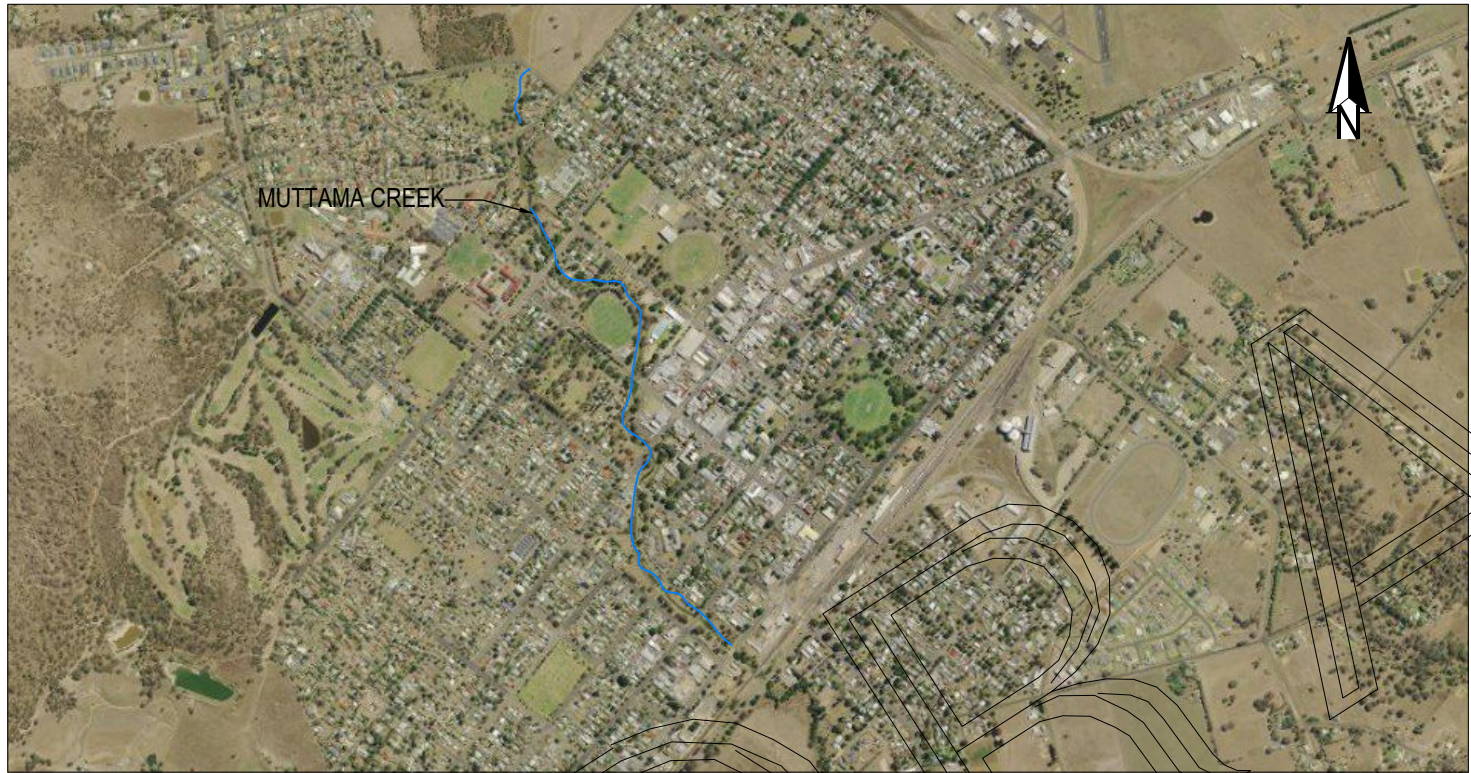


PROJECT: MASTER PLAN FOR MUTTAMA CREEK

PLANSET: PRELIMINARY CIVIL ENGINEERING PLANS

CLIENT: COOTAMUNDRA - GUNDAGAI REGIONAL COUNCIL



LOCALITY PLAN  
NOT TO SCALE

LGA: COOTAMUNDRA - GUNDAGAI REGIONAL COUNCIL

| DRAWING LIST                  |     |                                    |
|-------------------------------|-----|------------------------------------|
| DWG NO.                       | REV | DWG TITLE                          |
| GENERAL                       |     |                                    |
| PS01-A000                     | B   | COVER SHEET                        |
| PS01-A010                     | A   | LAYOUT REFERENCE PLAN              |
| PS01-A300                     | B   | PROPOSAL (LAYOUT-1)                |
| PS01-A310                     | B   | PROPOSAL (LAYOUT-2)                |
| PS01-A320                     | B   | PROPOSAL (LAYOUT-3)                |
| PS01-A330                     | B   | PROPOSAL (LAYOUT-4)                |
| PS01-A340                     | B   | PROPOSAL (LAYOUT-5)                |
| PS01-A350                     | B   | PROPOSAL (LAYOUT-6)                |
| PS01-A360                     | B   | PROPOSAL (LAYOUT-7)                |
| CONSTRUCTION MANAGEMENT WORKS |     |                                    |
| PS01-B310                     | A   | EROSION & SEDIMENT CONTROL DETAILS |
| GRADING                       |     |                                    |
| PS01-C100                     | B   | GRADING AND EARTHWORKS (LAYOUT-1)  |
| PS01-C110                     | B   | GRADING AND EARTHWORKS (LAYOUT-2)  |
| PS01-C120                     | B   | GRADING AND EARTHWORKS (LAYOUT-3)  |
| PS01-C130                     | B   | GRADING AND EARTHWORKS (LAYOUT-4)  |
| PS01-C140                     | B   | GRADING AND EARTHWORKS (LAYOUT-5)  |
| PS01-C150                     | B   | GRADING AND EARTHWORKS (LAYOUT-6)  |
| PS01-C160                     | B   | GRADING AND EARTHWORKS (LAYOUT-7)  |
| PS01-C600                     | B   | EARTHWORK SITE SECTION (SHEET-1)   |
| PS01-C610                     | B   | EARTHWORK SITE SECTION (SHEET-2)   |
| PS01-C611                     | A   | EARTHWORK SITE SECTION (SHEET-3)   |
| PS01-C612                     | A   | EARTHWORK SITE SECTION (SHEET-4)   |
| PS01-C613                     | A   | EARTHWORK SITE SECTION (SHEET-5)   |
| PS01-C614                     | A   | EARTHWORK SITE SECTION (SHEET-6)   |
| PS01-C660                     | A   | EARTHWORK SITE SECTION (SHEET-7)   |
| PS01-C661                     | A   | EARTHWORK SITE SECTION (SHEET-8)   |
| PS01-C662                     | A   | EARTHWORK SITE SECTION (SHEET-9)   |
| PS01-C663                     | A   | EARTHWORK SITE SECTION (SHEET-10)  |
| PS01-C664                     | A   | EARTHWORK SITE SECTION (SHEET-11)  |
| PS01-C665                     | A   | EARTHWORK SITE SECTION (SHEET-12)  |
| PS01-C666                     | A   | EARTHWORK SITE SECTION (SHEET-13)  |

FOR CONCEPT DESIGN

| REV | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD | SCALE |
|-----|------------------|------------|-------|----------|---------|--------|-------|
| B   | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        |       |
| A   | INITIAL RELEASE  | 20/06/2025 | NH    | YAI      | DM      | JW     |       |
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| GRID  | DATUM | PROJECT MANAGER | CLIENT |
|---|-------|-----------------|--------|
| ---   | ---   | JW              | CGRC   |
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| PROJECT NAME/PLANSET TITLE  |       |                 |        |
| MASTER PLAN FOR MUTTAMA CREEK   |       |                 |        |
| PRELIMINARY CIVIL ENGINEERING PLANS   |       |                 |        |
| MUTTAMA CREEK, COOTAMUNDRA  |       |                 |        |
| NSW 2590 AUSTRALIA  |       |                 |        |



Consulting Engineers  
Environment  
Water  
Geotechnical  
Civil

Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767  
Email: mail@martens.com.au Internet: www.martens.com.au

| DRAWING TITLE |             |             |             |          |
|---------------|-------------|-------------|-------------|----------|
| COVER SHEET   |             |             |             |          |
| PROJECT NO.   | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
| P2510821      | PS01        | R02         | PS01-A000   | B        |





FOR CONCEPT DESIGN

| REV | DESCRIPTION     | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD |
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| A   | INITIAL RELEASE | 20/06/2025 | NH    | YAI      | DM      | JW     |
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| SCALE                                   |
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| A1 (A3) 1:4,000 (1:8,000) METRES        |

| GRID   | DATUM | PROJECT MANAGER | CLIENT |
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| MGA  | mAHD  | JW              | CGRC   |
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| PROJECT NAME/PLANSET TITLE          |
|-------------------------------------|
| MASTER PLAN FOR MUTTAMA CREEK       |
| PRELIMINARY CIVIL ENGINEERING PLANS |
| MUTTAMA CREEK, COOTAMUNDRA          |
| NSW 2590 AUSTRALIA                  |

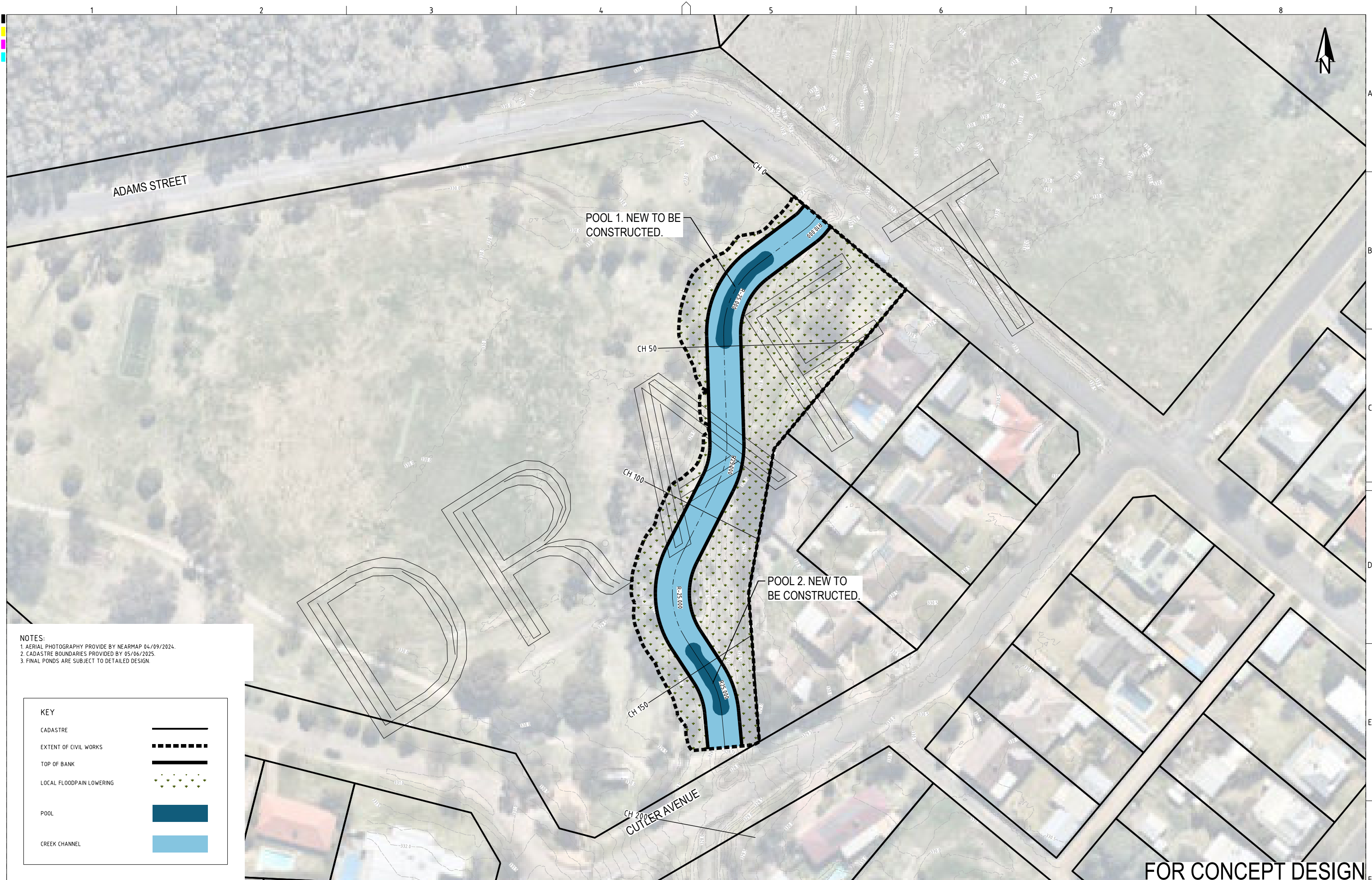


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| DRAWING TITLE         |             |             |             |          |
|-----------------------|-------------|-------------|-------------|----------|
| LAYOUT REFERENCE PLAN |             |             |             |          |
| PROJECT NO.           | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
| P2510821              | PS01        | R02         | PS01-A010   | A        |

