

TWEED VALLEY HOSPITAL DEVELOPMENT CUDGEN AND TWEED COAST ROAD INTERSECTION WORKS

<u>DRAWING No.</u>	<u>DESCRIPTION</u>
20 10748 C300	DRAWING REGISTER AND CONSTRUCTION NOTES
20 10748 C330	GENERAL ARRANGEMENT AND KEY PLAN
20 10748 C331	CONCEPT INTERSECTION WORKS PLAN SHEET 1 OF 2
20 10748 C332	CONCEPT INTERSECTION WORKS PLAN SHEET 2 OF 2

GENERAL NOTES

- G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS OR SKETCHES AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE SUPERINTENDENT BEFORE PROCEEDING WITH WORK.
- G2 MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE SPECIFICATION, CURRENT SAA CODES, BUILDING REGULATIONS AND THE REQUIREMENTS OF ANY OTHER RELEVANT STATUTORY AUTHORITIES.
- G3 THESE DRAWINGS MUST NOT BE SCALED. ALL DIMENSIONS ARE IN METERS. ALL SET OUT DIMENSIONS AND LEVELS, INCLUDING THOSE SHOWN ON THESE DRAWINGS SHALL BE IN ACCORDANCE WITH THE ARCHITECT'S DRAWINGS AND VERIFIED ON SITE.
- G4 ALL SETOUT AND DIMENSIONS OF THE STRUCTURE INCLUDING KERBS AND RETAINING WALLS, AND BULK EARTHWORKS MUST BE TAKEN FROM THE ARCHITECT'S DRAWINGS. SETOUT OF THE STORMWATER PITS BY OTHERS. CONTRACTOR TO CONFIRM SETOUT OF SERVICE TRANCHING INCLUDING SUBSOIL ON SITE.
- G5 THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS OF AUTHORITIES HAVING JURISDICTION OVER THE WORKS. REFER TO GEOTECHNICAL REPORT BY MORRISON GEOTECHNICAL PTY LTD, REFERENCE: GE18/144, DATED AUGUST 2018.
- G6 ALL DIMENSIONS AND REDUCED LEVELS MUST BE VERIFIED ON SITE BEFORE THE COMMENCEMENT OF ANY WORK.
- G7 THE APPROVAL OF A SUBSTITUTION SHALL BE SOUGHT FROM THE SUPERINTENDENT BUT IS NOT AN AUTHORISATION OF A COST VARIATION. THE SUPERINTENDENT MUST APPROVE ANY COST VARIATION INVOLVED BEFORE ANY WORK STARTS.
- G8 ALL LEVELS SHOWN ARE TO THE AUSTRALIAN HEIGHT DATUM.
- G9 SERVICE INFORMATION SHOWN IS APPROXIMATE ONLY. PRIOR TO COMMENCEMENT OF ANY WORKS, THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND SERVICES AND COMPLY WITH ALL REQUIREMENTS OF THOSE AUTHORITIES.
- G10 EXISTING SURFACE CONTOURS, WHERE SHOWN, ARE INTERPOLATED AND MAY NOT BE ACCURATE.
- G11 UNLESS NOTED OTHERWISE, ALL VEGETATION SHALL BE STRIPPED TO A MINIMUM DEPTH OF 150mm UNDER ALL PROPOSED PAVEMENT AND BUILDING AREAS.
- G12 MAKE SMOOTH CONNECTION WITH ALL EXISTING WORKS.

SITEWORKS NOTES

- PRIOR TO THE PLACEMENT OF ANY PAVEMENTS, BUILDINGS OR DRAINS THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD COMPACTION IN ACCORDANCE WITH TEST 'E11' OF A.S. 1289 FOR THE TOP 300mm. ANY SOFT SPOTS SHALL BE REMOVED AND REPLACED WITH GRANULAR FILL TO THE ENGINEERS APPROVAL AND COMPACTED IN ACCORDANCE WITH THE COMPACTION REQUIREMENTS SET OUT BELOW. ON HIGHLY REACTIVE CLAY AREAS SITE EXCAVATED MATERIAL MAY BE USED WITH THE PRIOR AUTHORISATION OF THE ENGINEER.
- S2 ALL FILL AND PAVEMENT MATERIALS SHALL BE COMPACTED IN ACCORDANCE WITH GEOTECHNICAL REPORT BY MORRISON GEOTECHNIC PTY LTD REFERENCE: G618/144. DATED AUGUST 2018 MOISTURE CONTENT TO BE MAINTAINED AT +/- 2% OMC. MINIMUM COMPACTION REQUIREMENTS ARE DETAILED BELOW FOR ALL REQUIREMENTS ARE TO BE VERIFIED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER:
- | | |
|--|----------|
| • LANDSCAPED AREAS | 95% STD. |
| • FILL UNDER ANY FOOTINGS AND FLOOR SLABS FOR ANY STRUCTURE TO SUBGRADE LEVEL; | |
| - FINE CRUSHED ROCK | 98% STD. |
| - SELECTED FILL WITHOUT CONSPICUOUS CLAY CONTENT | 98% STD. |
| • BUILDING BASECOURSE | 98% MOD |
| • FILL UNDER ROAD PAVEMENTS; | |
| - TO WITHIN 500mm OF FINISHED SUBGRADE LEVEL | 98% STD. |
| - UP TO FINISHED SUBGRADE LEVEL | 98% STD. |
| • ROAD PAVEMENT MATERIALS; | |
| - SUB BASE | 98% MOD. |
| - BASE COURSE | 98% MOD. |
- THE MAXIMUM COMPACTION IS TO BE NO GREAT THAN 4% ON TOP OF THE ABOVE MENTION VALUES.
- S3 GRADE EVENLY BETWEEN FINISHED SURFACE SPOT LEVELS. FINISHED SURFACE CONTOURS ARE SHOWN FOR CLARITY. WHERE FINISHED SURFACE LEVELS ARE NOT SHOWN, THE SURFACE SHALL BE GRADED SMOOTHLY SO THAT IT WILL DRAIN AND MATCH ADJACENT SURFACES OR STRUCTURES.
- S4 ALL DIMENSIONS GIVEN ARE TO FACE OF KERB, CENTER OF PIPE OR EXTERIOR FACE OF BUILDING UNLESS NOTED OTHERWISE.
- S5 ANY STRUCTURES, PAVEMENTS OR SURFACES DAMAGED, DIRTIED OR MADE UNSERVICABLE DUE TO CONSTRUCTION WORK SHALL BE REINSTATED TO THE SATISFACTION OF THE ENGINEER.
- S6 ANY FILL REQUIRED SHALL BE APPROVED BY THE ENGINEER / GEOTECHNICAL CONSULTANT
- S7 CONTRACTOR IS TO ENSURE THAT ALL EXCAVATIONS ARE MAINTAINED IN A DRY CONDITION WITH NO WATER ALLOWED TO REMAIN IN THE EXCAVATIONS.
- S8 ALL FINISHES AND COLOURS TO BE IN ACCORDANCE WITH ARCHITECTURAL SPECIFICATIONS.
- S9 REFER TO STRUCTURAL DRAWINGS FOR CONCRETE, REINFORCEMENT AND RETAINING WALL DETAILS.
- S10 GENERALLY FOR TRENCHING WORKS THE CONTRACTOR MUST:
- A) COMPLY WITH THE GENERAL PROVISIONS OF PART 3.1 "MANAGING RISKS TO HEALTH AND SAFETY" OF NSW WORK HEALTH AND SAFETY REGULATION 2011
- B) COMPLY PART 6.3 DIVISION 3 "EXCAVATION WORK" OF NSW WORK HEALTH AND SAFETY REGULATION NSW 2011
- S11 PRIOR TO THE EXCAVATION OF ANY TRENCH DEEPER THAN 1.5 METRES THE CONTRACTOR MUST:
- A) NOTIFY THE OCCUPATIONAL HEALTH AND SAFETY AUTHORITY ON THE APPROPRIATE FORM.

STORMWATER DRAINAGE NOTES

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| SW1 | UNLESS NOTED OTHERWISE BY HYDRAULIC ENGINEERS DRAWINGS, ALL DOWNPIPES & GRATED INLETS SHALL BE CONNECTED TO PITS OR MAIN STORMWATER DRAINS WITH 150 DIA. UPVC PIPES LAID AT A MINIMUM GRADE OF 1 IN 100. FOR SYPHONIC ROOF DRAINAGE SYSTEMS ALL DOWNPIPES CONNECTION DRAIN SIZES TO BE CONNECTED INTO MAIN STORMWATER DRAINS SHALL BE IN ACCORDANCE WITH HYDRAULIC ENGINEERS DRAWINGS. |
| SW2 | ALL MAIN STORMWATER DRAINS SHALL BE CONSTRUCTED USING MATERIALS AS SPECIFIED ON THE DRAWINGS IN ACCORDANCE WITH THE APPROPRIATE A.S. IF NOT SPECIFIED THEN CLASS 2 RRJ RCP SHALL BE USED FOR DIAMETERS > 225mm. SEWER CLASS SEH UPVC IN ACCORDANCE WITH AS1260 SHALL BE USED FOR Ø225mm OR SMALLER. |
| SW3 | ALL PIPEWORK TO BE INSTALLED IN ACCORDANCE WITH AS3725 FOR RCP AND AS2032 FOR PVC. ALL BEDDING TO BE TYPE H2 UNLESS NOTED OTHERWISE. |
| SW4 | FOR ALL PITS > 12m DEEP, STEP IRONS SHALL BE INSTALLED. |
| SW5 | PRECAST PITS MAY BE USED EXTERNAL TO THE BUILDING SUBJECT TO APPROVAL BY BONACCI GROUP. |
| SW6 | ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA. |
| SW7 | WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC SEWER GRADE PIPE IS TO BE USED. |
| SW8 | GRATES AND COVERS SHALL CONFORM WITH AS 3996 AND AS 1428.1 FOR ACCESS REQUIREMENTS. |
| SW9 | CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES ARE NOT TO BE REDUCED WITHOUT APPROVAL. |
| SW10 | AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS. |
| SW11 | ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS. |

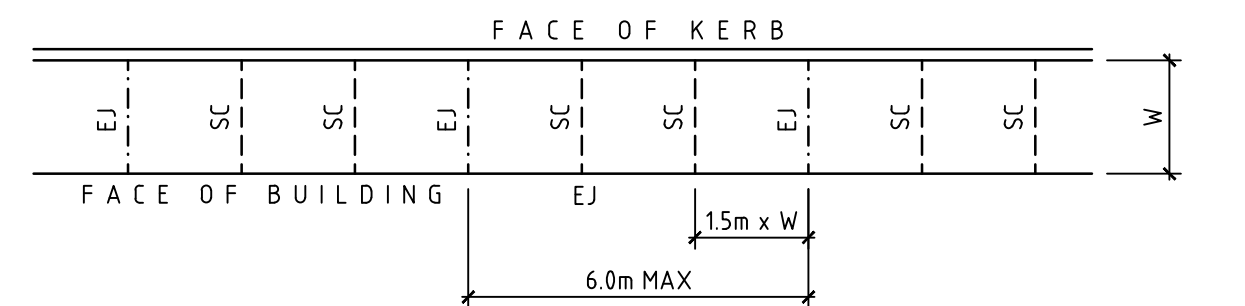
KERBING NOTES

- | | |
|----|--|
| K1 | ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 32 MPa U.N.O. |
| K2 | ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON 75mm GRANULAR BASECOURSE COMPACTED TO A MINIMUM 98% MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289 5.2.1. |
| K3 | EXPANSION JOINTS (EJ) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PIT ON TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLAB. |
| K4 | WEAKENED PLANE JOINTS TO BE MIN 3mm wide AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLAB. |
| K5 | BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED. |
| K6 | IN THE REPLACEMENT OF KERBS:-
- EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.N.O. FROM THE LIP OF GUTTER, UPON COMPLETION OF THE NEW KERB AND GUTTER, NEW BASECOURSE AND SURFACE TO BE LAID 600mm wide U.N.O.
- EXISTING KERBS ARE TO BE COMPLETELY REMOVED WHERE NEW KERBS ARE SHOWN. |

JOINTING NOTES

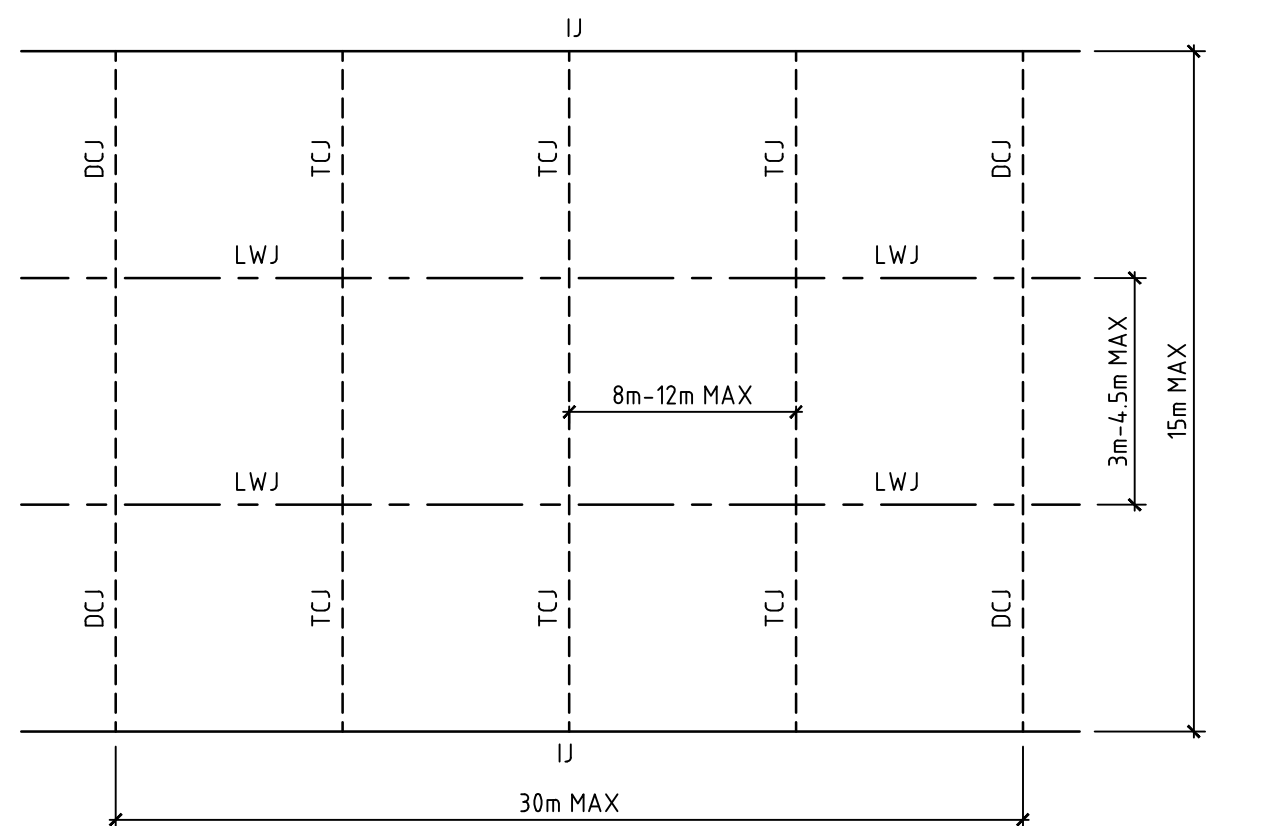
PEDESTRIAN FOOTPATH JOINTS

- | | |
|----|---|
| J1 | EXPANSION JOINTS (EJ) ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT 6m CENTRES. |
| J2 | SAWCUT JOINTS (SCJ) ARE TO BE LOCATED AT A MAX 15m x WIDTH OF PAVEMENT. THE TIMING OF THE SAWCUT IS TO BE CONFIRMED BY THE CONTRACTOR ON SITE. SITE CONDITIONS WILL DETERMINE HOW MANY HOURS AFTER THE CONCRETE POUR BEFORE THE SAW CUTS ARE COMMENCED. |
| J3 | WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND / OR ADJACENT PAVEMENT JOINTS. |
| J4 | PROVIDE 10mm wide FULL DEPTH EXPANSION JOINTS (EJ) BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVES |
| J5 | ALL PEDESTRIAN FOOTPATH JOINTINGS AS FOLLOWS (U.N.O.). |



VEHICULAR PAVEMENT JOINTS

- | | |
|-----|--|
| J6 | ALL VEHICULAR PAVEMENTS TO BE JOINTED AS SHOWN ON DRAWINGS. |
| J7 | LONGITUDINAL WARPING JOINTS (LWJ) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 3m TO 4.5m MAX CENTERS. ALL LWJ's SHOULD BE TIED UP TO A MAXIMUM TOTAL WIDTH OF 30m. |
| J8 | TRANSVERSE CONTRACTION JOINTS (TCJ) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 8m TO 12m MAX CENTERS. TCJ's CAN BE SPACED AT SUITABLE INTERVALS UP TO A RECOMMENDED MAXIMUM LENGTH OF 15m. |
| J9 | TRANSVERSE DOWELLED CONSTRUCTION JOINTS (DCJ) TO BE PROVIDED FOR PLANNED INTERRUPTIONS SUCH AS AT THE END OF EACH DAY'S OPERATIONS (POUR BREAK), AT BLOCK OUTS FOR BRIDGES AND INTERSECTIONS OR FOR UNEXPECTED DELAYS WHEN THE SUSPENSION OF OPERATIONS IS LIKELY TO CREATE A JOINT. |
| J10 | ISOLATION JOINTS WITH SUB-GRADE BEAM (IJ) TO BE PROVIDED AT INTERSECTIONS OR AT THE JUNCTION OF A POUR BREAK. |
| J11 | ALL VEHICULAR PAVEMENTS TO BE JOINTED IN ACCORDANCE WITH AUSTRORoads AGPT02-12 GUIDE TO PAVEMENT TECHNOLOGY PART 2 STRUCTURAL PAVEMENT DESIGN AND SUPPLEMENT AP-T36-06 PAVEMENT DESIGN FOR LIGHT TRAFFIC |
| J12 | VEHICULAR PAVEMENT JOINTING AS FOLLOWS (U.N.O.) |

[illegible]

LEGEND:

- SITE BOUNDARY
- ROAD PAVEMENT
- 100 YR FLOODING
- PMF FLOODING
- EXTENT OF WETLAND

2 LANES NORTHBOUND
TO END OF RAISED
MEDIANS THEN 120m
LONG TAPER

NEW LEFT LANE
ROAD PAVEMENT EXTENSION

PORTION OF EXISTING
MEDIAN TO BE REMOVED AND
INFILLED WITH ROAD
PAVEMENT (EXTENSION)

NEW LEFT LANE
ROAD PAVEMENT EXTENSION

NEW LEFT LANE
ROAD PAVEMENT EXTENSION

NEW KERB LINE 2.64m
OFFSET FROM BOUNDARY

3.50m
TURN LANE
NEW KERB LINE 2.50m
OFFSET FROM BOUNDARY

PEDESTRIAN CROSSING TO BE
ADJUSTED AND MEDIAN SHORTENED

GENERAL NOTES:

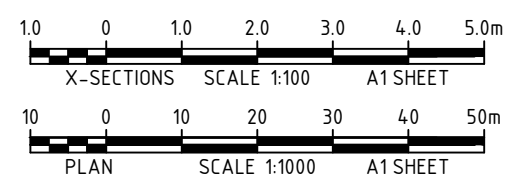
1. SERVICE LOCATIONS TO BE DETERMINED IN CONJUNCTION WITH SERVICE PROVIDERS.

