







**NOTES**

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**Drainage**

- Drainage has been modeled in MicroDrainage based on the following criteria:
  - M5-60 - 20.000
  - Ratio R - 0.400
  - MADD - 2.0
- Design life for the site has been assumed to be 60yrs
- Designed with a surcharge at 5.45mAOD, mean highwater spring with climate change to 2115 based on EA/DEFRA guidance
- Surface and foul water network has been compiled using data collected from a CCTV survey conducted on the drains and from existing information supplied by ACC and Kings waterfront trust

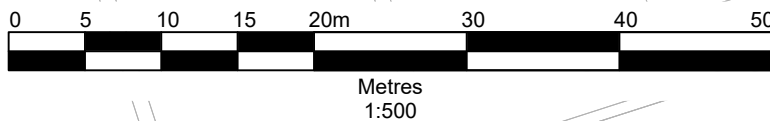
**Key**

- Existing Surface water drain
- Existing Foul water drain
- Existing adopted rising main
- Existing adopted Surface water sewer
- Existing adopted Foul water sewer
- Existing Buildings

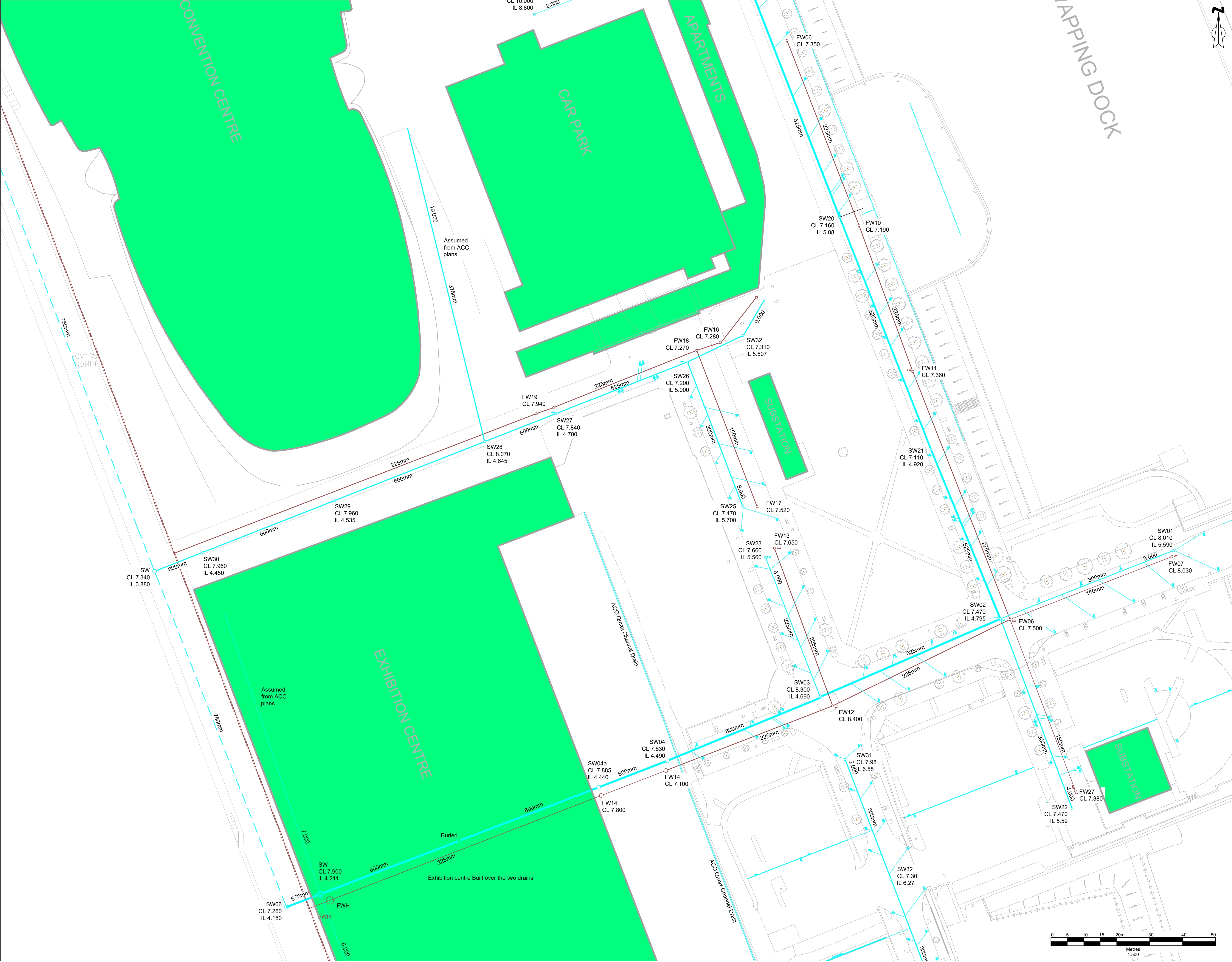
PO1	20/11/17	First Issue	SM	MJ	MT
REV:	DATE:	DETAIL:	DES:	CHK:	APP:

