

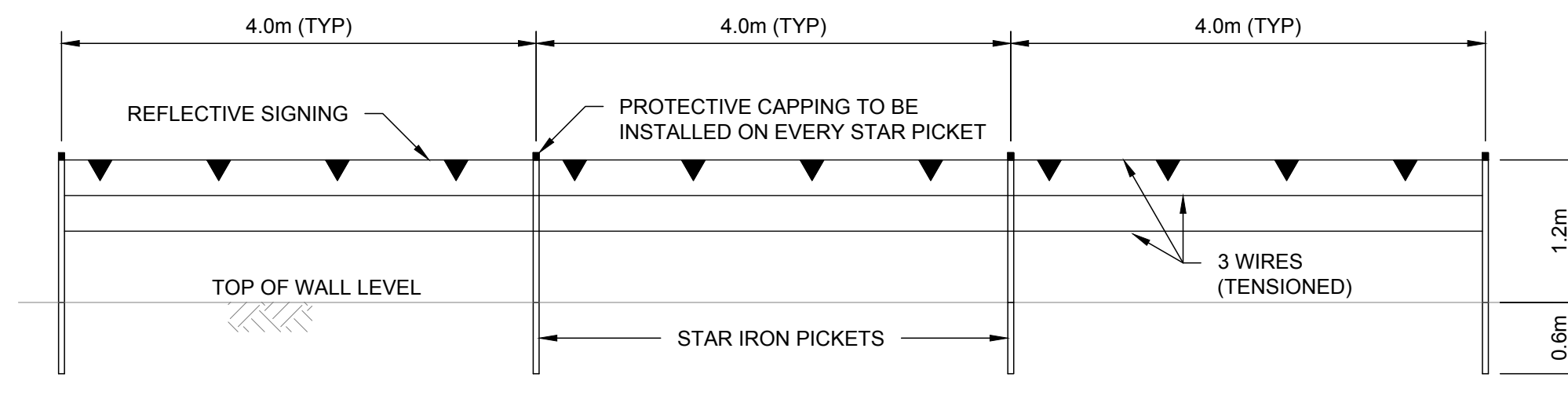
## NOTE

1. RETAINING WALLS TO BE IN ACCORDANCE WITH THE DESIGN COVENANT.
2. RETAINING WALL TYPE 1 TO BE TEXTURED CONCRETE SLEEPER - PAINTED BLACK INCLUDING STEEL GALVANISED POST.
3. RETAINING WALL TYPE 2 TO BE ADBRI MASONRY VERSAWALL - CHARCOAL COLOUR WITH CAPPING.

## LEGEND

## PROPOSED

- RETAINING WALL TYPE 1
- RETAINING WALL TYPE 2
- STAGE BOUNDARY

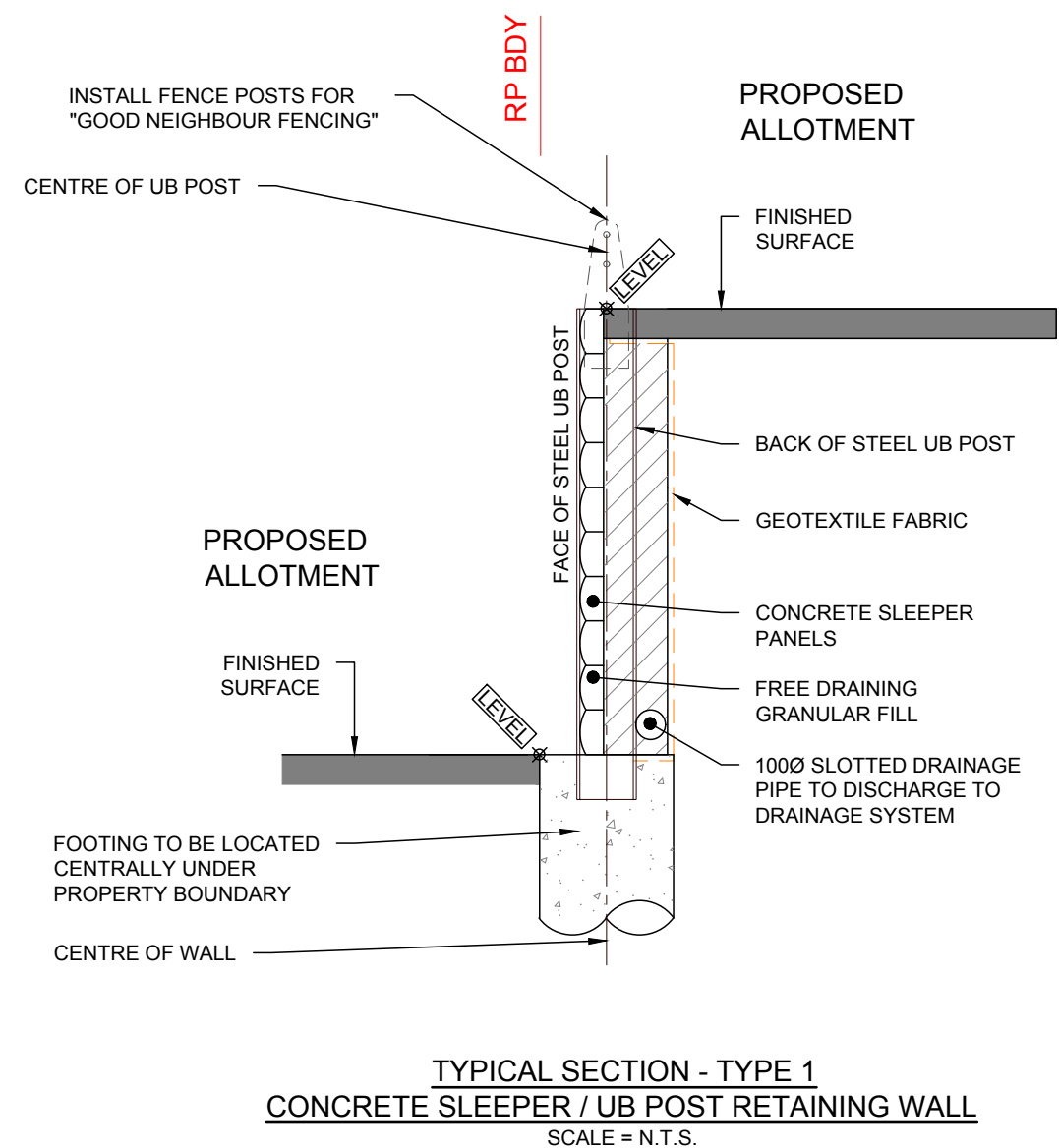
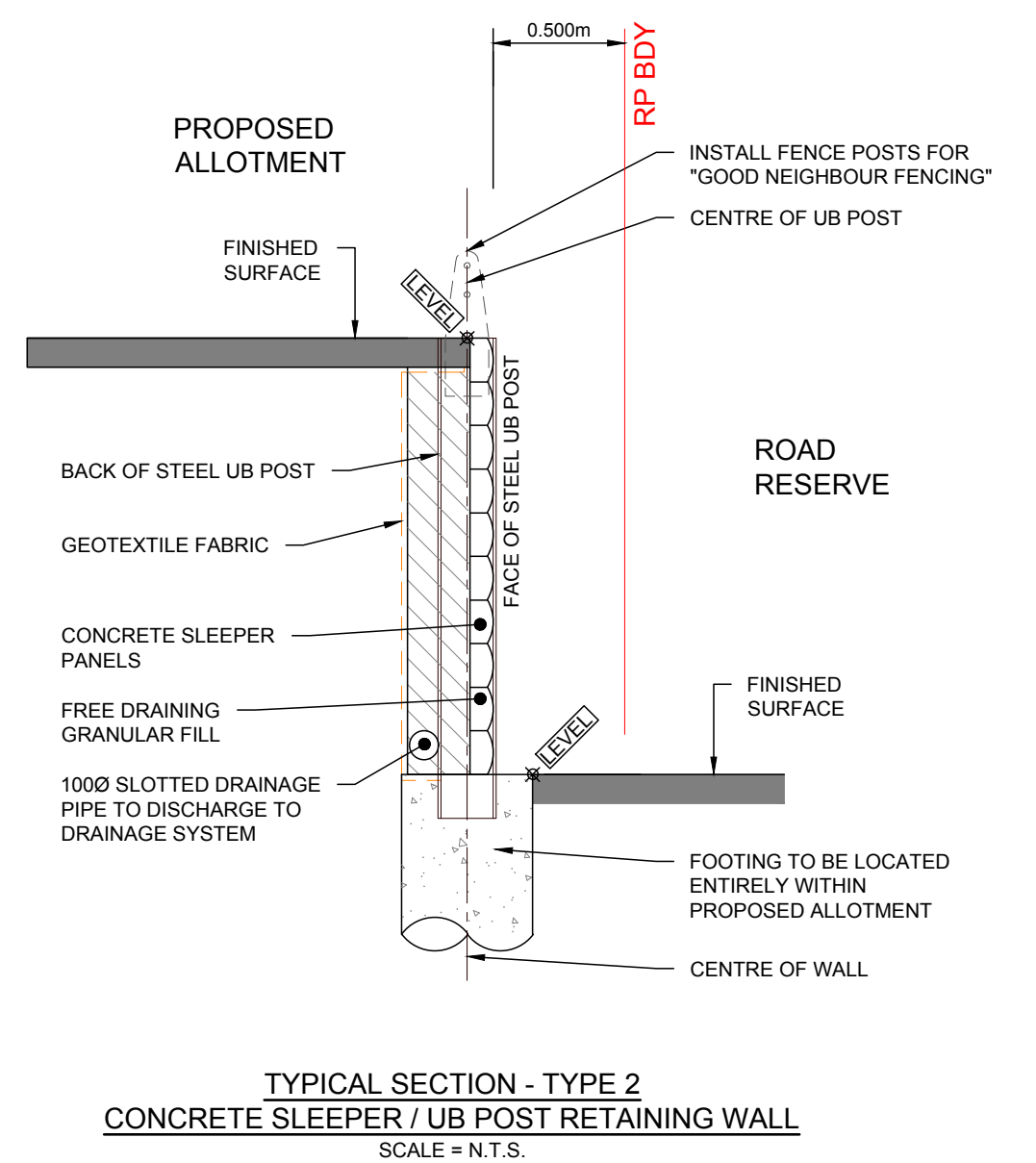


## RETAINING WALL SAFETY FENCING DETAIL

N.T.S.

## NOTES:

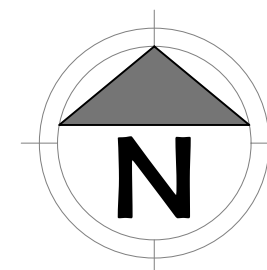
1. SAFETY STAR IRON PICKETS AND WIRE BARRIER TO BE INSTALLED ON RETAINING WALL 900mm OR HIGHER.
2. SAFETY FENCE TO BE INSTALLED INDIVIDUALLY ON EACH LOT AND SHALL BE CONTAINED WHOLLY WITHIN EACH LOT.

TYPICAL SECTION - TYPE 1  
CONCRETE SLEEPER / UB POST RETAINING WALL  
SCALE = N.T.S.TYPICAL SECTION - TYPE 2  
CONCRETE SLEEPER / UB POST RETAINING WALL  
SCALE = N.T.S.

TOOWOOMBA REGIONAL COUNCIL  
AMENDED PLAN  
REQUIRED TO BE SUBMITTED FOR  
APPROVAL  
Refer to Condition Number  
5  
referred to in Council's Decision Notice dated  
12 May 2023  
This plan is subject to conditions of Approval Number  
OW/2022/5568

0 10 20 30 40 50m  
SCALE 1:500

REVISIONS:			
No.	REVISION DESCRIPTION	DRAWN	DATE
C	COUNCIL INFORMATION REQUEST RESPONSE	MP	21/04/23
B	COUNCIL INFORMATION REQUEST RESPONSE	MP	01/03/23
A	ISSUED FOR INFORMATION	MP	20/10/22



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IF IN DOUBT - ASK.

CLIENT  
**GLENVALE DEVINE ROAD  
DEVELOPMENT PTY LTD**

ARCHITECT

PROJECT TITLE  
**PROPOSED SUBDIVISION  
DRAYTON WELLCAMP ROAD, GLENVALE QLD 4350  
STAGE 5**

DRAWING TITLE  
**RETAINING WALL PLAN**

DRAWING STATUS			
<b>PRELIMINARY NOT FOR CONSTRUCTION</b>			
PROJECT LEADER CK	DESIGNER MP	SIGNATURE C. KIRK	RPEO: 19536 NER: 3053220
DRAFTSPERSON MP	SCALE AS SHOWN	DATE OCT '2022	SHEET SIZE A1
JOB No. BR222080	DRAWING No. C4210	REVISION C	



GENERAL

- G1.

DESIGN IS BASED UPON EARTH-RETAINING STRUCTURES CODE AS 4678
- G2.

THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT.
- G3.

APPROVAL FOR THE USE OF ALTERNATIVE PRODUCTS OR DETAILS SHALL BE SOUGHT FROM THE ENGINEER. ANY APPROVAL GIVEN DOES NOT CONSTITUTE AUTHORISATION OF A VARIATION, WHICH MUST BE REFERRED TO THE ARCHITECT / SUPERINTENDENT FOR AUTHORISATION BEFORE THE WORK COMMENCES.
- G4.

ALL DIMENSIONS RELEVANT TO SETTING OUT AND OFF-SITE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE FABRICATION OR CONSTRUCTION COMMENCES.
- G5.

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE BCA, RELEVANT AUSTRALIAN STANDARDS AND THE REQUIREMENTS OF LOCAL COUNCIL AND OTHER RELEVANT STATUTORY AUTHORITIES.
- G6.