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P3	ISSUED FOR REVIEW	17.12.18	CS	-
P2	ISSUED FOR REF. APPROVAL	31.10.18	PA	-
P1	ISSUED FOR REF. APPROVAL	30.10.18	PA	-

Rev	Description	Date	By	App	Rev	Description	Date	By	App



BONACCI

BONACCI GROUP Pty Ltd
ABN 42 060 332 345
Consulting Engineers, Structural - Civil - Infrastructure
Level 6, 37 York Street, Sydney, NSW 2000 Australia
Tel: +61 2 8247 8400 Fax: +61 2 8247 8444
sydney@bonaccigroup.com
www.bonaccigroup.com

Project Name
**TWEED VALLEY HOSPITAL
CUDGEN AND TWEED COAST
ROAD INTERSECTION WORKS**

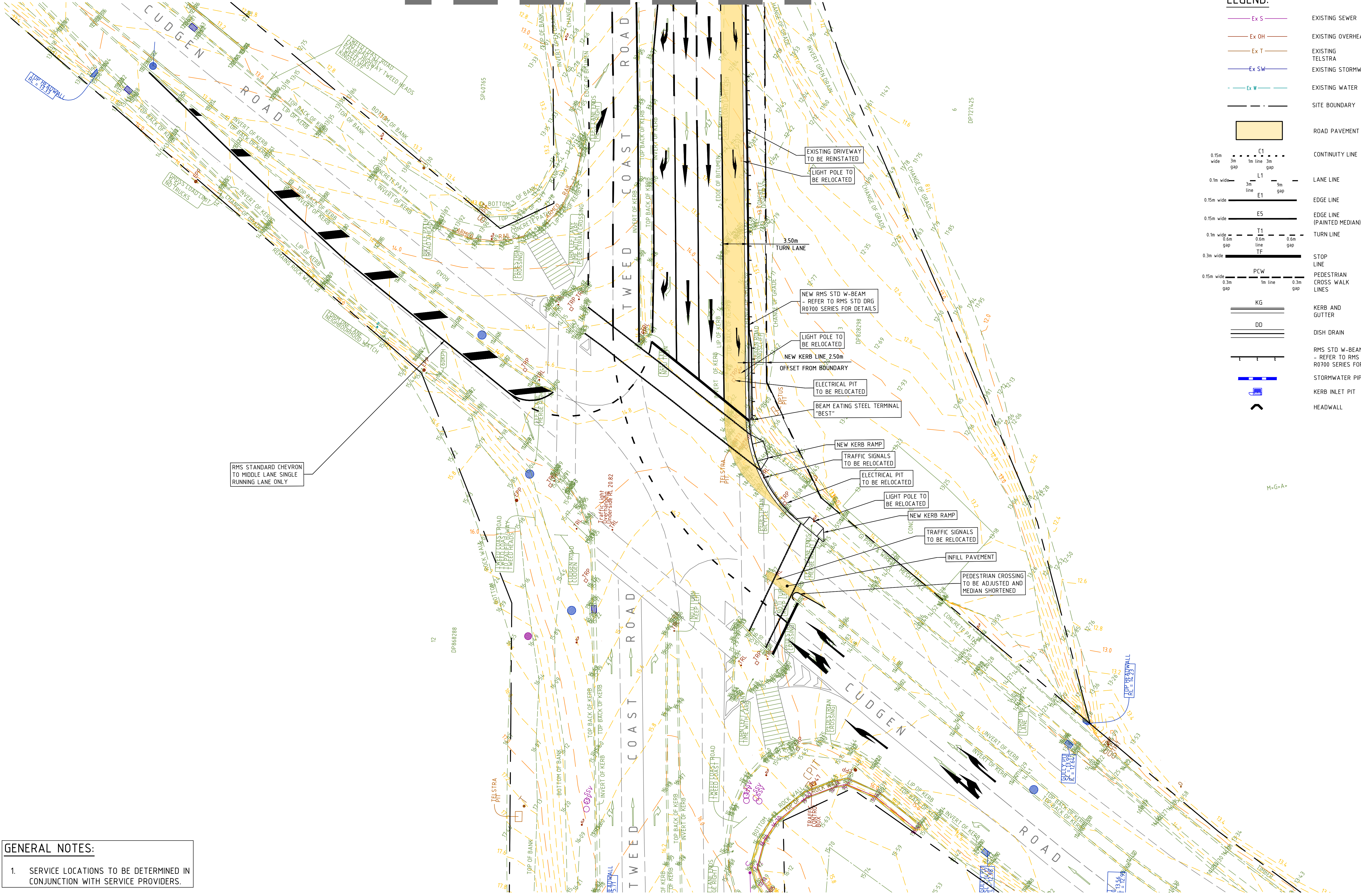
Drawing Title
**GENERAL ARRANGEMENT
AND KEY PLAN**

PRELIMINARY				North		
Designed	CS	Project Director Approved	Date			
Drawn	PA					
Scale	1:1000,1:100	Project Ref	Drawing No	Rev		
Date	02.10.18					
Sheet	A1	20 10748 01	C330	P3		

REFER TO DRAWING C332 FOR CONTINUATION

LEGEND:

- Ex S EXISTING SEWER
Ex OH EXISTING OVERHEAD LINES
Ex T EXISTING TELSTRA
Ex SW EXISTING STORMWATER
Ex W EXISTING WATER
SITE BOUNDARY
ROAD PAVEMENT
CONTINUITY LINE
LANE LINE
EDGE LINE
EDGE LINE (PAINTED MEDIAN)
TURN LINE
STOP LINE
PEDESTRIAN CROSS WALK LINES
KERB AND GUTTER
DISH DRAIN
RMS STD W-BEAM - REFER TO RMS STD DRG R0700 SERIES FOR DETAILS
STORMWATER PIPE
KERB INLET PIT
HEADWALL



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ABN 42 060 332 345
Consulting Engineers, Structural - Civil - Infrastructure
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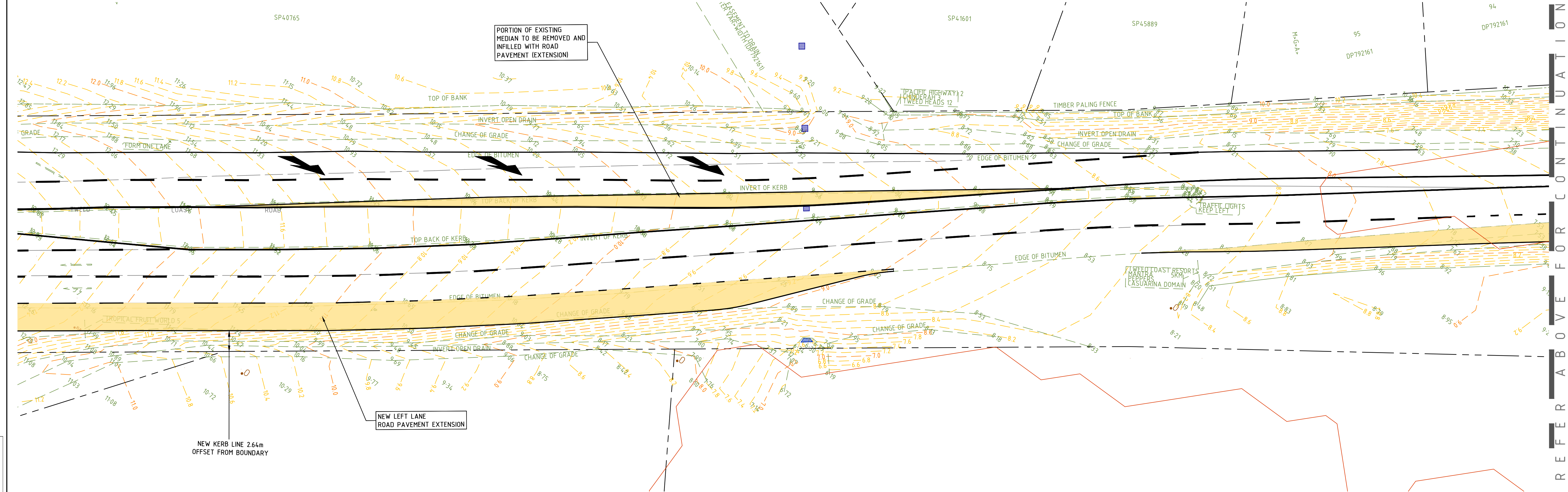
Project Name
TWEED VALLEY HOSPITAL
DEVELOPMENT, KINGSCLIFF,
NSW
Drawing Title
CONCEPT INTERSECTION WORKS
PLAN SHEET 1 OF 2

Designed	CS	Project Director Approved	Date	North
Drawn	PA			
Scale	1:250			
Date	3.10.2018	Project Ref	Drawing No	Rev
Sheet	A1	20 10748 01	C331	P3

- LEGEND:
- Ex S EXISTING SEWER
 - Ex OH EXISTING OVERHEAD LINES
 - Ex T EXISTING TELSTRA
 - Ex SW EXISTING STORMWATER
 - Ex W EXISTING WATER
 - SITE BOUNDARY
 - ROAD PAVEMENT
 - CONTINUITY LINE
 - LANE LINE
 - EDGE LINE
 - EDGE LINE (PAINTED MEDIAN)
 - TURN LINE
 - STOP LINE
 - PEDESTRIAN CROSS WALK LINES
 - 100 YR FLOODING
 - PMF FLOODING

REFER BELOW FOR CONTINUATION

REFER ABOVE FOR CONTINUATION



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P2	ISSUED FOR REF APPROVAL	31.10.18	PA	-			
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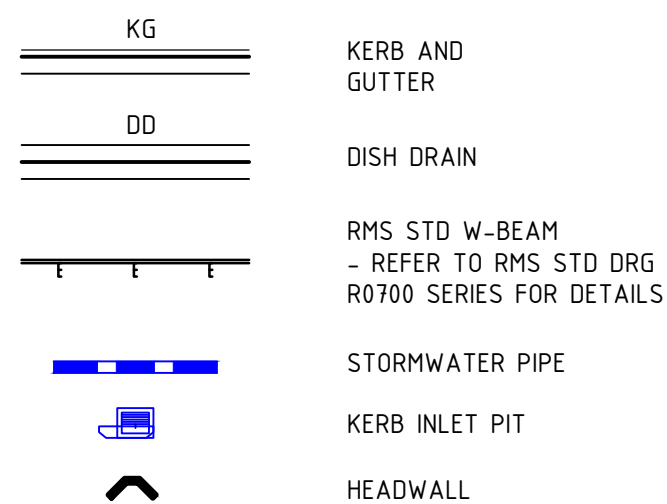
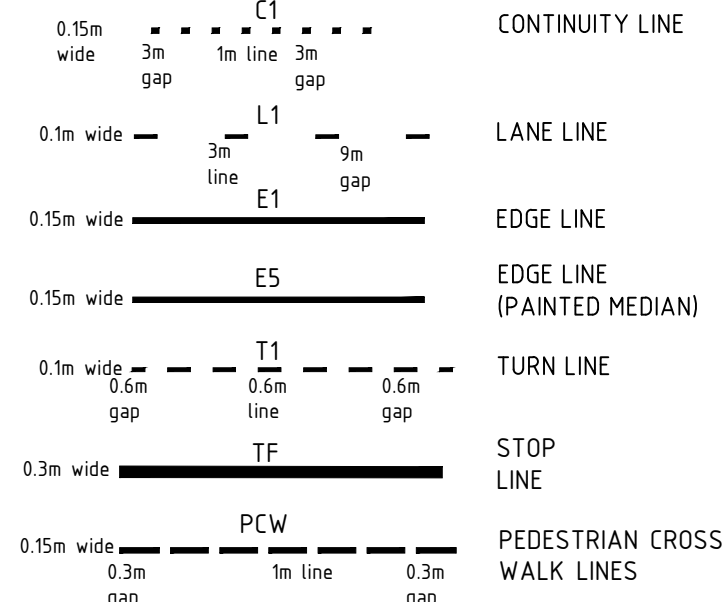
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Project Name
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DEVELOPMENT, KINGSCLIFF,
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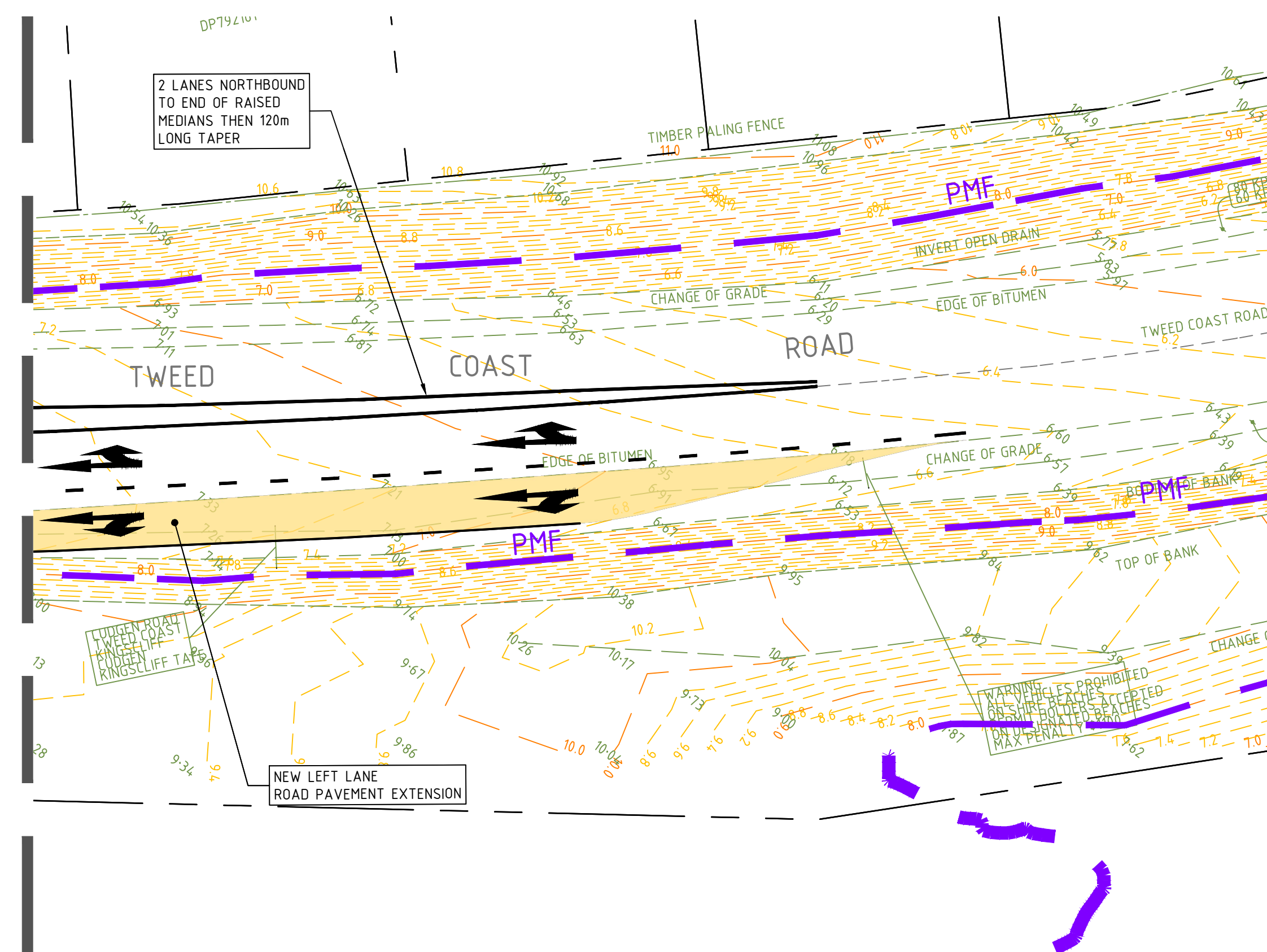
Drawing Title
**CONCEPT INTERSECTION WORKS
PLAN SHEET 2 OF 2**

PRELIMINARY			
Designed	CS	Project Director Approved	Date
Drawn	PA		
Scale	1:250		
Date	27.09.18	Drawing No	Rev
Sheet	A1	20 10748 01	C333 P2

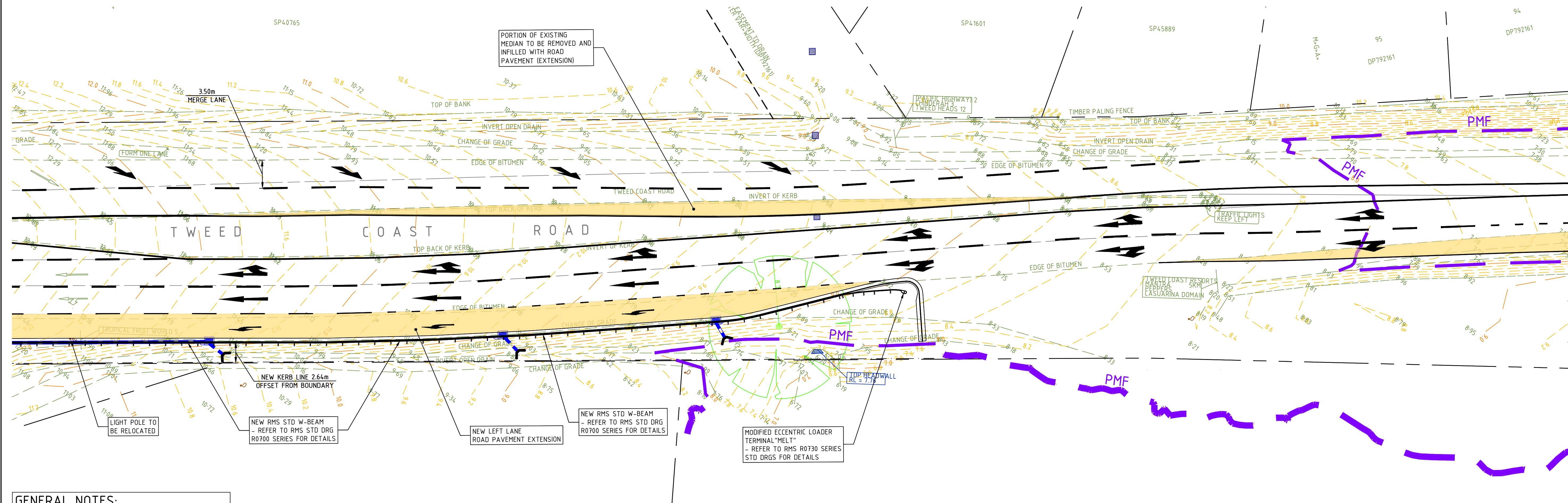
	EXISTING SEWER
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	EXISTING STORMWATER
	EXISTING WATER
	SITE BOUNDARY
	ROAD PAVEMENT
	100 YR FLOODING
	PMF FLOODING
	EXTENT OF WETLAND



REFER BELOW FOR CONTINUATION



REFERENCE FOR CONTINUATION



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Rev	Description	Date	By	App	Rev	Description	Date	By	App

5.0 0 2.5 5.0 7.5 10.0m
PLAN SCALE 1:250 A1 SHEET



Project Name	TWEED VALLEY HOSPITAL DEVELOPMENT, KINGSCLIFF, NSW
Drawing Title	CONCEPT INTERSECTION WORKS PLAN SHEET 2 OF 2

PRELIMINARY

Designed	CS	Project Director Approved	Date	North
Drawn	PA			
Scale	1:250	Project Ref	Drawing No	Rev
Date	27.09.18	20 10748 01	C333	P3
Sheet	A1			

TWEED VALLEY HOSPITAL DEVELOPMENT

CUDGEN ROAD AUXILIARY LANE WORKS

DRAWING No.

DESCRIPTION

20 10748 C400

DRAWING REGISTER AND CONSTRUCTION NOTES

20 10748 C405

SEDIMENT AND EROSION CONTROL PLAN

20 10748 C441
20 10748 C442
20 10748 C450
20 10748 C460

AUXILIARY LANE CIVIL WORKS PLAN
AUXILIARY LANE STORMWATER DRAINAGE PLAN
AUXILIARY LANE STORMWATER DRAINAGE LONGITUDINAL SECTION
CIVIL WORKS AND STORMWATER DRAINAGE DETAILS

20 10748 C480
20 10748 C485

AUXILIARY LANE KERB CROSS SECTIONS
AUXILIARY LANE KERB LONGITUDINAL SECTIONS

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SITEWORKS NOTES

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 - UP TO FINISHED SUBGRADE LEVEL 98% STD.
 - ROAD PAVEMENT MATERIALS:
 - SUB BASE 98% MOD.
 - BASE COURSE 98% MOD.
- THE MAXIMUM COMPACTION IS TO BE NO GREATER THAN 4% ON TOP OF THE ABOVE MENTION VALUES.
- S3 GRADE EVENLY BETWEEN FINISHED SURFACE SPOT LEVELS. FINISHED SURFACE CONTOURS ARE SHOWN FOR CLARITY. WHERE FINISHED SURFACE LEVELS ARE NOT SHOWN, THE SURFACE SHALL BE GRADED SMOOTHLY SO THAT IT WILL DRAIN AND MATCH ADJACENT SURFACES OR STRUCTURES.
- S4 ALL DIMENSIONS GIVEN ARE TO FACE OF KERB, CENTER OF PIPE OR EXTERIOR FACE OF BUILDING UNLESS NOTED OTHERWISE.
- S5 ANY STRUCTURES, PAVEMENTS OR SURFACES DAMAGED, DIRTIED OR MADE UNSERVICABLE DUE TO CONSTRUCTION WORK SHALL BE REINSTATED TO THE SATISFACTION OF THE ENGINEER.
- S6 ANY FILL REQUIRED SHALL BE APPROVED BY THE ENGINEER / GEOTECHNICAL CONSULTANT
- S7 CONTRACTOR IS TO ENSURE THAT ALL EXCAVATIONS ARE MAINTAINED IN A DRY CONDITION WITH NO WATER ALLOWED TO REMAIN IN THE EXCAVATIONS.
- S8 ALL FINISHES AND COLOURS TO BE IN ACCORDANCE WITH ARCHITECTURAL SPECIFICATIONS.
- S9 REFER TO STRUCTURAL DRAWINGS FOR CONCRETE, REINFORCEMENT AND RETAINING WALL DETAILS.
- S10 GENERALLY FOR TRENCHING WORKS THE CONTRACTOR MUST:
A) COMPLY WITH THE GENERAL PROVISIONS OF PART 3.1 "MANAGING RISKS TO HEALTH AND SAFETY" OF NSW WORK AND HEALTH AND SAFETY REGULATION 2011
B) COMPLY PART 6.3 DIVISION 3 "EXCAVATION WORK" OF NSW WORK HEALTH AND SAFETY REGULATION NSW 2011
- S11 PRIOR TO THE EXCAVATION OF ANY TRENCH DEEPER THAN 15 METRES THE CONTRACTOR MUST:
A) NOTIFY THE OCCUPATIONAL HEALTH AND SAFETY AUTHORITY ON THE APPROPRIATE FORM.

STORMWATER DRAINAGE NOTES

- SW1 UNLESS NOTED OTHERWISE BY HYDRAULIC ENGINEERS DRAWINGS, ALL DOWNPIPES & GRATED INLETS SHALL BE CONNECTED TO PITS OR MAIN STORMWATER DRAINS WITH 150 DIA. UPVC PIPES LAID AT A MINIMUM GRADE OF 1 IN 100. FOR SYPHONIC ROOF DRAINAGE SYSTEMS ALL DOWNPIPES CONNECTION DRAIN SIZES TO BE CONNECTED INTO MAIN STORMWATER DRAINS SHALL BE IN ACCORDANCE WITH HYDRAULIC ENGINEERS DRAWINGS.
- SW2 ALL MAIN STORMWATER DRAINS SHALL BE CONSTRUCTED USING MATERIALS AS SPECIFIED ON THE DRAWINGS IN ACCORDANCE WITH THE APPROPRIATE A.S. IF NOT SPECIFIED THEN CLASS 4 RRJ RCP SHALL BE USED FOR DIAMETERS > 225mm. SEWER CLASS SEH UPVC IN ACCORDANCE WITH AS1260 SHALL BE USED FOR Ø225mm OR SMALLER.
- SW3 ALL PIPEWORK TO BE INSTALLED IN ACCORDANCE WITH AS3725 FOR RCP AND AS2032 FOR PVC. ALL BEDDING TO BE TYPE H2 UNLESS NOTED OTHERWISE.
- SW4 FOR ALL PITS > 12m DEEP, STEP IRONS SHALL BE INSTALLED.
- SW5 PRECAST PITS MAY BE USED EXTERNAL TO THE BUILDING SUBJECT TO APPROVAL BY BONACCI GROUP.
- SW6 ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA.
- SW7 WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED UPVC SEWER GRADE PIPE IS TO BE USED.
- SW8 GRATES AND COVERS SHALL CONFORM WITH AS 3996 AND AS 1428.1 FOR ACCESS REQUIREMENTS.
- SW9 CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES ARE NOT TO BE REDUCED WITHOUT APPROVAL.
- SW10 AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
- SW11 ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.

