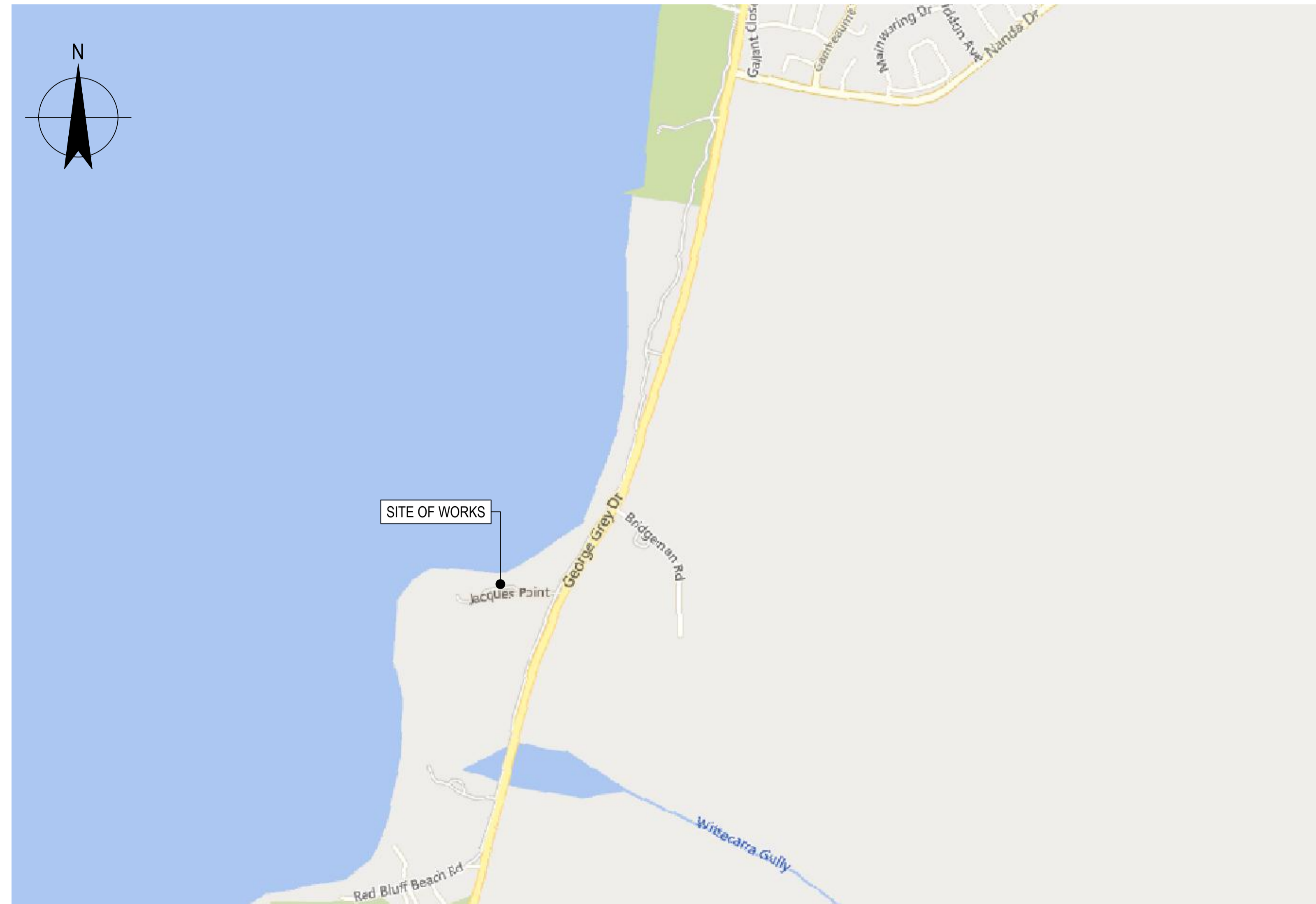


SHIRE OF NORTHAMPTON

JACQUES POINT, KALBARRI

PROJECT NUMBER 12596020



LOCALITY PLAN
SCALE 1:10000

DRAWING LIST

DRG No.	DRAWING TITLE
12596020-GHD-00-04-DRG-CI-00001	LOCALITY PLAN AND DRAWING LIST
12596020-GHD-00-04-DRG-CI-00100	GENERAL ARRANGEMENT PLAN
12596020-GHD-00-04-DRG-CI-00200	CAR PARK AND REVETMENT LAYOUT PLAN
12596020-GHD-00-04-DRG-CI-00300	TYPICAL CAR PARK AND REVETMENT CROSS SECTIONS
12596020-GHD-00-04-DRG-CI-00400	TYPICAL DETAILS
12596020-GHD-00-04-DRG-CI-00500	GENERAL REVETMENT NOTES



THIS DRAWING INCLUDES
COLOURED INFORMATION
COPIES OF THIS DRAWING MUST BE
PRODUCED IN COLOUR

P02 ISSUED FOR TENDER	SA	AK	08/02/24	
P01 PRELIMINARY DESIGN	SA	AK	22/12/23	
Rev	Description	Checked	Approved	Date
Author	S.DAVIES	Drafting Check	A.KRAUSE	
Designer	S.DAVIES	Design Check	A.KRAUSE	



Level 1, 209 Foreshore Drive Geraldton WA 6530 Australia
PO Box 164 Geraldton WA 6531
T 61 8 9564 3677 F 61 8 9921 7997
E permail@ghd.com W www.ghd.com



Project No.
12596020

Client	SHIRE OF NORTHAMPTON
Project	JACQUES POINT, KALBARRI
Status	TENDER

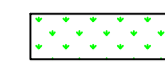

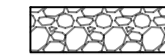
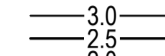
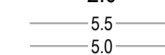
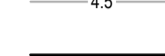



