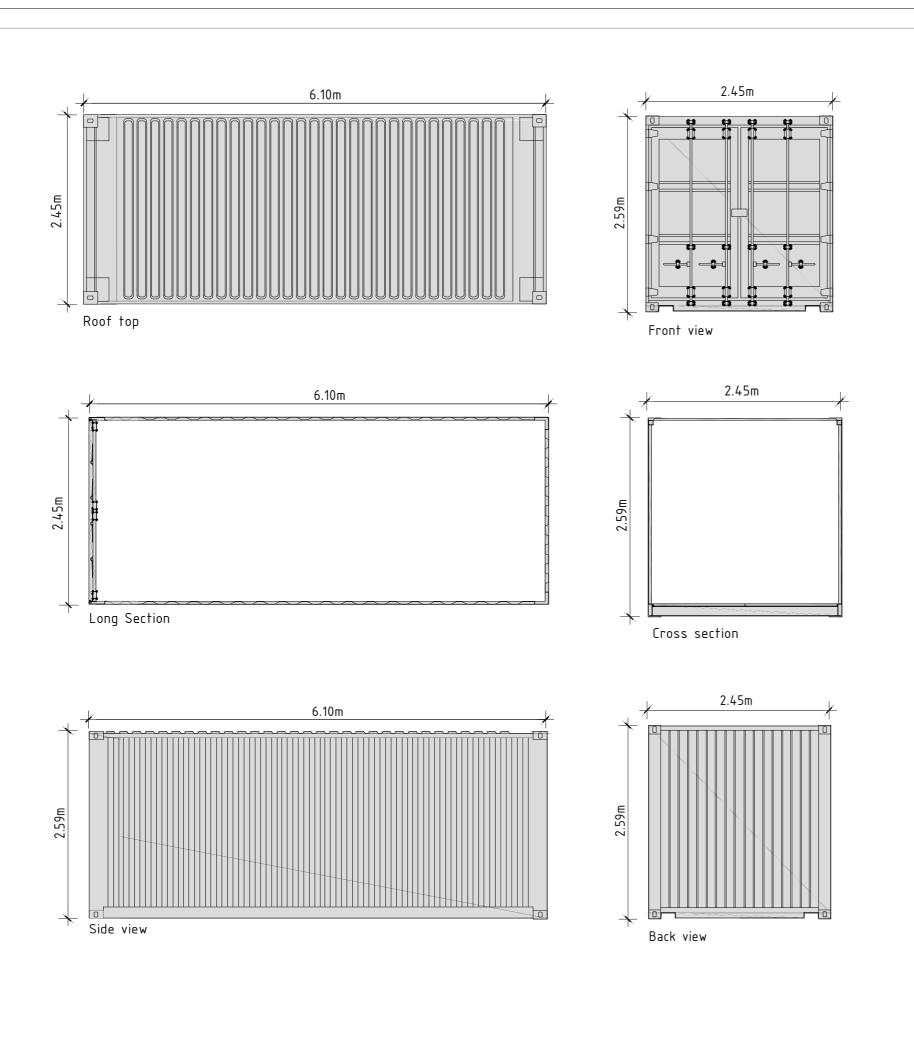












Notes:

Proposed general arrangements for temporary ISO storage containers for construction.

Details are representative; final type/dimensions subject to appointment of contractor.

Length: 6.10m

Width: 2.45m Height: 2.59m

Capacity (internal): c.33.2m3 Colour: subject availability

0 1 2 3r Scale at A3: 1:50

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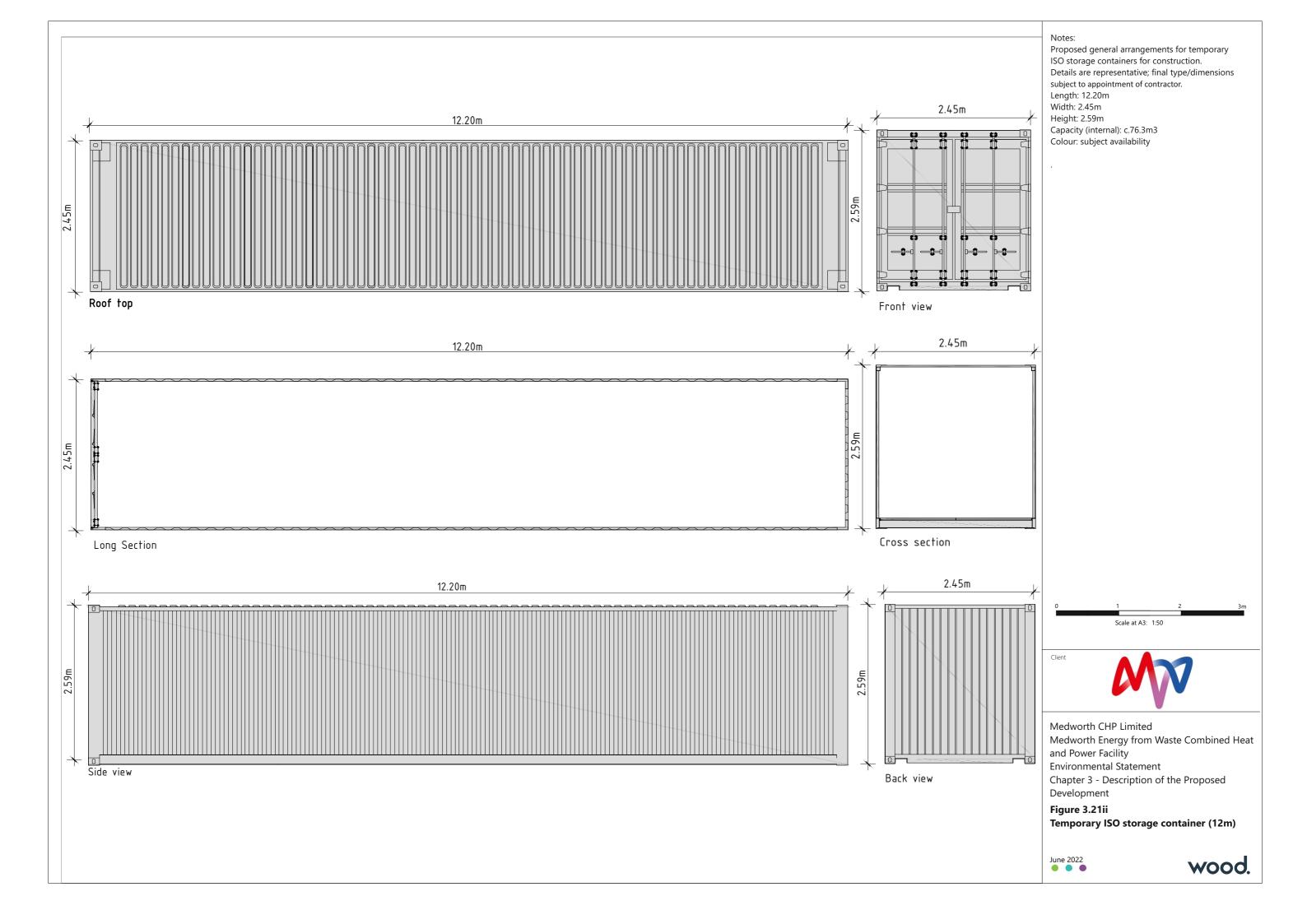
Chapter 3 - Description of the Proposed Development