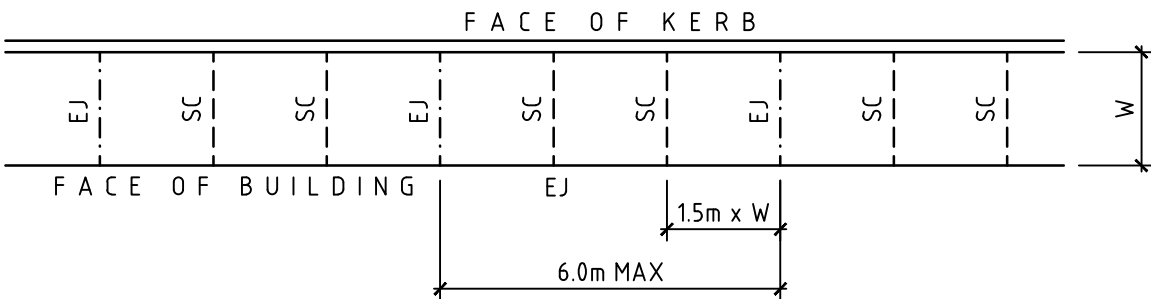
KERBING NOTES

- K1 ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 32 MPa U.N.O.
- K2 ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON 75mm GRANULAR BASECOURSE COMPACTED TO A MINIMUM 98% MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289 5.2.1.
- K3 EXPANSION JOINTS (EJ) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLAB.
- K4 WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLAB.
- K5 BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED.
- K6 IN THE REPLACEMENT OF KERBS:-
- EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.N.O. FROM THE LIP OF GUTTER. UPON COMPLETION OF THE NEW KERB AND GUTTER, NEW BASECOURSE AND SURFACE TO BE LAID 600mm WIDE U.N.O.
- EXISTING KERBS ARE TO BE COMPLETELY REMOVED WHERE NEW KERBS ARE SHOWN.

JOINTING NOTES

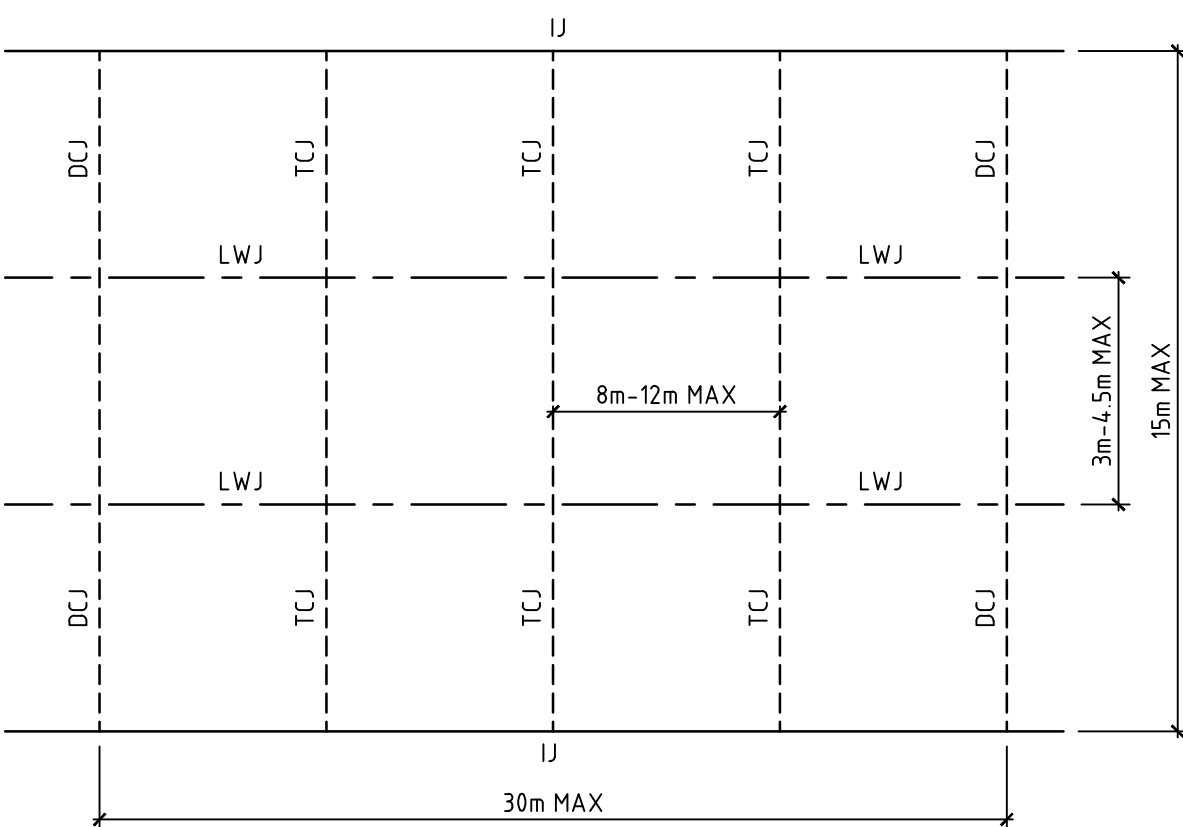
PEDESTRIAN FOOTPATH JOINTS

- J1 EXPANSION JOINTS (EJ) ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT 6m CENTRES.
- J2 SAWCUT JOINTS (SC) ARE TO BE LOCATED AT A MAX 15m x WIDTH OF PAVEMENT. THE TIMING OF THE SAWCUT IS TO BE CONFIRMED BY THE CONTRACTOR ON SITE. SITE CONDITIONS WILL DETERMINE HOW MANY HOURS AFTER THE CONCRETE POUR BEFORE THE SAW CUTS ARE COMMENCED.
- J3 WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND / OR ADJACENT PAVEMENT JOINTS.
- J4 PROVIDE 10mm WIDE FULL DEPTH EXPANSION JOINTS (EJ) BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVERS
- J5 ALL PEDESTRIAN FOOTPATH JOINTINGS AS FOLLOWS (U.N.O.).



VEHICULAR PAVEMENT JOINTS

- J6 ALL VEHICULAR PAVEMENTS TO BE JOINTED AS SHOWN ON DRAWINGS.
- J7 LONGITUDINAL WARPING JOINTS (LWJ) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 3m TO 4.5m MAX CENTERS. ALL LWJ's SHOULD BE TIED UP TO A MAXIMUM TOTAL WIDTH OF 30m.
- J8 TRANSVERSE CONTRACTION JOINTS (TCJ) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 8m TO 12m MAX CENTERS. TCJ's CAN BE SPACED AT SUITABLE INTERVALS UP TO A RECOMMENDED MAXIMUM LENGTH OF 15m.
- J9 TRANSVERSE DOWELED CONSTRUCTION JOINTS (DCJ) TO BE PROVIDED FOR PLANNED INTERRUPTIONS SUCH AS AT THE END OF EACH DAY'S OPERATIONS (POUR BREAK), AT BLOCK OUTS FOR BRIDGES AND INTERSECTIONS OR FOR UNEXPECTED DELAYS WHEN THE SUSPENSION OF OPERATIONS IS LIKELY TO CREATE A JOINT.
- J10 ISOLATION JOINTS WITH SUB-GRADE BEAM (IJ) TO BE PROVIDED AT INTERSECTIONS OR AT THE JUNCTION OF A POUR BREAK.
- J11 ALL VEHICULAR PAVEMENTS TO BE JOINTED IN ACCORDANCE WITH AUSTRROADS AGPT02-12 GUIDE TO PAVEMENT TECHNOLOGY PART 2 STRUCTURAL PAVEMENT DESIGN AND SUPPLEMENT AP-136-06 PAVEMENT DESIGN FOR LIGHT TRAFFIC
- J12 VEHICULAR PAVEMENT JOINTING AS FOLLOWS (U.N.O.)



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BONACCI GROUP Pty Ltd
ABN 42 060 332 345
Consulting Engineers, Structural - Civil - Infrastructure
Level 6, 37 York Street, Sydney, NSW 2000 Australia
Tel: +61 2 8247 8400 Fax: +61 2 8247 8444
sydney@bonaccigroup.com
www.bonaccigroup.com

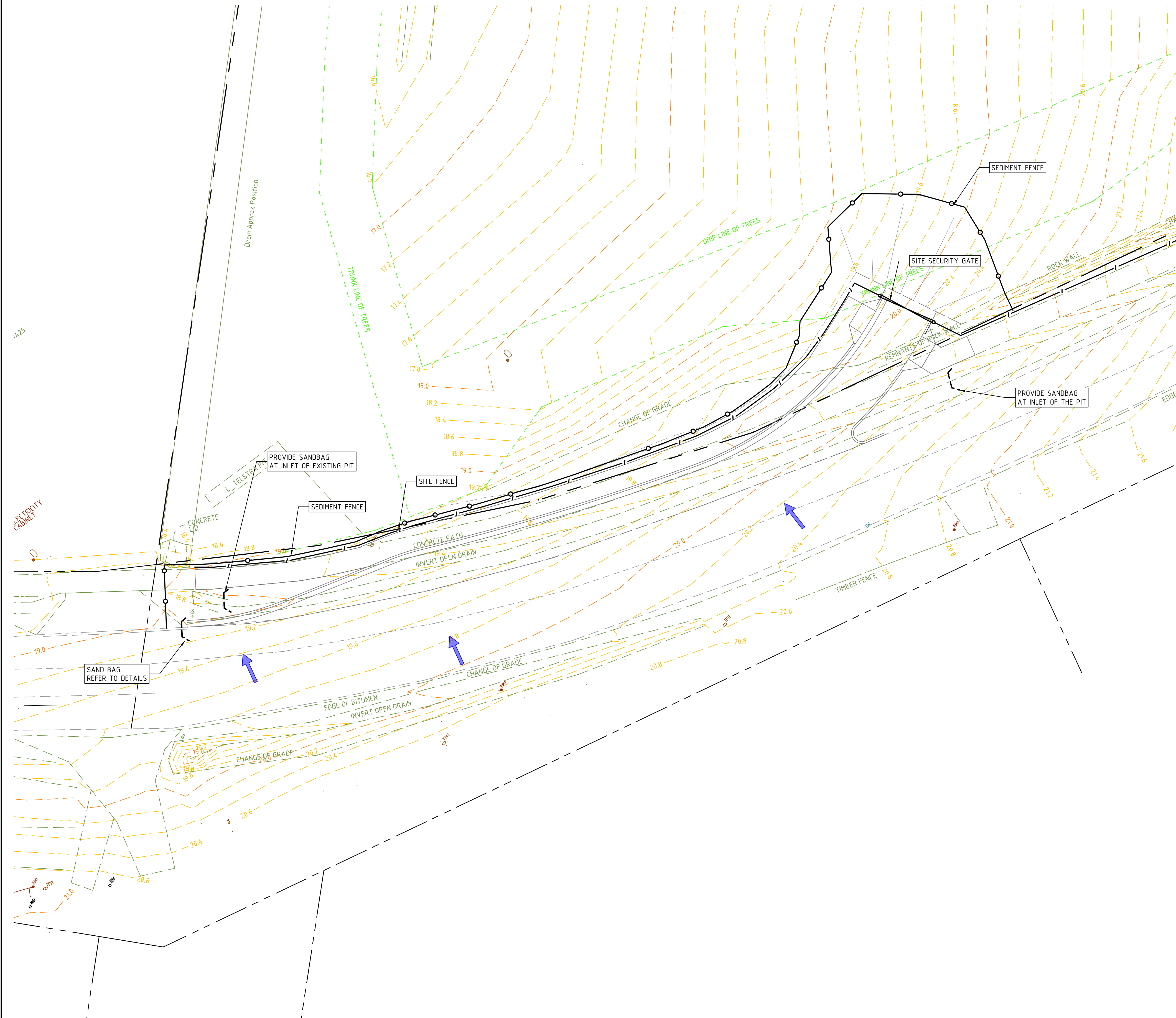
Project Name
**TWEED VALLEY HOSPITAL
CUDGEN ROAD AUXILIARY
LANE WORKS**

Drawing Title
**DRAWING REGISTER AND
CONSTRUCTION NOTES**

TENDER

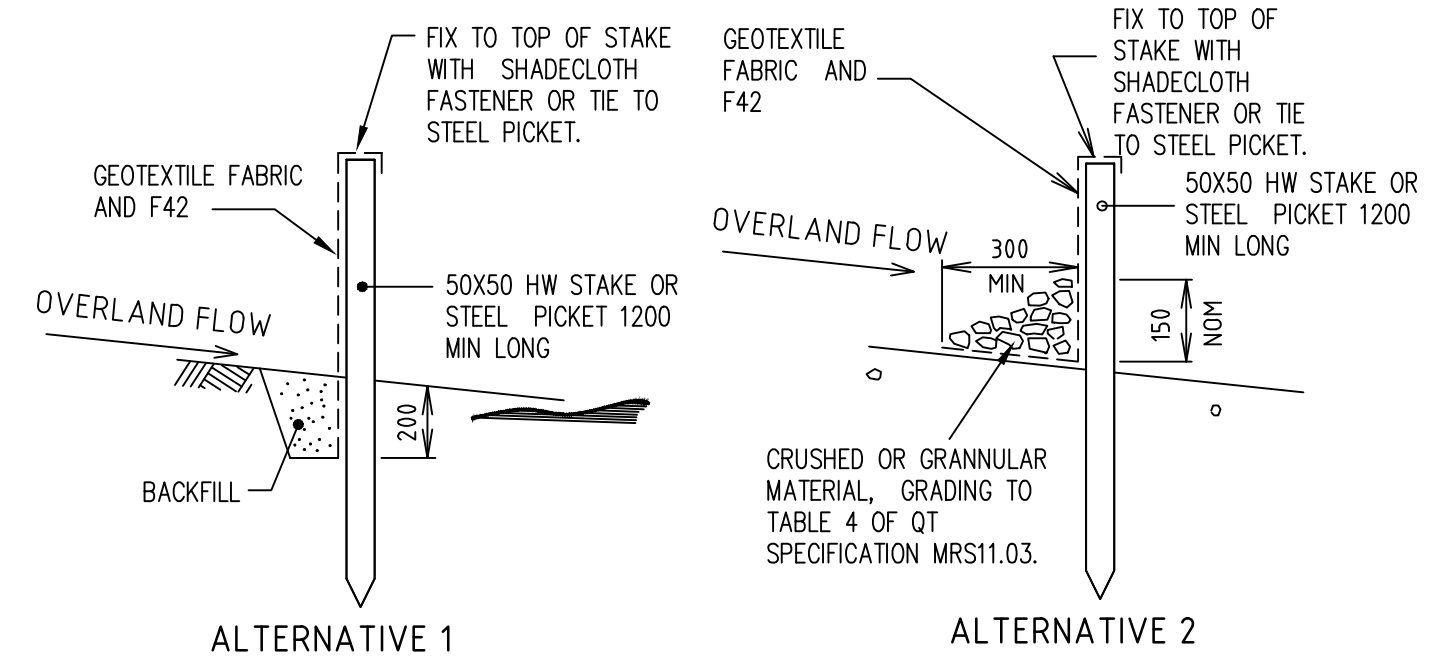
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Date	3.10.2018			
Sheet	A1	20 10748 01	C400	P2

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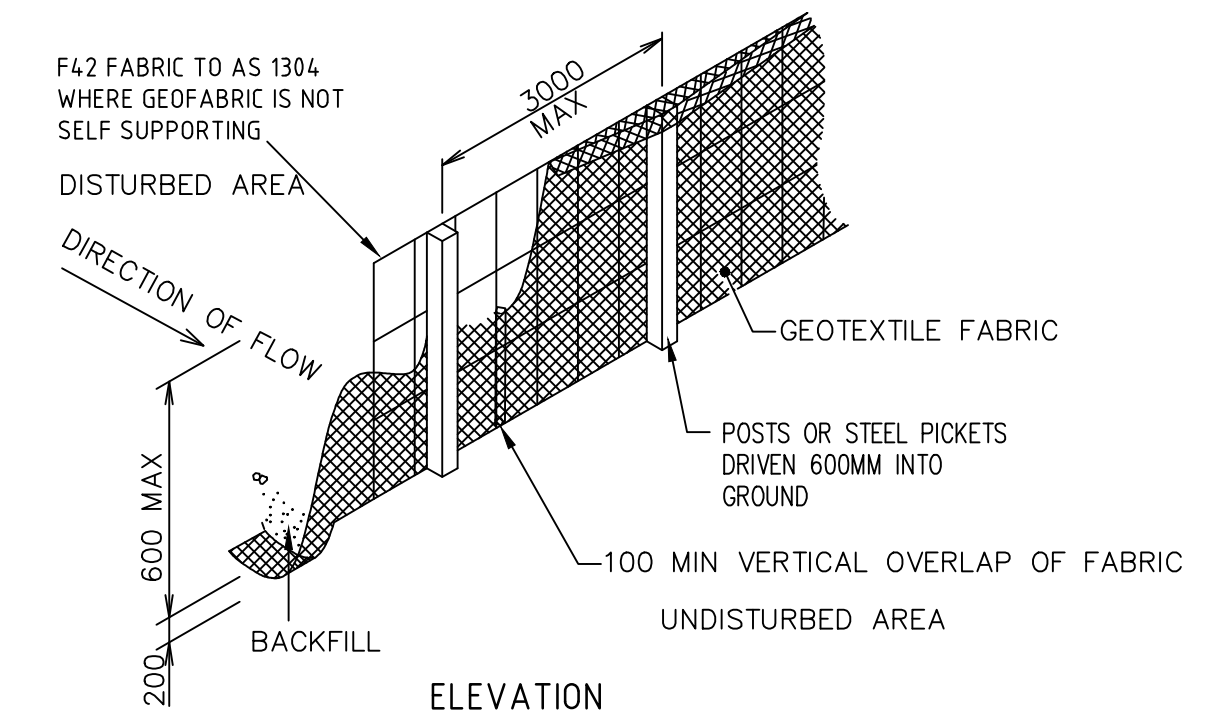
LEGEND

- SITE BOUNDARY
- INDICATIVE DIRECTION OF OVERLAND FLOW PATH
- SEDIMENT FENCE REFER TO DETAILS
- SITE FENCE
- SANDBAG REFER TO DETAILS
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR



ALTERNATIVE 1

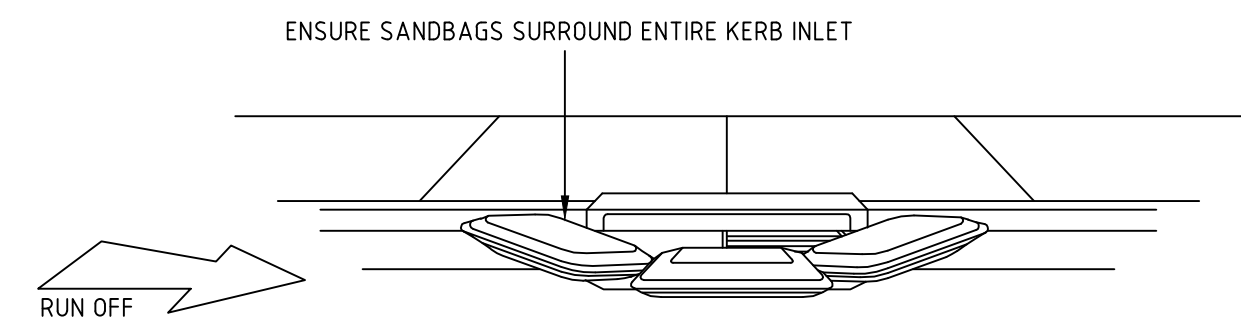
ALTERNATIVE 2



ELEVATION

SEDIMENT FENCE

NOT TO SCALE



SANDBAG KERB INLET SEDIMENT TRAP

NOT TO SCALE

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P2 ISSUED FOR TENDER 05.11.18 PA -
P1 ISSUED FOR DRAFT TENDER 02.11.18 PA -

Rev Description Date By App

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BONACCI

BONACCI GROUP Pty Ltd
ABN 42 060 332 345
Consulting Engineers, Structural - Civil - Infrastructure
Level 6, 37 York Street, Sydney, NSW 2000 Australia
Tel: +61 2 8247 8400 Fax: +61 2 8247 8444
sydney@bonaccigroup.com
www.bonaccigroup.com

2.5 0 2.5 5.0 7.5 10.0m
PLAN SCALE 1:200 AT SHEET

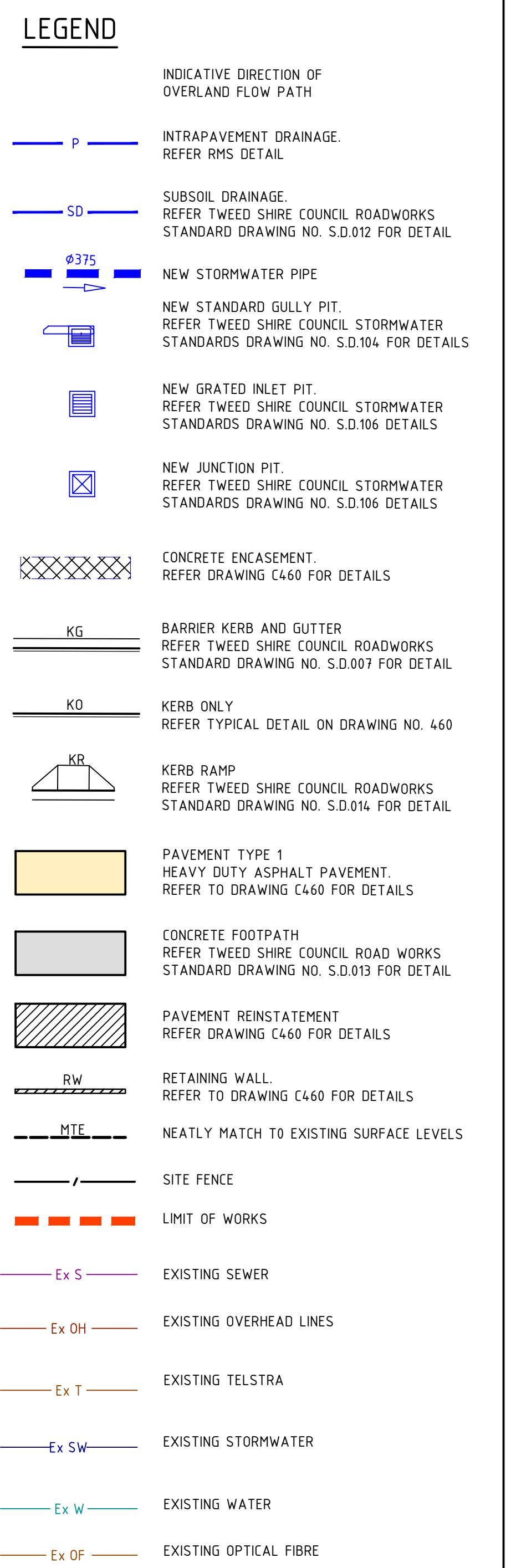
Project Name
TWEED VALLEY HOSPITAL
CUDGEN ROAD AUXILIARY
LANE WORKS

Drawing Title
SEDIMENT AND EROSION
CONTROL PLAN

TENDER

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Date	3.10.2018			
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Project Ref	Drawing No	Rev
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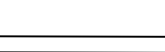
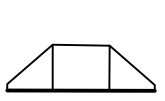
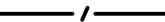
The logo for Bonacci Group Pty Ltd features the word "BONACCI" in a large, white, serif font. A horizontal line is drawn through the middle of the letters, creating a stylized effect. The logo is set against a dark, rectangular background.