**enzygo**  
environmental consultants  
Samuel House, 5 Fox Valley Way, Stocksbridge, Sheffield, S36 2AA

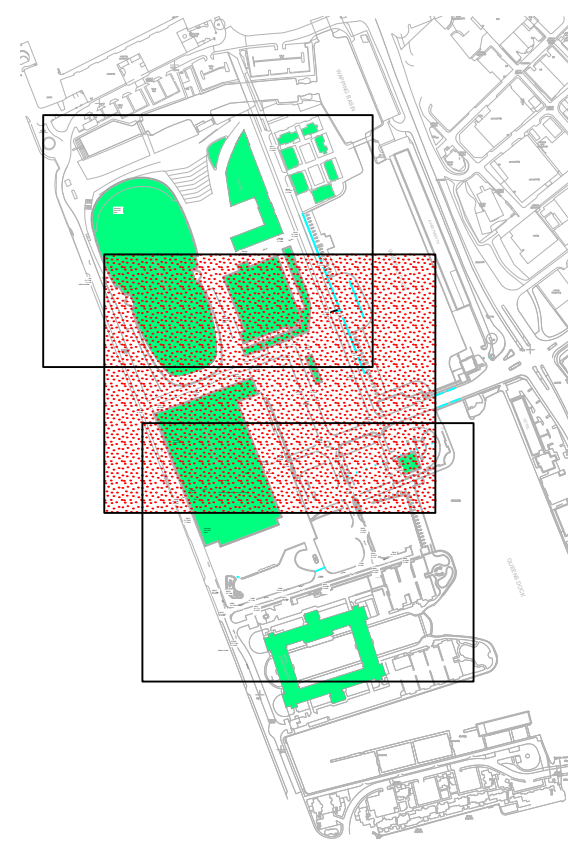
CLIENT: <b>YPG Developments</b>			
PROJECT: <b>Monarchs Quay</b>			
DRAWING TITLE: <b>Half Tide Wharf - Ex. Drainage</b>			
DRAWN: <b>SM</b>	DESIGNED: <b>SM</b>	CHECKED: <b>MJ</b>	APPROVED: <b>MT</b>
DATE: <b>20/11/2017</b>		SCALE @ A1: <b>1:500</b>	
PROJECT NO: <b>SHF.1380.001.D</b>		DRAWING NO.: <b>100</b>	
DRAWING STATUS: <b>Information</b>		ISSUE: <b>P01</b>	







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- Drainage**
1. Drainage has been modeled in MicroDrainage based on the following criteria:  
M5-60 ~ 20.000  
Ratio R ~ 0.400  
MADD ~ 2.0
  2. Design life for the site has been assumed to be 60yrs
  3. Designed with a surcharge at 5.45mAOD, mean highwater spring with climate change to 2115 based on EA/DEFRA guidance.
  4. Surface and foul water network has been compiled using data collected from a CCTV survey conducted on the drains and from existing information supplied by ACC and Kings waterfront trust

