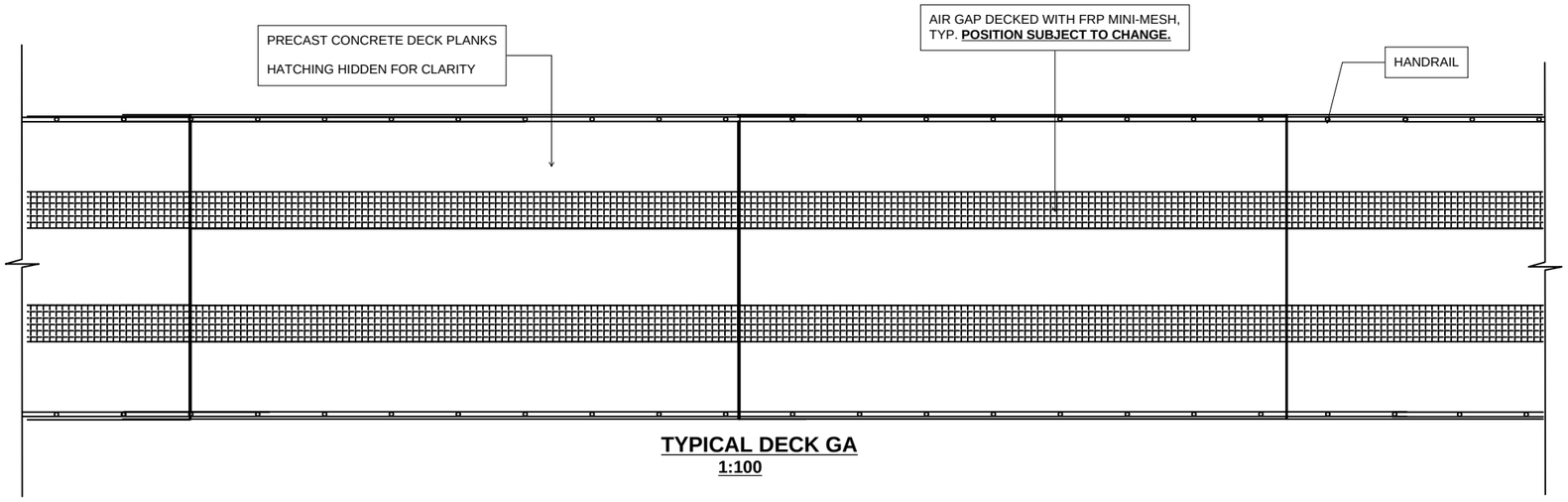
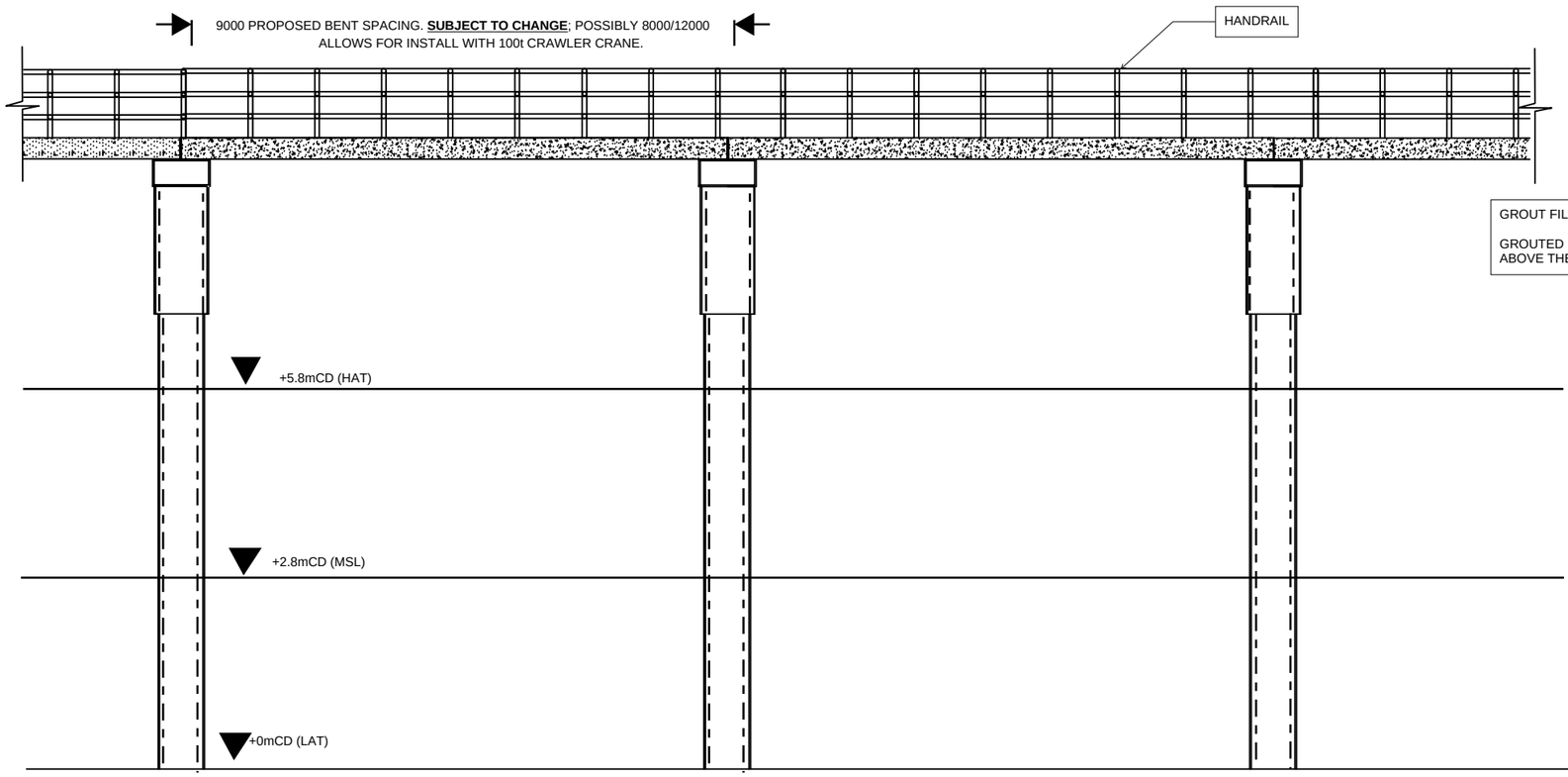