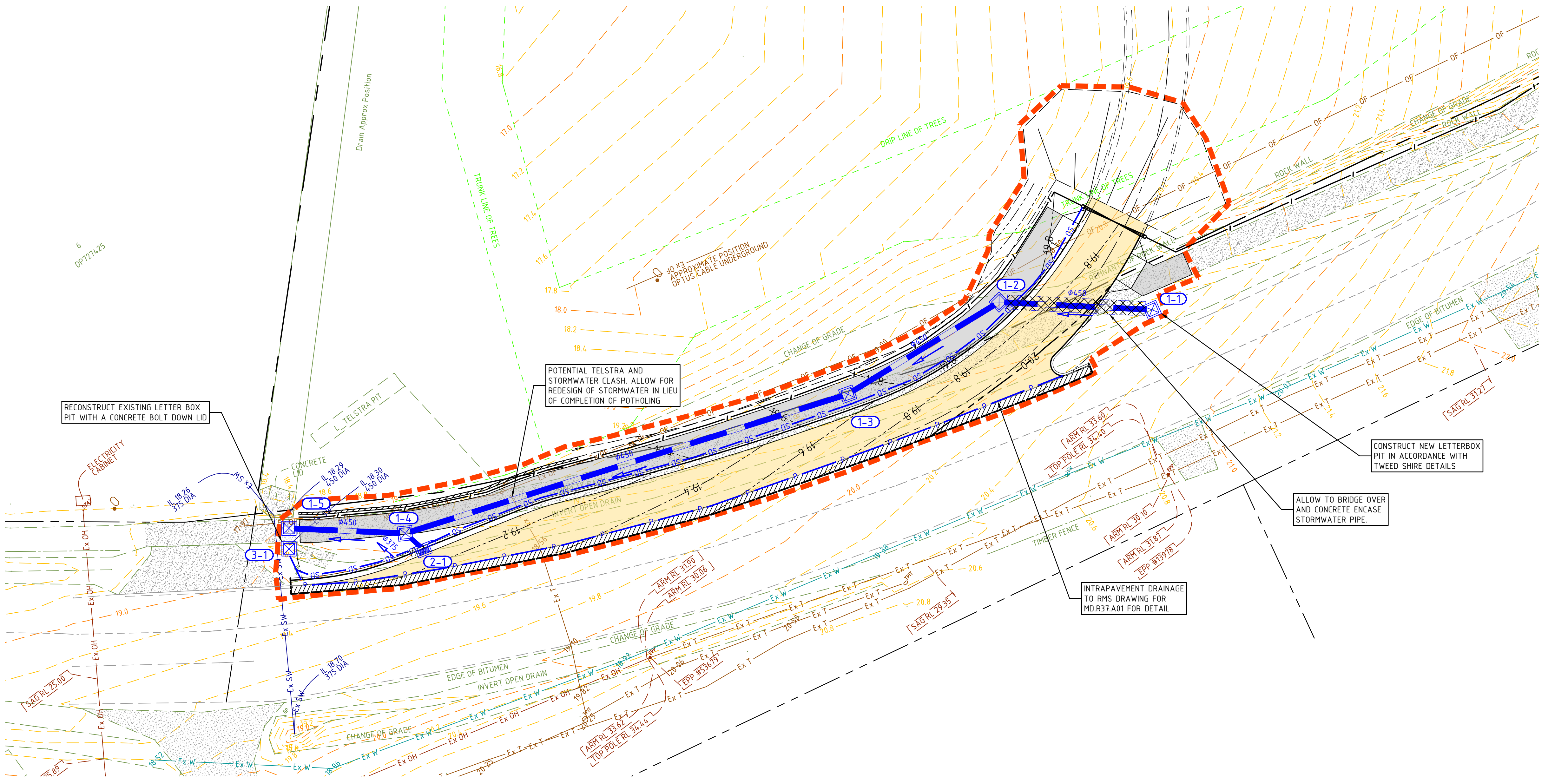
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ABN 42 060 332 345
Consulting Engineers, Structural - Civil - Infrastructure
Level 6, 37 York Street, Sydney, NSW 2000 Australia
Tel: +61 2 8247 8400 Fax: +61 2 8247 8444
sydney@bonaccigroup.com
www.bonaccigroup.com

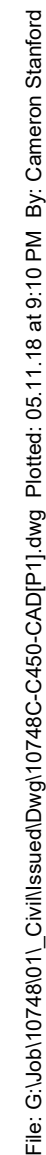
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	Designed	CS	Project Director Approved	Date	North 
Drawing Title	Drawn	PA			
	Scale	1:200			
	Date	05.11.18			
	Sheet	A1			
			Project Ref	Drawing No	Rev
			20 10748 01	C441	P2

LEGEND

	INDICATIVE DIRECTION OF OVERLAND FLOW PATH
	INTRAPRAVEMENT DRAINAGE. REFER RMS DETAIL
	SUBSOIL DRAINAGE. REFER TWEED SHIRE COUNCIL ROADWORKS STANDARD DRAWING NO. S.D.012 FOR DETAILS
	NEW STORMWATER PIPE
	NEW STANDARD GULLY PIT. REFER TWEED SHIRE COUNCIL STORMWATER STANDARDS DRAWING NO. S.D.014 FOR DETAILS
	NEW GRATED INLET PIT. REFER TWEED SHIRE COUNCIL STORMWATER STANDARDS DRAWING NO. S.D.016 DETAILS
	NEW JUNCTION PIT. REFER TWEED SHIRE COUNCIL STORMWATER STANDARDS DRAWING NO. S.D.016 DETAILS

	CONCRETE ENCASEMENT. REFER DRAWING C460 FOR DETAILS
	BARRIER KERB AND GUTTER REFER TWEED SHIRE COUNCIL ROADWORKS STANDARD DRAWING NO. S.D.007 FOR DETAIL
	KERB ONLY REFER TYPICAL DETAIL ON DRAWING NO. C460
	KERB RAMP REFER TWEED SHIRE COUNCIL ROADWORKS STANDARD DRAWING NO. S.D.014 FOR DETAIL
	PAVEMENT TYPE 1 HEAVY DUTY ASPHALT PAVEMENT. REFER TO DRAWING C460 FOR DETAILS
	CONCRETE FOOTPATH REFER TWEED SHIRE COUNCIL ROAD WORKS STANDARD DRAWING NO. S.D.013 FOR DETAIL
	PAVEMENT REINSTATEMENT REFER DRAWING C460 FOR DETAILS
	RETAINING WALL. REFER TO DRAWING C460 FOR DETAILS
	NEATLY MATCH TO EXISTING SURFACE LEVELS
	SITE FENCE
	LIMIT OF WORKS
	EXISTING SEWER
	EXISTING OVERHEAD LINES
	EXISTING TELSTRA
	EXISTING STORMWATER
	EXISTING WATER
	EXISTING OPTICAL FIBRE
	EXISTING MINOR CONTOUR
	EXISTING MAJOR CONTOUR

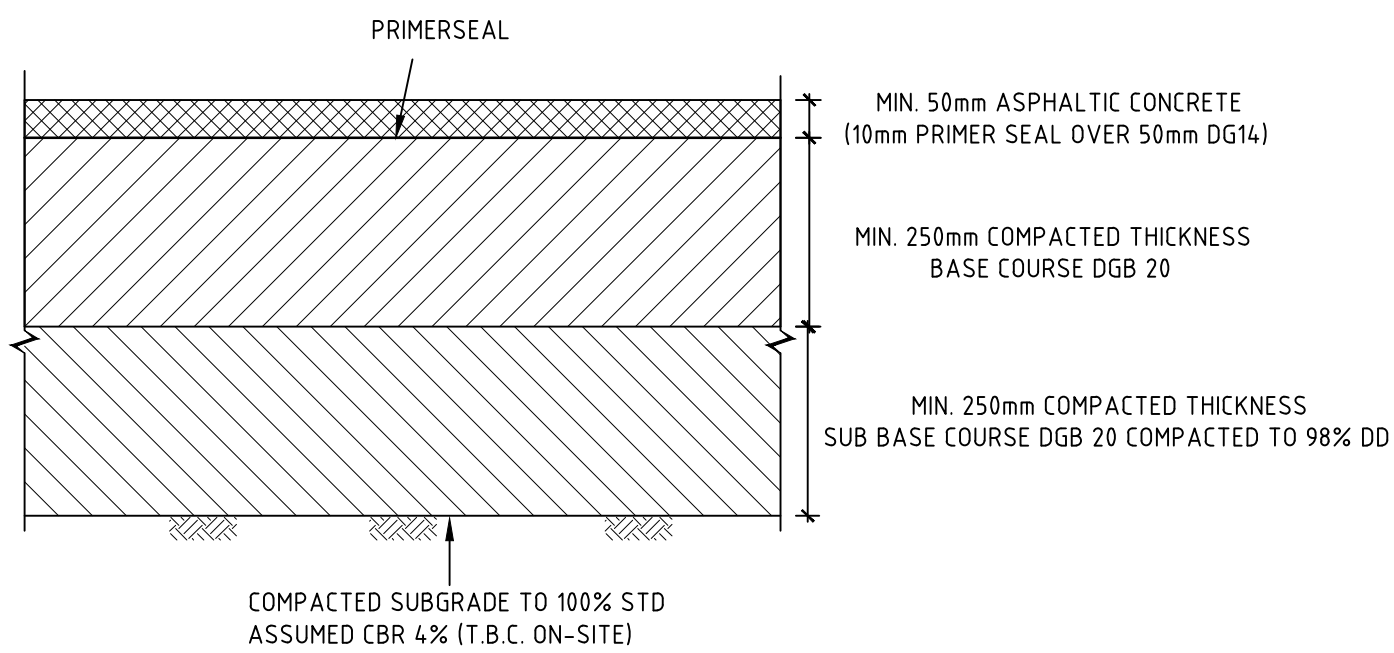




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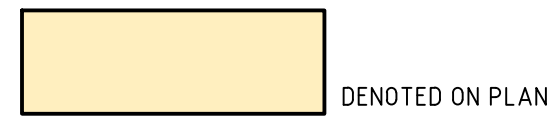
Project Name	TWEED VALLEY HOSPITAL CUDGEN ROAD AUXILIARY LANE WORKS
Drawing Title	AUXILIARY LANE STORMWATER DRAINAGE LONGITUDINAL SECTION

TENDER				
Designed	CS	Project Director Approved	Date	North
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Date	05.11.18	Project Ref	Drawing No	Rev
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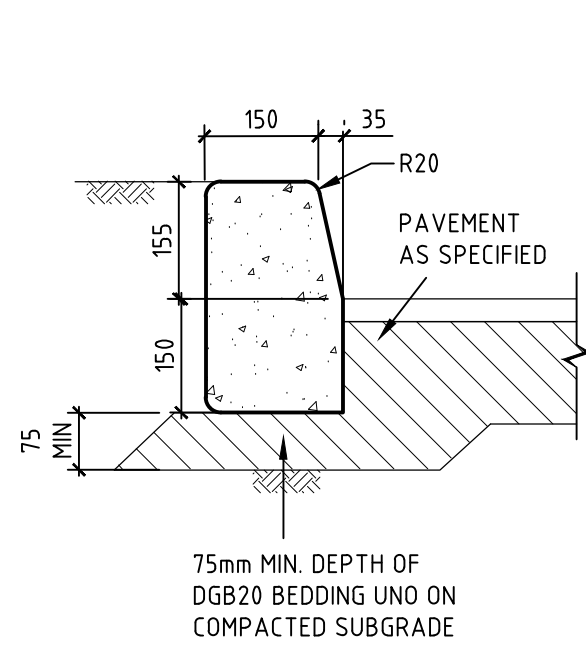


PAVEMENT TYPE P1
HEAVY DUTY ASPHALT PAVEMENT

SCALE 1:10

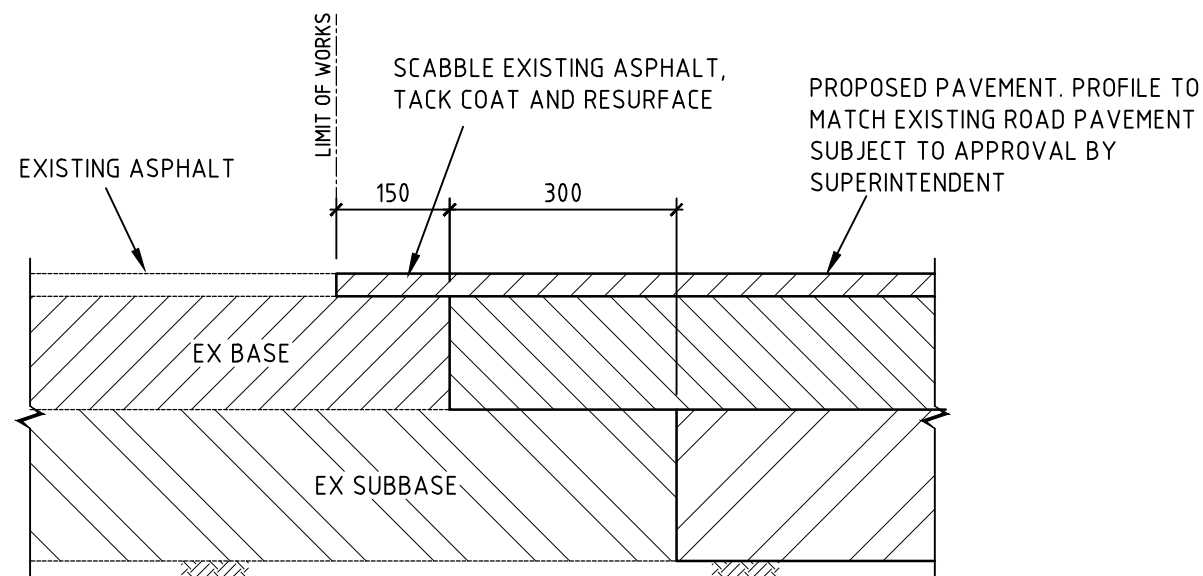


- ROAD DESIGN PARAMETERS (FLEXIBLE)**
DESIGN TRAFFIC 1.5 X 10⁶ (ESA's OR HVAG)
ASSUMPTIONS:
- TWEED SHIRE COUNCIL PAVEMENT DESIGN TABLE D2.2 ARTERIAL DISTRIBUTOR, SHOPPING STRIP ACCESS, INDUSTRIAL, DESIGN PERIOD 25 YEAR.
 - CBR 4.0%
 - PREPARE SUBGRADE AND SELECT FILL IN ACCORDANCE WITH (MORRISON GEOTECH, REFERENCE NO. GE18/144-REV 1)



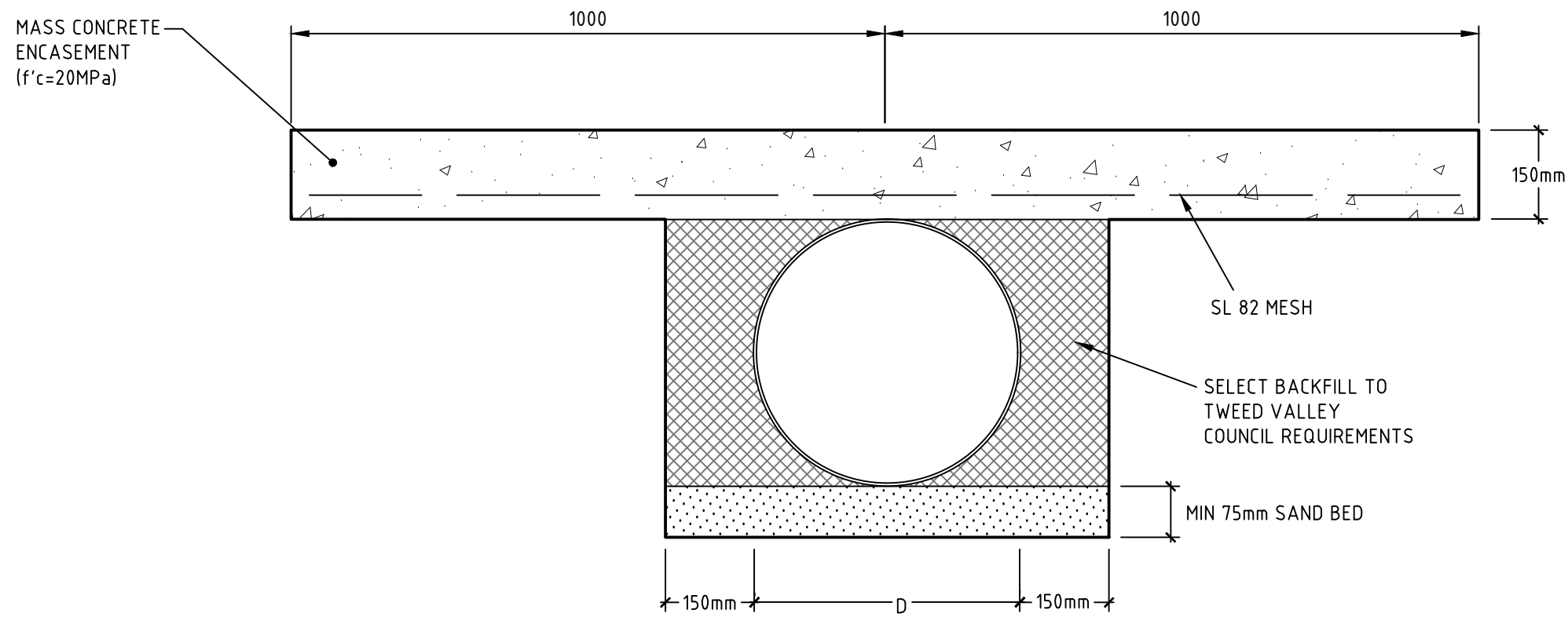
KERB ONLY (KO)

SCALE 1:10
(TO BE APPROVED BY COUNCIL)



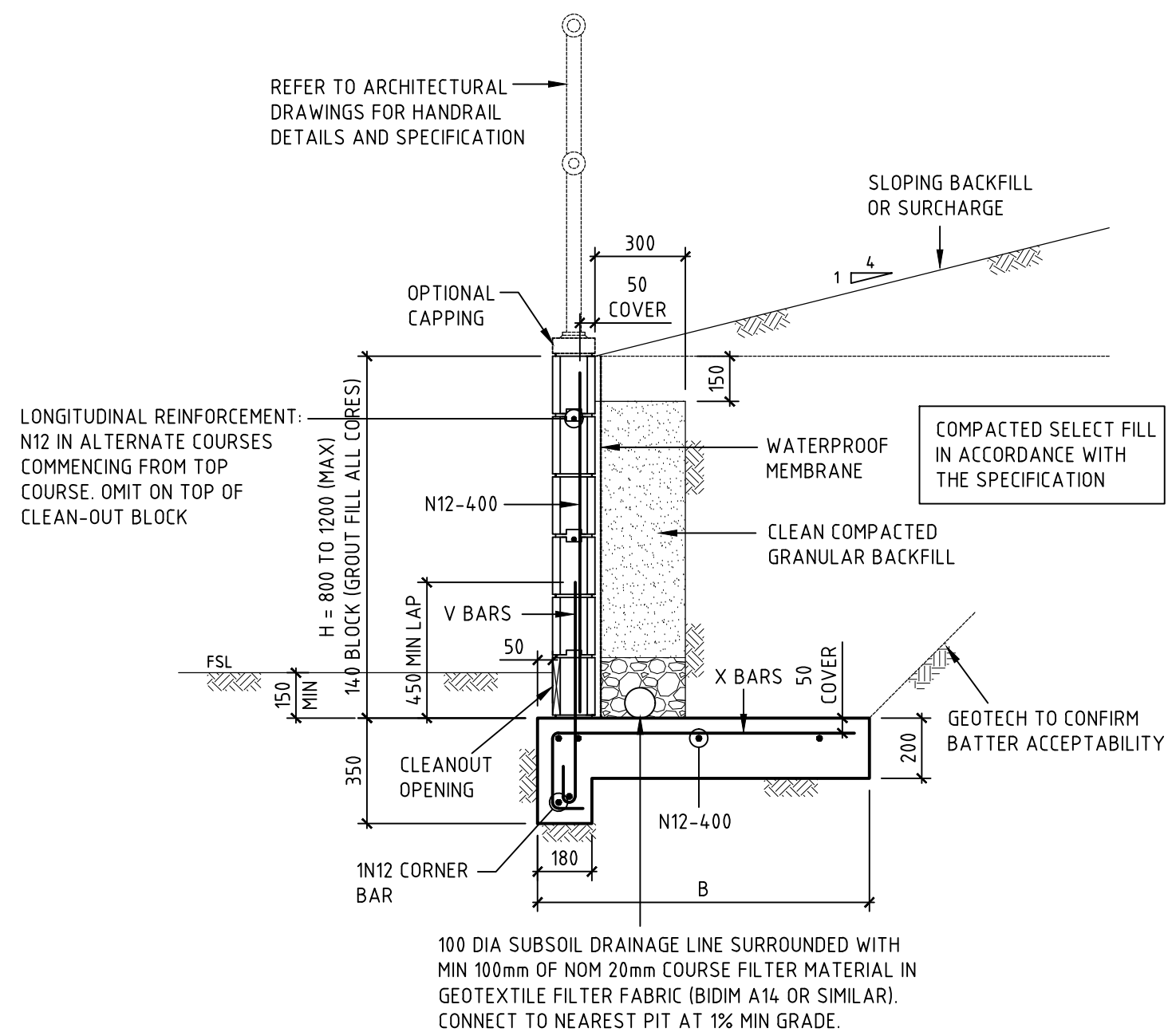
AC CONNECTION TO EXISTING PAVEMENT

SCALE 1:10



CONCRETE ENCASEMENT DETAIL

SCALE 1:10



BLOCK RETAINING WALL (MAX 1200 HIGH)