ALL CODES AND STANDARDS REFERRED TO IN THESE NOTES OR ON THE DRAWINGS ARE THE CURRENT EDITION INCLUDING AMENDMENTS.
- G7.

DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING THAT NO PART IS OVERSTRESSED UNDER CONSTRUCTION ACTIVITIES.  
THE BUILDER IS RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ALL TEMPORARY WORKS REQUIRED FOR THE BUILDING OF THE PROJECT.
- G8.

THE CONTRACTOR SHALL EMPLOY A QUALIFIED GEOTECHNICAL ENGINEER AS REQUIRED TO VERIFY THE ADEQUACY OF THE FOUNDING MATERIAL PRIOR TO PLACEMENT OF CONCRETE
- G9.

THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE OF INSPECTIONS BEING REQUIRED BEFORE ANY STRUCTURAL WORK IS CONCEALED.
- G10.

THE DESIGN CRITERIA ARE AS FOLLOWED:
  - PIERS TO BE FOUNDED INTO FIRM SILTY SANDY CLAY WITH A MINIMUM ALLOWABLE BEARING PRESSURE OF 70 kPa (REFER RETAINING WALL INVESTIGATION REPORT, REF: J21/03, PREPARED BY WAGNER, DATED 22 SEPTEMBER 2021)
  - RETAINING WALL DESIGNED FOR 5kPa IMPOSED LOADING U.N.O.
  - ULTIMATE SITE DESIGN WIND SPEED ( $V_u$  = 50m/s)
- G11.

LARGE TREES & SHRUBS SHALL NOT BE PLANTED WITHIN 1x THE WALL HEIGHT
- G12.

THE WORD 'ENGINEER' USED IN THESE NOTES OR ON THE DRAWINGS REFER TO AN EMPLOYEE OR NOMINATED REPRESENTATIVE OF **VAN DER MEER CONSULTING**.
- G13.

THE DESIGN IS BASED UPON THE ASSUMPTION THAT THE WALL IS FOUNDED ON GROUND NOT SUBJECT TO SLIP. THE DETERMINATION OF THE SITE SUSCEPTIBILITY TO SLIP IS THE RESPONSIBILITY OF THE PROJECT ENGINEER AND THE GEOTECHNICAL CONSULTANT AND IS BEYOND THE SCOPE OF WORK OF VAN DER MEER CONSULTING.
- G14.

ALL DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER FOR A DECISION BEFORE PROCEEDING WITH THE WORK.

**NOTE:**  
THE CONTRACTOR SHALL ENSURE THAT ALL PERSONNEL ON SITE HAVE BEEN ADEQUATELY TRAINED AND ARE AWARE OF ALL HEALTH AND SAFETY REGULATIONS.

TOOWOOMBA REGIONAL COUNCIL  
AMENDED PLAN  
REQUIRED TO BE SUBMITTED FOR  
APPROVAL  
Refer to Condition Number  
5  
referred to in Council's Decision Notice dated  
12 May 2023  
This plan is subject to conditions of Approval Number  
OWI/2022/6568

STRUCTURAL STEELWORK

- S1.

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100 AND REFERENCED AUSTRALIAN STANDARDS.  
ERECTION BRACING AND STABILITY SHALL BE IN ACCORDANCE WITH AS 3828 AND IS THE RESPONSIBILITY OF THE CONTRACTOR.  
STEEL FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH AS 5131.
- S2.

STEEL SHALL COMPLY WITH THE FOLLOWING UNLESS NOTED OTHERWISE.

COMPONENT	AUS. STAND.	GRADE
HOT ROLLED SECTIONS (UB, UC)	AS 3679.1	300 PLUS
PLATE AND FLOORPLATE	AS 3678	250
HOT ROLLED BARS (FLATS, SQUARES AND ROUNDS)	AS 3679.1	300 PLUS

WELDING

- S3.

ALL WELDING SHALL BE IN ACCORDANCE WITH AS 1554.
- S4.

UNLESS NOTED OTHERWISE:
  - ALL WELDS SHALL BE 6mm CONTINUOUS FILLET WELDS.
  - ALL BUTT WELDS SHALL BE COMPLETE PENETRATION BUTT WELDS.
  - ALL WELDS SHALL BE CATEGORY SP.
  - ELECTRODES SHALL BE E48XXW50X.
- S5.

ALL WELDS SHALL BE SUBJECT TO INSPECTION AND TESTING IN ACCORDANCE WITH AS 1554. THE EXTENT OF NON-DESTRUCTIVE EXAMINATION SHALL NOT BE LESS THAN THE FOLLOWING:

WELD CAT.	WELD TYPE	EXTENT OF NON-DESTRUCTIVE EXAMINATION		
		VISUAL SCANNING	VISUAL EXAMINATION	OTHER METHODS
GP	ALL	100%	10%	NIL
SP	FILLET WELD	100%	25%	NIL
SP	BUTT WELD	100%	50%	NIL

PROTECTIVE COATINGS

- S6.

ALL EXTERNAL STEELWORK TO BE HOT-DIPPED GALVANISED IN ACCORDANCE WITH TABLE 1 OF AS4680
- S7.

DRILLED HOLES TO BE LOCALLY TREATED WITH 2 COATS OF APPROVED GALVANIZED PAINT IN ACCORDANCE OF AS3750.9 WITH A MINIMUM DRY FILM THICKNESS OF 50µm PER COAT AND INSTALLED TO MANUFACTURERS SPECIFICATION

CONCRETE

- C1.

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 AND OTHER RELEVANT AUSTRALIAN STANDARDS.
- C2.

CONCRETE SHALL BE SUPPLIED BY AN APPROVED MANUFACTURER IN ACCORDANCE WITH AS1379.
- C3.

CONCRETE SHALL HAVE THE FOLLOWING PARAMETERS:

ELEMENT	STRENGTH GRADE	SLUMP (mm)	MAX AGG.SIZE (mm)
PIERS	N25	100	20
SLEEPER PANELS	N40	80	20

- C3.

MAXIMUM AS3600 EXPOSURE CLASSIFICATION - B1 (NEAR COASTAL (1-50km OR GREATER), SURFACES IN CONTACT WITH NON-AGGRESSIVE SOILS ONLY)
- C3.

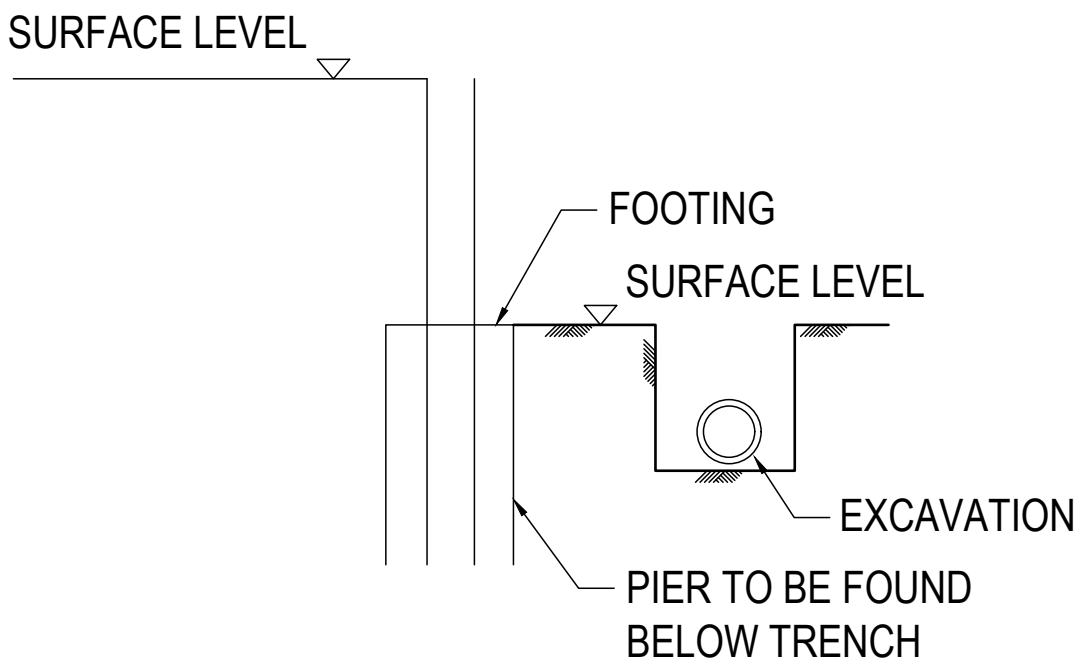
SLEEPER'S TO BE REINFORCED WITH MINIMUM 2-N12 BARS PLACED CENTRALLY (25 MIN. COVER)

FOOTING

- F1.

WHERE FOOTINGS ARE LOCATED ADJACENT TO EXISTING EXCAVATIONS, TRENCHES, BURIED SERVICES OR THE LIKE RUNNING PARALLEL TO THE WALL, THE CONTRACTOR SHALL CONTACT VAN DER MEER FOR A SITE SPECIFIC DESIGN
- F2.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXCAVATIONS IN A STABLE CONDITION, WITHOUT AFFECTING ADJACENT PROPERTIES OR SERVICES.  
WHERE REQUIRED, TEMPORARY SHORING SHALL BE PROVIDED TO THE SIDES OF EXCAVATIONS.



- F2.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXCAVATIONS IN A STABLE CONDITION, WITHOUT AFFECTING ADJACENT PROPERTIES OR SERVICES.  
WHERE REQUIRED, TEMPORARY SHORING SHALL BE PROVIDED TO THE SIDES OF EXCAVATIONS.

TIMBER

- T1.

ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS1720.1 SAA TIMBER STRUCTURES CODE AND AS1684 NATIONAL TIMBER FRAMING CODE
- T2.

ALL TIMBER SHALL BE FREE OF GUM VEINS, POCKETS, KNOTS, KNOT HOLES OR SPLITS WITHIN 150mm OF ANY CONNECTION
- T3.

WASHERS SHALL BE PROVIDED UNDER ALL NUTS AND BOLT HEADS BEARING AGAINST TIMBER IN ACCORDANCE WITH THE FOLLOWING TABLE:

BOLT SIZE	WASHERS
UP TO M12	50 x 50 x 3.0 mm THICK
M16	57 x 57 x 4.0 mm THICK
M20	65 x 65 x 5.0 mm THICK
OVER M20	75 x 75 x 6.0 mm THICK

- T4.

ALL BOLTS SHALL BE ACCESSIBLE AND RE-TIGHTENED AT THE COMPLETION OF CONTRACT AND ALSO AT END OF THE MAINTENANCE PERIOD
- T5.

IN HARDWOOD TIMBER OR LOCATIONS SUBJECTED TO SPLITTING, NAILS ARE TO BE INSTALLED IN PRE-DRILLED HOLES, WITH 80% OF DIAMETER OF NAIL USED
- T6.

ALL TIMBER EXPOSED TO WEATHER, DAMP ENVIRONMENT OR PEST (WHITE ANTS) TO BE TREATED WITH AN APPROVED PEST RESISTING AND WOOD PRESERVING COMPOUND ON ALL FACES, ENDS AND NOTCHES
- T7.

PERIODIC INSPECTIONS OF THE TIMBERS SHOULD BE CARRIED OUT AS MAINTENANCE AND SHOULD ANY DEFECTS BE FOUND THEY MUST BE RECTIFIED IMMEDIATELY.
- T8.

ALL WORKS TO BE CARRIED OUT AS PER GOOD BUILDING PRACTICE
- T9.

TIMBER SHALL BE TREATED TO H3 HAZARD LEVEL, MINIMUM

DESIGN REFERENCES

- D1.

FOR RETAINING WALL NO. AND LOCATION OF FOOTING WITH RESPECT TO BOUNDARY, REFER TO RETAINING WALL LAYOUT SHEET 1, 12364-C0810H & RETAINING WALL LAYOUT SHEET 2, 12364-C0811H, PREPARED BY BORNHORST + WARD CONSULTING ENGINEERS, DATED 04 NOV 2021
- D2.