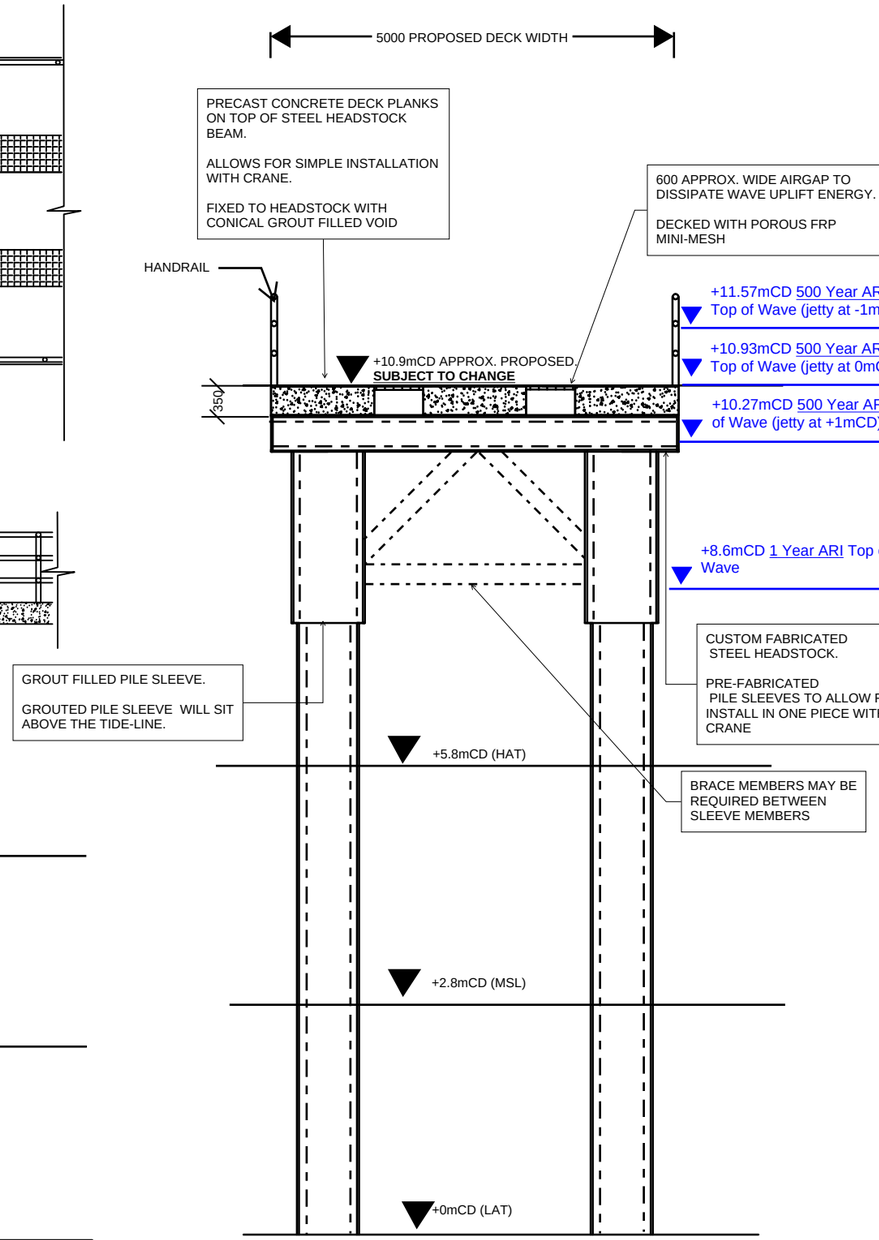
Attachment 2 - Structural Option (1) - Self Supporting Concrete