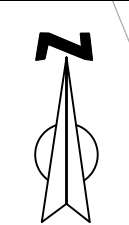
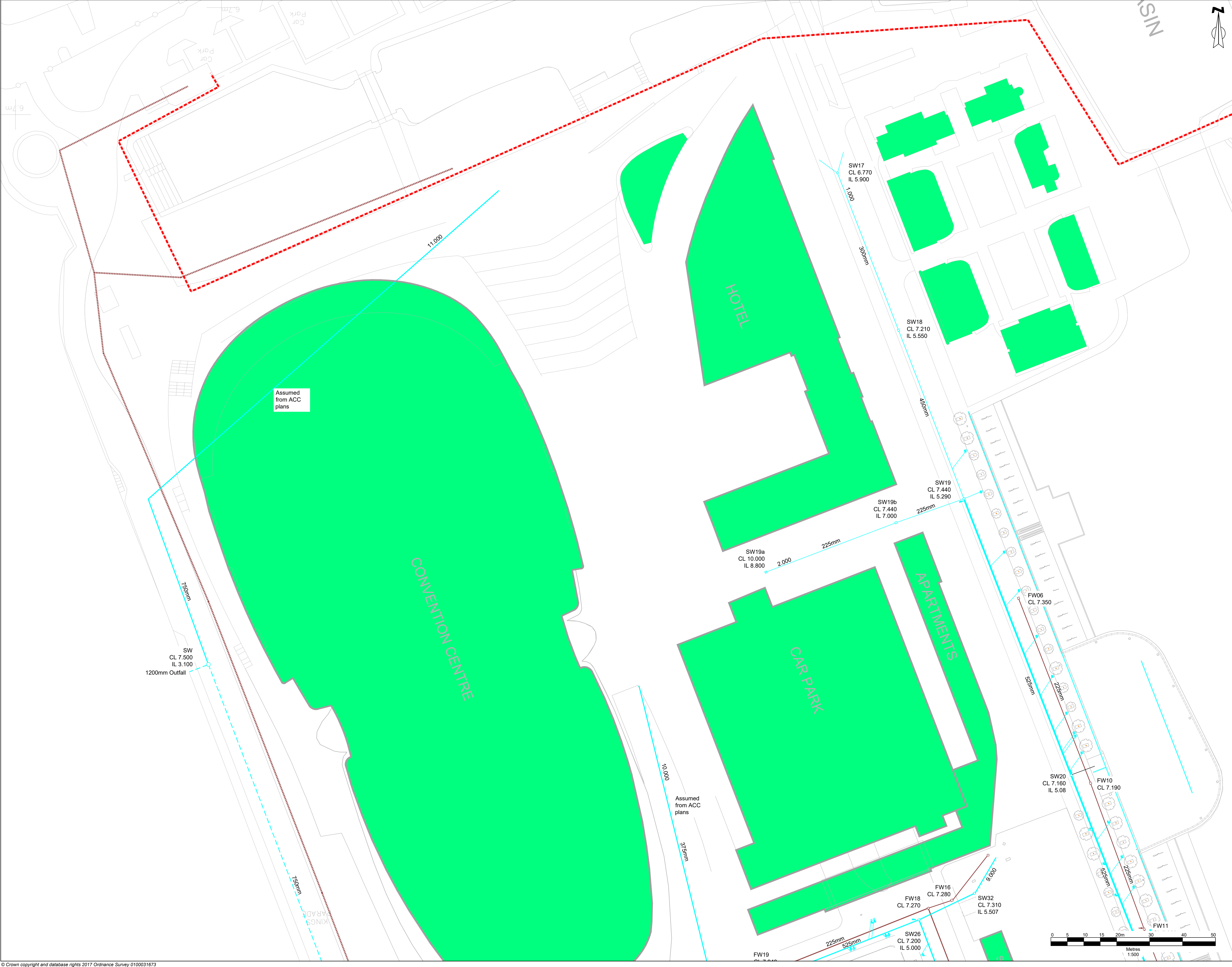
- Key**
- Existing Surface water drain
  - Existing Foul water drain
  - Existing adopted rising main
  - Existing adopted Surface water sewer
  - Existing adopted Foul water sewer
  - Existing Buildings

PO1	2011/17	First Issue	SM	MJ	MT
REV:	DATE:	DETAIL:	DES:	CHK:	APP:

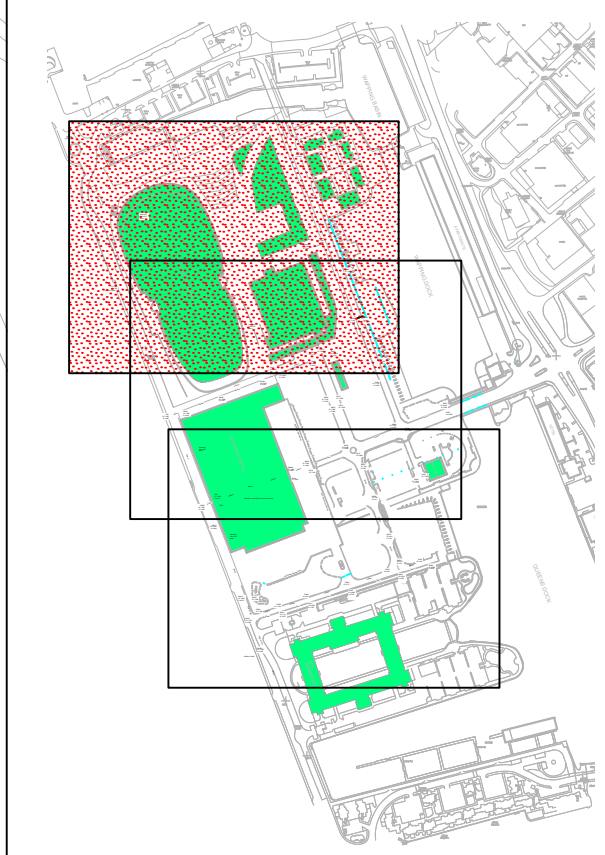


CLIENT: YPG Developments			
PROJECT: Monarchs Quay			
DRAWING TITLE: Arena outfall - Ex. Drainage			
DRAWN: SM	DESIGNED: SM	CHECKED: MJ	APPROVED: MT
DATE: 20/11/2017		SCALE @ A1: 1:500	
PROJECT NO.: SHF.1380.001.D		DRAWING NO.: 101	
DRAWING STATUS: Information		ISSUE: P01	





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- Drainage**
1. Drainage has been modeled in MicroDrainage based on the following criteria:
    - M5-60 - 20.000
    - Ratio R - 0.400
    - MADD - 2.0
  2. Design life for the site has been assumed to be 60yrs
  3. Designed with a surcharge at 5.45m AOD, mean highwater spring with climate change to 2115 based on EA/DEFRA guidance.
  4. Surface and foul water network has been compiled using data collected from a CCTV survey conducted on the drains and from existing information supplied by ACC and Kings waterfront trust