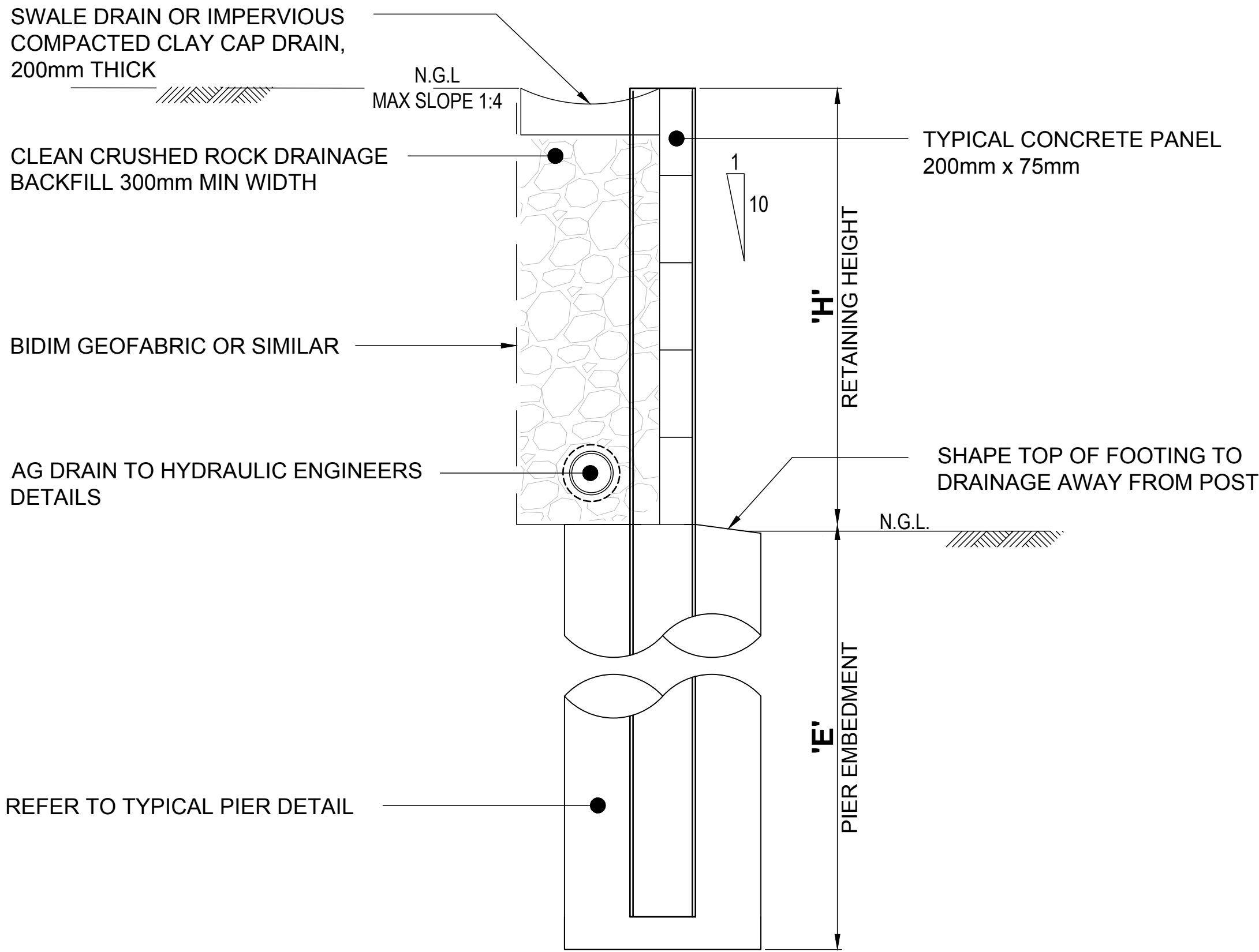
FOR 'FOOTING TO BE WHOLLY WITHIN BOUNDARY' & 'WALL FACE TO BOUNDARY' DETAIL, REFER TO RETAINING WALL DETAILS, 12364-C0800A, PREPARED BY BORNHORST + WARD CONSULTING ENGINEERS, DATED 04 NOV 2021
- D3.

REFER TO 'SLEEPER RETAINING WALL TABLES' FOR DESIGN VARIABLES

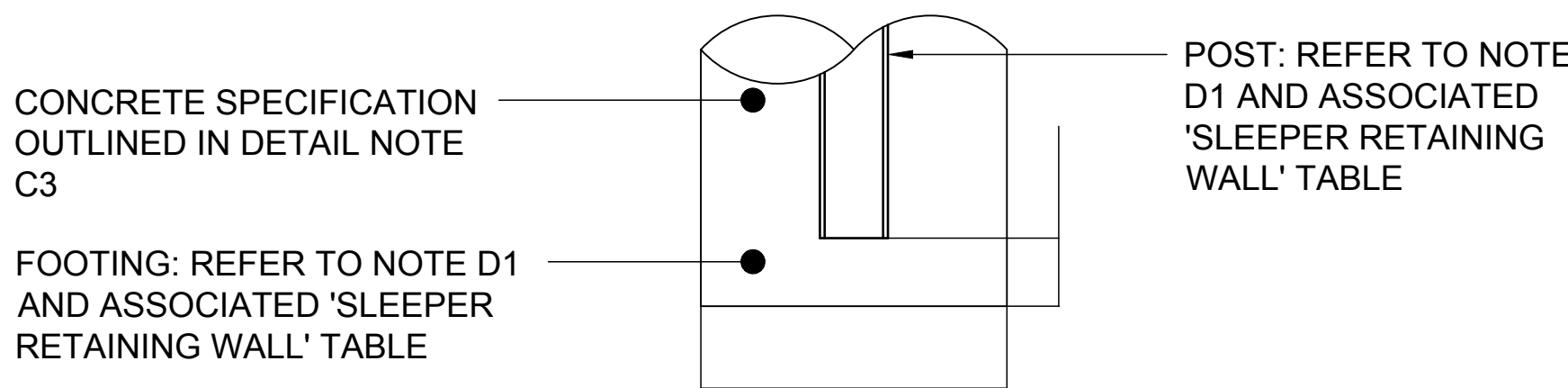
REVISIONS:							
A	COUNCIL INFORMATION REQUEST RESPONSE	MP	21/04/23				
No.	REVISION DESCRIPTION	DRAWN	DATE				

 <div>van der Meer Consulting</div> <div>LEVEL 1, 51 ALFRED STREET FORTITUDE VALLEY QLD 4006 Telephone +61 7 3021 6600</div> <div>www.vandermeer.com.au van der Meer (QLD) Pty Ltd A.B.N. 63 609 812 615</div>	<small>COPYRIGHT THIS DRAWING IS COPYRIGHT AND THE PROPERTY OF VAN DER MEER (QLD) PTY LTD. IT MUST NOT BE REPRODUCED, COPIED OR USED WITHOUT THE AUTHORITY OF VAN DER MEER (QLD) PTY LTD.  DISCLAIMER THIS DRAWING AND ITS CONTENTS ARE ELECTRONICALLY GENERATED AND ARE CONFIDENTIAL AND MAY ONLY BE USED FOR THE PURPOSE FOR WHICH THEY WERE INTENDED. VAN DER MEER (QLD) PTY LTD. WILL NOT ACCEPT RESPONSIBILITY FOR ANY CONSEQUENCES ARISING FROM THE USE OF THE DRAWING FOR OTHER THAN ITS INTENDED PURPOSE OR WHERE THE DRAWING HAS BEEN ALTERED, AMENDED OR CHANGED EITHER MANUALLY OR ELECTRONICALLY BY ANY THIRD PARTY.  NOTE THIS IS AN UNCONTROLLED DOCUMENT ISSUED FOR INFORMATION PURPOSES ONLY. UNLESS SIGNED, FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALED. DO NOT SCALE REDUCED SIZE DRAWINGS. VERIFY DIMENSIONS PRIOR TO COMMENCING ANY ON-SITE OR OFF-SITE WORKS OR FABRICATION. IF IN DOUBT - ASK</small>	CLIENT	GLENVALE DEVINE ROAD DEVELOPMENT PTY LTD	PROJECT TITLE	PROPOSED SUBDIVISION DRAYTON WELLCAMP ROAD, GLENVALE QLD 4350 STAGE 4	DRAWING STATUS	PRELIMINARY NOT FOR CONSTRUCTION		
		ARCHITECT		DRAWING TITLE	STRUCTURAL NOTES	DRAFTSPERSON CK MP	DESIGNER MP SCALE	SIGNATURE C. KIRK	RPEO: 19536 NER: 3053220
				JOB No.	BR222080	DRAWING No.	C4211	SHEET SIZE A1	

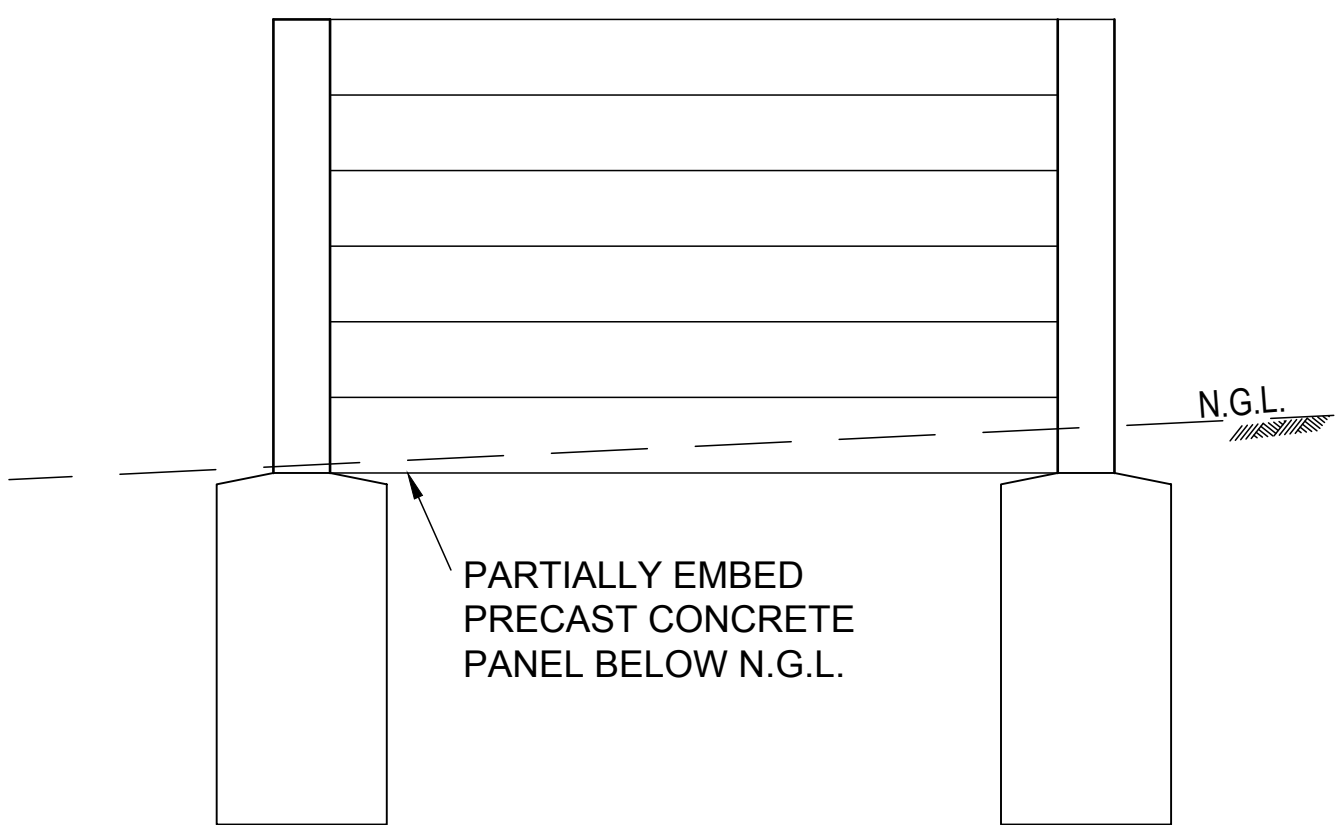




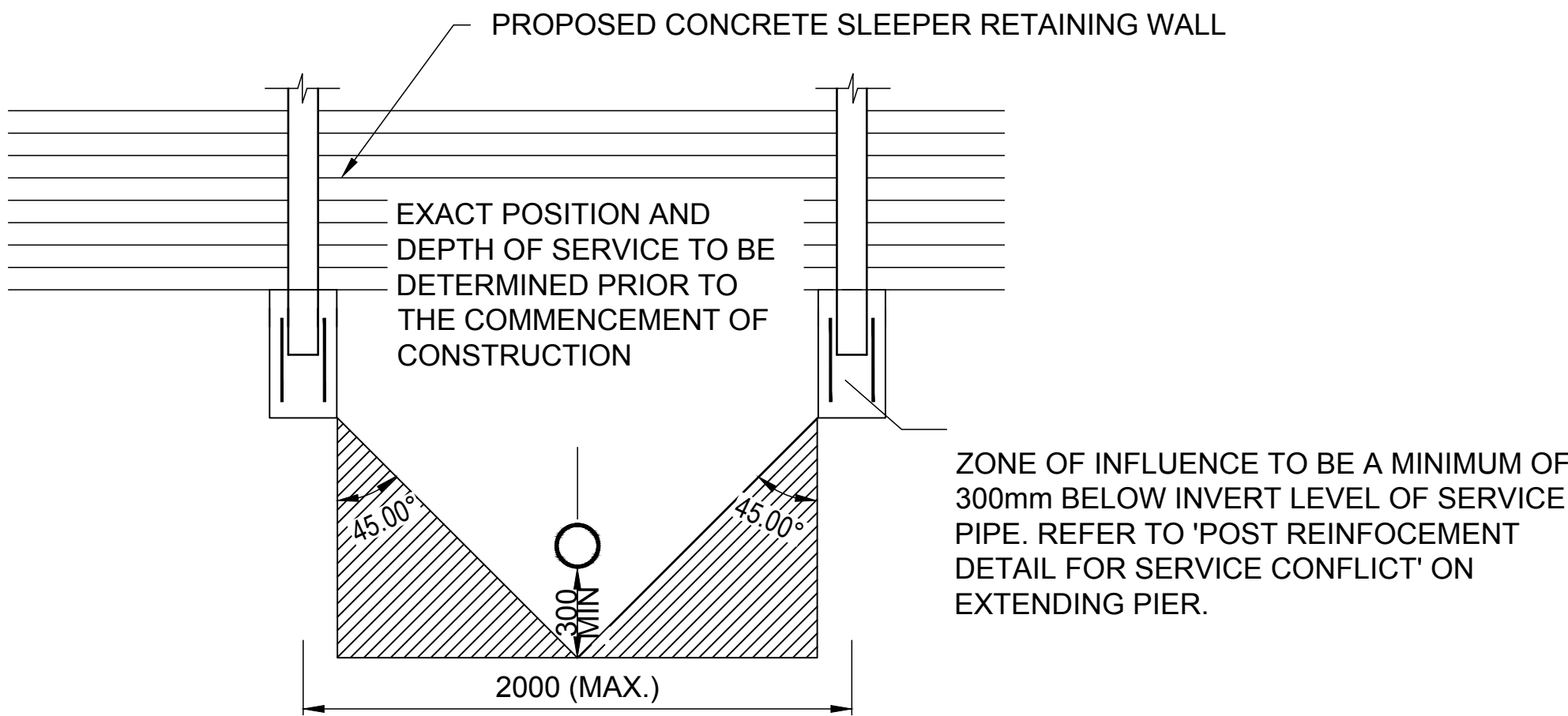
**TYPICAL SLEEPER RETAINING WALL DETAIL**  
**MAX RETAINING HEIGHT 1800mm**  
SCALE 1:10