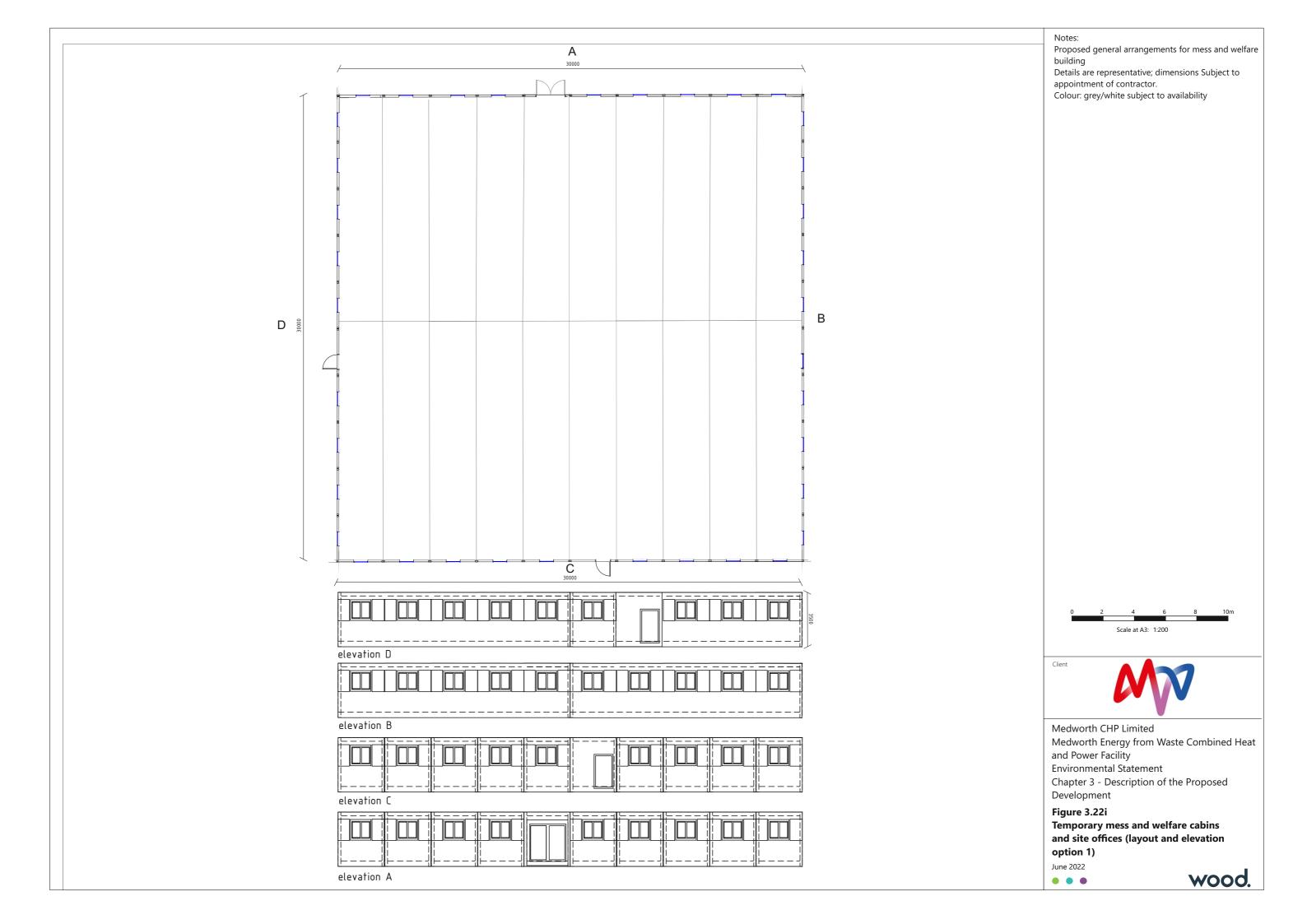
Figure 3.21i

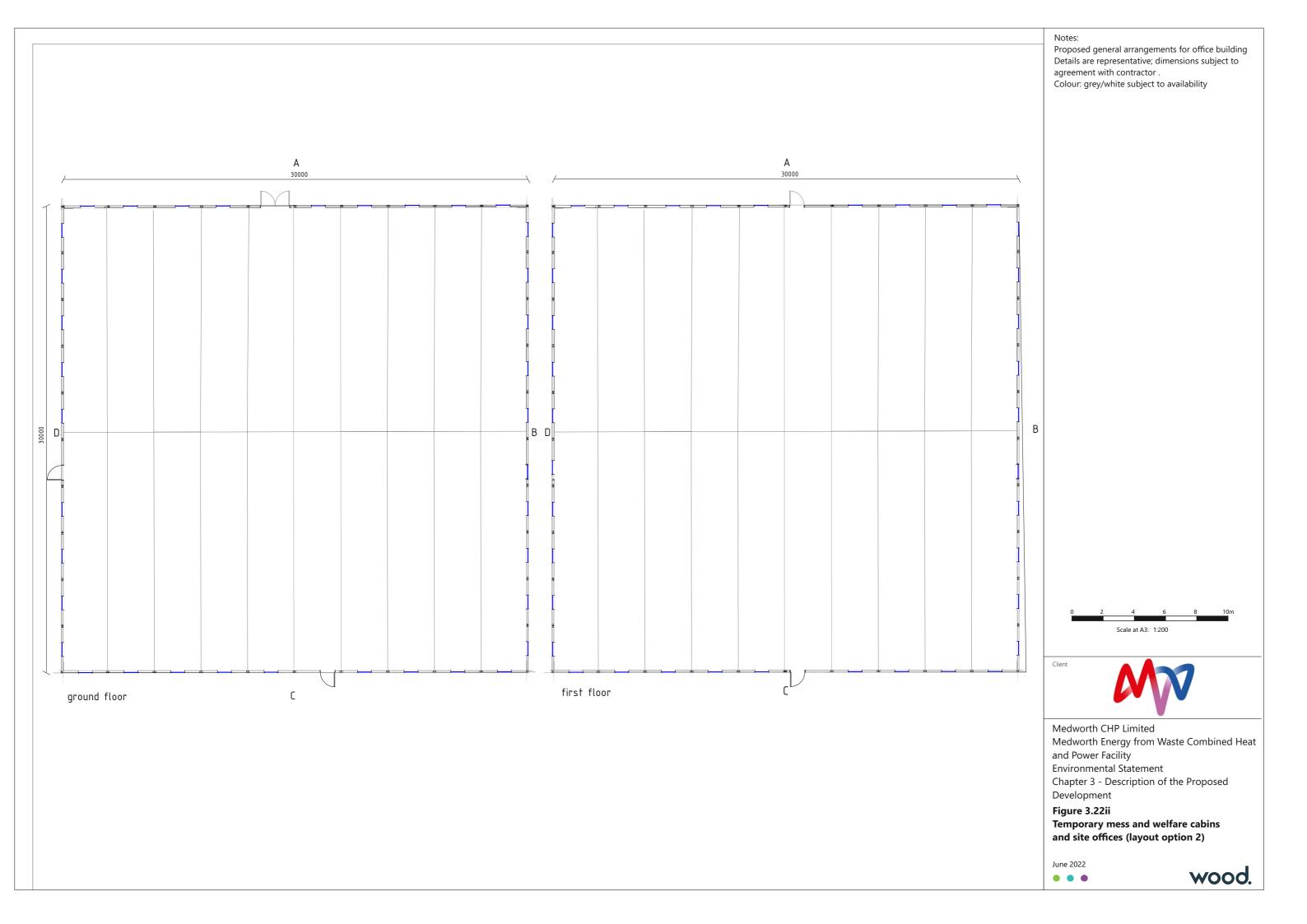
Temporary ISO storage container (6m)

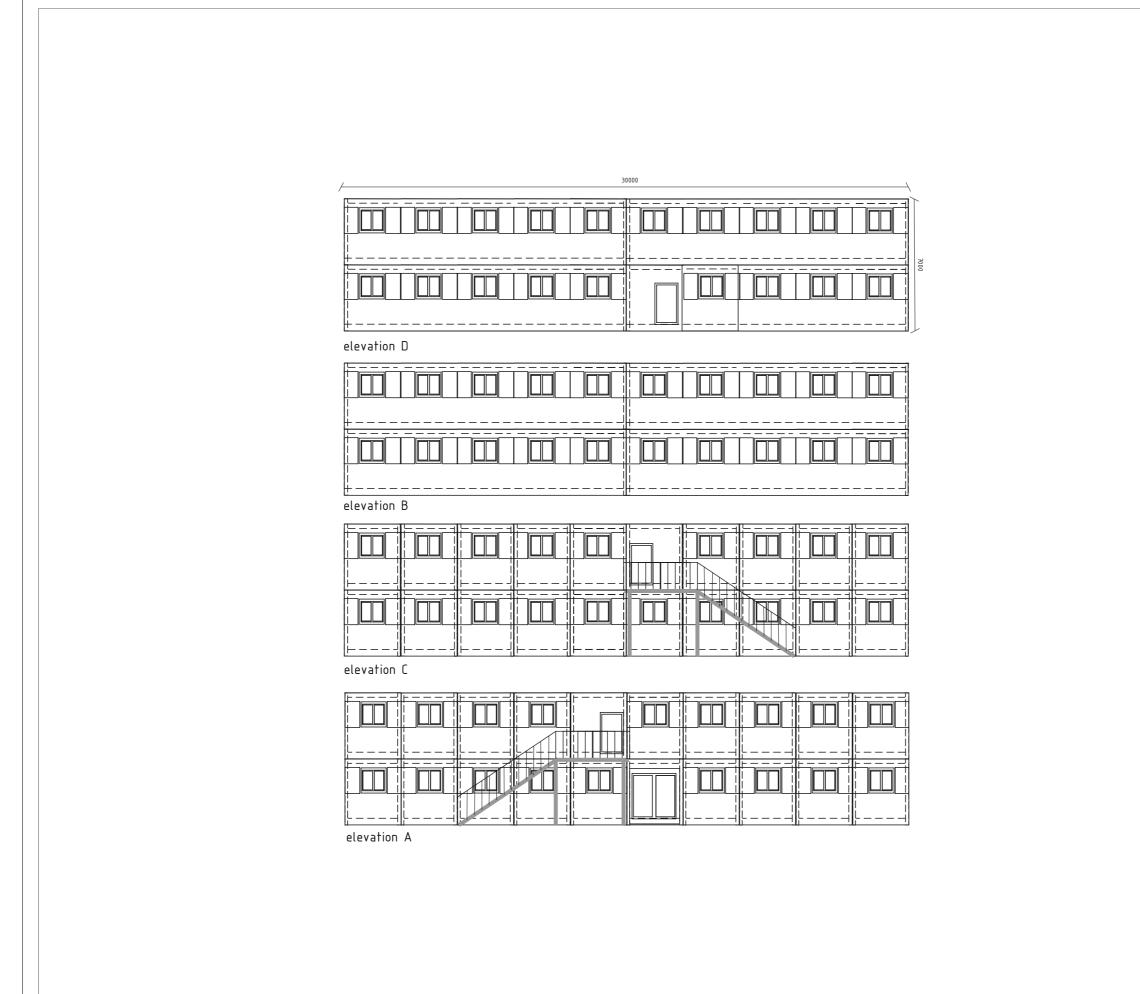








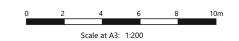




Notes:

Proposed general arrangements for office building Details are representative; dimensions subject to agreement with contractor.