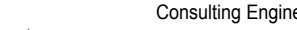




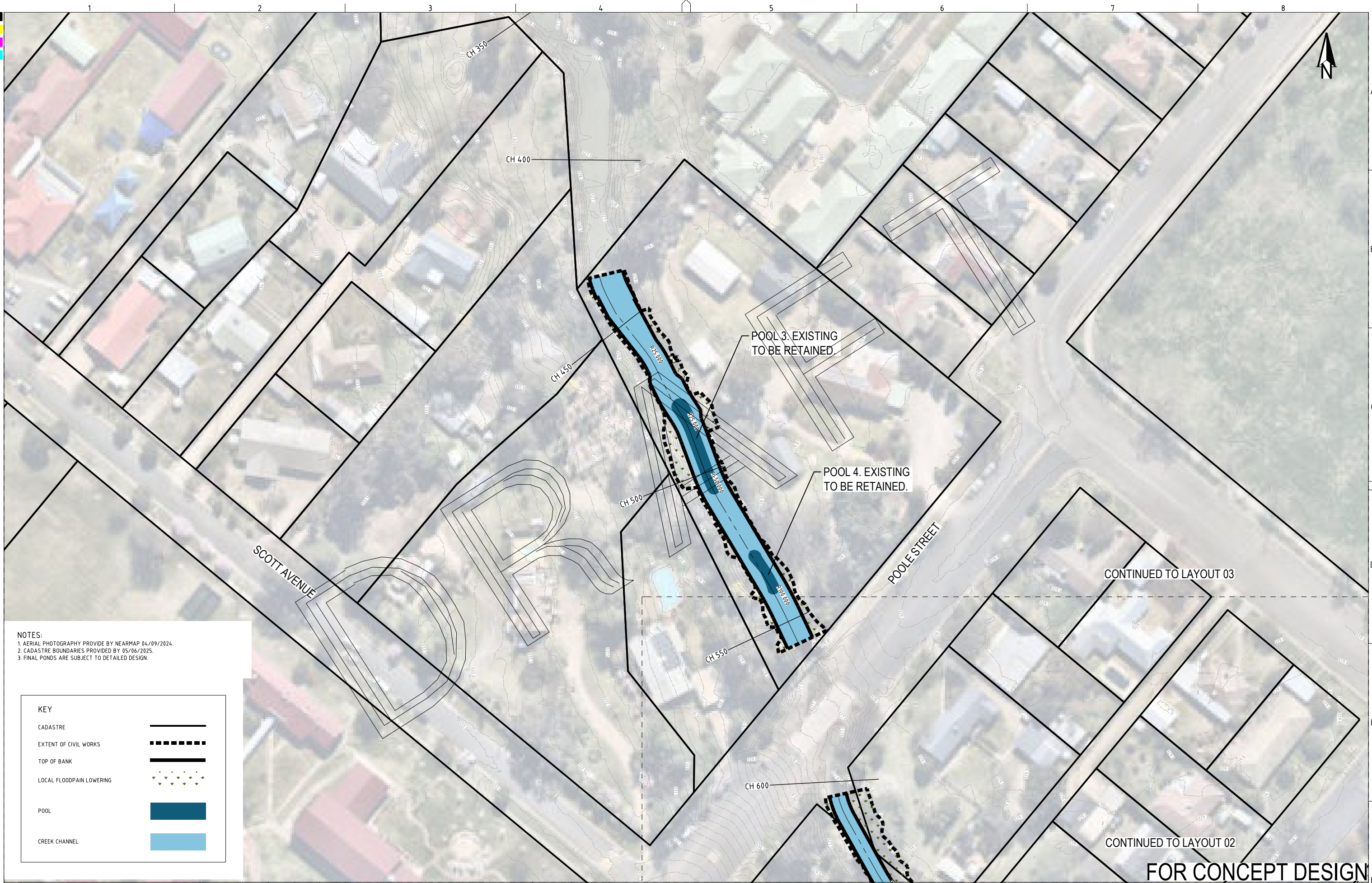
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2. CADASTRE BOUNDARIES PROVIDED BY 05/06/2025.  
3. FINAL PONDS ARE SUBJECT TO DETAILED DESIGN.

| KEY                       |  |
|---------------------------|--|
| CADASTRE                  |  |
| EXTENT OF CIVIL WORKS     |  |
| TOP OF BANK               |  |
| LOCAL FLOODPLAIN LOWERING |  |
| POOL                      |  |
| CREEK CHANNEL             |  |

FOR CONCEPT DESIGN

|     |                  |            |       |          |         |        |  |      |       |                 |        |   |  |  |  |
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| REV | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD | SCALE  | GRID | DATUM | PROJECT MANAGER | CLIENT | <div>Consulting Engineers<br/>Environment<br/>Water<br/>Geotechnical<br/>Civil</div> <div>Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767<br/>Email: mail@martens.com.au Internet: www.martens.com.au</div> |  |  |  |
| B   | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        | 0 5 10 15 20 25 30 35 40 45 50<br>A1 (A3) 1:500 (1:1,000) METRES | MGA  | mAHD  | JW              | CGRC   |   |  |  |  |
| A   | INITIAL RELEASE  | 20/06/2025 | NH    | YAI      | DM      | JW     |  |      |       |                 |        |   |  |  |  |
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NOTES:  
1. AERIAL PHOTOGRAPHY PROVIDE BY NEARMAP 04/09/2024.  
2. CADASTRE BOUNDARIES PROVIDED BY 05/06/2025.  
3. FINAL PONDS ARE SUBJECT TO DETAILED DESIGN.

KEY

CADASTRE


EXTENT OF CIVIL WORKS

TOP OF BANK

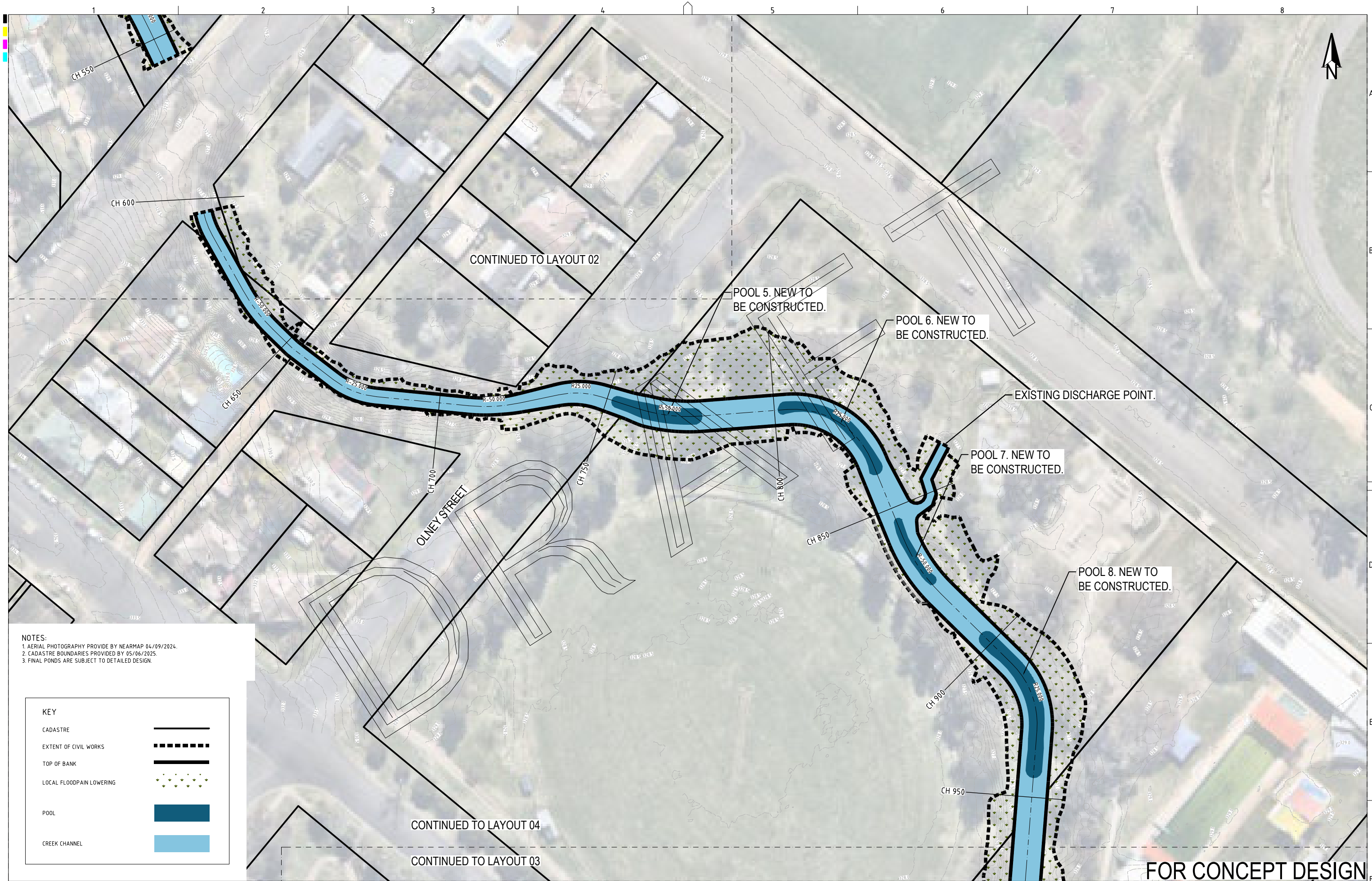
LOCAL FLOODPLAIN LOWERING

POOL

CREEK CHANNEL

|     |                  |            |       |          |         |        |  |      |       |                 |        |  |  |   |  |             |             |             |             |          |
|-----|------------------|------------|-------|----------|---------|--------|--|------|-------|-----------------|--------|--|--|---|--|-------------|-------------|-------------|-------------|----------|
| REV | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD | SCALE  | GRID | DATUM | PROJECT MANAGER | CLIENT |  Consulting Engineers<br>Environment<br>Water<br>Geotechnical<br>Civil    |  | DRAWING TITLE   |  |             |             |             |             |          |
| B   | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        | 0 5 10 15 20 25 30 35 40 45 50<br>A1 (A3) 1:500 (1:1,000) METRES   | MGA  | mAHD  | JW              | CGRC   |  |  | PROPOSAL<br>LAYOUT - 2  |  |             |             |             |             |          |
| A   | INITIAL RELEASE  | 20/06/2025 | NH    | YAI      | DM      | JW     |  |      |       |                 |        | PROJECT NAME/PLANSET TITLE<br><br>MASTER PLAN FOR MUTTAMA CREEK<br>PRELIMINARY CIVIL ENGINEERING PLANS<br><br>MUTTAMA CREEK, COOTAMUNDRA<br>NSW 2590 AUSTRALIA |  | Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767<br>Email: mail@martens.com.au Internet: www.martens.com.au |  | PROJECT NO. | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
|     |                  |            |       |          |         |        |  |      |       |                 |        |  |  |   |  | P2510821    | PS01        | R02         | PS01-A310   | B        |
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FOR CONCEPT DESIGN

[illegible]

SCALE

0 5 10 15 20 25 30 35 40 45 50

A1 (A3) 1:500 (1:1 000) METRES

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| GRID   | DATUM | PROJECT MANAGER |
| MGA  | mAHD  | JW              |
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|                            |   |
|----------------------------|---|
| CLIENT                     | CGRC  |
| PROJECT NAME/PLANSET TITLE | <b>MASTER PLAN FOR MUTTAMA CREEK</b><br>PRELIMINARY CIVIL ENGINEERING PLANS<br>MUTTAMA CREEK, COOTAMUNDRA<br>NSW 2590 AUSTRALIA |

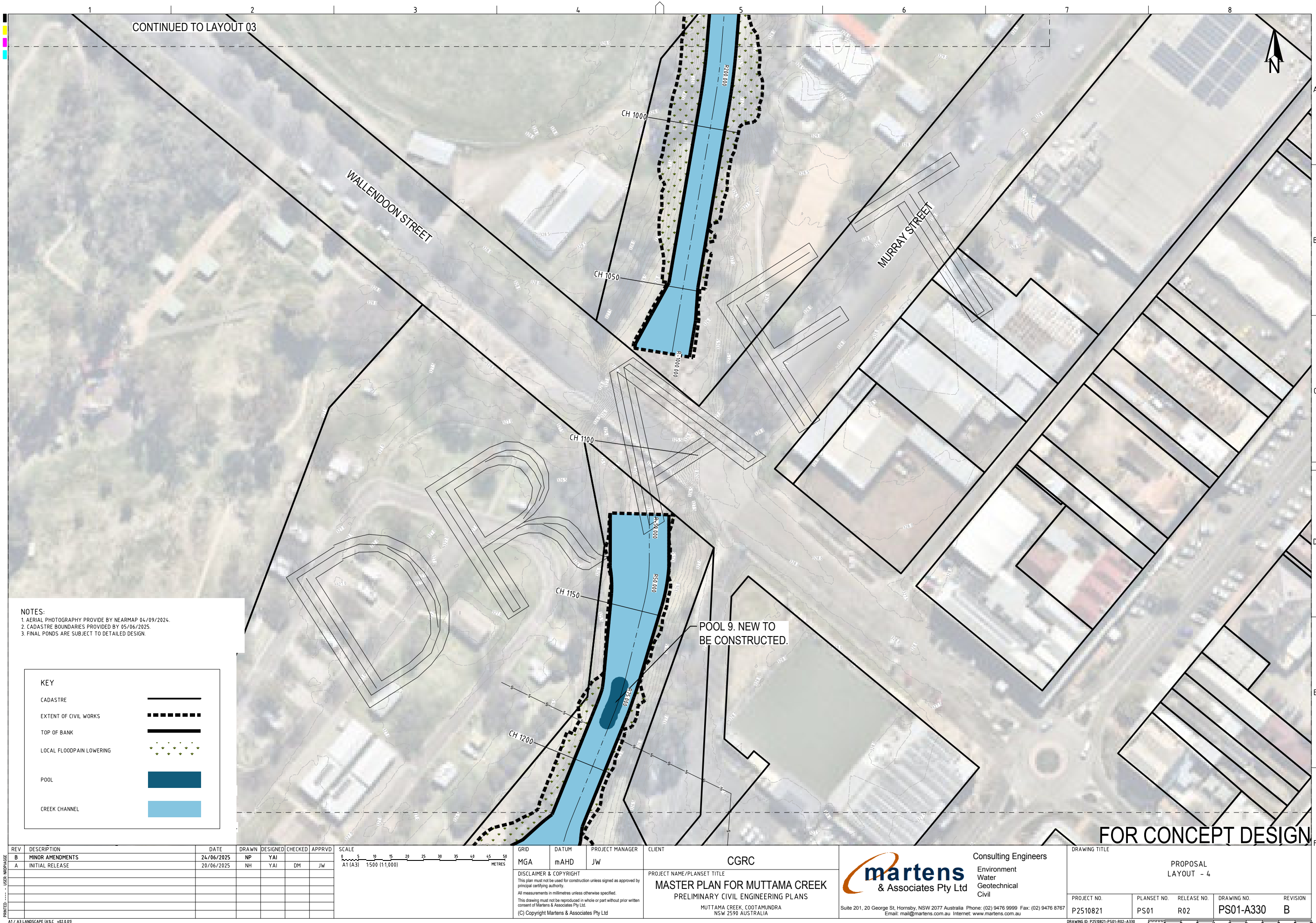


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|                        |             |             |             |          |
|------------------------|-------------|-------------|-------------|----------|
| DRAWING TITLE          |             |             |             |          |
| PROPOSAL<br>LAYOUT - 3 |             |             |             |          |
| PROJECT NO.            | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
| P2510821               | PS01        | R02         | PS01-A320   | B        |