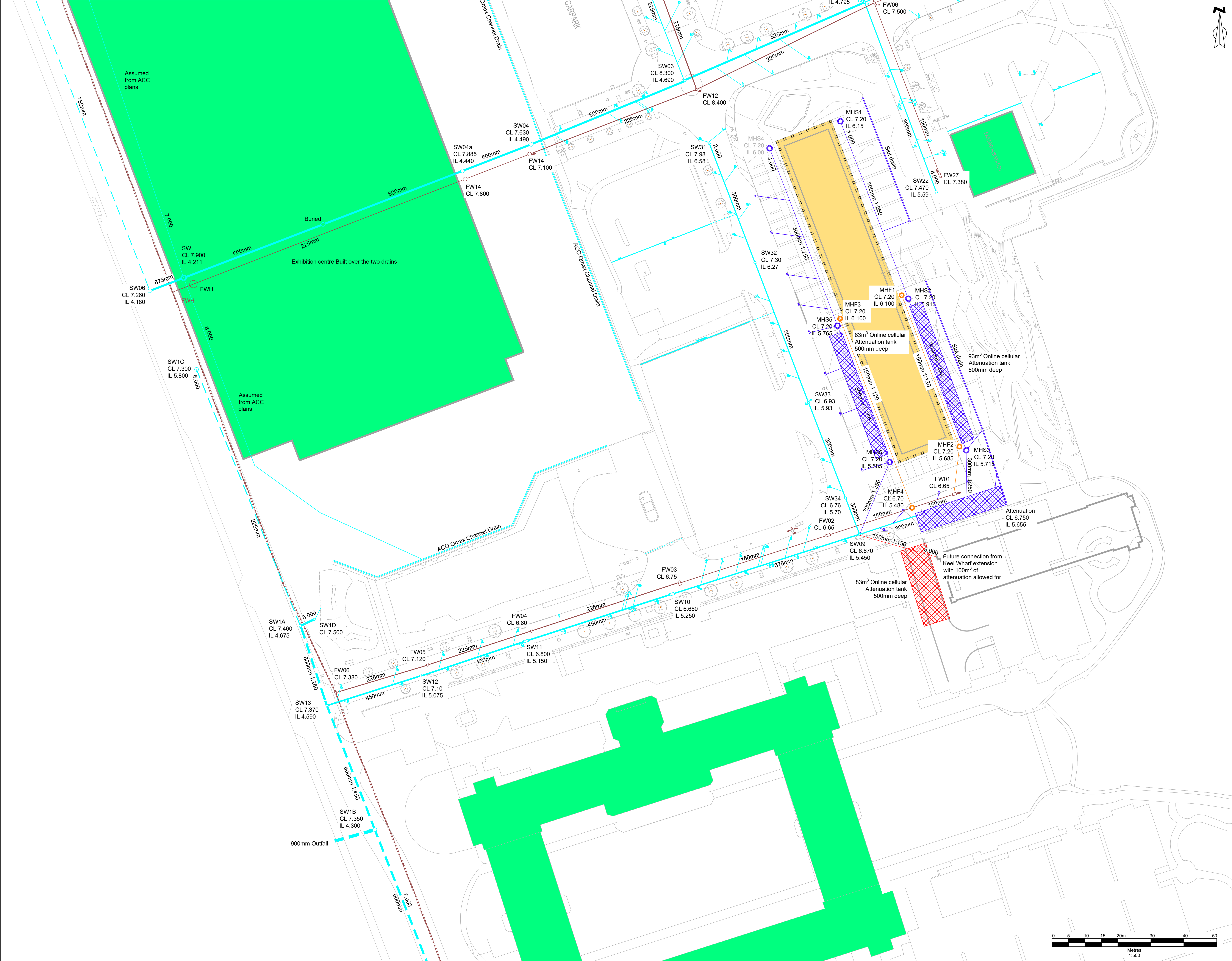
- Key**
- Existing Surface water drain
  - Existing Foul water drain
  - Existing adopted rising main
  - Existing adopted Surface water sewer
  - Existing adopted Foul water sewer
  - Existing Buildings