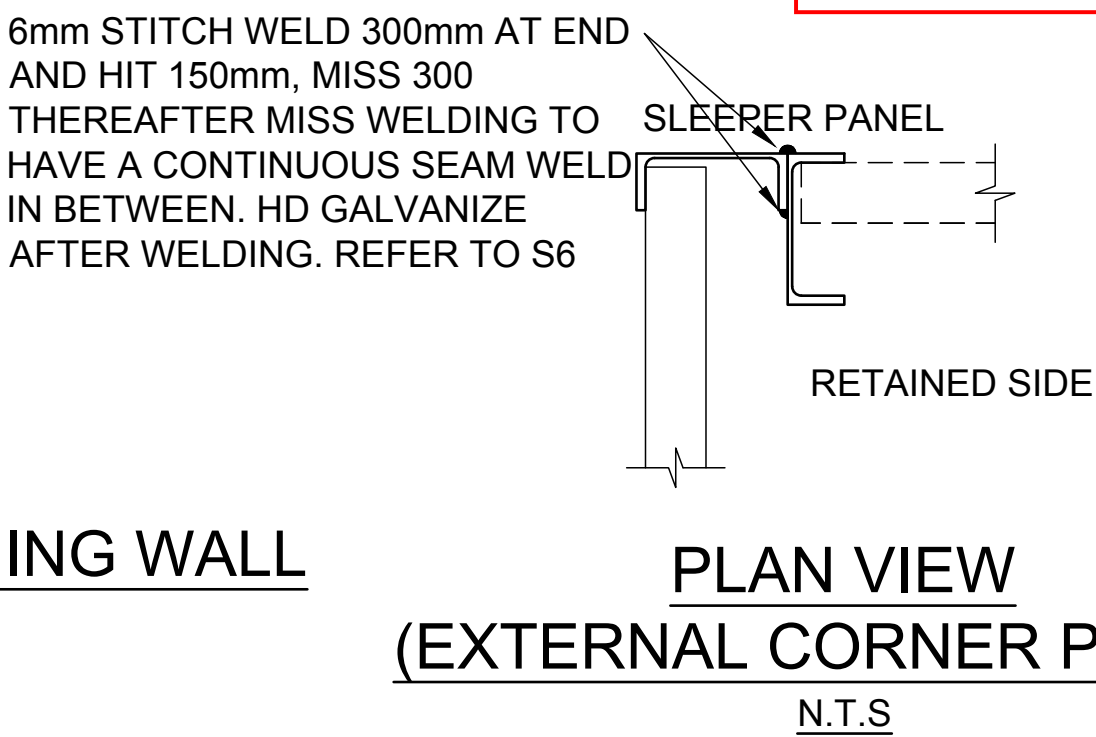
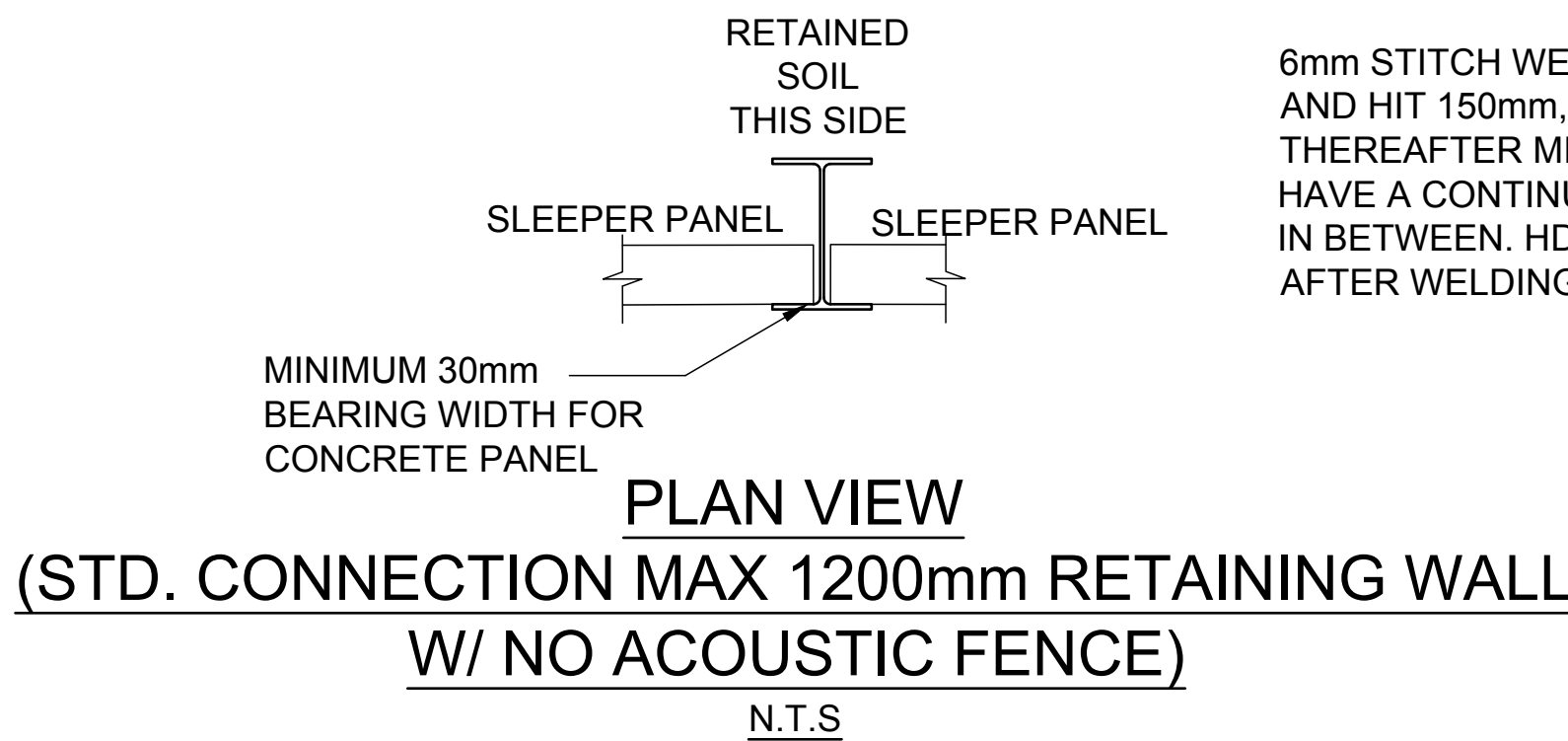
**TYPICAL PIER DETAIL**  
SCALE 1:10



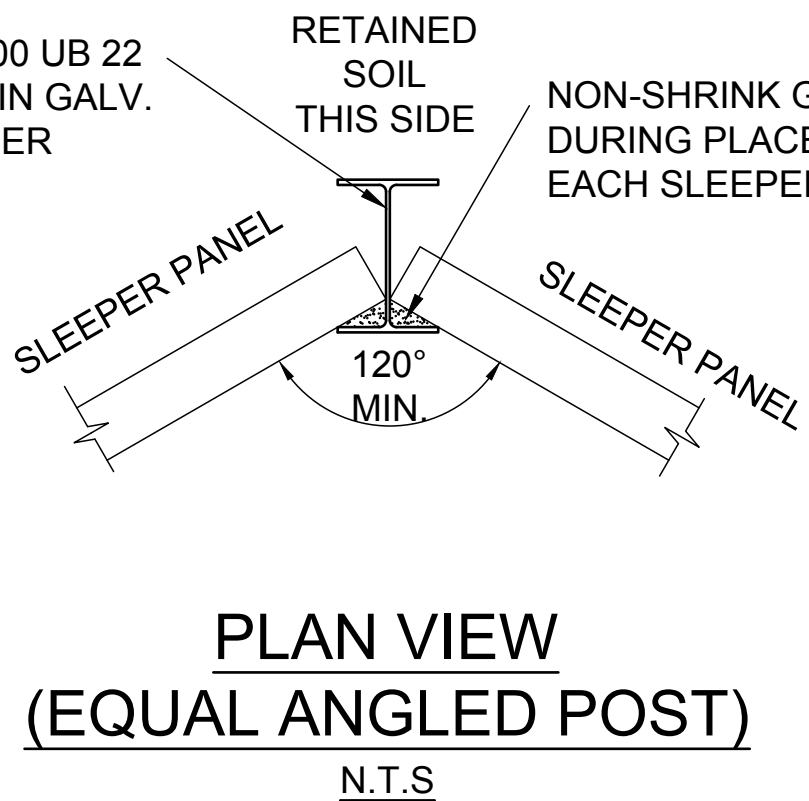
**TYPICAL PIER TREATMENT ON SLOPE**  
N.T.S.



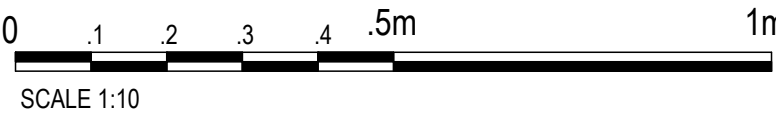
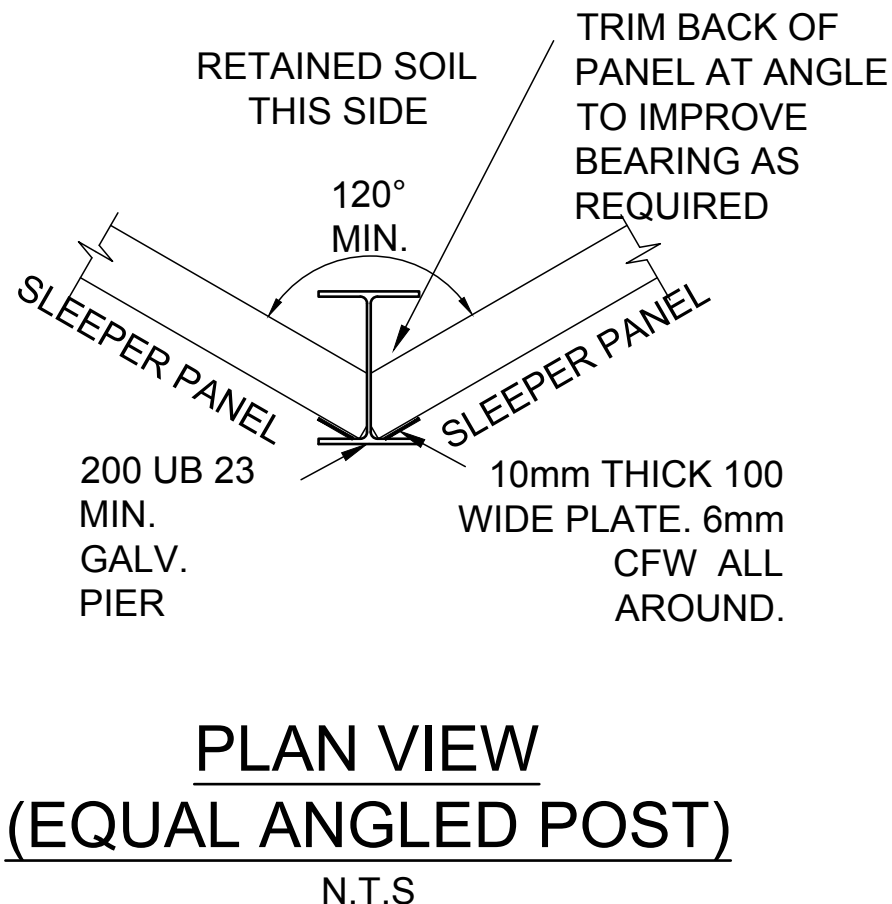
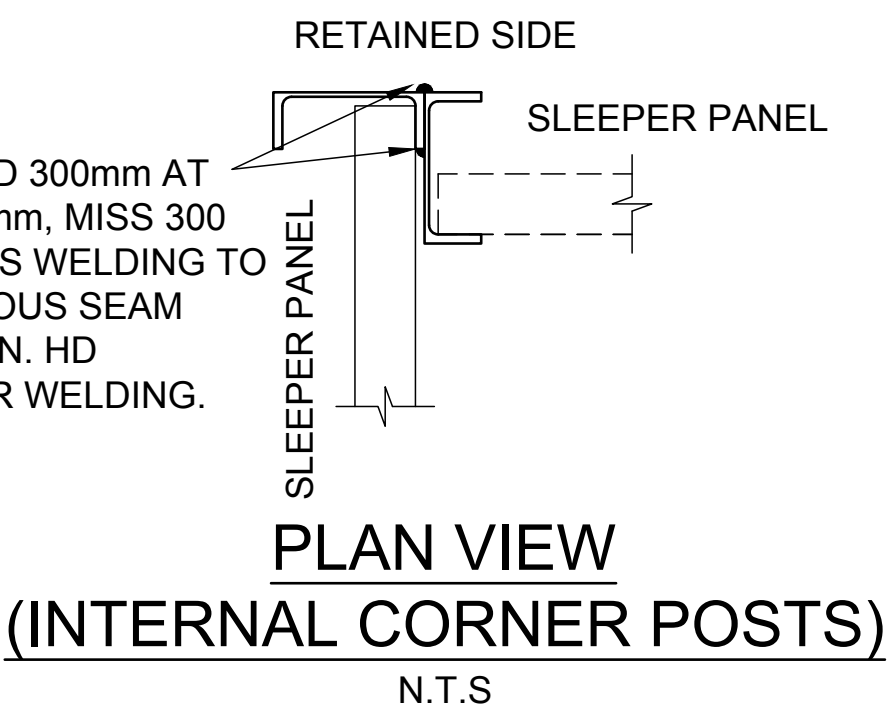
**SLEEPER WALL BRIDGING DETAIL**  
N.T.S.