Colour: grey/white subject to availability



Client



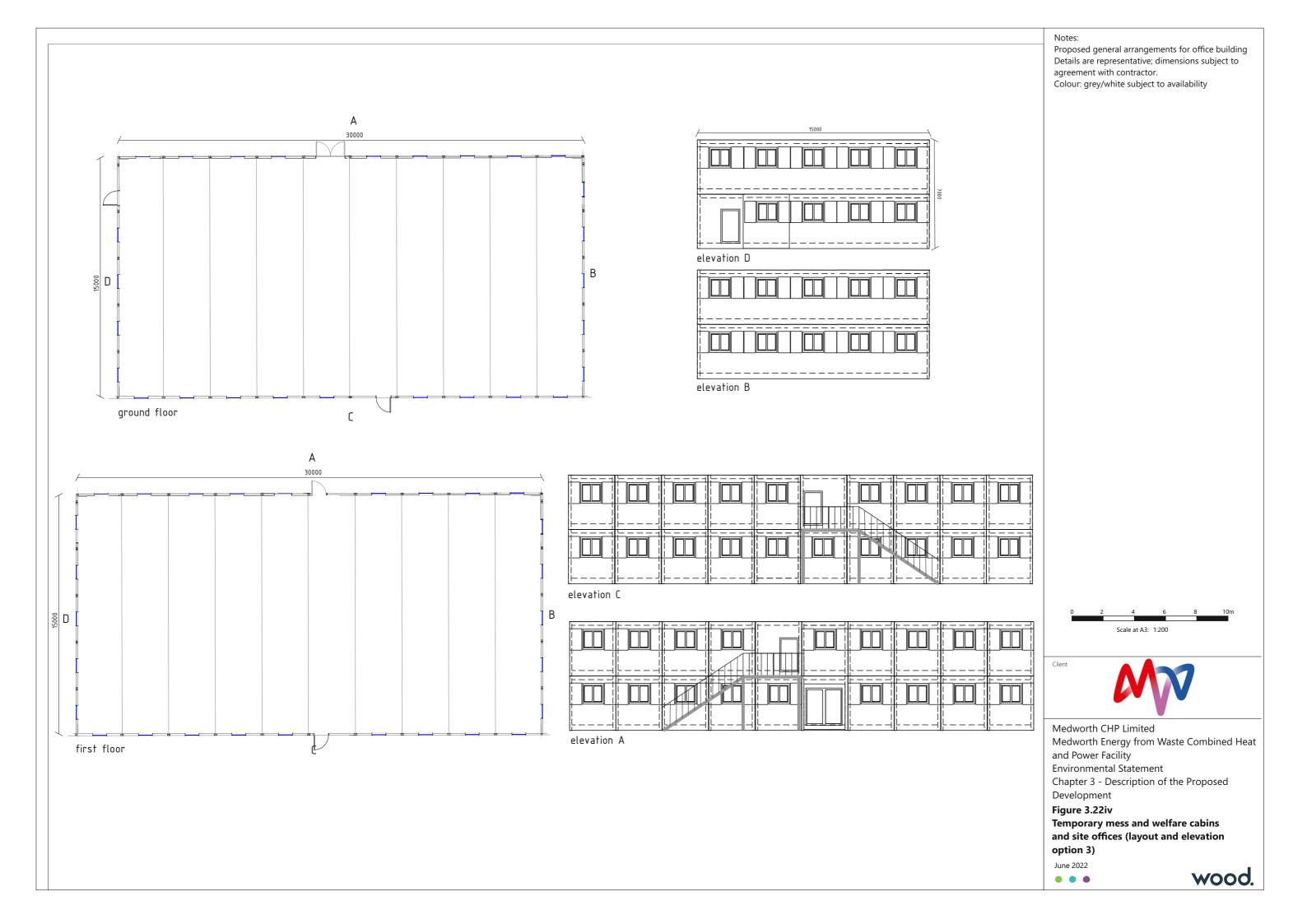
Medworth CHP Limited Medworth Energy from Waste Combined Heat and Power Facility Environmental Statement

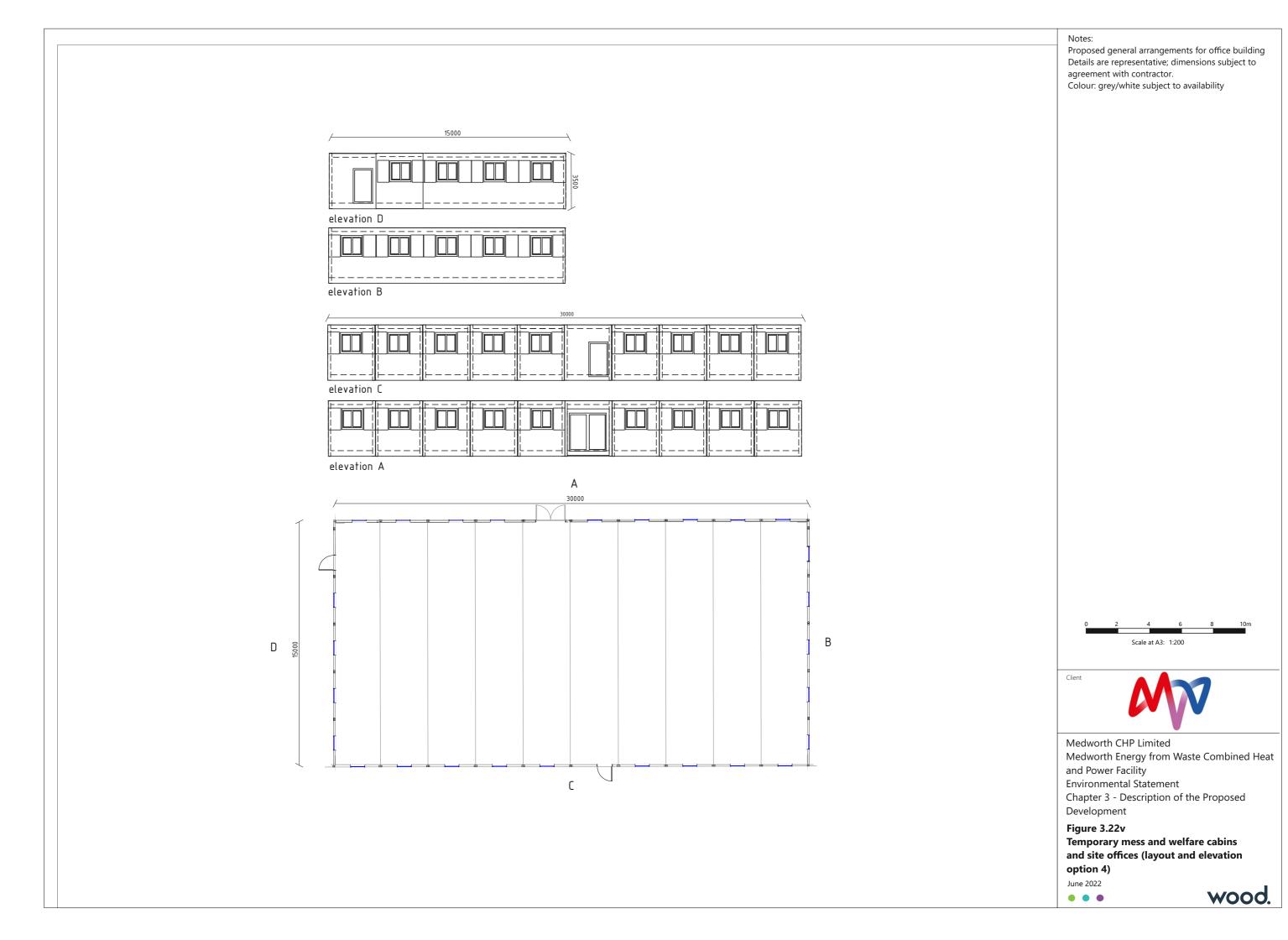
Chapter 3 - Description of the Proposed Development

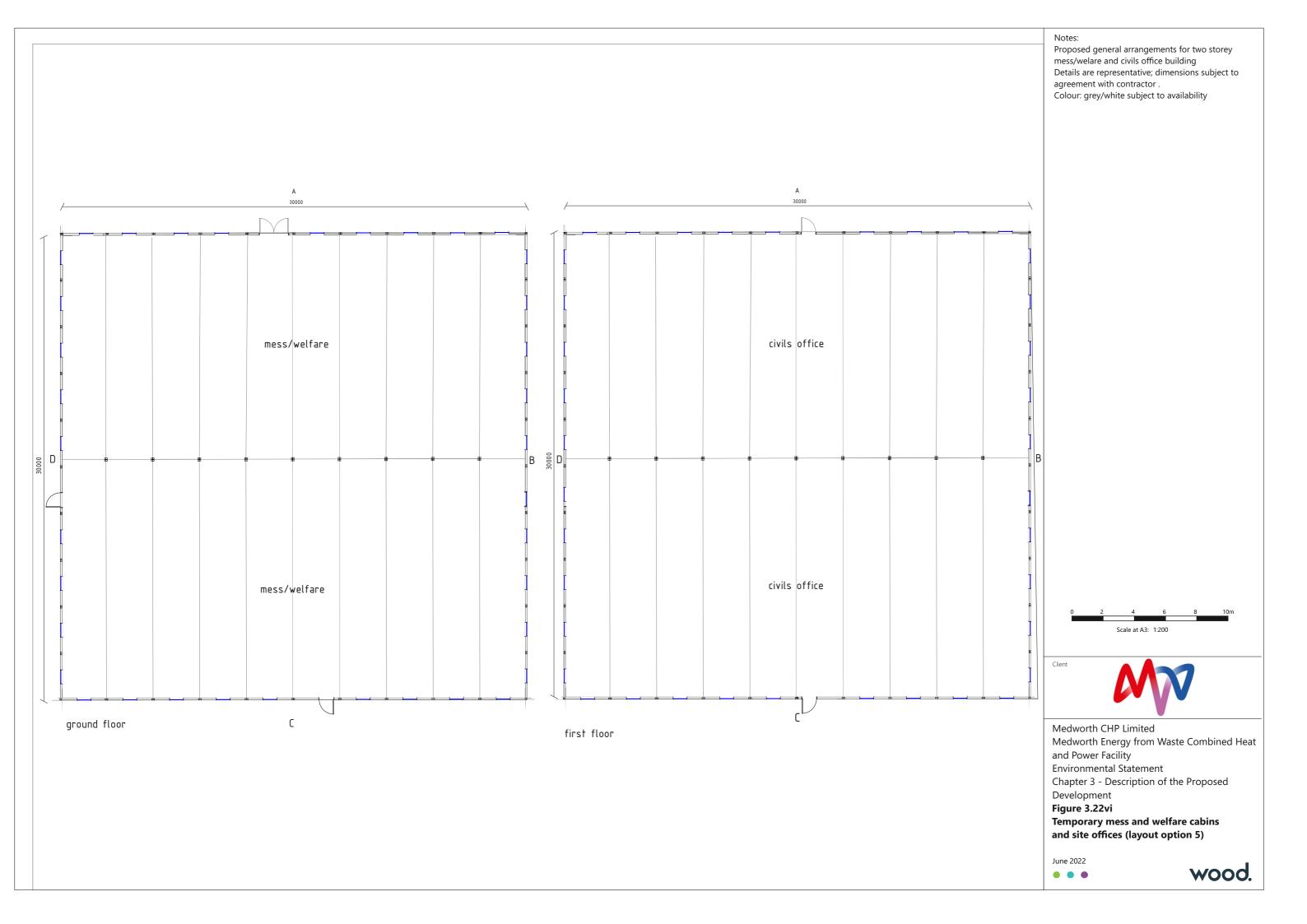
Figure 3.22iii
Temporary mess and welfare cabins and site offices (elevation option 3)

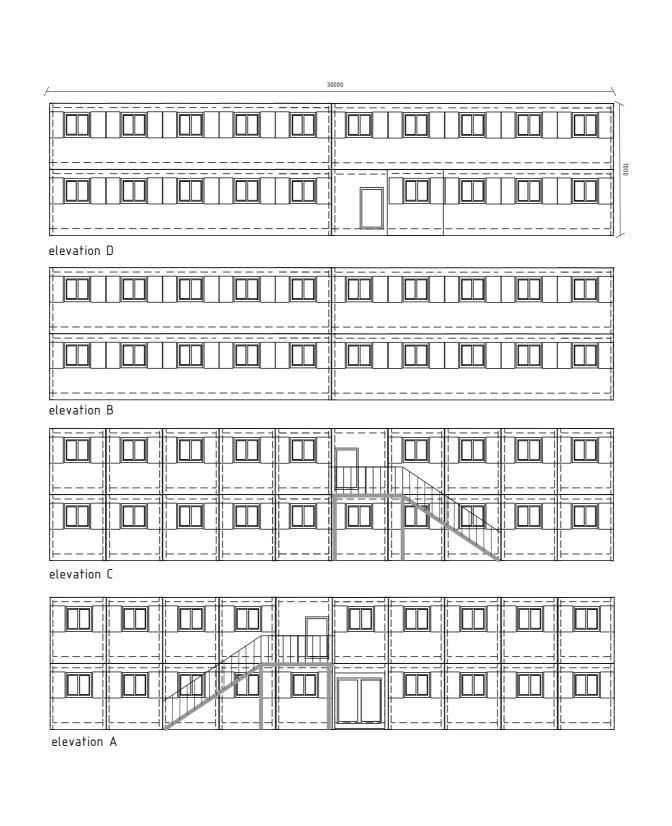












Notes:

Proposed general arrangements for two storey mess/welare and civils office building Details are representative; dimensions subject to agreement with contractor.