Drawing Title LOCALITY PLAN AND DRAWING LIST

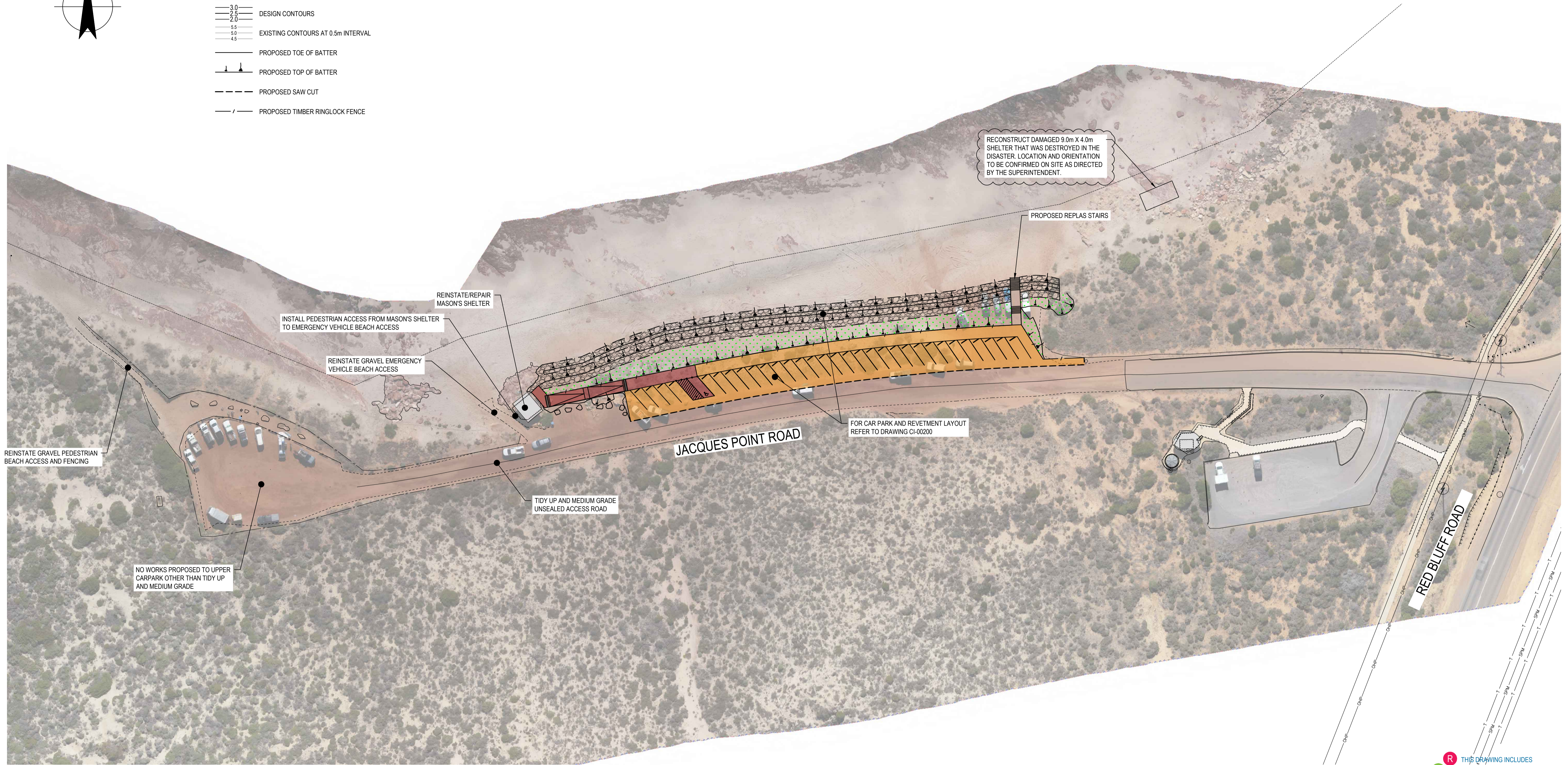
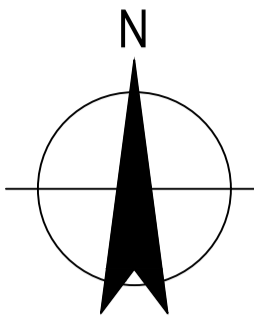
12596020-GHD-00-04-DRG-CI-00001

Size
A1

Rev
P02

LEGEND

-  PROPOSED JUTE MAT THICK EROSION CONTROL MATTING WITH SELECTED VEGETATION PLANTING
-  PROPOSED GRAVEL FOOTPATH
-  PROPOSED REVETMENT
-  DESIGN CONTOURS
-  EXISTING CONTOURS AT 0.5m INTERVAL
-  PROPOSED TOE OF BATTER
-  PROPOSED TOP OF BATTER
-  PROPOSED SAW CUT
-  PROPOSED TIMBER RINGLOCK FENCE



PLAN
SCALE 1:500

THIS DRAWING INCLUDES COLOURED INFORMATION. COPIES OF THIS DRAWING MUST BE PRODUCED IN COLOUR.

ALL SETOUT INFORMATION WILL BE PROVIDED IN ELECTRONIC FORMAT



Rev	Description	Checked	Approved	Date
P03	SHELTER NOTE AMENDED	SA	AK	20/02/24
P02	ISSUED FOR TENDER	SA	AK	08/02/24
P01	PRELIMINARY DESIGN	SA	AK	22/12/23
Author	S.DAVIES	Drafting Check	A.KRAUSE	
Designer	S.DAVIES	Design Check	A.KRAUSE	



Level 1, 209 Foreshore Drive Geraldton WA 6530 Australia
 PO Box 164 Geraldton WA 6531
 T 61 8 9524 3677 F 61 8 9921 7997
 E permail@ghd.com W www.ghd.com



