



# River Suir Sustainable Transport Bridge

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Environmental Impact Assessment Report  
Volume 3 Figures | December 2018  
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## List of Volumes comprising this Environmental Impact Assessment Report

Volume 1 Non-Technical Summary

Volume 2 Main Text

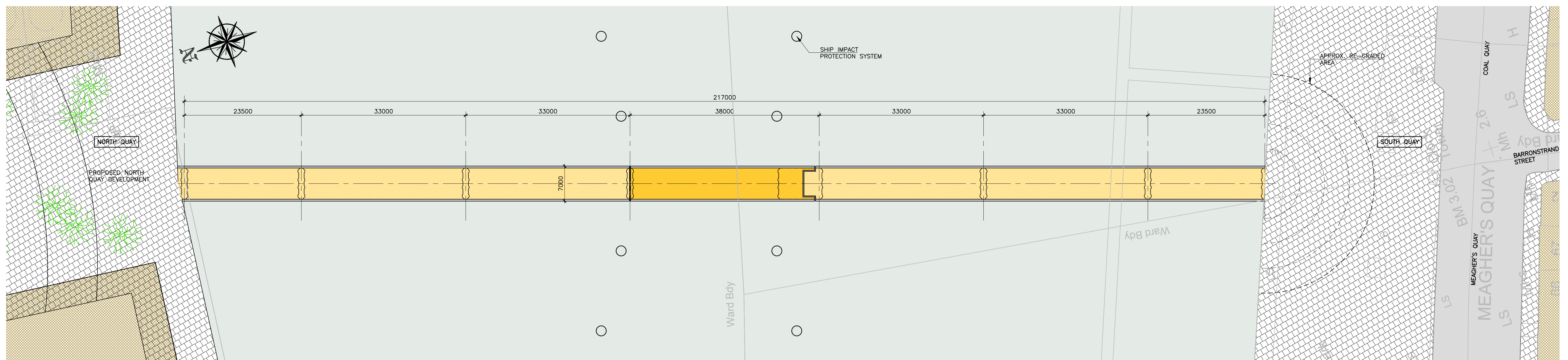
Volume 3 Figures

## River Suir Sustainable Transport Bridge Environmental Impact Assessment Report Volume 3

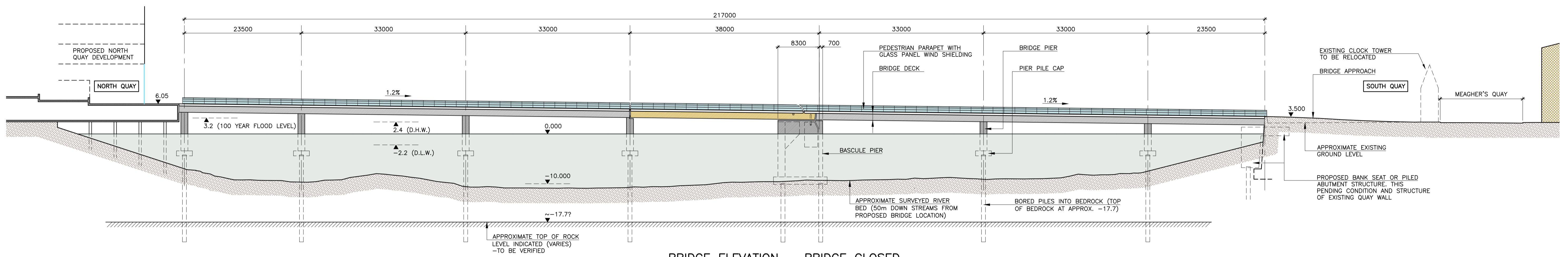
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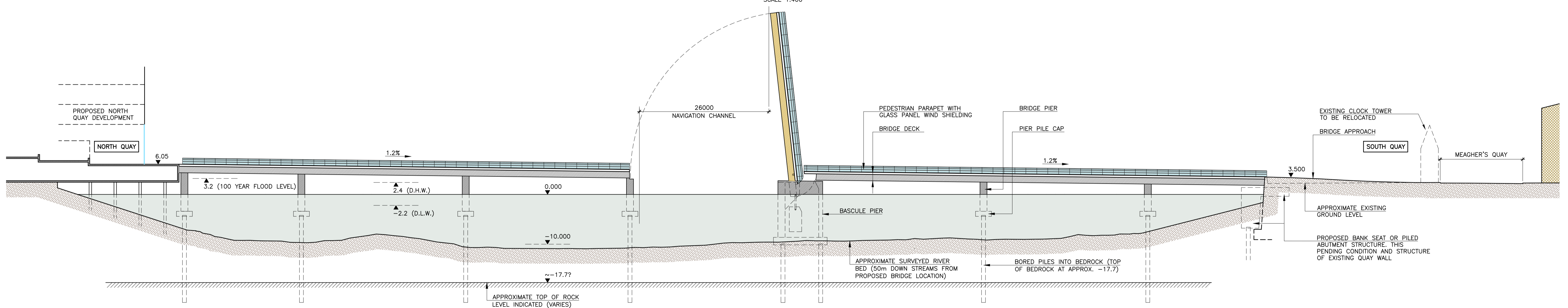




**BRIDGE PLAN**  
SCALE 1:400



**BRIDGE ELEVATION - BRIDGE CLOSED**  
SCALE 1:400



**BRIDGE ELEVATION - BRIDGE OPEN**  
SCALE 1:400



Ordnance Survey Ireland Licence No EN 0006515  
 17 December 2018 13:19:00 J:\2016\16169\02 DWG\10 EIAR DRAWINGS\FIGURE 3.1\_3.2.DWG

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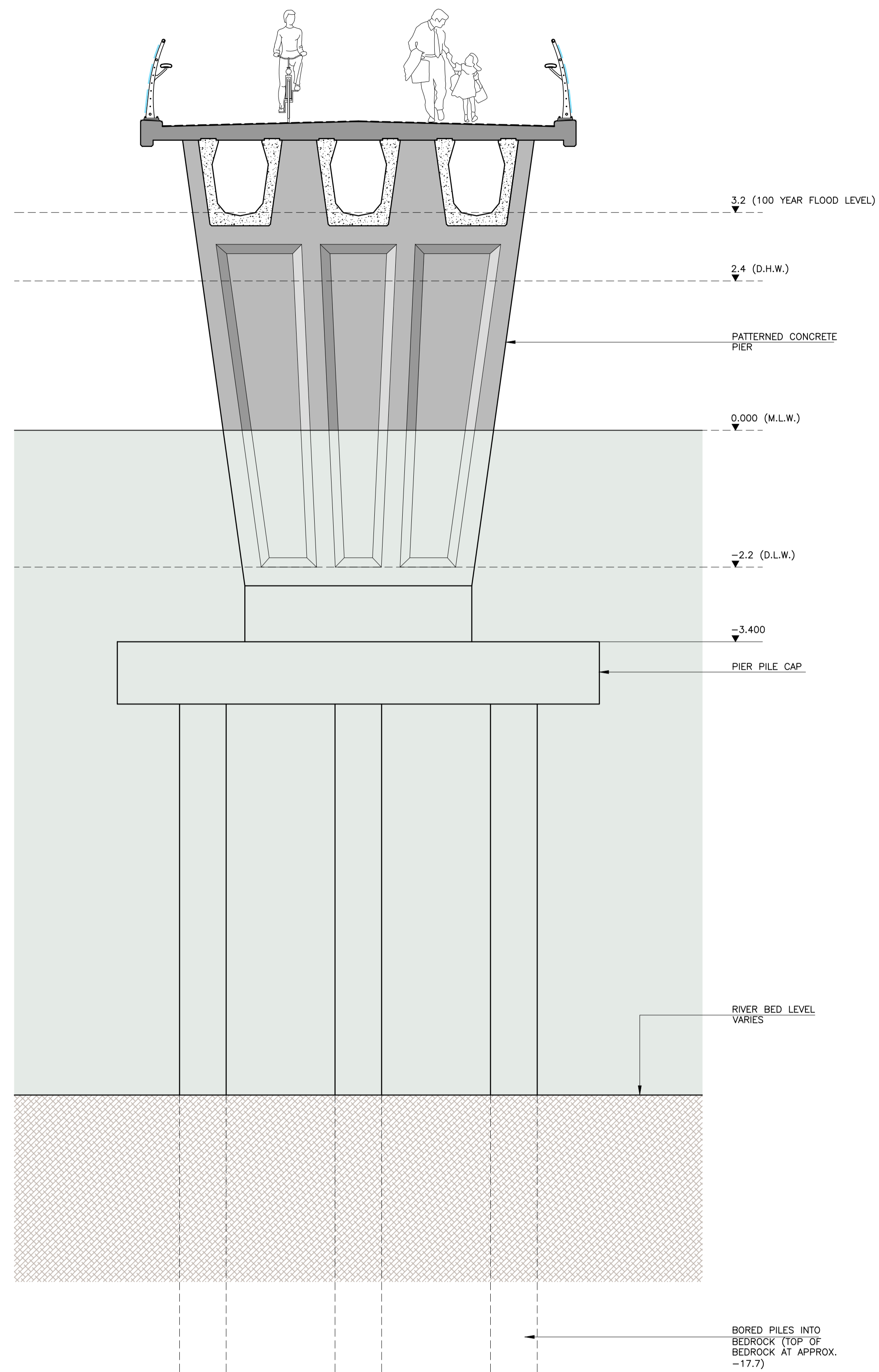


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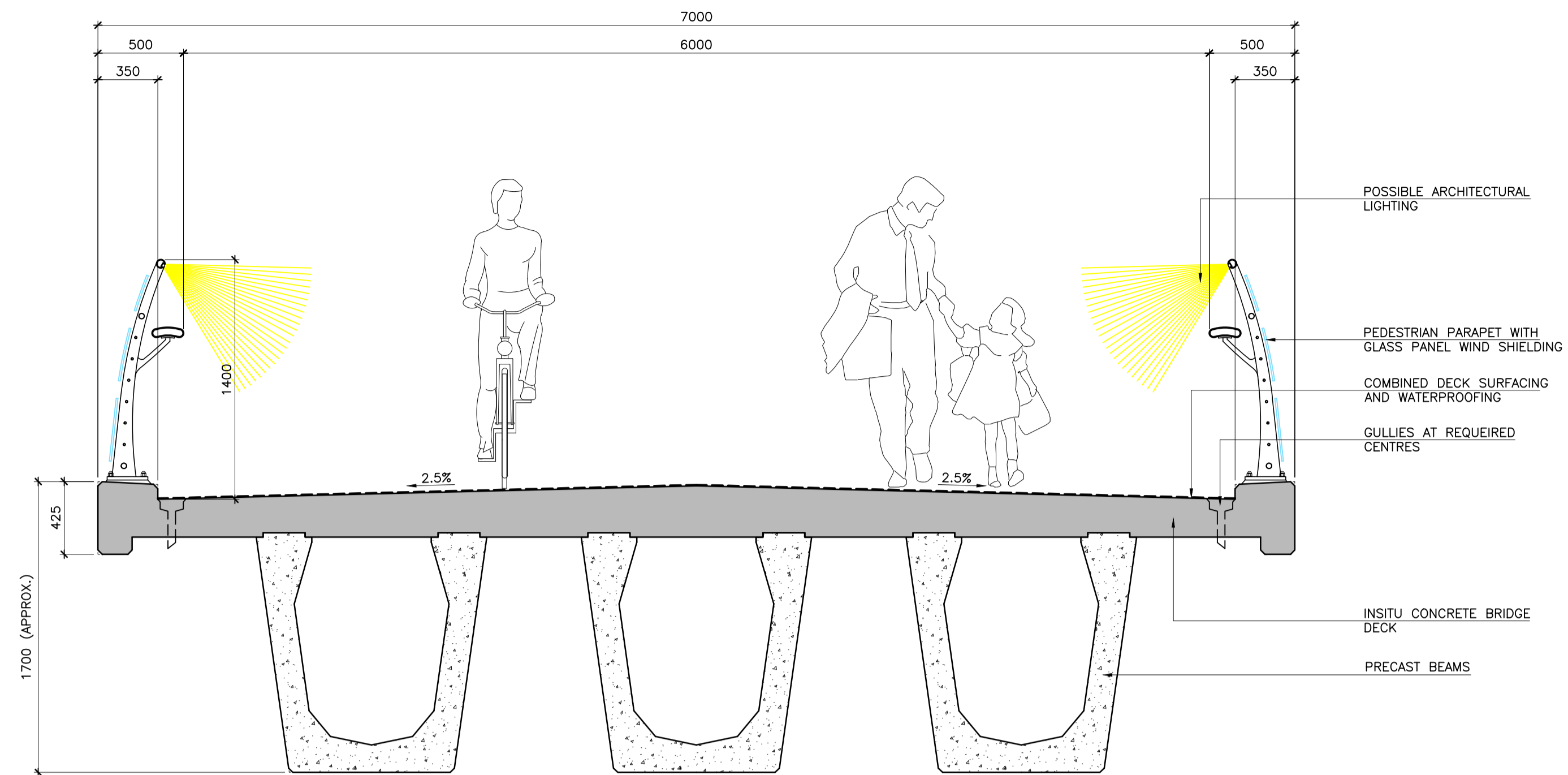
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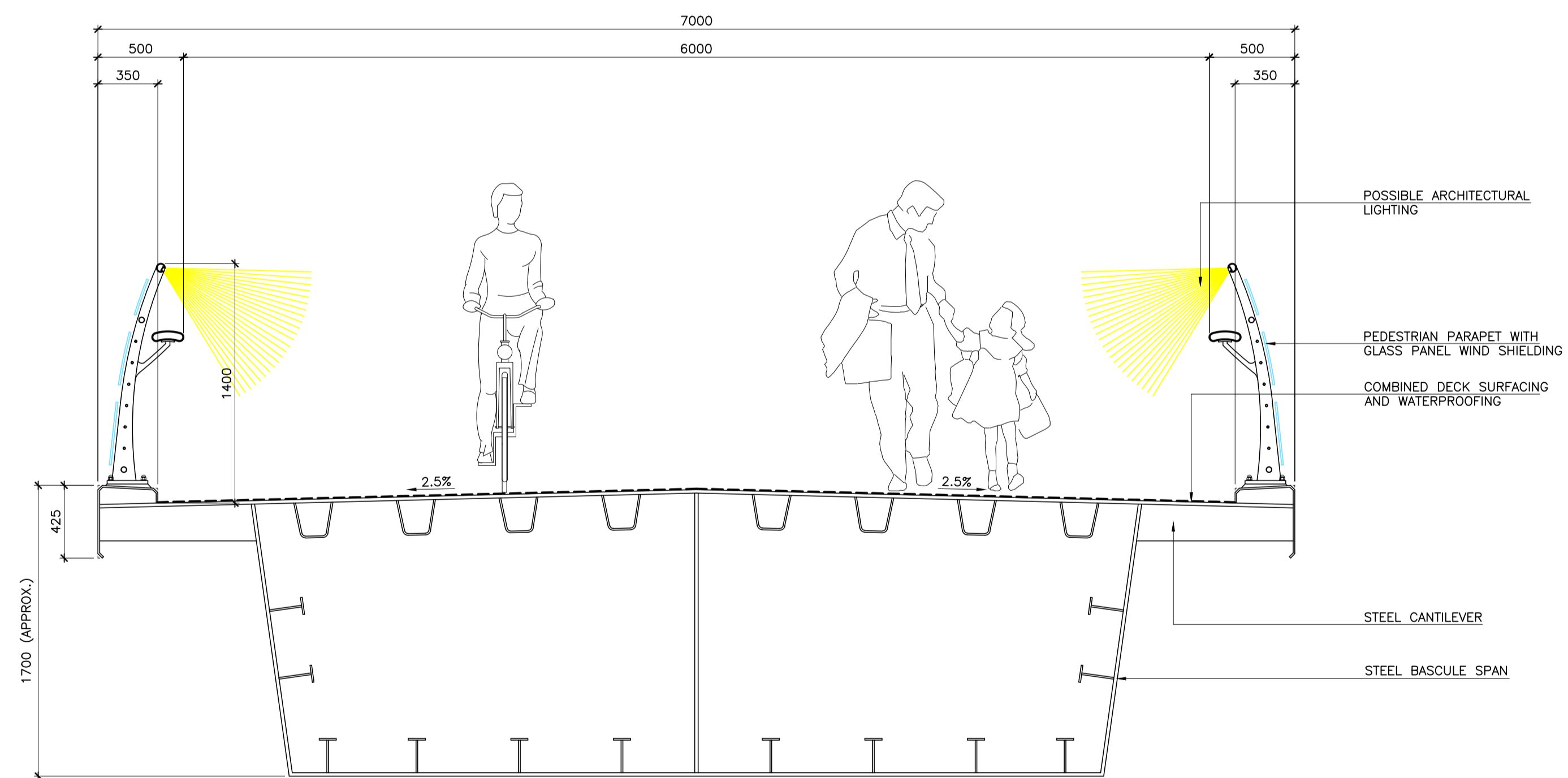
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TYPICAL PIER ELEVATION  
SCALE 1:50



TYPICAL FIXED BRIDGE DECK CROSS SECTION  
SCALE 1:25



BASCULE SPAN CROSS SECTION  
SCALE 1:25

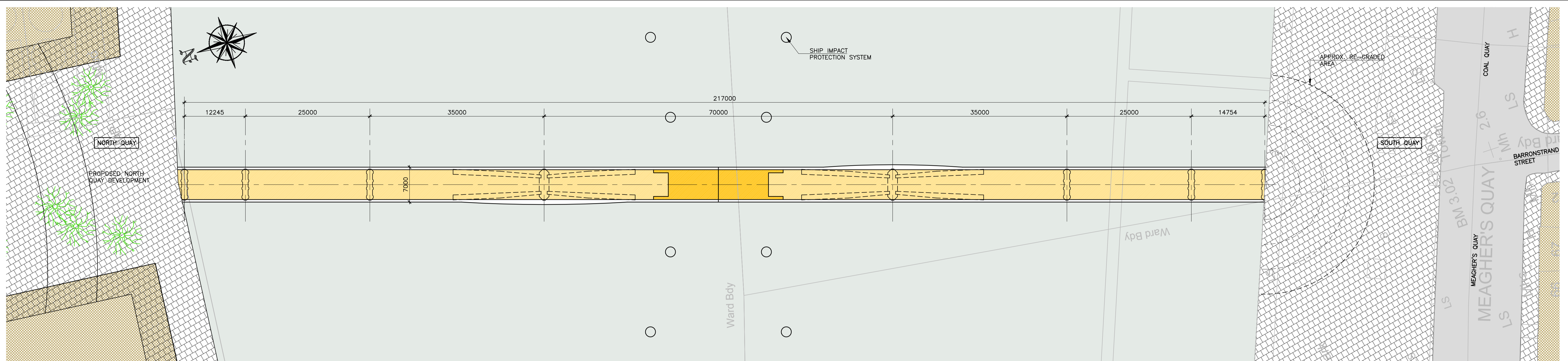


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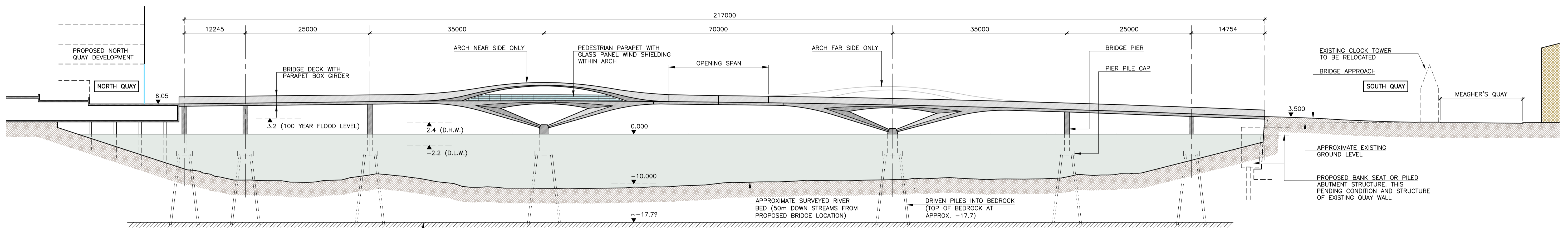


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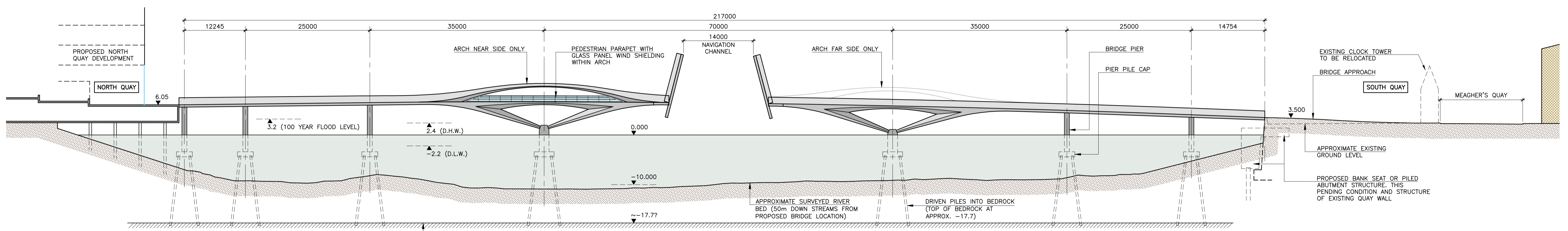
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**BRIDGE PLAN**  
SCALE 1:400



**BRIDGE ELEVATION - BRIDGE CLOSED**  
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**BRIDGE ELEVATION - BRIDGE OPEN**  
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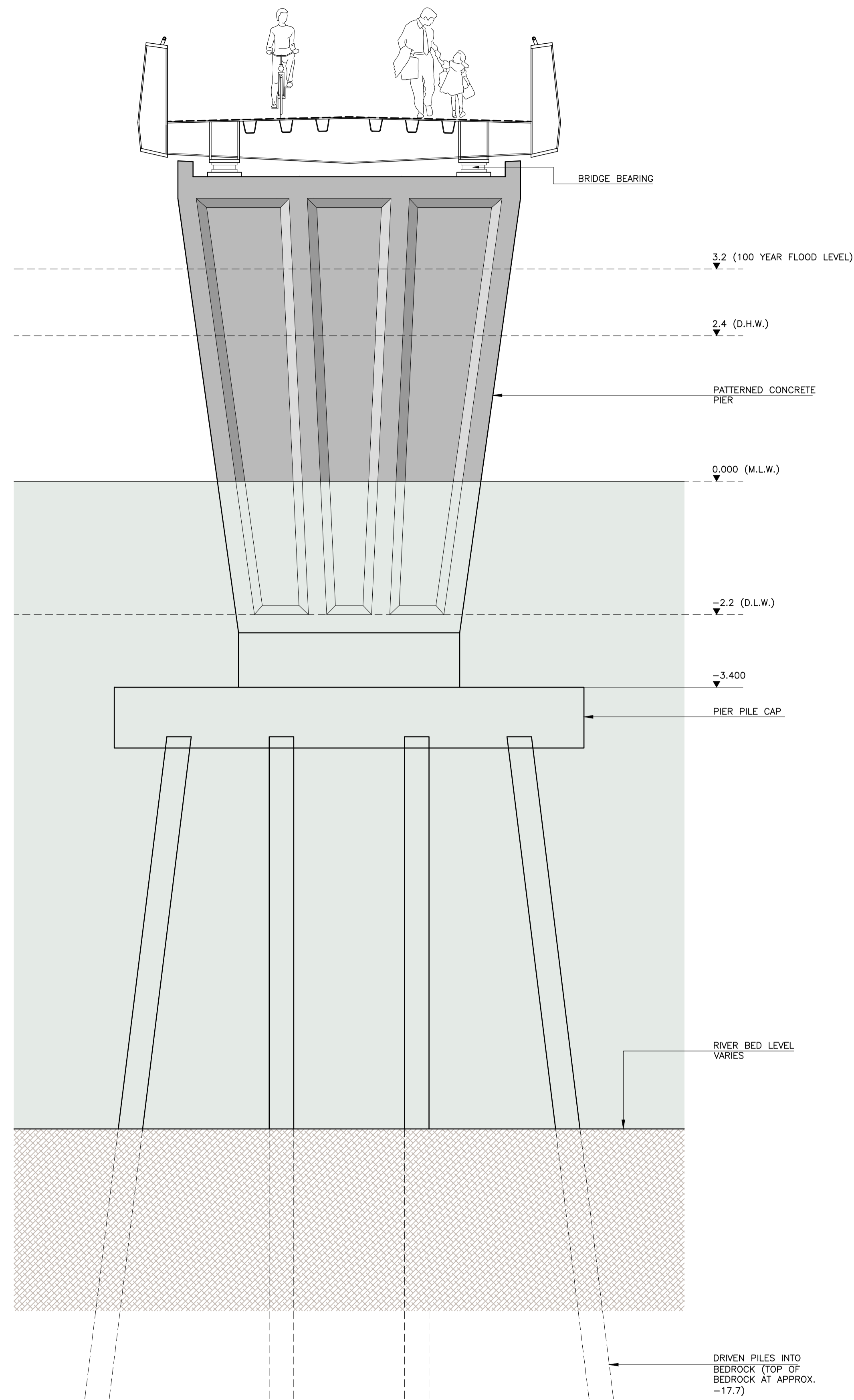


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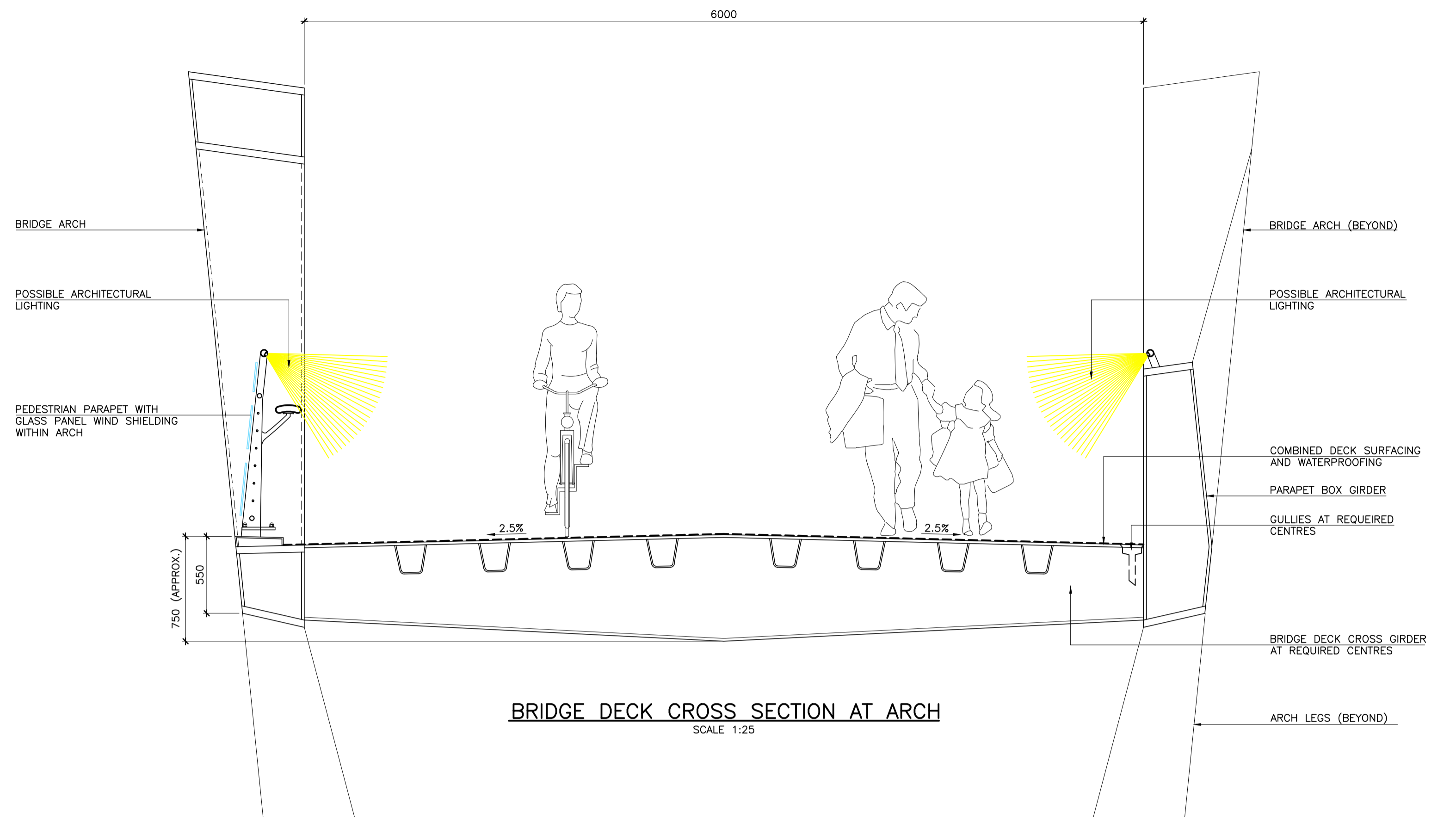
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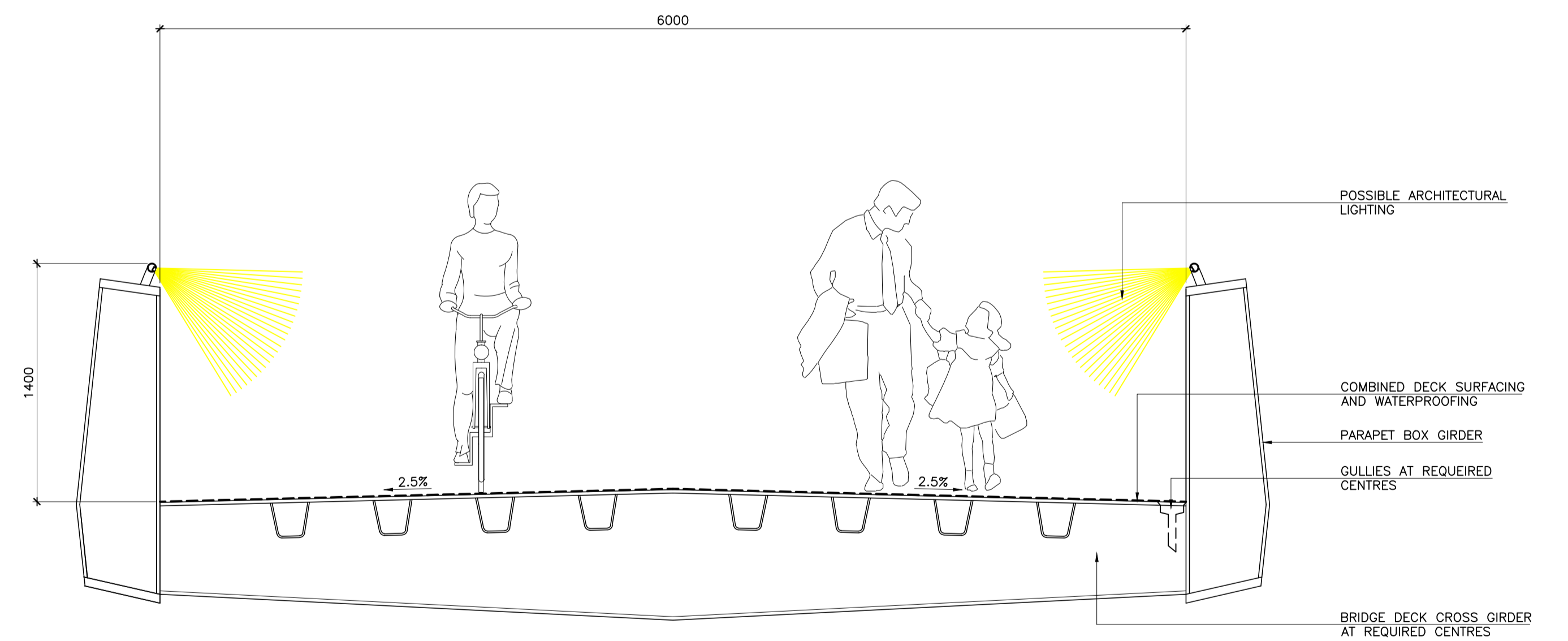
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SCALE 1:25