Colour: grey/white subject to availability



Client



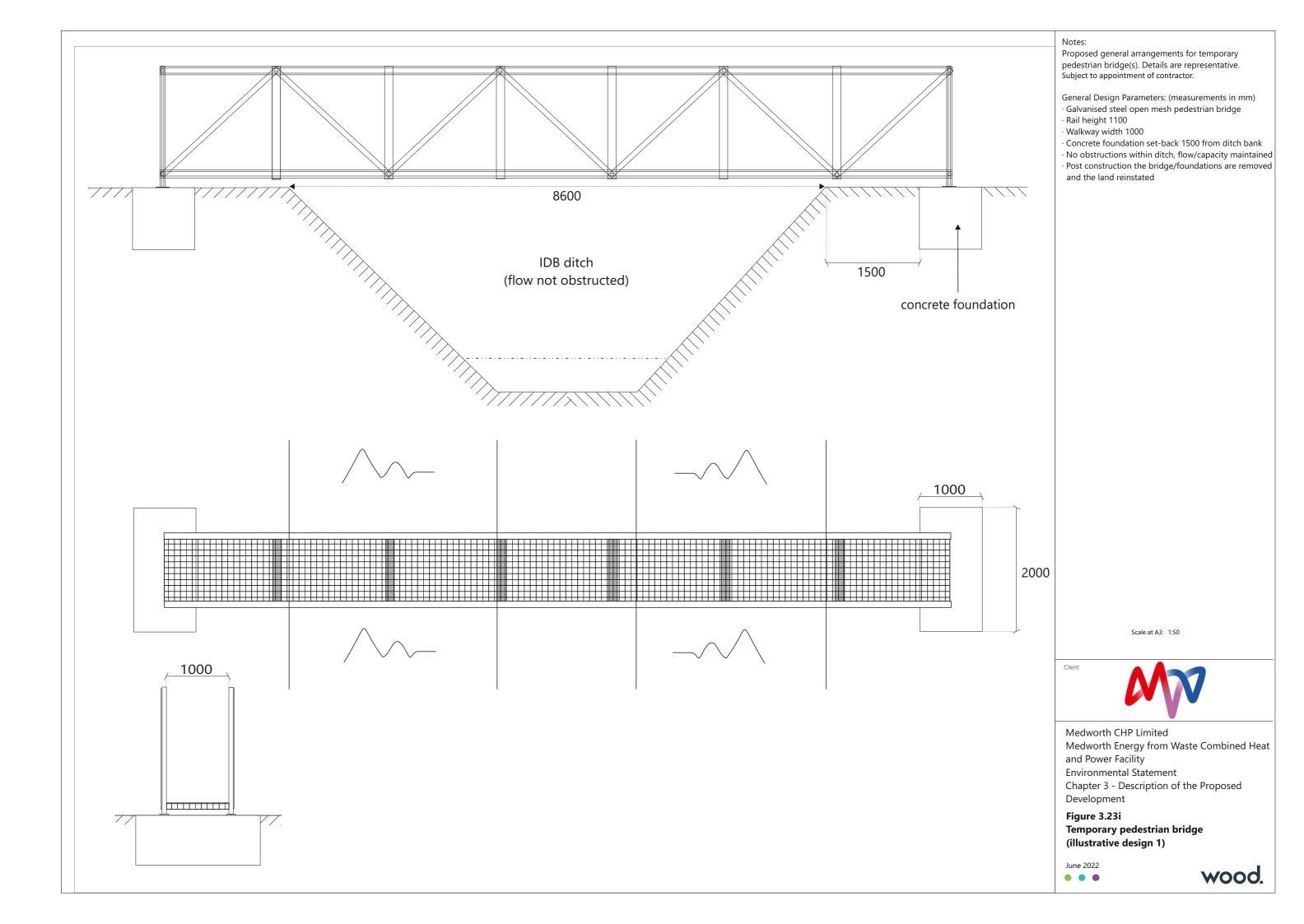
Medworth CHP Limited Medworth Energy from Waste Combined Heat and Power Facility Environmental Statement

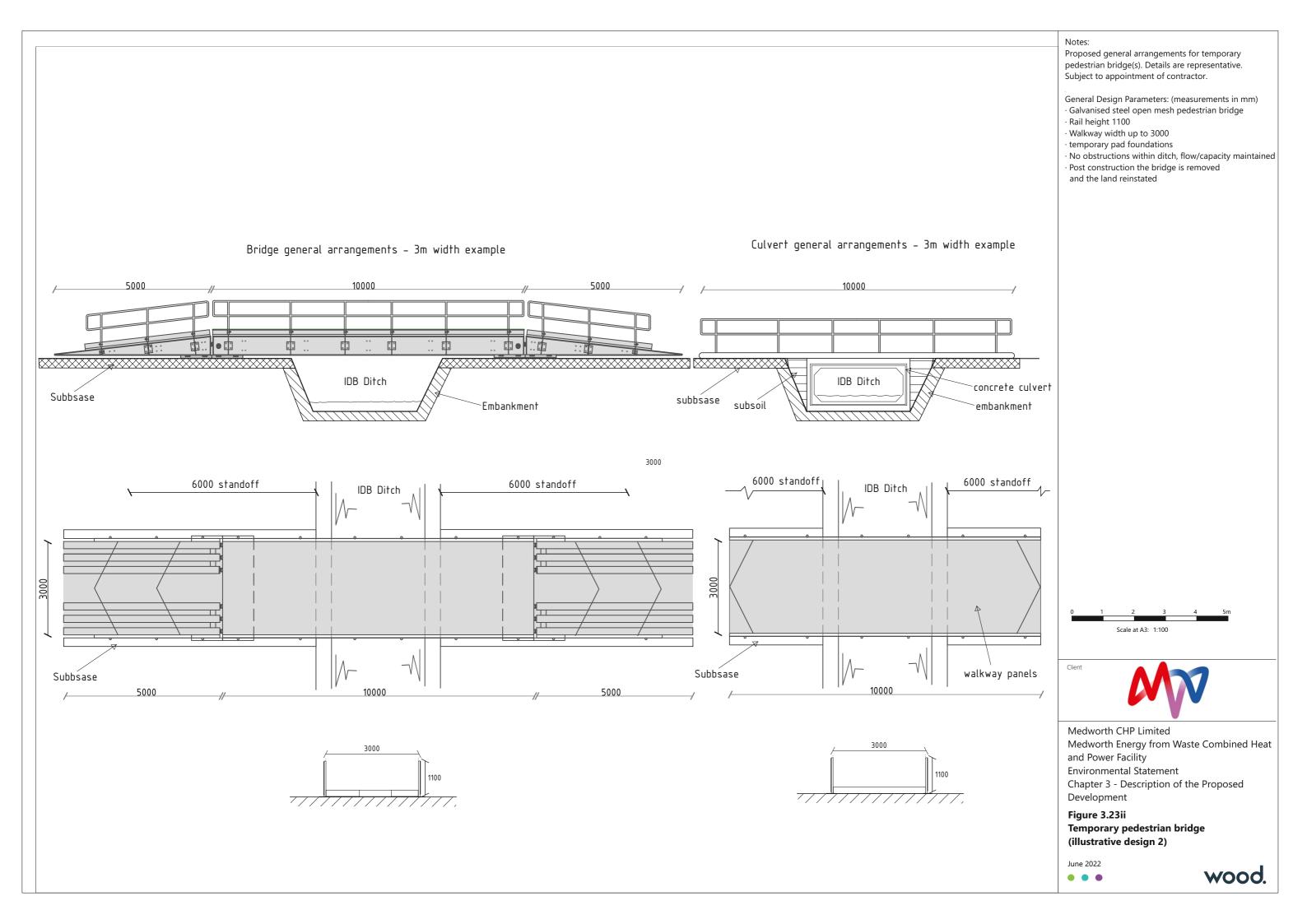
Chapter 3 - Description of the Proposed Development