TYPICAL DECK GA
1:100



JETTY ELEVATION
1:100



JETTY SECTION
1:75

3600 PILE SPACING PROPOSED. OPTIMISING EFFICIENCY OF PORTAL FRAME

CONCEPT ONLY
NOT FOR CONSTRUCTION

PRO'S	CON'S
- Simple installation with minimal site work.	- Heavier concrete panels required for the deck
- Increased durability due to less site work (welding) required.	- Damage to concrete may require replacement of larger panel compared to Option 1
- Heavier deck planks to resist wave uplift loads	
- Large air gaps to resist wave uplift loads	

Note: All metocean data adopted from Cardno BoD 6.3 CW974400 _R001_RevA _BoD_Pt Samson

REV.	DATE	DESCRIPTION	DRAFT	ENG.	CHKD.
A	03.03.21	FOR REVIEW	IG	IG/ND	

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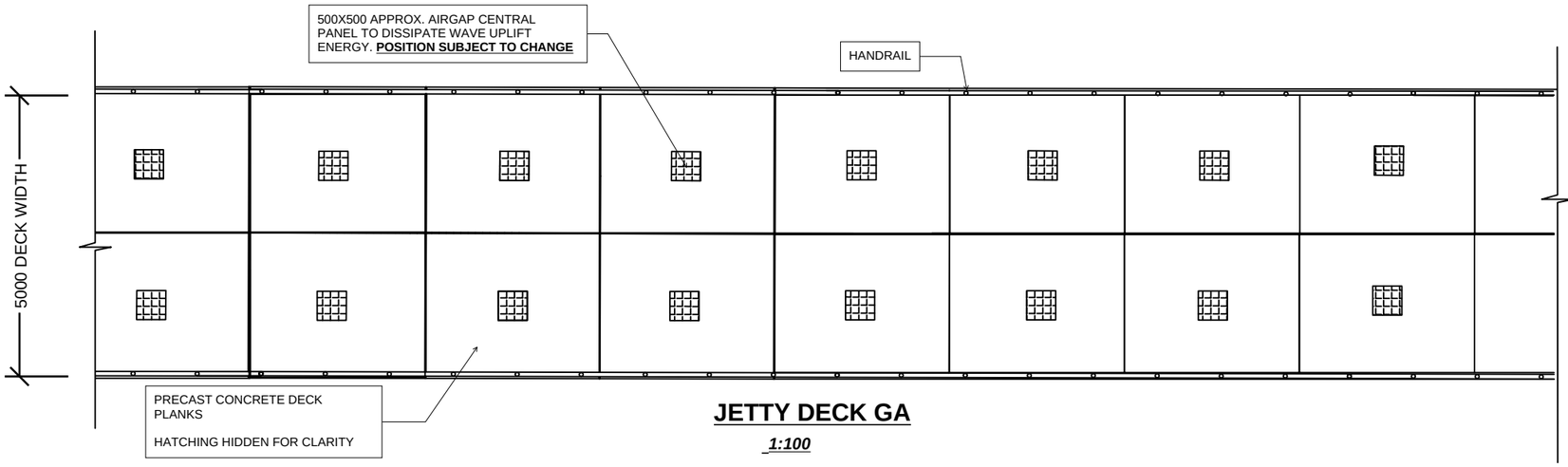
POINT SAMSON FISHING JETTY