TOOWOOMBA REGIONAL COUNCIL  
AMENDED PLAN  
REQUIRED TO BE SUBMITTED FOR  
APPROVAL  
Refer to Condition Number 5  
referred to in Council's Decision Notice dated 12 May 2023  
This plan is subject to conditions of Approval Number OW/2022/5568



6mm STITCH WELD 300mm AT END AND HIT 150mm, MISS 300 THEREAFTER MISS WELDING TO HAVE A CONTINUOUS SEAM WELD IN BETWEEN. HD GALVANIZE AFTER WELDING. REFER TO S6.



REVISIONS:							
A	COUNCIL INFORMATION REQUEST RESPONSE	MP	21/04/23				
No.	REVISION DESCRIPTION	DRAWN	DATE				

 van der Meer Consulting LEVEL 1, 51 ALFRED STREET FORTITUDE VALLEY QLD 4006 Telephone +61 7 3021 6600  www.vandermeer.com.au van der Meer (QLD) Pty Ltd A.B.N. 63 609 812 615	COPYRIGHT THIS DRAWING IS COPYRIGHT AND THE PROPERTY OF VAN DER MEER (QLD) PTY LTD. IT MUST NOT BE REPRODUCED, COPIED OR USED WITHOUT THE AUTHORITY OF VAN DER MEER (QLD) PTY LTD. (DISCLAIMER) THIS DRAWING AND ITS CONTENTS ARE ELECTRONICALLY GENERATED AND ARE CONFIDENTIAL AND MAY ONLY BE USED FOR THE PURPOSE FOR WHICH THEY WERE INTENDED. VAN DER MEER (QLD) PTY LTD. WILL NOT ACCEPT RESPONSIBILITY FOR ANY CONSEQUENCES ARISING FROM THE USE OF THE DRAWING FOR OTHER THAN ITS INTENDED PURPOSE OR WHERE THE DRAWING HAS BEEN ALTERED, AMENDED OR CHANGED EITHER MANUALLY OR ELECTRONICALLY BY ANY THIRD PARTY. NOTE THIS IS AN UNCONTROLLED DOCUMENT ISSUED FOR INFORMATION PURPOSES ONLY. UNLESS SIGNED, FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALES. DO NOT SCALE REDUCED SIZE DRAWINGS. VERIFY DIMENSIONS PRIOR TO COMMENCING ANY ON-SITE OR OFF-SITE WORKS OR FABRICATION. IF IN DOUBT - ASK		CLIENT <b>GLENVALE DEVINE ROAD DEVELOPMENT PTY LTD</b>	PROJECT TITLE <b>PROPOSED SUBDIVISION DRAYTON WELLCAMP ROAD, GLENVALE QLD 4350 STAGE 4</b>	DRAWING STATUS <b>PRELIMINARY NOT FOR CONSTRUCTION</b>
	ARCHITECT <b>RETAINING WALL DETAILS</b>	DRAWING TITLE	DRAFTSPERSON <b>MP</b>	DESIGNER <b>MP</b>	SIGNATURE C. KIRK RPEQ: 19536 NER: 3053220
			JOB No. <b>BR222080</b>	SCALE <b>C4212</b>	DATE <b>A</b>







## GENERAL

- G1. DESIGN IS BASED UPON EARTH-RETAINING STRUCTURES CODE AS 4678
- G2. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT.
- G3. APPROVAL FOR THE USE OF ALTERNATIVE PRODUCTS OR DETAILS SHALL BE SOUGHT FROM THE ENGINEER. ANY APPROVAL GIVEN DOES NOT CONSTITUTE AUTHORISATION OF A VARIATION, WHICH MUST BE REFERRED TO THE ARCHITECT / SUPERINTENDENT FOR AUTHORISATION BEFORE THE WORK COMMENCES.
- G4. ALL DIMENSIONS RELEVANT TO SETTING OUT AND OFF-SITE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE FABRICATION OR CONSTRUCTION COMMENCES.
- G5. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE BCA, RELEVANT AUSTRALIAN STANDARDS AND THE REQUIREMENTS OF LOCAL COUNCIL AND OTHER RELEVANT STATUTORY AUTHORITIES.
- G6. ALL CODES AND STANDARDS REFERRED TO IN THESE NOTES OR ON THE DRAWINGS ARE THE CURRENT EDITION INCLUDING AMENDMENTS.
- G7. DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE IN A STABLE CONDITION AND ENSURING THAT NO PART IS OVERSTRESSED UNDER CONSTRUCTION ACTIVITIES.  
THE BUILDER IS RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF ALL TEMPORARY WORKS REQUIRED FOR THE BUILDING OF THE PROJECT.
- G8. THE CONTRACTOR SHALL EMPLOY A QUALIFIED GEOTECHNICAL ENGINEER AS REQUIRED TO VERIFY THE ADEQUACY OF THE FOUNDING MATERIAL PRIOR TO PLACEMENT OF CONCRETE
- G9. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE OF INSPECTIONS BEING REQUIRED BEFORE ANY STRUCTURAL WORK IS CONCEALED.
- G10. THE DESIGN CRITERIA ARE AS FOLLOWED:
- PIERS TO BE FOUNDED INTO FIRM SILTY SANDY CLAY WITH A MINIMUM ALLOWABLE BEARING PRESSURE OF 70 kPa (REFER RETAINING WALL INVESTIGATION REPORT, REF: J21/03, PREPARED BY WAGNER, DATED 22 SEPTEMBER 2021)
  - RETAINING WALL DESIGNED FOR 5kPa IMPOSED LOADING U.N.O.
  - ULTIMATE SITE DESIGN WIND SPEED ( $V_u = 50\text{m/s}$ )
- G11. LARGE TREES & SHRUBS SHALL NOT BE PLANTED WITHIN 1x THE WALL HEIGHT
- G12. THE WORD 'ENGINEER' USED IN THESE NOTES OR ON THE DRAWINGS REFER TO AN EMPLOYEE OR NOMINATED REPRESENTATIVE OF **VAN DER MEER CONSULTING**.
- G13. THE DESIGN IS BASED UPON THE ASSUMPTION THAT THE WALL IS FOUNDED ON GROUND NOT SUBJECT TO SLIP. THE DETERMINATION OF THE SITE SUSCEPTIBILITY TO SLIP IS THE RESPONSIBILITY OF THE PROJECT ENGINEER AND THE GEOTECHNICAL CONSULTANT AND IS BEYOND THE SCOPE OF WORK OF VAN DER MEER CONSULTING.
- G14. ALL DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER FOR A DECISION BEFORE PROCEEDING WITH THE WORK.

### NOTE:

THE CONTRACTOR SHALL ENSURE THAT ALL PERSONNEL ON SITE HAVE BEEN ADEQUATELY TRAINED AND ARE AWARE OF ALL HEALTH AND SAFETY REGULATIONS.

## STRUCTURAL STEELWORK

- S1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 4100 AND REFERENCED AUSTRALIAN STANDARDS. ERECTION BRACING AND STABILITY SHALL BE IN ACCORDANCE WITH AS 3828 AND IS THE RESPONSIBILITY OF THE CONTRACTOR. STEEL FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH AS 5131.
- S2. STEEL SHALL COMPLY WITH THE FOLLOWING UNLESS NOTED OTHERWISE.

COMPONENT	AUS. STAND.	GRADE
HOT ROLLED SECTIONS (UB, UC)	AS 3679.1	300 PLUS
PLATE AND FLOORPLATE	AS 3678	250
HOT ROLLED BARS (FLATS, SQUARES AND ROUNDS)	AS 3679.1	300 PLUS

### WELDING

- S3. ALL WELDING SHALL BE IN ACCORDANCE WITH AS 1554.
- S4. UNLESS NOTED OTHERWISE:
- ALL WELDS SHALL BE 6mm CONTINUOUS FILLET WELDS.
  - ALL BUTT WELDS SHALL BE COMPLETE PENETRATION BUTT WELDS.
  - ALL WELDS SHALL BE CATEGORY SP.
  - ELECTRODES SHALL BE E48XXW50X.
- S5. ALL WELDS SHALL BE SUBJECT TO INSPECTION AND TESTING IN ACCORDANCE WITH AS 1554. THE EXTENT OF NON-DESTRUCTIVE EXAMINATION SHALL NOT BE LESS THAN THE FOLLOWING:

WELD CAT.	WELD TYPE	EXTENT OF NON-DESTRUCTIVE EXAMINATION		
		VISUAL SCANNING	VISUAL EXAMINATION	OTHER METHODS
GP	ALL	100%	10%	NIL
SP	FILLET WELD	100%	25%	NIL
SP	BUTT WELD	100%	50%	NIL

### PROTECTIVE COATINGS

- S6. ALL EXTERNAL STEELWORK TO BE HOT-DIPPED GALVANISED IN ACCORDANCE WITH TABLE 1 OF AS4680
- S7. DRILLED HOLES TO BE LOCALLY TREATED WITH 2 COATS OF APPROVED GALVANIZED PAINT IN ACCORDANCE OF AS3750.9 WITH A MINIMUM DRY FILM THICKNESS OF 50µm PER COAT AND INSTALLED TO MANUFACTURERS SPECIFICATION

## CONCRETE

- C1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 AND OTHER RELEVANT AUSTRALIAN STANDARDS.
- C2. CONCRETE SHALL BE SUPPLIED BY AN APPROVED MANUFACTURER IN ACCORDANCE WITH AS1379.
- C3. CONCRETE SHALL HAVE THE FOLLOWING PARAMETERS:

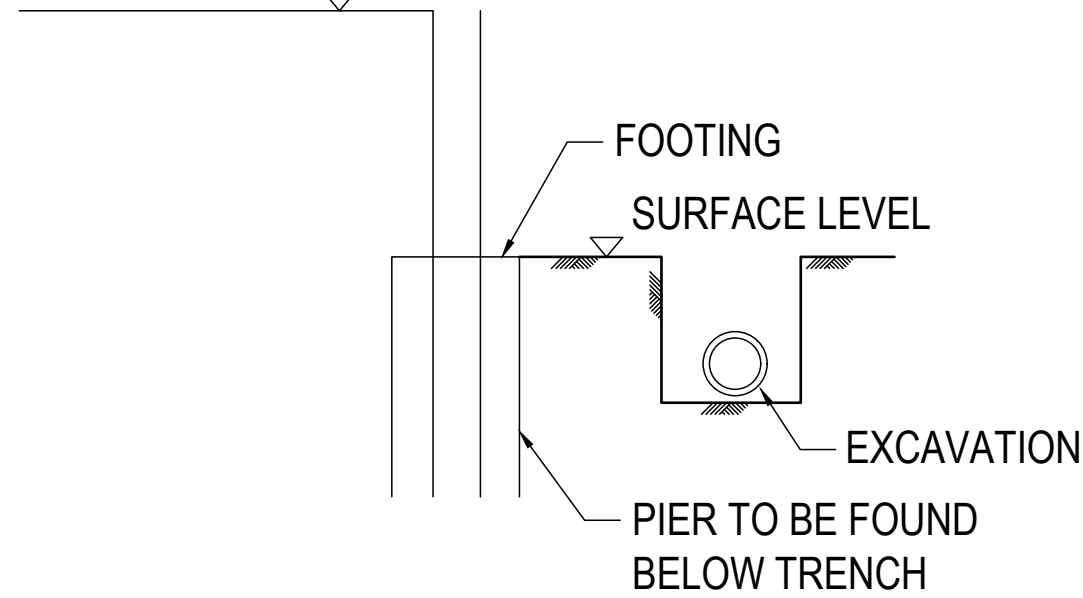
ELEMENT	STRENGTH GRADE	SLUMP (mm)	MAX AGG.SIZE (mm)
PIERS	N25	100	20
SLEEPER PANELS	N40	80	20

- C3. MAXIMUM AS3600 EXPOSURE CLASSIFICATION - B1 (NEAR COASTAL (1-50km OR GREATER), SURFACES IN CONTACT WITH NON-AGGRESSIVE SOILS ONLY)
- C3. SLEEPER'S TO BE REINFORCED WITH MINIMUM 2-N12 BARS PLACED CENTRALLY (25 MIN. COVER)

## FOOTING

- F1. WHERE FOOTINGS ARE LOCATED ADJACENT TO EXISTING EXCAVATIONS, TRENCHES, BURIED SERVICES OR THE LIKE RUNNING PARALLEL TO THE WALL, THE CONTRACTOR SHALL CONTACT VAN DER MEER FOR A SITE SPECIFIC DESIGN

### SURFACE LEVEL



- F2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXCAVATIONS IN A STABLE CONDITION, WITHOUT AFFECTING ADJACENT PROPERTIES OR SERVICES.  
WHERE REQUIRED, TEMPORARY SHORING SHALL BE PROVIDED TO THE SIDES OF EXCAVATIONS.