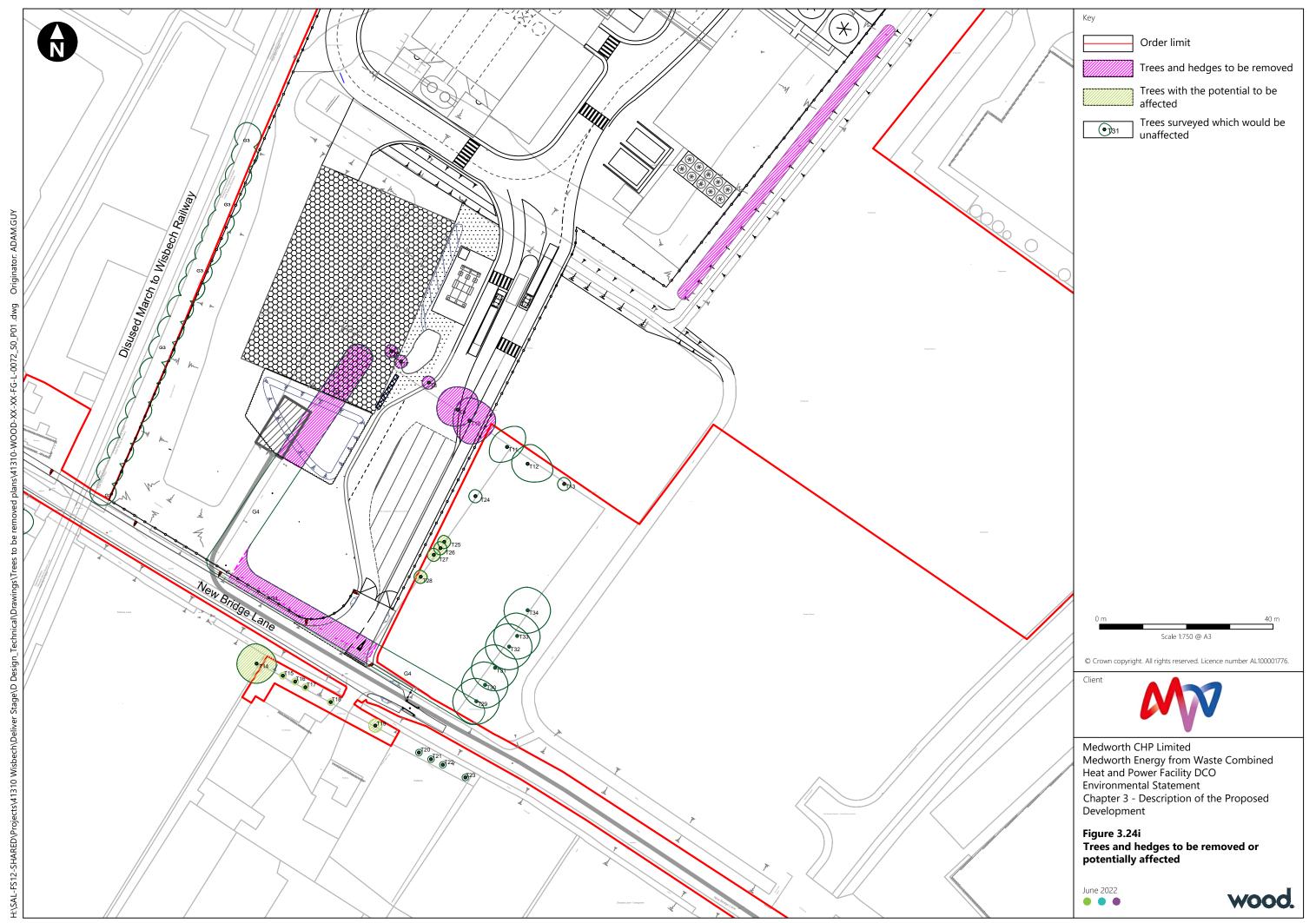
Figure 3.22vii Temporary mess and welfare cabins and site offices (elevation option 5)