APPROACH AND BASCULE BRIDGE DECK CROSS SECTION  
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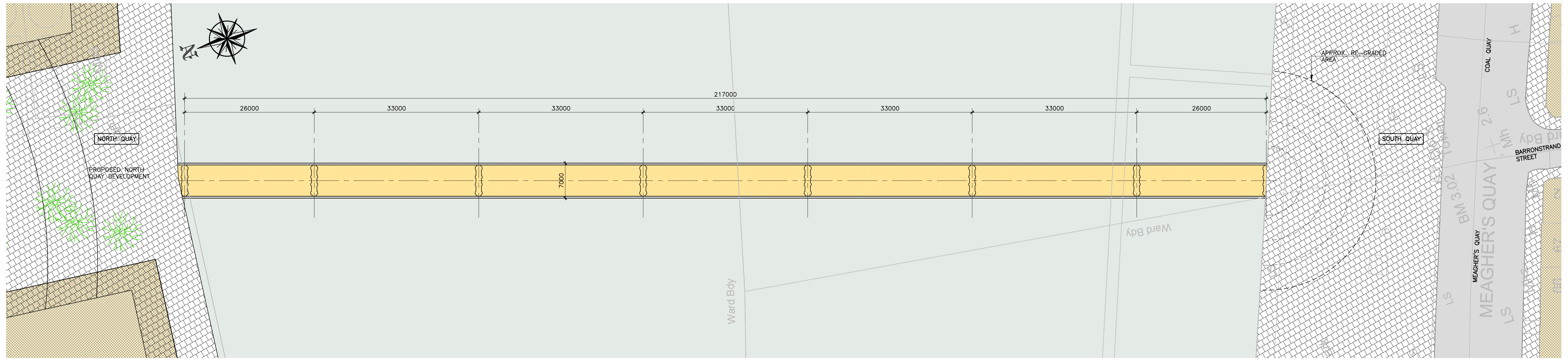


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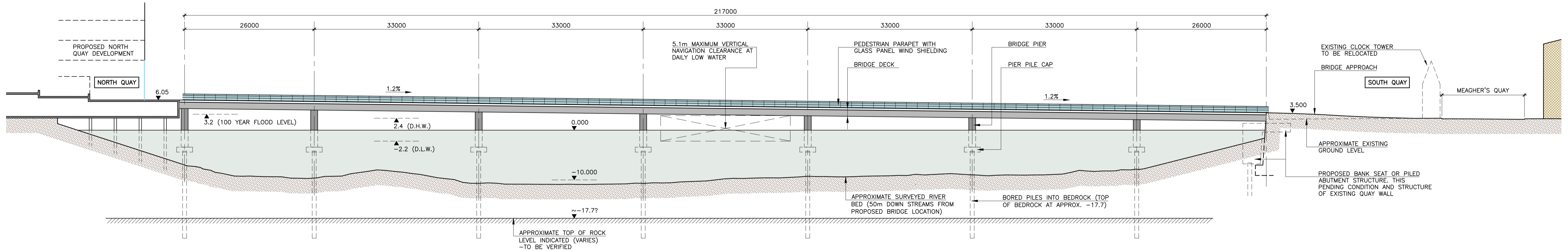
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**BRIDGE ELEVATION**  
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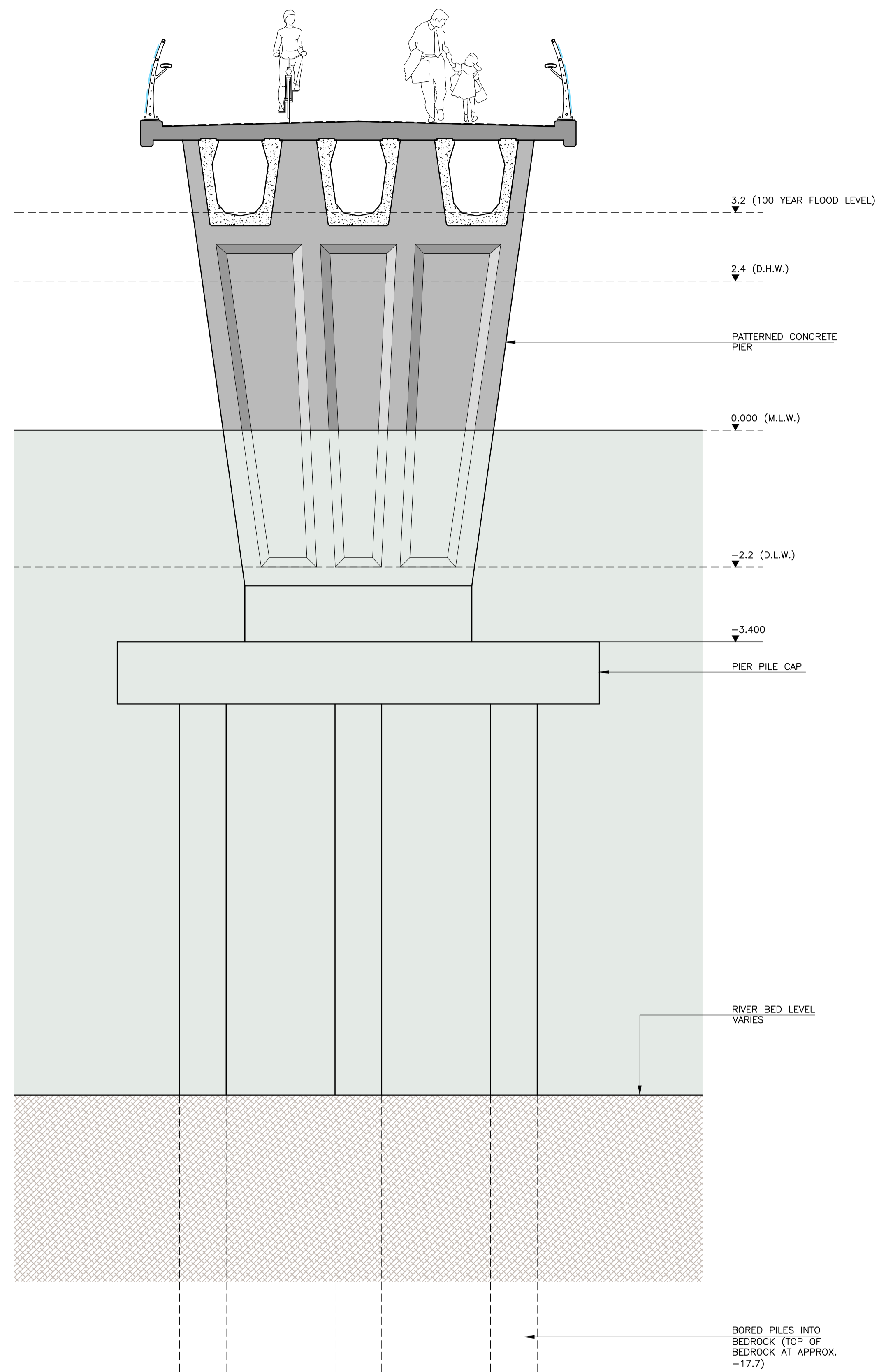


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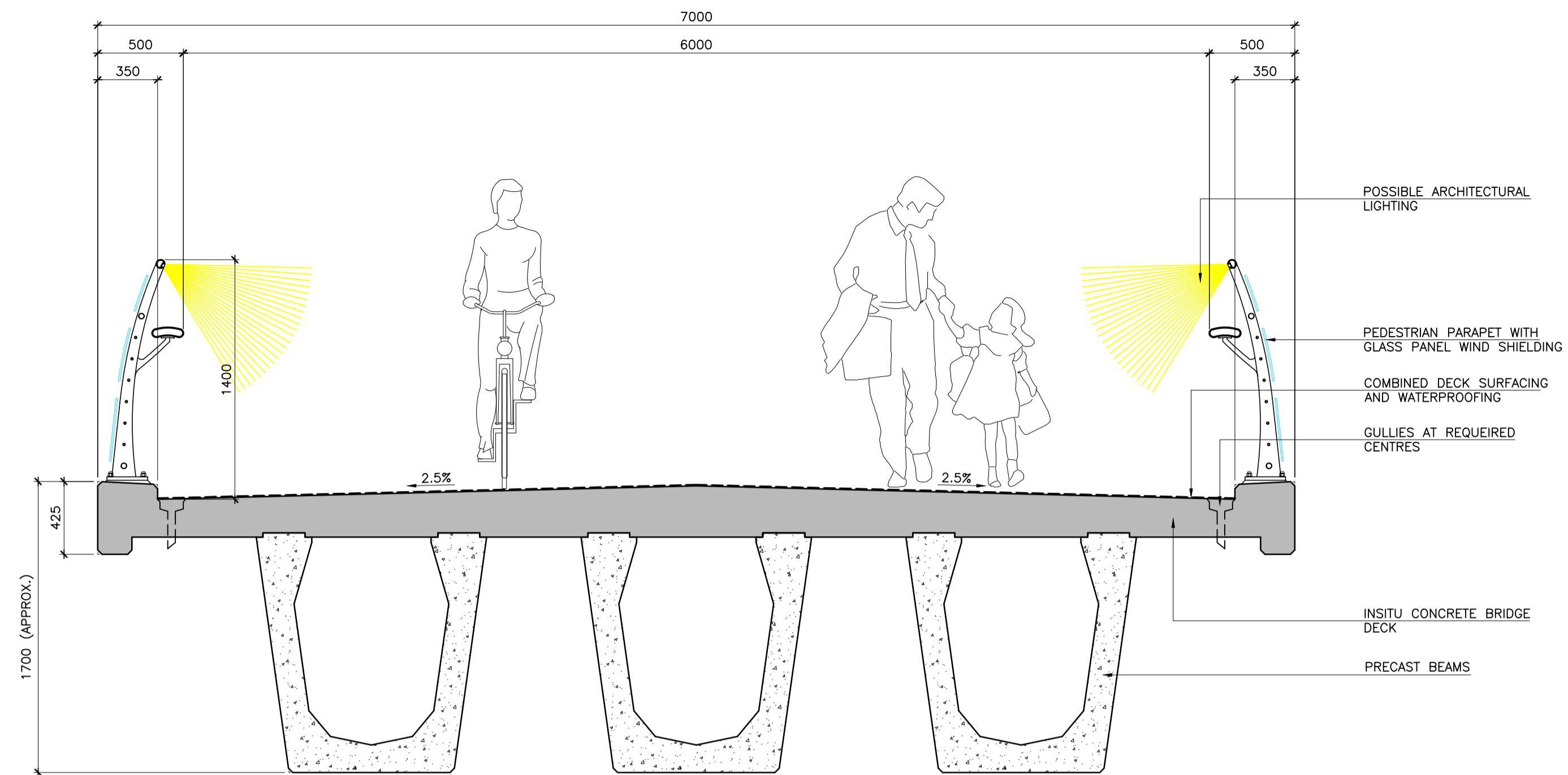


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TYPICAL BRIDGE DECK CROSS SECTION  
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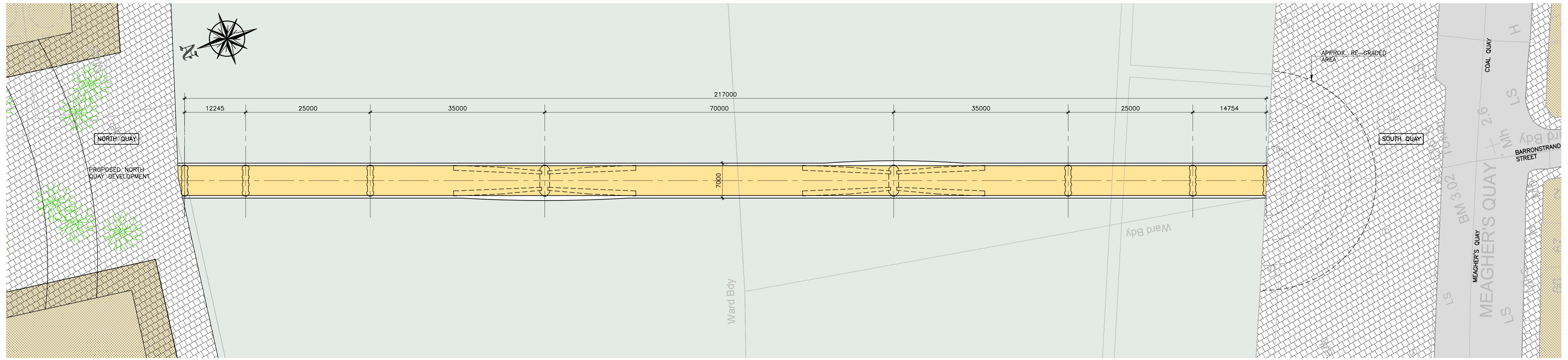


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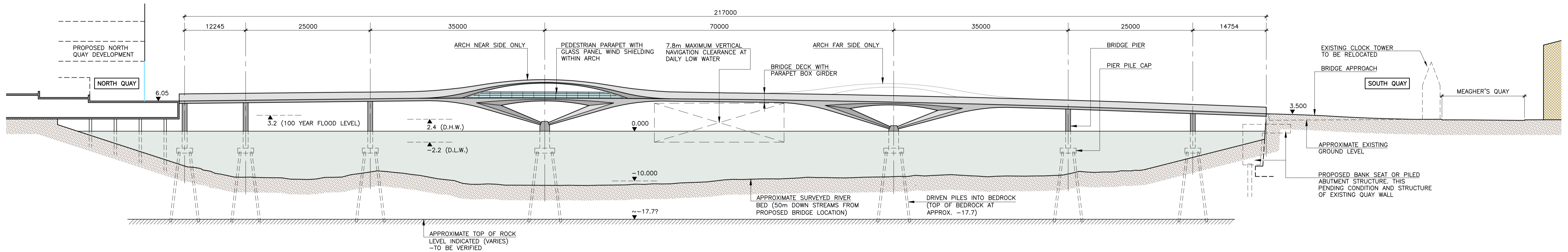


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**BRIDGE PLAN**  
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**BRIDGE ELEVATION**  
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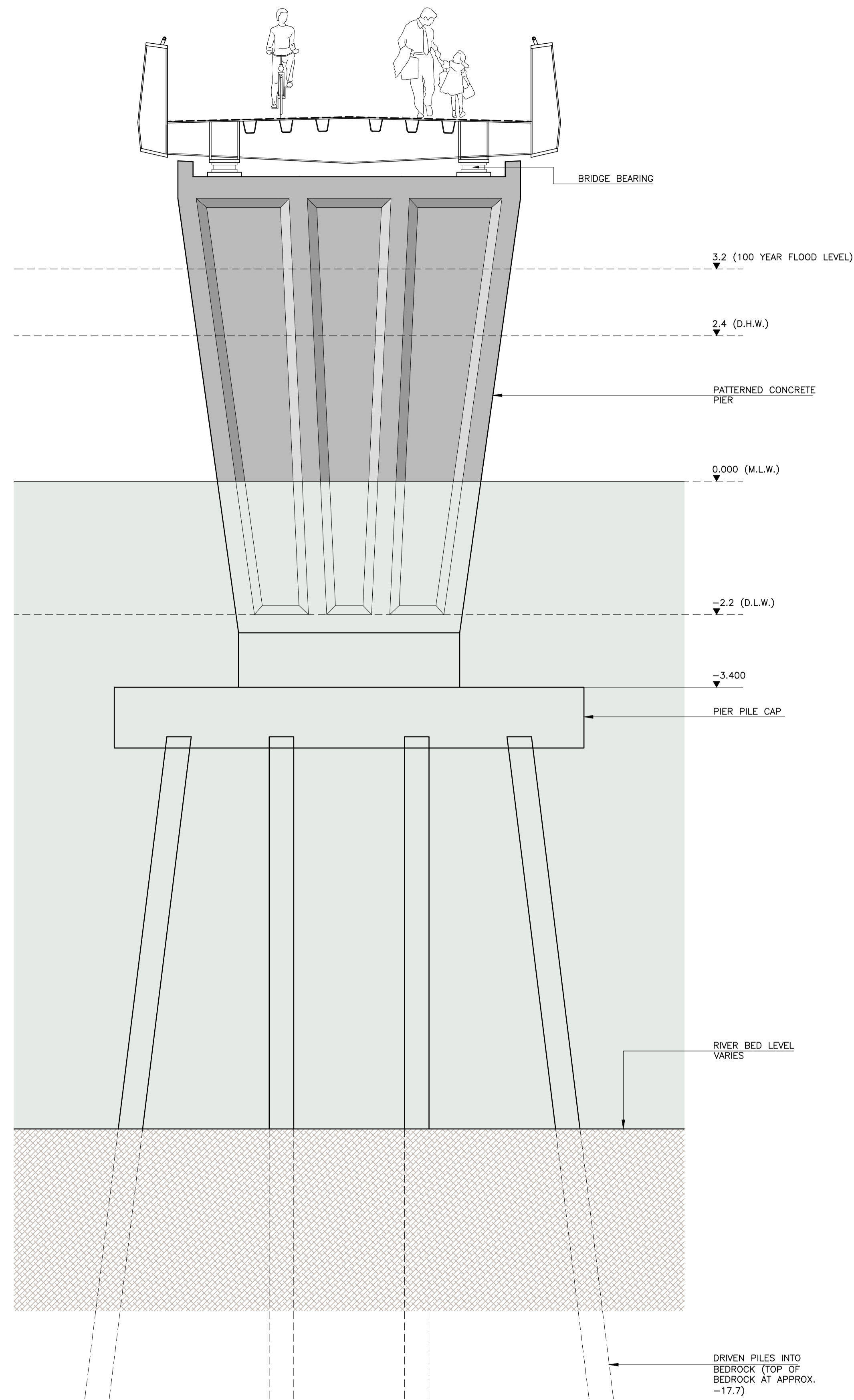


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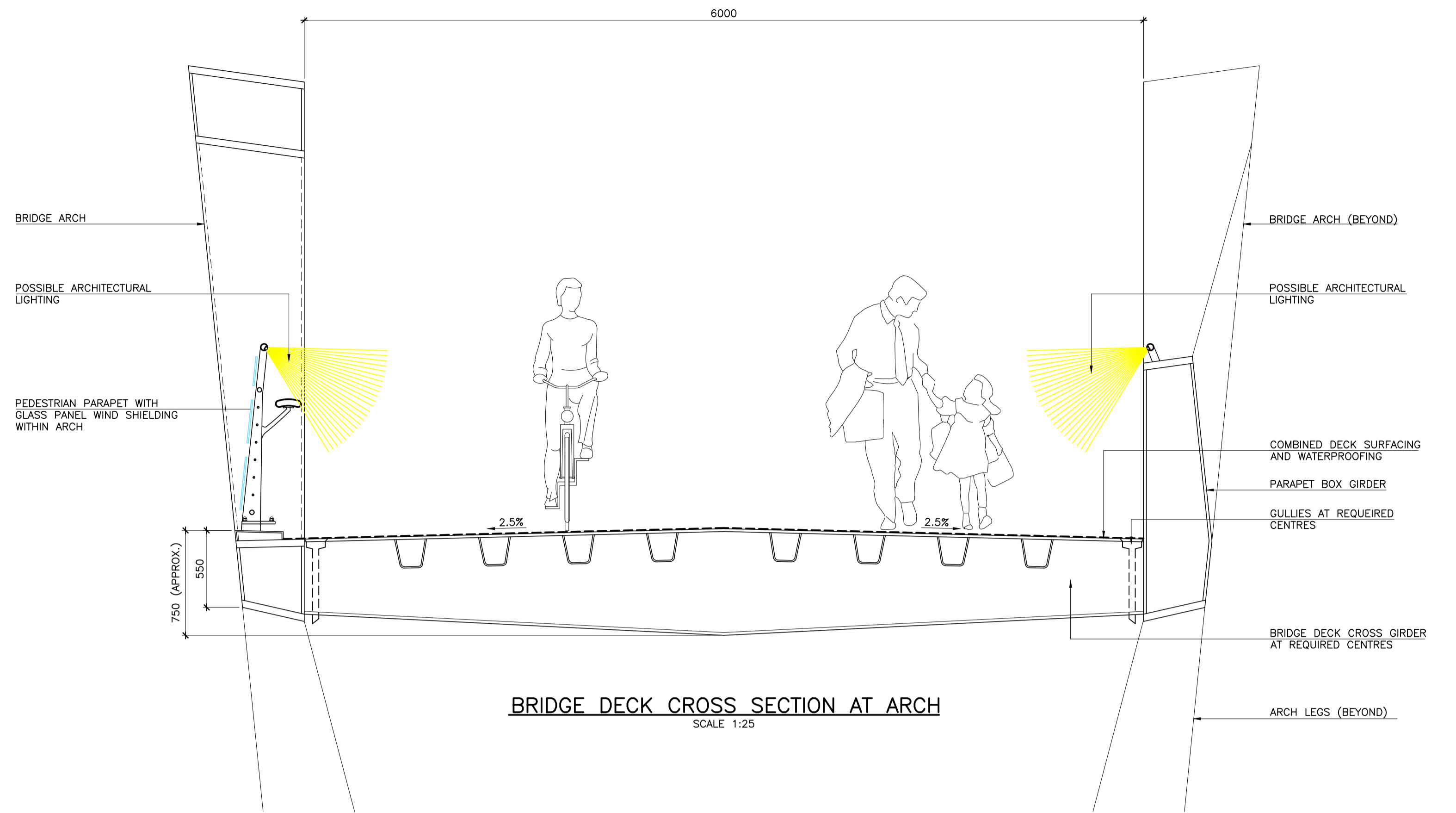
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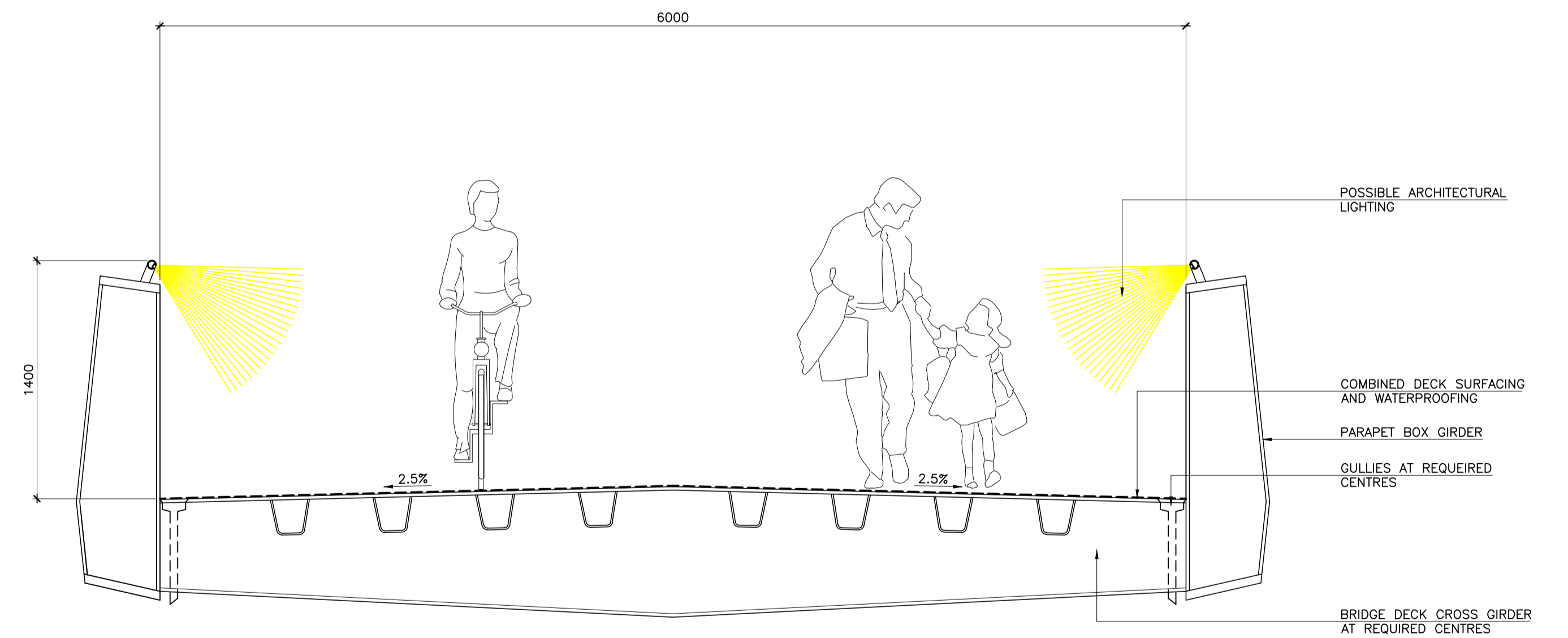
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TYPICAL PIER ELEVATION  
SCALE 1:50



BRIDGE DECK CROSS SECTION AT ARCH  
SCALE 1:25



APPROACH AND MID-SPAN DECK CROSS SECTION  
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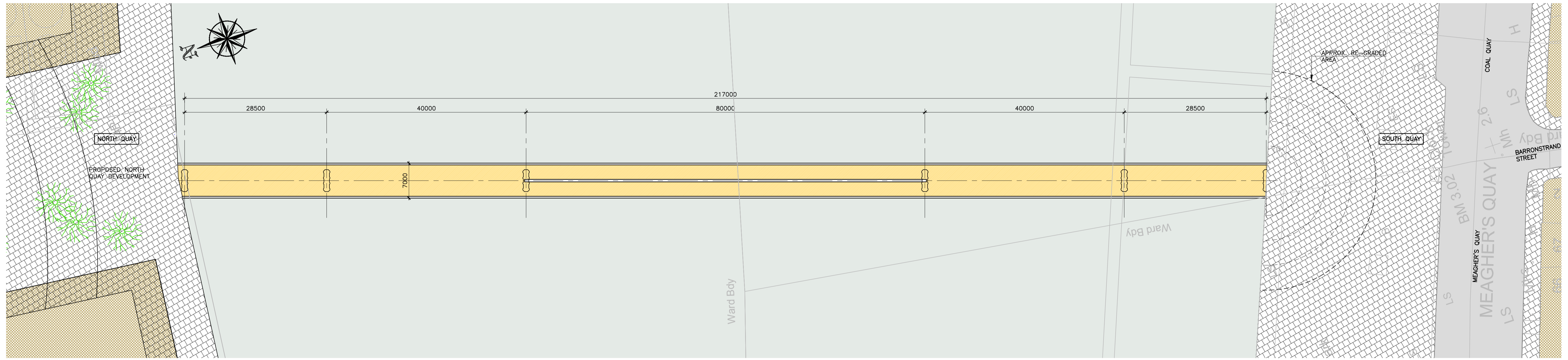


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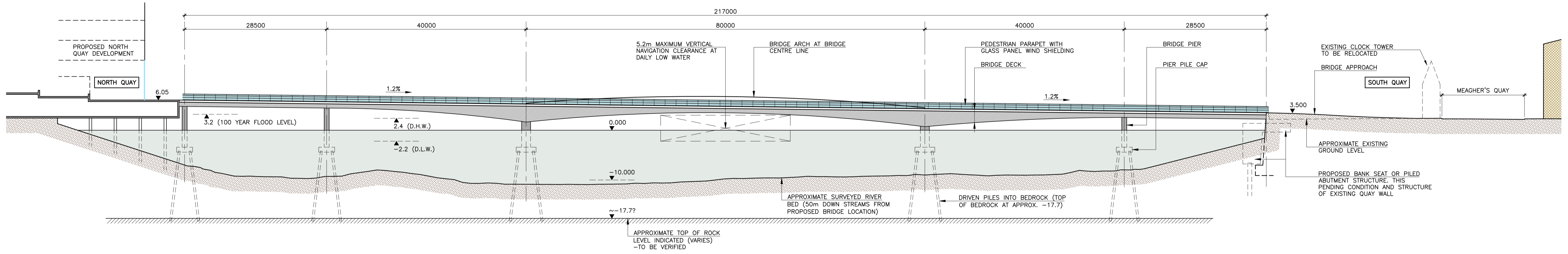


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**BRIDGE PLAN**  
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**BRIDGE ELEVATION**  
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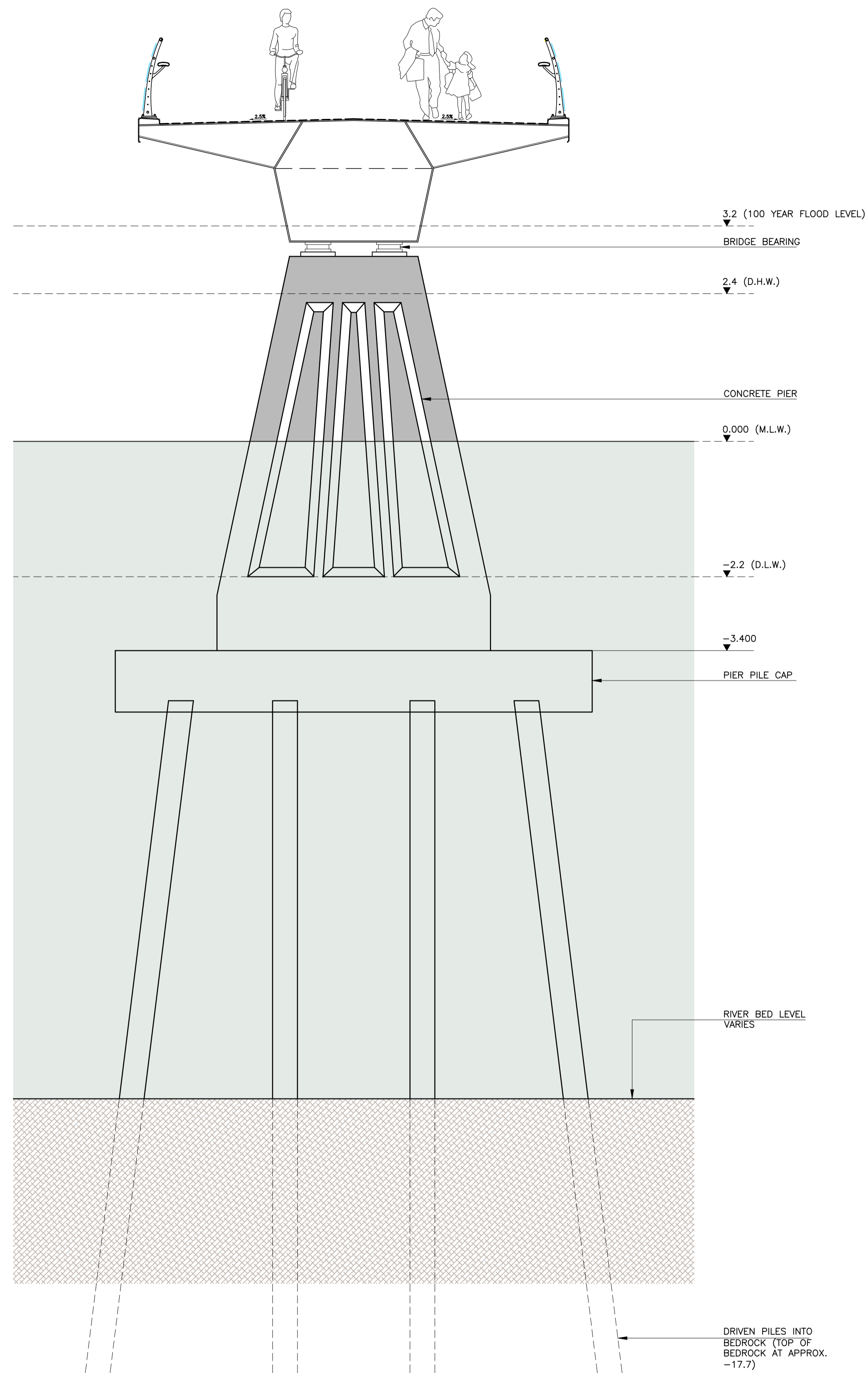