SCALE 1:20

NOTE: DESIGNER TO CHECK THE NEED FOR SHEAR KEY

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BONACCI
BONACCI GROUP Pty Ltd
ABN 42 060 332 345
Consulting Engineers, Structural - Civil - Infrastructure
Level 6, 37 York Street, Sydney, NSW 2000 Australia
Tel: +61 2 8247 8400 Fax: +61 2 8247 8444
sydney@bonaccigroup.com
www.bonaccigroup.com

Project Name
**TWEED VALLEY HOSPITAL
CUDGEN ROAD AUXILIARY
LANE WORKS**

Drawing Title
**CIVIL WORKS AND
STORMWATER DRAINAGE DETAILS**

TENDER

Designed	CS	Project Director Approved	Date	North
Drawn	PA			
Scale	NOTED	Project Ref	Drawing No	Rev
Date	05.11.18	20 10748 01	C460	P2
Sheet	A1			



SLIP LANE KR01 CL LONGITUDINAL SECTION

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BONACCI GROUP Pty Ltd
ABN 42 060 332 345
Consulting Engineers, Structural - Civil - Infrastructure
Level 6, 37 York Street, Sydney, NSW 2000 Australia
Tel: +61 2 8247 8400 Fax: +61 2 8247 8444
sydney@bonaccigroup.com
www.bonaccigroup.com

Project Name	TWEED VALLEY HOSPITAL CUDGEN ROAD AUXILIARY LANE WORKS		TENDER		
Drawing Title	Designed	CS	Project Director Approved	Date	North
	Drawn	PA			
	Scale	NOTED			
	Date	05.11.18			
	Sheet	A1			
	Project Ref	Drawing No	Rev		
		20 10748 01	C485	P1	

TWEED VALLEY HOSPITAL DEVELOPMENT TURNOCK STREET ROUNDABOUT WORKS

<u>DRAWING No.</u>	<u>DESCRIPTION</u>
20 10748 C500	DRAWING REGISTER AND CONSTRUCTION NOTES
20 10748 C505	SEDIMENT AND EROSION CONTROL PLAN
20 10748 C540	EXTERNAL WORKS INTERSECTION PLAN
20 10748 C545	DEMOLITION PLAN
20 10748 C560	CIVIL WORKS DETAILS

GENERAL NOTES

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS OR SKETCHES AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE SUPERINTENDENT BEFORE PROCEEDING WITH WORK.
- MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE SPECIFICATION, CURRENT SAA CODES, BUILDING REGULATIONS AND THE REQUIREMENTS OF ANY OTHER RELEVANT STATUTORY AUTHORITIES.
- THESE DRAWINGS MUST NOT BE SCALED. ALL DIMENSIONS ARE IN METERS. ALL SET OUT DIMENSIONS AND LEVELS, INCLUDING THOSE SHOWN ON THESE DRAWINGS SHALL BE IN ACCORDANCE WITH THE ARCHITECT'S DRAWINGS AND VERIFIED ON SITE.
- ALL SETOUT AND DIMENSIONS OF THE STRUCTURE INCLUDING KERBS AND RETAINING WALLS, AND BULK EARTHWORKS MUST BE TAKEN FROM THE ARCHITECT'S DRAWINGS. SETOUT OF THE STORMWATER PITS BY OTHERS. CONTRACTOR TO CONFIRM SETOUT OF SERVICE TRENCHING INCLUDING SUBSOIL ON SITE.
- THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS OF AUTHORITIES HAVING JURISDICTION OVER THE WORKS. REFER TO GEOTECHNICAL REPORT BY MORRISON GEOTECHNICAL PTY LTD, REFERENCE: GE18/144 REV 2, DATED 28th SEPTEMBER 2018.
- ALL DIMENSIONS AND REDUCED LEVELS MUST BE VERIFIED ON SITE BEFORE THE COMMENCEMENT OF ANY WORK.
- THE APPROVAL OF A SUBSTITUTION SHALL BE SOUGHT FROM THE SUPERINTENDENT BUT IS NOT AN AUTHORISATION OF A COST VARIATION. THE SUPERINTENDENT MUST APPROVE ANY COST VARIATION INVOLVED BEFORE ANY WORK STARTS.
- ALL LEVELS SHOWN ARE TO THE AUSTRALIAN HEIGHT DATUM.
- SERVICE INFORMATION SHOWN IS APPROXIMATE ONLY. PRIOR TO COMMENCEMENT OF ANY WORKS, THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND SERVICES AND COMPLY WITH ALL REQUIREMENTS OF THOSE AUTHORITIES.
- EXISTING SURFACE CONTOURS, WHERE SHOWN, ARE INTERPOLATED AND MAY NOT BE ACCURATE.
- UNLESS NOTED OTHERWISE, ALL VEGETATION SHALL BE STRIPPED TO A MINIMUM DEPTH OF 150mm UNDER ALL PROPOSED PAVEMENT AND BUILDING AREAS.
- MAKE SMOOTH CONNECTION WITH ALL EXISTING WORKS.
- THESE DWGS SHOULD BE READ IN CONJUNCTION WITH COUNCIL'S STANDARD DETAILS.

SITEWORKS NOTES

- PRIOR TO THE PLACEMENT OF ANY PAVEMENTS, BUILDINGS OR DRAINS THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A MINIMUM OF 98% STANDARD COMPACTION IN ACCORDANCE WITH TEST 'E1' OF A.S. 1289 FOR THE TOP 300mm. ANY SOFT SPOTS SHALL BE REMOVED AND REPLACED WITH GRANULAR FILL TO THE ENGINEERS APPROVAL AND COMPACTED IN ACCORDANCE WITH THE COMPACTION REQUIREMENTS SET OUT BELOW. ON HIGHLY REACTIVE CLAY AREAS SITE EXCAVATED MATERIAL MAY BE USED WITH THE PRIOR AUTHORISATION OF THE ENGINEER.
- S2 ALL FILL AND PAVEMENT MATERIALS SHALL BE COMPACTED IN ACCORDANCE WITH GEOTECHNICAL REPORT BY MORRISON GEOTECHNIC PTY LTD REFERENCE: GE18/144 REV 2 DATED 28th SEPTEMBER 2018 MOISTURE CONTENT TO BE MAINTAINED AT +/- 2% OMC. MINIMUM COMPACTION REQUIREMENTS ARE DETAILED BELOW FOR (ALL REQUIREMENTS ARE TO BE VERIFIED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER):
- LANDSCAPED AREAS 95% STD.
 - FILL UNDER ANY FOOTINGS AND FLOOR SLABS FOR ANY STRUCTURE TO SUBGRADE LEVEL;
 - FINE CRUSHED ROCK 98% STD.
 - SELECTED FILL WITHOUT CONSPICUOUS CLAY CONTENT 98% STD.
 - BUILDING BASECOURSE 98% MOD
 - FILL UNDER ROAD PAVEMENTS;
 - TO WITHIN 500mm OF FINISHED SUBGRADE LEVEL 98% STD.
 - UP TO FINISHED SUBGRADE LEVEL 98% STD.
 - ROAD PAVEMENT MATERIALS;
 - SUB BASE 98% MOD.
 - BASE COURSE 98% MOD.
- THE MAXIMUM COMPACTION IS TO BE NO GREAT THAN 4% ON TOP OF THE ABOVE MENTION VALUES.
- S3 GRADE EVENLY BETWEEN FINISHED SURFACE SPOT LEVELS. FINISHED SURFACE CONTOURS ARE SHOWN FOR CLARITY. WHERE FINISHED SURFACE LEVELS ARE NOT SHOWN, THE SURFACE SHALL BE GRADED SMOOTHLY SO THAT IT WILL DRAIN AND MATCH ADJACENT SURFACES OR STRUCTURES.
- S4 ALL DIMENSIONS GIVEN ARE TO FACE OF KERB, CENTER OF PIPE OR EXTERIOR FACE OF BUILDING UNLESS NOTED OTHERWISE.
- S5 ANY STRUCTURES, PAVEMENTS OR SURFACES DAMAGED, DIRTIED OR MADE UNSERVICABLE DUE TO CONSTRUCTION WORK SHALL BE REINSTATED TO THE SATISFACTION OF THE ENGINEER.
- S6 ANY FILL REQUIRED SHALL BE APPROVED BY THE ENGINEER / GEOTECHNICAL CONSULTANT
- S7 CONTRACTOR IS TO ENSURE THAT ALL EXCAVATIONS ARE MAINTAINED IN A DRY CONDITION WITH NO WATER ALLOWED TO REMAIN IN THE EXCAVATIONS.
- S8 ALL FINISHES AND COLOURS TO BE IN ACCORDANCE WITH ARCHITECTURAL SPECIFICATIONS.
- S9 REFER TO STRUCTURAL DRAWINGS FOR CONCRETE, REINFORCEMENT AND RETAINING WALL DETAILS.
- S10 GENERALLY FOR TRENCHING WORKS THE CONTRACTOR MUST:
A) COMPLY WITH THE GENERAL PROVISIONS OF PART 31 "MANAGING RISKS TO HEALTH AND SAFETY" OF NSW WORK HEALTH AND SAFETY REGULATION 2011
B) COMPLY PART 6.3 DIVISION 3 "EXCAVATION WORK" OF NSW WORK HEALTH AND SAFETY REGULATION NSW 2011
- S11 PRIOR TO THE EXCAVATION OF ANY TRENCH DEEPER THAN 1.5 METRES THE CONTRACTOR MUST:
A) NOTIFY THE OCCUPATIONAL HEALTH AND SAFETY AUTHORITY ON THE APPROPRIATE FORM.

STORMWATER DRAINAGE NOTES

- | | |
|------|--|
| SW1 | UNLESS NOTED OTHERWISE BY HYDRAULIC ENGINEERS DRAWINGS, ALL DOWNPIPES & GRATED INLETS SHALL BE CONNECTED TO PITS OR MAIN STORMWATER DRAINS WITH 150 DIA. UPVC PIPES LAID AT A MINIMUM GRADE OF 1 IN 100. FOR SYPHONIC ROOF DRAINAGE SYSTEMS ALL DOWNPIPES CONNECTION DRAIN SIZES TO BE CONNECTED INTO MAIN STORMWATER DRAINS SHALL BE IN ACCORDANCE WITH HYDRAULIC ENGINEERS DRAWINGS. |
| SW2 | ALL MAIN STORMWATER DRAINS SHALL BE CONSTRUCTED USING MATERIALS AS SPECIFIED ON THE DRAWINGS IN ACCORDANCE WITH THE APPROPRIATE A.S. IF NOT SPECIFIED THEN CLASS 4 RRJ RCP SHALL BE USED FOR DIAMETERS > 225mm. SEWER CLASS SEH UPVC IN ACCORDANCE WITH AS1260 SHALL BE USED FOR Ø225mm OR SMALLER. |
| SW3 | ALL PIPEWORK TO BE INSTALLED IN ACCORDANCE WITH AS3725 FOR RCP AND AS2032 FOR PVC. ALL BEDDING TO BE TYPE H2 UNLESS NOTED OTHERWISE. |
| SW4 | FOR ALL PITS > 1.2m DEEP, STEP IRONS SHALL BE INSTALLED. |
| SW5 | PRECAST PITS MAY BE USED EXTERNAL TO THE BUILDING SUBJECT TO APPROVAL BY BONACCI GROUP. |
| SW6 | ENLARGERS, CONNECTIONS AND JUNCTIONS TO BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300 DIA. |
| SW7 | WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED UPVC SEWER GRADE PIPE IS TO BE USED. |
| SW8 | GRATES AND COVERS SHALL CONFORM WITH AS 3996 AND AS 1428.1 FOR ACCESS REQUIREMENTS. |
| SW9 | CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES ARE NOT TO BE REDUCED WITHOUT APPROVAL. |
| SW10 | AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS. |
| SW11 | ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS. |

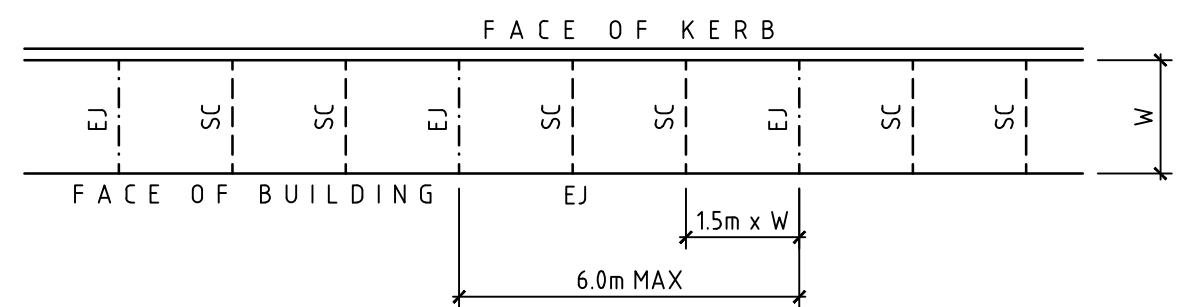
KERBING NOTES

- | | |
|----|--|
| K1 | ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 32 MPa U.N.O. |
| K2 | ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON 75mm GRANULAR BASECOURSE COMPACTED TO A MINIMUM 98% MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289 5.2.1. |
| K3 | EXPANSION JOINTS (EJ) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE FITS ON TANGENT PORTION OF CURVES AND ELSEWHERE AT MAX 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLAB. |
| K4 | WEAKENED PLANE JOINTS TO BE MIN 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLAB. |
| K5 | BROOMED FINISH TO ALL RAMPED AND VEHICULAR CROSSINGS. ALL OTHER KERBING OR DISH DRAINS TO BE STEEL FLOAT FINISHED. |
| K6 | IN THE REPLACEMENT OF KERBS:-
- EXISTING ROAD PAVEMENT IS TO BE SAWCUT 900mm U.N.O. FROM THE LIP OF GUTTER, UPON COMPLETION OF THE NEW KERB AND GUTTER, NEW BASECOURSE AND SURFACE TO BE LAID 600mm WIDE U.N.O.
- EXISTING KERBS ARE TO BE COMPLETELY REMOVED WHERE NEW KERBS ARE SHOWN. |

JOINTING NOTES

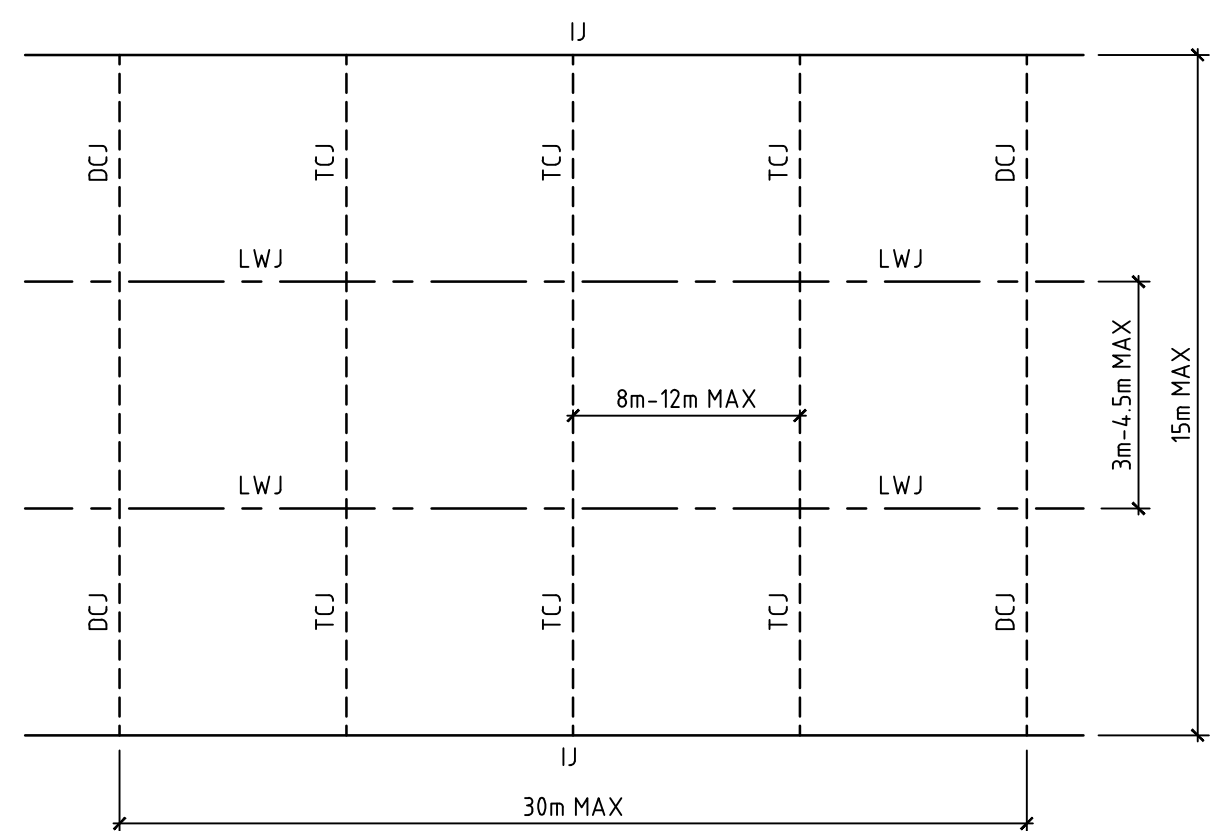
PEDESTRIAN FOOTPATH JOINTS

- | | |
|----|--|
| J1 | EXPANSION JOINTS (EJ) ARE TO BE LOCATED WHERE POSSIBLE AT TANGENT POINTS OF CURVES AND ELSEWHERE AT 6m CENTRES. |
| J2 | SAWCUT JOINTS (SC) ARE TO BE LOCATED AT A MAX 15m x WIDTH OF PAVEMENT. THE TIMING OF THE SAWCUT IS TO BE CONFIRMED BY THE CONTRACTOR ON SITE. SITE CONDITIONS WILL DETERMINE HOW MANY HOURS AFTER THE CONCRETE POUR BEFORE THE SAW CUTS ARE COMMENCED. |
| J3 | WHERE POSSIBLE JOINTS SHOULD BE LOCATED TO MATCH KERBING AND / OR ADJACENT PAVEMENT JOINTS. |
| J4 | PROVIDE 10mm WIDE FULL DEPTH EXPANSION JOINTS (EJ) BETWEEN BUILDINGS AND ALL CONCRETE OR UNIT PAVERS |
| J5 | ALL PEDESTRIAN FOOTPATH JOINTINGS AS FOLLOWS (U.N.D.). |