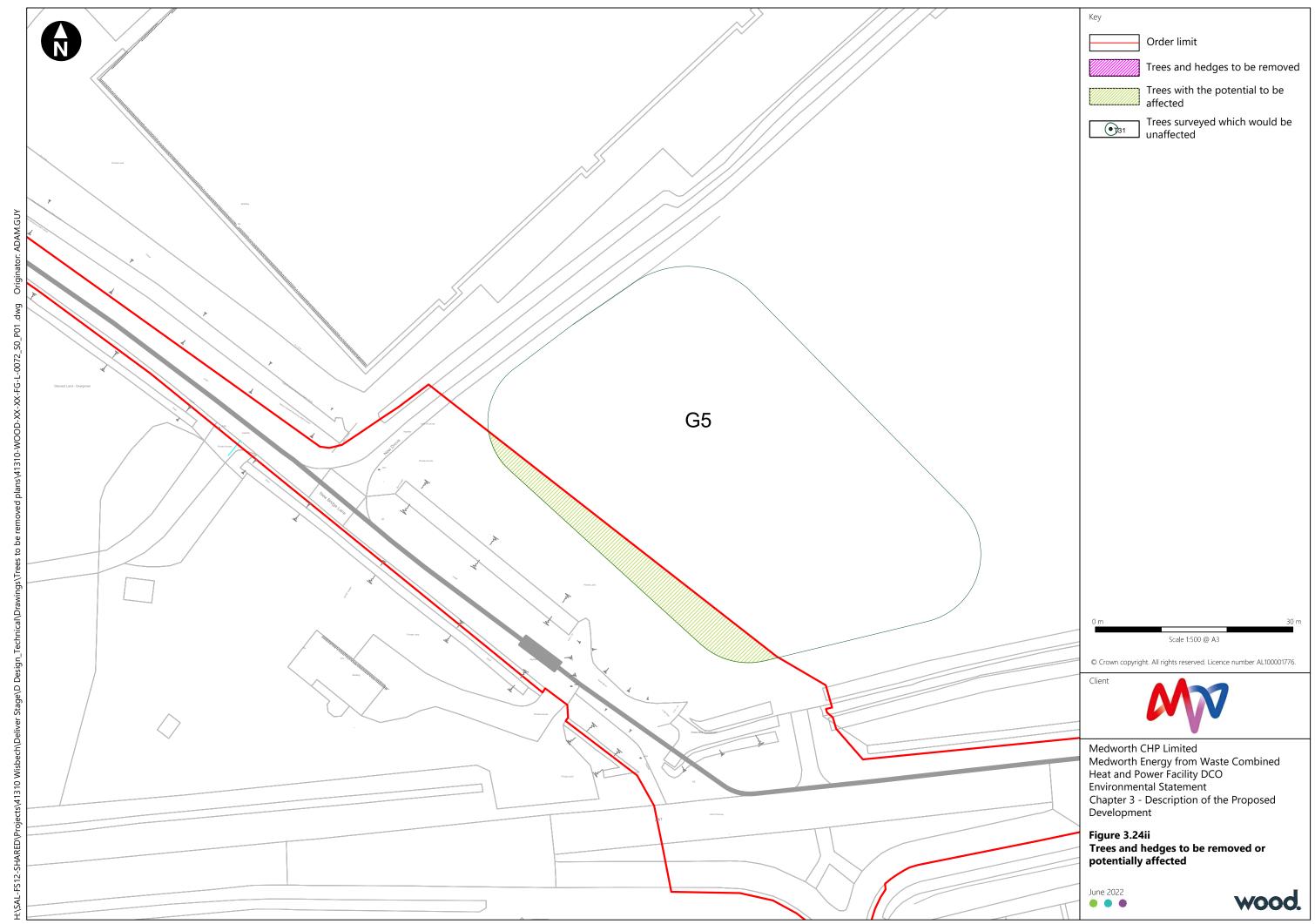


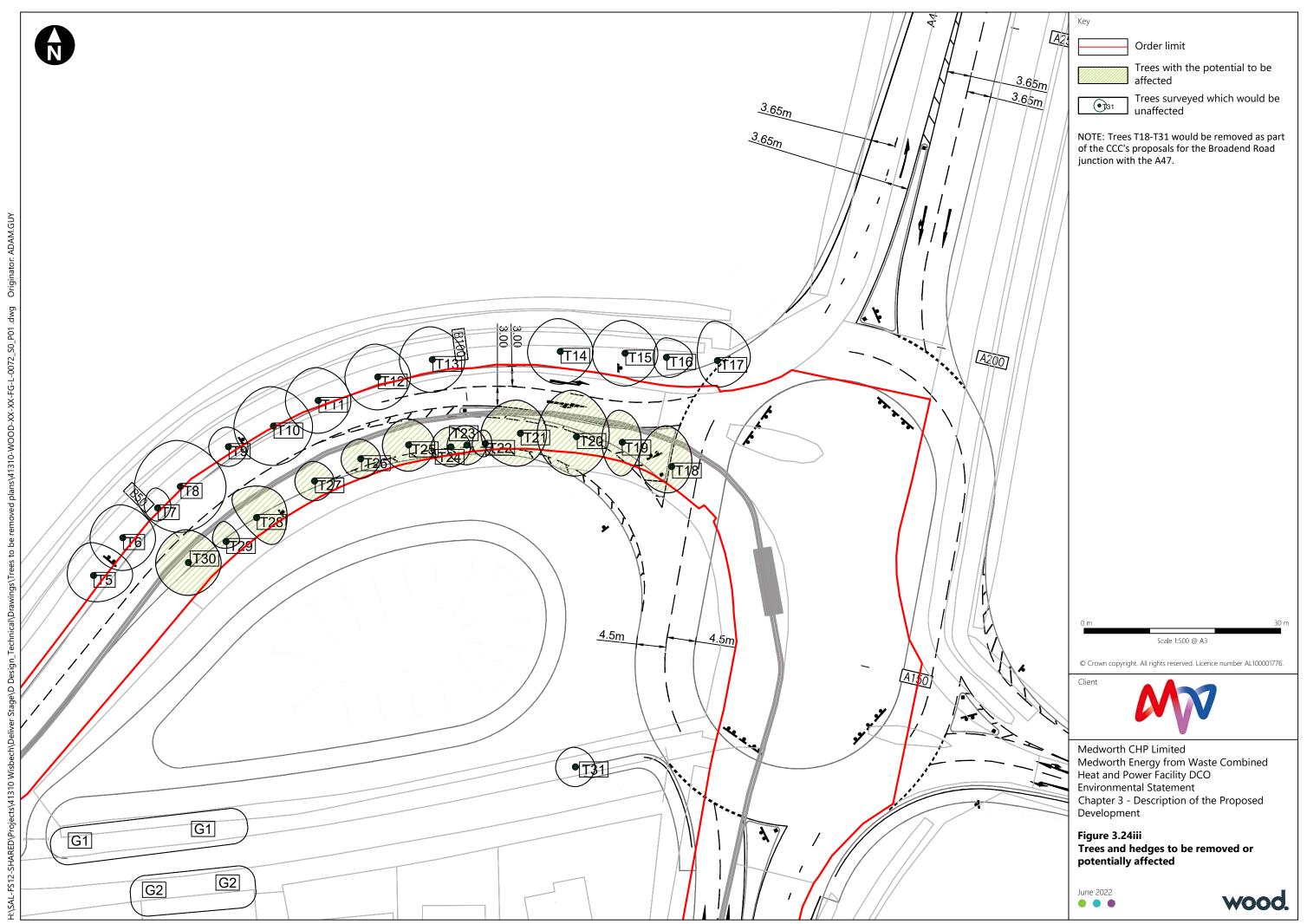


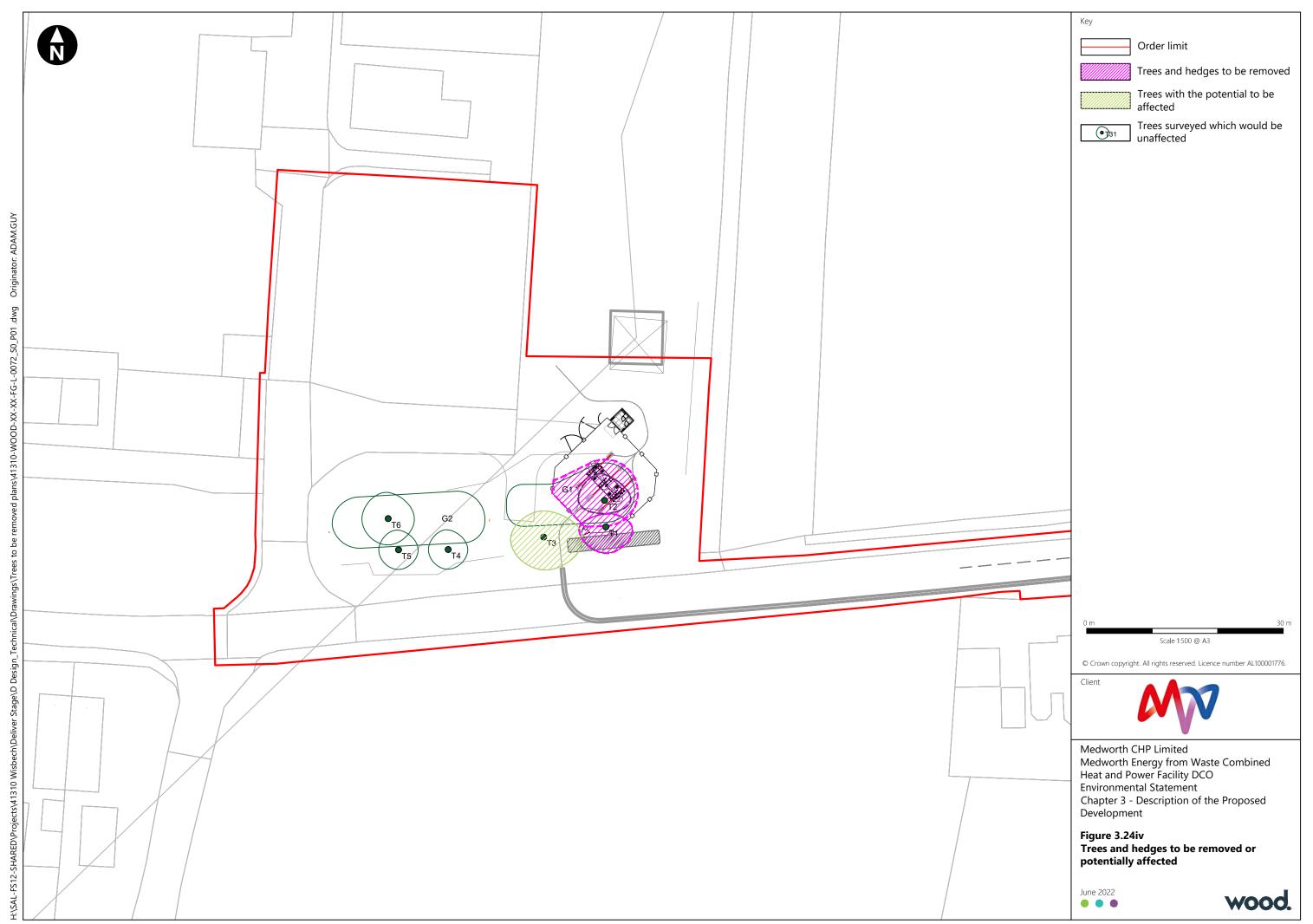


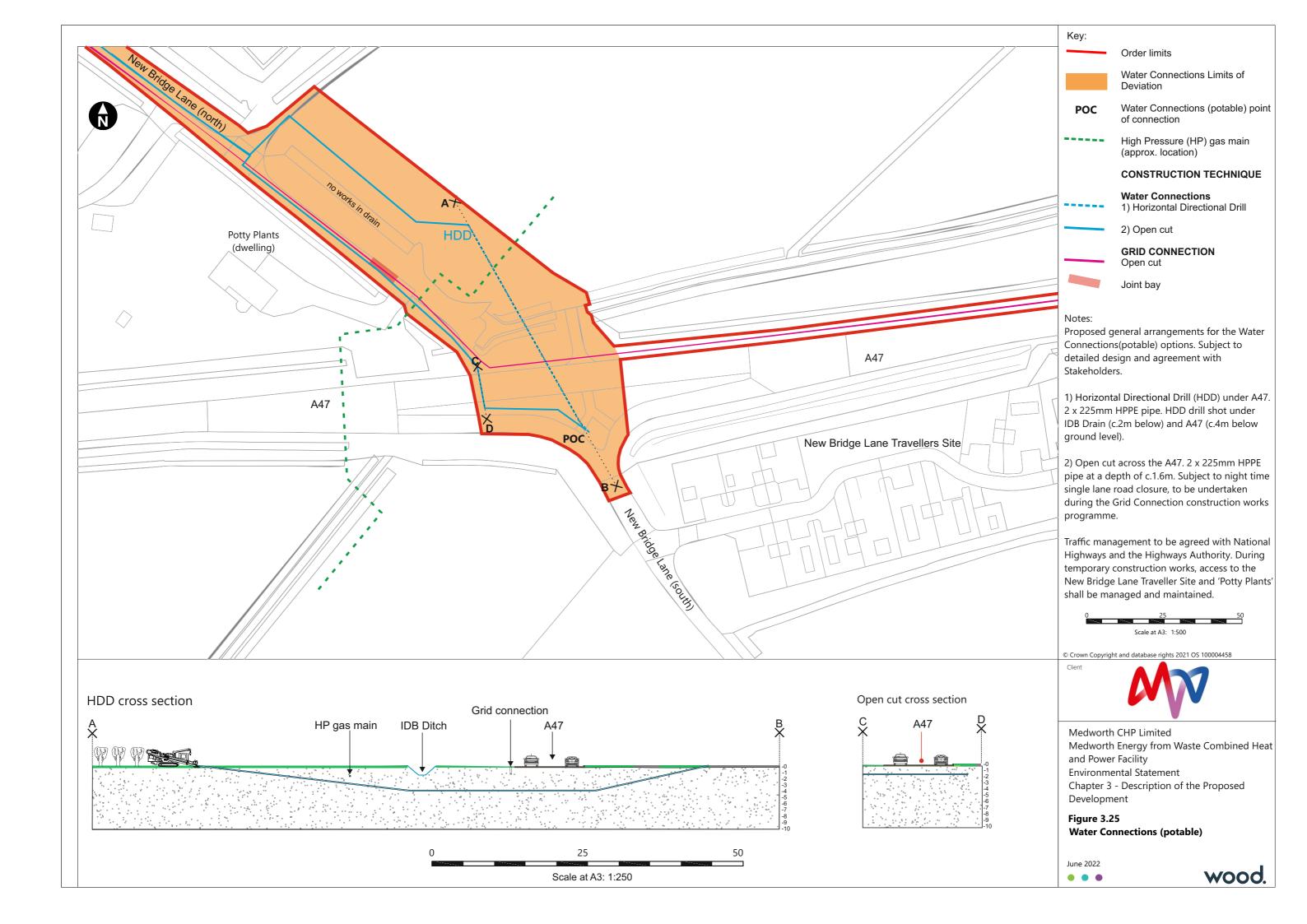












Client



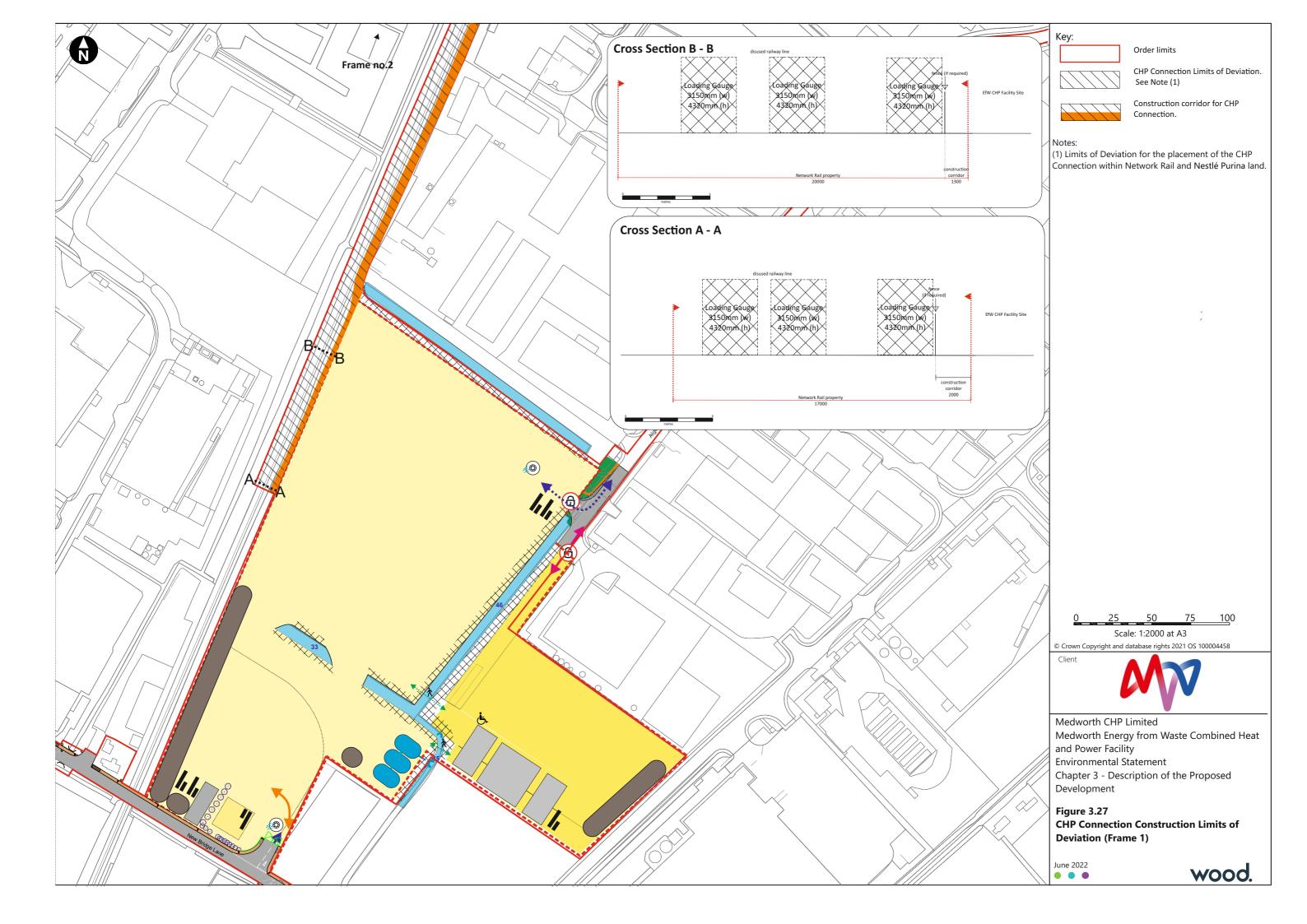
Medworth CHP Limited