JETTY LAYOUT OPTION 1

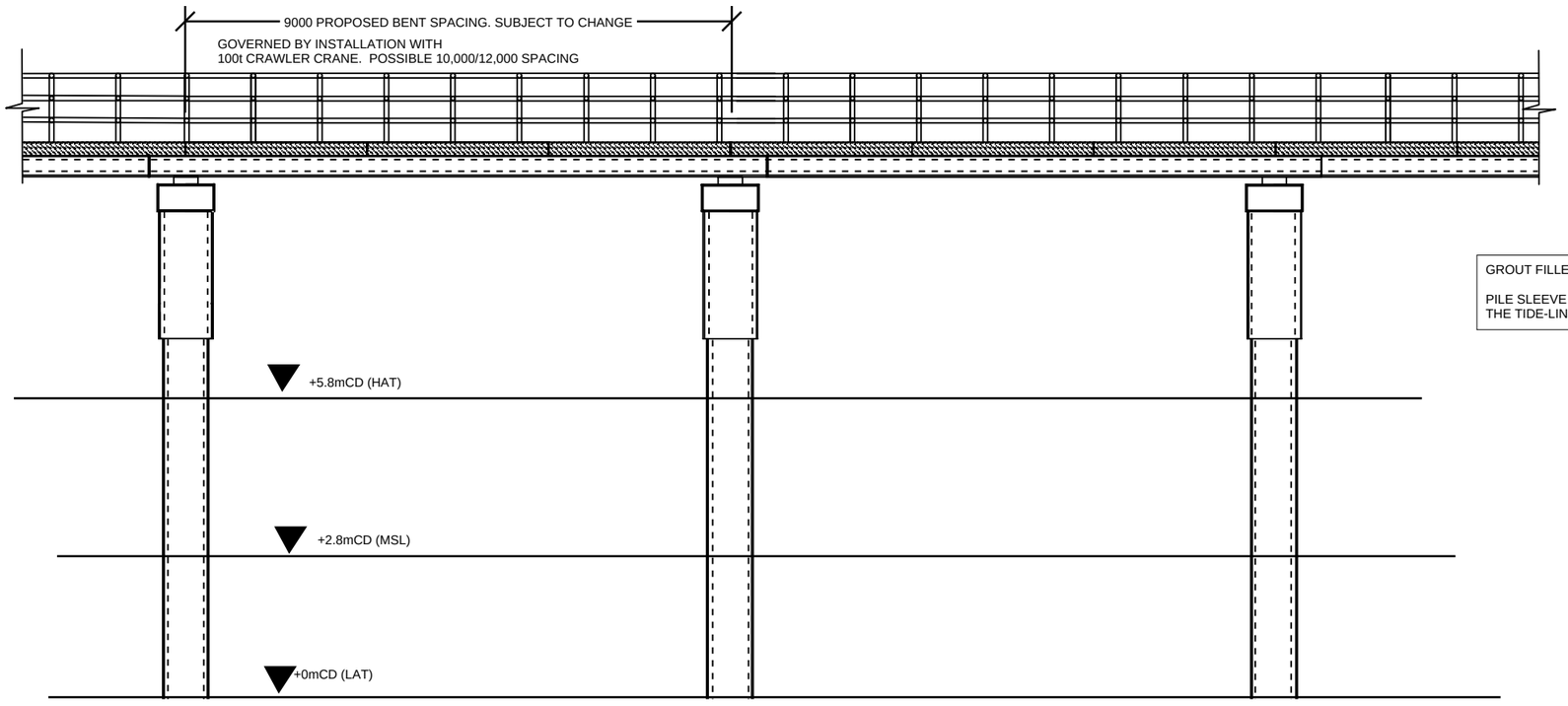
A3 | DOCUMENT NUMBER | Job Number | Sheet No. | Rev.
Design DSN | Drawn DRN | WGA201055-SK-MA-0001 | A