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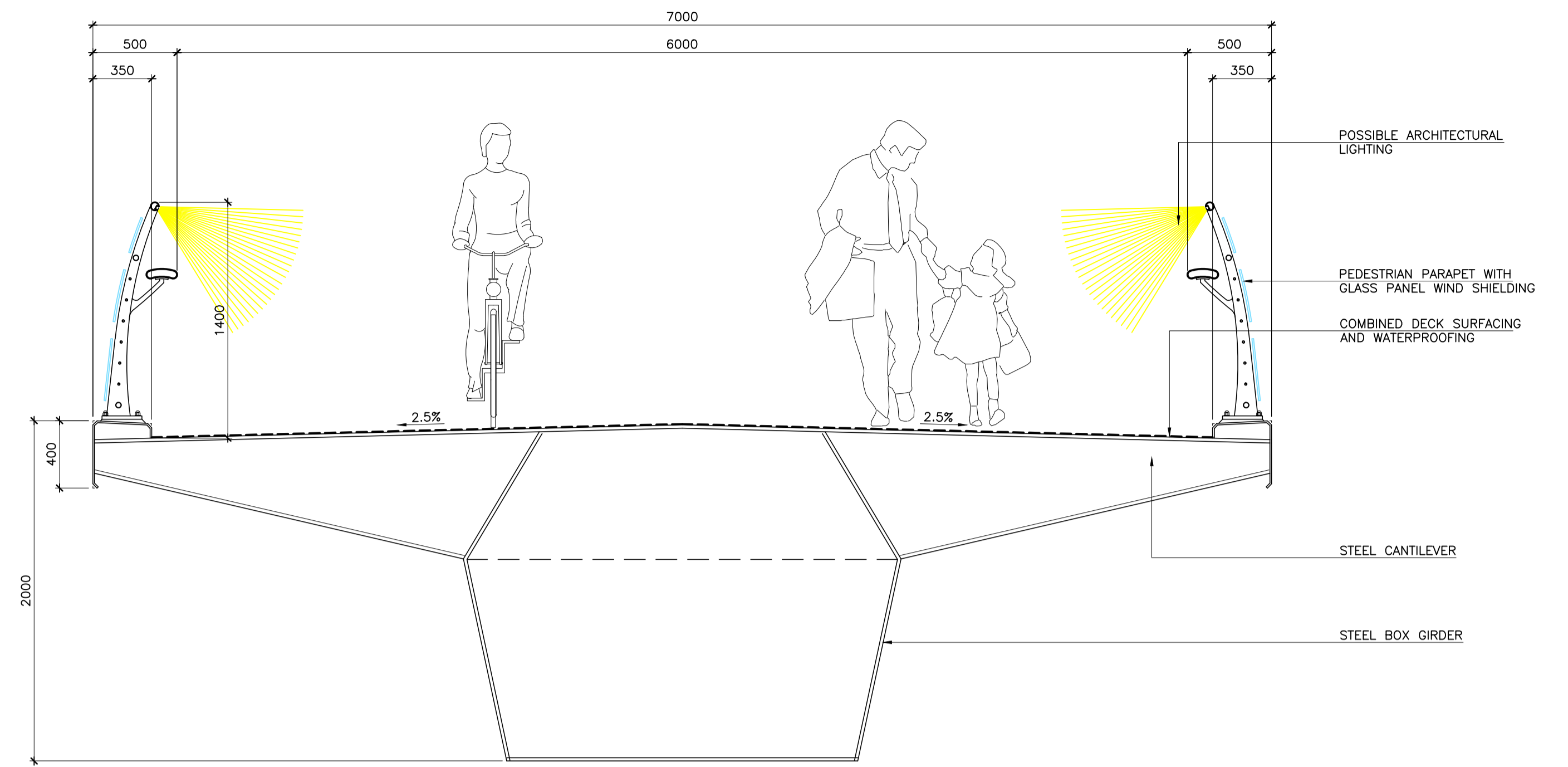
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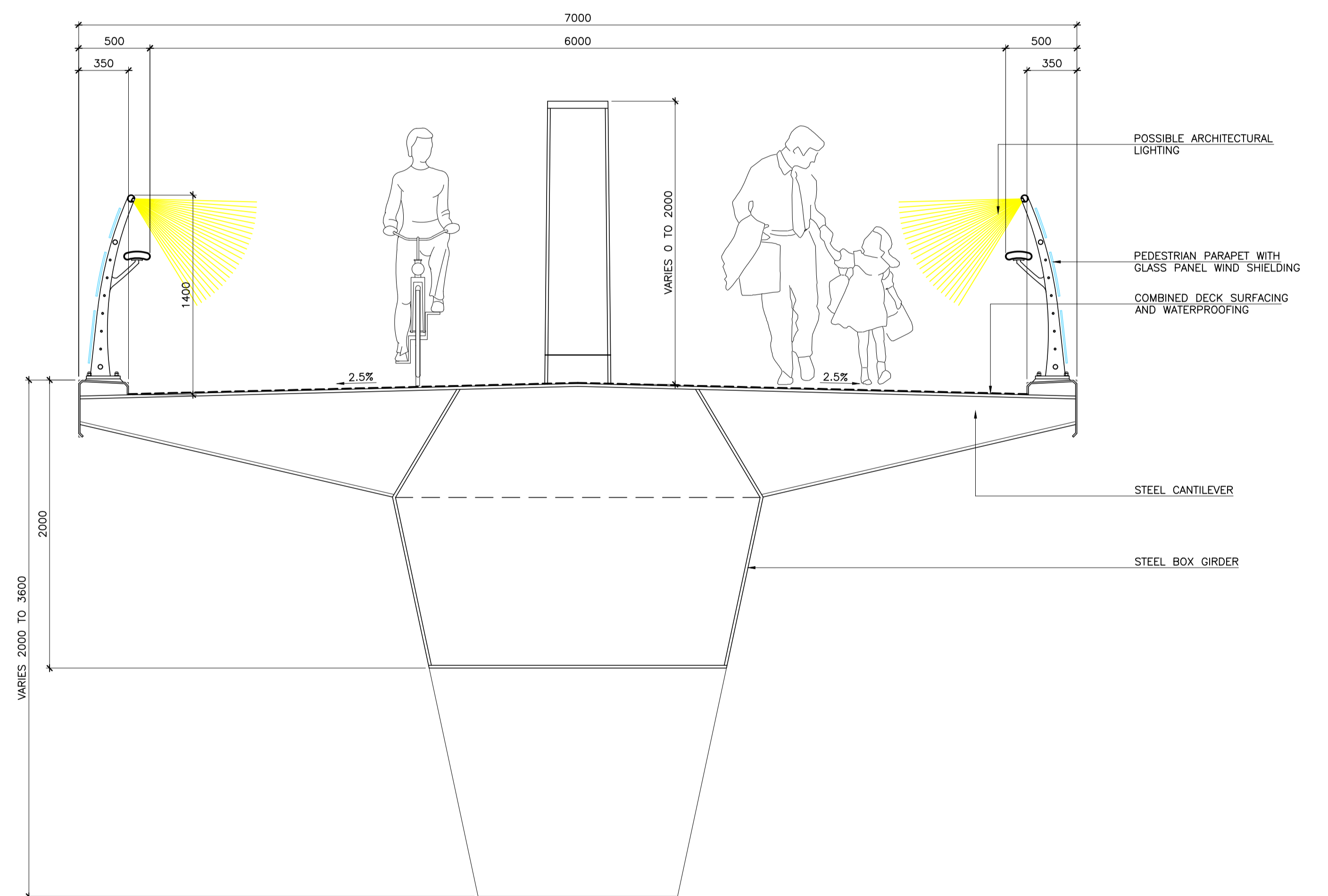
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TYPICAL PIER ELEVATION  
 SCALE 1:50



TYPICAL BRIDGE APPROACH SPAN CROSS SECTION  
 SCALE 1:25



BRIDGE MAIN SPAN DECK CROSS SECTION  
 SCALE 1:25



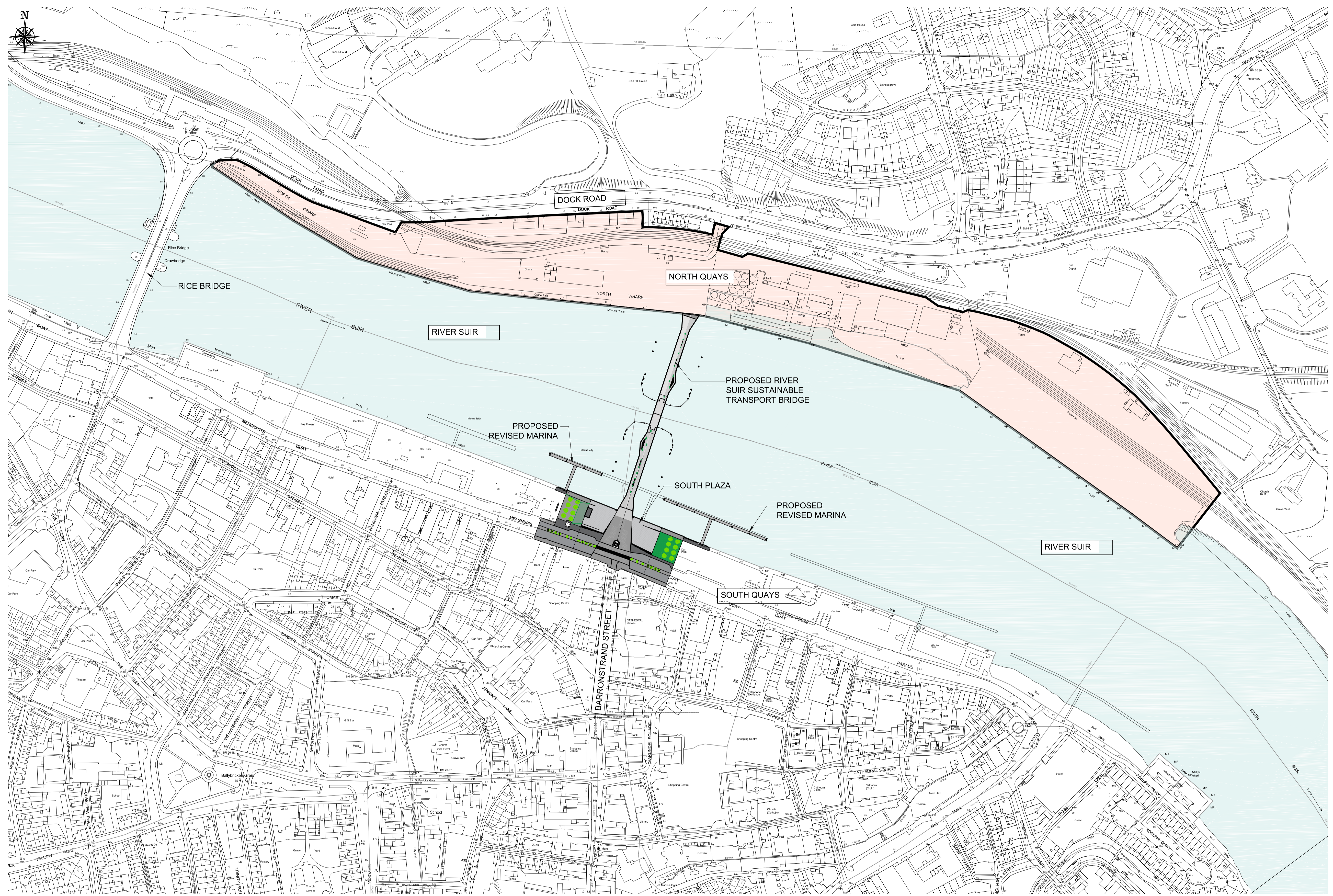
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LEGEND:  
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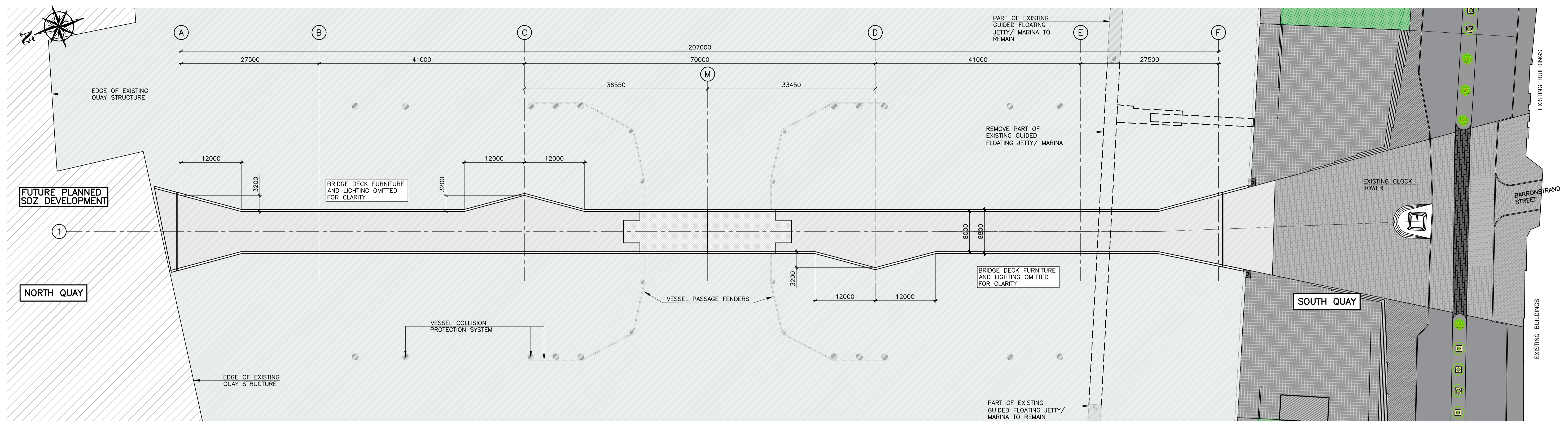


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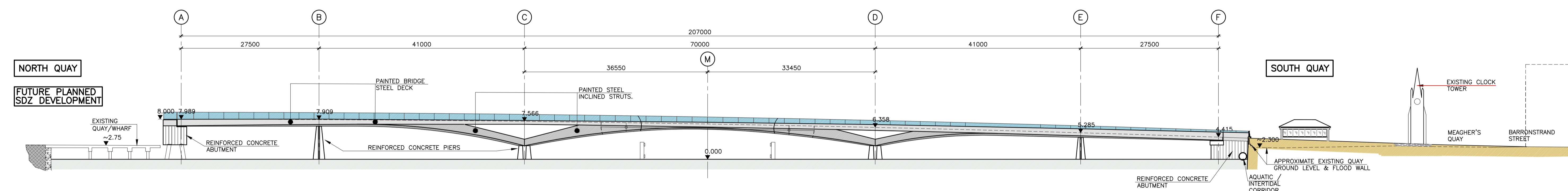


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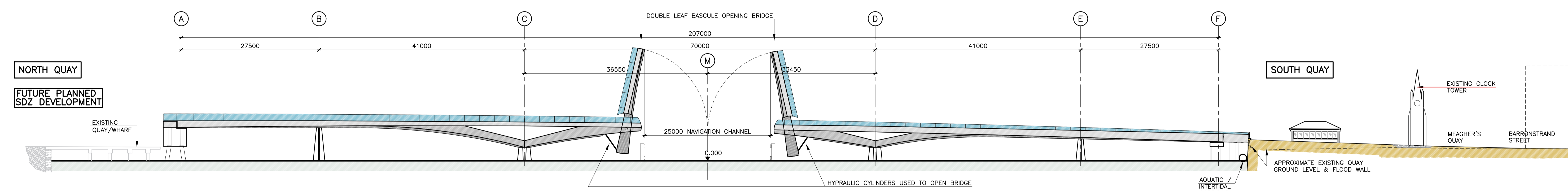
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**BRIDGE PLAN**  
SCALE 1:400



**BRIDGE ELEVATION - CLOSED POSITION**  
SCALE 1:400



**BRIDGE ELEVATION - OPEN POSITION**  
SCALE 1:400



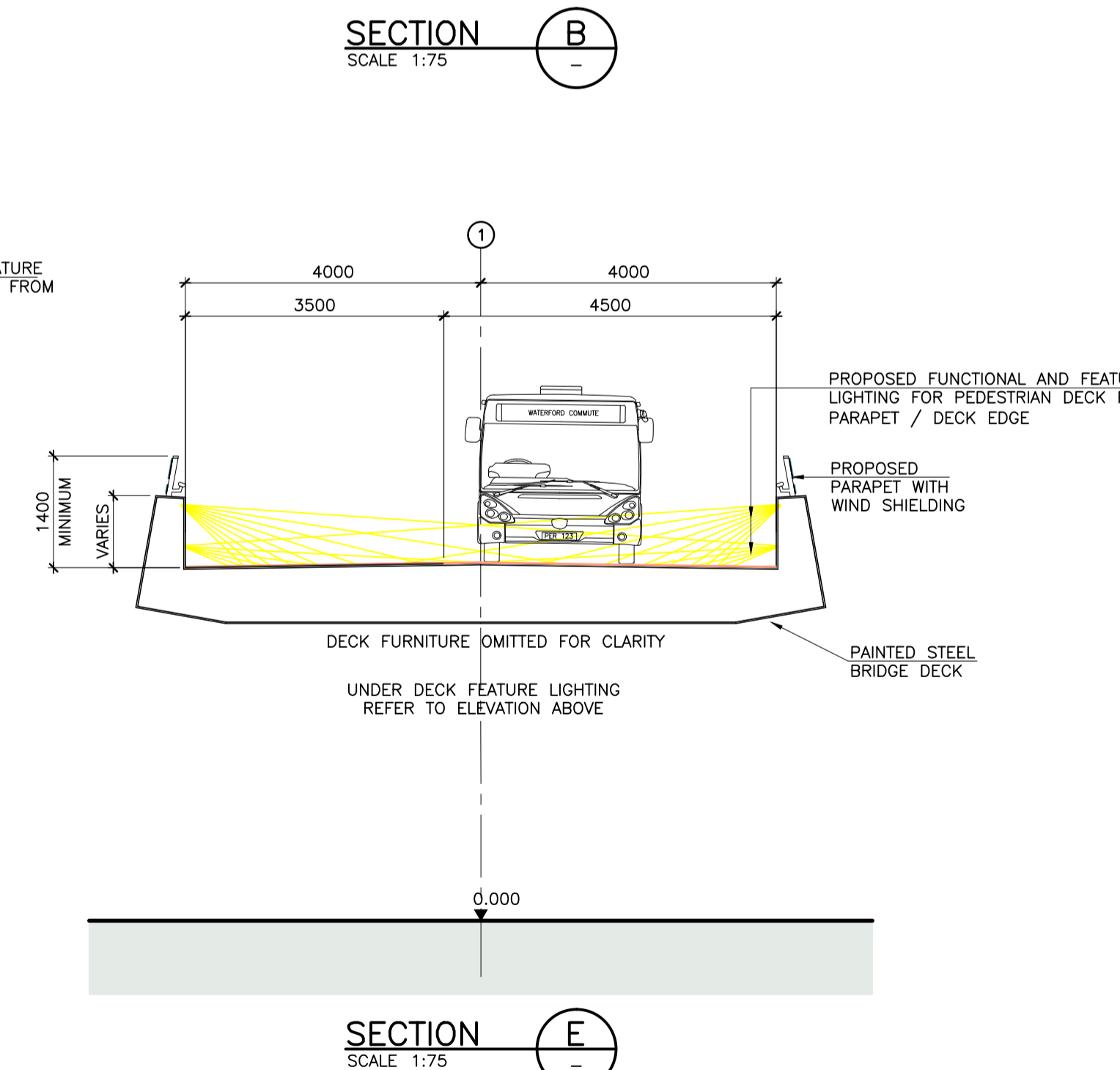
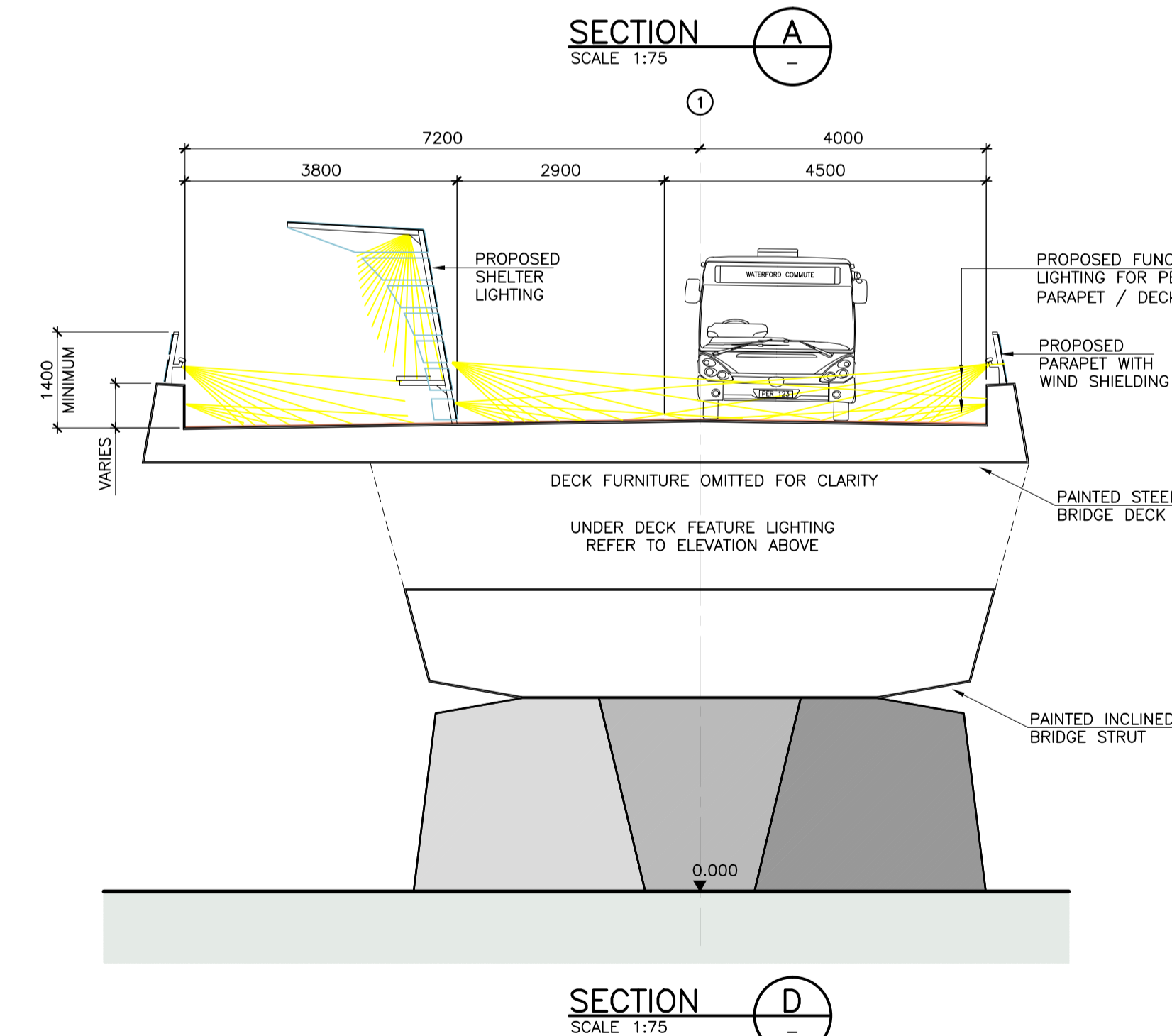
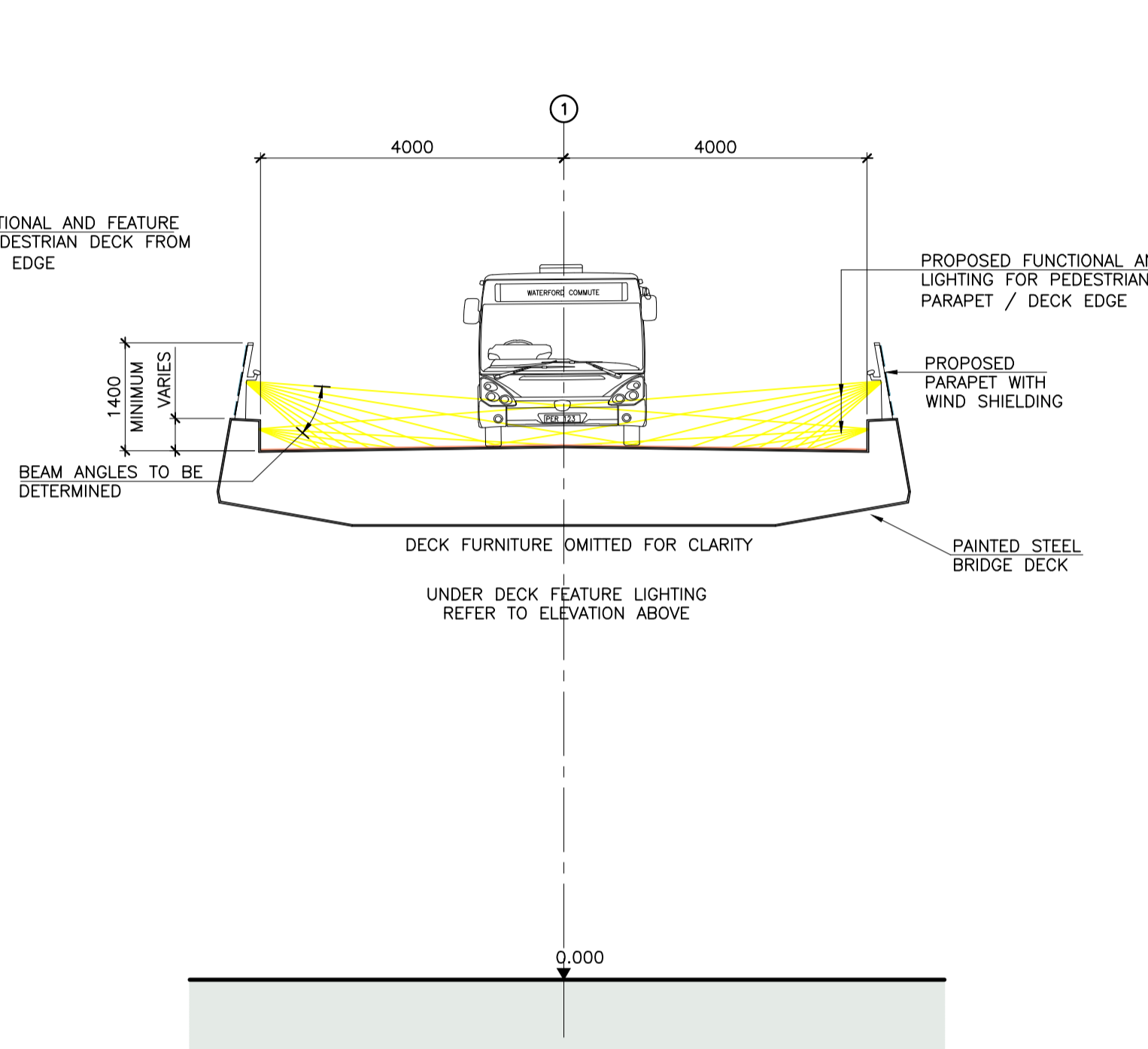
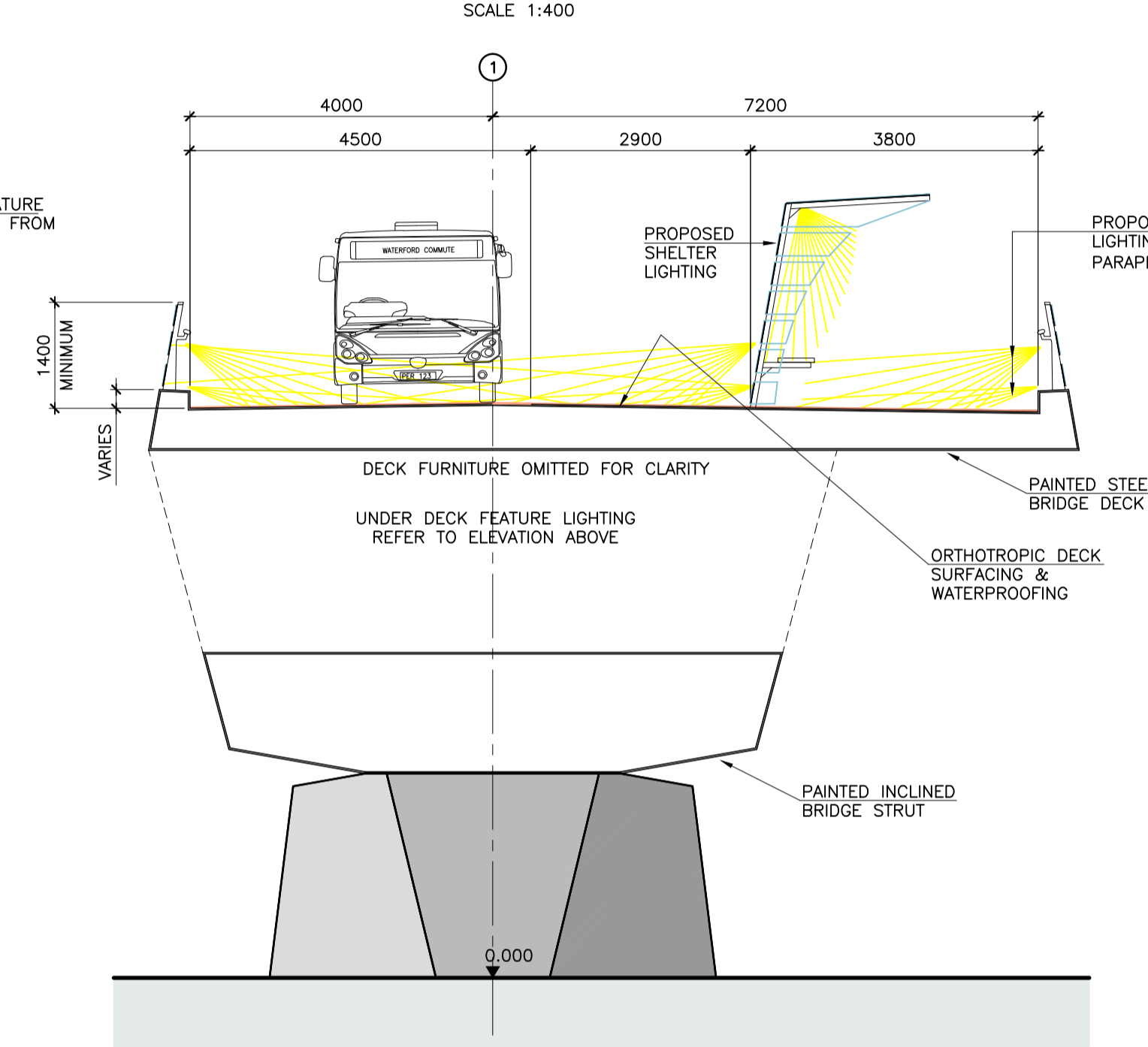
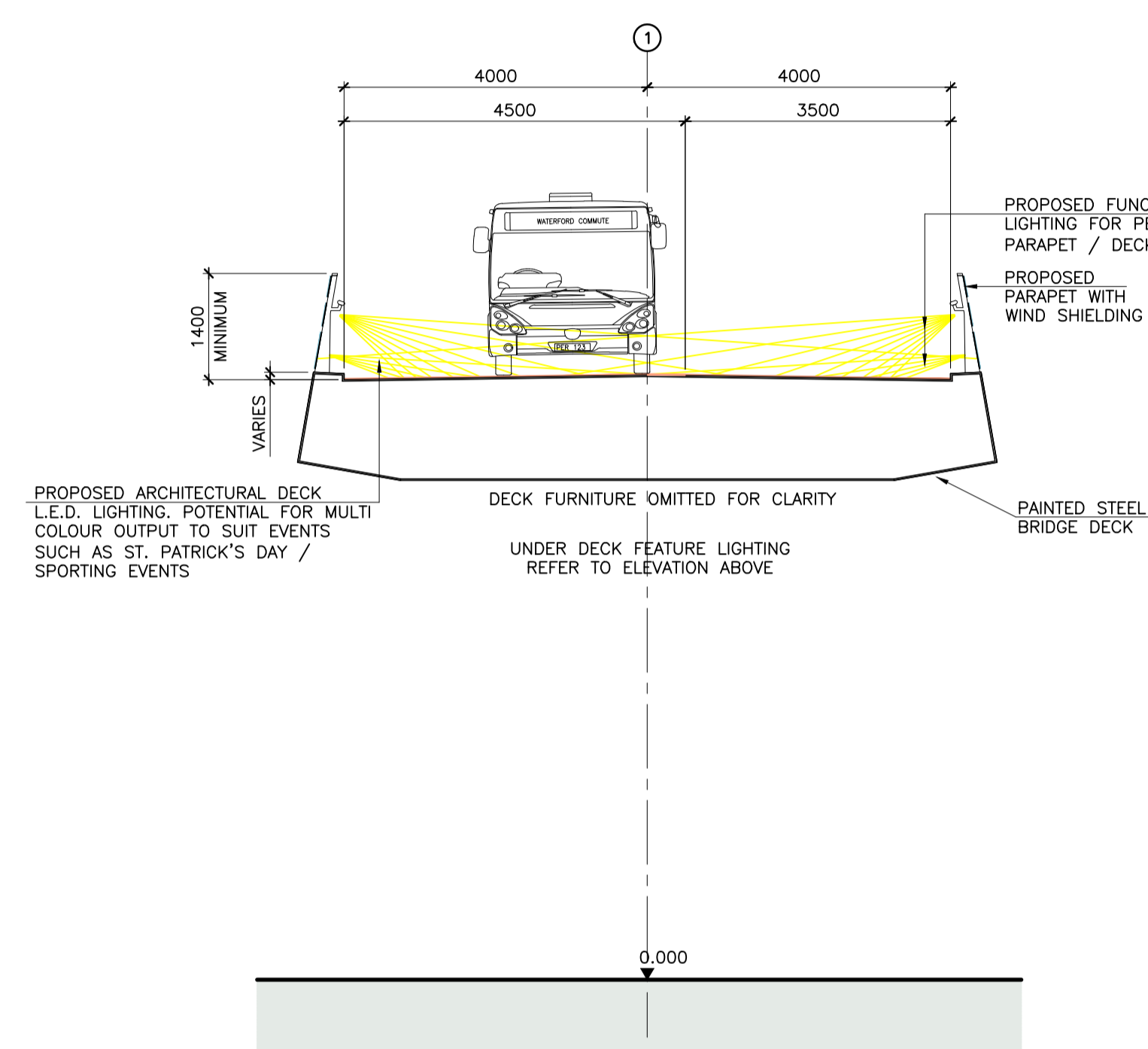
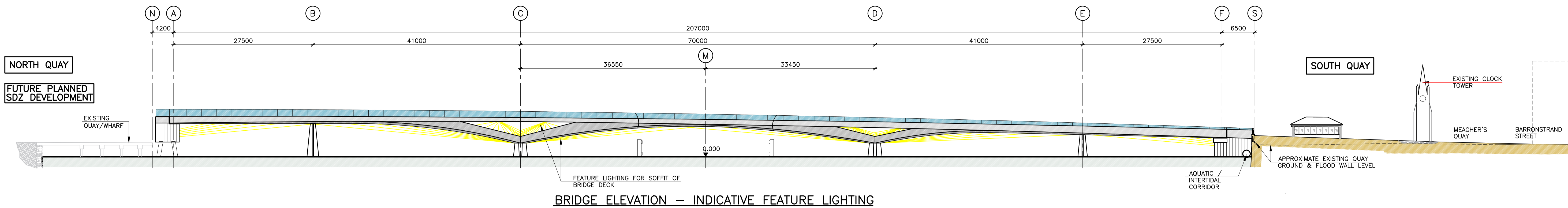
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Project Title			
RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE			
Drawing Title			
BRIDGE PLAN, VERTICAL ALIGNMENT & ELEVATION			
Drawn: PE	Job No: 16169	Drawing No:	Rev:
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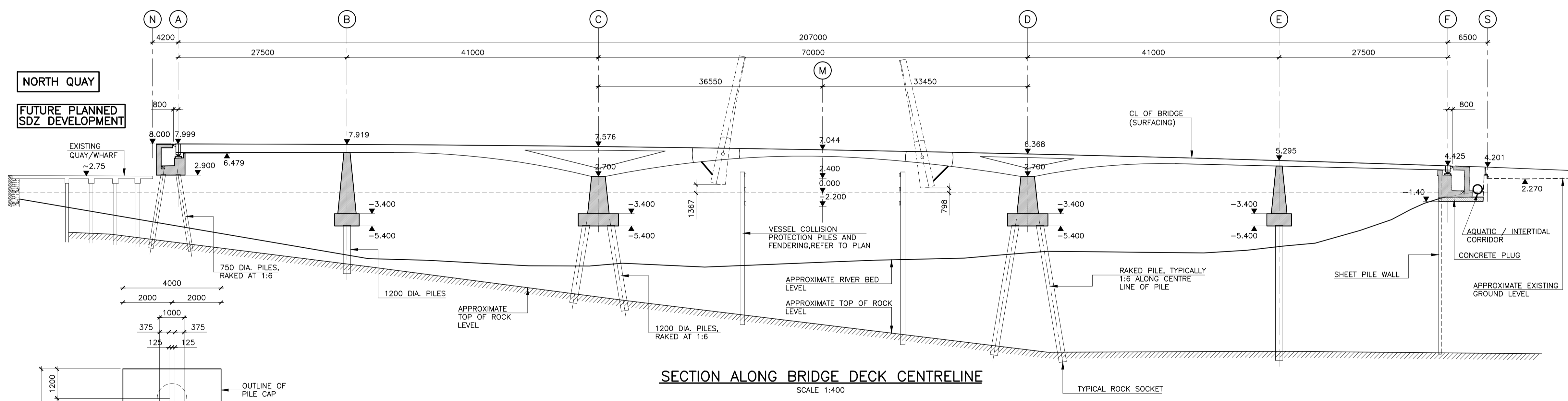
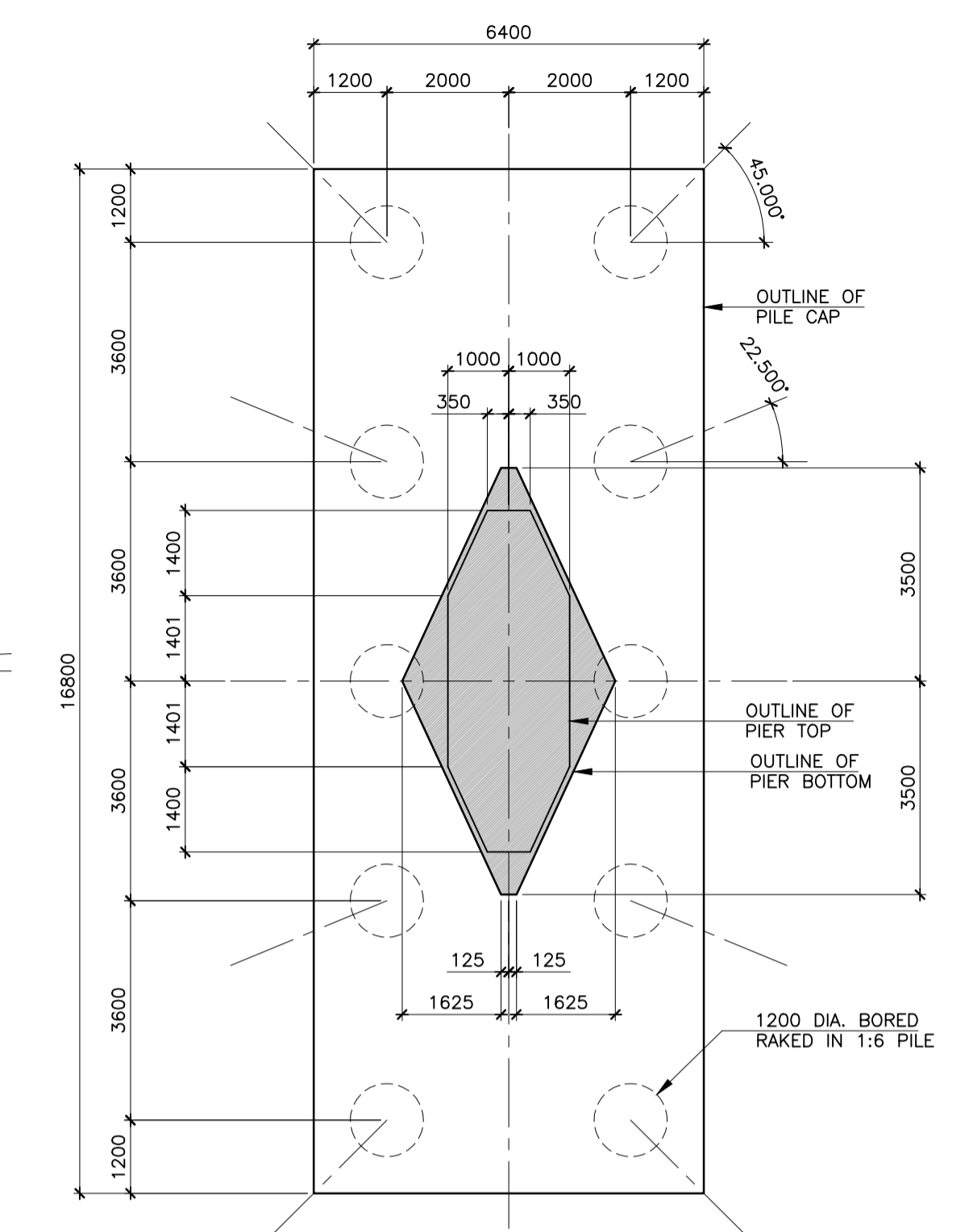
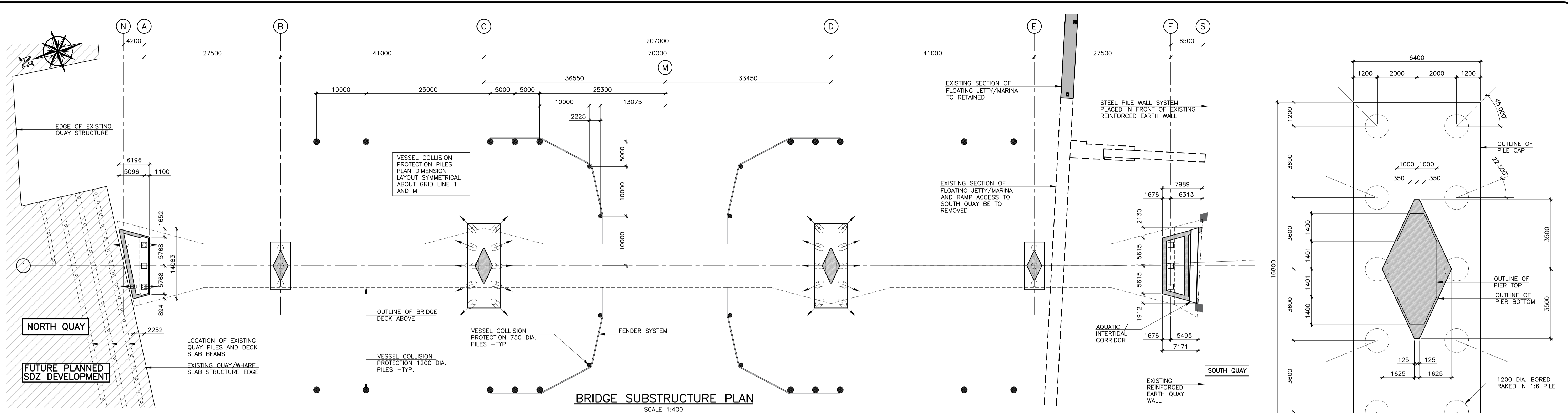
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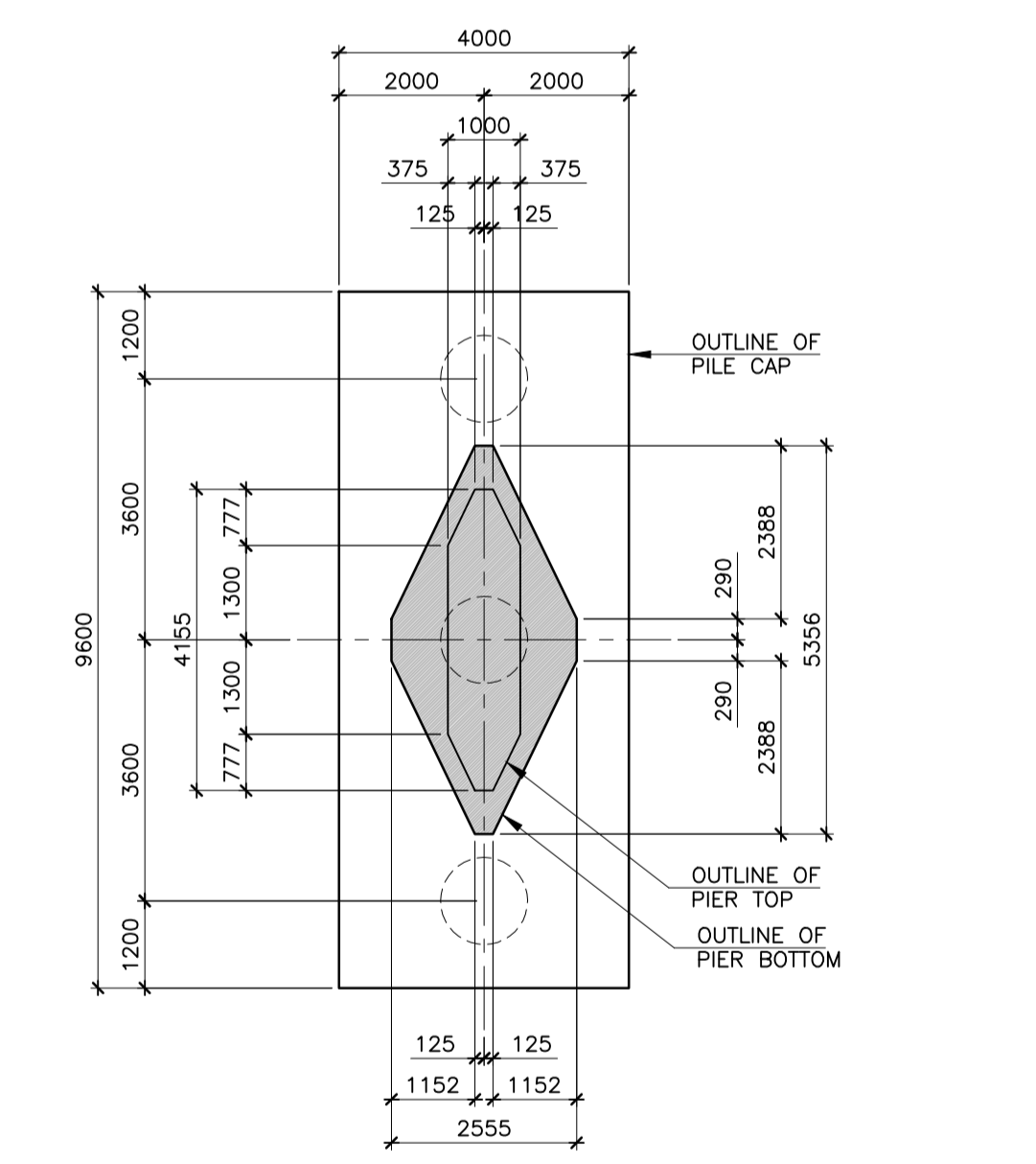
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Scale: (A1)	AS SHOWN	Date: OCT '18	<b>Figure 4.3</b>