~~FOR CONCEPT DESIGN~~

[illegible]

SCALE

0 5 10 15 20 25 30 35 40 45 50

Δ1 (Δ3) 1:500 (1:1 000) METRES

|   |       |                 |
|---|-------|-----------------|
| GRID  | DATUM | PROJECT MANAGER |
| MGA   | mAHD  | JW              |
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CLIENT

CGRC

PROJECT NAME/PLANSET TITLE

**MASTER PLAN FOR MUTTAMA CREEK**  
**PRELIMINARY CIVIL ENGINEERING PLANS**

MUTTAMA CREEK, COOTAMUNDRA  
NSW 2590 AUSTRALIA



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|                        |             |             |             |          |
|------------------------|-------------|-------------|-------------|----------|
| DRAWING TITLE          |             |             |             |          |
| PROPOSAL<br>LAYOUT - 5 |             |             |             |          |
| PROJECT NO.            | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
| P2510821               | PS01        | R02         | PS01-A340   | B        |

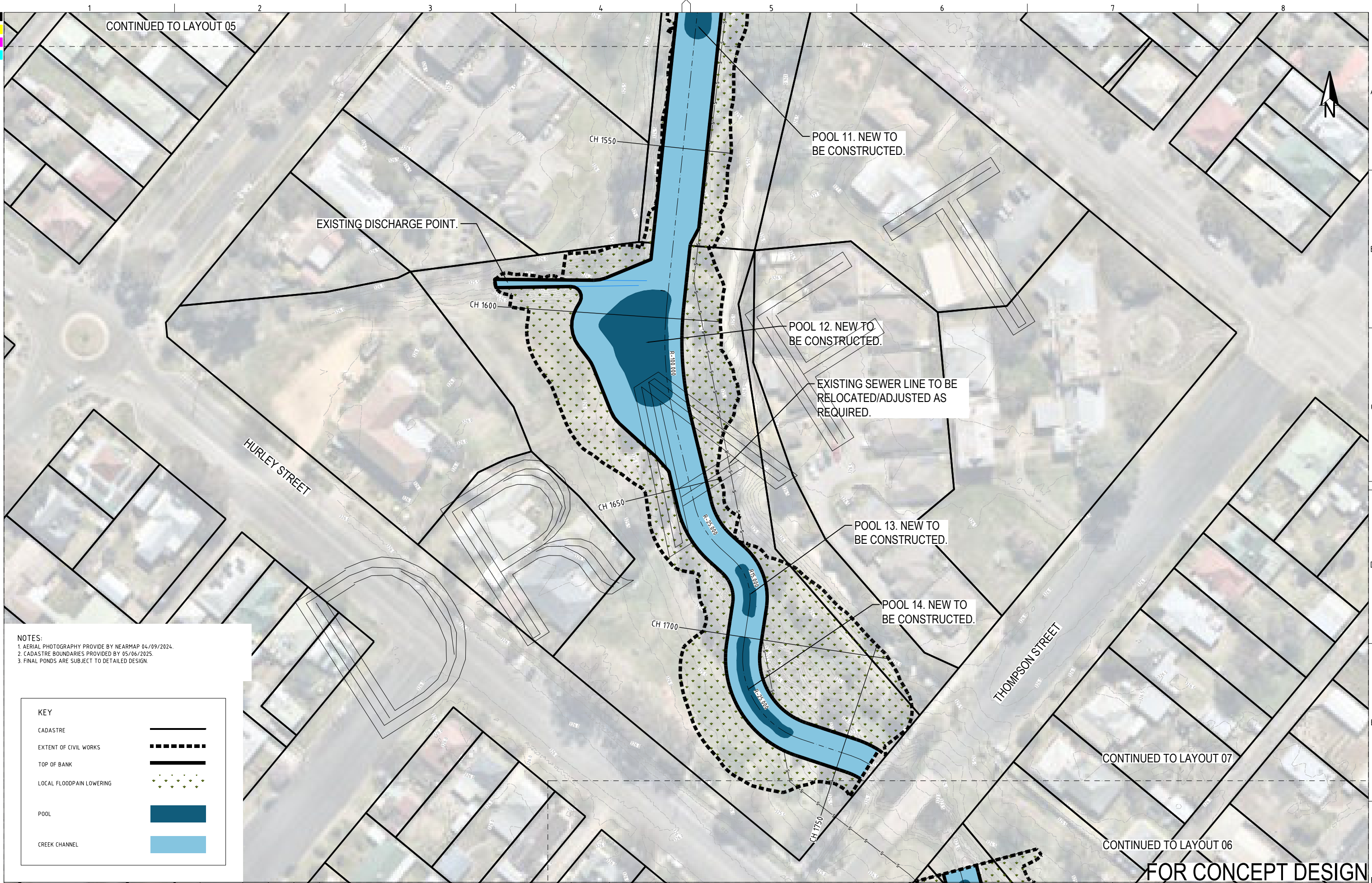
DRAWING ID: P2510821-PS01-R02-A340

A horizontal beam is shown with a vertical reaction force at the left end and a uniformly distributed load acting downwards along its entire length.

PRINTED: ---- - USER: NRDPIAGGE

A1 / A3 LANDSCAPE (A11C v02.0.01)

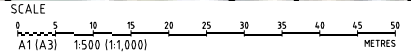




NOTES:  
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2. CADASTRE BOUNDARIES PROVIDED BY 05/06/2025.  
3. FINAL PONDS ARE SUBJECT TO DETAILED DESIGN.

| KEY                       |  |
|---------------------------|--|
| CADASTRE                  |  |
| EXTENT OF CIVIL WORKS     |  |
| TOP OF BANK               |  |
| LOCAL FLOODPLAIN LOWERING |  |
| POOL                      |  |
| CREEK CHANNEL             |  |

| REV | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD |
|-----|------------------|------------|-------|----------|---------|--------|
| B   | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        |
| A   | INITIAL RELEASE  | 20/06/2025 | NH    | YAI      | DM      | JW     |
|     |                  |            |       |          |         |        |
|     |                  |            |       |          |         |        |
|     |                  |            |       |          |         |        |
|     |                  |            |       |          |         |        |
|     |                  |            |       |          |         |        |
|     |                  |            |       |          |         |        |
|     |                  |            |       |          |         |        |
|     |                  |            |       |          |         |        |



|  |       |                 |        |
|--|-------|-----------------|--------|
| GRID   | DATUM | PROJECT MANAGER | CLIENT |
| MGA  | mAHD  | JW              | CGRC   |
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|                                     |
|-------------------------------------|
| PROJECT NAME/PLANSET TITLE          |
| MASTER PLAN FOR MUTTAMA CREEK       |
| PRELIMINARY CIVIL ENGINEERING PLANS |
| MUTTAMA CREEK, COOTAMUNDRA          |
| NSW 2590 AUSTRALIA                  |

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| DRAWING TITLE       |             |             |             |          |
|---------------------|-------------|-------------|-------------|----------|
| PROPOSAL LAYOUT - 6 |             |             |             |          |
| PROJECT NO.         | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
| P2510821            | PS01        | R02         | PS01-A350   | B        |





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KEY

CADASTRE

EXTENT OF CIVIL WORKS

TOP OF BANK

LOCAL FLOODPLAIN LOWERING

POOL

CREEK CHANNEL

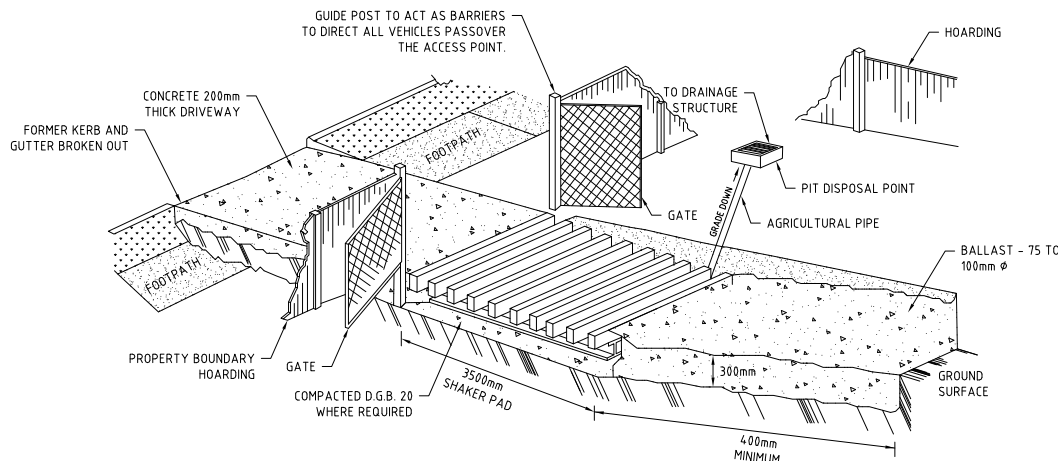
| REV | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD | SCALE  | GRID | DATUM | PROJECT MANAGER | CLIENT   | martens & Associates Pty Ltd  |  | Consulting Engineers<br>Environment<br>Water<br>Geotechnical<br>Civil                  |  | DRAWING TITLE       |  |  |  |
|-----|------------------|------------|-------|----------|---------|--------|--|------|-------|-----------------|--|---|--|--|--|---------------------|--|--|--|
| B   | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        | 0 5 10 15 20 25 30 35 40 45 50<br>A1 (A3) 1:500 (1:1,000) METRES | MGA  | mAHD  | JW              | CGRC   |   |  |  |  | PROPOSAL LAYOUT - 7 |  |  |  |
| A   | INITIAL RELEASE  | 20/06/2025 | NH    | YAI      | DM      | JW     |  |      |       |                 | PROJECT NAME/PLANSET TITLE   | Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767<br>Email: mail@martens.com.au Internet: www.martens.com.au |  | PROJECT NO. P2510821 PLANSET NO. PS01 RELEASE NO. R02 DRAWING NO. PS01-A360 REVISION B |  |                     |  |  |  |
|     |                  |            |       |          |         |        |  |      |       |                 | MASTER PLAN FOR MUTTAMA CREEK<br>PRELIMINARY CIVIL ENGINEERING PLANS   |   |  |  |  |                     |  |  |  |
|     |                  |            |       |          |         |        |  |      |       |                 | MUTTAMA CREEK, COOTAMUNDRA<br>NSW 2590 AUSTRALIA   |   |  |  |  |                     |  |  |  |
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## TYPE II SAP

THE TYPE II SAP DESIGN IS MORE DEFINED IN THAT IT REQUIRES AN AREA OF BALLAST WITHIN THE SITE COMBINED WITH A SHAKER PAD; ADJACENT THE SHAKER PAD AND IN THE PUBLIC WAY IS A TEMPORARY (CONCRETE) VEHICULAR CROSSING. (SEE DIAGRAM)

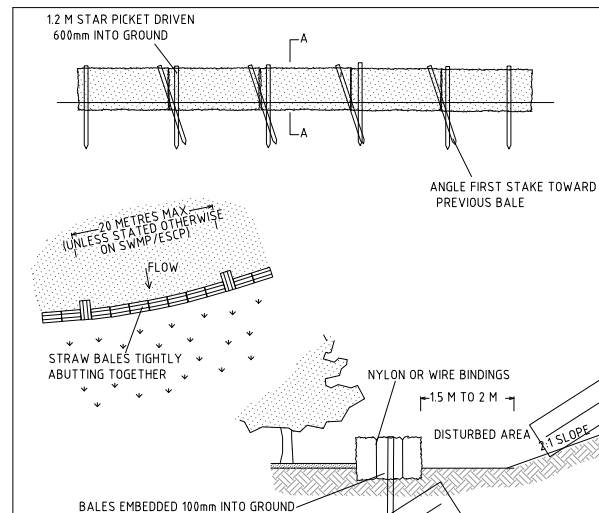
### STABILISED ACCESS POINT - TYPE 2



IN BOTH TYPE I AND TYPE II SAP'S, THE TEMPORARY VEHICULAR CROSSING MUST:

- CONNECT TO AN EXISTING GUTTER LAYBACK (WHERE THE KERB AND GUTTER EXIST). IF A GUTTER LAYBACK DOES NOT EXIST THEN THE CONNECTION MUST BE MADE TO THE GUTTER BY REMOVING THE ADJACENT KERB SECTION ONLY.
- CONNECT TO A DISH CROSSING (WHERE KERB AND GUTTER DOES NOT EXIST). IF A DISH CROSSING DOES NOT EXIST, THEN IT MUST BE CONSTRUCTED IN ACCORDANCE WITH DETAILS CONTAINED IN COUNCIL'S ISSUED FOOTPATH CROSSING LEVELS.