## TIMBER

- T1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS1720.1 SAA TIMBER STRUCTURES CODE AND AS1684 NATIONAL TIMBER FRAMING CODE
- T2. ALL TIMBER SHALL BE FREE OF GUM VEINS, POCKETS, KNOTS, KNOT HOLES OR SPLITS WITHIN 150mm OF ANY CONNECTION
- T3. WASHERS SHALL BE PROVIDED UNDER ALL NUTS AND BOLT HEADS BEARING AGAINST TIMBER IN ACCORDANCE WITH THE FOLLOWING TABLE:

BOLT SIZE	WASHERS
UP TO M12	50 x 50 x 3.0 mm THICK
M16	57 x 57 x 4.0 mm THICK
M20	65 x 65 x 5.0 mm THICK
OVER M20	75 x 75 x 6.0 mm THICK

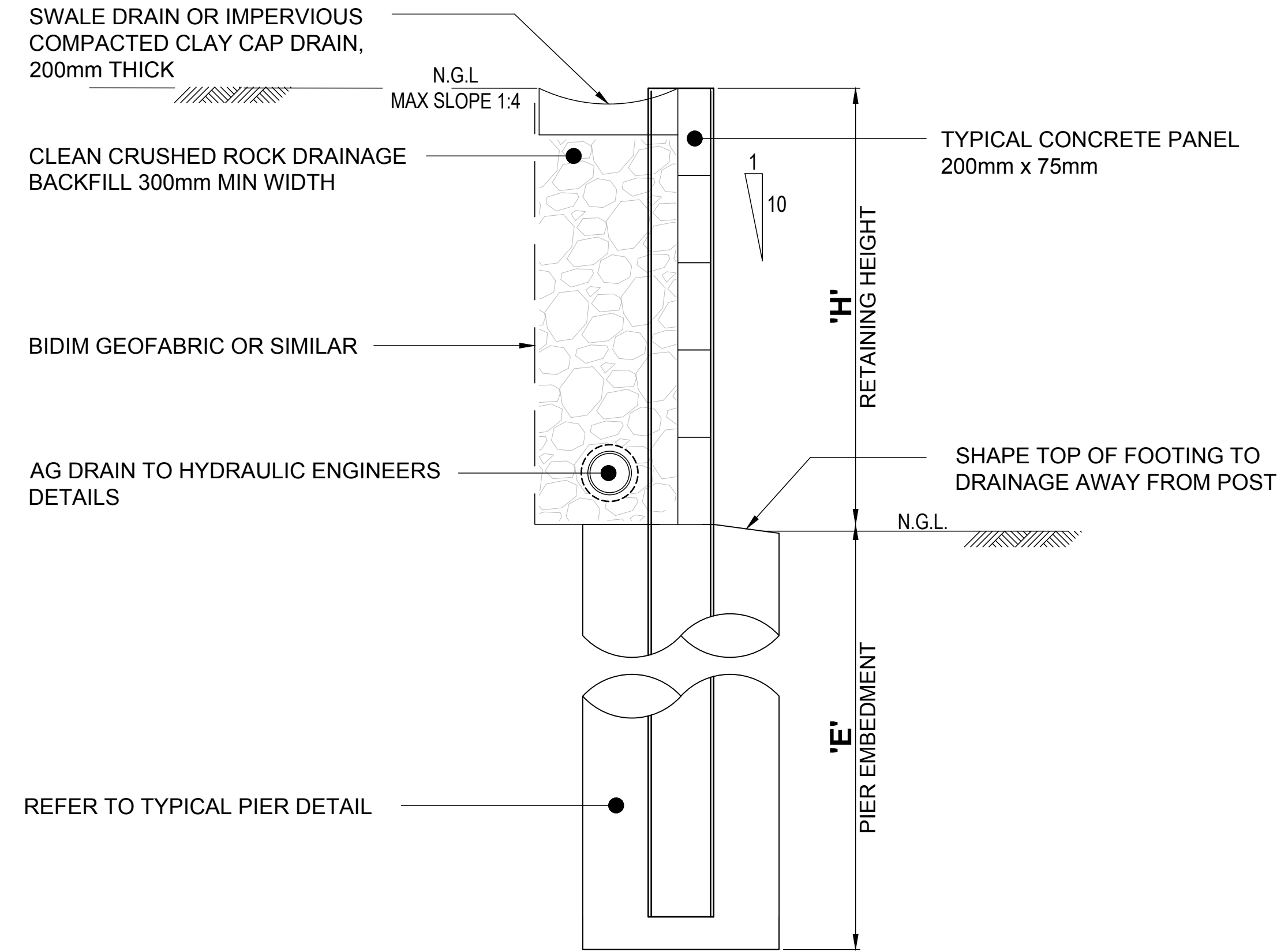
- T4. ALL BOLTS SHALL BE ACCESSIBLE AND RE-TIGHTENED AT THE COMPLETION OF CONTRACT AND ALSO AT END OF THE MAINTENANCE PERIOD
- T5. IN HARDWOOD TIMBER OR LOCATIONS SUBJECTED TO SPLITTING, NAILS ARE TO BE INSTALLED IN PRE-DRILLED HOLES, WITH 80% OF DIAMETER OF NAIL USED
- T6. ALL TIMBER EXPOSED TO WEATHER, DAMP ENVIRONMENT OR PEST (WHITE ANTS) TO BE TREATED WITH AN APPROVED PEST RESISTING AND WOOD PRESERVING COMPOUND ON ALL FACES, ENDS AND NOTCHES
- T7. PERIODIC INSPECTIONS OF THE TIMBERS SHOULD BE CARRIED OUT AS MAINTENANCE AND SHOULD ANY DEFECTS BE FOUND THEY MUST BE RECTIFIED IMMEDIATELY.
- T8. ALL WORKS TO BE CARRIED OUT AS PER GOOD BUILDING PRACTICE
- T9. TIMBER SHALL BE TREATED TO H3 HAZARD LEVEL, MINIMUM

## DESIGN REFERENCES

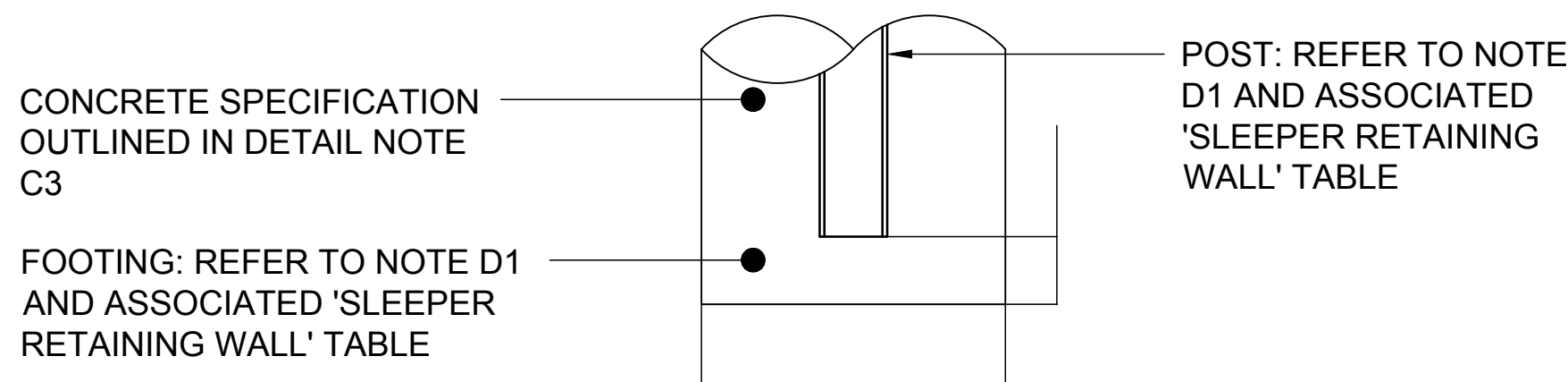
- D1. FOR RETAINING WALL NO. AND LOCATION OF FOOTING WITH RESPECT TO BOUNDARY, REFER TO RETAINING WALL LAYOUT SHEET 1, 12364-C0810H & RETAINING WALL LAYOUT SHEET 2, 12364-C0811H, PREPARED BY BORNHORST + WARD CONSULTING ENGINEERS, DATED 04 NOV 2021
- D2. FOR 'FOOTING TO BE WHOLLY WITHIN BOUNDARY' & 'WALL FACE TO BOUNDARY' DETAIL, REFER TO RETAINING WALL DETAILS, 12364-C0800A, PREPARED BY BORNHORST + WARD CONSULTING ENGINEERS, DATED 04 NOV 2021
- D3. REFER TO 'SLEEPER RETAINING WALL TABLES' FOR DESIGN VARIABLES

REVISIONS:				<div><div><div><div></div><div>van der Meer Consulting</div></div><div><div><div></div><div>van der meer</div></div></div><div>LEVEL 1, 51 ALFRED STREET FORTITUDE VALLEY QLD 4006 Telephone +61 7 3021 6600</div><div>www.vandermeer.com.au van der Meer (QLD) Pty Ltd A.B.N. 63 609 812 615</div></div><div><div><div>COPYRIGHT</div><div>THIS DRAWING IS COPYRIGHT AND THE PROPERTY OF VAN DER MEER (QLD) PTY LTD. IT MUST NOT BE REPRODUCED, COPIED OR USED WITHOUT THE AUTHORITY OF VAN DER MEER (QLD) PTY LTD.</div><div>DISCLAIMER</div><div>THIS DRAWING AND ITS CONTENTS ARE ELECTRONICALLY GENERATED AND ARE CONFIDENTIAL AND MAY ONLY BE USED FOR THE PURPOSE FOR WHICH THEY WERE INTENDED. VAN DER MEER (QLD) PTY LTD. WILL NOT ACCEPT RESPONSIBILITY FOR ANY CONSEQUENCES ARISING FROM THE USE OF THE DRAWING FOR OTHER THAN ITS INTENDED PURPOSE OR WHERE THE DRAWING HAS BEEN ALTERED, AMENDED OR CHANGED EITHER MANUALLY OR ELECTRONICALLY BY ANY THIRD PARTY.</div><div>NOTE</div><div>THIS IS AN UNCONTROLLED DOCUMENT ISSUED FOR INFORMATION PURPOSES ONLY. UNLESS SIGNED, FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALED. DO NOT SCALE REDUCED SIZE DRAWINGS. VERIFY DIMENSIONS PRIOR TO COMMENCING ANY ON-SITE OR OFF-SITE WORKS OR FABRICATION.</div><div>IF IN DOUBT - ASK</div></div></div></div>		CLIENT <b>GLENVALE DEVINE ROAD DEVELOPMENT PTY LTD</b>		PROJECT TITLE <b>PROPOSED SUBDIVISION</b> DRAYTON WELLCAMP ROAD, GLENVALE QLD 4350 STAGE 5		DRAWING STATUS <b>PRELIMINARY</b> NOT FOR CONSTRUCTION					
						PROJECT LEADER <b>CK</b>		DESIGNER <b>MP</b>		SIGNATURE C. KIRK		RPEQ: 19536 NER: 3053220			
						ARCHITECT		DRAWING TITLE <b>STRUCTURAL NOTES</b>		SCALE <b>AS SHOWN</b>		DATE		SHEET SIZE <b>A1</b>	