Client SHIRE OF NORTHAMPTON
 Project JACQUES POINT, KALBARRI
 Status TENDER

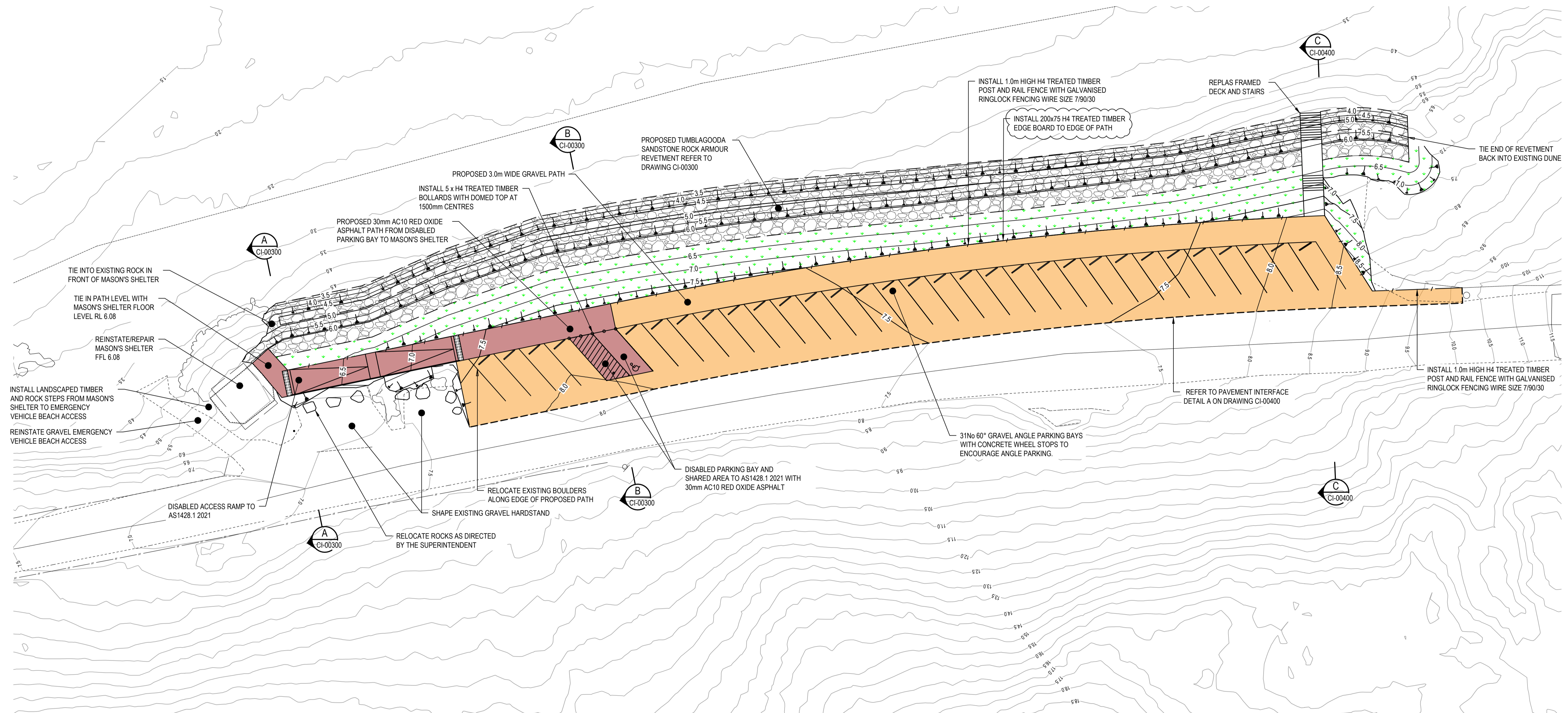
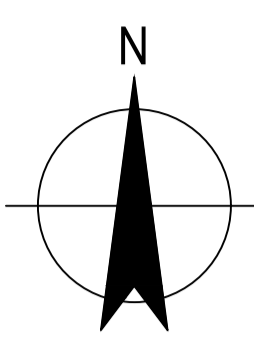
Drawing Title GENERAL ARRANGEMENT PLAN

12596020-GHD-00-04-DRG-CI-00100

Size A1

Rev P03

- LEGEND**
- PROPOSED JUTE MAT THICK EROSION CONTROL MATTING WITH SELECTED VEGETATION PLANTING
 - PROPOSED GRAVEL FOOTPATH
 - PROPOSED REVETMENT
 - DESIGN CONTOURS
 - EXISTING CONTOURS AT 0.5m INTERVAL
 - PROPOSED TOE OF BATTER
 - PROPOSED TOP OF BATTER
 - PROPOSED SAW CUT
 - PROPOSED TIMBER RINGLOCK FENCE



PLAN
SCALE 1:250

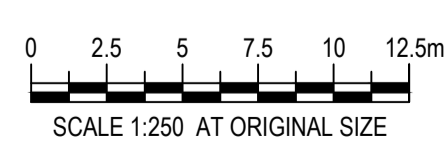
R THIS DRAWING INCLUDES COLOURED INFORMATION
G COPIES OF THIS DRAWING MUST BE PRODUCED IN COLOUR
B

ALL SETOUT INFORMATION WILL BE PROVIDED IN ELECTRONIC FORMAT



Rev	Description	Checked	Approved	Date
P03	TIMBER EDGE BOARD MODIFIED	SA	AK	20/02/24
P02	ISSUED FOR TENDER	SA	AK	08/02/24
P01	PRELIMINARY DESIGN	SA	AK	22/12/23