IT SHOULD BE NOTED THAT THESE TYPES OF SAPS ARE CONSIDERED TO BE APPLICABLE FOR THE MAJORITY OF ACTIVITIES HOWEVER SOME SITES MAY REQUIRE SPECIAL CONSIDERATION.

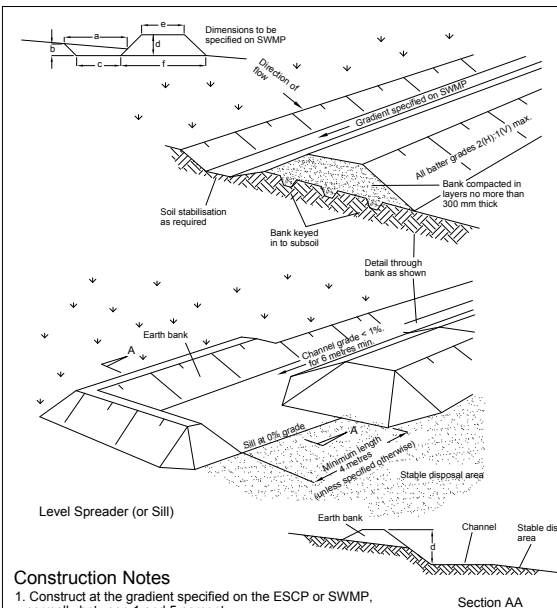


### CONSTRUCTION NOTES

1. CONSTRUCT THE STRAW BALE FILTER AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE. 2. PLACE BALES IN A ROW WITH ENDS TIGHTLY ABUTTING. USE STRAW TO FILL ANY GAPS BETWEEN BALES. 3. BALES ARE TO BE PLACED PARALLEL TO GROUND. 4. ENSURE THAT THE MAXIMUM HEIGHT OF THE FILTER IS ONE BALE. 5. SPACE EACH BALE IN THE GROUND 75mm to 100mm AND ANCHOR WITH TWO 12 METRE STAR PICKETS OR STAKES. 6. ANGLE THE FIRST STAR PICKET OR STAKE IN EACH BALE TOWARDS THE PREVIOUSLY LAID BALE. DRIVE THEM 600mm INTO THE GROUND AND, IF POSSIBLE, FLUSH WITH THE TOP OF THE BALES. WHERE STAR PICKETS ARE USED AND THEY PROTRUDE ABOVE THE BALES, ENSURE THEY ARE FITTED WITH SAFETY CAPS. 5. WHERE A STRAW BALE FILTER IS CONSTRUCTED DOWNSLOPE FROM A DISTURBED BATTER, ENSURE THE BALES ARE PLACED 1.0 TO 2.0 METRES DOWNSLOPE FROM THE TOE. 6. ESTABLISH A MAINTENANCE PROGRAM THAT ENSURES THE INTEGRITY OF THE BALES IS MAINTAINED - THEY COULD REQUIRE REPLACEMENT EVERY TWO TO FOUR MONTHS.

~~STRAW BALE FILTER~~

SD 6-7

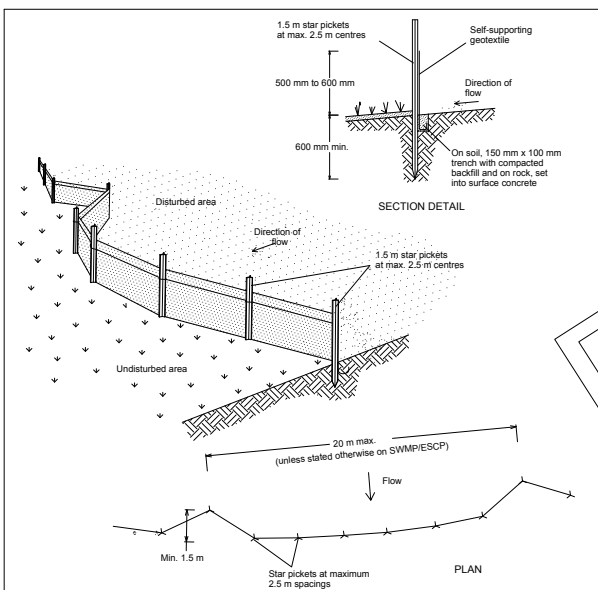


### Construction Notes

1. Construct at the gradient specified on the ESCP or SWMP, normally between 1 and 5 percent
2. Avoid removing trees and shrubs if possible - work around them.
3. Ensure the structures are free of projections or other irregularities that could impede water flow.
4. Build the drains with circular, parabolic or trapezoidal cross sections, not V-shaped, at the dimensions shown on the SWMP.
5. Ensure the banks are properly compacted to prevent failure.
6. Complete permanent or temporary stabilisation within 10 days of construction following Table 5.2 in Landcom (2004).
7. Where discharging to erodible lands, ensure they outlet through a properly constructed level spreader.
8. Construct the level spreader at the gradient specified on the ESCP or SWMP, normally less than 1 percent or level.
9. Where possible, ensure they discharge waters onto either stabilised or undisturbed disposal sites within the same subcatchment area from which the water originated. Approval might be required to discharge into other subcatchments.

EARTH BANK (HIGH FLOWS)

SD 5-6

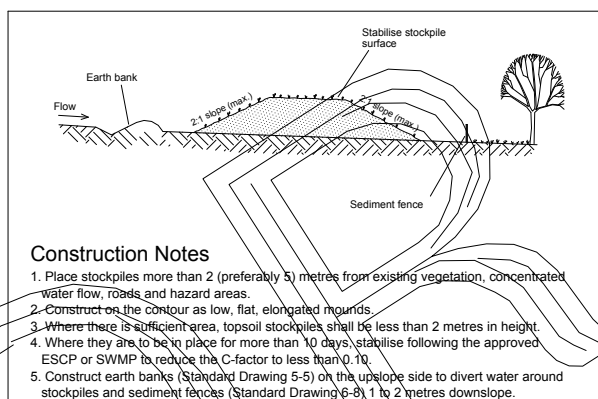


## Construction Notes

- Construct sediment fences as close as possible to being parallel to the contours of the site, but with small returns as shown in the drawing to limit the catchment area of any one section. The catchment area should be small enough to limit water flow if concentrated at one point to 50 litres per second in the design storm event, usually the 10-year event.
- Cut a 150-mm deep trench along the upslope line of the fence for the bottom of the fabric to be entrained.
- Drive 1.5 metre long star pickets into ground at 2.5 metre intervals (max) at the downslope edge of the trench. Ensure any star pickets are fitted with safety caps.
- Fix self-supporting geotextile to the upslope side of the posts ensuring it goes to the base of the trench. Fix the geotextile with wire ties or as recommended by the manufacturer. Only use geotextile specifically produced for sediment fencing. The use of shade cloth for this purpose is not satisfactory.
- Join sections of fabric at a support post with a 150-mm overlap.
- Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.

## SEDIMENT FENCE

SD 6-8

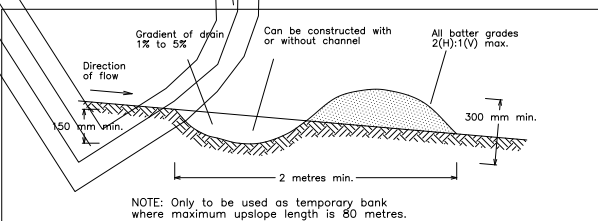


### Construction Notes

1. Place stockpiles no less than 2 (preferably 5) metres from existing vegetation, concentrated water flow, roads and hazard areas.
2. Construct the contour as low, flat, elongated mounds.
3. Where there is sufficient area, topsoil stockpiles shall be less than 2 metres in height.
4. Where they are to be in place for more than 10 days, stabilise following the approved ESCP or SWMP to reduce the C-factor to less than 0.10.
5. Construct earth banks (Standard Drawing 5-5) on the upslope side to divert water around stockpiles and sediment fences (Standard Drawing 6-8) 1 to 2 metres downslope.

## STOCKPILES

SD 4-1



### Construction Notes

1. Build with gradients between 1 percent and 5 percent.
2. Avoid removing trees and shrubs if possible - work around them.
3. Ensure the structures are free of projections or other irregularities that could impede water flow.
4. Build the drains with circular, parabolic or trapezoidal cross sections, not V shaped.
5. Ensure the banks are properly compacted to prevent failure.
6. Complete permanent or temporary stabilisation within 10 days of construction.

EARTH BANK (LOW FLOW)

SD 5-5



- 1 TEMPORARY SEDIMENTATION AND EROSION CONTROLS (SEC) ARE TO BE CONSTRUCTED PRIOR TO COMMENCEMENT OF ANY WORK TO ELIMINATE THE DISCHARGE OF SEDIMENT FROM THE  
SITE. THE CONTROLS ARE TO BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF LANDCOM'S 'MANAGING URBAN STORMWATER: SOILS AND CONSTRUCTION', VOLUME 1, 4TH  
EDITION, MARCH 2004, (THE BLUE BOOK).
- 2 THE CONTRACTOR IS TO INFORM ALL SUBCONTRACTORS OF THEIR RESPONSIBILITIES IN RELATION TO SEC.
- 3 THE CONTRACTOR SHALL REGULARLY MAINTAIN SEC DEVICES AND REMOVE ACCUMULATED SILT FROM SUCH DEVICES BEFORE NO MORE THAN 60% OF THEIR SEDIMENT STORAGE CAPACITY  
IS LOST. ALL THE SILT REMOVED SHALL BE DISPOSED OF AS DIRECTED BY THE SUPERINTENDENT.
- 4 NO SILT IS TO BE PLACED OUTSIDE THE LIMIT OF WORKS. THE PERIOD FOR MAINTAINING THESE DEVICES SHALL BE AT LEAST UNTIL ALL ASPHALTING WORKS ARE COMPLETED AND FURTHER  
AS MAY BE DIRECTED BY THE SUPERINTENDENT OR ENGINEER.
- 5 ALL WORKS MUST BE PERFORMED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN.
- 6 THE FOLLOWING SEDIMENT CONTROL MEASURES ARE REQUIRED TO BE PROVIDED IN CONJUNCTION WITH THE ATTACHED SEDIMENT AND EROSION CONTROL PLAN.
- A ALL RUNOFF AND EROSION CONTROLS ARE TO BE INSTALLED BEFORE ANY WORKS ARE CARRIED OUT AT THE SITE.
- B ALL CONTAMINATED SURFACE WATERS AND DEBRIS FROM THE SITE MUST BE SCREENED, COLLECTED AND POLLUTANTS CAPTURED WITHIN THE SITE.
- C CONTAMINATION OF SURFACE WATERS ON DOWNSLOPE LANDS MUST BE MITIGATED BY INSTALLING SEDIMENT CONTROL FENCES DOWNSLOPE OF THE DISTURBED AREAS TO CAPTURE  
SEDIMENT AND DEBRIS ESCAPING FROM THE SITE.
- D SEDIMENT FENCING MUST BE SECURED BY POST (WHERE METAL STAR PICKETS ARE USED, PLASTIC SAFETY CAPS SHALL BE USED) AT TWO-METRE INTERVALS WITH THE GEOTEXTILE  
FABRIC EMBEDDED 200MM INTO SOIL. ONE METRE RETURNS MUST BE INSTALLED AT TWENTY-METRE INTERVALS ALONG THE SEDIMENT FENCING.
- E SEDIMENT TRAPS ARE TO BE INSTALLED DOWNSLOPE OF THE SITE TO FACILITATE THE CAPTURE OF SEDIMENT.
- F THE CONTRACTOR SHALL MAINTAIN DUST CONTROL UNTIL FINAL COMPLETION OF WORKS.
- G DURING WINDY WEATHER, LARGE, DISTURBED, UNPROTECTED AREAS SHALL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
- H EROSION AND SEDIMENT CONTROL MEASURES MUST BE MAINTAINED IN GOOD WORKING ORDER, AND BE REPAIRED OR REPLACED THROUGHOUT THE COURSE OF WORKS ON SITE.