Attachment 2 - Structural Option (2) - Smaller Concrete Panels with Steel Joists



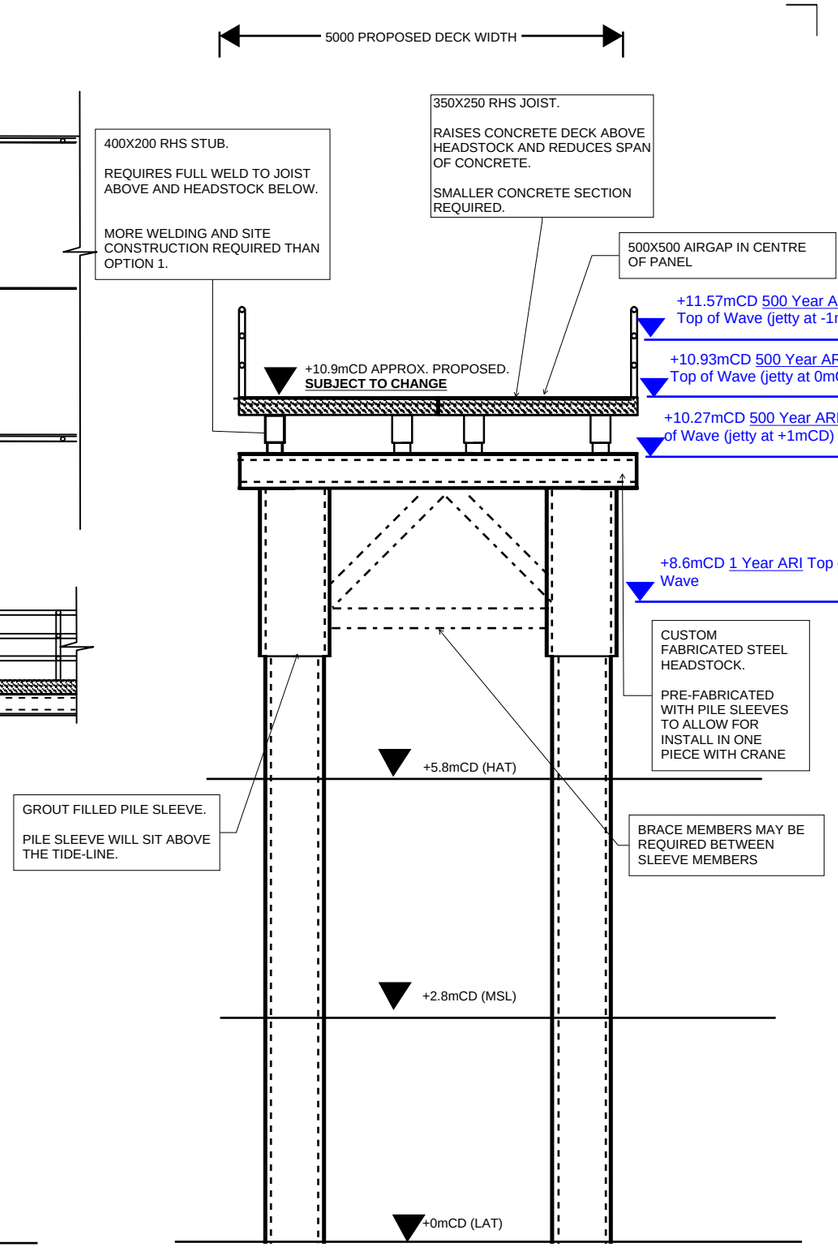
JETTY DECK GA

1:100



JETTY ELEVATION

1:100



JETTY SECTION

1:75

3600 PILE SPACING PROPOSED. MAXIMISING EFFICIENCY OF PORTAL FRAME

PRO'S	CON'S
- Lighter concrete panels due to shorter span between joists.	- Increased site work required to fully weld RHS stubs to headstock beams
- Easier installation with lighter deck elements	- Increased site work required to connect concrete beams to RHS joists