REV:	DATE:	DETAIL:	SM	MJ	MT
P01	20/11/17	First Issue			

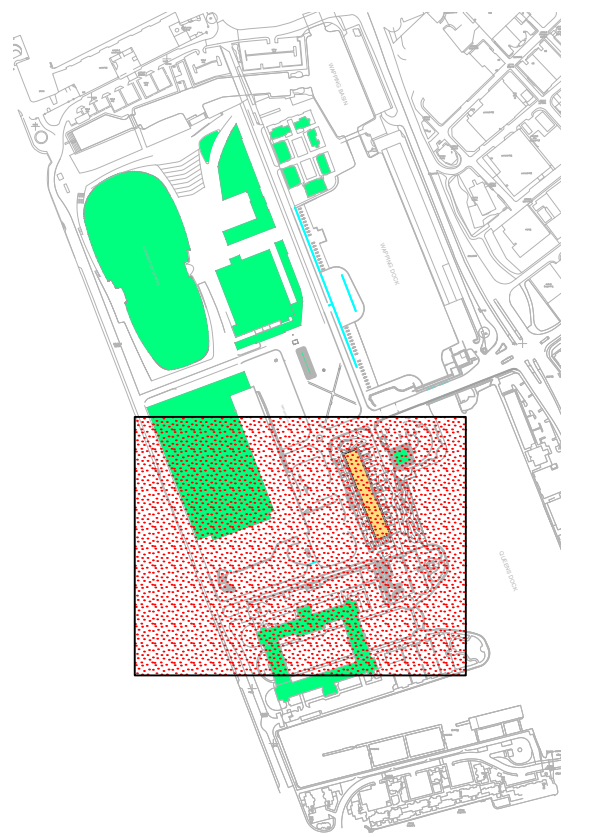


CLIENT: <b>YPG Developments</b>			
PROJECT: <b>Monarchs Quay</b>			
DRAWING TITLE: <b>Arena outfall - Ex. Drainage</b>			
DRAWN: <b>SM</b>	DESIGNED: <b>SM</b>	CHECKED: <b>MJ</b>	APPROVED: <b>MT</b>
DATE: <b>20/11/2017</b>		SCALE @ A1: <b>1:500</b>	
PROJECT NO.: <b>SHF.1380.001.D</b>		DRAWING NO.: <b>102</b>	
DRAWING STATUS: <b>Information</b>		ISSUE: <b>P01</b>	





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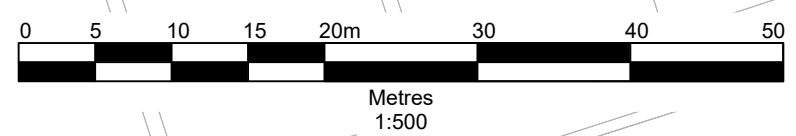
- Drainage**
1. Drainage has been modeled in MicroDrainage based on the following criteria:
    - M5-60 -20.000
    - Ratio R -0.400
    - MADD -2.0
  2. Design life for the site has been assumed to be 60yrs
  3. Designed with a surcharge at 5.45mAOD, mean highwater spring with climate change to 2115 based on EA/DEFRA guidance
  4. Surface and foul water network has been compiled using data collected from a CCTV survey conducted on the drains and from existing information supplied by ACC and Kings waterfront trust

- Key**
- Existing Surface water drain
  - Existing Foul water drain
  - Existing adopted rising main
  - Existing adopted Surface water sewer
  - Existing adopted Foul water sewer
  - Proposed Surface water drain
  - Proposed Foul water drain
  - Proposed Attenuation
  - Proposed Buildings
  - Existing Buildings

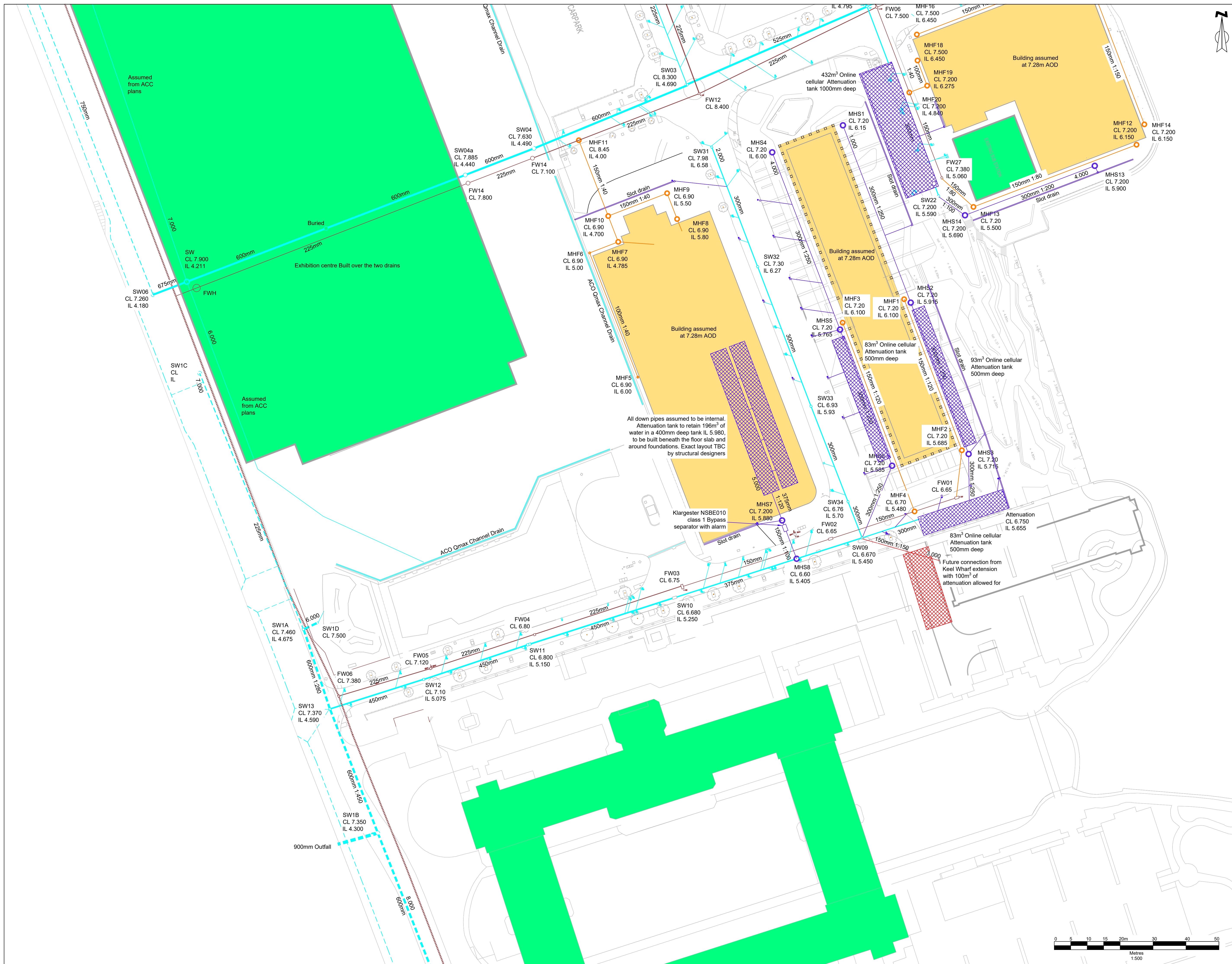
PO1	2011/17	First Issue	SM	MJ	MT
REV:	DATE:	DETAIL:	DES:	CHK:	APP:

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environmental consultants  
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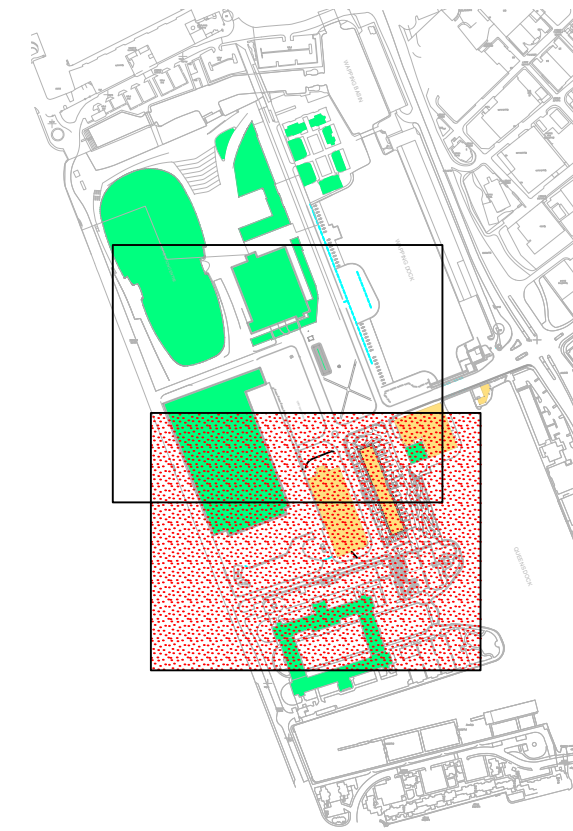
CLIENT: <b>YPG Developments</b>			
PROJECT: <b>Monarchs Quay</b>			
DRAWING TITLE: <b>Proposed Phase 1A Drainage</b>			
DRAWN: <b>SM</b>	DESIGNED: <b>SM</b>	CHECKED: <b>MJ</b>	APPROVED: <b>MT</b>
DATE: <b>20/11/2017</b>		SCALE @ A1: <b>1:500</b>	
PROJECT NO.: <b>SHF.1380.001.D</b>		DRAWING NO.: <b>110</b>	
DRAWING STATUS: <b>Information</b>		ISSUE: <b>P01</b>	







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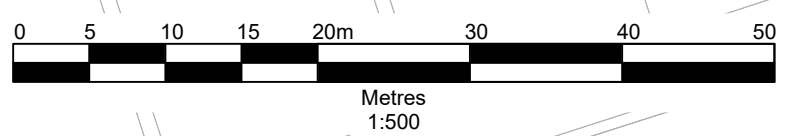
- Drainage
1. Drainage has been modeled in MicroDrainage based on the following criteria:  
MS-60 - 20.000  
Ratio R - 0.400  
MADD - 2.0
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- Key
- Existing Surface water drain
  - Existing Foul water drain
  - Existing adopted rising main
  - Existing adopted Surface water sewer
  - Existing adopted Foul water sewer
  - Proposed Surface water drain
  - Proposed Foul water drain
  - Proposed Attenuation
  - Proposed Buildings
  - Existing Buildings