FOR CONCEPT DESIGN

[illegible]SCALE

|  |       |                 |
|--|-------|-----------------|
| GRID   | DATUM | PROJECT MANAGER |
|  |       | JW              |
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|                            |  |
|----------------------------|--|
| CLIENT                     | CGRC   |
| PROJECT NAME/PLANSET TITLE | MASTER PLAN FOR MUTTAMA CREEK<br>PRELIMINARY CIVIL ENGINEERING PLANS<br>MUTTAMA CREEK, COOTAMUNDRA<br>NSW 2590 AUSTRALIA |

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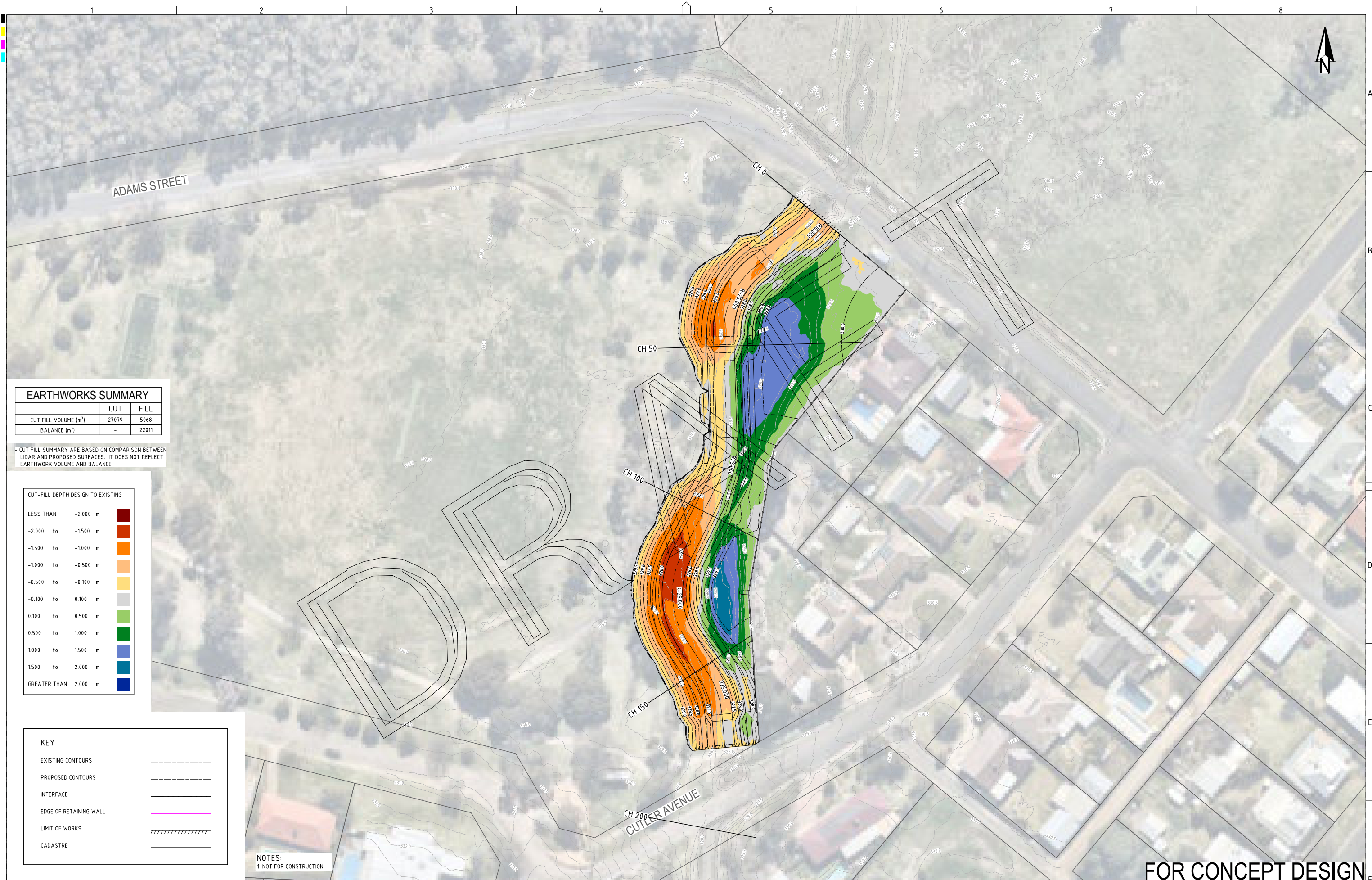
Consulting Engineers

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|                                    |             |             |             |          |
|------------------------------------|-------------|-------------|-------------|----------|
| DRAWING TITLE                      |             |             |             |          |
| SEDIMENT & EROSION CONTROL DETAILS |             |             |             |          |
| PROJECT NO.                        | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
| P2510821                           | PS01        | R02         | PS01-B310   | A        |





| EARTHWORKS SUMMARY   |       |       |
|----------------------|-------|-------|
|                      | CUT   | FILL  |
| CUT FILL VOLUME (m³) | 27079 | 5068  |
| BALANCE (m³)         | -     | 22011 |


- CUT FILL SUMMARY ARE BASED ON COMPARISON BETWEEN LIDAR AND PROPOSED SURFACES. IT DOES NOT REFLECT EARTHWORK VOLUME AND BALANCE.

| CUT-FILL DEPTH DESIGN TO EXISTING |          |  |
|-----------------------------------|----------|--|
| LESS THAN                         | -2.000 m |  |
| -2.000 to                         | -1.500 m |  |
| -1.500 to                         | -1.000 m |  |
| -1.000 to                         | -0.500 m |  |
| -0.500 to                         | -0.100 m |  |
| -0.100 to                         | 0.100 m  |  |
| 0.100 to                          | 0.500 m  |  |
| 0.500 to                          | 1.000 m  |  |
| 1.000 to                          | 1.500 m  |  |
| 1.500 to                          | 2.000 m  |  |
| GREATER THAN                      | 2.000 m  |  |

| KEY                    |     |
|------------------------|-----|
| EXISTING CONTOURS      | --- |
| PROPOSED CONTOURS      | --- |
| INTERFACE              | --- |
| EDGE OF RETAINING WALL | --- |
| LIMIT OF WORKS         | --- |
| CADASTRE               | --- |

NOTES:  
1. NOT FOR CONSTRUCTION.

FOR CONCEPT DESIGN

|                                  |                  |            |       |          |         |        |   |  |       |                 |                                    |   |  |  |                     |                    |                          |               |
|----------------------------------|------------------|------------|-------|----------|---------|--------|---|--|-------|-----------------|------------------------------------|---|--|--|---------------------|--------------------|--------------------------|---------------|
| REV                              | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD | SCALE   | GRID   | DATUM | PROJECT MANAGER | CLIENT                             | <div>Consulting Engineers<br/>Environment<br/>Water<br/>Geotechnical<br/>Civil</div> <div>Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767<br/>Email: mail@martens.com.au Internet: www.martens.com.au</div> |  |  |                     |                    |                          |               |
| B                                | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        | 0 5 10 15 20 25 30 35 40 45 50<br>A1 (A3) 1:500 (1:1,000) | MGA  | mAHD  | JW              | CGRC                               |   |  |  |                     | DRAWING TITLE      |                          |               |
| A                                | INITIAL RELEASE  | 20/06/2025 | NH    | YAI      | DM      | JW     |   |  |       |                 |                                    | GRADING AND EARTHWORKS<br>LAYOUT - 1  |  |  |                     |                    |                          |               |
|                                  |                  |            |       |          |         |        |   | DISCLAIMER & COPYRIGHT<br>This plan must not be used for construction unless signed as approved by principal certifying authority.<br>All measurements in millimetres unless otherwise specified.<br>This drawing must not be reproduced in whole or part without prior written consent of Martens & Associates Pty Ltd.<br>(C) Copyright Martens & Associates Pty Ltd |       |                 |                                    | PROJECT NAME/PLANSET TITLE<br>MASTER PLAN FOR MUTTAMA CREEK<br>PRELIMINARY CIVIL ENGINEERING PLANS<br>MUTTAMA CREEK, COOTAMUNDRA<br>NSW 2590 AUSTRALIA  |  |  |                     |                    |                          |               |
|                                  |                  |            |       |          |         |        |   |  |       |                 | PROJECT NO.<br>P2510821            |   |  |  | PLANSET NO.<br>PS01 | RELEASE NO.<br>R02 | DRAWING NO.<br>PS01-C100 | REVISION<br>B |
| A1 / A3 LANDSCAPE (A1,C_v02.0-0) |                  |            |       |          |         |        |   |  |       |                 | DRAWING ID: P2510821-PS01-R02-C100 |   |  |  |                     |                    |                          |               |





| EARTHWORKS SUMMARY   |       |       |
|----------------------|-------|-------|
|                      | CUT   | FILL  |
| CUT FILL VOLUME (m³) | 27079 | 5068  |
| BALANCE (m³)         | -     | 22011 |

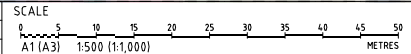
- CUT FILL SUMMARY ARE BASED ON COMPARISON BETWEEN LIDAR AND PROPOSED SURFACES. IT DOES NOT REFLECT EARTHWORK VOLUME AND BALANCE.

| CUT-FILL DEPTH DESIGN TO EXISTING |          |  |
|-----------------------------------|----------|--|
| LESS THAN                         | -2.000 m |  |
| -2.000 to                         | -1.500 m |  |
| -1.500 to                         | -1.000 m |  |
| -1.000 to                         | -0.500 m |  |
| -0.500 to                         | -0.100 m |  |
| -0.100 to                         | 0.100 m  |  |
| 0.100 to                          | 0.500 m  |  |
| 0.500 to                          | 1.000 m  |  |
| 1.000 to                          | 1.500 m  |  |
| 1.500 to                          | 2.000 m  |  |
| GREATER THAN                      | 2.000 m  |  |

| KEY                    |     |
|------------------------|-----|
| EXISTING CONTOURS      | --- |
| PROPOSED CONTOURS      | --- |
| INTERFACE              | --- |
| EDGE OF RETAINING WALL | --- |
| LIMIT OF WORKS         | --- |
| CADASTRE               | --- |

NOTES:  
1. NOT FOR CONSTRUCTION.

| REV | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD |
|-----|------------------|------------|-------|----------|---------|--------|
| B   | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        |
| A   | INITIAL RELEASE  | 20/06/2025 | NH    | YAI      | DM      | JW     |
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| GRID   | DATUM | PROJECT MANAGER | CLIENT |
| MGA  | mAHD  | JW              | CGRC   |
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|                                     |
|-------------------------------------|
| PROJECT NAME/PLANSET TITLE          |
| MASTER PLAN FOR MUTTAMA CREEK       |
| PRELIMINARY CIVIL ENGINEERING PLANS |
| MUTTAMA CREEK, COOTAMUNDRA          |
| NSW 2590 AUSTRALIA                  |

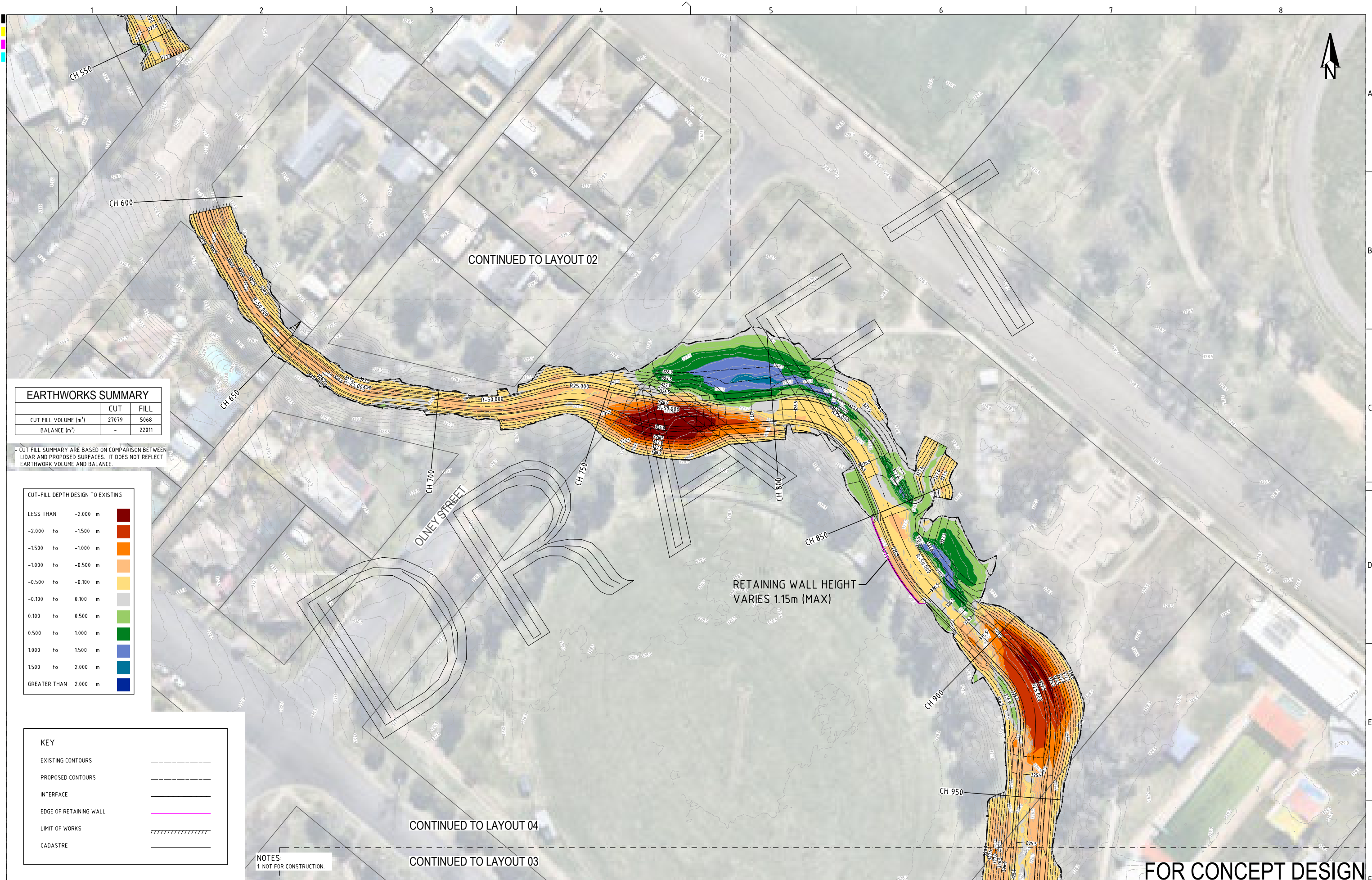


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| DRAWING TITLE                        |             |             |             |          |
|--------------------------------------|-------------|-------------|-------------|----------|
| GRADING AND EARTHWORKS<br>LAYOUT - 2 |             |             |             |          |
| PROJECT NO.                          | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
| P2510821                             | PS01        | R02         | PS01-C110   | B        |





| EARTHWORKS SUMMARY   |       |       |
|----------------------|-------|-------|
|                      | CUT   | FILL  |
| CUT FILL VOLUME (m³) | 27079 | 5068  |
| BALANCE (m³)         | -     | 22011 |