Author S.DAVIES Drafting Check A.KRAUSE
Designer S.DAVIES Design Check A.KRAUSE



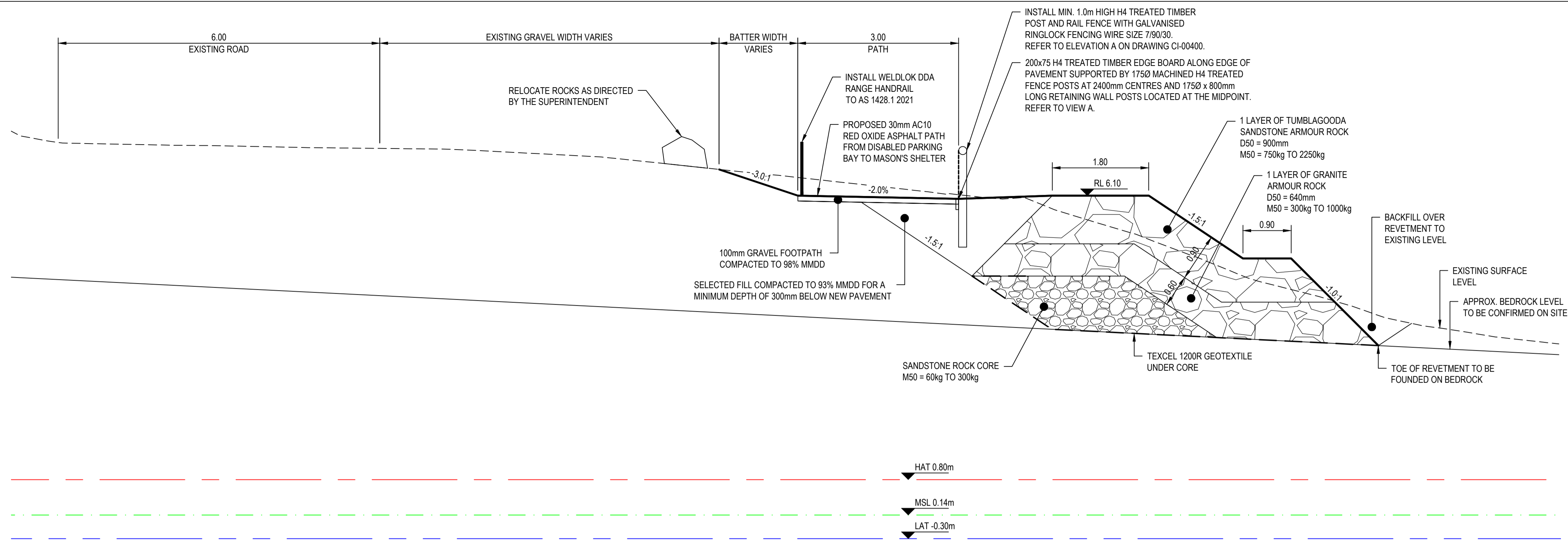
GHD
Level 1, 209 Foreshore Drive Geraldton WA 6530 Australia
PO Box 164 Geraldton WA 6531
T 61 8 9954 3677 F 61 8 9921 7997
E permail@ghd.com W www.ghd.com



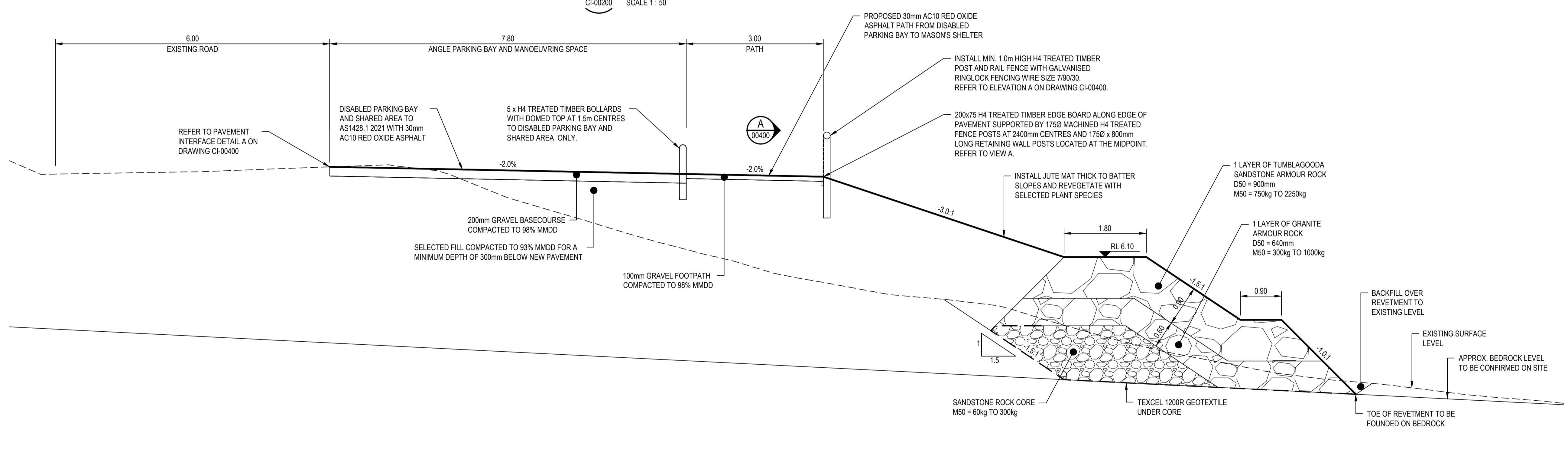
Client SHIRE OF NORTHAMPTON
Project JACQUES POINT, KALBARRI
Status TENDER

Drawing Title CAR PARK AND REVETMENT LAYOUT PLAN

Drawing No. 12596020-GHD-00-04-DRG-CI-00200
Rev P03



A-A SECTION
CI-00200 SCALE 1:50



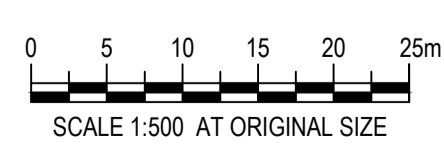
B-B SECTION
CI-00200 SCALE 1:50

PRELIMINARY
DATE : 20 February 2024

THIS DRAWING INCLUDES COLOURED INFORMATION
COPIES OF THIS DRAWING MUST BE PRODUCED IN COLOUR



P03	FENCE DETAILS UPDATED	SA	AK	
P02	ISSUED FOR TENDER	SA	AK	08/02/24
P01	PRELIMINARY DESIGN	SA	AK	22/12/23
Rev	Description	Checked	Approved	Date
Author	S.DAVIES	Drafting Check	A.KRAUSE	
Designer	S.DAVIES	Design Check	A.KRAUSE	