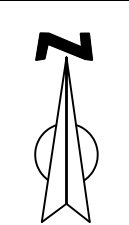
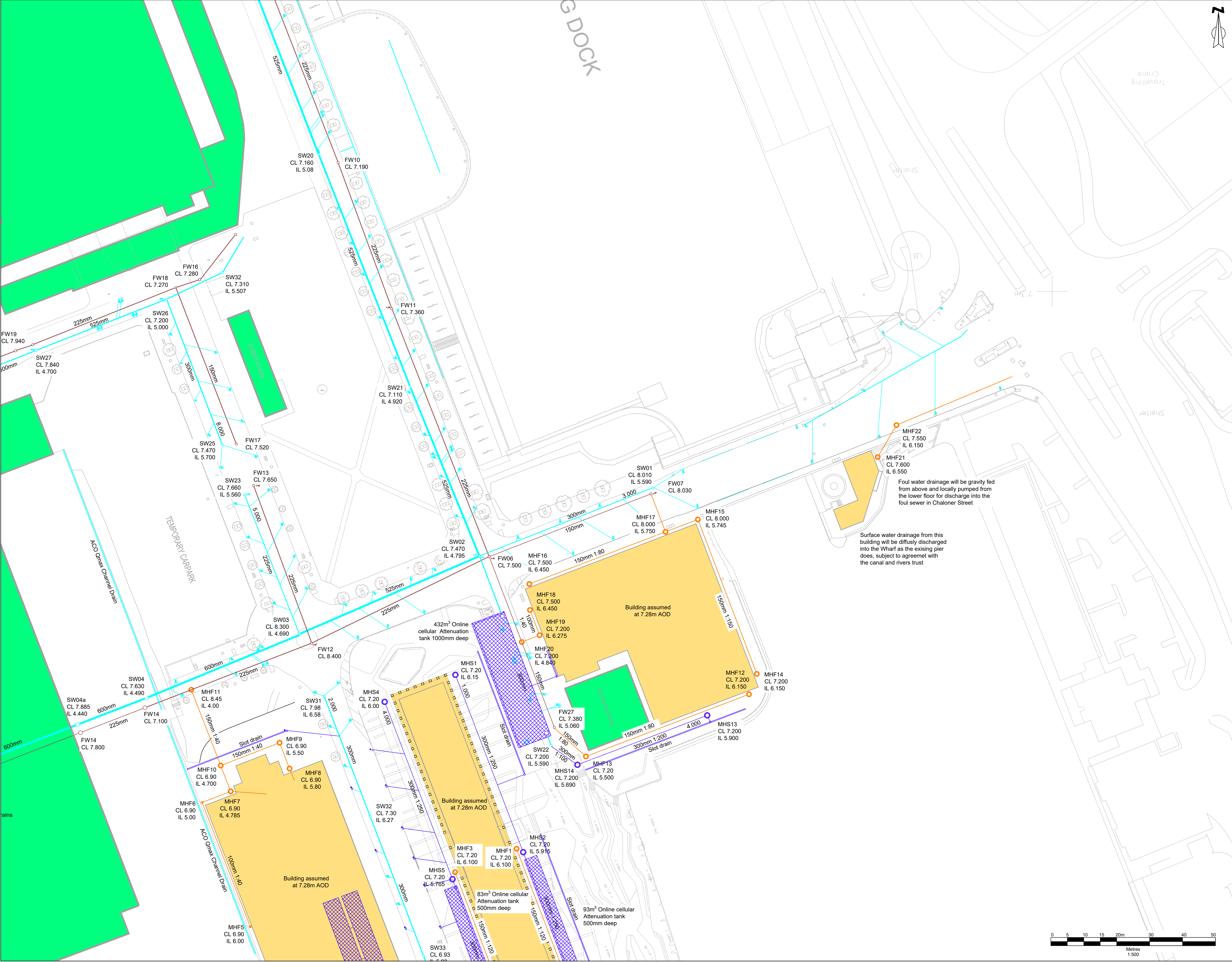
PO1	2011/17	First Issue	SM	MJ	MT
REV	DATE	DETAIL	DES	CHK	APP



CLIENT: YPG Developments			
PROJECT: Monarchs Quay			
DRAWING TITLE: Proposed Phase 1B Drainage			
DRAWN: SM	DESIGNED: SM	CHECKED: MJ	APPROVED: MT
DATE: 20/11/2017		SCALE @ A1: 1:500	
PROJECT NO.: SHF.1380.001.D		DRAWING NO.: 120	
DRAWING STATUS: Information		ISSUE: P01	