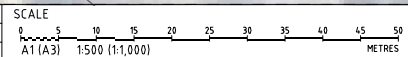
- CUT FILL SUMMARY ARE BASED ON COMPARISON BETWEEN LIDAR AND PROPOSED SURFACES. IT DOES NOT REFLECT EARTHWORK VOLUME AND BALANCE.

| CUT-FILL DEPTH DESIGN TO EXISTING |          |
|-----------------------------------|----------|
| LESS THAN                         | -2.000 m |
| -2.000 to                         | -1.500 m |
| -1.500 to                         | -1.000 m |
| -1.000 to                         | -0.500 m |
| -0.500 to                         | -0.100 m |
| -0.100 to                         | 0.100 m  |
| 0.100 to                          | 0.500 m  |
| 0.500 to                          | 1.000 m  |
| 1.000 to                          | 1.500 m  |
| 1.500 to                          | 2.000 m  |
| GREATER THAN                      | 2.000 m  |

| KEY                    |     |
|------------------------|-----|
| EXISTING CONTOURS      | --- |
| PROPOSED CONTOURS      | --- |
| INTERFACE              | --- |
| EDGE OF RETAINING WALL | --- |
| LIMIT OF WORKS         | --- |
| CADASTRE               | --- |

NOTES:  
1. NOT FOR CONSTRUCTION.

| REV | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD |
|-----|------------------|------------|-------|----------|---------|--------|
| B   | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        |
| A   | INITIAL RELEASE  | 20/06/2025 | NH    | YAI      | DM      | JW     |
|     |                  |            |       |          |         |        |
|     |                  |            |       |          |         |        |
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|     |                  |            |       |          |         |        |
|     |                  |            |       |          |         |        |



| GRID  | DATUM | PROJECT MANAGER | CLIENT |
|---|-------|-----------------|--------|
| MGA   | mAHD  | JW              | CGRC   |
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| All measurements in millimetres unless otherwise specified.   |       |                 |        |
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| PROJECT NAME/PLANSET TITLE          |  |
|-------------------------------------|--|
| MASTER PLAN FOR MUTTAMA CREEK       |  |
| PRELIMINARY CIVIL ENGINEERING PLANS |  |
| MUTTAMA CREEK, COOTAMUNDRA          |  |
| NSW 2590 AUSTRALIA                  |  |

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| DRAWING TITLE                     |             |             |             |          |
|-----------------------------------|-------------|-------------|-------------|----------|
| GRADING AND EARTHWORKS LAYOUT - 3 |             |             |             |          |
| PROJECT NO.                       | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
| P2510821                          | PS01        | R02         | PS01-C120   | B        |



CONTINUED TO LAYOUT 03



EARTHWORKS SUMMARY

|                      | CUT   | FILL  |
|----------------------|-------|-------|
| CUT FILL VOLUME (m³) | 27079 | 5068  |
| BALANCE (m³)         | -     | 22011 |

- CUT FILL SUMMARY ARE BASED ON COMPARISON BETWEEN LIDAR AND PROPOSED SURFACES. IT DOES NOT REFLECT EARTHWORK VOLUME AND BALANCE.

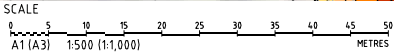
CUT-FILL DEPTH DESIGN TO EXISTING

|              |          |  |
|--------------|----------|--|
| LESS THAN    | -2.000 m |  |
| -2.000 to    | -1.500 m |  |
| -1.500 to    | -1.000 m |  |
| -1.000 to    | -0.500 m |  |
| -0.500 to    | -0.100 m |  |
| -0.100 to    | 0.100 m  |  |
| 0.100 to     | 0.500 m  |  |
| 0.500 to     | 1.000 m  |  |
| 1.000 to     | 1.500 m  |  |
| 1.500 to     | 2.000 m  |  |
| GREATER THAN | 2.000 m  |  |

KEY

|                        |     |
|------------------------|-----|
| EXISTING CONTOURS      | --- |
| PROPOSED CONTOURS      | --- |
| INTERFACE              | --- |
| EDGE OF RETAINING WALL | --- |
| LIMIT OF WORKS         | --- |
| CADASTRE               | --- |

NOTES:  
1. NOT FOR CONSTRUCTION.



|  |       |                 |        |
|--|-------|-----------------|--------|
| GRID   | DATUM | PROJECT MANAGER | CLIENT |
| MGA  | mAHD  | JW              | CGRC   |
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PRELIMINARY CIVIL ENGINEERING PLANS  
MUTTAMA CREEK, COOTAMUNDRA  
NSW 2590 AUSTRALIA



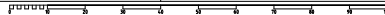
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Consulting Engineers  
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Water  
Geotechnical  
Civil

FOR CONCEPT DESIGN

|   |                     |                    |                          |               |
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| DRAWING TITLE<br>GRADING AND EARTHWORKS<br>LAYOUT - 4 |                     |                    |                          |               |
| PROJECT NO.<br>P2510821                               | PLANSET NO.<br>PS01 | RELEASE NO.<br>R02 | DRAWING NO.<br>PS01-C130 | REVISION<br>B |

DRAWING ID: P2510821-PS01-R02-C130



PRINTED: 24/06/2025 14:05:00 USER: NBP/ASG

A1 / A3 LANDSCAPE (A1/C\_02.0.0)





| EARTHWORKS SUMMARY   |       |       |
|----------------------|-------|-------|
|                      | CUT   | FILL  |
| CUT FILL VOLUME (m³) | 27079 | 5068  |
| BALANCE (m³)         | -     | 22011 |


CUT FILL SUMMARY ARE BASED ON COMPARISON BETWEEN LIDAR AND PROPOSED SURFACES. IT DOES NOT REFLECT EARTHWORK VOLUME AND BALANCE.

| CUT-FILL DEPTH DESIGN TO EXISTING |              |
|-----------------------------------|--------------|
| LESS THAN -2.000 m                | Red          |
| -2.000 to -1.500 m                | Dark Orange  |
| -1.500 to -1.000 m                | Orange       |
| -1.000 to -0.500 m                | Light Orange |
| -0.500 to -0.100 m                | Yellow       |
| -0.100 to 0.100 m                 | Light Green  |
| 0.100 to 0.500 m                  | Green        |
| 0.500 to 1.000 m                  | Dark Green   |
| 1.000 to 1.500 m                  | Blue         |
| 1.500 to 2.000 m                  | Dark Blue    |
| GREATER THAN 2.000 m              | Blue         |

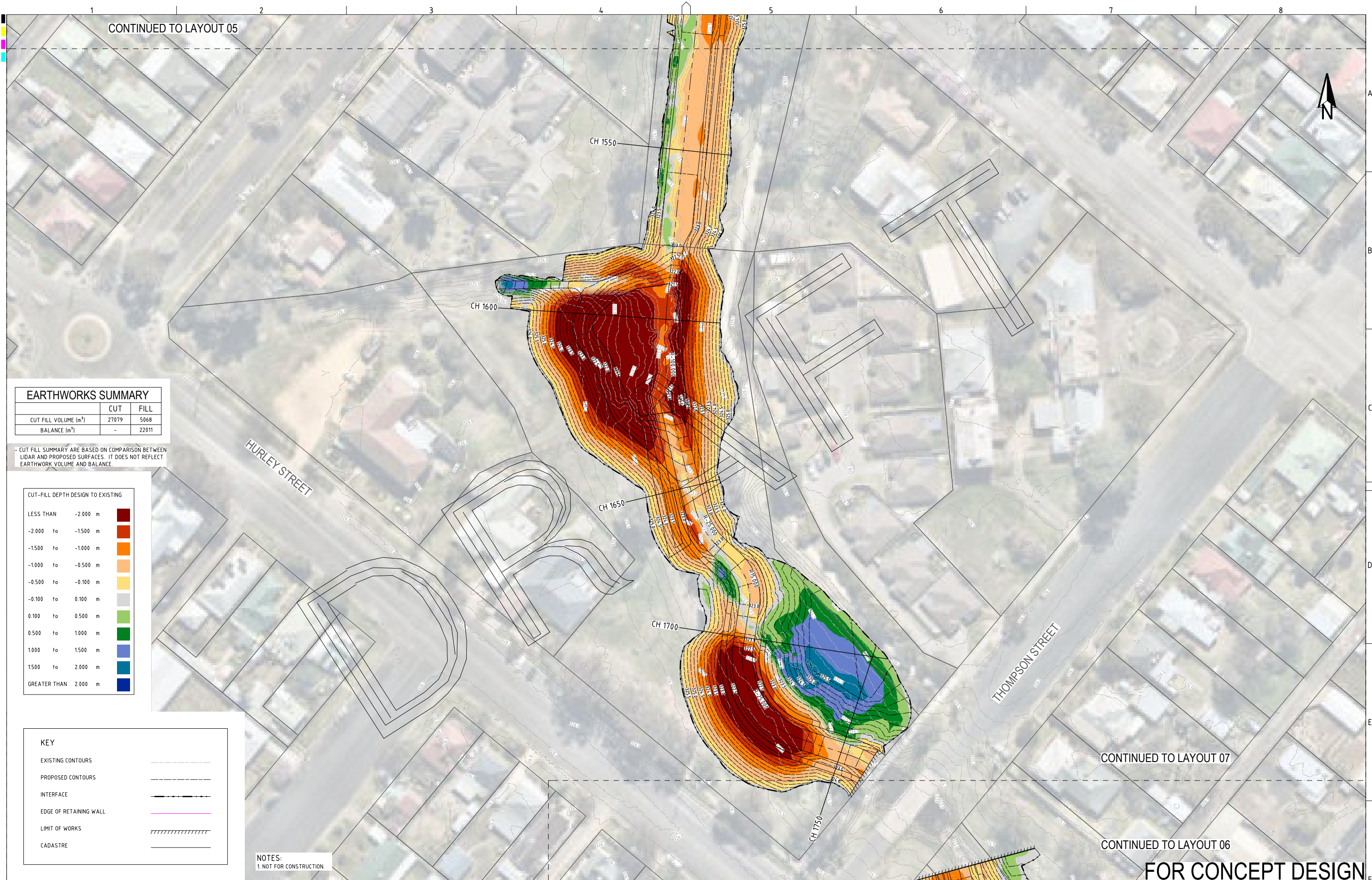
| KEY                    |         |
|------------------------|---------|
| EXISTING CONTOURS      | --- --- |
| PROPOSED CONTOURS      | --- --- |
| INTERFACE              | --- --- |
| EDGE OF RETAINING WALL | --- --- |
| LIMIT OF WORKS         | --- --- |
| CADASTRE               | --- --- |

NOTES:  
1. NOT FOR CONSTRUCTION.