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GRID LINE C AND D PIER AND PILECAP PLAN  
SCALE 1:100



GRID LINE E PIER AND PILECAP PLAN  
SCALE 1:100

**NOTES:**

- HIGH AND LOW WATER LEVELS INDICATED ARE HAVE BEEN BASED ON DATA OBTAINED FROM THE OFFICE OF PUBLIC WORKS WATER LEVEL MONITORING STATION AT ADELPHI QUAY (APPROXIMATE 670 METRES DOWN RIVER OF THE BRIDGE LOCATION).
  - MINOR ADJUSTMENTS IN DECK SPLAT AT BRIDGE ENDS MAY BE CONSIDERED AT DETAINED DESIGN STAGE.
- | 2. WATER LEVEL TABLE: |  |        |  |
|-----------------------|--|--------|--|
| +4.42                 | 200 YEAR COMBINED FLOOD + 0.5m FREEBOARD + MEDIUM SEA LEVEL RISE + ISOSTATIC LAND TILT | +2.90  | HIGH WATER (SEE NOTE 1) + 0.5m FREEBOARD |
| +3.47                 | 200 YEAR TIDE + 100 YEAR FLUVIAL FLOOD LEVEL   | +2.70  | LOWEST LEVEL OF STEEL STRUCTURE          |
| +3.61                 | 1000 YEAR COMBINED FLOOD   | +2.40  | HIGH WATER (SEE NOTE 1)                  |
| +3.37                 | 200 YEAR COMBINED FLOOD  | ±0.000 | ORDNANCE DATUM (MALIN HEAD)              |
|                       |  | -2.20  | LOW WATER (SEE NOTE 1)                   |

GRID LINE B PIER AND PILECAP PLAN  
SCALE 1:100

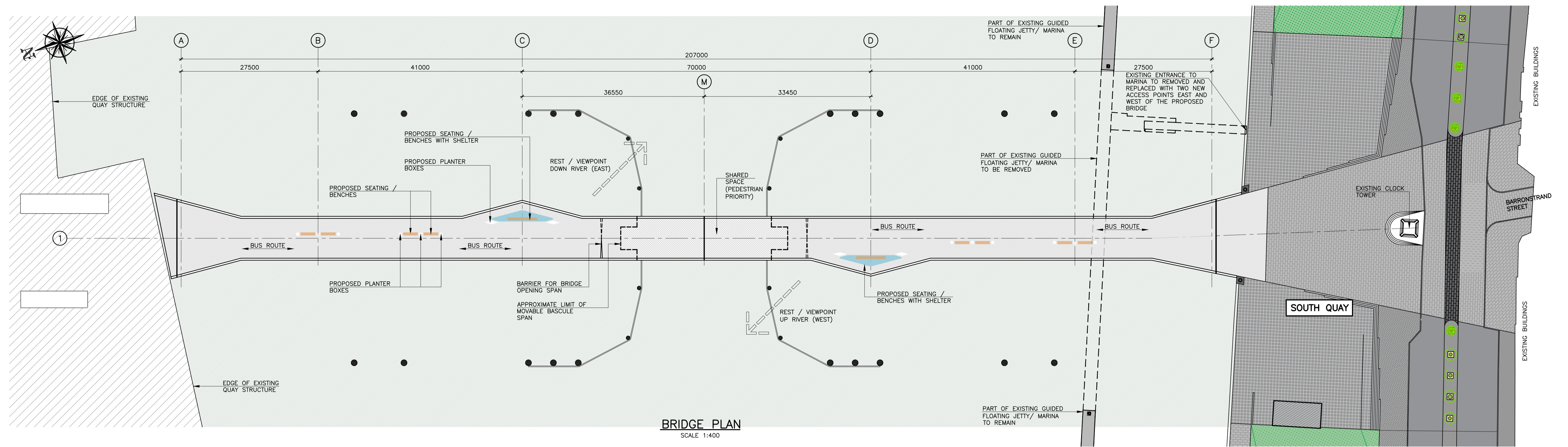


No.	Revision	Date	By	Chk'd	App'd
	Stage	Date	Date	Date	Date
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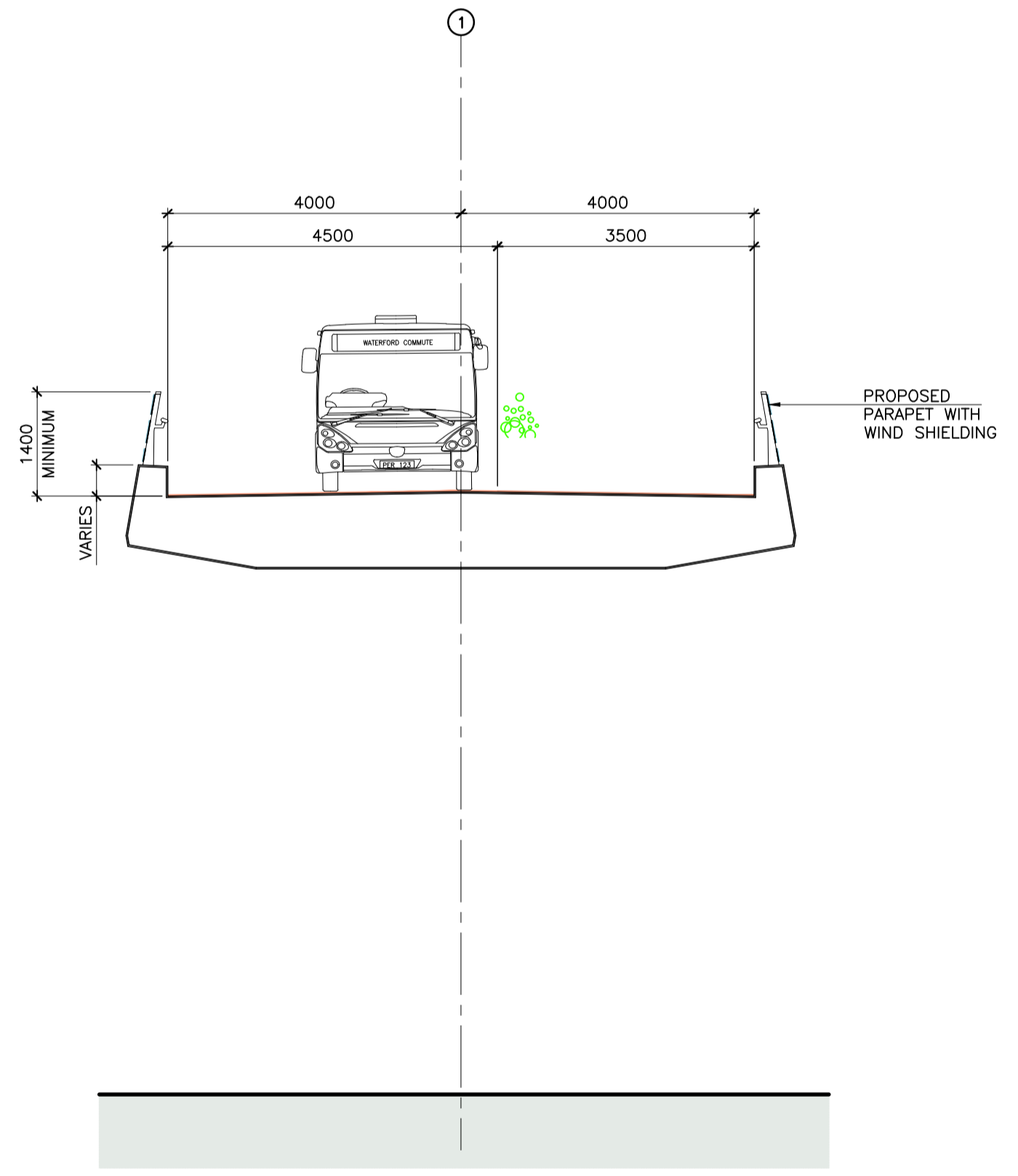
Project Title <b>RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE</b>			
Drawing Title <b>BRIDGE SUBSTRUCTURE</b>			
Drawn: PE	Job No: 16169	Drawing No: 16169	Rev: -
Scale: (A1) AS SHOWN	Date: OCT '18	Figure 4.4	



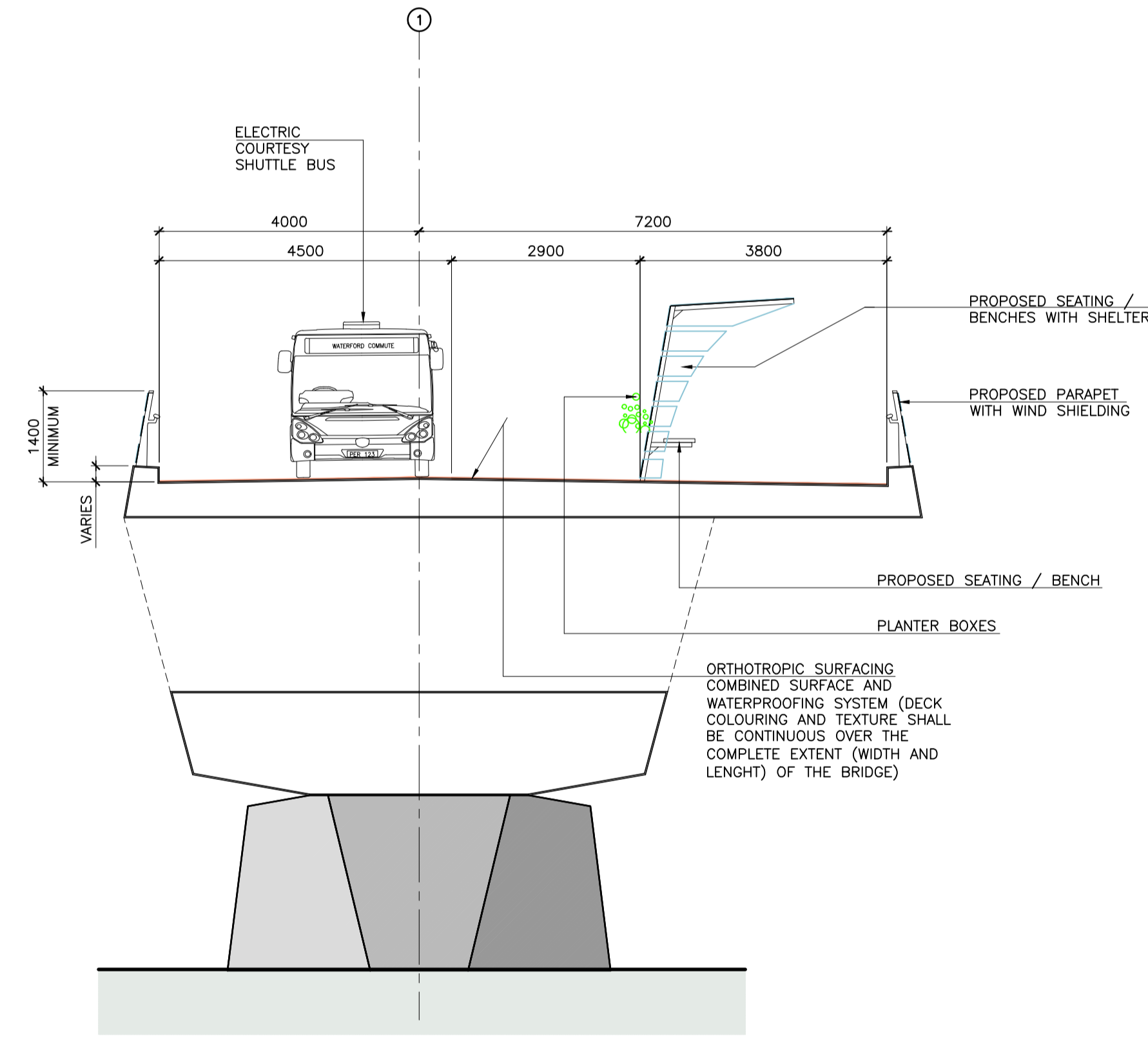
**BRIDGE PLAN**  
SCALE 1:400

- LEGEND:**
- COMBINED PEDESTRIAN, CYCLIST AND COURTESY BUS CORRIDOR
  - OPENING BRIDGE SPAN

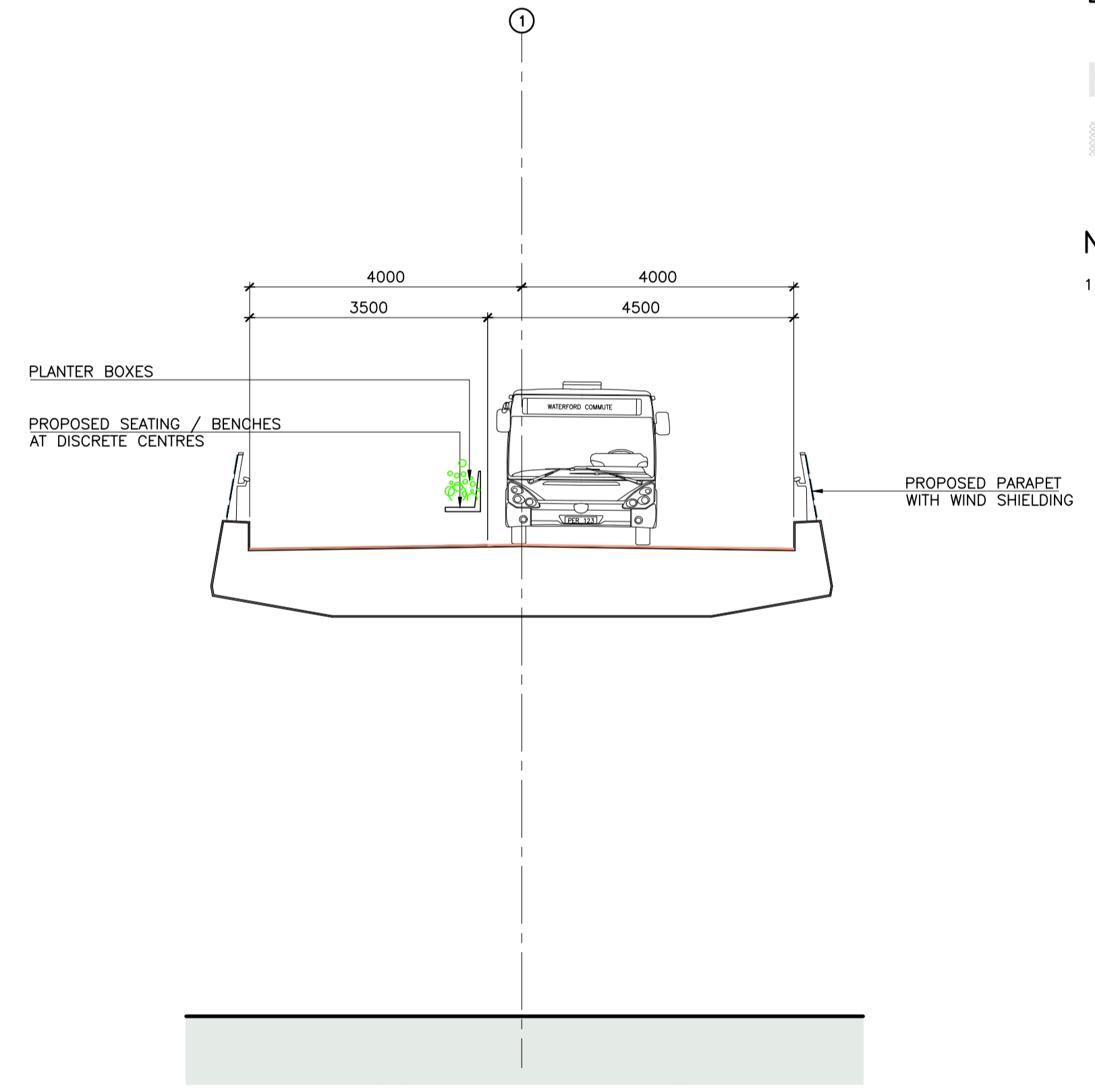
- NOTES:**
1. ALL DETAILS OF DECK FURNITURE ARE SUBJECT TO FINAL DESIGN AND AGREEMENT WITH WCCC ARCHITECTS DEPARTMENT.



**SECTION A**  
SCALE 1:75



**SECTION B**  
SCALE 1:75



**SECTION C**  
SCALE 1:75



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Project Title RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE			
Drawing Title PROPOSED SURFACING AND FURNITURE			
Drawn: PE	Job No: 16169	Drawing No: Figure 4.5	Rev: -
Scale: (A1) AS SHOWN	Date: JUL '18		



- LEGEND:**
- EXISTING PAVING TO BE RETAINED
  - NEW CONCRETE FOOTPATH
  - PLATFORM PAVEMENT [GREY IRISH LIMESTONE WITH EDGING]
  - PAVING [GRANITE SETS]
  - PLAZA RAISED PAVING [GRANITE SETS]
  - CARRIAGEWAY GRANITE PAVING [VARIOUS SHADES]
  - DELINEATION KERBS
  - 150mm PROPOSED KERBS
  - PROPOSED LANDSCAPE AREA
  - PROPOSED TREES
  - EXISTING TREES TO BE RETAINED
  - SHED / SUB-STATION TO BE RELOCATED
  - SHED TO BE RELOCATED
  - EXISTING PUBLIC TOILET TO BE RELOCATED
  - EXISTING BICYCLE PARKING TO BE RELOCATED
  - TRAFFIC / PEDESTRIAN LIGHTS



No.	Revision	Date	By	Chk'd	App'd
	Stage	Date			
	PRELIMINARY				
	APPROVAL				
	TENDER				
	CONSTRUCTION				

**ROD**  
ROUGHAN & O'DONOVAN  
Consulting Engineers  
Civil - Structural - Transportation - Environmental

Designed: JB    Checked: CS    Approved: TD    Status: E.I.A.R.