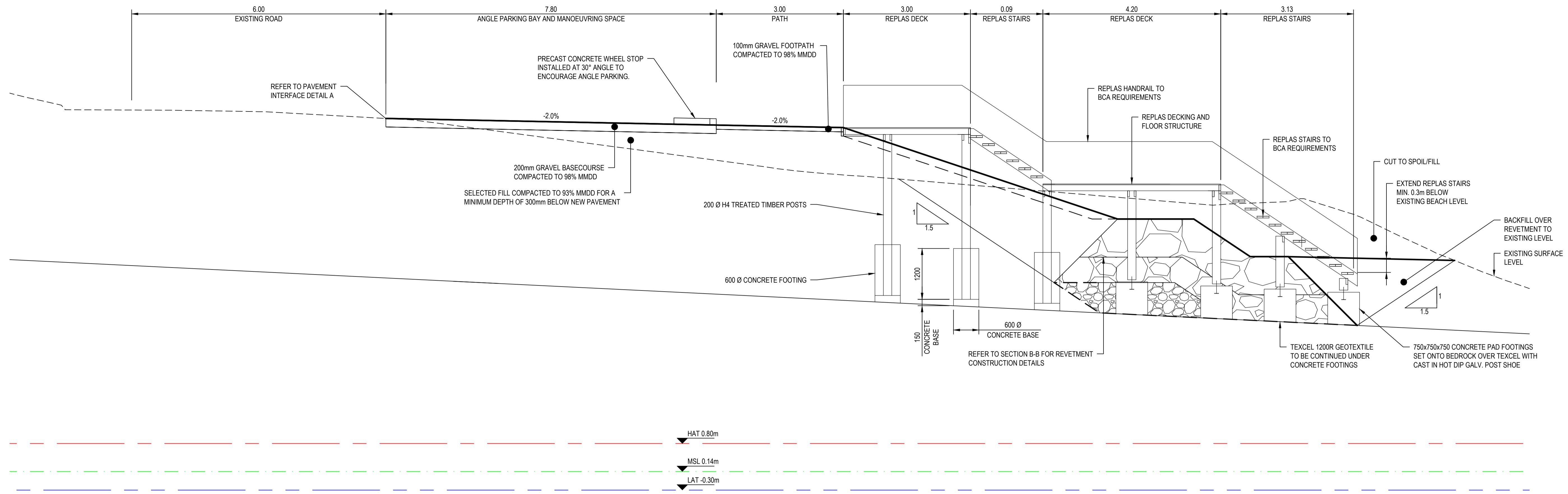


GHD
Level 1, 209 Foreshore Drive Geraldton WA 6530 Australia
PO Box 164 Geraldton WA 6531
T 61 8 9564 3677 F 61 8 9521 7997
E permail@ghd.com W www.ghd.com

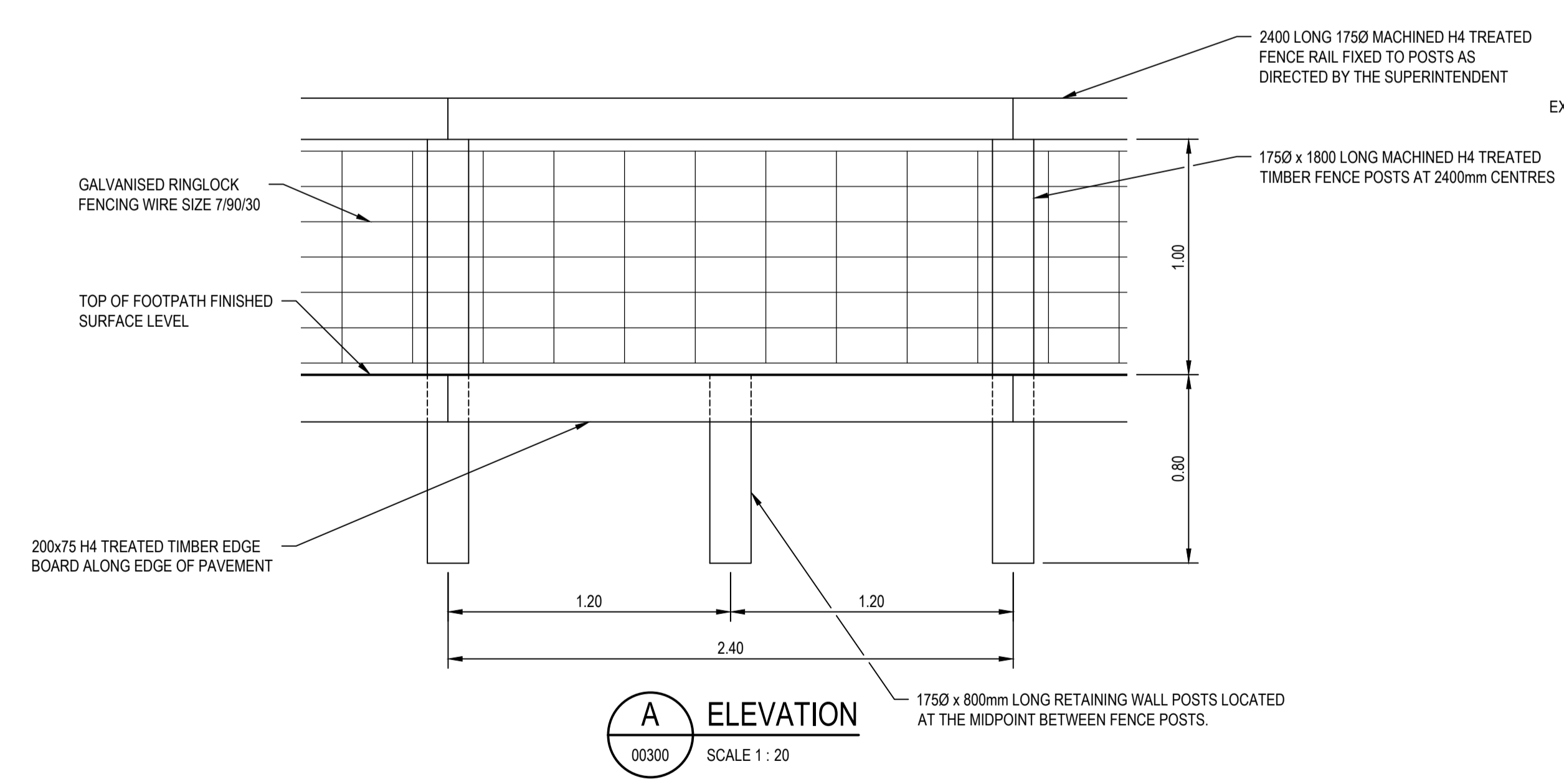
Client	SHIRE OF NORTHAMPTON
Project	JACQUES POINT, KALBARRI
Status	TENDER