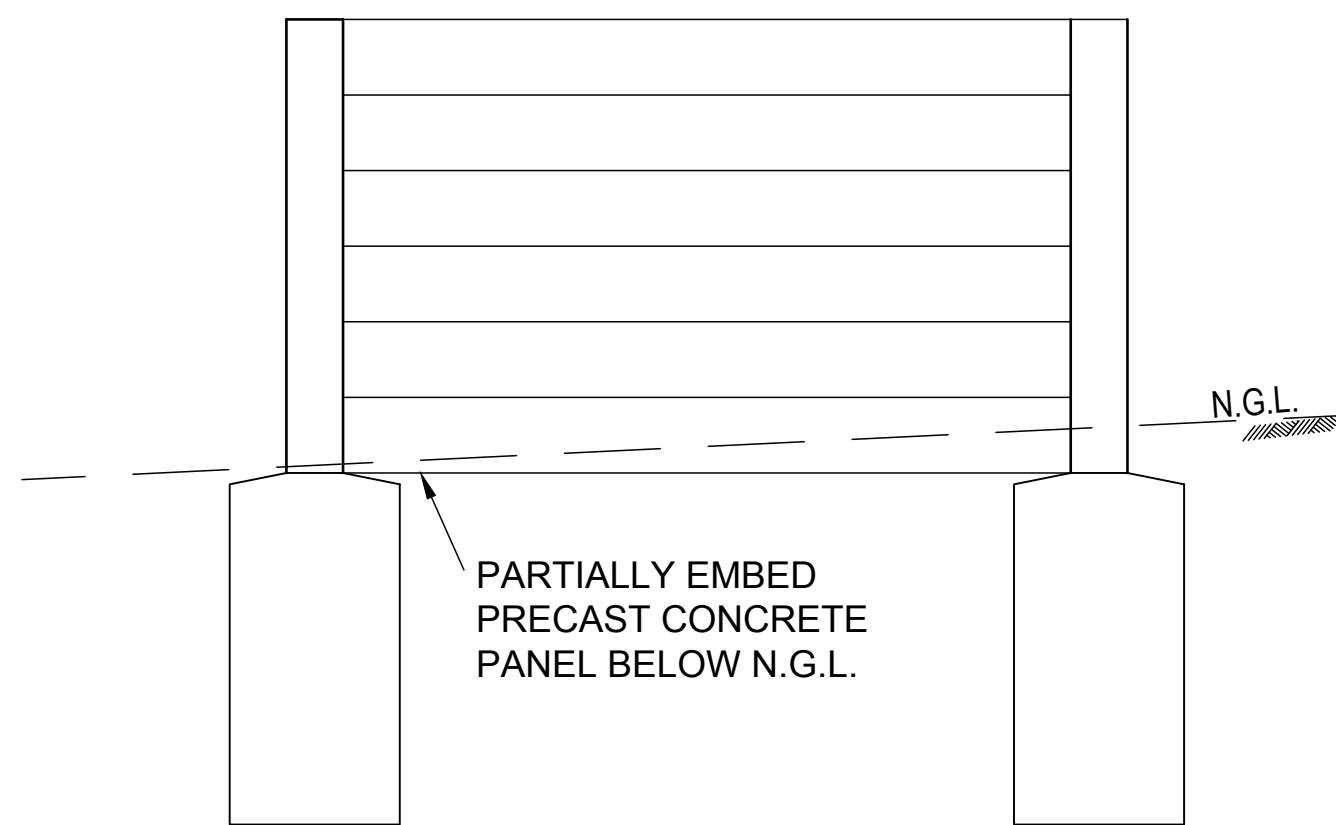




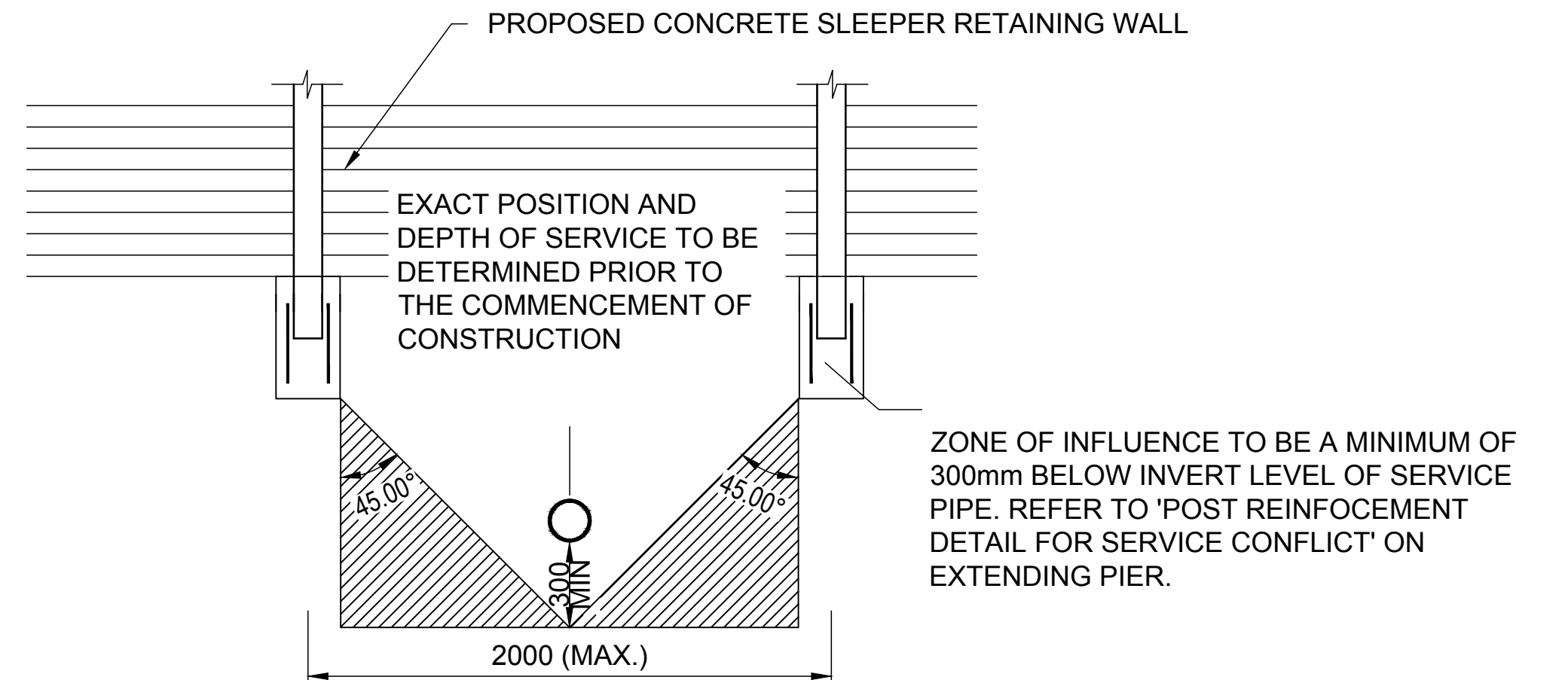
**TYPICAL SLEEPER RETAINING WALL DETAIL**  
**MAX RETAINING HEIGHT 1800mm**  
SCALE 1:10



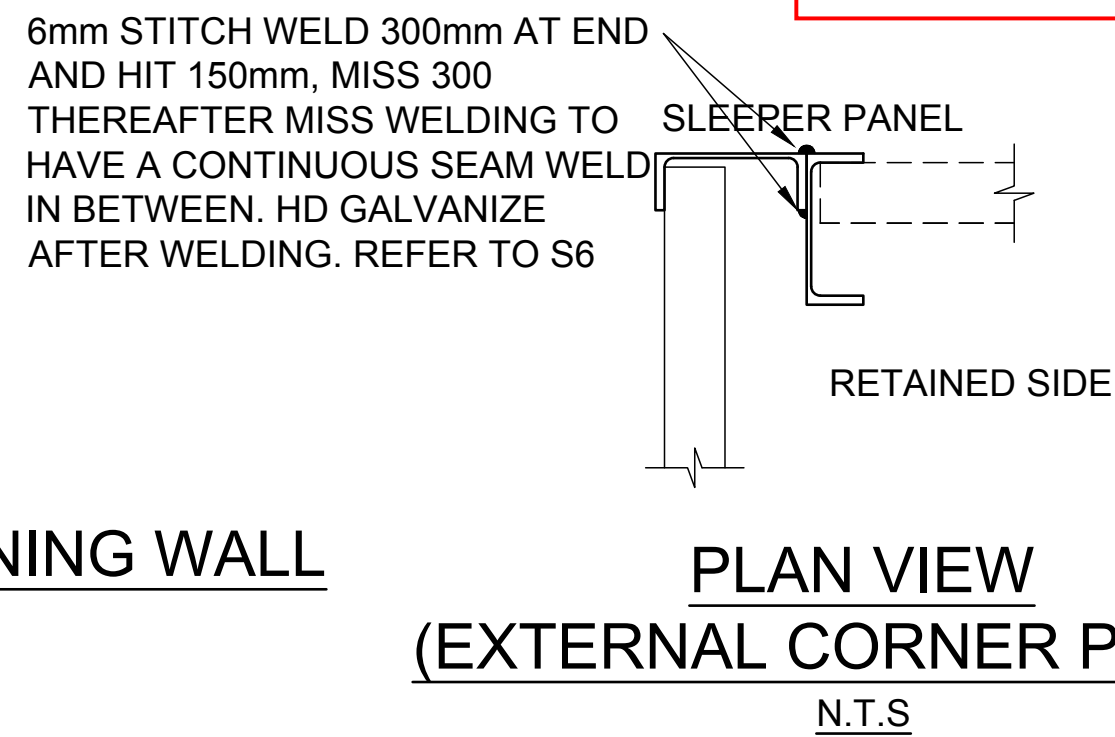
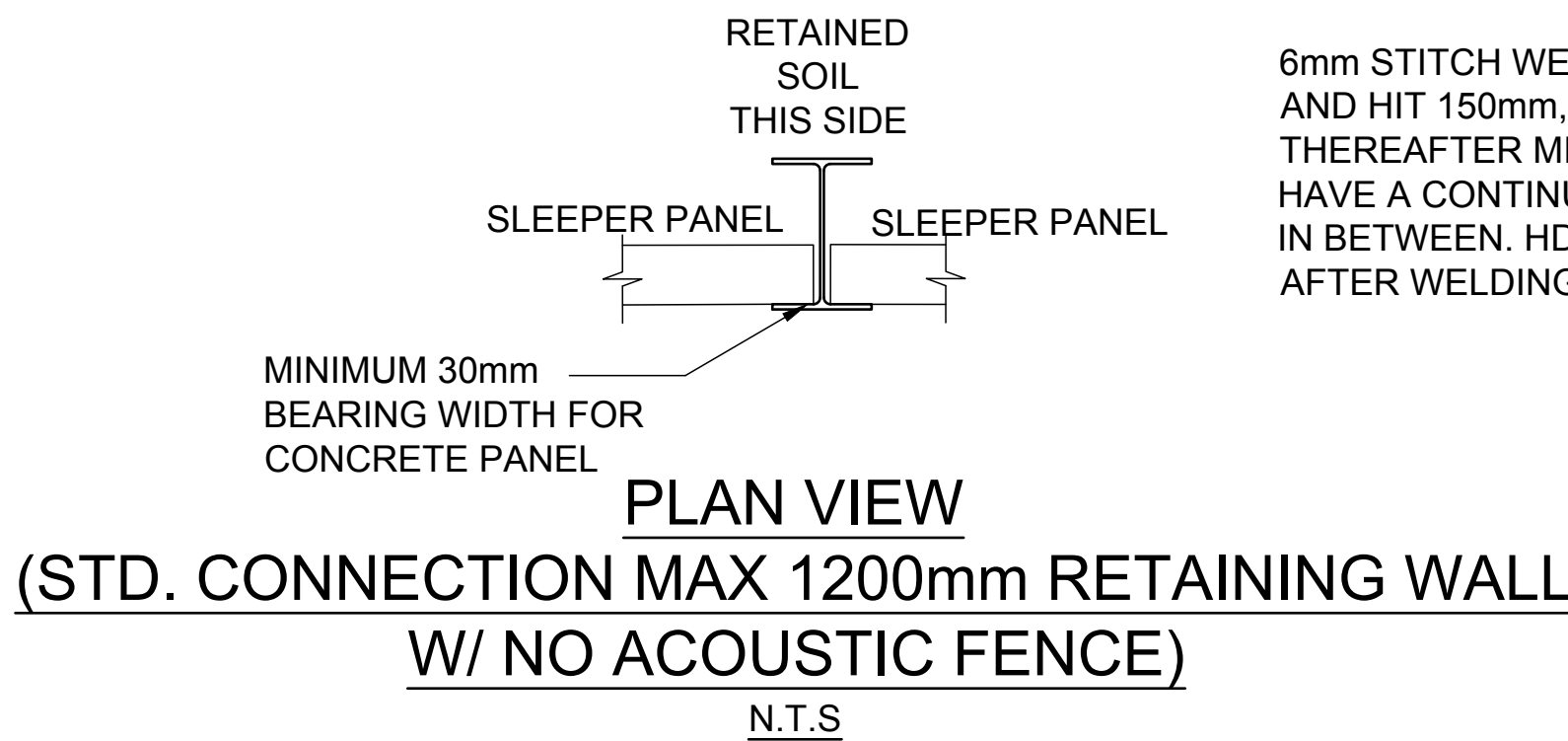
**TYPICAL PIER DETAIL**  
SCALE 1:10



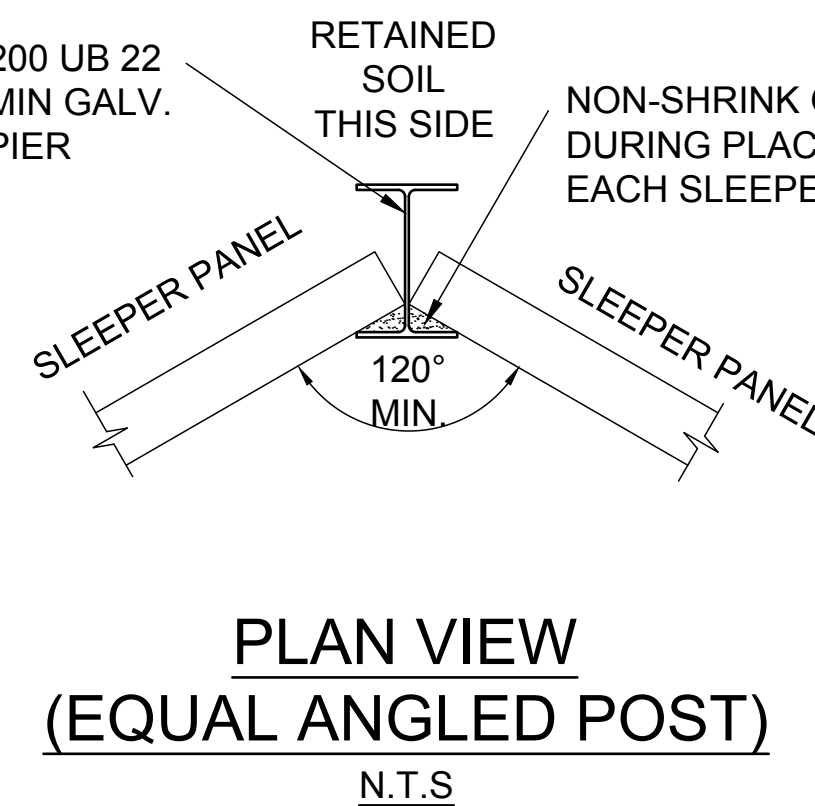
**TYPICAL PIER TREATMENT ON SLOPE**  
N.T.S.