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Project Title RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE			
Drawing Title SOUTH QUAY PLAZA PLAN			
Drawn: JMK	Job No: 16.169	Drawing No:	Rev:
Scale: (A1) 1:250 - (A3 1:500)	Date: OCT '18	Figure 4.6	-



- NOTES:**
1. THE SITE COMPOUND HOARDING WILL BE PLACED AT A SUFFICIENT DISTANCE FROM THE CLOCK TOWER TO ENSURE NO IMPACTS DURING CONSTRUCTION.
  2. THE CONTRACTOR WILL BE REQUIRED TO ERECT OPAQUE HOARDING OF A MINIMUM 2.0M IN HEIGHT AROUND THE SITE COMPOUND AND WORKS AREA ON THE SOUTH QUAYS. THE HOARDING SHALL BE A HIGH GLOSS PRINTED FINISH WITH INFORMATION AND GRAPHICS ABOUT THE PROJECT OR AS OTHERWISE AGREED WITH WCCC. THE PRECISE HOARDING TYPE SHALL BE AGREED WITH WCCC PRIOR TO WORKS COMMENCING.

PLAN AT SOUTH PLAZA  
SCALE 1:250

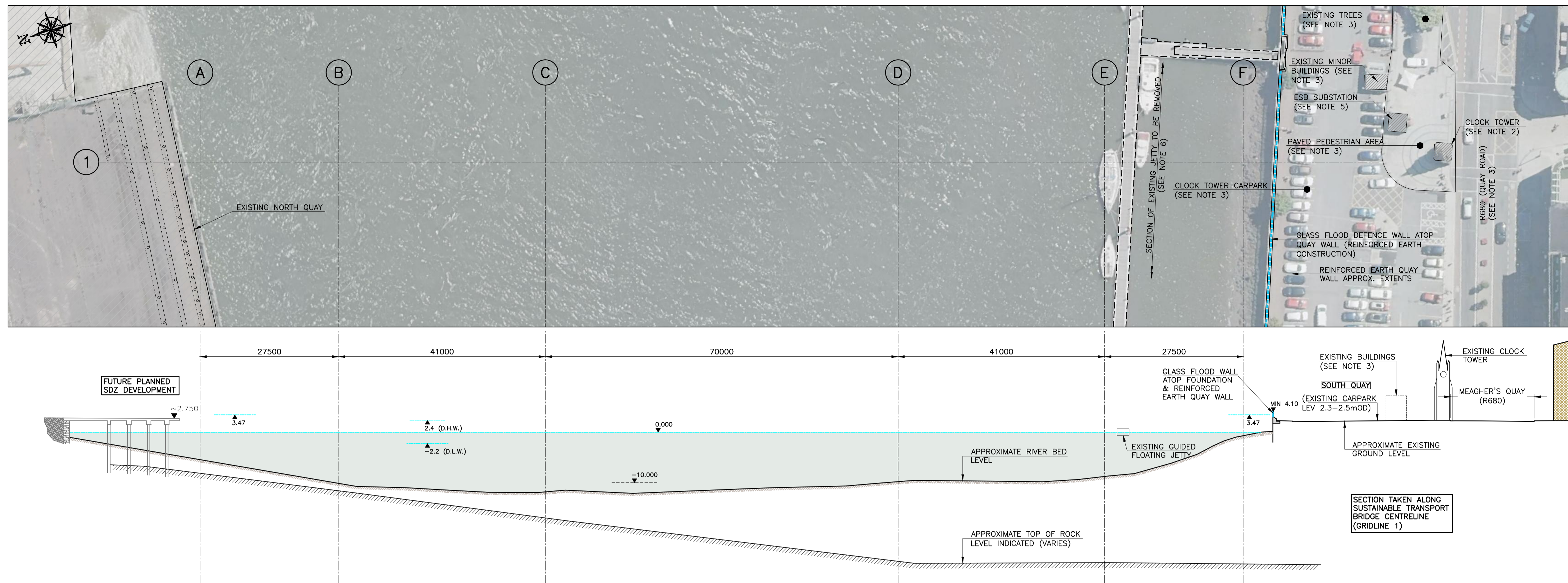


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Project Title RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE			
Drawing Title PROPOSED SITE COMPOUND & WORKING AREA			
Drawn: JMK	Job No: 16.169	Drawing No: Figure 4.7	Rev: -
Scale: (A1) AS SHOWN	Date: DEC '18		



STAGE 1 - SITE SETUP AND CLEARANCE

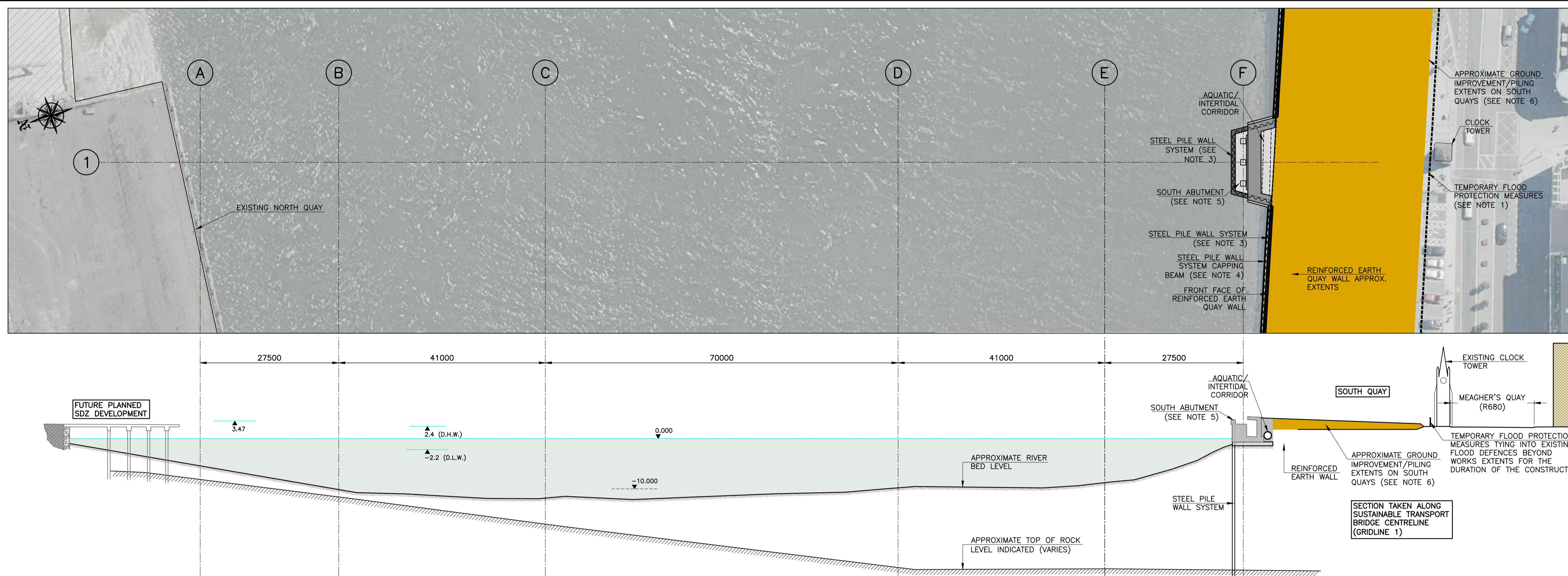
NOTES:

- CONSTRUCTION COMPOUND/ SITE SETUP ON THE SOUTH QUAY TO FACILITATE THE BRIDGE AND SOUTH PLAZA CONSTRUCTION.
- IMPLEMENTATION OF MEASURES TO PROTECT AGAINST ACCIDENTAL DAMAGE TO THE CLOCK TOWER (RPS NO. 392) AND MEMORIAL STATUE DURING THE WORKS (REFER TO FIGURE 4.6 FOR LOCATION).
- SITE CLEARANCE OF THE CLOCK TOWER CAR PARK, PAVED PEDESTRIAN AREAS / R680 ROAD (STREET FURNITURE, MINOR BUILDINGS, TREES ETC) OVER THE EXTENTS OF THE SOUTH PLAZA WORKS SITE AS REQUIRED (REFER TO FIGURE 4.2 FOR SOUTH QUAY PLAZA SITE EXTENTS).
- IMPLEMENT TRAFFIC MANAGEMENT AT THE SITE AND AS REQUIRED ON THE SOUTH QUAYS & APPROACHES.
- DIVERSION OF UTILITIES AFFECTED BY THE WORKS ON THE SOUTH QUAYS INCLUDING THE RELOCATION OF THE ESB SUBSTATION LOCATED ON THE SOUTH PLAZA SITE.
- REMOVAL OF THE REQUIRED SECTIONS OF THE EXISTING FLOATING JETTY (DECK AND RAMP). REMOVAL OF REQUIRED EXISTING JETTY PILES AT THE BRIDGE LOCATION (REFER TO FIGURE 4.2 FOR EXTENTS).

WATER LEVEL NOTES:

- HIGH AND LOW WATER LEVELS HAVE BEEN BASED ON DATA TAKEN FROM THE OPW WATER LEVEL MONITORING STATION AT ADELPHI QUAY (APPROXIMATELY 670 METRES DOWN RIVER OF THE BRIDGE LOCATION).
- WATER LEVEL TABLE:  


▲ 3.47	200 YEAR TIDE + 100 YEAR FLUVIAL FLOOD LEVEL
▲ 2.40	HIGH WATER (SEE NOTE 1)
▼ -2.20	LOW WATER (SEE NOTE 1)



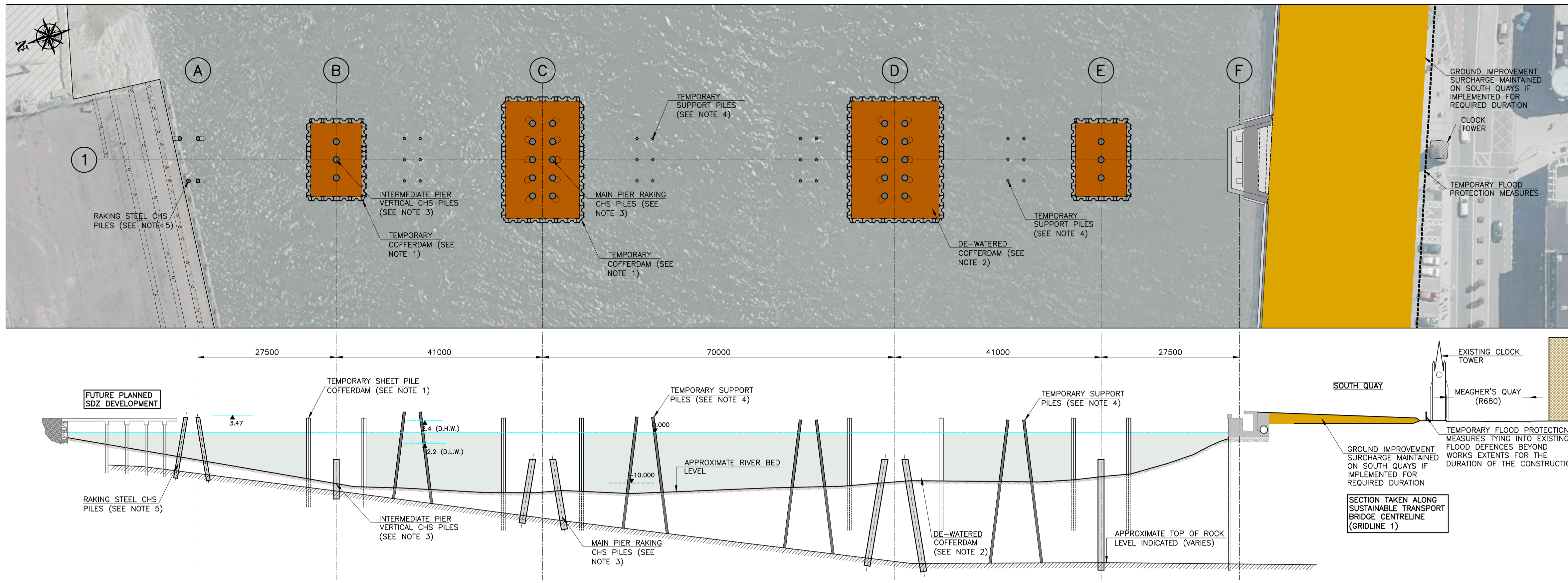
STAGE 2 - COMPLETE SOUTH QUAYS STEEL PILE WALL SYSTEM, SOUTH ABUTMENT AND SOUTH PLAZA FOUNDATION WORKS

NOTES:

- TAKE DOWN REQUIRED SECTIONS OF THE GLASS PANEL FLOOD WALL SYSTEM (REFER TO FIGURE 4.2 FOR EXTENTS). REPLACEMENT TEMPORARY FLOOD PROTECTION TO BE IMPLEMENTED PRIOR TO COMMENCEMENT OF THE WORKS.
- DEMOLITION OF EXISTING GLASS PANEL FLOOD WALL SYSTEM FOUNDATIONS (REFER TO FIGURE 4.2 FOR EXTENTS).
- CONSTRUCT PERMANENT STEEL PILE WALL SYSTEM FOR THE SOUTH ABUTMENT AND SOUTH QUAY IN FRONT OF THE EXISTING REINFORCED EARTH QUAY WALL (REFER TO FIGURE 4.2 FOR EXTENTS OF STEEL PILE WALL SYSTEM).
- CONSTRUCT REINFORCED CONCRETE CAPPING BEAM TO SOUTH QUAY STEEL PILE WALL SYSTEM, NEW FLOATING JETTY ACCESS POINTS AND TIE IN WITH EXISTING GLASS FLOOD WALL SYSTEM EITHER SIDE OF THE SOUTH PLAZA (REFER TO FIGURE 4.2 FOR EXTENTS).
- CONSTRUCT BRIDGE REINFORCED CONCRETE SOUTH ABUTMENT INTEGRAL WITH THE STEEL PILE WALL SYSTEM.
- INSTALLATION OF SOUTH PLAZA PILE SUPPORT SYSTEM OR THE COMPLETION OF GROUND IMPROVEMENT THROUGH THE INSTALLATION OF VERTICAL DRAINS AND PRELOADING THE GROUND WITH SURCHARGE FILL MATERIAL.

Ordinance Survey Ireland Licence No EN 0006515 © Ordinance Survey Ireland/Government of Ireland.		17 December 2018 12:39:42 J:\2016\16169\02 DWG\10 EIAR DRAWINGS\FIGURE 4.8_4.11_REV B.DWG		 <p><b>ROD</b> ROUGHAN &amp; O'DONOVAN</p> <p>Consulting Engineers Civil - Structural - Transportation - Environmental</p>		Arena House, Arena Road, Sandyford, Dublin 18. Tel : +353 1 294 0800 Fax : +353 1 294 0820 e-mail : info@rod.ie Website : www.rod.ie		Project Title <b>RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE</b>	
PRELIMINARY APPROVAL TENDER CONSTRUCTION		No.      Revision      Stage      Date      By      Chk'd      App'd      Date      Date      Date		Scale: (A1)      1:500 (A1)		Drawing Title <b>INDICATIVE CONSTRUCTION SEQUENCE - SHEET 1</b>		Drawing No:      Job No:      Date:      Drawing No:      Rev:	
		Designed: EP      Checked: CS      Approved: TD      Status: E.I.A.R		Scale: (A1)      1:500 (A1)		Drawing No:      Job No:      Date:      Drawing No:      Rev:		Figure 4.8      -	

DO NOT SCALE USE FIGURED DIMENSIONS ONLY

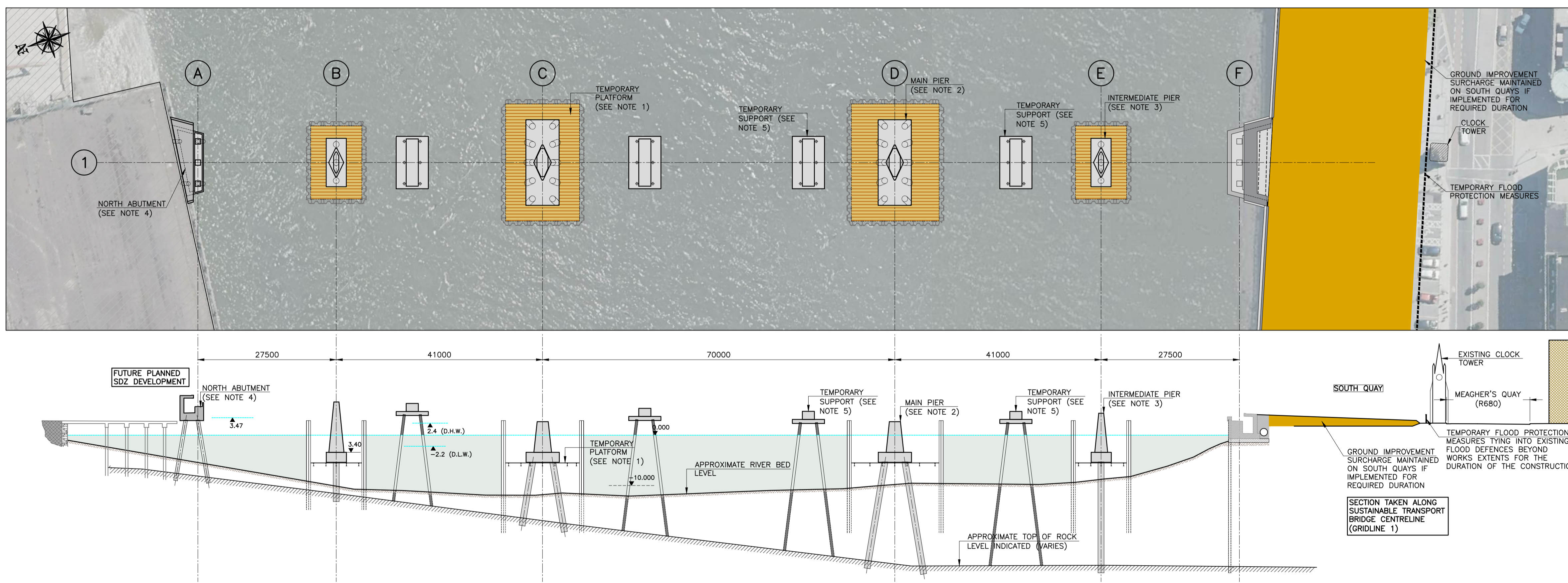


- NOTES:**
- CONSTRUCTION OF TEMPORARY WORKS SHEET PILE COFFERDAMS FROM JACK-UP PONTOON OR BARGE TO ALLOW FOR CONSTRUCTION OF BRIDGE INTERMEDIATE AND MAIN SPAN PIERS AND PILE SUPPORTS.
  - DE-WATER COFFERDAMS, COFFERDAMS TO BE DE-WATERED IN STAGES TO ALLOW INSTALLATION OF COFFERDAM BRACING SYSTEM.
  - INSTALLATION OF MAIN PIER STEEL CIRCULAR HOLLOW SECTION (CHS) PILES (RAKING) AND INTERMEDIATE PIER CHS PILES (VERTICAL) WITHIN THE CONFINES OF THE COFFERDAMS USING A CRANE MOUNTED RIG OPERATED FROM THE JACK-UP BARGE/PONTOON. DRILLING PILE SOCKETS AND CONCRETING AS REQUIRED. CUT DOWN EACH PILE TO REQUIRED LEVEL FOLLOWING INSTALLATION & TESTING AS REQUIRED.
  - INSTALLATION OF DRIVEN STEEL PILES FOR FOUR NUMBER TEMPORARY PLATFORMS REQUIRED TO SUPPORT THE BRIDGE DECK PRIOR TO COMPLETION OF THE INTEGRAL CONNECTION WITH PERMANENT PIER SUPPORTS. CUT DOWN EACH PILE TO REQUIRED LEVEL FOLLOWING INSTALLATION & TESTING AS REQUIRED.
  - INSTALLATION OF NORTH ABUTMENT DRIVEN STEEL PILES (GRIDLINE A), DRILLING PILE SOCKETS AND CONCRETING AS REQUIRED. CUT DOWN EACH PILE TO REQUIRED LEVEL FOLLOWING INSTALLATION & TESTING AS REQUIRED.
  - THE SIMULTANEOUS PRESENCE OF No. 4 COFFERDAMS IN THE RIVER REPRESENTS THE WORST CASE SCENARIO IN TERMS OF CONSTRUCTION IMPACTS ON THE RIVER.
  - INSTALLATION OF COFFERDAMS, TEMPORARY SUPPORT PILING WITHIN THE RIVER AND ABUTMENT PILING SHALL BE COMMENCED IN JUNE FOR EITHER THE WORKS AT GRIDLINE A, B AND C OR D, E AND F, BUT NOT THE WORKS ASSOCIATED WITH ALL GRIDLINES. THE WORKS ASSOCIATED WITH THE GRIDLINES NOT PROCEEDED IN JUNE CAN COMMENCE IN NOVEMBER.
  - PILING WITHIN ANY COFFERDAM OUTSIDE OF THE SEASONAL CONSTRAINTS, AS AGREED WITH THE NPWS AND IFI, CAN ONLY PROCEED WITH THE AGREEMENT OF THE NPWS AND IFI.

**WATER LEVEL NOTES:**

- HIGH AND LOW WATER LEVELS HAVE BEEN BASED ON DATA TAKEN FROM THE OPW WATER LEVEL MONITORING STATION AT ADELPHI QUAY (APPROXIMATE 670 METRES DOWN RIVER OF THE BRIDGE LOCATION).
- WATER LEVEL TABLE:

+3.47	200 YEAR TIDE + 100 YEAR FLUVIAL FLOOD LEVEL
+2.40	HIGH WATER (SEE NOTE 1)
-2.20	LOW WATER (SEE NOTE 1)



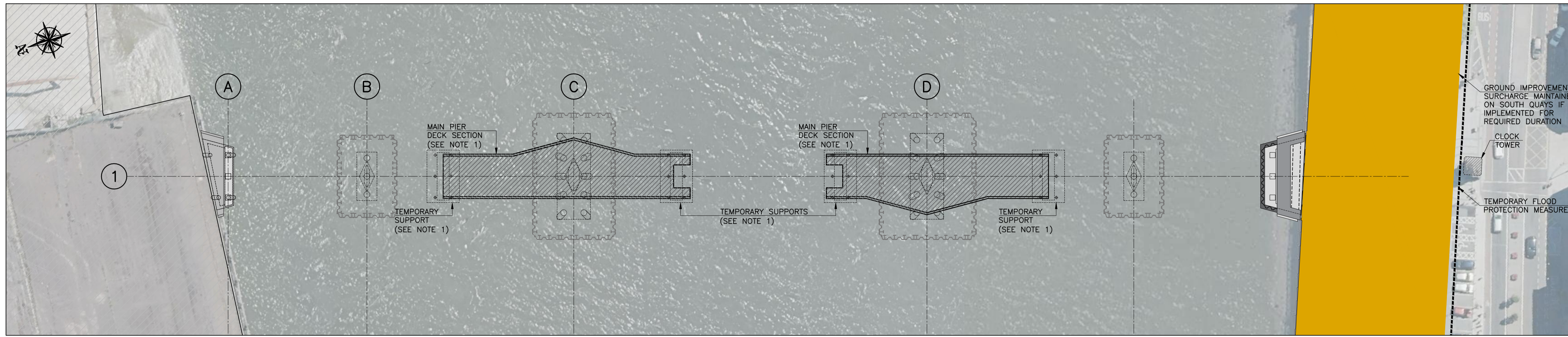
- NOTES:**
- CONSTRUCT TEMPORARY WORKING PLATFORMS WITHIN COFFERDAMS TO ALLOW PILECAP & PIER CONSTRUCTION.
  - CONSTRUCTION OF MAIN PIER IN-SITU CONCRETE PILECAPS AND VERTICAL SQUAT PIERS (GRIDLINES C & D) WITHIN THE CONFINES OF THE COFFERDAMS.
  - CONSTRUCTION OF INTERMEDIATE IN-SITU CONCRETE PILECAPS AND PIER WALLS ( GRIDLINES B & E) WITHIN THE CONFINES OF THE COFFERDAMS.
  - CONSTRUCTION OF IN-SITU CONCRETE ABUTMENT AT GRIDLINE A.
  - INSTALLATION OF TEMPORARY SUPPORT STEEL PLATFORMS ABOVE HIGH WATER LEVEL.

No.	Revision	Stage	Date	By	Chk'd	App'd



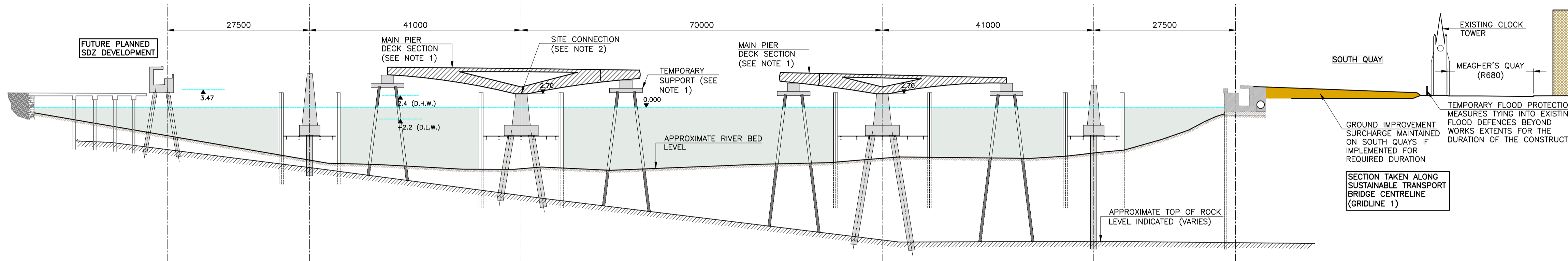
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Drawing Title			
INDICATIVE CONSTRUCTION SEQUENCE - SHEET 2			
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Scale:	1:500 (A1)	Date:	OCT '18
Drawing No:	Figure 4.9		Rev:
			-



**NOTES:**

1. USING CRANE LOCATED ON PONTOON / BARGE LIFT EACH 50M LONG MAIN PIER DECK SECTION (COMPRISING OF THE V-SHAPED STEEL STRUTS) ONTO THE SUPPORTING JACKING POINTS LOCATED ON THE TEMPORARY SUPPORTS & PIERS @ GRIDLINES C & D.
2. CONSTRUCT IN-SITU CONNECTION BETWEEN STEEL STRUTS & CONCRETE PIERS.

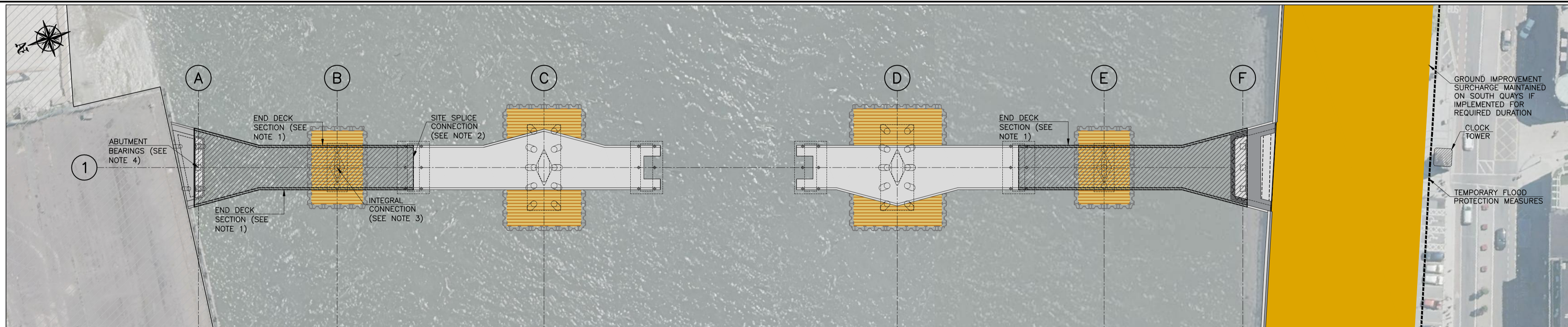


**WATER LEVEL NOTES:**

1. HIGH AND LOW WATER LEVELS HAVE BEEN BASED ON DATA TAKEN FROM THE OPW WATER LEVEL MONITORING STATION AT ADELPHI QUAY (APPROXIMATE 670 METRES DOWN RIVER OF THE BRIDGE LOCATION).
2. WATER LEVEL TABLE:  

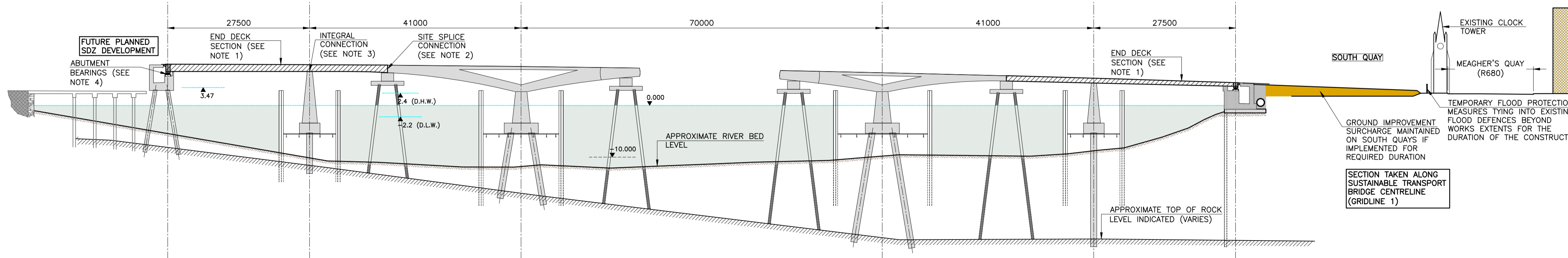
3.47	200 YEAR TIDE + 100 YEAR FLUVIAL FLOOD LEVEL
+2.40	HIGH WATER (SEE NOTE 1)
-2.20	LOW WATER (SEE NOTE 1)

**STAGE 5 - LAND MAIN PIER DECK SECTIONS**



**NOTES:**

1. LAND END DECK SECTIONS ON TO TEMPORARY BEARINGS AT THE ABUTMENTS AND ON THE INTERMEDIATE PIERS.
2. COMPLETE THE TWO END DECK SECTION SITE SPLICE CONNECTIONS TO THE MAIN PIER DECK SECTIONS.
3. MAKE INTERMEDIATE CONCRETE PIER/STEEL DECK INTEGRAL CONNECTIONS.
4. INSTALL THE ABUTMENT PERMANENT BEARINGS.