Medworth Energy from Waste Combined Heat
and Power Facility DCO
Environmental Statement
Chapter 3 - Description of the Proposed
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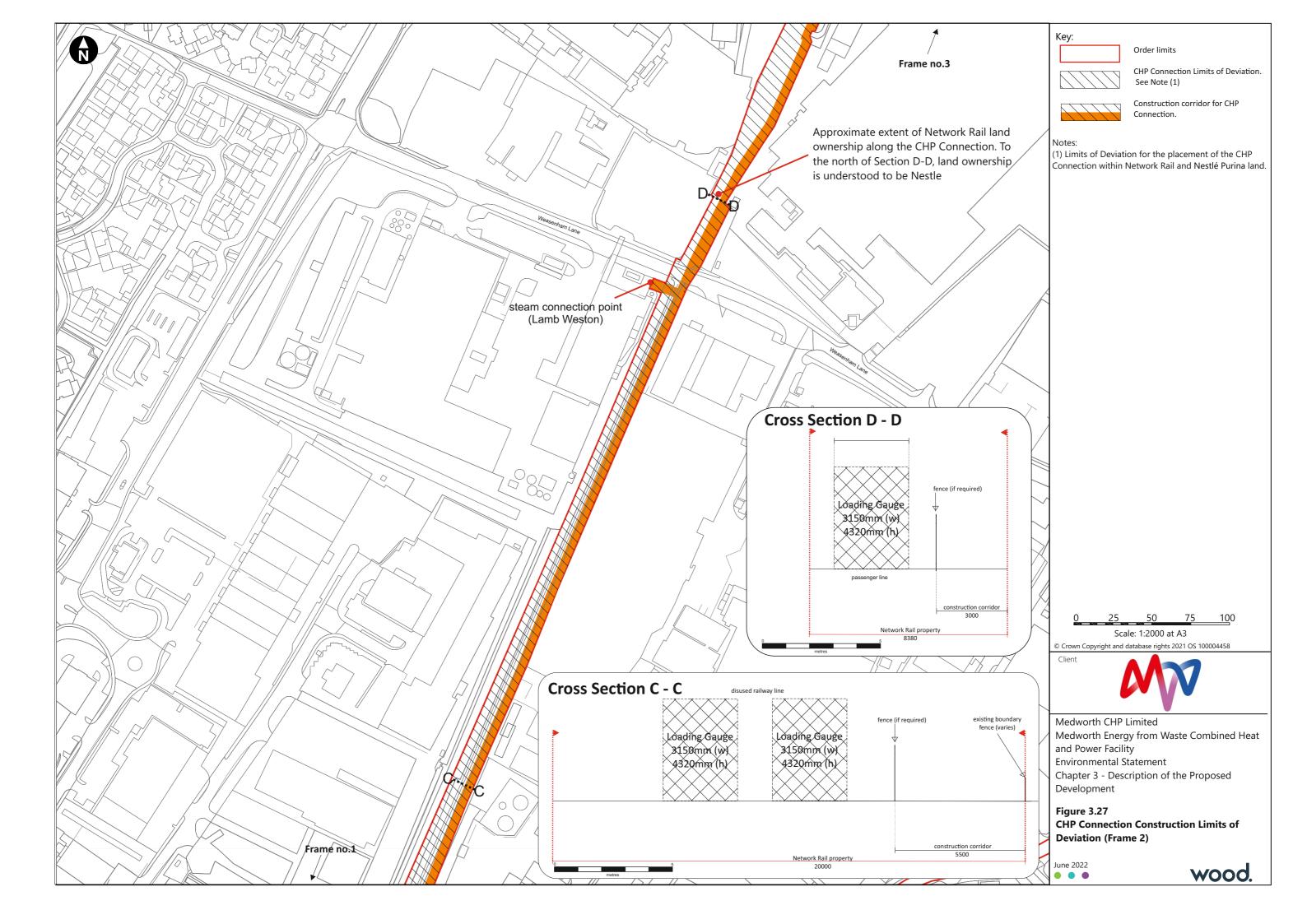
Figure 3.26 Administration building elevations