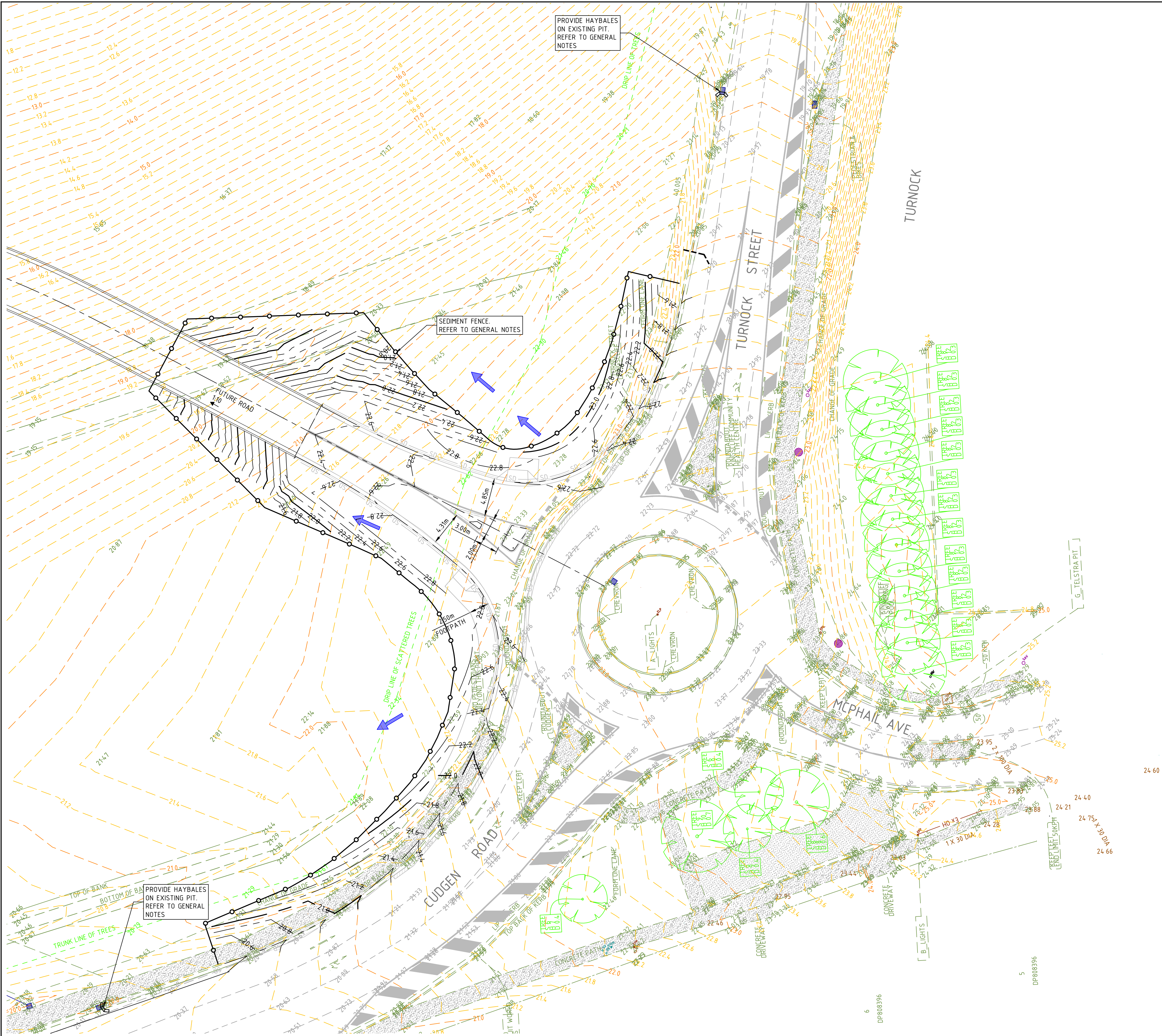
VEHICULAR PAVEMENT JOINTS

- | | |
|-----|--|
| J6 | ALL VEHICULAR PAVEMENTS TO BE JOINED AS SHOWN ON DRAWINGS. |
| J7 | LONGITUDINAL WARPING JOINTS (LWJ) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 3m TO 4.5m MAX CENTERS. ALL LWJ's SHOULD BE TIED UP TO A MAXIMUM TOTAL WIDTH OF 30m. |
| J8 | TRANSVERSE CONTRACTION JOINTS (TCJ) SHOULD GENERALLY BE LOCATED AT A MAXIMUM OF 8m TO 12m MAX CENTERS. TCJ's CAN BE SPACED AT SUITABLE INTERVALS UP TO A RECOMMENDED MAXIMUM LENGTH OF 15m. |
| J9 | TRANSVERSE DOWELLED CONSTRUCTION JOINTS (DCJ) TO BE PROVIDED FOR PLANNED INTERRUPTIONS SUCH AS AT THE END OF EACH DAY'S OPERATIONS (POUR BREAK), AT BLOCK OUTS FOR BRIDGES AND INTERSECTIONS OR FOR UNEXPECTED DELAYS WHEN THE SUSPENSION OF OPERATIONS IS LIKELY TO CREATE A JOINT. |
| J10 | ISOLATION JOINTS WITH SUB-GRADE BEAM (IJ) TO BE PROVIDED AT INTERSECTIONS OR AT THE JUNCTION OF A POUR BREAK. |
| J11 | ALL VEHICULAR PAVEMENTS TO BE JOINED IN ACCORDANCE WITH AUSTRADOS AGPT02-12 GUIDE TO PAVEMENT TECHNOLOGY PART 2 STRUCTURAL PAVEMENT DESIGN AND SUPPLEMENT AP-336-06 PAVEMENT DESIGN FOR LIGHT TRAFFIC |
| J12 | VEHICULAR PAVEMENT JOINING AS FOLLOWS (U.N.O.) |

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Project Name	TWEED VALLEY HOSPITAL DEVELOPMENT, TURNOCK STREET ROUNDABOUT WORKS			TENDER		
	Designed	CS	Project Director Approved	Date	North	
Drawing Title	Drawn	PA				
	Scale	NTS				
	Date	3.10.2018				
	Sheet	A1				
			Project Ref	Drawing No	Rev	
			20 10748 01	C500	P2	

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LEGEND

EXISTING MINOR CONTOUR

EXISTING MAJOR CONTOUR

INDICATIVE DIRECTION OF OVERLAND FLOW PATH

SEDIMENT FENCE
REFER TO DRAWING C560 FOR DETAILS

SANDBAG SEDIMENT TRAP REFER TO DETAIL SHEET C507

GENERAL NOTES:

1. ALL EROSION & SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH TWEED SHIRE COUNCILS DEVELOPMENT DESIGN SPECIFICATIONS D7-STORMWATER QUALITY, & ITS ANNEXURE A - CODE OF PRACTICE FOR SOIL AND WATER MANAGEMENT ON CONSTRUCTION SITES.

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Rev	Description	Date	By	App	Rev	Description	Date
P2	ISSUED FOR TENDER ISSUE	05.11.18	PA	-			
P1	ISSUED FOR DRAFT TENDER	02.11.18	PA	-			

BONACCI

BONACCI GROUP Pty Ltd

ABN 42 060 332 345

Consulting Engineers, Structural - Civil - Infrastructure

Level 6, 37 York Street, Sydney, NSW 2000 Australia

Tel: +61 2 8247 8400 Fax: +61 2 8247 8444

sydney@bonaccigroup.com

www.bonaccigroup.com

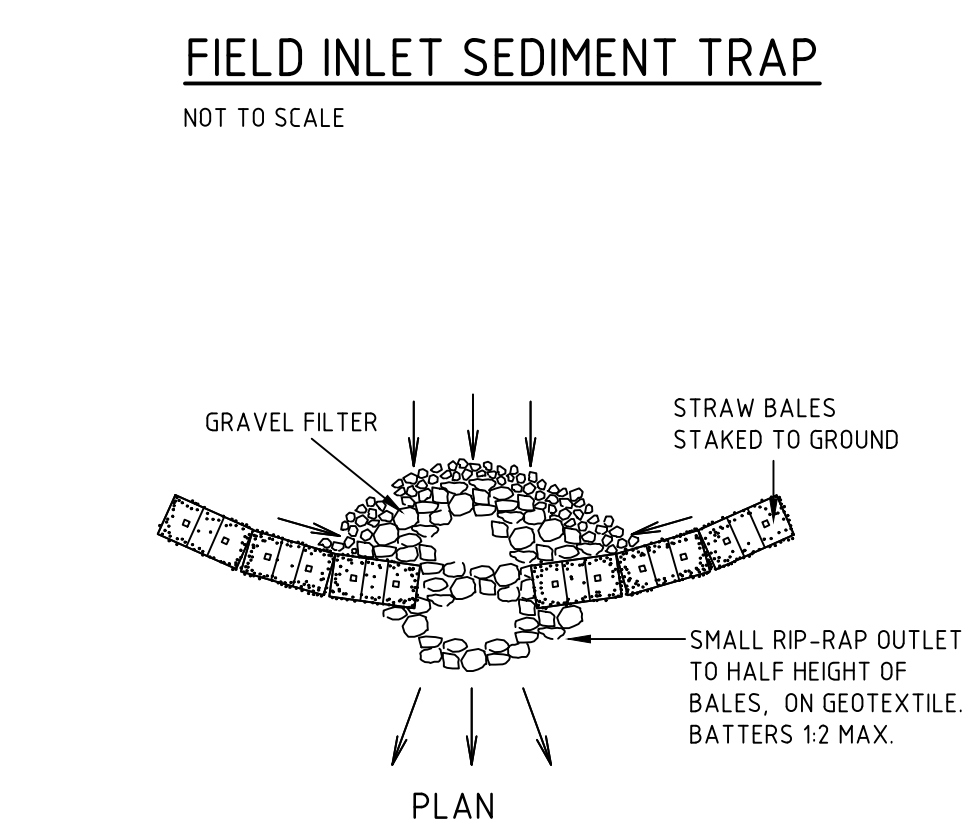
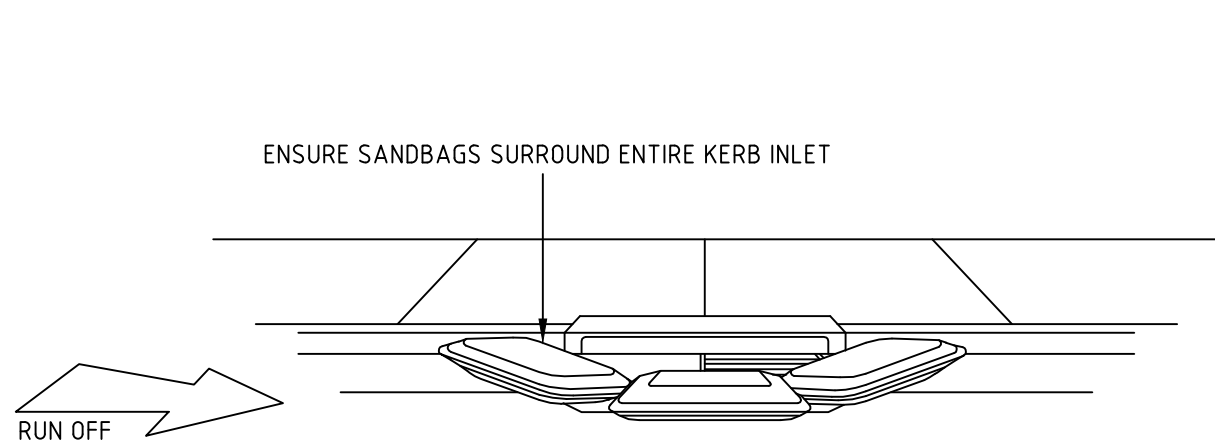
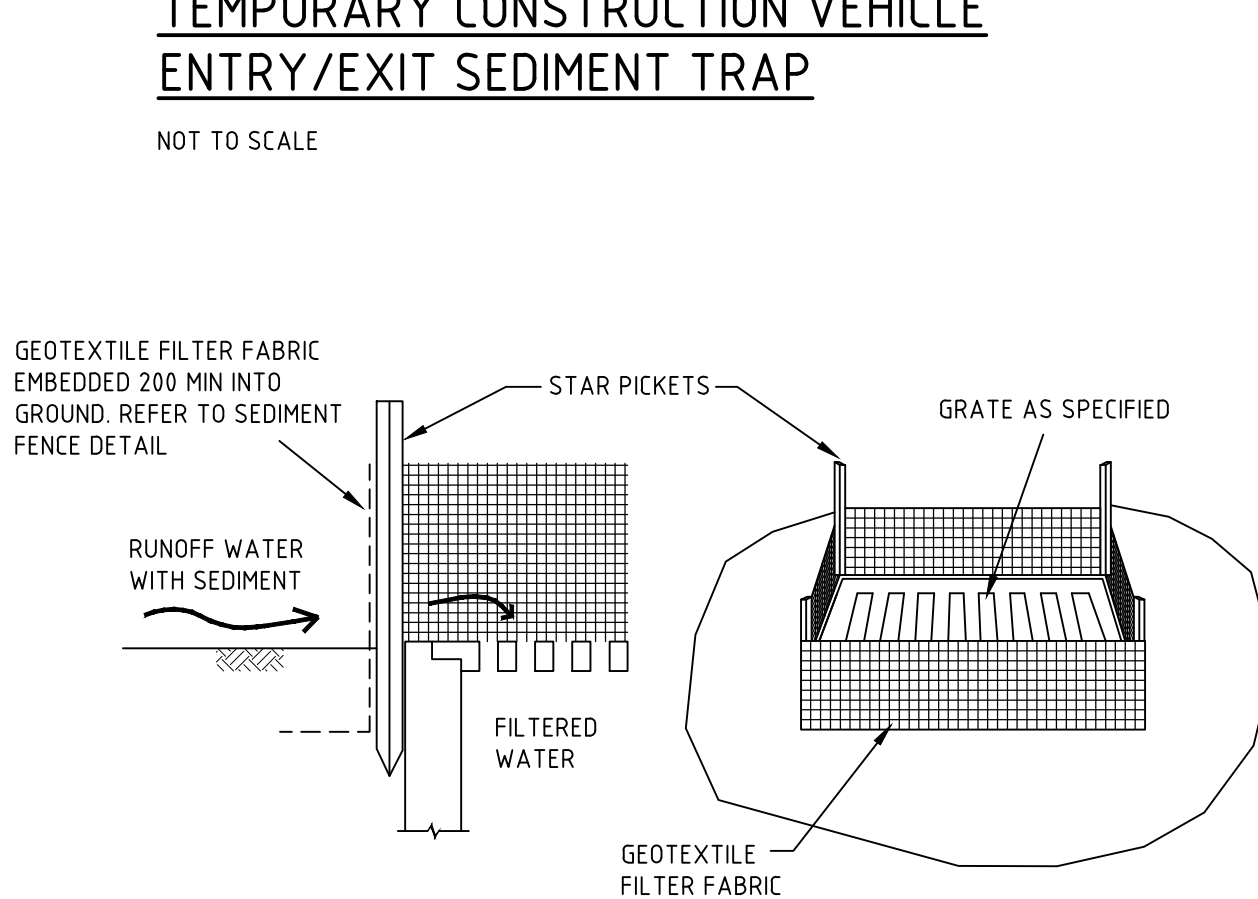
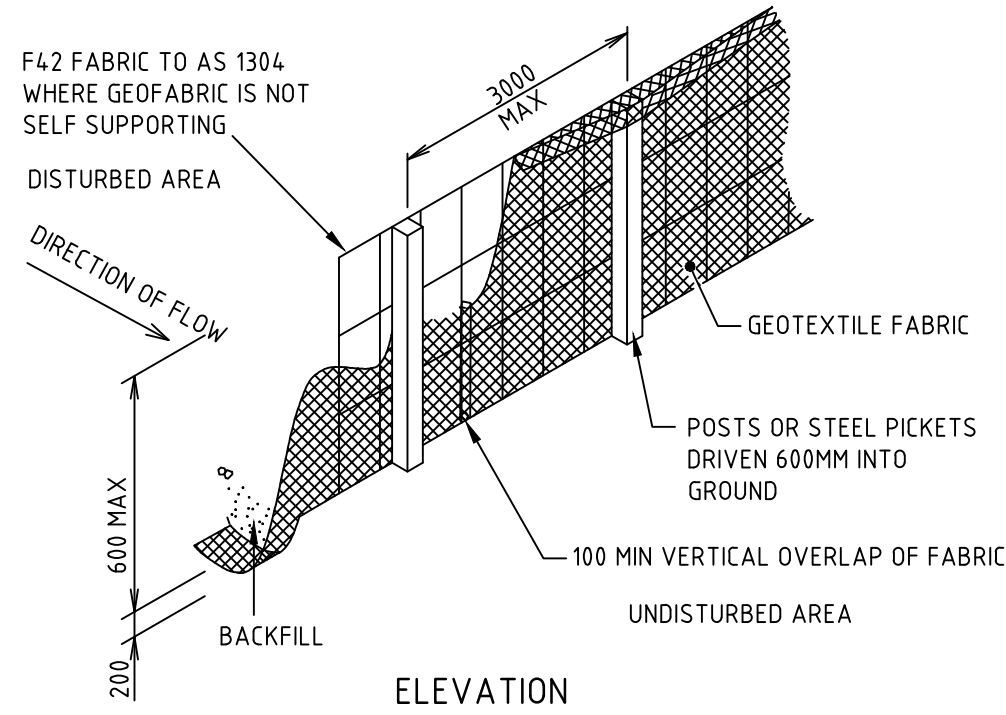
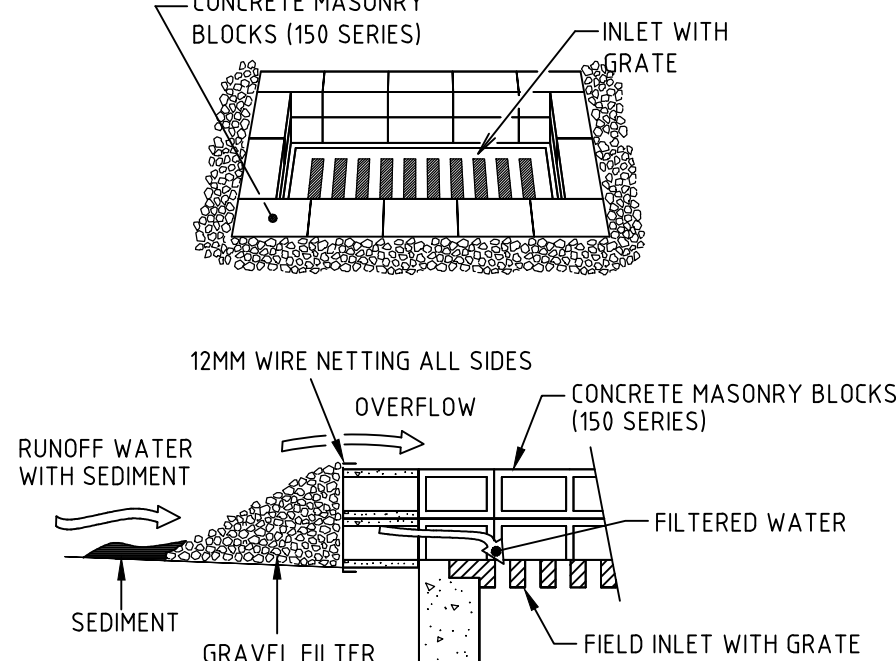
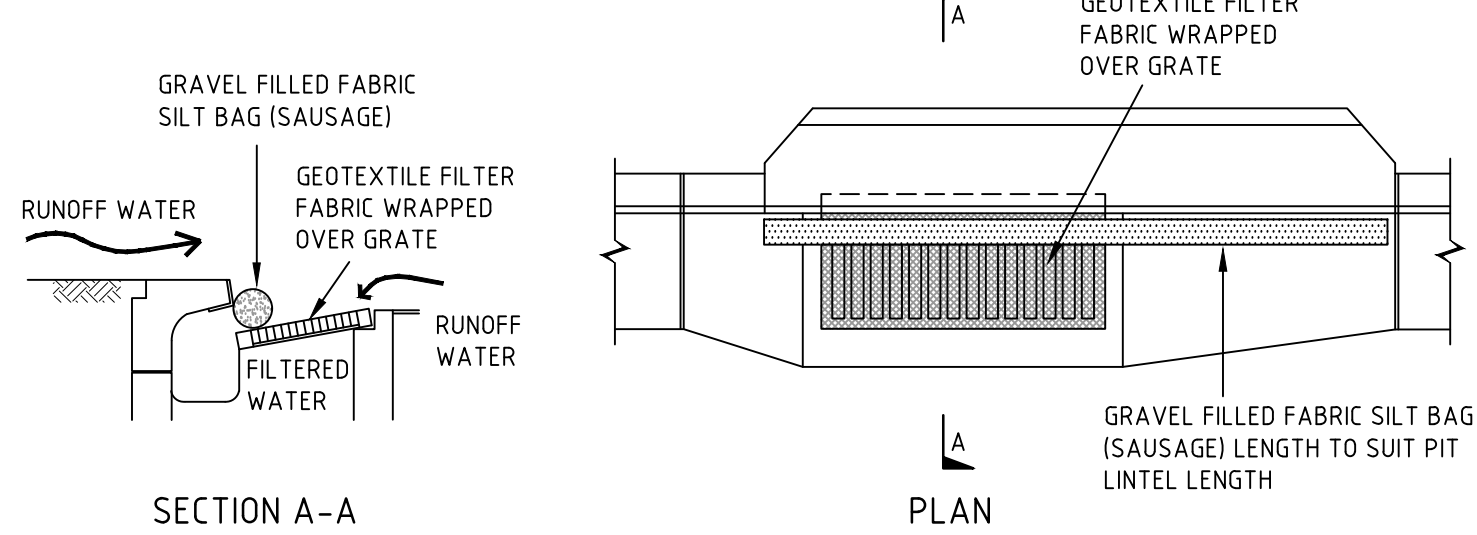
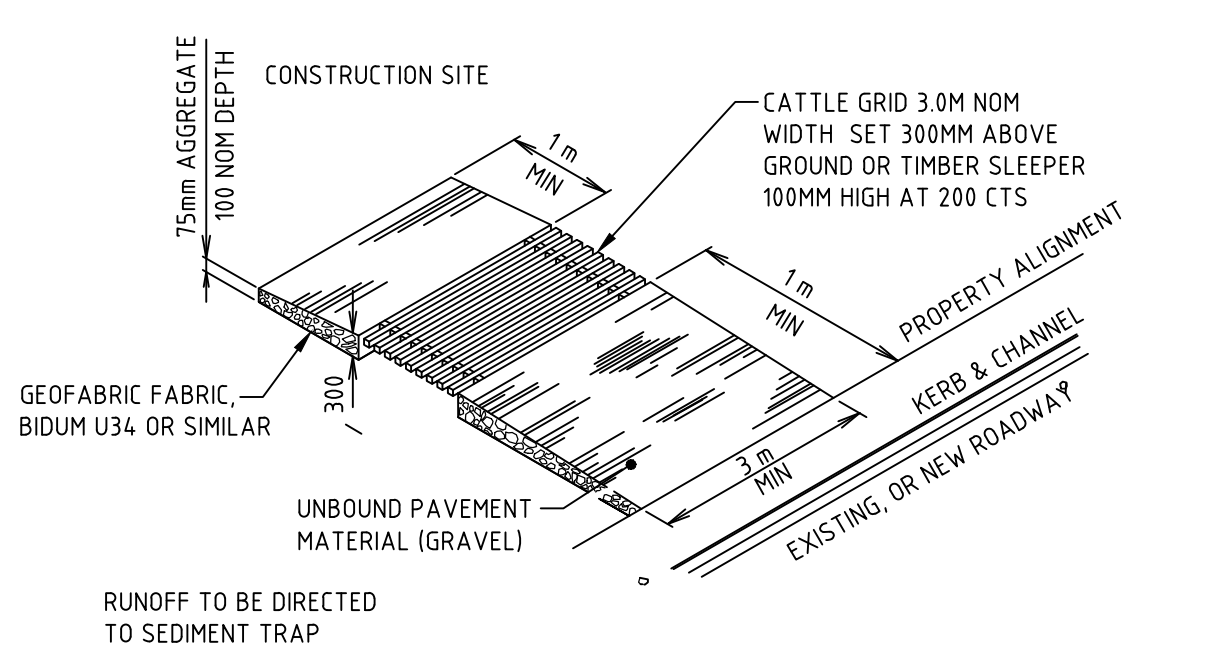
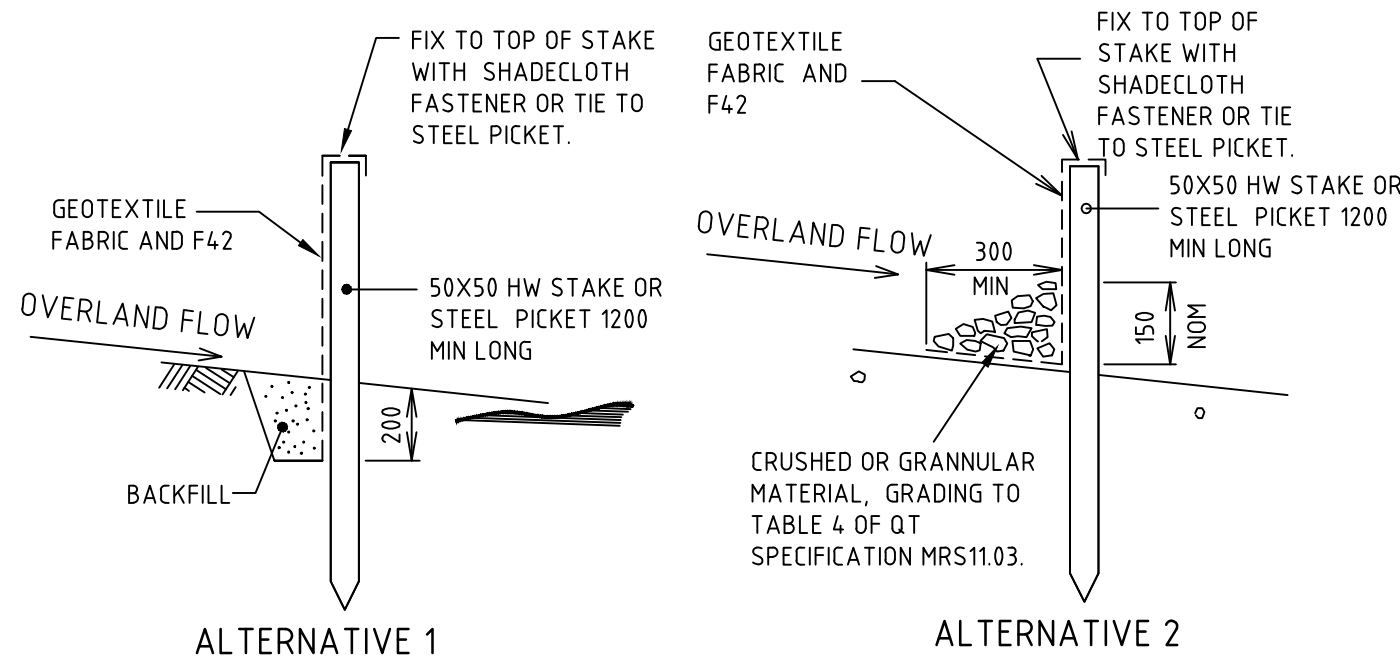
Project Name