**STAGE 6 - LAND END DECK SECTIONS**

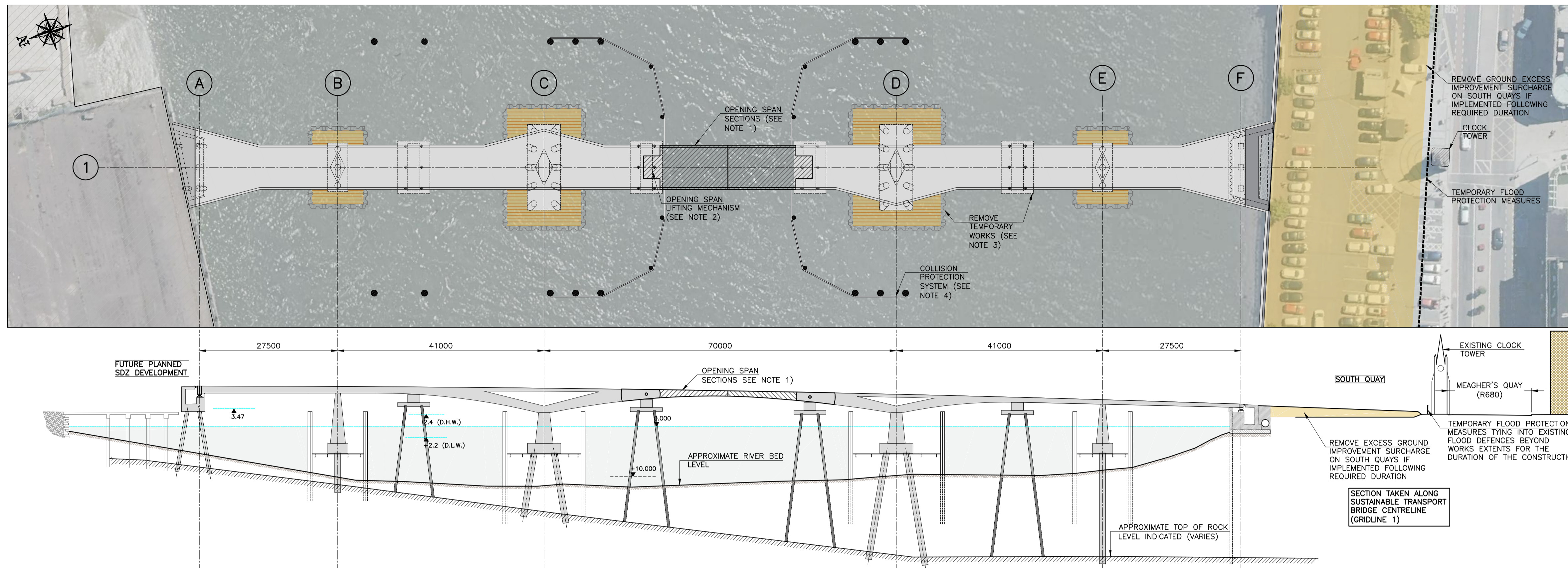
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Drawing Title			
INDICATIVE CONSTRUCTION SEQUENCE - SHEET 3			
Drawn:	OB	Job No:	16.169
Scale:	1:500 (A1)	Date:	OCT '18
Drawing No:		Rev:	
		Figure 4.10	





STAGE 7 - LAND CENTRAL OPENING SPAN BASCULE LEAF SECTIONS, TEMPORARY WORKS REMOVAL & INSTALLATION OF COLLISION PROTECTION SYSTEM

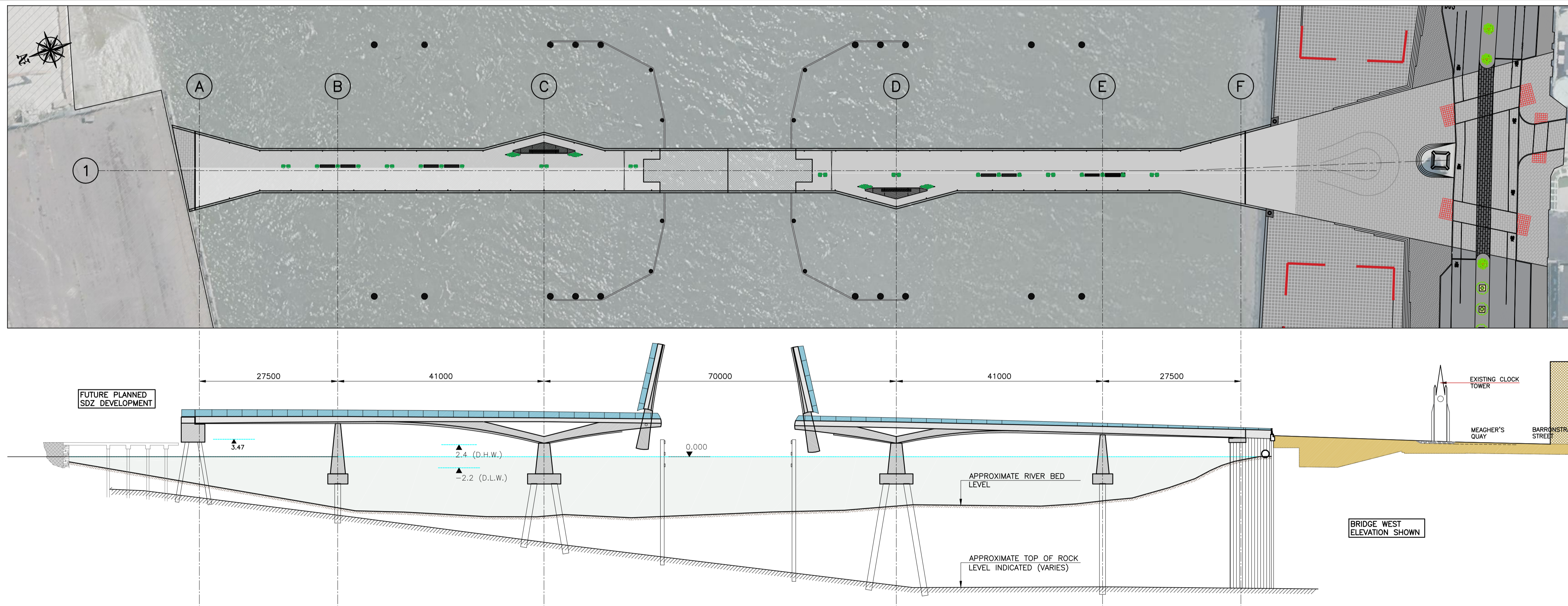
NOTES:

- INSTALLATION OF TWO NUMBER 21M LONG BASCULE OPENING SPAN LEAVES TO COMPLETE THE BRIDGE DECK.
- INSTALL LIFTING MECHANISM MACHINERY & COUNTERWEIGHT.
- REMOVAL OF SHEET PILE COFFERDAMS AND TEMPORARY SUPPORTS.
- COMPLETION OF BRIDGE VESSEL COLLISION PROTECTION PILE AND FENDERING SYSTEM.
- INSTALLATION OF NEW FLOATING JETTY PILES AND COMPLETION OF REVISED JETTY ARRANGEMENT (REFER TO FIGURE 4.2 FOR PILE LOCATIONS).
- REMOVAL OF EXCESS GROUND IMPROVEMENT SURCHARGE LOADING IF IMPLEMENTED.

WATER LEVEL NOTES:

- HIGH AND LOW WATER LEVELS HAVE BEEN BASED ON DATA TAKEN FROM THE OPW WATER LEVEL MONITORING STATION AT ADELPHI QUAY (APPROXIMATE 670 METRES DOWN RIVER OF THE BRIDGE LOCATION).
- WATER LEVEL TABLE:
 

+3.47	200 YEAR TIDE + 100 YEAR FLUVIAL FLOOD LEVEL
+2.40	HIGH WATER (SEE NOTE 1)
-2.20	LOW WATER (SEE NOTE 1)



STAGE 8 - COMPLETE DECK & SOUTH PLAZA FINISHES

NOTES:

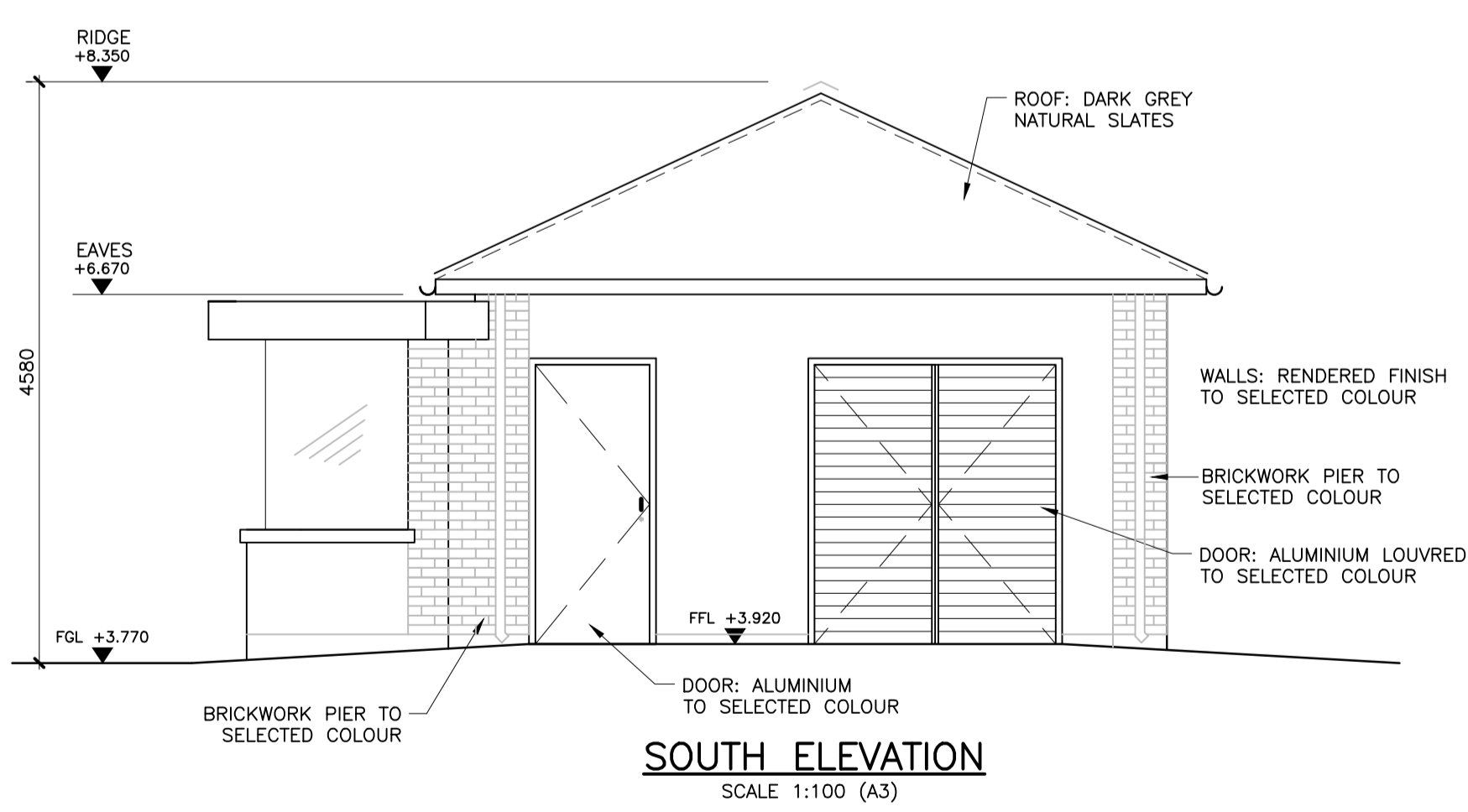
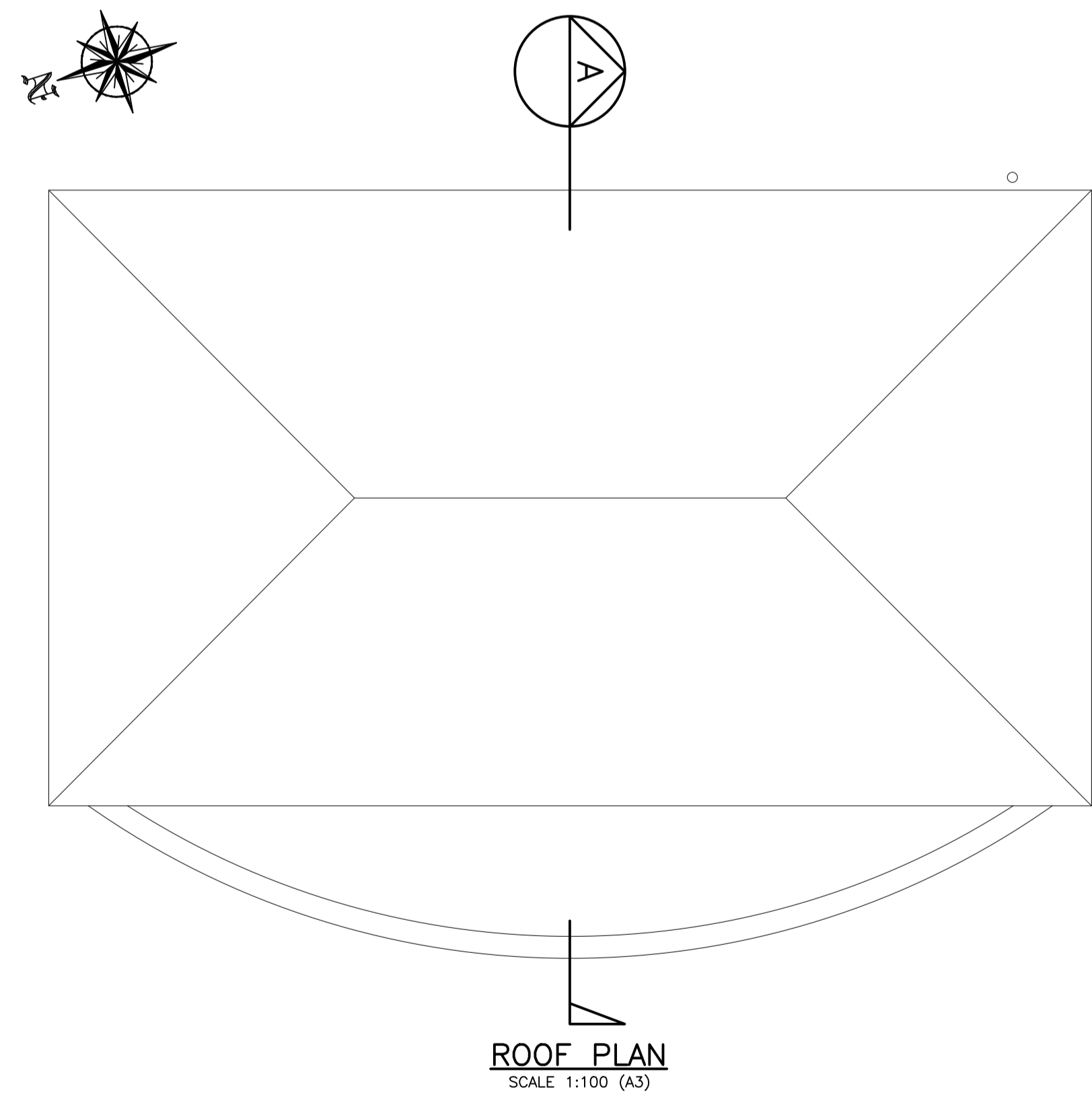
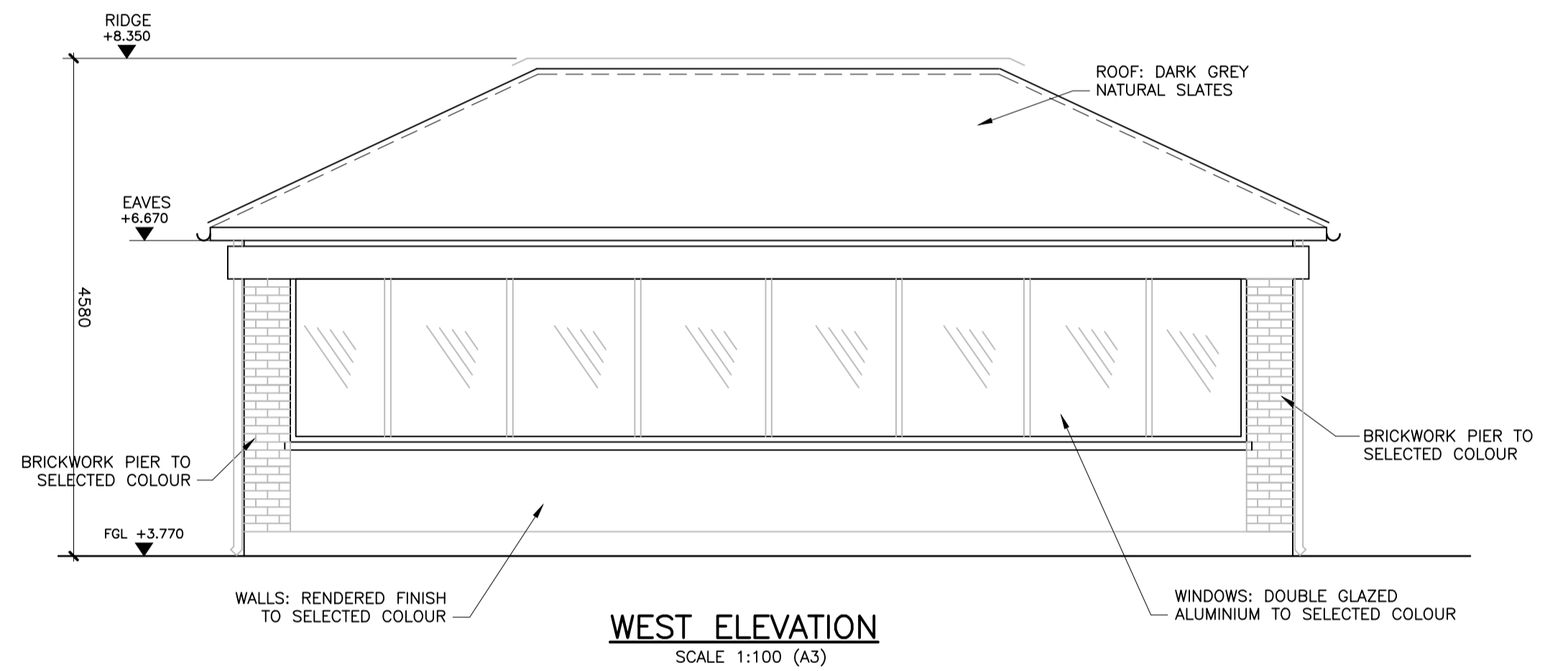
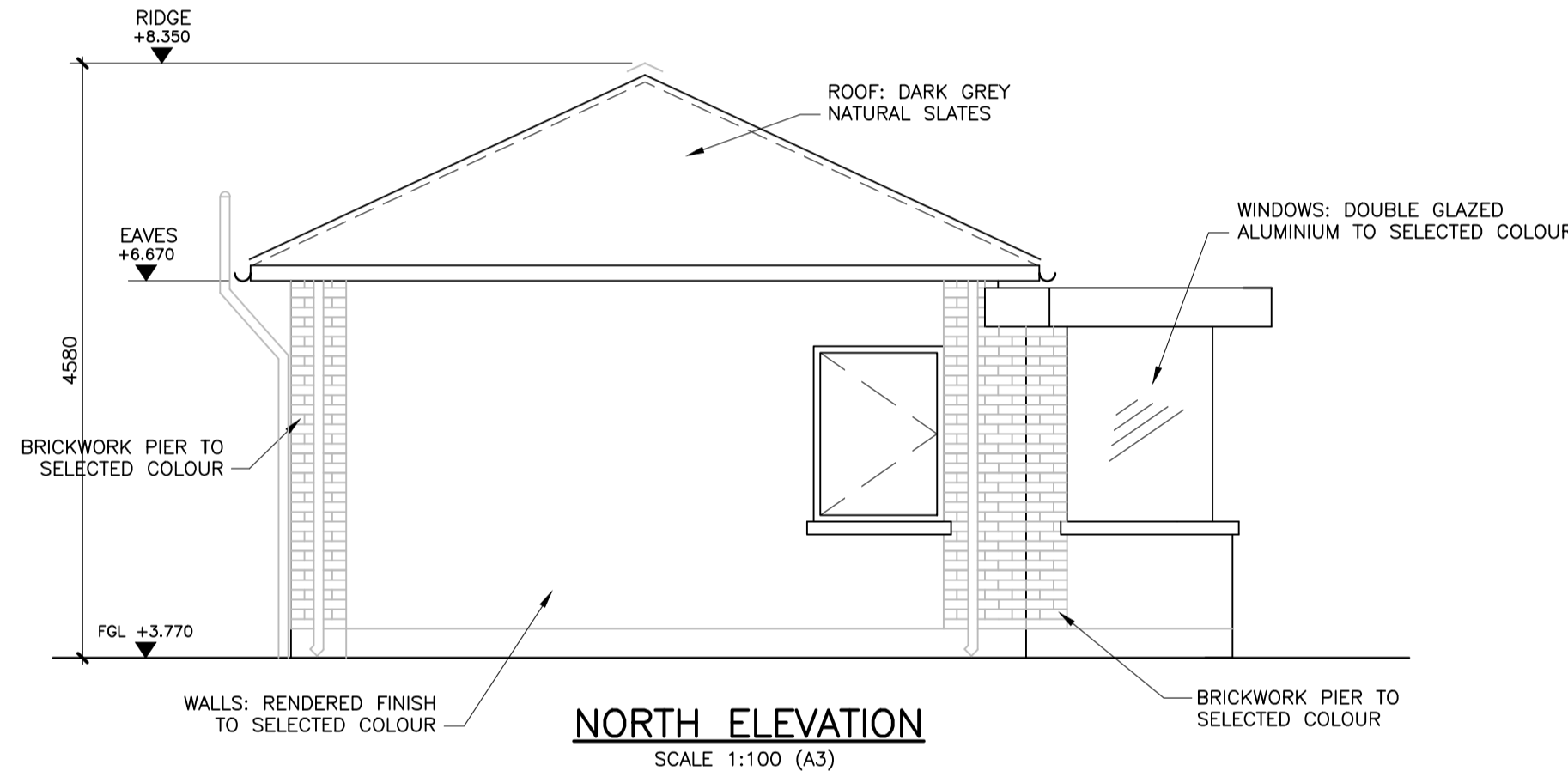
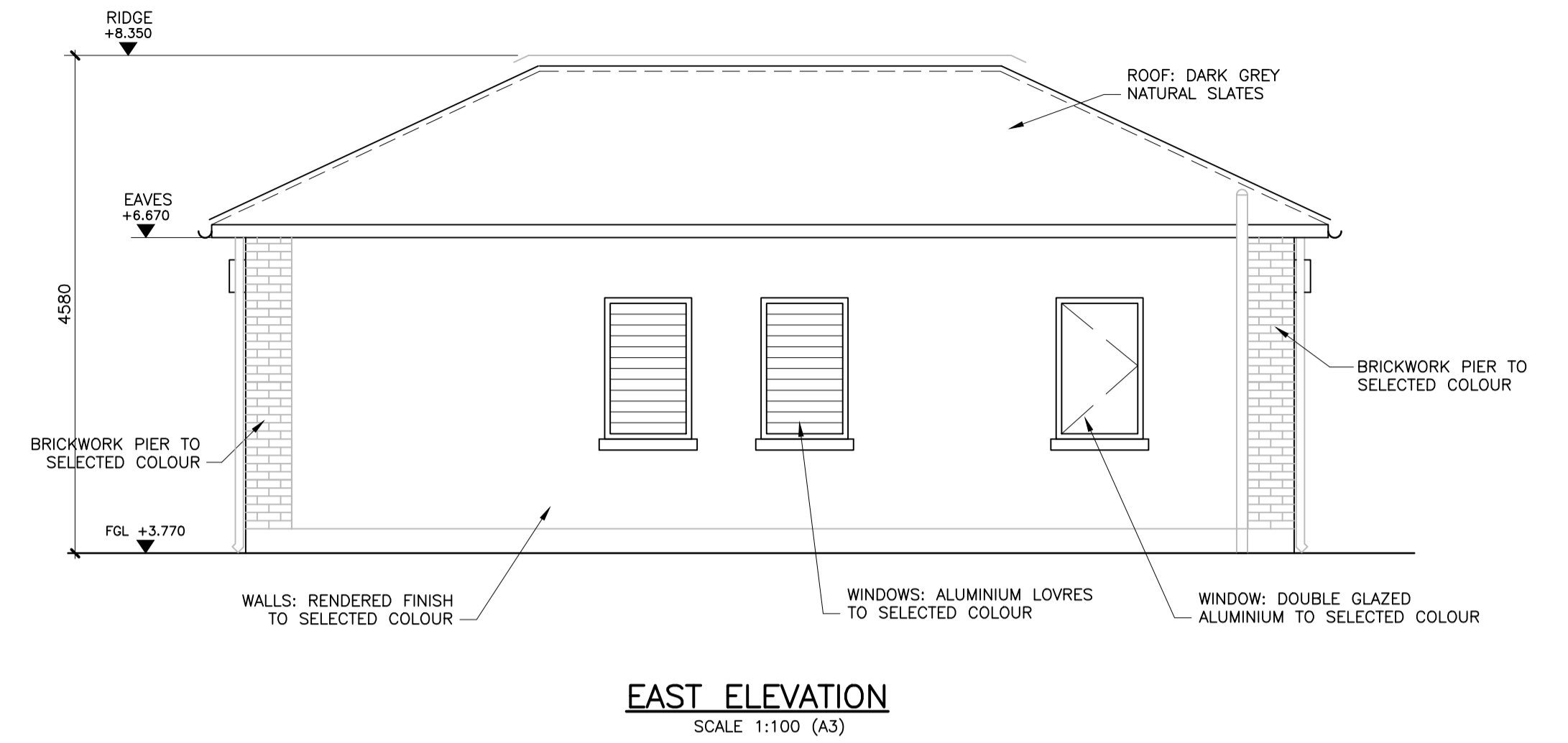
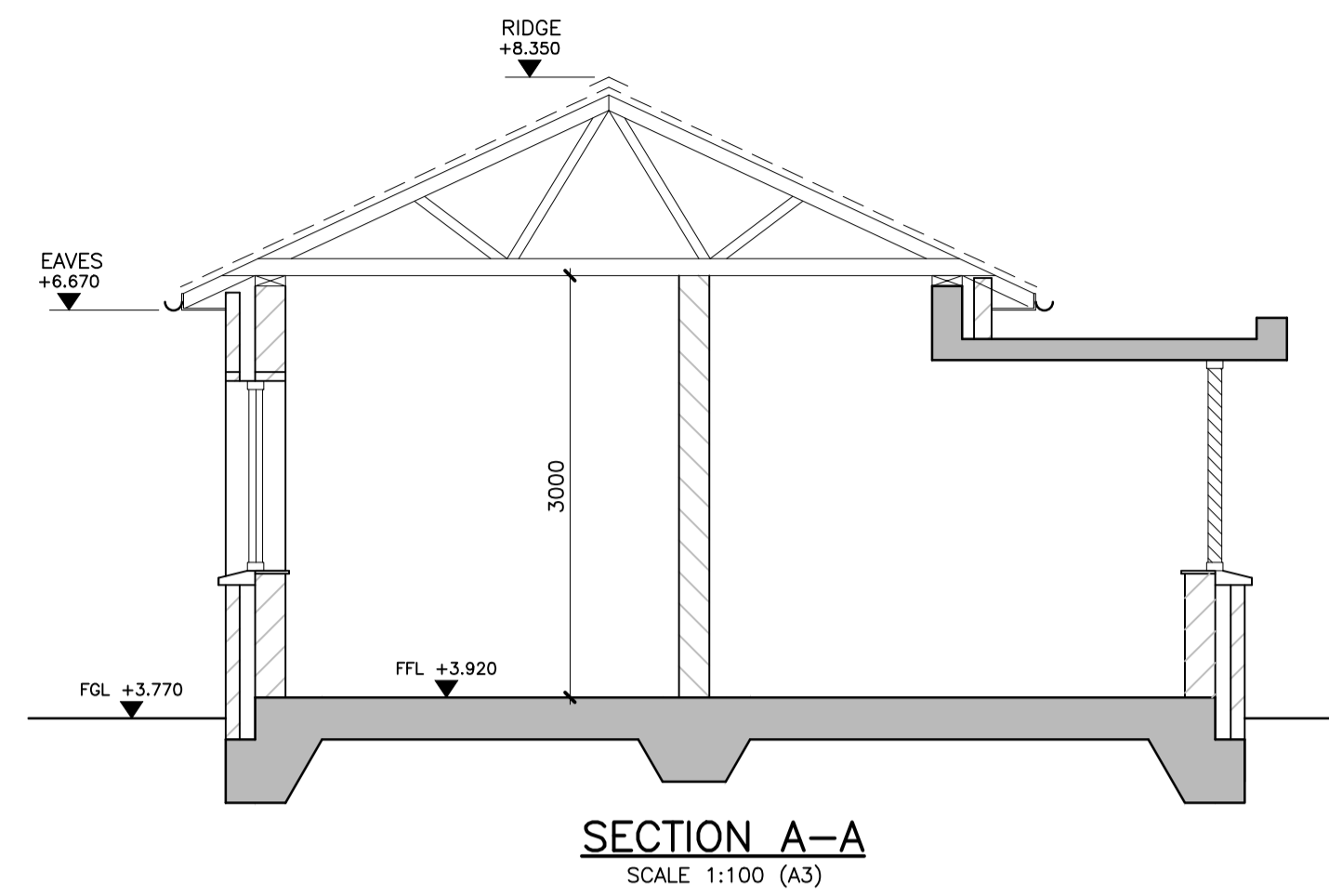
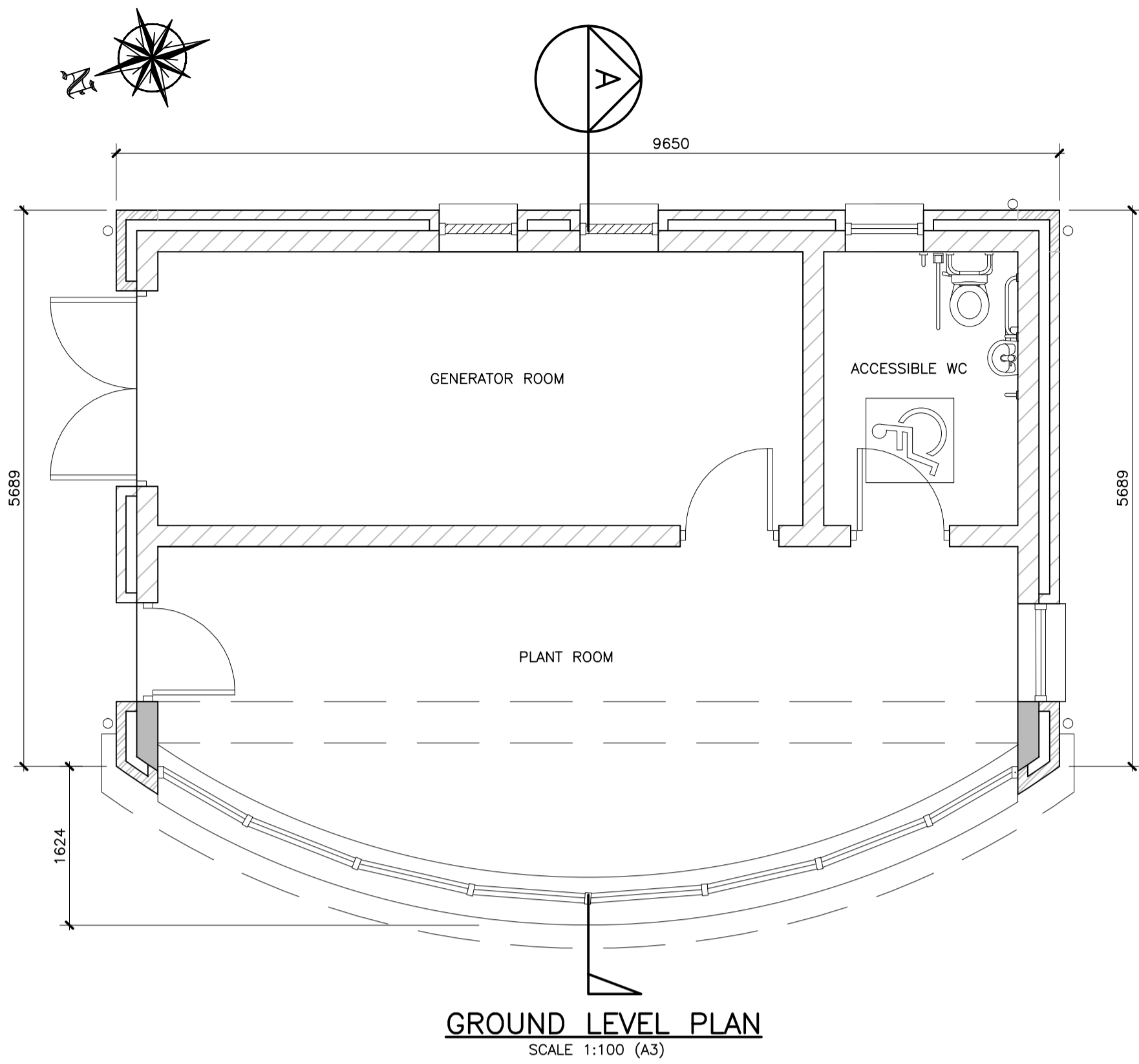
- COMPLETION OF SERVICE DIVERSIONS AND NEW CONNECTIONS.
- CONSTRUCTION OF BASCULE SPAN SOUTH PLAZA PLANT ROOM. TESTING AND COMMISSIONS OF THE BRIDGE OPENING SPAN.
- COMPLETE BRIDGE FINISHES - LOCAL PAINTING AT CONNECTIONS, PARAPETS & WIND SHIELDING, HANDRAIL LIGHTING AND FEATURE LIGHTING, DECK PLATE COMBINED WATERPROOFING AND SURFACING, BRIDGE DRAINAGE SYSTEM, LIFTING SPANS PEDESTRIAN BARRIERS AND ABUTMENT END MOVEMENT JOINTS.
- COMPLETION OF NEW SECTIONS OF FLOOD DEFENCE WALL ATOP STEEL PILE WALL SYSTEM AND CONNECTION TO THE EXISTING FLOOD DEFENCE WALL. REMOVAL OF TEMPORARY FLOOD PROTECTION.
- CONSTRUCTION OF BRIDGE SOUTH PLAZA, R680 FINISHES AND TIE INTO BARRONSTRAND STREET.