- Stubs lift deck planks away from headstock members	- Smaller airgap may result in less wave energy dissipation
- Damage to a concrete panel results in replacement of a smaller panel than Option 1	- More welding & site work may result in decreased overall durability

Note: All metocean data adopted from Cardno BoD 6.3 CW974400 _R001_RevA _BoD_Pt Samson

CONCEPT ONLY
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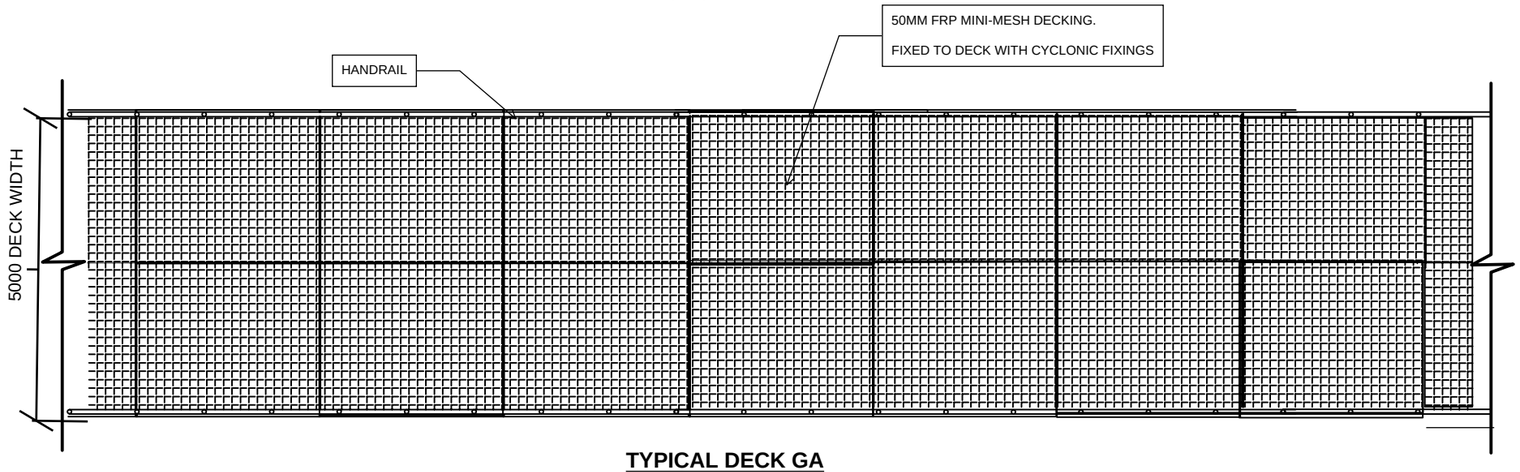
JETTY LAYOUT OPTION 2

A3 | DOCUMENT NUMBER | Job Number | Sheet No. | Rev.