Drawing Title	TYPICAL CAR PARK AND REVETMENT CROSS SECTIONS	Size	A1
Drawing No.	12596020-GHD-00-04-DRG-CI-00300	Rev	P03

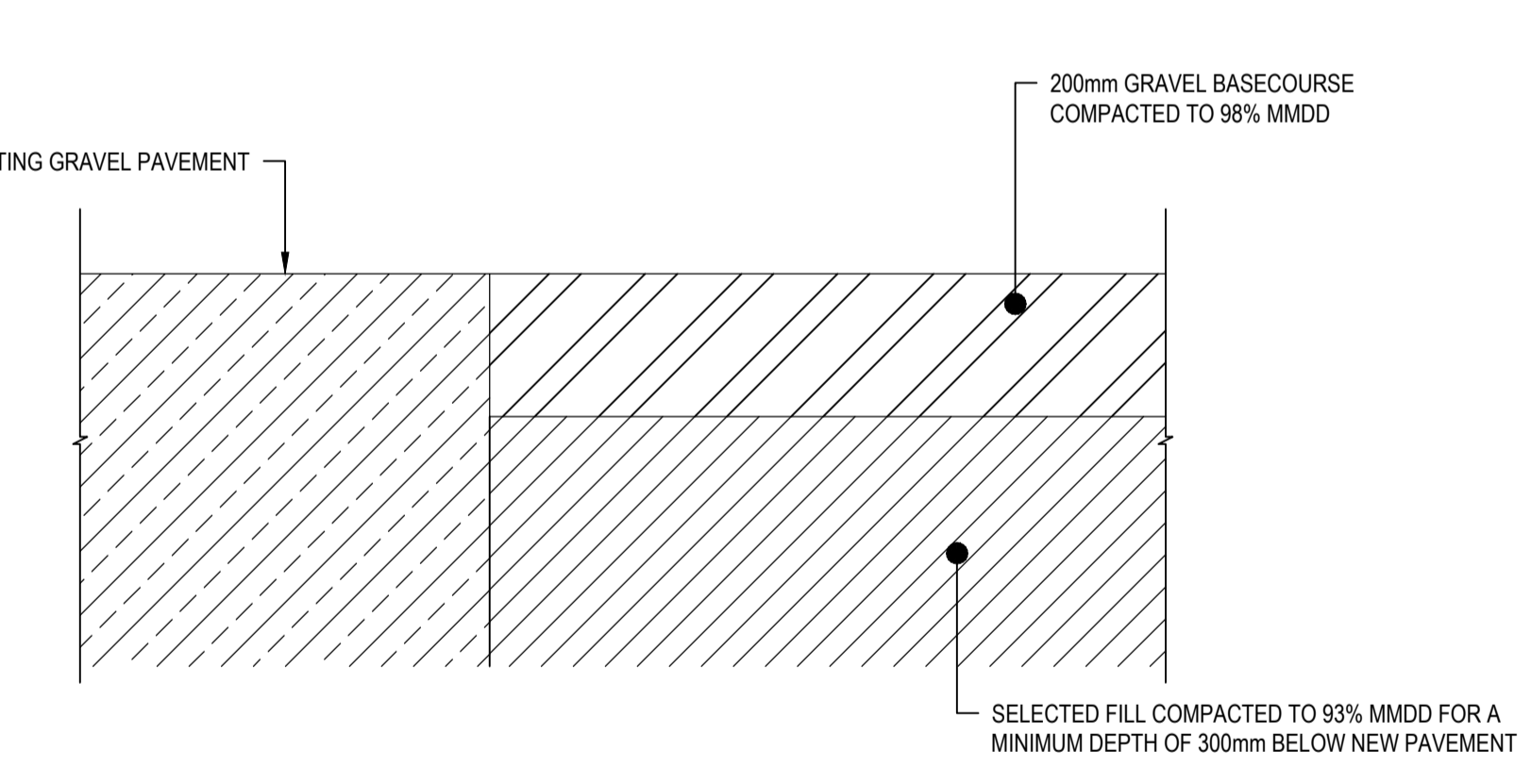
Conditions of Use: This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.



C-C SECTION
 CH-00200 SCALE 1:50



A ELEVATION
 00300 SCALE 1:20

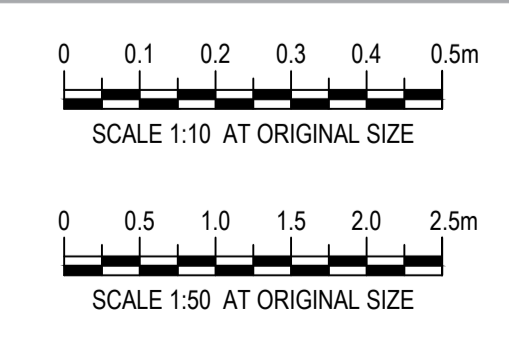


PAVEMENT INTERFACE DETAIL A
 SCALE 1:10

THIS DRAWING INCLUDES COLOURED INFORMATION
 COPIES OF THIS DRAWING MUST BE PRODUCED IN COLOUR



P03	ELEVATION A ADDED	SA	AK	20/02/24
P02	ISSUED FOR TENDER	SA	AK	08/02/24
P01	PRELIMINARY DESIGN	SA	AK	22/12/23
Rev	Description	Checked	Approved	Date
Author	S.DAVIES	Drafting Check	A.KRAUSE	
Designer	S.DAVIES	Design Check	A.KRAUSE	



GHD
 Level 1, 209 Foreshore Drive Geraldton WA 6530 Australia
 PO Box 164 Geraldton WA 6531
 T 61 8 9564 3677 F 61 8 9521 7997
 E perimail@ghd.com W www.ghd.com

www.ghd.com

Project No. 12596020

Conditions of Use: This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Client	SHIRE OF NORTHAMPTON
Project	JACQUES POINT, KALBARRI
Status	TENDER

Drawing Title	TYPICAL DETAILS	Size	A1
Drawing No.	12596020-GHD-00-04-DRG-CI-00400	Rev	P03