No.	Revision	Date	By	Chk'd	App'd
	Stage				
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Drawing Title INDICATIVE CONSTRUCTION SEQUENCE - SHEET 4			
Drawn: OB	Job No: 16.169	Drawing No:	Rev:
Scale: (A1) 1:500	Date: OCT '18	Figure 4.11	-



- NOTES:**
1. THE PROPOSED MECHANICAL AND ELECTRICAL PLANT ROOM BUILDING SHALL BE DESIGNED SUCH THAT IT CAN BE INCORPORATED INTO A FUTURE BUILDING WHICH WILL BE DESIGNED ON THE WESTERN SIDE OF THE SOUTH PLAZA.
  2. FINAL DETAILS OF THE PROPOSED MECHANICAL AND ELECTRICAL PLANT ROOM BUILDINGS SHALL BE AGREED WITH WATERFORD CITY AND COUNTY COUNCIL'S ARCHITECT'S DEPARTMENT.
  3. A SIMILAR PLANT ROOM / BUILDING SHALL BE INCORPORATED INTO THE STRATEGIC DEVELOPMENT ZONE NORTH QUAYS DEVELOPMENT AND BUILDINGS.

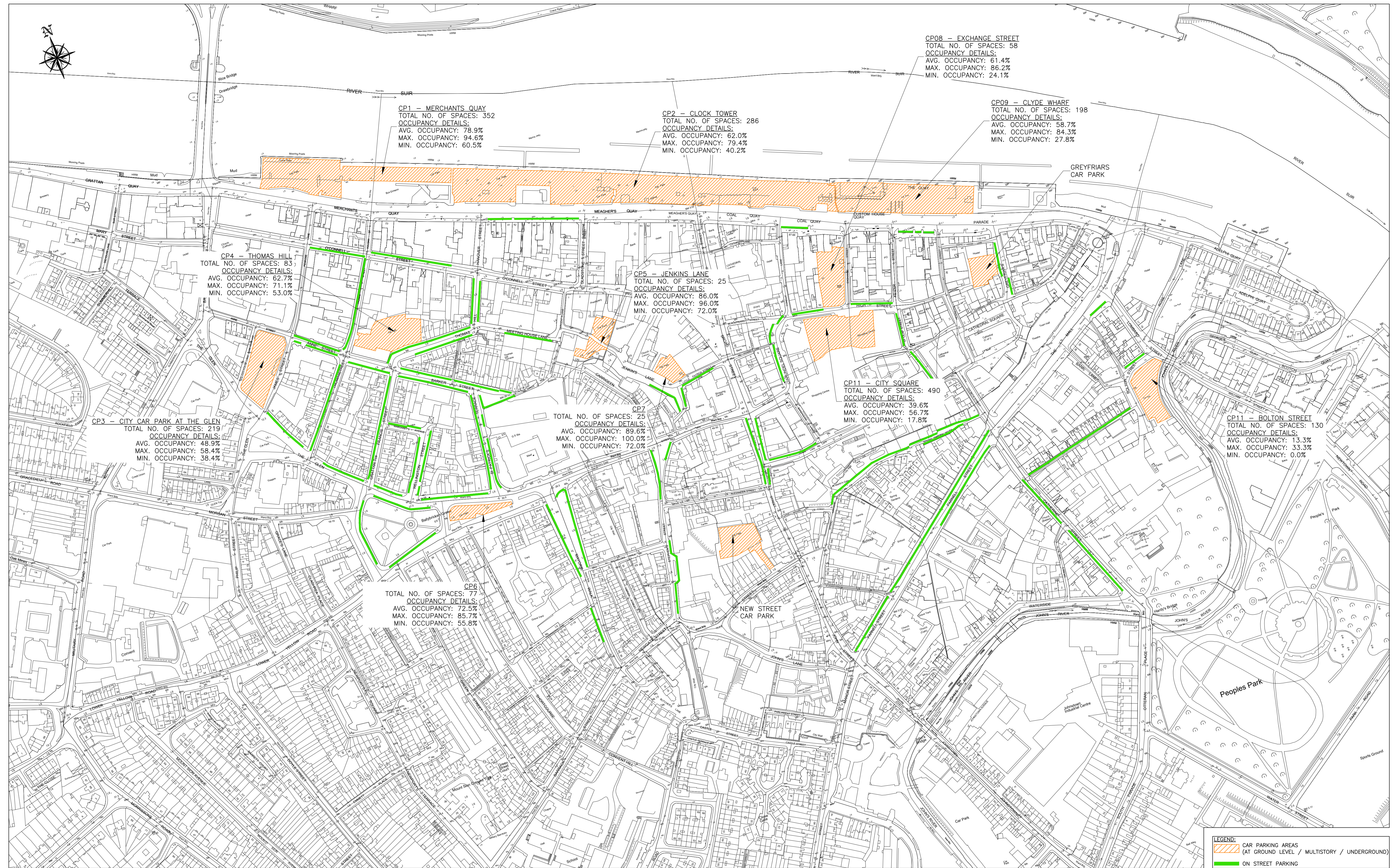
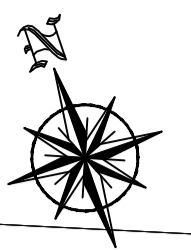


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Drawing Title <b>MECHANICAL AND ELECTRICAL PLANT BUILDING</b>			
Drawn: PE	Job No: 16.169	Drawing No: Figure 4.12	Rev: -
Scale: (A1) AS SHOWN	Date: DEC '18		



LEGEND:  
 CAR PARKING AREAS (AT GROUND LEVEL / MULTISTORY / UNDERGROUND)  
 ON STREET PARKING

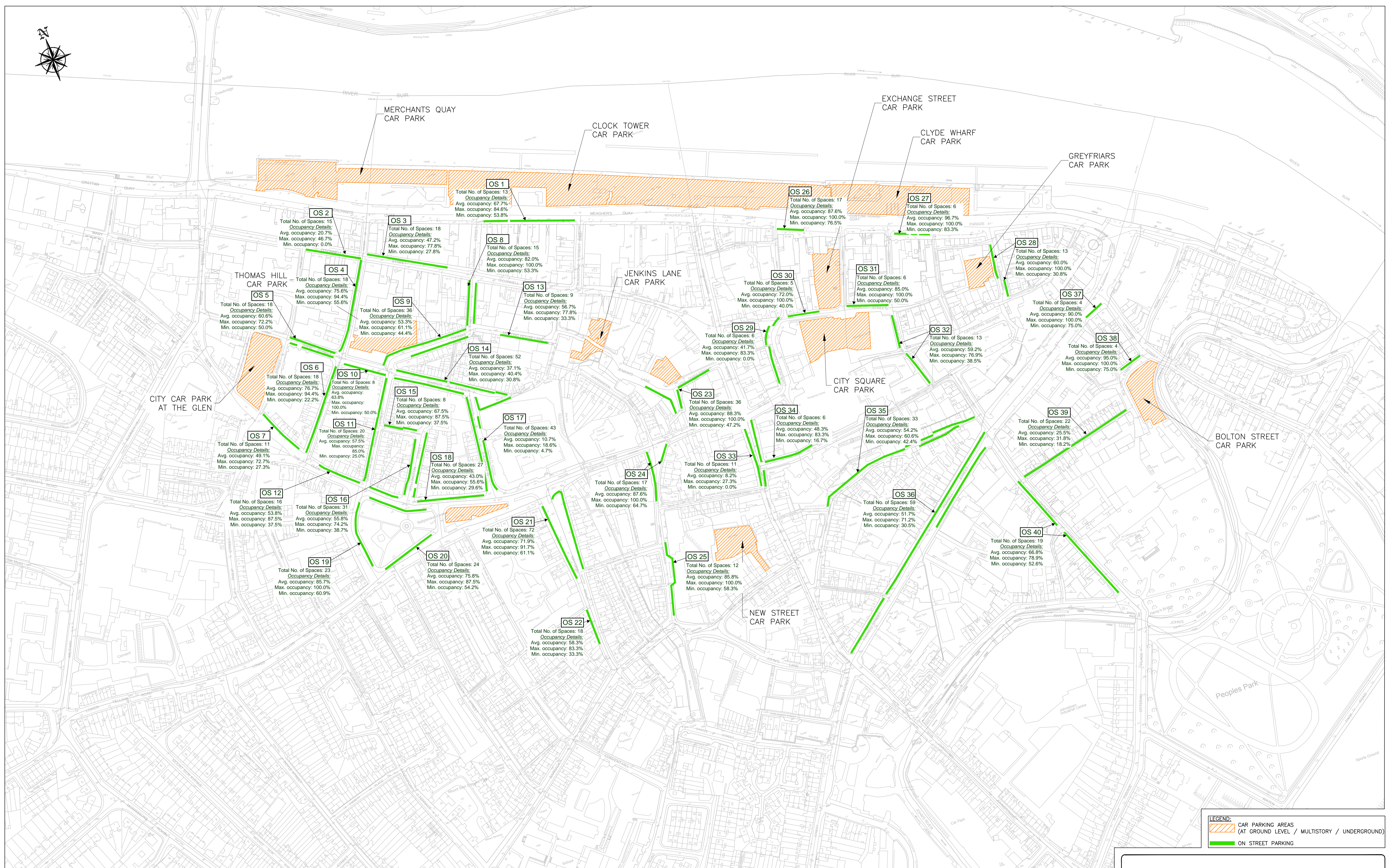


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	Stage				



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Project Title RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE			
Drawing Title CAR PARK SURVEY, THURSDAY			
Drawn: JMK	Job No: 16.169	Drawing No:	Rev:
Scale: 1:250 - (A3 1: 500)	Date: DEC '18	Figure 5.1	



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05 July 2018 10:28:54 J:\2016\16169\02 DWG\08 SKETCHES\16169 SK-523 PARKING SURVEY AREAS.DWG

No.	Revision	Date	By	Chk'd	App'd
	Stage				
	PRELIMINARY				
	APPROVAL				
	TENDER				
	CONSTRUCTION				

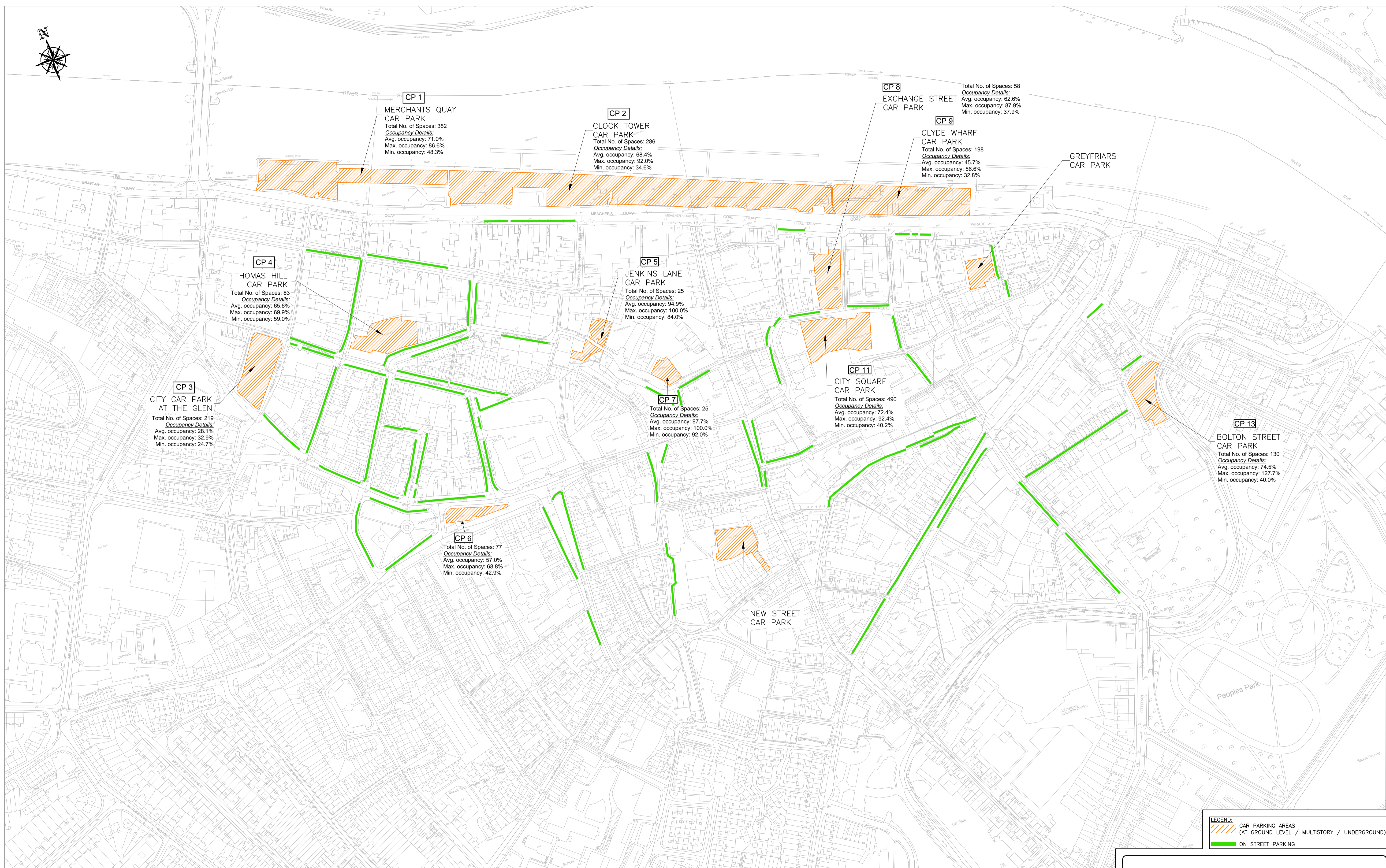
**PROD**  
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 Consulting Engineers  
 Civil - Structural - Transportation - Environmental

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 Website : www.rod.ie

Designed: TK Checked: JB Approved: TD Status: E.I.A.R.

Project Title <b>RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE</b>			
Drawing Title <b>ON STREET CAR PARK SURVEY, THURSDAY</b>			
Drawn: JMK	Job No: 16.169	Drawing No:	Rev:
Scale: (A1) 1:2,000	Date: JUL '18	Figure 5.2	

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**LEGEND:**  
 CAR PARKING AREAS (AT GROUND LEVEL / MULTISTORY / UNDERGROUND)  
 ON STREET PARKING

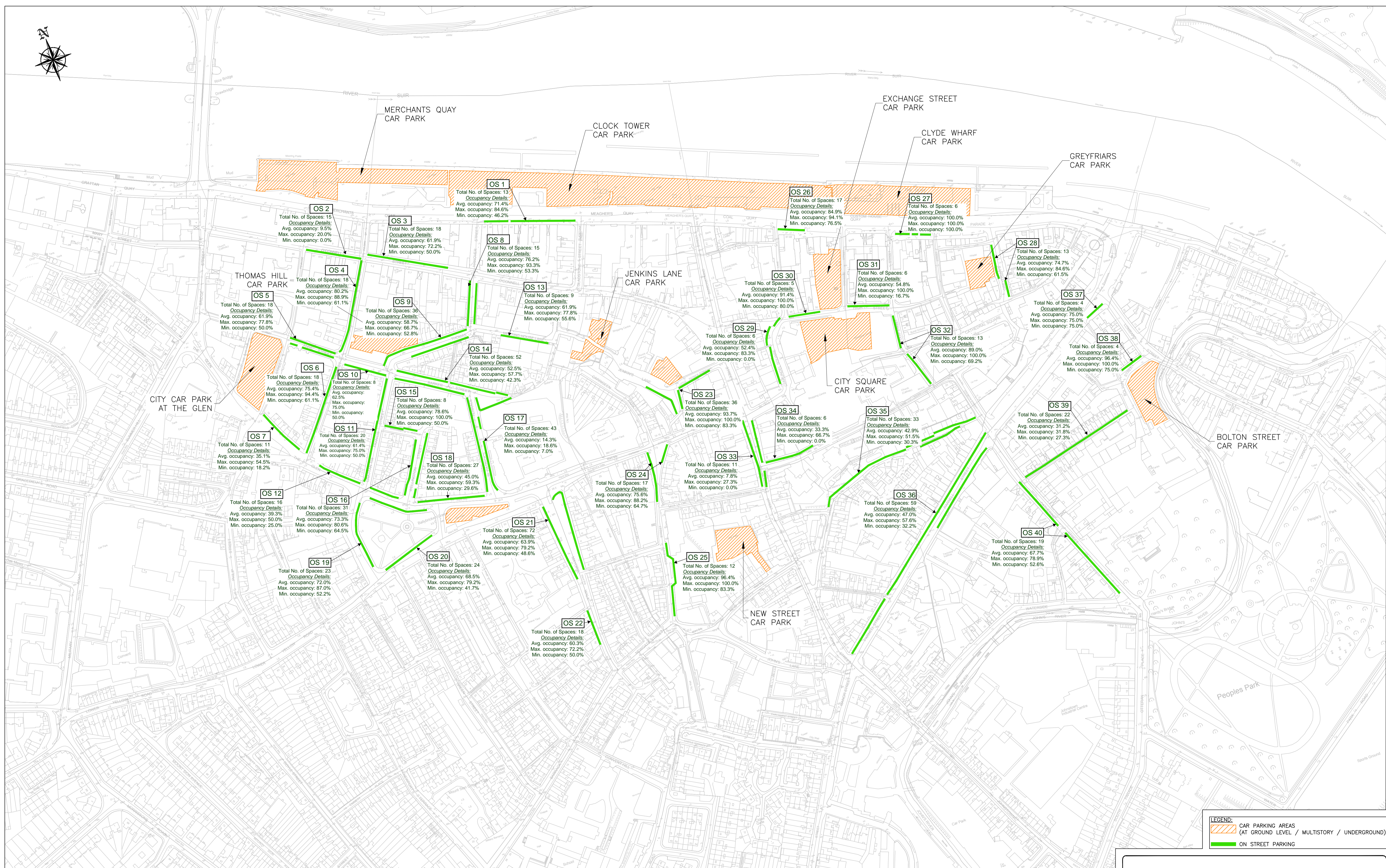


No.	Revision	Date	By	Chk'd	App'd
	Stage	Date			
	PRELIMINARY				
	APPROVAL				
	TENDER				
	CONSTRUCTION				



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Project Title <b>RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE</b>			
Drawing Title <b>CAR PARK SURVEY, SATURDAY</b>			
Drawn: JMK	Job No: 16,169	Drawing No: Figure 5.3	Rev: -
Scale: (A1) 1:2,000	Date: JUL '18		



**LEGEND:**  
 CAR PARKING AREAS (AT GROUND LEVEL / MULTISTORY / UNDERGROUND)  
 ON STREET PARKING

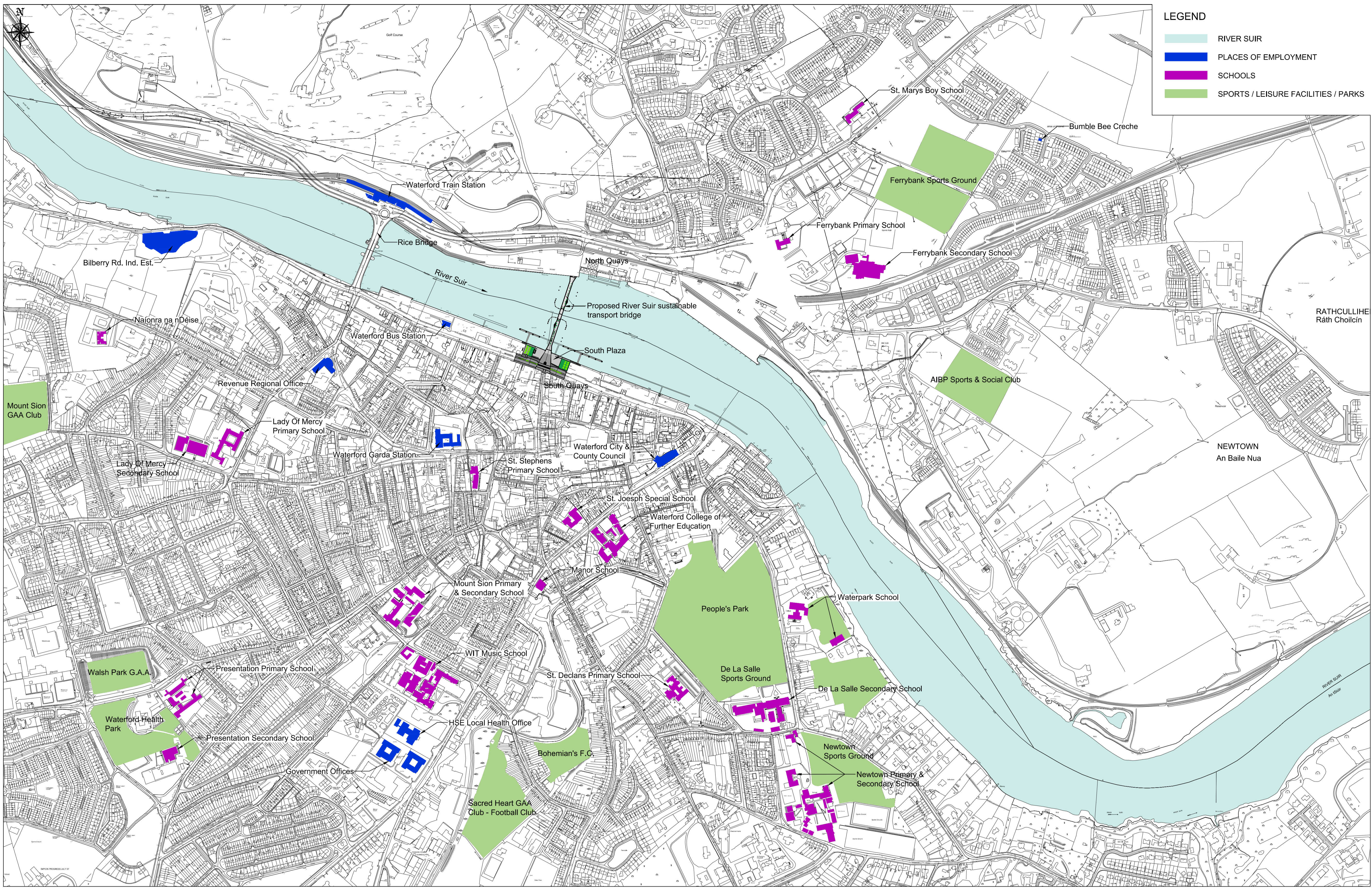


No.	Revision	Date	By	Chk'd	App'd
	Stage				
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	APPROVAL				
	TENDER				
	CONSTRUCTION				



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Project Title				RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE			
Drawing Title				ON STREET CAR PARK SURVEY, SATURDAY			
Drawn:	JMK	Job No:	16.169	Drawing No:		Rev:	
Scale:	(A1) 1:2,000	Date:	JUL '18	Figure No:	5.4		



**LEGEND**

- RIVER SUIR
- PLACES OF EMPLOYMENT
- SCHOOLS
- SPORTS / LEISURE FACILITIES / PARKS

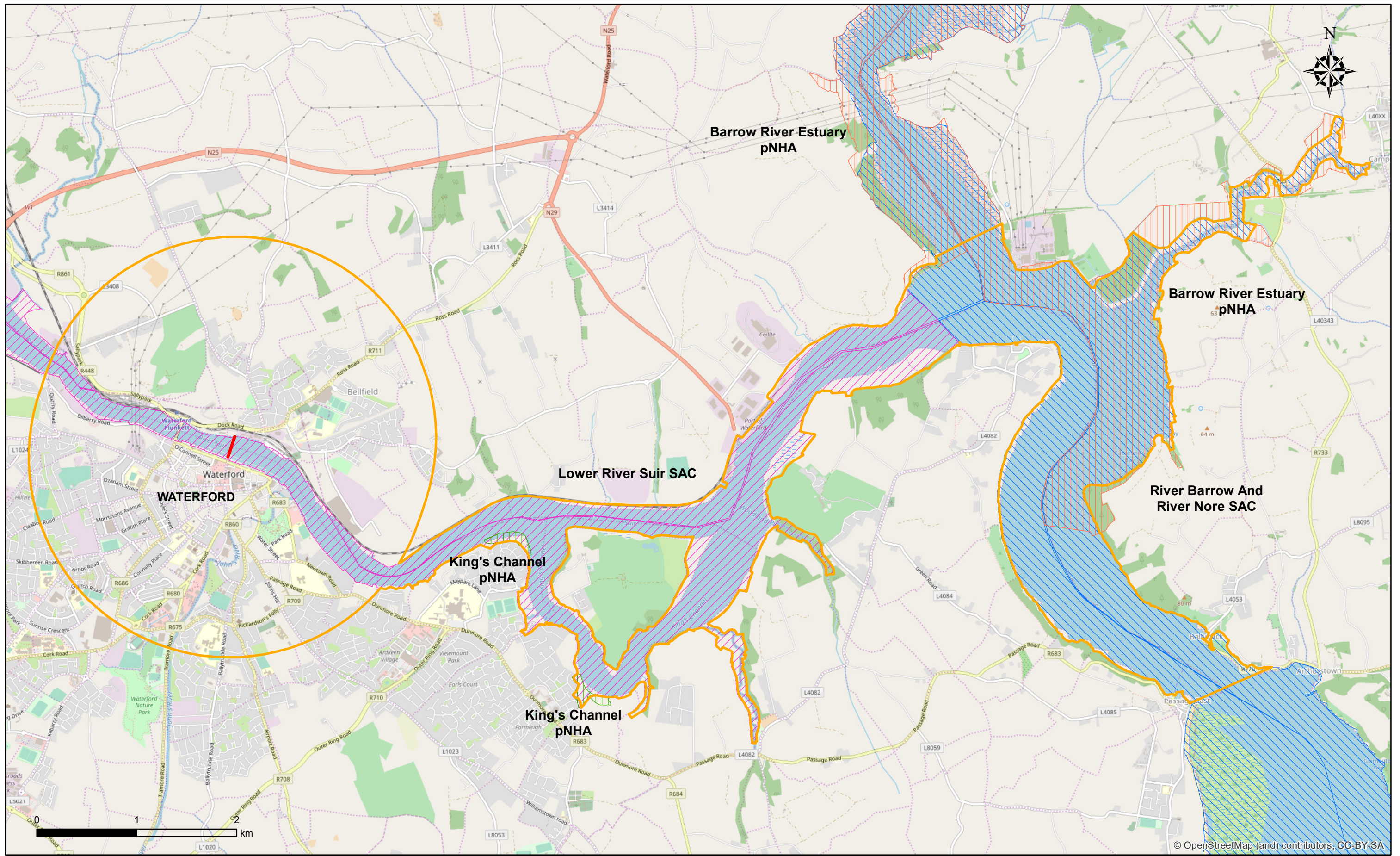


No.	Revision	Date	By	Chk'd	App'd
	Stage	Date			
PRELIMINARY					
APPROVAL					
TENDER					
CONSTRUCTION					

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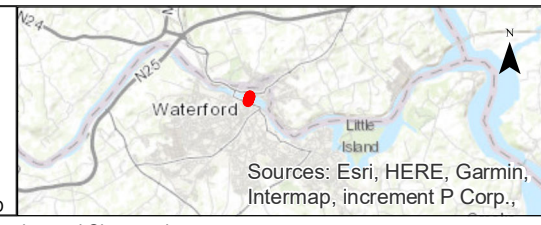
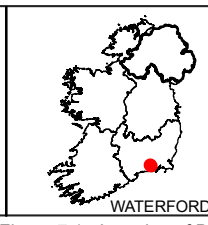
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e-mail : info@rod.ie  
Website : www.rod.ie

Project Title <b>RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE</b>			
Drawing Title <b>LOCAL AMENITIES, EMPLOYMENT &amp; EDUCATION FACILITIES</b>			
Drawn: OB	Job No: 16.169	Drawing No:	Rev:
Scale: (A1) AS SHOWN	Date: JUL '18	<b>Figure 6.1</b>	-



**LEGEND**

- Proposed Bridge
- Likely Zone of Influence
- Lower River Suir (SAC)
- River Barrow & River Nore (SAC)
- Barrow River Estuary (pNHA)
- King's Channel (pNHA)



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Designed: CM	Checked: CM	Approved: BC	Status: EIAR
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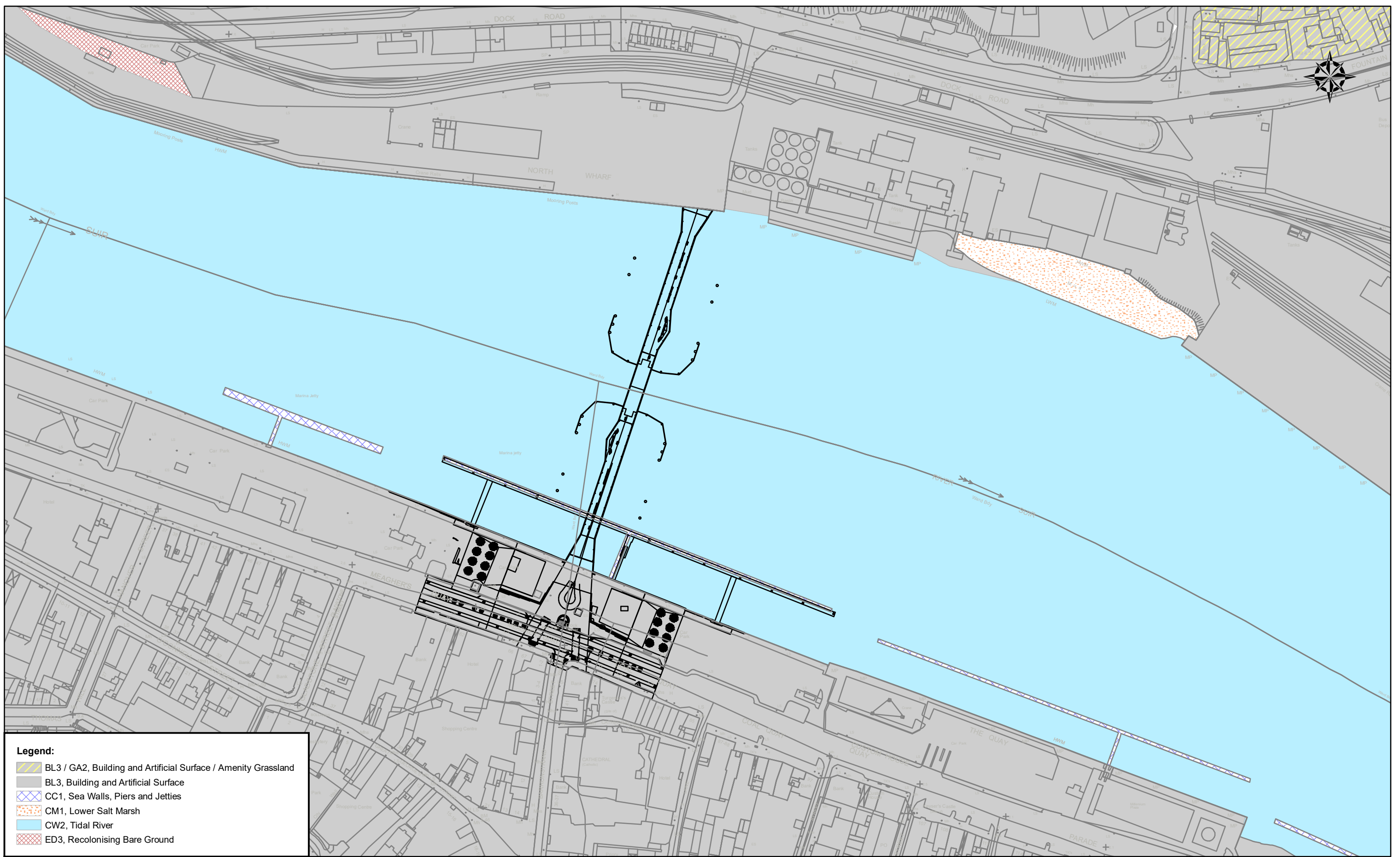
Project Title <b>RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE</b>			
Drawing Title <b>LOCATION OF DESIGNATED SITES</b>			
Drawn: LA	Job No: 16.169	Drawing No:	Rev:
Scale: (A1) 1:35,000 @A3	Date: August 2018	Figure 7.1	