TWEED VALLEY HOSPITAL
DEVELOPMENT, TURNOCK STREET
ROUNABOUT WORKS

Drawing Title

SEDIMENT AND EROSION
CONTROL PLAN

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Drawn	PA		
Scale	NTS	Project Ref	Drawing No
Date	3.10.2018	20 10748 01	C505
Sheet	A1		P2

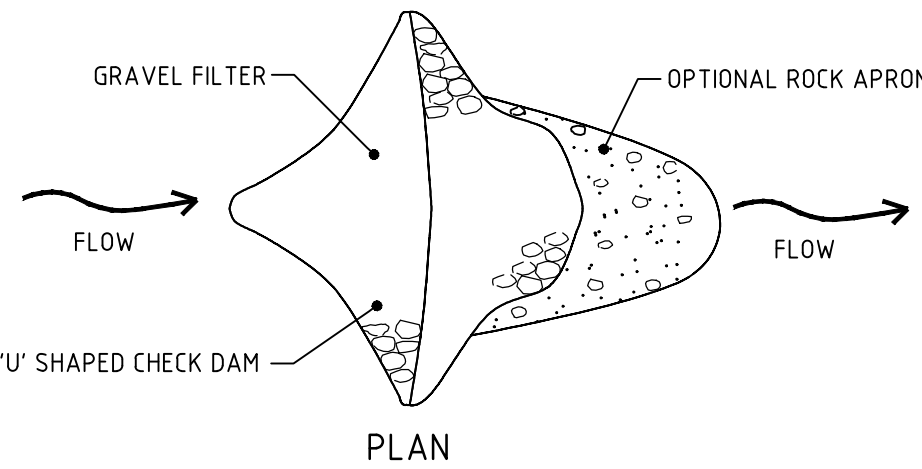
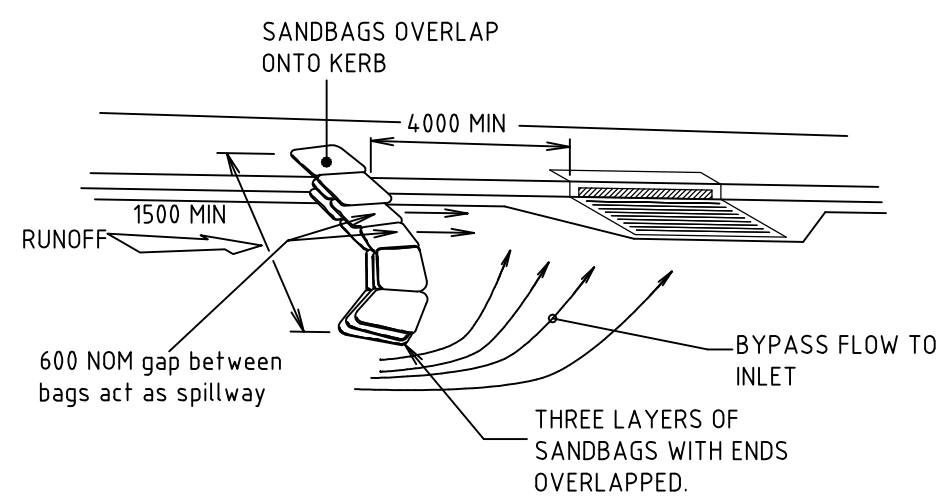
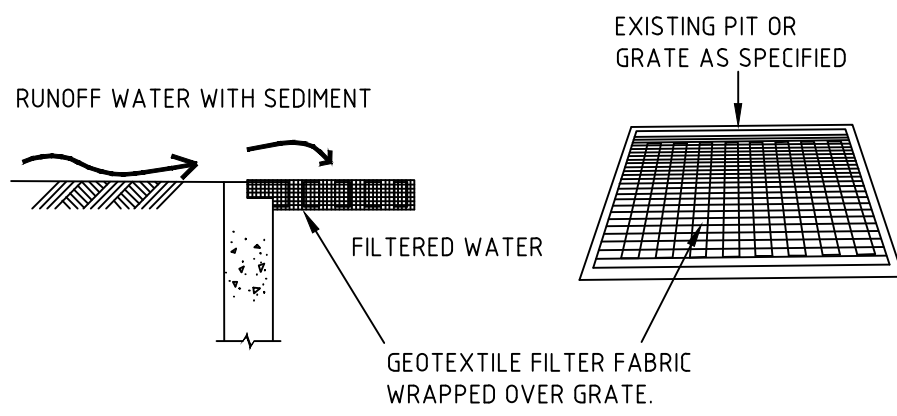
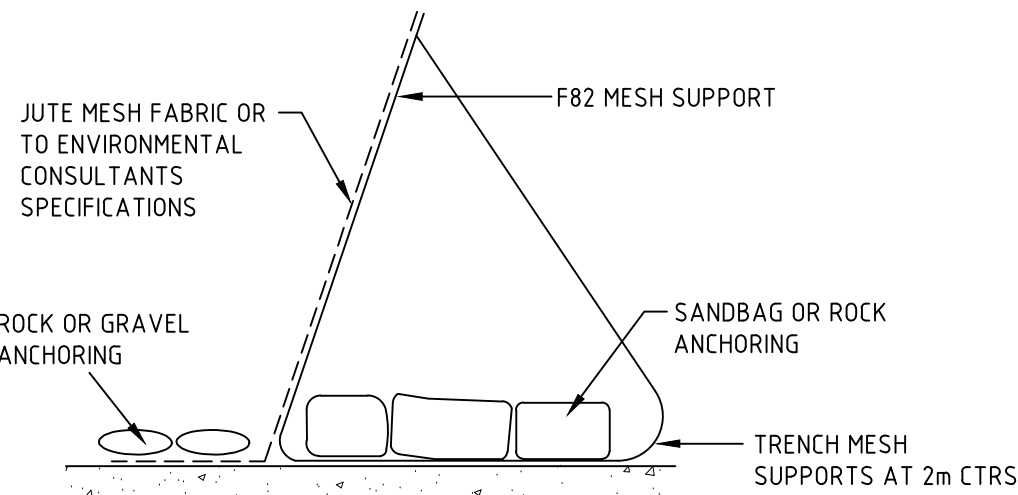


SEDIMENT FENCE
NOT TO SCALE

GEOTEXTILE PIT FILTER 1
NOT TO SCALE

SANDBAG KERB INLET SEDIMENT TRAP
NOT TO SCALE

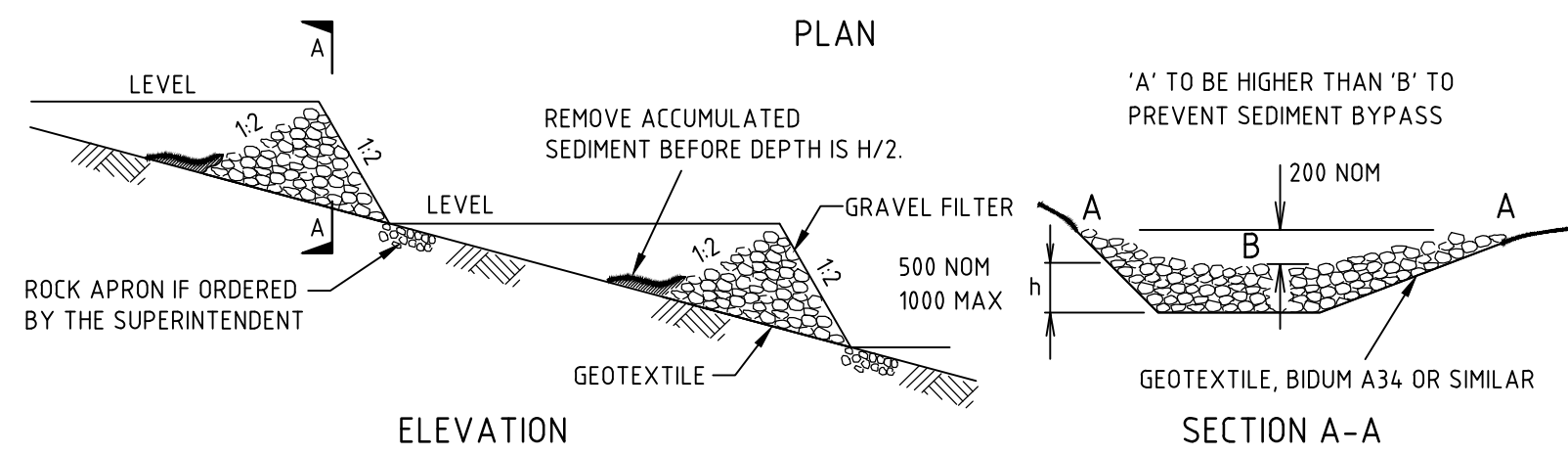
STRAW BALE AND STONE TRAP SEDIMENT CONTROL (CONCENTRATE FLOW)
NOT TO SCALE



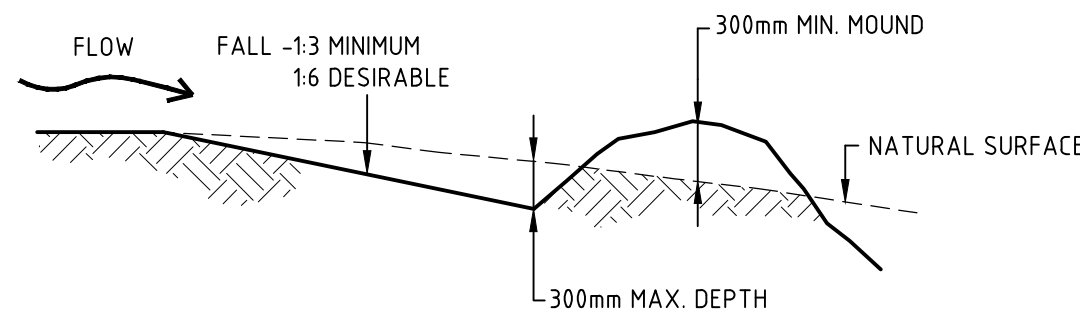
ALTERNATIVE SEDIMENT FENCE
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GEOTEXTILE PIT FILTER 2
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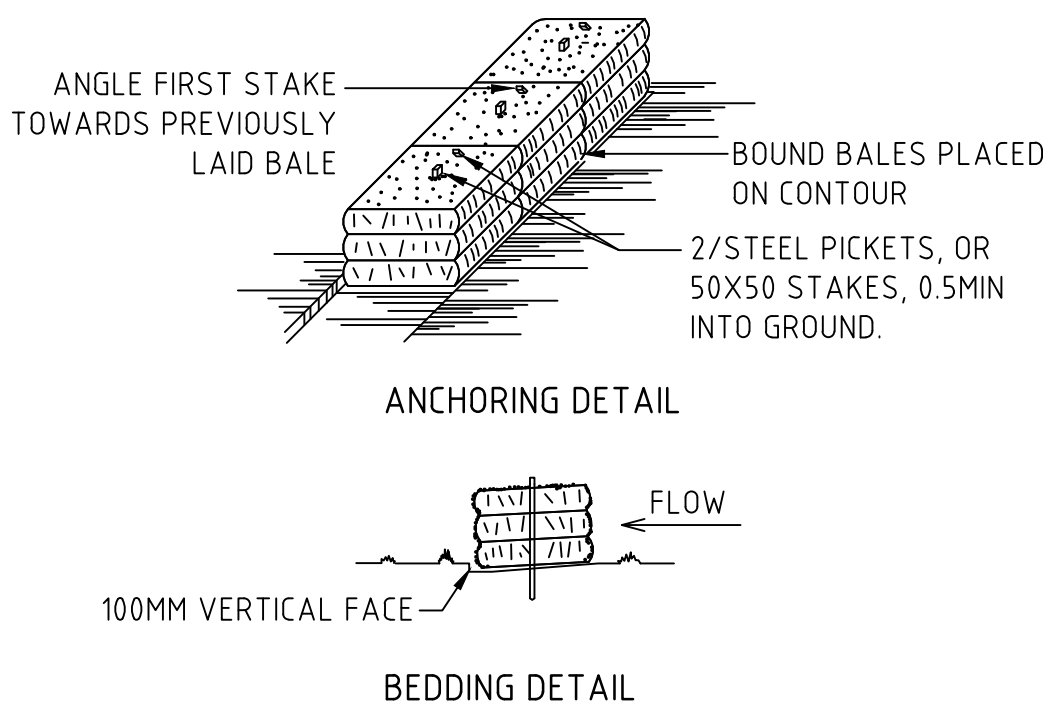
ON GRADE KERB INLET SEDIMENT TRAP
NOT TO SCALE



CHECK DAMS FLOW CONTROL
NOT TO SCALE



CATCH DRAIN
NOT TO SCALE



STRAW BALE BANK SEDIMENT CONTROL
NOT TO SCALE

ALTERNATIVE SEDIMENT FENCE NOTES

1. INSTALL THIS TYPE OF SEDIMENT FENCE WHEN USE OF SUPPORT POSTS IS NOT DESIRABLE OR NOT POSSIBLE. SUCH CONDITIONS MIGHT APPLY, FOR EXAMPLE, WHERE APPROVAL IS GRANTED FROM THE APPROPRIATE AUTHORITIES TO PLACE THESE FENCES IN HIGHLY SENSITIVE ESTUARINE AREAS.
2. USE BENT TRENCH MESH TO SUPPORT THE F82 WELDED MESH FACING AS SHOWN ON THE DRAWING ABOVE. ATTACH THE JUTE MESH TO THE WELDED MESH FACING USING UV-RESISTANT CABLE TIES.
3. STABILISE THE WHOLE STRUCTURE WITH SANDBAG OR ROCK ANCHORING OVER THE TRENCH MESH AND THE LEADING EDGE OF THE JUTE MESH. THE ANCHORING SHOULD BE SUFFICIENTLY LARGE TO ENSURE STABILITY OF THE STRUCTURE IN THE DESIGN STORM EVENT, USUALLY THE 10 YEAR EVENT.

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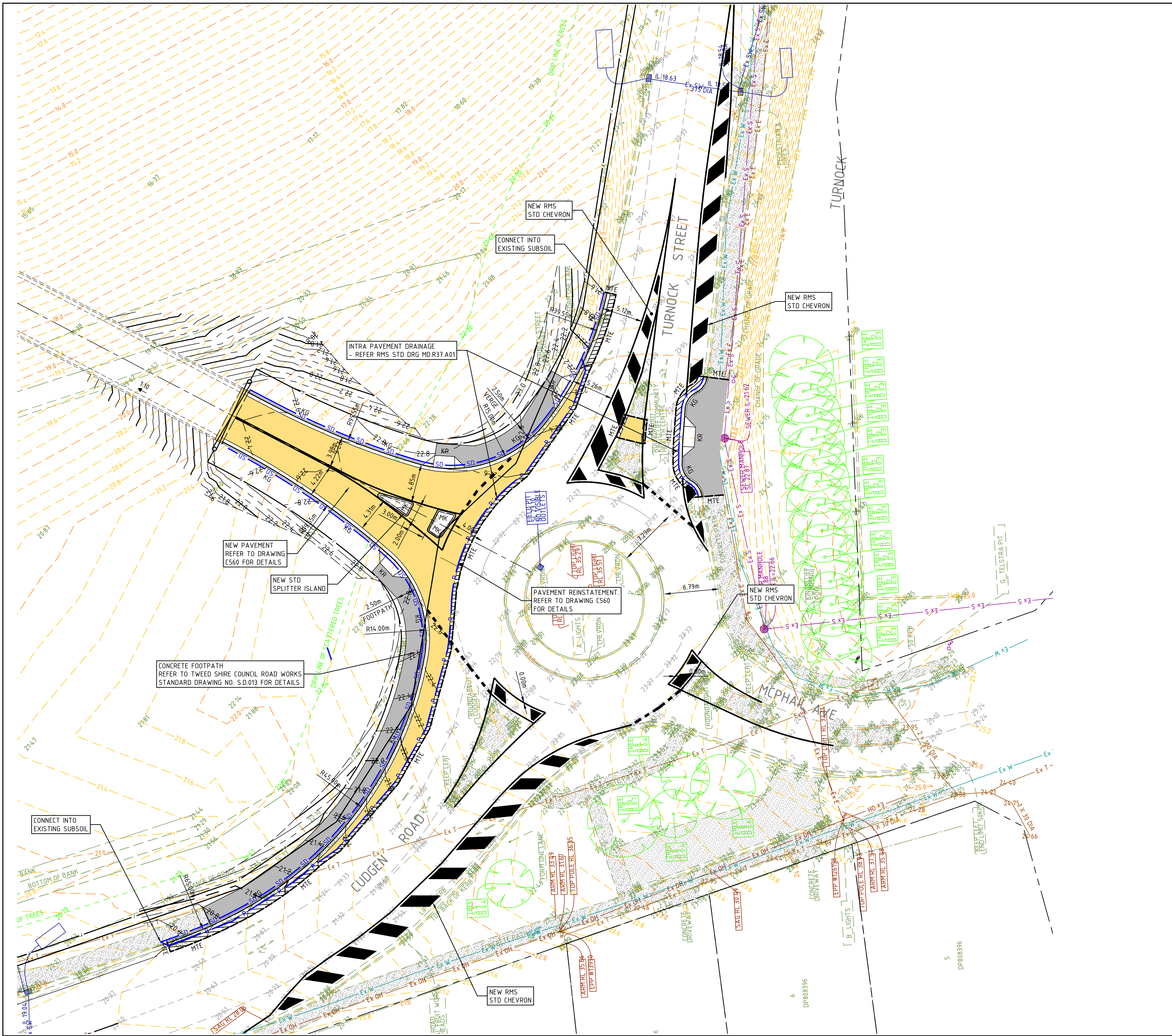
BONACCI GROUP Pty Ltd
ABN 42 060 332 345
Consulting Engineers, Structural - Civil - Infrastructure
Level 6, 37 York Street, Sydney, NSW 2000 Australia
Tel: +61 2 8247 8400 Fax: +61 2 8247 8444
sydney@bonaccigroup.com
www.bonaccigroup.com