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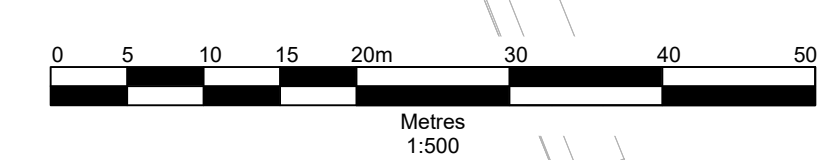
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  - Existing adopted Surface water sewer
  - Existing adopted Foul water sewer
  - Proposed Surface water drain
  - Proposed Foul water drain
  - Proposed Attenuation
  - Proposed Buildings
  - Existing Buildings

PO1	2011/17	First Issue	SM	MJ	MT
REV:	DATE:	DETAIL:	DES:	CHK:	APP:



CLIENT: <b>YPG Developments</b>			
PROJECT: <b>Monarchs Quay</b>			
DRAWING TITLE: <b>Proposed Phase 1B Drainage</b>			
DRAWN: <b>SM</b>	DESIGNED: <b>SM</b>	CHECKED: <b>MJ</b>	APPROVED: <b>MT</b>
DATE: <b>20/11/2017</b>		SCALE @ A1: <b>1:500</b>	
PROJECT NO.: <b>SHF.1380.001.D</b>		DRAWING NO.: <b>121</b>	
DRAWING STATUS: <b>Information</b>		ISSUE: <b>P01</b>	







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  - Proposed Foul water drain
  - Proposed Attenuation
  - Proposed Buildings
  - Existing Buildings
  - Future Development areas

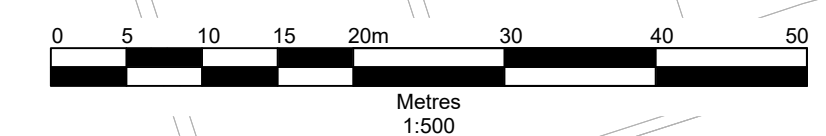
**Note**

1. Stage 2 has been designed to show what attenuation would be needed to ensure the system meets current legislation on flooding for the future of the development site but is not a completed design and is subject to change following detailed design for each development area

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REV	DATE	DETAIL		DES	CHK APP



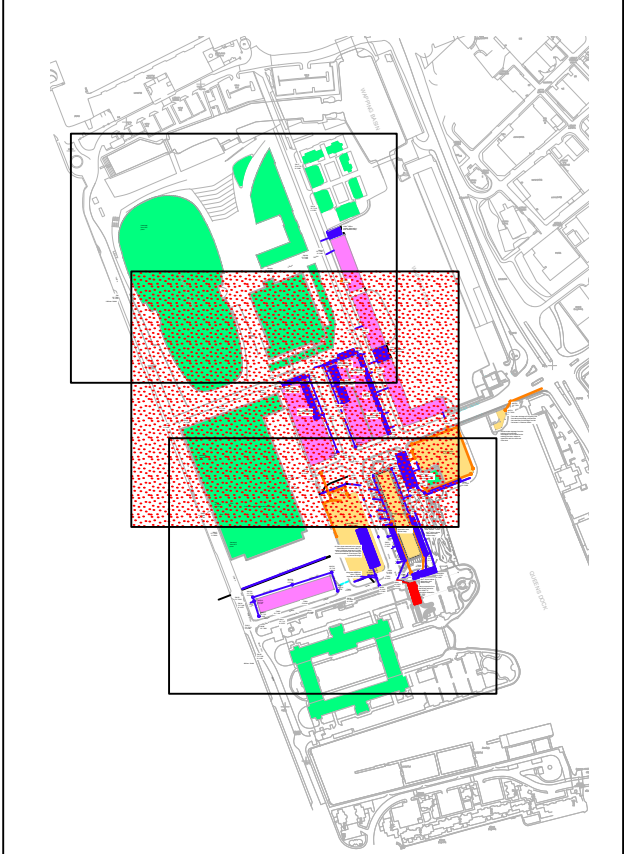
CLIENT: <b>YPG Developments</b>			
PROJECT: <b>Monarchs Quay</b>			
DRAWING TITLE: <b>Proposed Stage 2 Development</b>			
DRAWN: <b>SM</b>	DESIGNED: <b>SM</b>	CHECKED: <b>MJ</b>	APPROVED: <b>MT</b>
DATE: <b>20/11/2017</b>		SCALE @ A1: <b>1:500</b>	
PROJECT NO.: <b>SHF.1380.001.D</b>		DRAWING NO.: <b>130</b>	
DRAWING STATUS: <b>Information</b>		ISSUE: <b>P01</b>	







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  - Proposed Attenuation
  - Proposed Buildings
  - Existing Buildings
  - Future Development areas

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P01	20/11/17	First Issue	SM	MJ	MT
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CLIENT: YPG Developments			
PROJECT: Monarchs Quay			
DRAWING TITLE: Proposed Stage 2 Development			
DRAWN: SM	DESIGNED: SM	CHECKED: MJ	APPROVED: MT
DATE: 20/11/2017	SCALE @ A1: 1:500		
PROJECT NO.: SHF.1380.001.D	DRAWING NO.: 131		
DRAWING STATUS: Information	ISSUE: P01		