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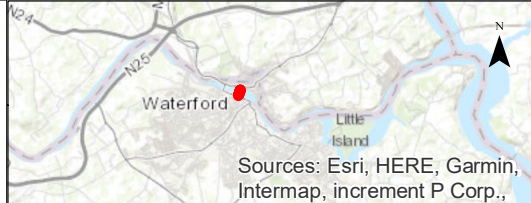
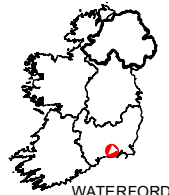
Document Path: J:\2016\16169\02 DWG\10 EIAR drawings\ArcGIS\16169 - Figure 7.1 - Location of Designated Sites.mxd





**Legend:**

- BL3 / GA2, Building and Artificial Surface / Amenity Grassland
- BL3, Building and Artificial Surface
- CC1, Sea Walls, Piers and Jetties
- CM1, Lower Salt Marsh
- CW2, Tidal River
- ED3, Recolonising Bare Ground



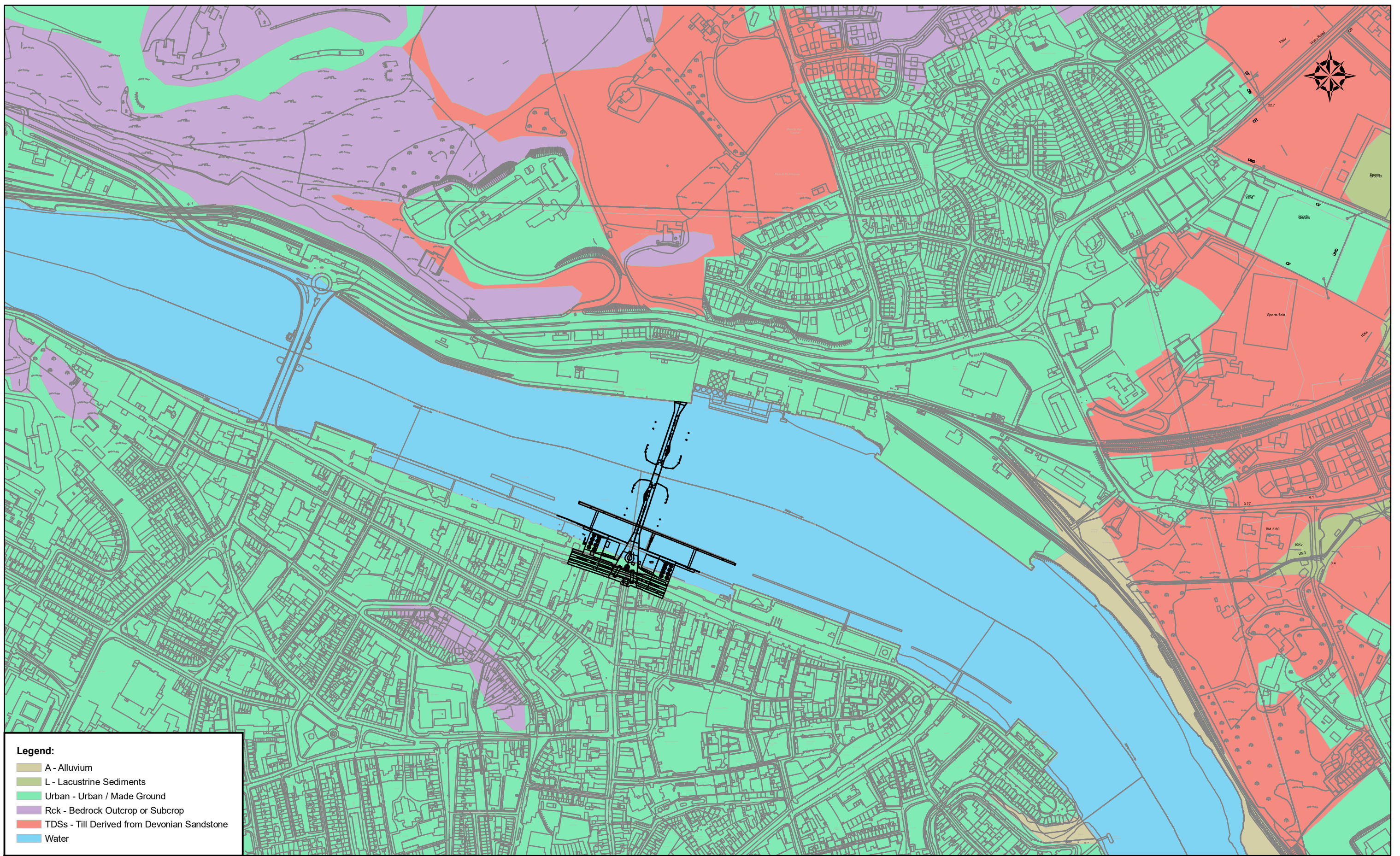
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Website : www.rod.ie

Project Title			
RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE			
Drawing Title			
HABITAT MAPPING			
Drawn: LA	Job No: 16.169	Drawing No:	Rev:
Scale: 1:2,000 (A1)	Date: August 2018	Figure 7.2	

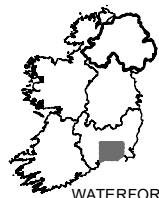
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- Legend:**
- A - Alluvium
  - L - Lacustrine Sediments
  - Urban - Urban / Made Ground
  - Rck - Bedrock Outcrop or Subcrop
  - TDSs - Till Derived from Devonian Sandstone
  - Water



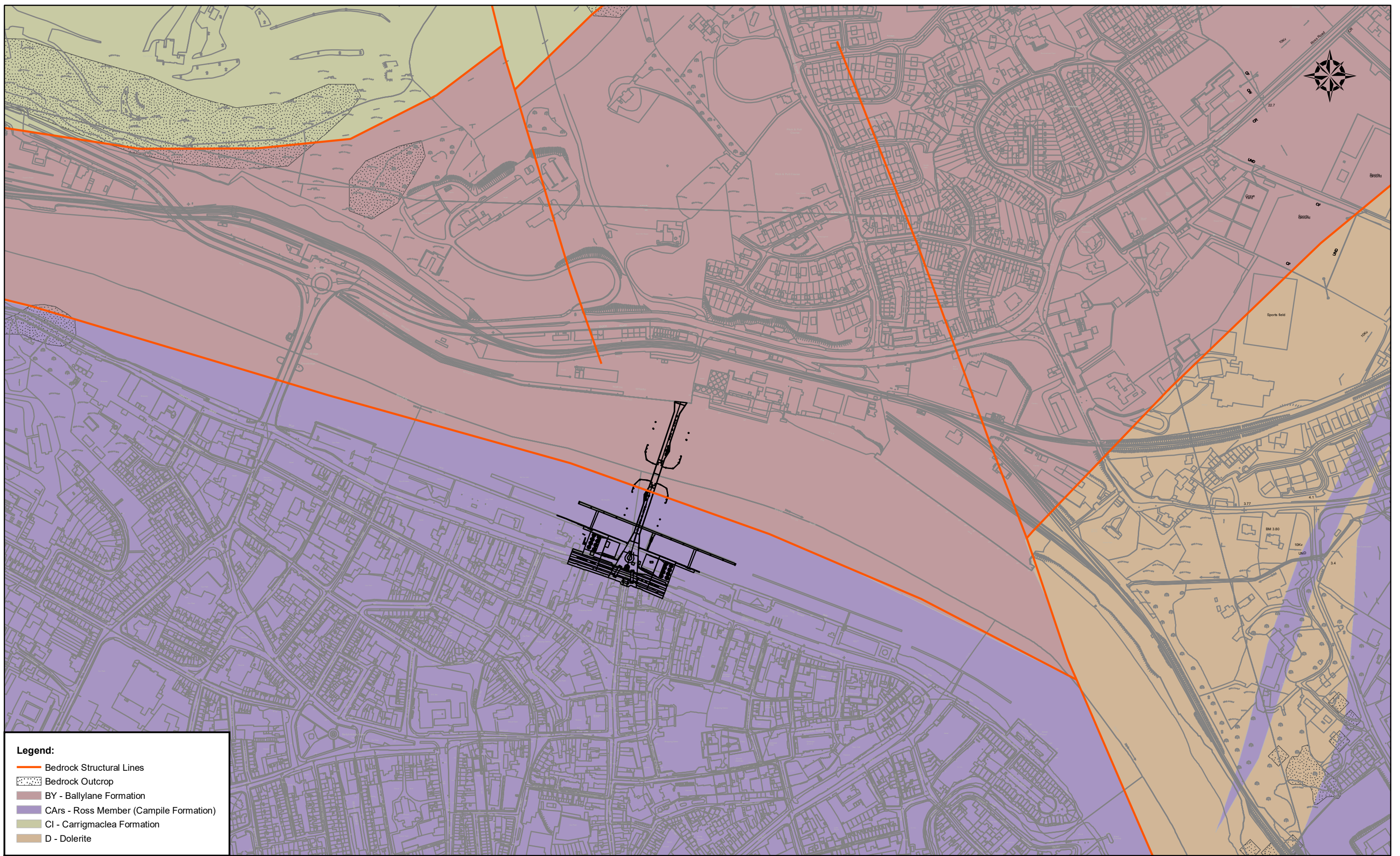
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Website : www.rod.ie

Project Title		RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE	
Drawing Title		SUBSOILS MAPPING	
Drawn: LA	Job No: 16.169	Drawing No:	Rev:
Scale: (A1) 1:5,000 @A3	Date: August 2018	Figure 8.1	

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**Legend:**

- Bedrock Structural Lines
- Bedrock Outcrop
- BY - Ballylane Formation
- CArS - Ross Member (Campile Formation)
- CI - Carrigmaclea Formation
- D - Dolerite

**Comhairle Cathrach  
& Contae Phort Láirge**  
Waterford City  
& County Council

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**WATERFORD**

Waterford  
Little Island

Sources: Esri, HERE, Garmin, Intermap, increment P Corp.,

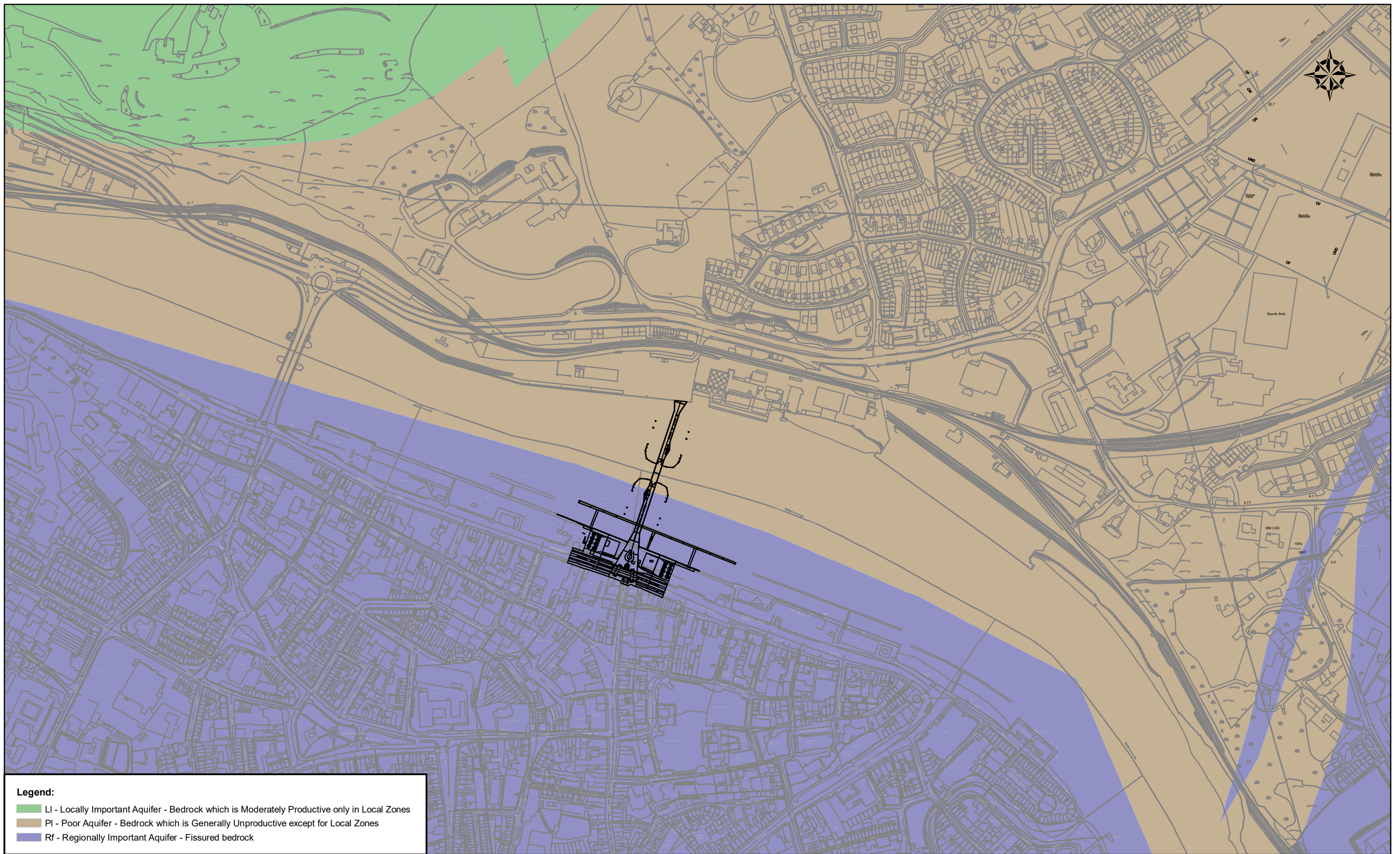
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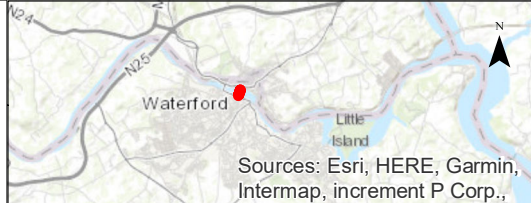
Project Title <b>RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE</b>			
Drawing Title <b>BEDROCK GEOLOGY</b>			
Drawn: <b>LA</b>	Job No: <b>16.169</b>	Drawing No:	Rev:
Scale: <b>1:5,000 @A3</b>	Date: <b>August 2018</b>	<b>Figure 8.2</b>	

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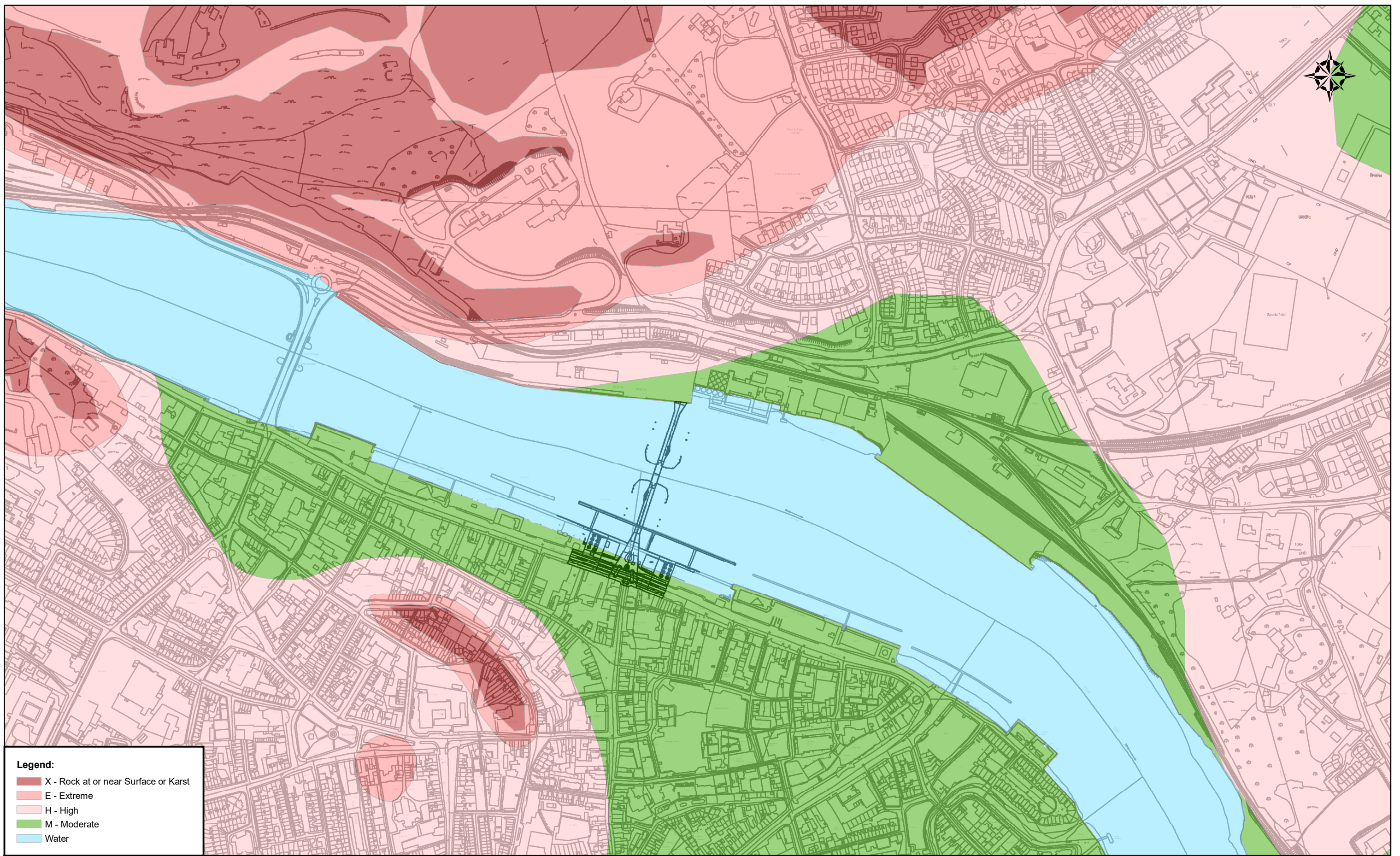
**Legend:**

- LI - Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones
- PI - Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones
- Rf - Regionally Important Aquifer - Fissured bedrock



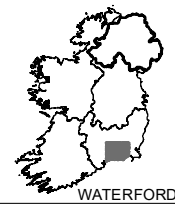
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Website : www.rod.ie

Project Title <b>RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE</b>			
Drawing Title <b>AQUIFER CLASSIFICATION</b>			
Drawn: LA	Job No: 16.169	Drawing No:	Rev:
Scale: (A1) 1:5,000 @A3	Date: August 2018	Figure 9.1	



**Legend:**

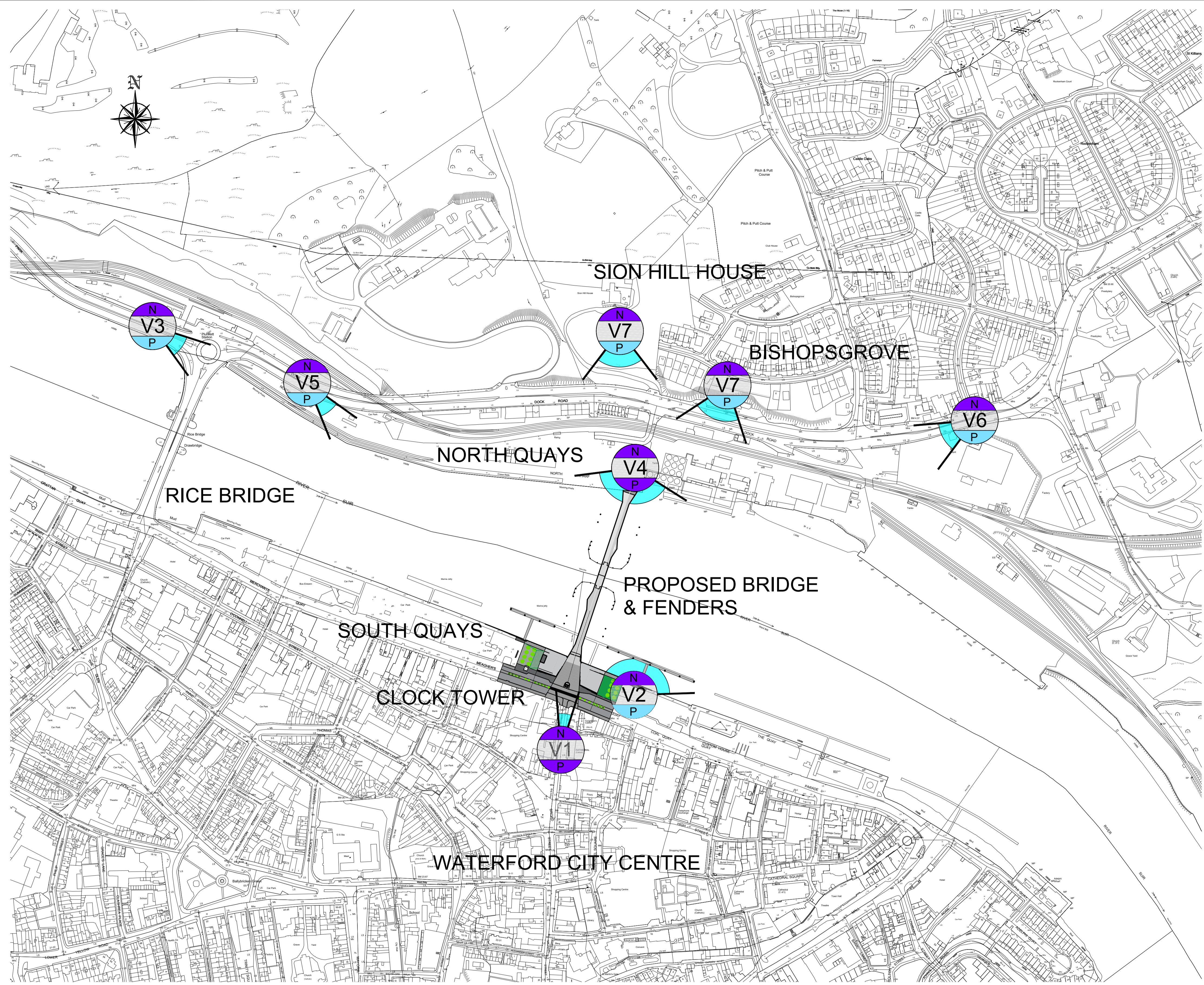
- X - Rock at or near Surface or Karst
- E - Extreme
- H - High
- M - Moderate
- Water



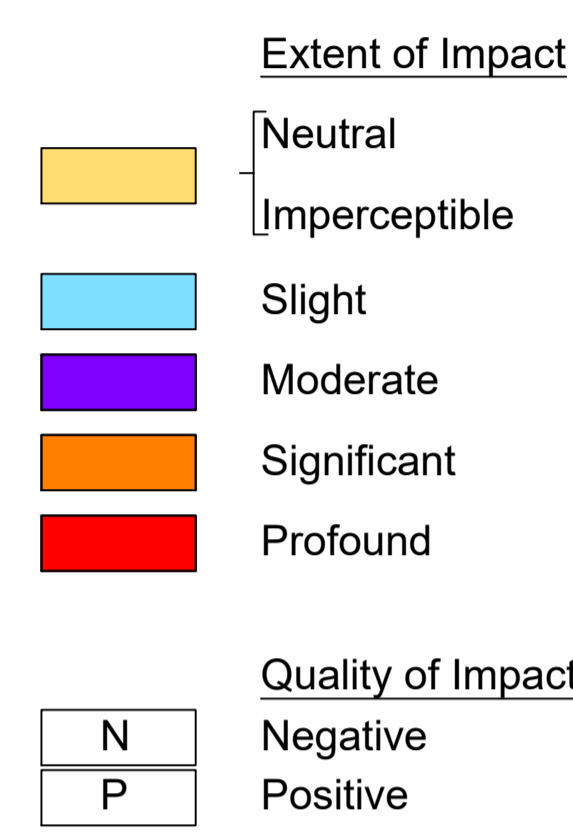
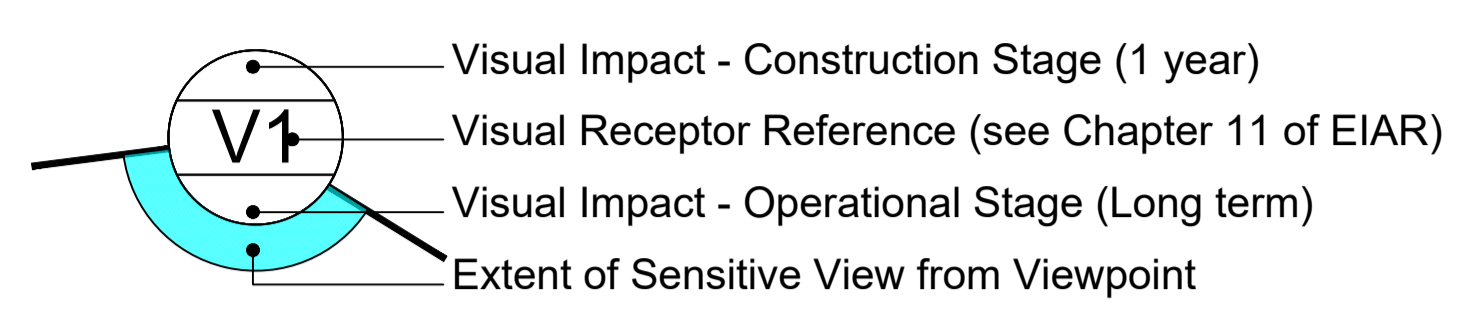
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Project Title			
RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE			
Drawing Title			
GROUNDWATER VULNERABILITY			
Drawn: LA	Job No: 16.169	Drawing No:	Rev:
Scale: (A1) 1:5,000 @A3	Date: August 2018	Figure 9.2	

Designed: CM	Checked: CM	Approved: BC	Status: EIAR
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**VISUAL IMPACT ASSESSMENT  
RESIDUAL IMPACT**



No.	Revision	Date	By	Chkd	App'd
	Stage				
	PRELIMINARY				
	APPROVAL				
	TENDER				
	CONSTRUCTION				



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Project Title RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE			
Drawing Title VISUAL IMPACT ASSESSMENT SUMMARY OF RESIDUAL IMPACTS			
Drawn: MB	Job No: 16.169	Drawing No:	Rev:
Scale: (A1) 1:2500	Date: September 2018	Figure 11.1	-



VIEW OF BRIDGE AND VESSEL COLLISION PROTECTION FROM NEAR ARD RI



VIEW OF BRIDGE AND VESSEL COLLISION COLLISION PROTECTION FROM DOCK ROAD (NEAR RAILWAY BRIDGE)



**NOTE:**

THESE PHOTOMONTAGES ARE PHOTOREALISTIC VISUALISATIONS PRODUCED TO ILLUSTRATE THE LIKELY FUTURE APPEARANCE OF THE RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE AND VESSEL COLLISION PROTECTION SYSTEM FROM SPECIFIC VIEWING POINTS. THEY ARE USEFUL TOOLS FOR EXAMINING THE LIKELY VISUAL IMPACT OF THE DEVELOPMENT, HOWEVER, THEY ARE REPRESENTATIVE ONLY AND ARE NOT CONSIDERED TO BE AN EXACT REPLICATION OF THE PROPOSED BRIDGE AND ASSOCIATED INFRASTRUCTURE. PHOTOMONTAGES SHOULD NOT ONLY BE VIEWED AS A PHOTOGRAPH ON A DESKTOP, IT IS RECOMMENDED VIEWING THE PHOTOMONTAGES AT THE RELEVANT VIEWPOINT LOCATIONS ON SITE TO UNDERSTAND THE FULL VISUAL IMPACT OF THE RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE.

No.	Revision	Date	By	Chk'd	App'd
	Stage	Date			
	PRELIMINARY				
	APPROVAL				
	TENDER				
	CONSTRUCTION				

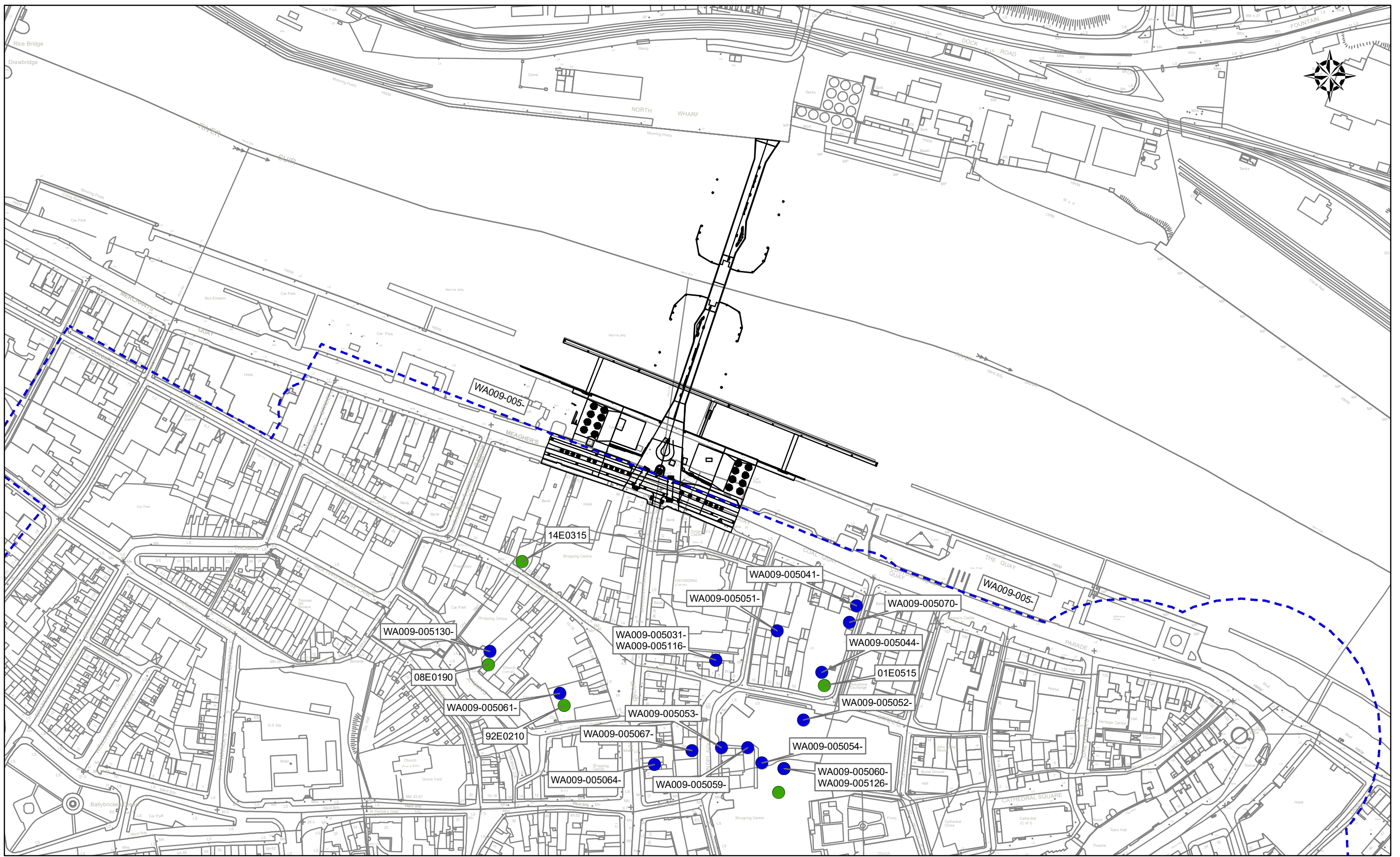


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Project Title			
RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE			
Drawing Title			
PHOTOMONTAGES			
Drawn:	PE	Job No:	16,169
Scale:	N.T.S.	Date:	DEC '18
		Drawing No:	Figure 11.2
		Rev:	-

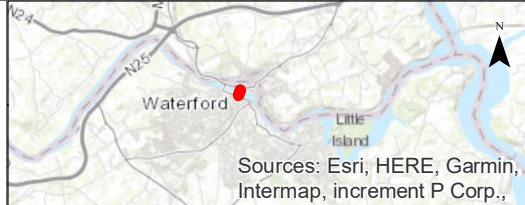
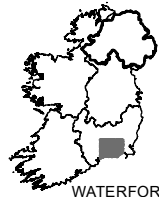






**Legend:**

- National Monuments
- Archaeological Findings



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Project Title <b>RIVER SUIR SUSTAINABLE TRANSPORT BRIDGE</b>			
Drawing Title <b>RECORDED MONUMENTS AND ARCHAEOLOGICAL FINDINGS</b>			
Drawn: LA	Job No: 16.169	Drawing No:	Rev:
Scale: 1:2,500 @A3	Date: August 2018	Figure 14.1	



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