Project Name
TWEED VALLEY HOSPITAL DEVELOPMENT, TURNOCK STREET ROUNDABOUT WORKS

Drawing Title
SOIL AND WATER MANAGEMENT DETAILS

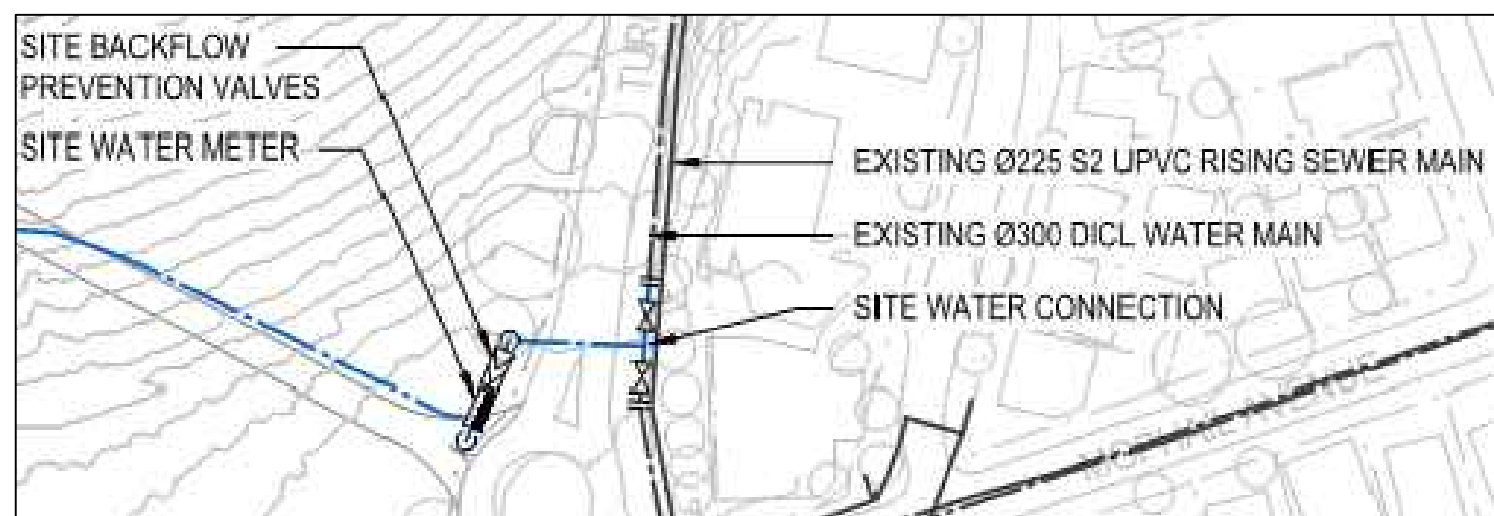
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Sheet	A1		P1

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LEGEND

- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- Ex S EXISTING SEWER
- Ex OH EXISTING OVERHEAD LINES
- Ex T EXISTING TELSTRA
- EXISTING STORMWATER
- Ex W EXISTING WATER
- DESIGN MINOR CONTOUR
- DESIGN MAJOR CONTOUR
- KG KERB AND GUTTER
REFER TO TWEED SHIRE COUNCIL ROADWORKS
STANDARD DRAWING NO. S.D.007 FOR DETAILS
- KD KERB ONLY
REFER TO TYPICAL DETAILS AT DRAWING NO. 560
- MK MOUNTABLE KERB
REFER TO TWEED SHIRE COUNCIL ROADWORKS
STANDARD DRAWING NO. S.D.007 FOR DETAILS
- KR KERB RAMP
REFER TO TWEED SHIRE COUNCIL ROADWORKS
STANDARD DRAWING NO. S.D.014 FOR DETAILS
- PAVEMENT TYPE 1
HEAVY DUTY ASPHALT PAVEMENT.
REFER TO DRAWING C560 FOR DETAILS
- CONCRETE FOOTPATH
REFER TO TWEED SHIRE COUNCIL ROAD WORKS
STANDARD DRAWING NO. S.D.013 FOR DETAILS
- PAVEMENT REINSTATEMENT
REFER TO DRAWING C560 FOR DETAILS
- MTE MATCH TO EXISTING PAVEMENT
- SD SUBSOIL DRAINAGE
- REFER TO TWEED SHIRE COUNCIL ROADWORKS
STANDARD DRAWING NO. S.D. 012 FOR DETAIL (UNO)
- P INTRA PAVEMENT DRAINAGE
- REFER RMS STD DRG MD.R37.A01
- FENCE LINE
- BOUNDARY



PROPOSED FUTURE POTABLE WATER
CONNECTION BY TWEED SHIRE COUNCIL
NOT TO SCALE

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P2	ISSUED FOR TENDER	05.11.18	PA	-			
P1	ISSUED FOR DRAFT TENDER	02.11.18	PA	-			

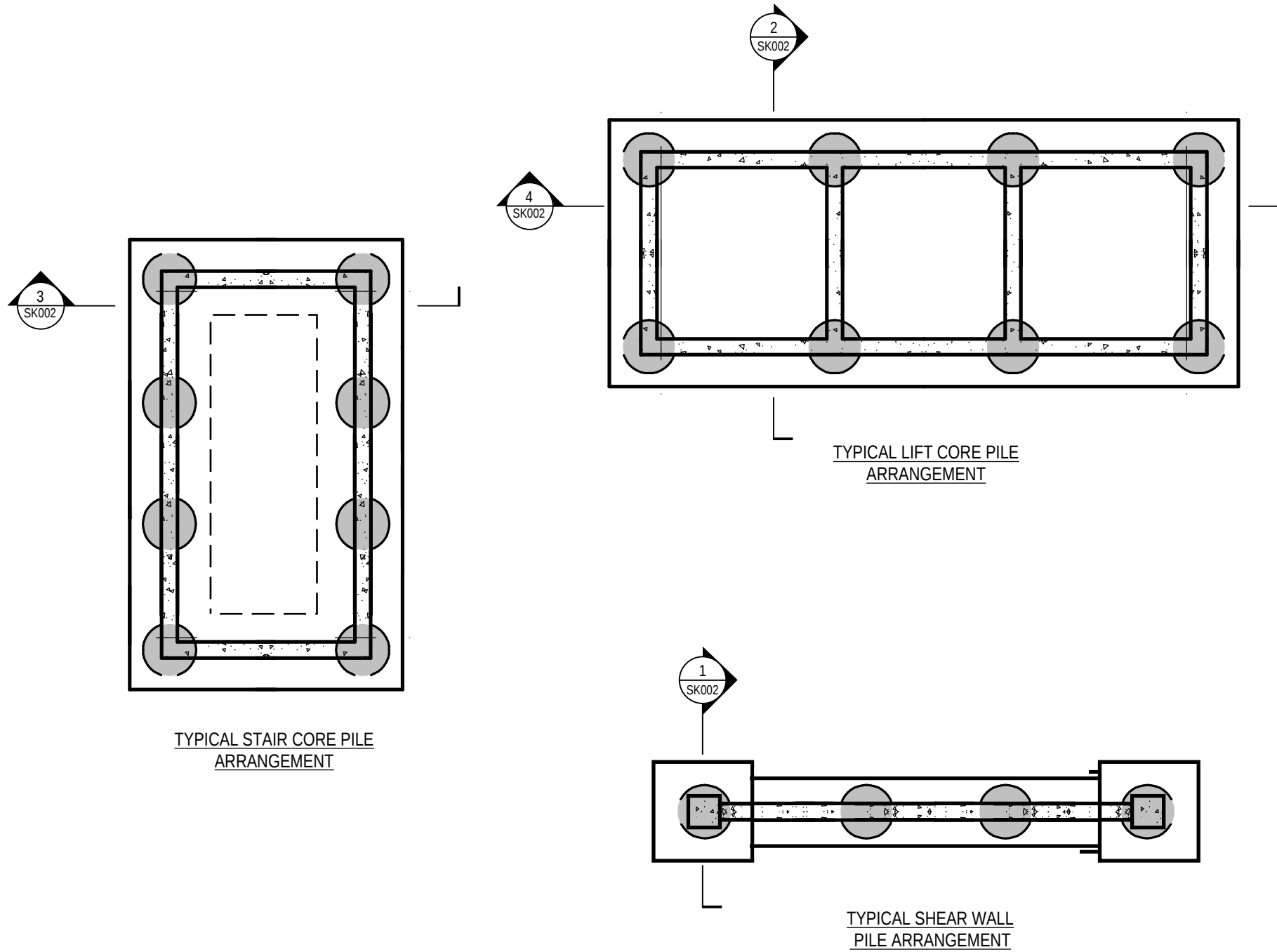
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ABN 42 060 332 345
Consulting Engineers, Structural - Civil - Infrastructure
Level 6, 37 York Street, Sydney, NSW 2000 Australia
Tel: +61 2 8247 8400 Fax: +61 2 8247 8444
sydney@bonaccigroup.com
www.bonaccigroup.com

Project Name	TWEED VALLEY HOSPITAL DEVELOPMENT, TURNOCK STREET ROUNABOUT WORKS		
Drawing Title	EXTERNAL WORKS INTERSECTION PLAN		

TENDER			
Designed	CS	Project Director Approved	Date
Drawn	PA		
Scale	1:250	Project Ref	Drawing No
Date	3.10.2018		Rev
Sheet	A1	20 10748 01	C540 P3





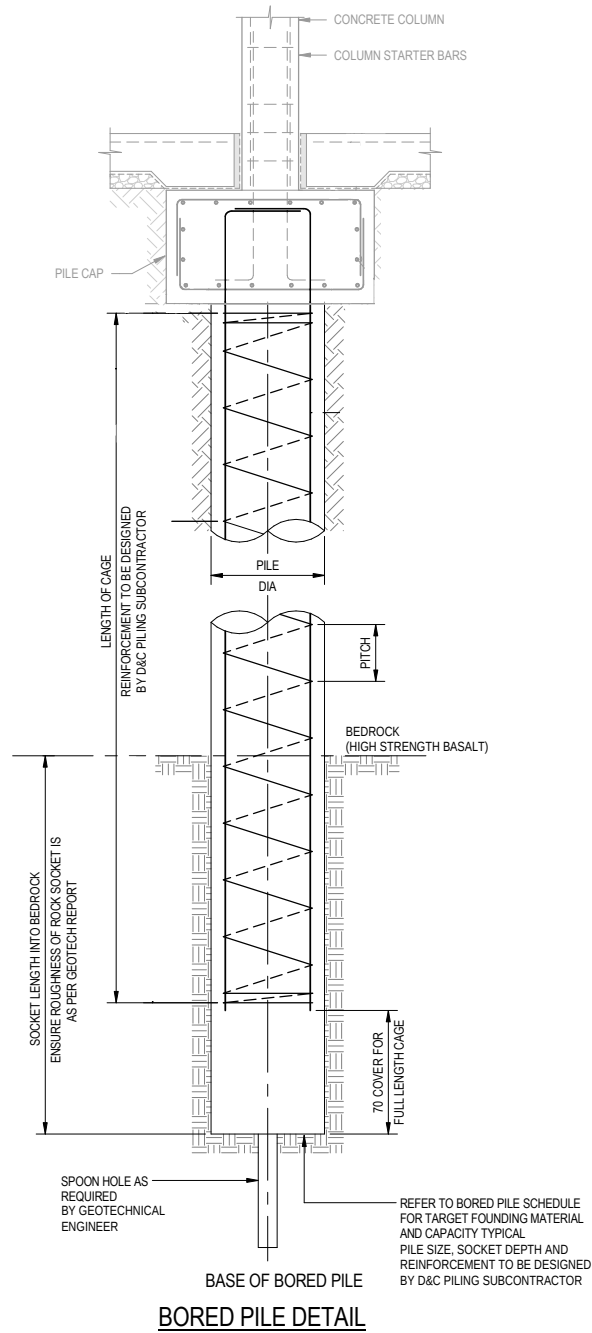
BORED PILE SCHEDULE			
PILE	NO OF SUSPENDED SLABS SUPPORTED	ULTIMATE LIMIT STATE VERTICAL LOAD (kN)	NOMINAL DIAMETER (mm)
P1	3	3600	1000
P2	4	4800	1000
P3	5	6000	1000
P4	6	7200	1000
P5	7	8400	1000
P6	8	9600	1000
P7	9	10800	1000

NOTES

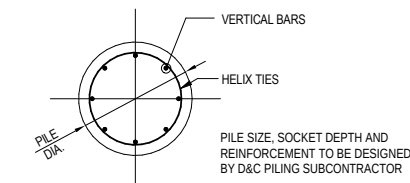
- PILES TO BE DESIGNED BY D&C PILING SUBCONTRACTOR IN ACCORDANCE WITH AS2159
- SUBJECT TO FINAL DESIGN, PILE DIAMETERS MAY VARY FROM 600MM TO 1200MM
- PILES UNDER CORES, LIFT SHAFTS AND SHEAR WALLS TO BE DESIGNED TO RESIST THE LATERAL LOADS NOMINATED ON THE STRUCTURAL DRAWINGS

BORED PILES

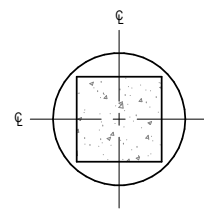
- BP1 REFER TO THE GEOTECHNICAL REPORT FOR A DESCRIPTION OF THE ANTICIPATED SITE CONDITIONS. THE PILING CONTRACTOR IS TO STUDY THE REPORT AND MAKE HIS OWN EVALUATION OF THE SITE CONDITIONS. ANY ADDITIONAL COSTS INCURRED SHALL BE BORNE BY THE PILING CONTRACTOR.
- BP2 THE BORED PILES ARE PROPORTIONED FOR THE SCHEDULED LOADS WITH ALLOWABLE SOCKET SKIN FRICTION AND END BEARING CAPACITY AS INDICATED IN THE REPORT. THE DEPTHS AND LENGTHS NOMINATED IN THE SCHEDULE ARE INDICATIVE ONLY. THEY MAY NEED TO BE VARIED DEPENDING ON THE SITE CONDITIONS ENCOUNTERED. THE PILING CONTRACTOR NEEDS TO INCORPORATE ANY DESIGN CHANGES REQUIRED.
- BP3 THE BORED PILES SHALL BE INSTALLED TO A MAXIMUM TOLERANCE OF $\pm 75\text{mm}$ FROM THAT REQUIRED IN PLAN AND INCLINED AT NOT MORE THAN 1 IN 75 FROM THE VERTICAL OR SPECIFIED RAKE.
- BP4 ALL WORKMANSHIP AND MATERIAL SHALL BE IN ACCORDANCE WITH AS 2159.
- BP5 THE BORED PILES SHALL BE LOCATED CONCENTRIC WITH THE COLUMNS AND WALLS UNLESS NOTED OTHERWISE.
- BP6 DRILL AND INSTALL THE BORED PILES IN THE LOCATIONS SHOWN ON THE DRAWINGS AND THE ABOVE REQUIREMENTS.
- BP7 BEFORE ANY CONCRETE IS POURED, ALL ROCK SOCKETS SHALL BE DEWATERED AND INSPECTED BY THE GEOTECHNICAL ENGINEER, WHO SHALL BE EMPLOYED BY THE BUILDER, TO VERIFY THE SOIL PARAMETERS. THE SOCKET BASE AND WALLS MUST BE CLEAN AND FREE FROM CLAY.
- BP8 IF THE CONCRETE NEEDS TO BE TREMIED, SUPER PLASTICIZER MUST BE ADDED TO THE MIX AND THE CONCRETE GRADE INCREASED BY 30% . REFER TO THE SPECIFICATIONS FOR THE INSPECTION OF THE HOLE PRIOR TO CONCRETING.
- BP9 THE PILING CONTRACTOR SHALL ALLOW FOR THE COST INTEGRITY TESTING OF ALL BORED PILES.
- BP10 ANY ALTERNATIVE DESIGN SHALL MEET THE ABOVE REQUIREMENTS AND THE SCHEDULED LOADS. THE PILING CONTRACTOR SHALL OBTAIN CERTIFICATION FOR THE CALCULATIONS OF THE ALTERNATIVE SYSTEM. THE DETAILS AND CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE PERFORMANCE OF THE ALTERNATIVE BORED PILES.



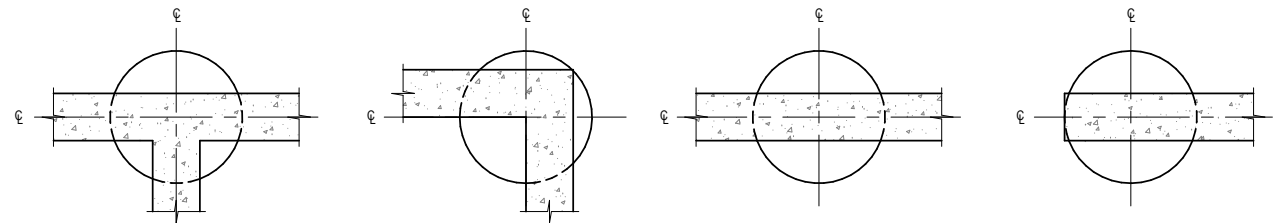
SECTION 1 SK001



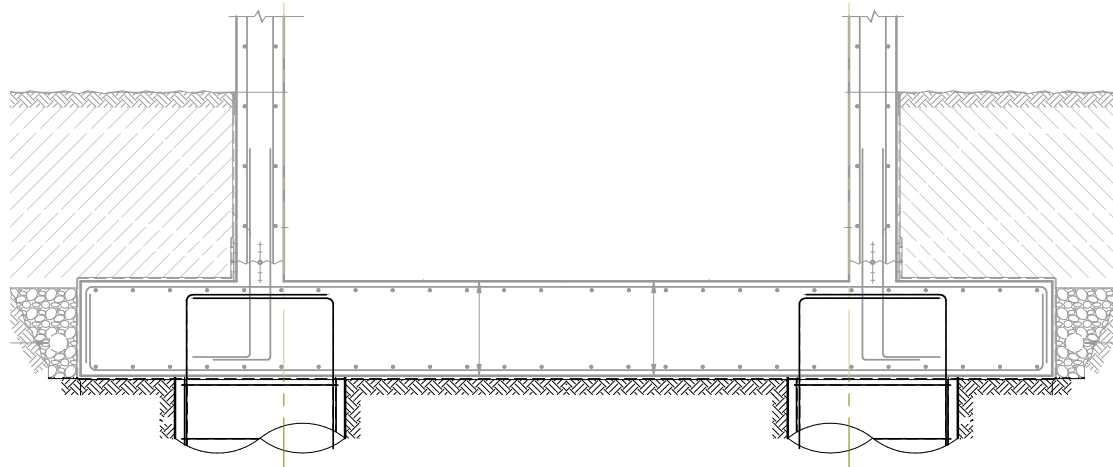
BORED PILE SECTION



TYPICAL PILE LOCATIONS AT COLUMNS
ALL PILES TO BE CENTRED ON COLUMN/WALLS OVER UNLESS OTHERWISE DENOTED ON PLAN

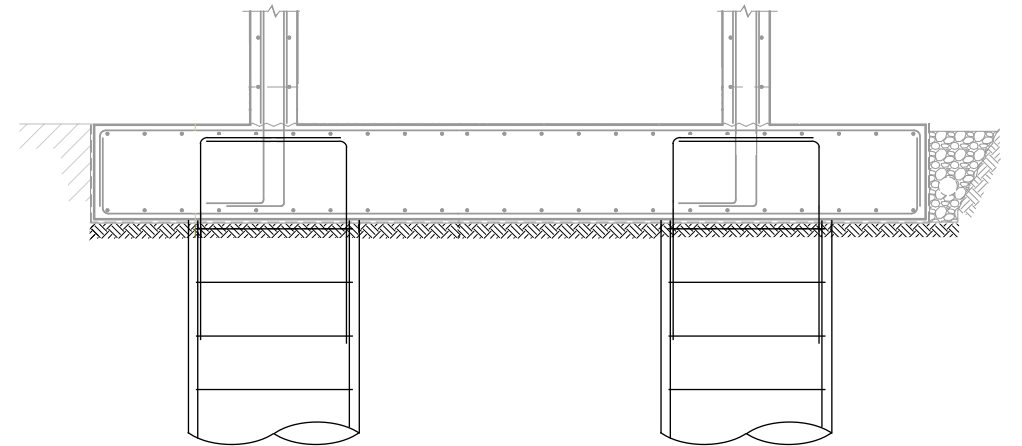


TYPICAL PILE LOCATIONS AT COLUMNS/WALLS
ALL PILES TO BE CENTRED ON COLUMN/WALLS OVER UNLESS OTHERWISE DENOTED ON PLAN



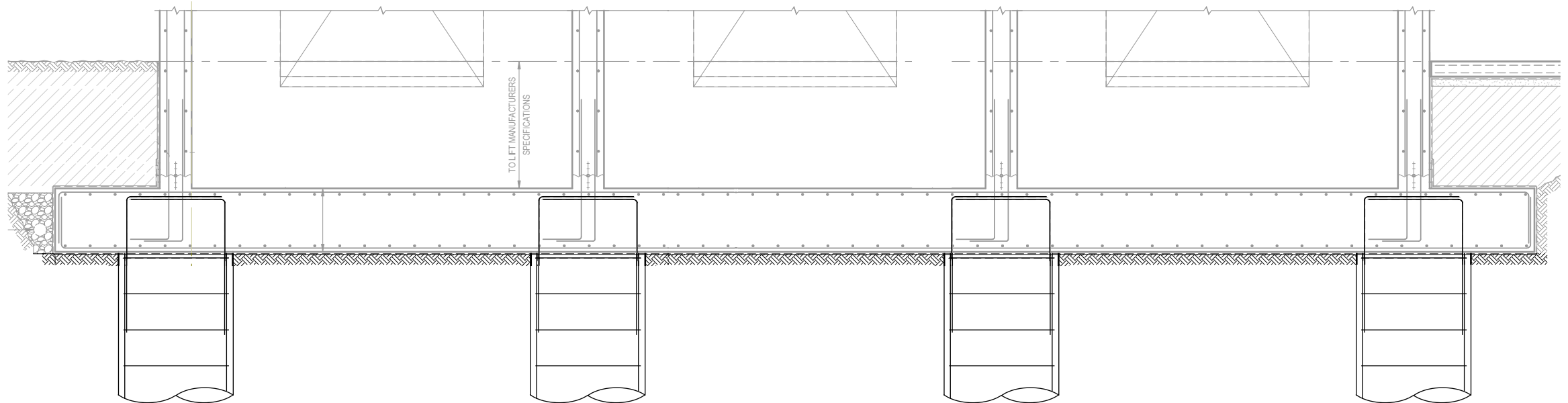
TYPICAL SECTION THROUGH
LIFT PIT BASE

SECTION 2 SK001



TYPICAL SECTION THROUGH
STAIR CORE BASE

SECTION 3 SK001



TYPICAL LONG SECTION THROUGH
LIFT PIT BASE

SECTION 4 SK001