REVETMENT NOTES

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER WORKING DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONSTRUCTION. ALL DISCREPANCIES AND VARIATIONS SHALL BE REFERRED TO THE SUPERINTENDENT BEFORE PROCEEDING WITH THE WORK.
- DURING CONSTRUCTION THE CONTRACTOR (AS PRINCIPAL CONTRACTOR) SHALL BE RESPONSIBLE FOR ENSURING NO PART OF EXISTING STRUCTURES ARE DAMAGED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION.
- ON COMPLETION OF WORKS THE SITE (INCLUDING ALL ACCESS ROUTES) SHALL BE LEFT IN A CLEAN AND TIDY CONDITION TO THE SATISFACTION OF THE SUPERINTENDENT.
- WORKMANSHIP AND MATERIALS TO BE IN ACCORDANCE WITH THE RELEVANT SAA CODES EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- ALL LEVELS ARE EXPRESSED IN METRES TO AUSTRALIA HEIGHT DATUM. ALL DIMENSIONS RELEVANT TO THE SETTING OUT OF THE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION PROCEEDS.
- THE APPROVAL OF A SUBSTITUTION SHALL BE SOUGHT FROM THE SUPERINTENDENT BEFORE INCORPORATION INTO THE WORK.
- CONTRACTOR TO LOCATE ALL SERVICES PRIOR TO COMMENCEMENT OF WORK.
- ALL EXCAVATED EXCESS CLEAN SAND TO BE PLACED SEAWARD OF THE STRUCTURE TOE AND GRADED BACK OVER THE TOE OF THE WALL TO MATCH THE EXISTING BEACH GRADE IMMEDIATELY POST CONSTRUCTION.
- SURVEY RECEIVED 17.08.2023. SURVEY UNDERTAKEN BY HTD SURVEYORS & PLANNERS. EXISTING SAND PROFILE MAY HAVE CHANGED SINCE SURVEY WAS UNDERTAKEN.

ARMOUR ROCK

CLASS & GRADING

- ROCKS SHALL BE GRADED BOTH VISUALLY AND IN ACCORDANCE WITH THE SPECIFICATION.
- NOT MORE THAN 5% OF ROCKS SHALL HAVE A RATIO OF MAXIMUM DIMENSION TO MINIMUM DIMENSION OF GREATER THAN 3:1 UNLESS APPROVED BY THE SUPERINTENDENT.
- THE SIZES OF THE ARMOUR ROCK TO BE USED IN WORKS ARE SET OUT BELOW:
TOP LAYER AT JACQUES POINT-

WEIGHT RANGE	WMIN (KG)	W15 (KG)	W50 (KG)	W85 (KG)	WMAX (KG)
REVETMENT	700	850	1500	2260	2500

 BOTTOM LAYER AT JACQUES POINT-

WEIGHT RANGE	WMIN (KG)	W15 (KG)	W50 (KG)	W85 (KG)	WMAX (KG)
REVETMENT	300	475	650	825	1000

 RELATIVE DENSITY OF ROCK SHALL BE A MINIMUM OF 2.2 (SATURATED SURFACE DRY).
- MATERIAL SHALL BE PLACED SO THAT THE DISTRIBUTION OF ROCKS WITHIN ANY 5m x 5m AREA CONFORMS TO THE ROCK ARMOUR GRADING.

CORE ROCK

CLASS & GRADING

- THE SIZES OF THE CORE ROCK TO BE USED IN THE WORKS ARE SET OUT BELOW:

WEIGHT RANGE	Wmin (KG)	W15 (KG)	W50 (KG)	W85 (KG)	WMAX (KG)
REVETMENT	60	85	100	180	300

 RELATIVE DENSITY OF ROCK SHALL BE A MINIMUM OF 2.2 (SATURATED SURFACE DRY).
- MATERIAL SHALL BE PLACED SO THAT THE DISTRIBUTION OF ROCKS WITHIN ANY 5m x 5m AREA CONFORMS TO THE ROCK FILTER GRADING.

GEOTEXTILE

- GEOTEXTILE FABRIC SHALL BE TEXCEL 1200R (NON WOVEN OR SUITABLE EQUIVALENT).
- GEOTEXTILE SHALL BE INSTALLED VERTICALLY DOWN THE SLOPE WITH 500mm MINIMUM OVERLAP AT JOINTS.

ROCK PLACEMENT

- THE CONTRACTOR SHALL SUPPLY A METHOD STATEMENT DETAILING ITS PROPOSED METHOD OF ROCK PLACEMENT AND CONTROL TO ENSURE THE CONSTRUCTION WORKS MEETS THE SPECIFIED STANDARDS.
- EXISTING ROCK MATERIAL PROPOSED FOR REUSE SUBJECT TO SUPERINTENDENT INSPECTION.
- CORE ROCK IS TO BE PLACED ON THE GEOTEXTILE TO THE MINIMUM THICKNESS SHOWN ON THE DRAWINGS.
- ARMOUR ROCK IS TO BE PLACED ON THE CORE ROCK IN ONE LAYER TO THE MINIMUM THICKNESS SHOWN ON THE DRAWINGS.
- THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR DETERMINING SATISFACTORY PLACEMENT TECHNIQUES TO ENSURE GEOTEXTILE IS NOT DAMAGED.
- THE METHOD OF PLACING SHALL PRODUCE A DENSE, EVENLY DISTRIBUTED ROCK BLANKET WITH A MINIMUM OF VOIDS AND SHALL ENSURE THE MAXIMUM INTERLOCK BETWEEN ADJACENT ROCKS.
- INDIVIDUAL ROCKS SHALL BE PLACED TO A NON-MOVING STABLE POSITION IN CONTACT WITH THREE OTHER ROCKS.
- TOLERANCE AND FINISH LEVELS:
 - THE ARMOUR ROCK THICKNESS SHALL BE WITHIN -00mm AND +100mm OF THE SPECIFIED THICKNESS AT ALL LOCATIONS.
 - THE SLOPE OF THE ROCK LAYER SHALL NOT VARY BY MORE THAN 10% FROM THE SPECIFIED SLOPE.