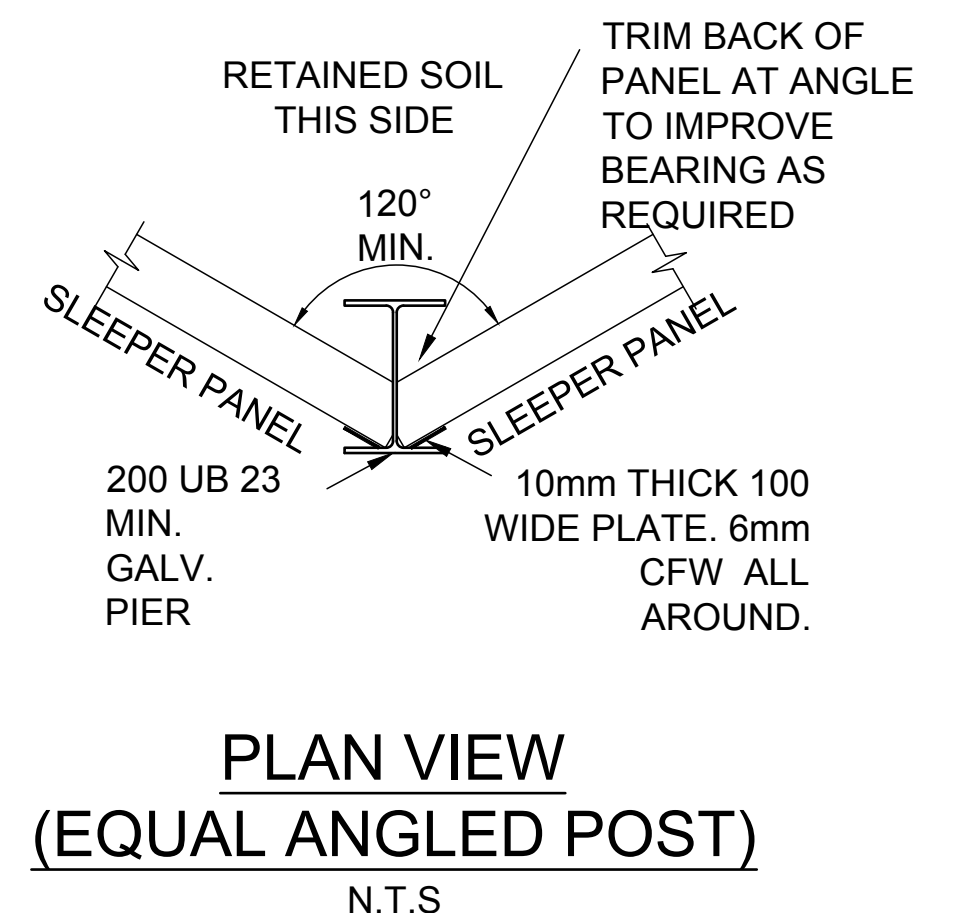
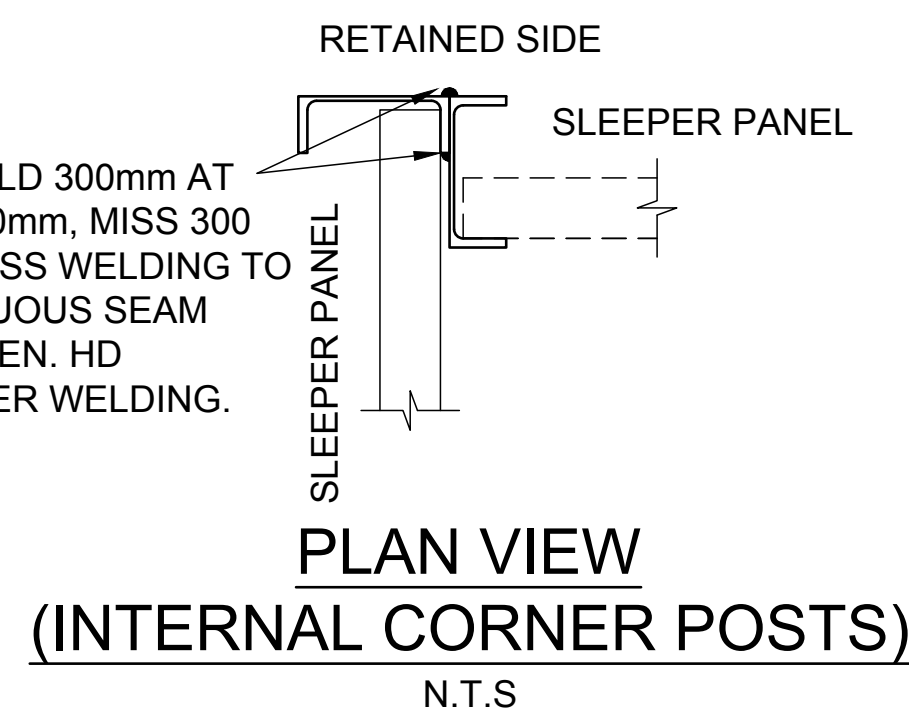
**SLEEPER WALL BRIDGING DETAIL**  
N.T.S.



TOOWOOMBA REGIONAL COUNCIL  
AMENDED PLAN  
REQUIRED TO BE SUBMITTED FOR  
APPROVAL  
Refer to Condition Number  
5  
referred to in Council's Decision Notice dated  
12 May 2023  
This plan is subject to conditions of Approval Number  
OW/2022/5568



6mm STITCH WELD 300mm AT END AND HIT 150mm, MISS 300 THEREAFTER MISS WELDING TO HAVE A CONTINUOUS SEAM WELD IN BETWEEN. HD GALVANIZE AFTER WELDING. REFER TO S6.



0 1 2 3 4 .5m 1m  
SCALE 1:10

REVISIONS:

A	COUNCIL INFORMATION REQUEST RESPONSE	MP	21/04/23		
No.	REVISION DESCRIPTION	DRAWN	DATE		



van der Meer Consulting

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IF IN DOUBT - ASK

CLIENT  
GLENVALE DEVINE ROAD DEVELOPMENT PTY LTD

ARCHITECT  
RETAINING WALL DETAILS

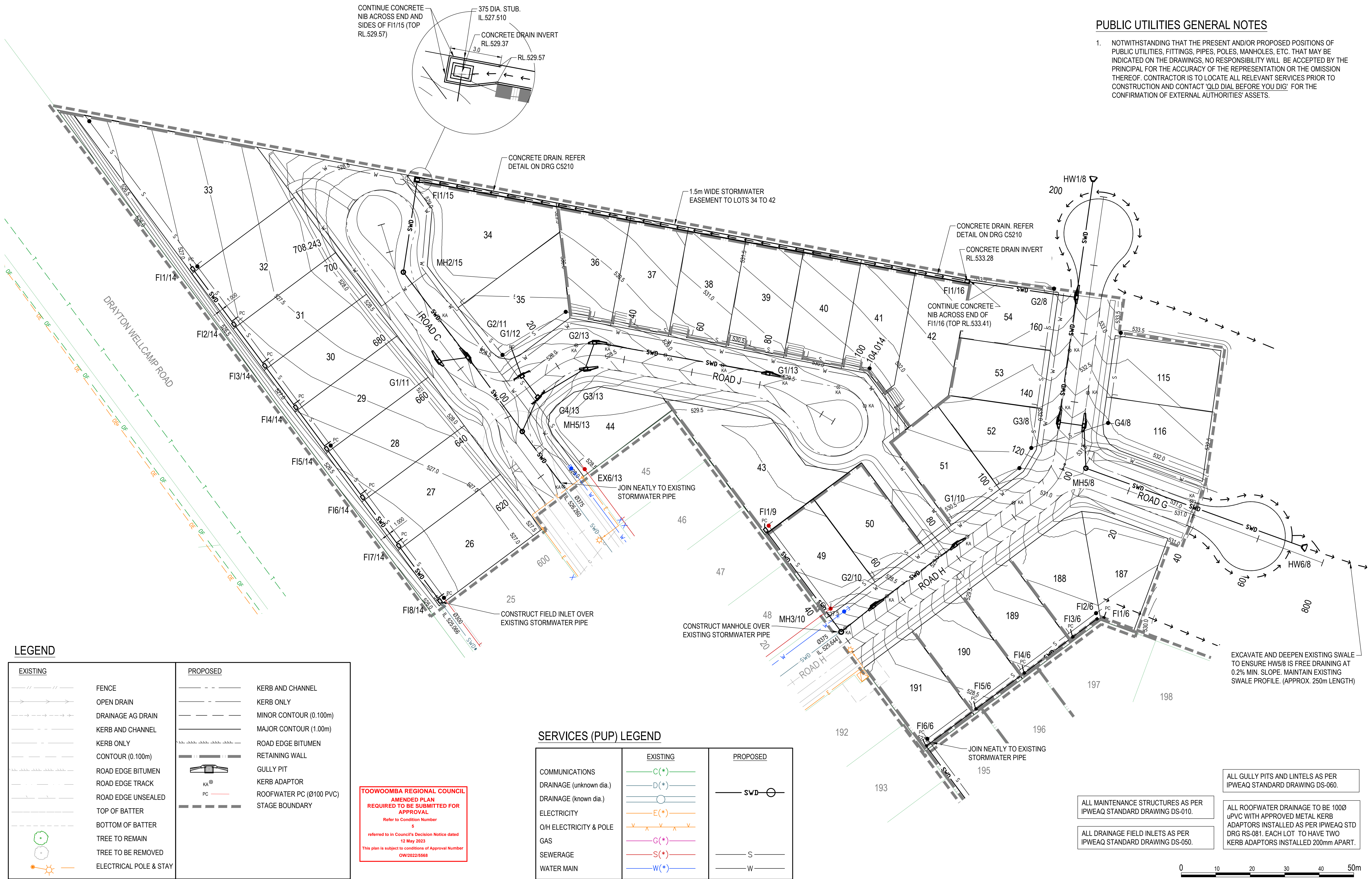
PROJECT TITLE  
PROPOSED SUBDIVISION  
DRAYTON WELLCAMP ROAD, GLENVALE QLD 4350  
STAGE 5

DRAWING TITLE  
RETAINING WALL DETAILS

DRAWING STATUS  
PRELIMINARY  
NOT FOR CONSTRUCTION

PROJECT LEADER CK	DESIGNER MP	SIGNATURE C. KIRK	RPEQ: 19536 NER: 3053220
DRAFTSPERSON MP	SCALE AS SHOWN	DATE	SHEET SIZE A1
JOB No. BR222080		DRAWING No. C5212	REVISION A





PUBLIC UTILITIES GENERAL NOTES

1. NOTWITHSTANDING THAT THE PRESENT AND/OR PROPOSED POSITIONS OF PUBLIC UTILITIES, FITTINGS, PIPES, POLES, MANHOLES, ETC. THAT MAY BE INDICATED ON THE DRAWINGS, NO RESPONSIBILITY WILL BE ACCEPTED BY THE PRINCIPAL FOR THE ACCURACY OF THE REPRESENTATION OR THE OMISSION THEREOF. CONTRACTOR IS TO LOCATE ALL RELEVANT SERVICES PRIOR TO CONSTRUCTION AND CONTACT 'OLD DIAL BEFORE YOU DIG' FOR THE CONFIRMATION OF EXTERNAL AUTHORITIES' ASSETS.

LEGEND

EXISTING	PROPOSED
	FENCE
	OPEN DRAIN
	DRAINAGE AG DRAIN
	KERB AND CHANNEL
	KERB ONLY
	CONTOUR (0.100m)
	ROAD EDGE BITUMEN
	ROAD EDGE TRACK
	ROAD EDGE UNSEALED
	TOP OF BATTER
	BOTTOM OF BATTER
	TREE TO REMAIN
	TREE TO BE REMOVED
	ELECTRICAL POLE & STAY
	KERB AND CHANNEL
	KERB ONLY
	MINOR CONTOUR (0.100m)
	MAJOR CONTOUR (1.00m)
	ROAD EDGE BITUMEN
	RETAINING WALL
	GULLY PIT
	KERB ADAPTOR
	ROOFWATER PC (Ø100 PVC)
	STAGE BOUNDARY

TOOWOOMBA REGIONAL COUNCIL  
AMENDED PLAN  
REQUIRED TO BE SUBMITTED FOR  
APPROVAL  
Refer to Condition Number  
6  
referred to in Council's Decision Notice dated  
12 May 2023  
This plan is subject to conditions of Approval Number  
OW/2022/5568

SERVICES (PUP) LEGEND

	EXISTING	PROPOSED
COMMUNICATIONS	C (*)	
DRAINAGE (unknown dia.)	D (*)	
DRAINAGE (known dia.)		
ELECTRICITY	E (*)	
O/H ELECTRICITY & POLE		
GAS	G (*)	
SEWERAGE	S (*)	S
WATER MAIN	W (*)	W
		SWD

ALL GULLY PITS AND LINTELS AS PER  
IPWEAQ STANDARD DRAWING DS-060.

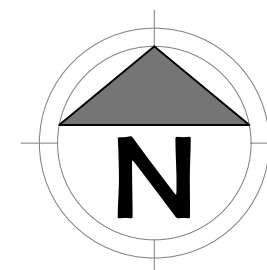
ALL MAINTENANCE STRUCTURES AS PER  
IPWEAQ STANDARD DRAWING DS-010.

ALL DRAINAGE FIELD INLETS AS PER  
IPWEAQ STANDARD DRAWING DS-050.

ALL ROOFWATER DRAINAGE TO BE 100Ø  
uPVC WITH APPROVED METAL KERB  
ADAPTORS INSTALLED AS PER IPWEAQ STD  
DRG RS-081. EACH LOT TO HAVE TWO  
KERB ADAPTORS INSTALLED 200mm APART.

0 10 20 30 40 50m  
SCALE 1:500

REVISIONS:			
No.	REVISION DESCRIPTION	DRAWN	DATE
C	COUNCIL INFORMATION REQUEST RESPONSE	MP	21/04/23
B	COUNCIL INFORMATION REQUEST RESPONSE	MP	01/03/22
A	ISSUED FOR INFORMATION	MP	20/10/22



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CLIENT  
**GLENVALE DEVINE ROAD  
DEVELOPMENT PTY LTD**

ARCHITECT

PROJECT TITLE  
**PROPOSED SUBDIVISION  
DRAYTON WELLCAMP ROAD, GLENVALE QLD 4350  
STAGE 5**

DRAWING TITLE  
**DRAINAGE PLAN**

DRAWING STATUS			
<b>PRELIMINARY NOT FOR CONSTRUCTION</b>			
PROJECT LEADER CK	DESIGNER MP	SIGNATURE C. KIRK	RPEQ: 19536 NER: 3053220
DRAFTSPERSON MP	SCALE AS SHOWN	DATE OCT '2022	SHEET SIZE A1
JOB No. BR222080	DRAWING No. C5501	REVISION C	