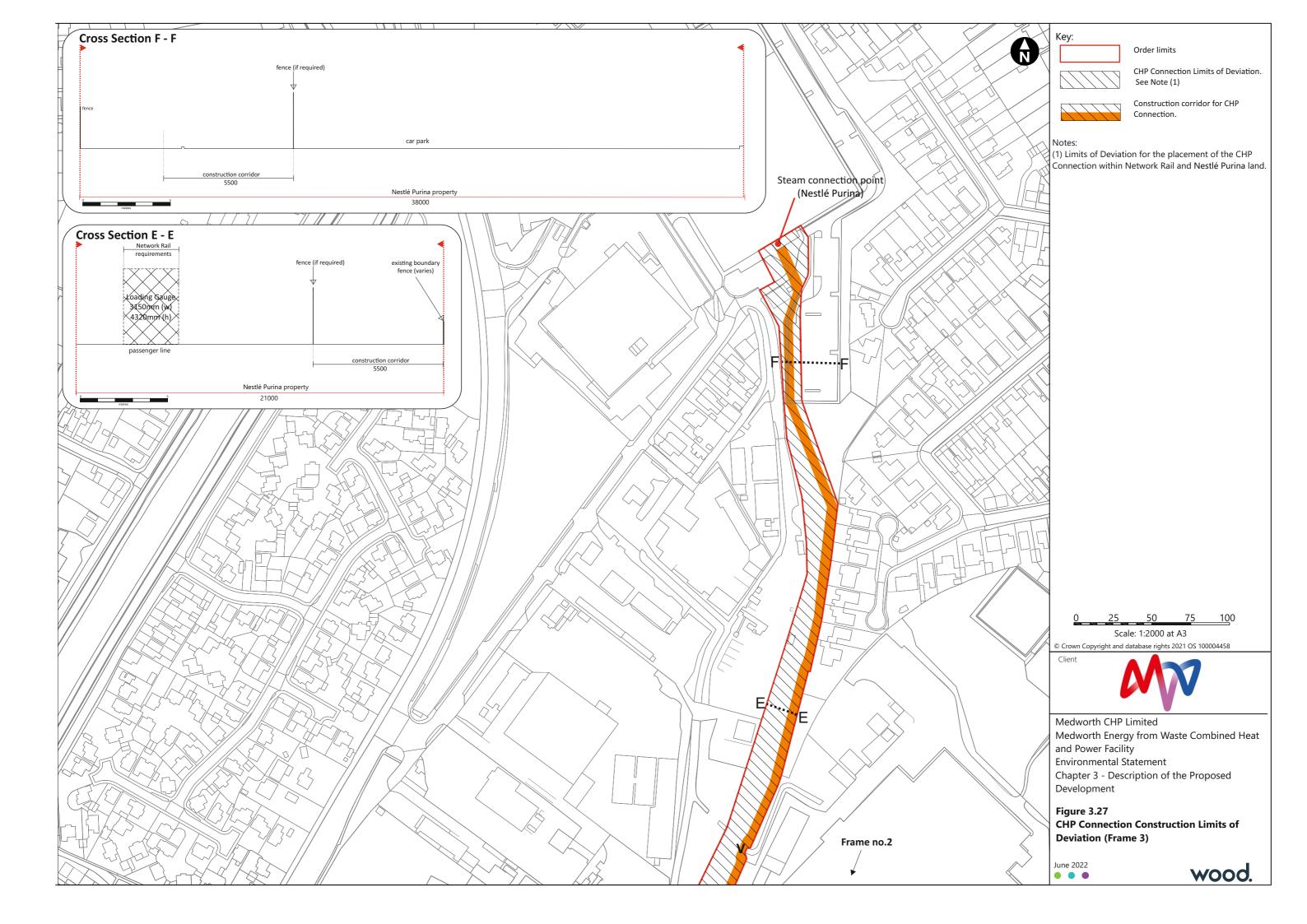
June 2022

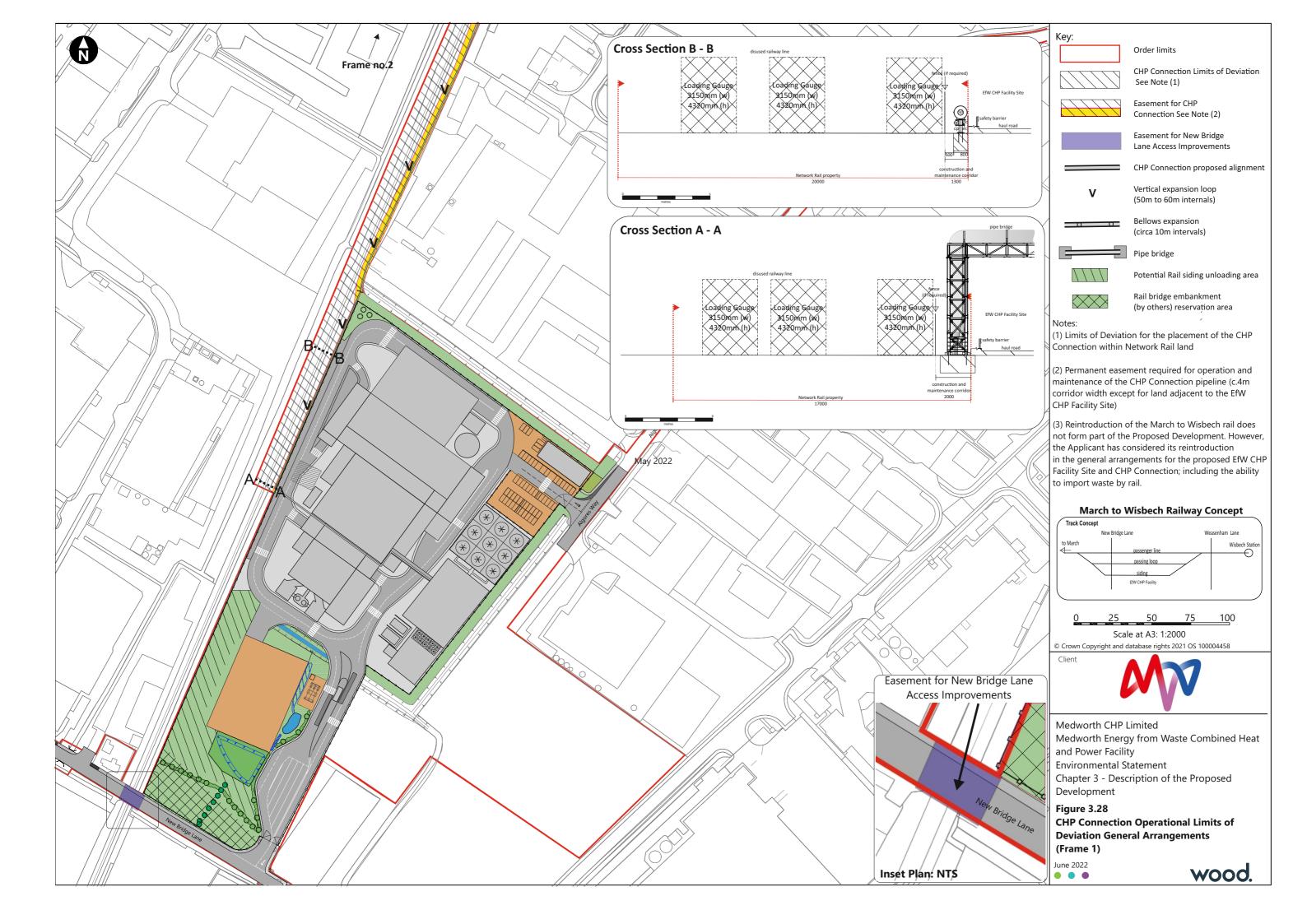
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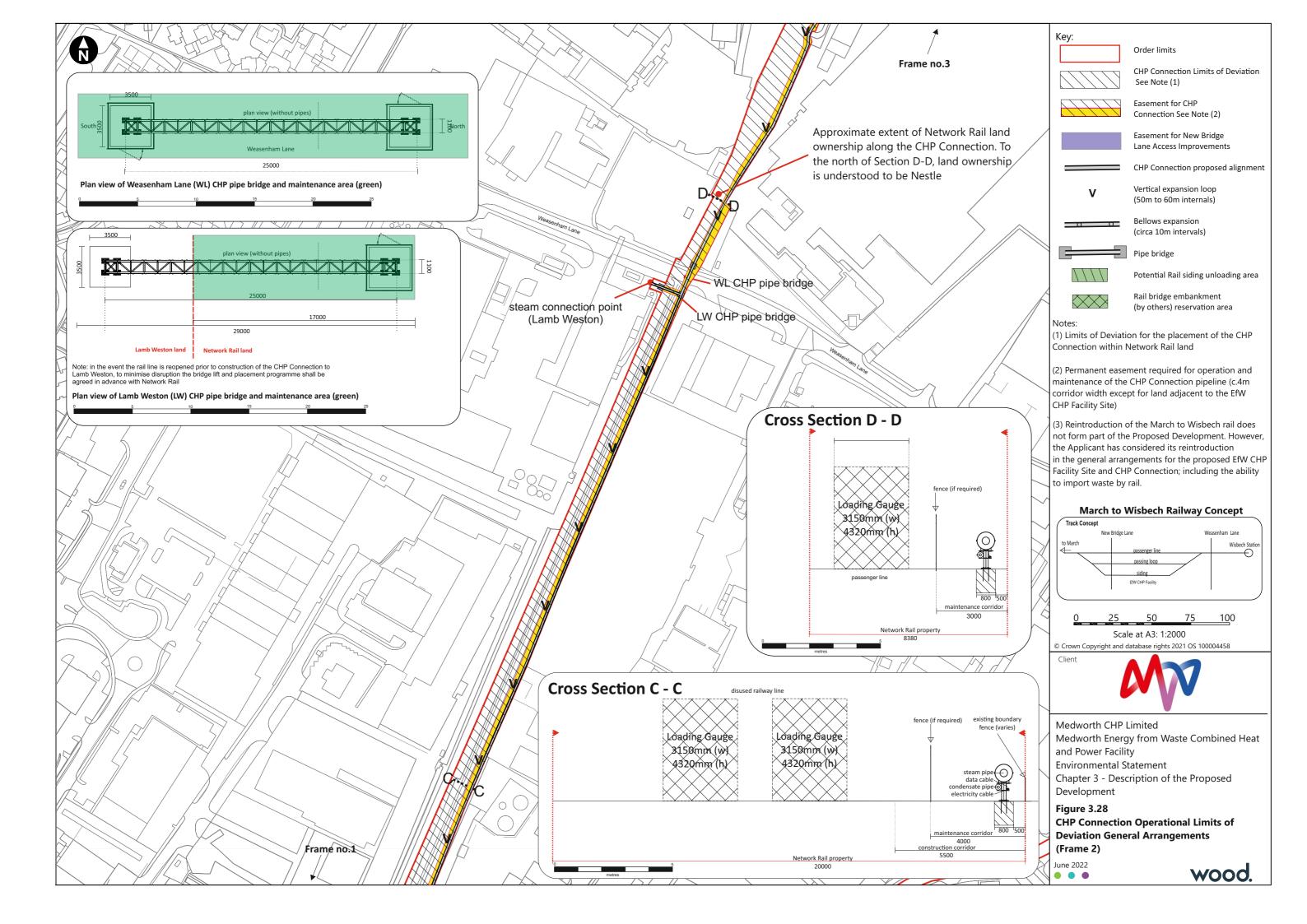


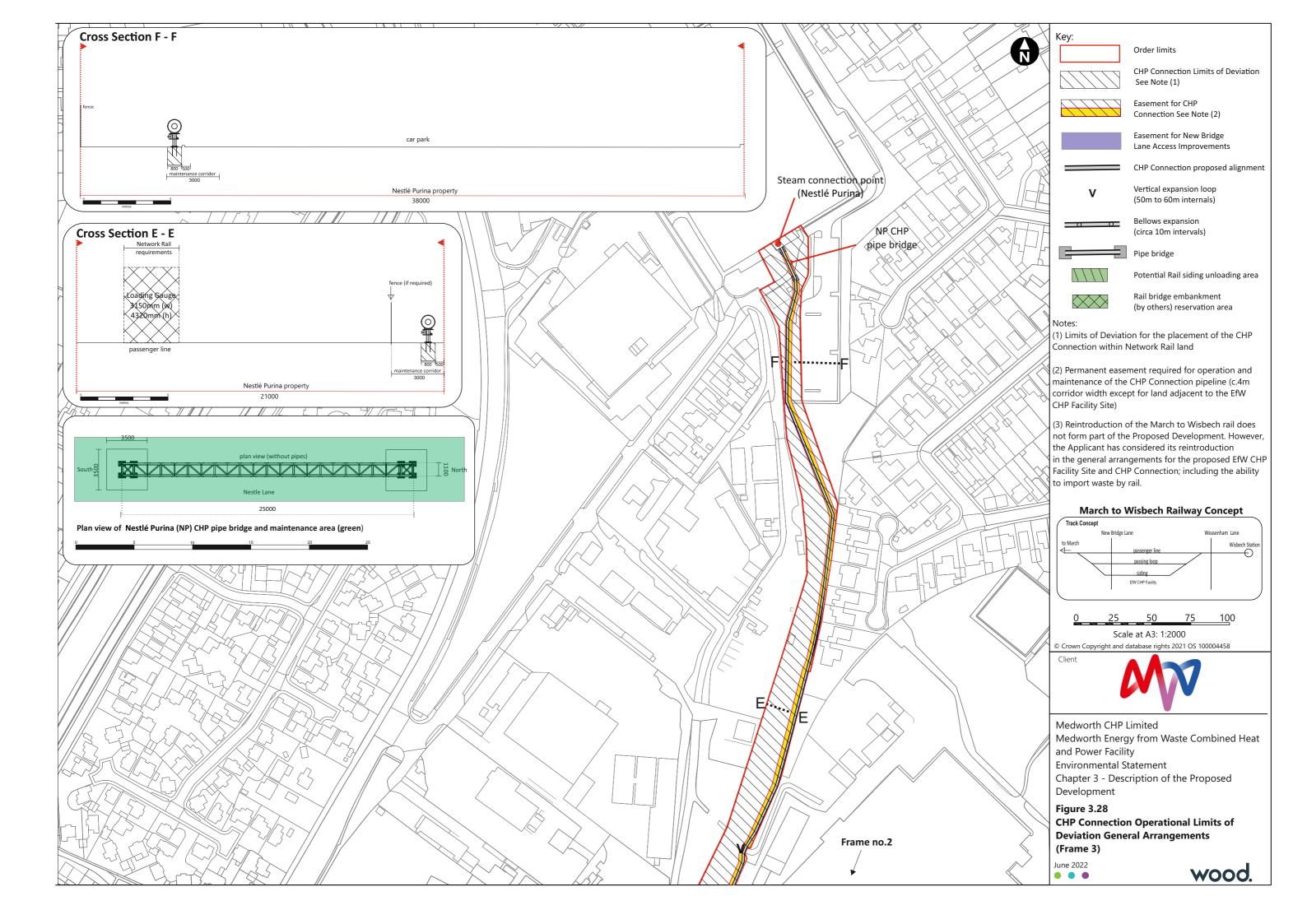












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