QUALITY OF ROCK MATERIAL

- LOCAL SANDSTONE IS PREFERRED FOR USE IN THE TOP LAYER OF ARMOUR AT JACQUES POINT. GRANITE IS PREFERRED FOR USE IN THE BOTTOM LAYER OF ROCK ARMOUR AT JACQUES POINT. CORE MATERIAL CAN CONSIST OF EITHER LOCAL SANDSTONE OR GRANITE. DETAILS OF QUARRIES TO BE PROVIDED BY THE CONTRACTOR.
- ARMOUR ROCK SHALL COMPRISE INDIVIDUAL STONE WHICH IS DENSE, SOUND, RESISTANT TO ABRASION AND FREE OF CRACKS, CLEAVAGE PLANES, SEAMS AND OTHER DEFECTS WHICH WOULD RESULT IN BREAKDOWN OF THE STONE IN THE ENVIRONMENT OF THE SITE OF THE WORKS.
- ANY STONE WHICH WILL UNDERGO PHYSICAL CHANGE CAUSING SPALLING, WEATHERING OR FRACTURING IN THE ENVIRONMENT OF THE SITE WILL NOT BE ACCEPTABLE.
- THE CONTRACTOR SHALL SUPPLY TESTING BY A SUITABLY EXPERIENCED PETROLOGIST OR GEOTECHNICAL ENGINEER WHO HAS OBTAINED REPRESENTATIVE SAMPLES AND CARRIED OUT TESTING TO DETERMINE THE MINERAL COMPOSITION AND OTHER TESTS AS PER BELOW TO DETERMINE THE SUITABILITY OF THE ROCK.
- THESE TESTS MUST INCLUDE THOSE LISTED BELOW, IDENTIFIED AS (A) TO (E) INCLUSIVE, TOGETHER WITH THE DETERMINATION AND DISTRIBUTION OF DELETERIOUS SECONDARY MINERALS FOR ALL BASIC IGNEOUS ROCKS. FULL DETAILS OF THIS SAMPLING AND TESTING ARE TO BE INCLUDED IN A REPORT.
- ALL ARMOUR ROCK TO BE INCORPORATED IN THE WORKS SHALL COMPLY WITH THE FOLLOWING TEST REQUIREMENTS AND BE TESTED AT NATA ACCREDITED LABORATORY.
 - LOS ANGELES ABRASION TEST FOR SPECIMENS TO COMPLY WITH AS 1141-1980 SECTION 23, THE LOSS WHEN TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THAT STANDARD SHALL NOT EXCEED 20%.
 - DENSITY OF THE PARTICLE DENSITY OF THE 37.5MM TO 63MM FRACTION OF A CRUSHED SAMPLE EXPRESSED ON A DRY BASIS SHALL NOT BE LESS THAN 2200 kg/m³
 - WATER ABSORPTION SHALL NOT EXCEED 3% WHEN DETERMINED BY THE RELEVANT METHODS DESCRIBED IN AS 1141-1980, SECTION 6 OR AS4133.2.
 - SODIUM SULPHATE SOUDNESS TEST TO AS1141, SECTION 24 FOR 5 CYCLES, LOSS SHALL NOT EXCEED 2.5%.
 - CRUSHING RESISTANCE ULTIMATE COMPRESSIVE STRENGTH (UCS) TEST IN ACCORDANCE WITH AS 4133.4.2.1 SHALL HAVE MINIMUM 100 MPA FOR CORE AND ARMOUR ROCK. THE POINT LOAD INDEX (IS50) AS PER AS 4133.4.1 FOR ROCK ARMOUR SHALL HAVE A MINIMUM VALUE OF 3.5 MPA AND 2.3 MPA FOR CORE ROCK
- RELAXATION ON THE ROCK ARMOUR QUALITY MAY BE GRANTED AT THE SUPERINTENDENTS DISCRETION UPON REVIEW OF QUARRY TEST RESULTS AND SITE INSPECTION.
- QUARRY TEST RESULTS ARE TO BE PROVIDED FOR SUPERINTENDENT REVIEW PRIOR TO QUARRY LOAD OUT.

SAFETY IN DESIGN

- THE SAFETY RISK MITIGATION ITEMS IDENTIFIED IN HS040 "SAFETY IN DESIGN RISK ASSESSMENT" ARE BASED ON GHD'S DESIGN OFFICE EXPERIENCE AND DO NOT NECESSARILY ACCOUNT FOR ALL CONSTRUCTION, OPERATION, MAINTENANCE AND DEMOLITION SAFETY RISKS. BASED ON INFORMATION AVAILABLE WHEN THIS DRAWING WAS MADE, IN ITS CAPACITY AS DESIGNER ONLY, GHD HAS TRIED TO IDENTIFY SAFETY RISKS PERTAINING TO CONSTRUCTION, OPERATION, MAINTENANCE AND DEMOLITION PHASES OF THE ASSET. INCLUSION (OR NOT) OF ANY ITEM DOES NOT REDUCE OR LIMIT OBLIGATIONS OF CONSTRUCTOR, USER, MAINTAINER AND DEMOLISHER TO UNDERTAKE APPROPRIATE RISK MANAGEMENT ACTIVITIES TO REDUCE RISK AND IS NOT AN ADMISSION BY GHD THAT INCLUSION OF ANY ITEM IS DESIGNER'S RESPONSIBILITY.

P02	ISSUED FOR TENDER	SA	AK	08/02/24
P01	PRELIMINARY DESIGN	SA	AK	22/12/23
Rev	Description	Checked	Approved	Date
Author	S.DAVIES	Drafting Check	A.KRAUSE	
Designer	S.DAVIES	Design Check	A.KRAUSE	

Plot Date: 8 February 2024 - 1:04 PM Plotted by: Steven Davies

File Name: N:\AU\Perth\Projects\611\2596020\CADD\Drawings\04_Jakes_Point\12596020-GHD-00-04-DRG-CI-00500.dwg



Level 1, 209 Foreshore Drive Geraldton WA 6530 Australia
 PO Box 164 Geraldton WA 6531
 T 61 8 9564 3677 F 61 8 9921 7997
 E permail@ghd.com W www.ghd.com



www.ghd.com

Project No.
12596020

Conditions of Use. This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

Client	SHIRE OF NORTHAMPTON
Project	JACQUES POINT, KALBARRI
Status	TENDER

Drawing Title	GENERAL REVETMENT NOTES
Drawing No.	12596020-GHD-00-04-DRG-CI-00500

Size	A1
Rev	P02