FOR CONCEPT DESIGN

|     |                  |            |       |          |         |        |   |      |       |                 |        |   |  |  |  |
|-----|------------------|------------|-------|----------|---------|--------|---|------|-------|-----------------|--------|---|--|--|--|
| REV | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD | SCALE   | GRID | DATUM | PROJECT MANAGER | CLIENT | <div>Consulting Engineers<br/>Environment<br/>Water<br/>Geotechnical<br/>Civil</div> <div><div>PROJECT NAME/PLANSET TITLE</div><div>MASTER PLAN FOR MUTTAMA CREEK<br/>PRELIMINARY CIVIL ENGINEERING PLANS</div><div>MUTTAMA CREEK, COOTAMUNDRA<br/>NSW 2590 AUSTRALIA</div></div> <div><div>Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767</div><div>Email: mail@martens.com.au Internet: www.martens.com.au</div></div> |  |  |  |
| B   | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        | 0 5 10 15 20 25 30 35 40 45 50<br>A1 (A3) 1:500 (1:1,000) | MGA  | mAHD  | JW              | CGRC   |   |  |  |  |
| A   | INITIAL RELEASE  | 20/06/2025 | NH    | YAI      | DM      | JW     |   |      |       |                 |        |   |  |  |  |
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|     |                  |            |       |          |         |        |   |      |       |                 |        |   |  |  |  |





| EARTHWORKS SUMMARY   |       |       |
|----------------------|-------|-------|
|                      | CUT   | FILL  |
| CUT FILL VOLUME (m³) | 27079 | 5068  |
| BALANCE (m³)         | -     | 22011 |

- CUT FILL SUMMARY ARE BASED ON COMPARISON BETWEEN LIDAR AND PROPOSED SURFACES. IT DOES NOT REFLECT EARTHWORK VOLUME AND BALANCE.

| CUT-FILL DEPTH DESIGN TO EXISTING |          |  |
|-----------------------------------|----------|--|
| LESS THAN                         | -2.000 m |  |
| -2.000 to                         | -1.500 m |  |
| -1.500 to                         | -1.000 m |  |
| -1.000 to                         | -0.500 m |  |
| -0.500 to                         | -0.100 m |  |
| -0.100 to                         | 0.100 m  |  |
| 0.100 to                          | 0.500 m  |  |
| 0.500 to                          | 1.000 m  |  |
| 1.000 to                          | 1.500 m  |  |
| 1.500 to                          | 2.000 m  |  |
| GREATER THAN                      | 2.000 m  |  |

| KEY                    |     |
|------------------------|-----|
| EXISTING CONTOURS      | --- |
| PROPOSED CONTOURS      | --- |
| INTERFACE              | --- |
| EDGE OF RETAINING WALL | --- |
| LIMIT OF WORKS         | --- |
| CADASTRE               | --- |

NOTES:  
1. NOT FOR CONSTRUCTION.

| REV | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD |
|-----|------------------|------------|-------|----------|---------|--------|
| B   | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        |
| A   | INITIAL RELEASE  | 20/06/2025 | NH    | YAI      | DM      | JW     |
|     |                  |            |       |          |         |        |
|     |                  |            |       |          |         |        |
|     |                  |            |       |          |         |        |
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| SCALE                          |
|--------------------------------|
| 0 5 10 15 20 25 30 35 40 45 50 |
| A1 (A3) 1:500 (1:1,000) METRES |

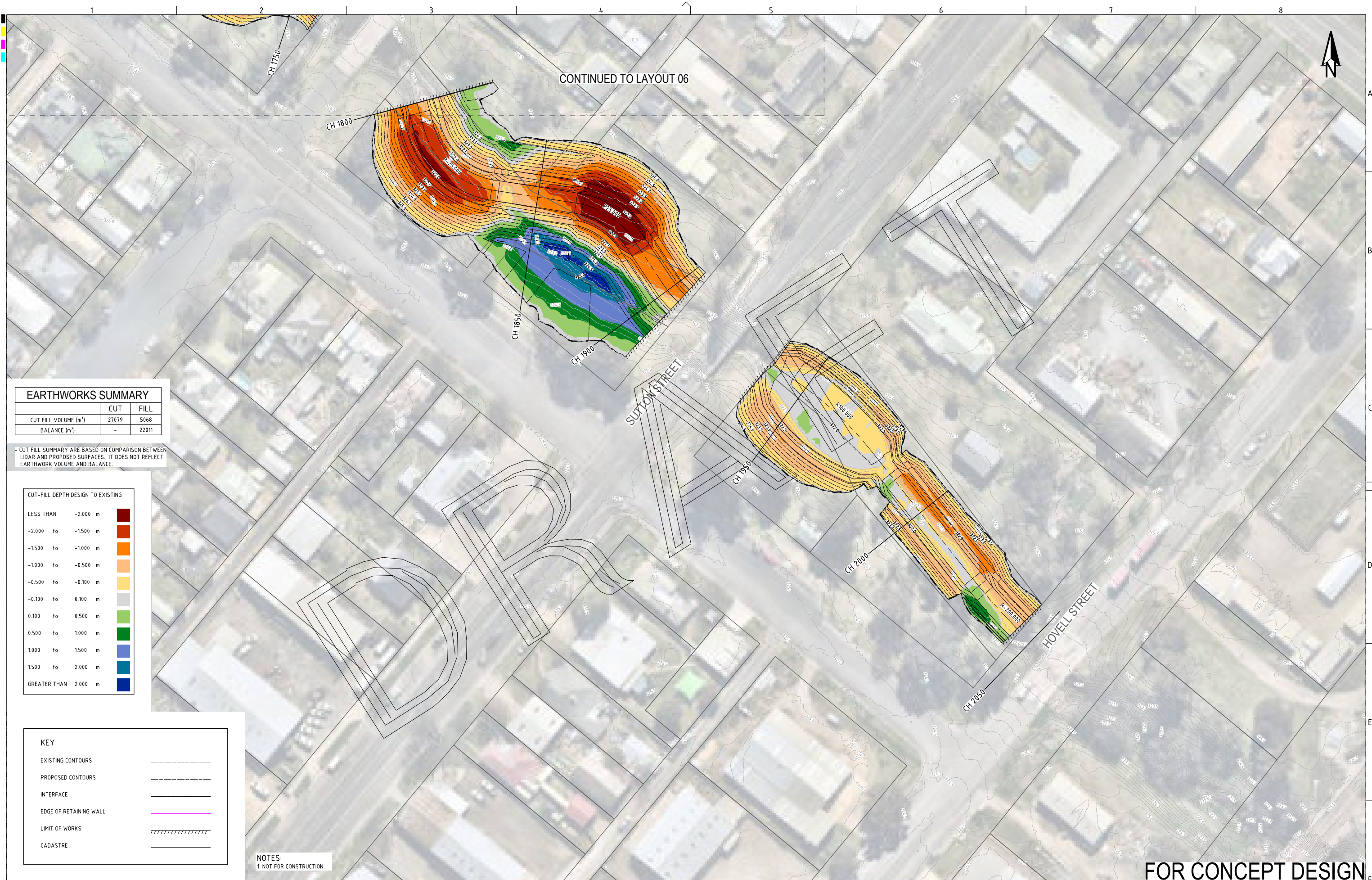
| GRID  | DATUM | PROJECT MANAGER | CLIENT |
|---|-------|-----------------|--------|
| MGA   | mAHD  | JW              | CGRC   |
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| All measurements in millimetres unless otherwise specified.   |       |                 |        |
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| PROJECT NAME/PLANSET TITLE          |
|-------------------------------------|
| MASTER PLAN FOR MUTTAMA CREEK       |
| PRELIMINARY CIVIL ENGINEERING PLANS |
| MUTTAMA CREEK, COOTAMUNDRA          |
| NSW 2590 AUSTRALIA                  |

|  |                      |   |
|--|----------------------|---|
|  | Consulting Engineers |   |
|  | Environment          | Water                                     |
| Suite 201, 20 George St, Hornsby, NSW 2077 Australia |                      | Phone: (02) 9476 9999 Fax: (02) 9476 8787 |
| Email: mail@martens.com.au                           |                      | Internet: www.martens.com.au              |

| DRAWING TITLE                     |             |             |             |          |
|-----------------------------------|-------------|-------------|-------------|----------|
| GRADING AND EARTHWORKS LAYOUT - 6 |             |             |             |          |
| PROJECT NO.                       | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
| P2510821                          | PS01        | R02         | PS01-C150   | B        |





| EARTHWORKS SUMMARY   |       |       |
|----------------------|-------|-------|
| CUT FILL VOLUME (m³) | CUT   | FILL  |
|                      | 27079 | 5068  |
| BALANCE (m³)         | -     | 22011 |


- CUT FILL SUMMARY ARE BASED ON COMPARISON BETWEEN LIDAR AND PROPOSED SURFACES. IT DOES NOT REFLECT EARTHWORK VOLUME AND BALANCE.

| CUT-FILL DEPTH DESIGN TO EXISTING |          |
|-----------------------------------|----------|
| LESS THAN                         | -2.000 m |
| -2.000 to                         | -1.500 m |
| -1.500 to                         | -1.000 m |
| -1.000 to                         | -0.500 m |
| -0.500 to                         | -0.100 m |
| -0.100 to                         | 0.100 m  |
| 0.100 to                          | 0.500 m  |
| 0.500 to                          | 1.000 m  |
| 1.000 to                          | 1.500 m  |
| 1.500 to                          | 2.000 m  |
| GREATER THAN                      | 2.000 m  |

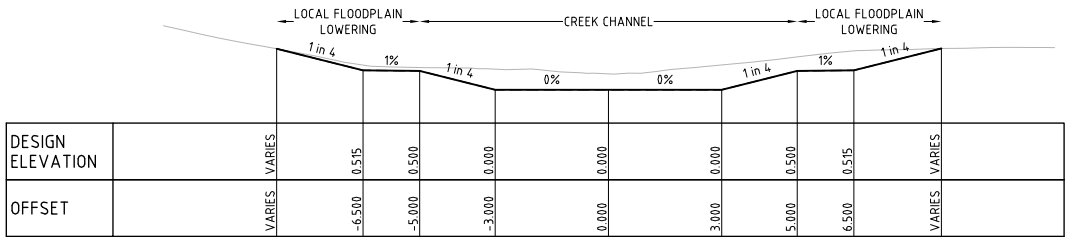
| KEY                    |     |
|------------------------|-----|
| EXISTING CONTOURS      | --- |
| PROPOSED CONTOURS      | --- |
| INTERFACE              | --- |
| EDGE OF RETAINING WALL | --- |
| LIMIT OF WORKS         | --- |
| CADASTRE               | --- |

NOTES:  
1. NOT FOR CONSTRUCTION.

FOR CONCEPT DESIGN

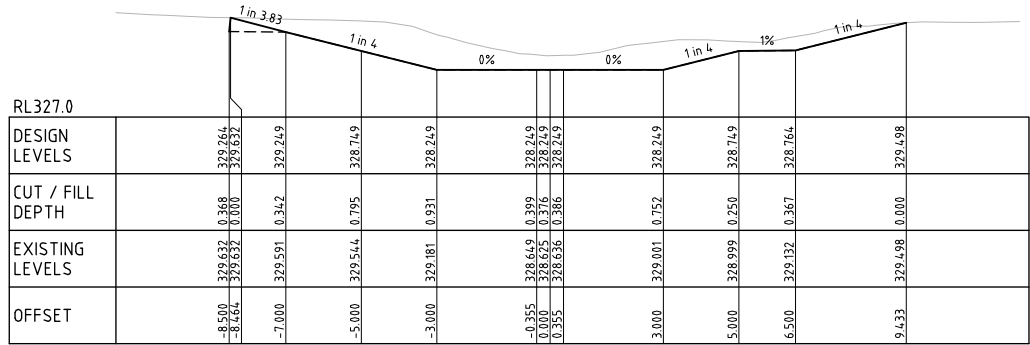
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| REV                              | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD | SCALE  | GRID | DATUM | PROJECT MANAGER | CLIENT   |  <div>Consulting Engineers<br/>Environment<br/>Water<br/>Geotechnical<br/>Civil</div> <div>Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767<br/>Email: mail@martens.com.au Internet: www.martens.com.au</div> | DRAWING TITLE<br><br>GRADING AND EARTHWORKS<br>LAYOUT - 7 |
| B                                | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        | 0 5 10 15 20 25 30 35 40 45 50<br>A1 (A3) 1:500 (1:1,000)  | MGA  | mAHD  | JW              | CGRC   |  |   |
| A                                | INITIAL RELEASE  | 20/06/2025 | NH    | YAI      | DM      | JW     |  |      |       |                 | PROJECT NAME/PLANSET TITLE<br>MASTER PLAN FOR MUTTAMA CREEK<br>PRELIMINARY CIVIL ENGINEERING PLANS<br><br>MUTTAMA CREEK, COOTAMUNDRA<br>NSW 2590 AUSTRALIA |  |   |
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| A1 / A3 LANDSCAPE (A1,C_v02.0.0) |                  |            |       |          |         |        |  |      |       |                 |  |  |   |



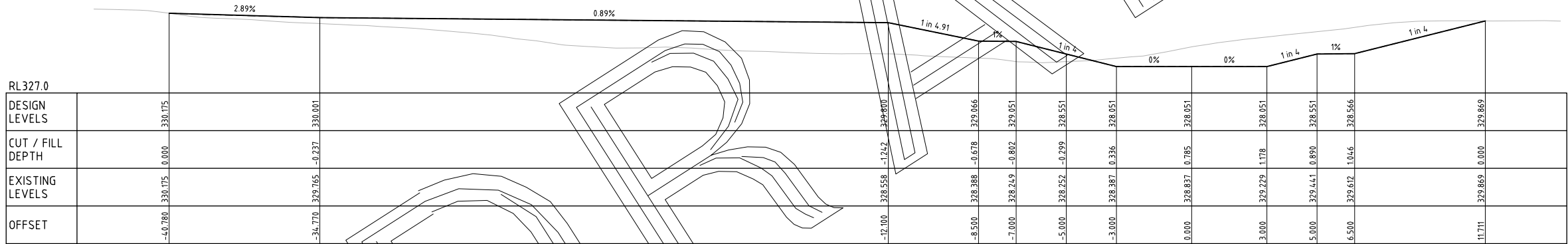


TYPICAL SECTION

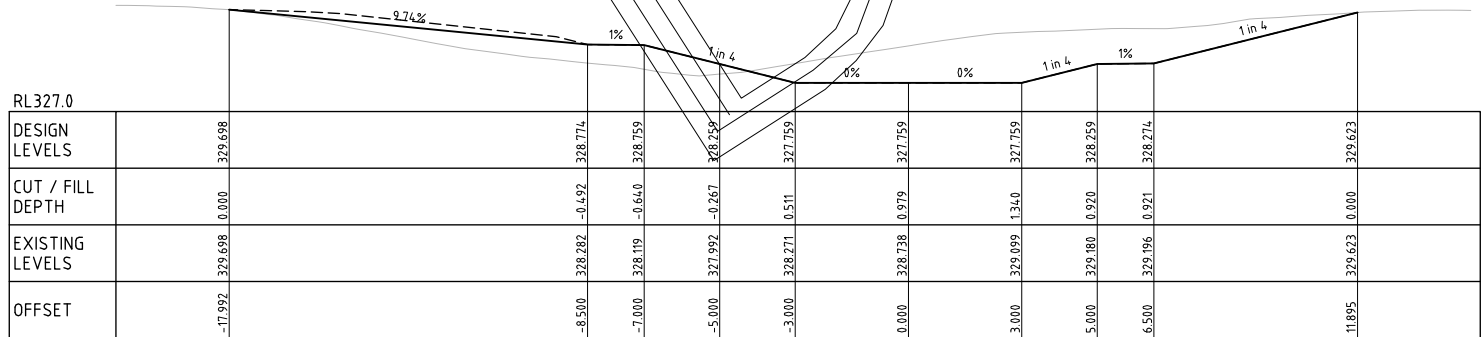
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VERTICAL - 1:100