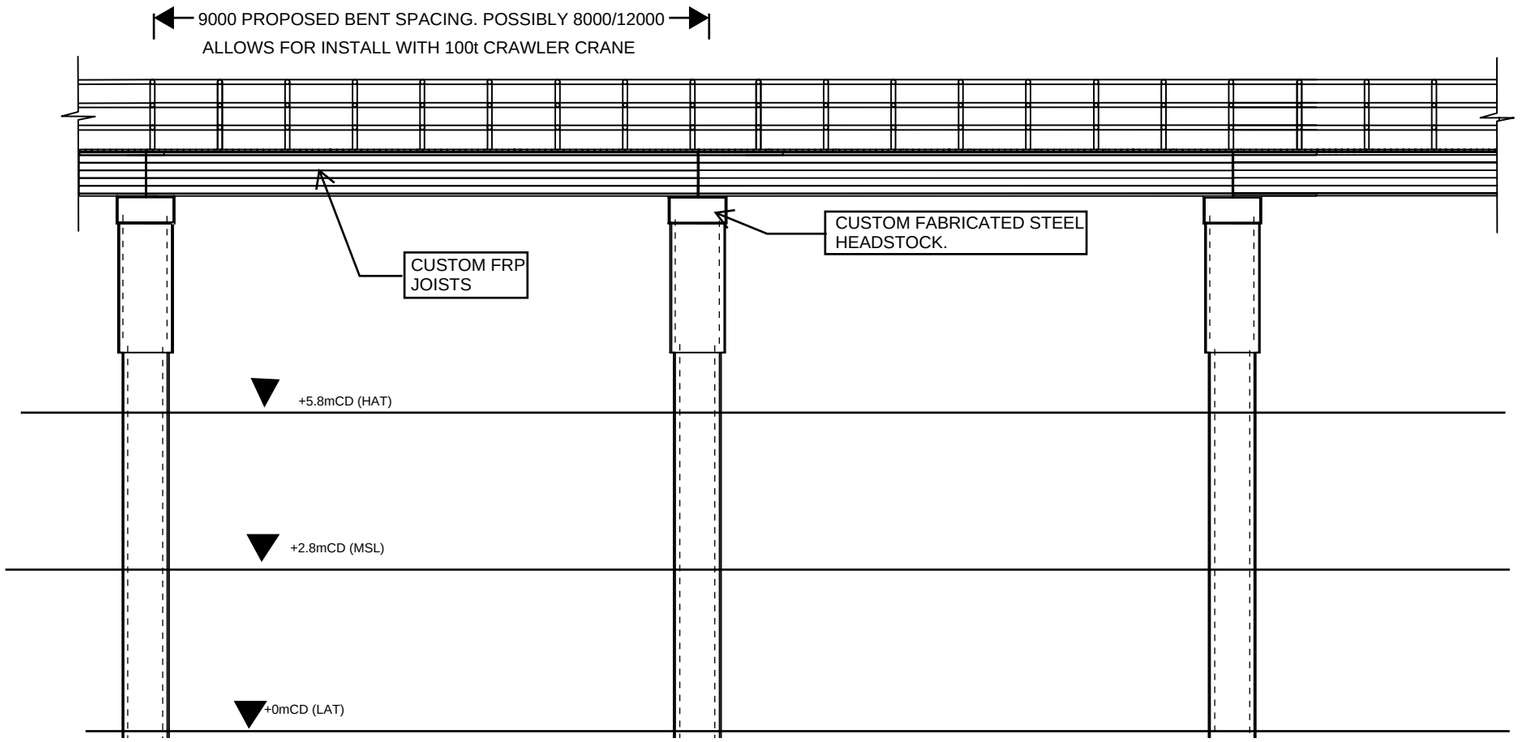
Design DSN | Drawn DRN | WGA201055-SK-MA-0002 | A

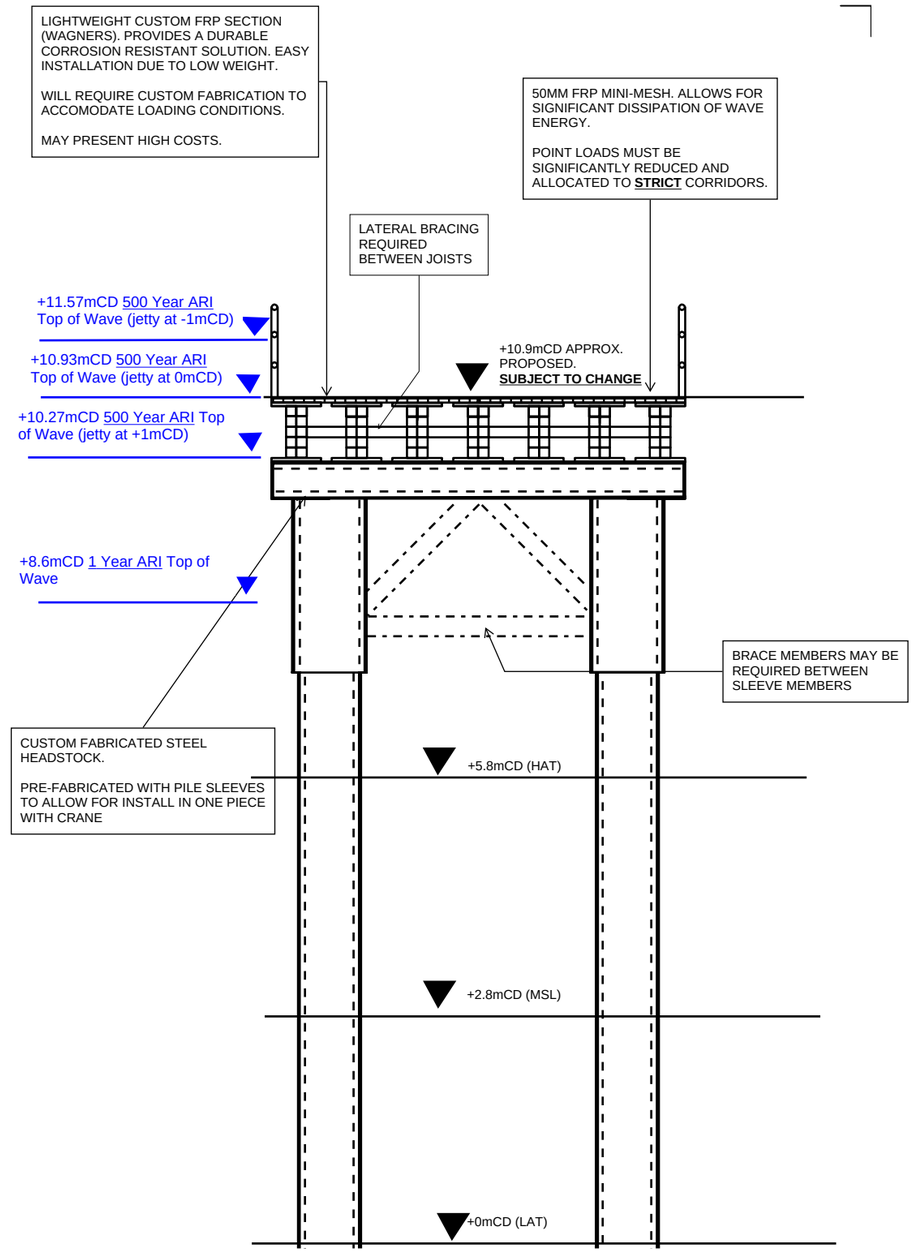
Attachment 2 - Structural Option (3) - Fibre Reinforced Panel Deck and Joists



TYPICAL DECK GA

1:100





JETTY SECTION

1:75

3600 PILE SPACING PROPOSED. MAXIMISING EFFICIENCY OF PORTAL FRAME

PRO'S	CON'S
- Lightweight deck allows for easier installation with crane.	- Custom FRP members required to withstand design loading. May incur high costs.
- Fully permeable mesh decking will not require significant uplift resistance. The majority of the wave will pass through the deck.	- Higher number of steps for installation of FRP members - cylconic deck washers, cleat connections between joists and headstocks, lateral bracing.
- FRP panels are easily replaced if damaged or lost in a storm.	

Note: All metocean data adopted from Cardno BoD 6.3 CW974400 _R001_RevA _BoD_Pt Samson

CONCEPT ONLY
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REV.	DATE	DESCRIPTION	DRAFT	ENG.	CHKD.
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JETTY LAYOUT OPTION 3

A3 | DOCUMENT NUMBER Job Number WGA201055-SK-MA-0003 | Sheet No. | Rev. A

Design DSN | Drawn DRN