CH 0.000



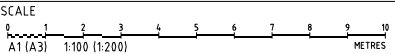
CH 50.000



CH 100.000

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| REV | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPROV |
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| B   | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        |
| A   | INITIAL RELEASE  | 20/06/2025 | NH    | YAI      | DM      | JW     |
|     |                  |            |       |          |         |        |
|     |                  |            |       |          |         |        |
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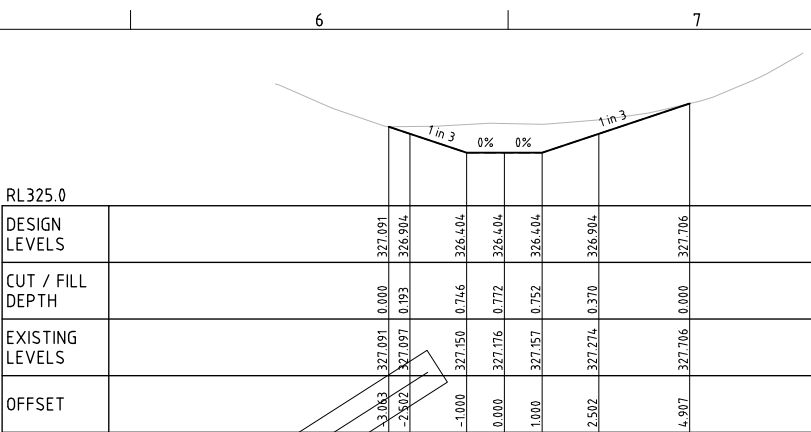
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DATUM  
mAHD  
PROJECT MANAGER  
JW  
CLIENT  
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NSW 2590 AUSTRALIA

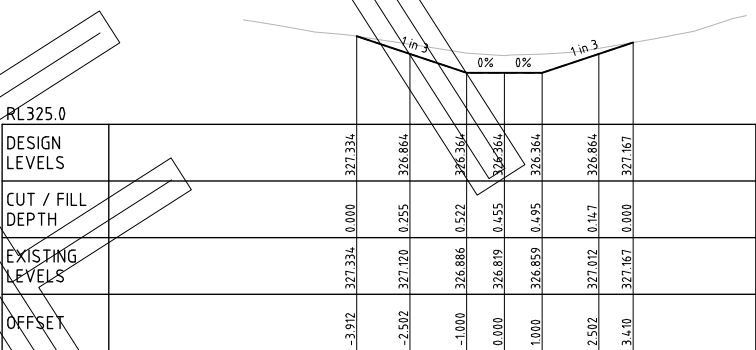
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| DRAWING TITLE                         |             |             |             |          |
|---------------------------------------|-------------|-------------|-------------|----------|
| EARTHWORKS SITE SECTIONS<br>SHEET - 1 |             |             |             |          |
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| P2510821                              | PS01        | R02         | PS01-C600   | B        |

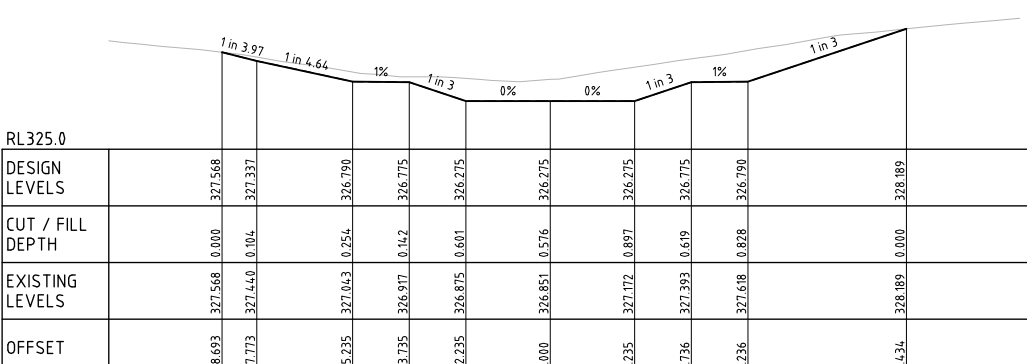




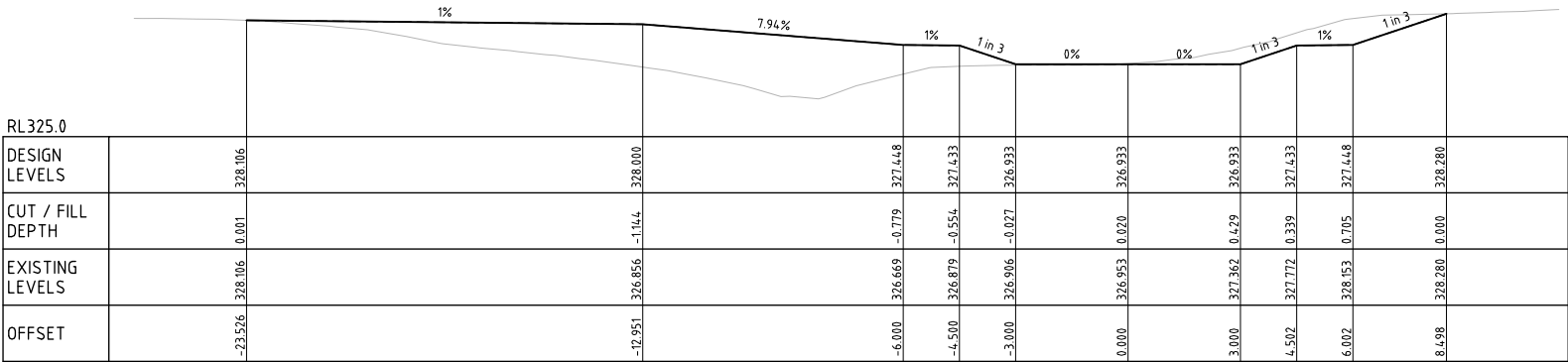
CH 650.000



CH 700.000



CH 750 000

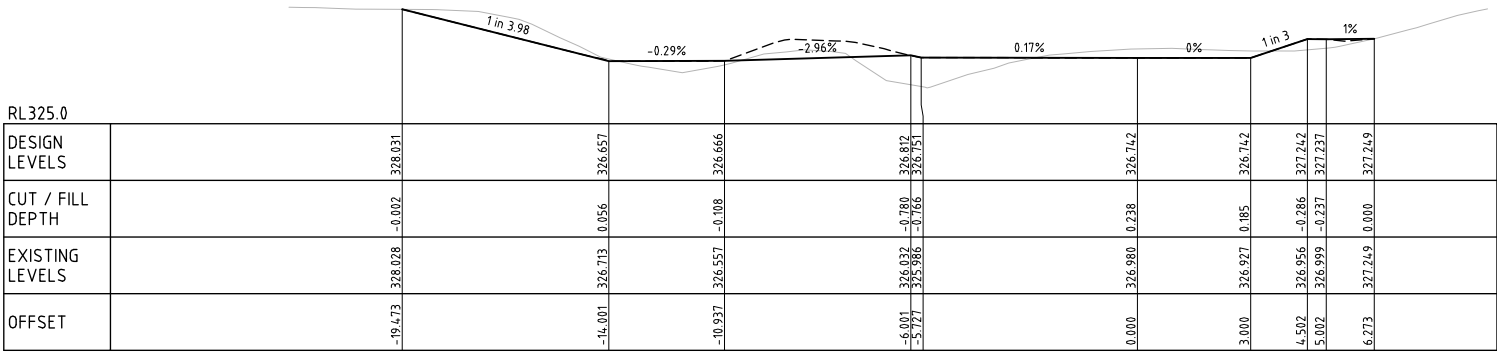


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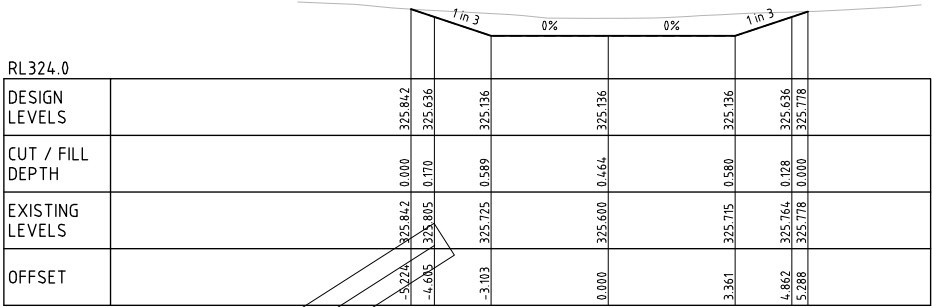
EARTHWORKS SITE SECTIONS  
SHEET - 2

| DRAWING TITLE                         |             |             |             |          |
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| PROJECT NO.                           | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
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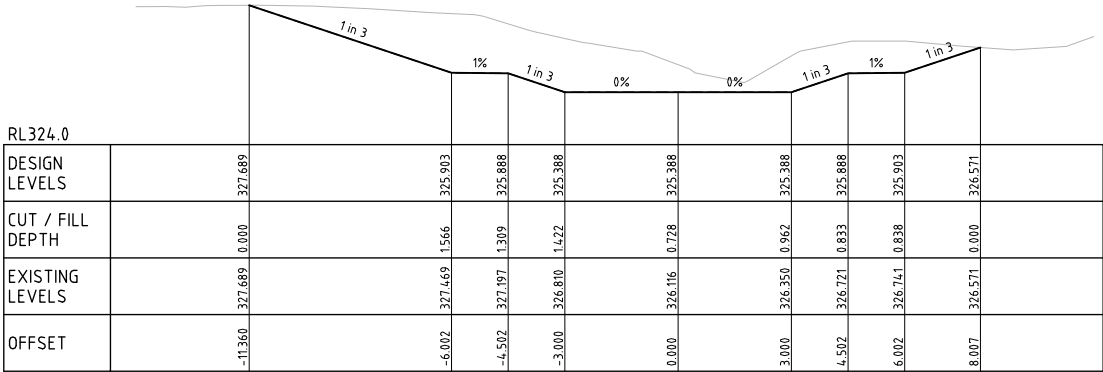




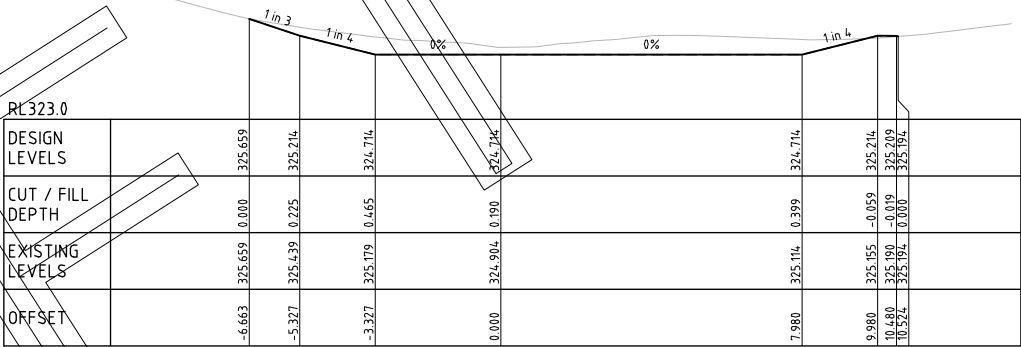
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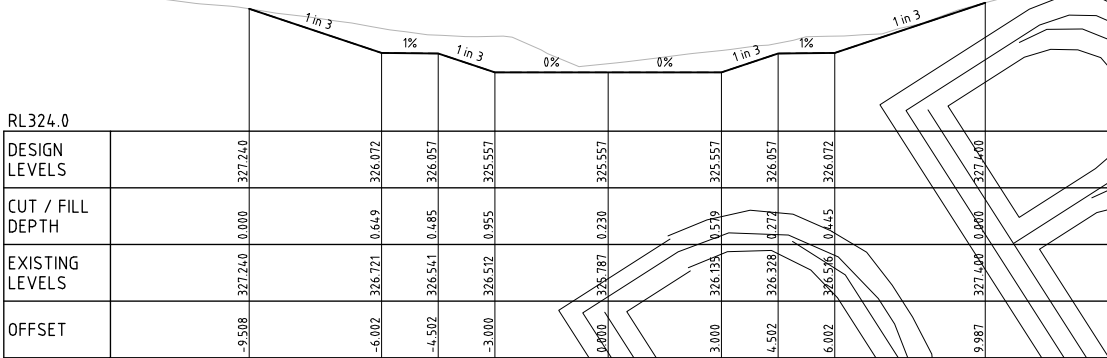
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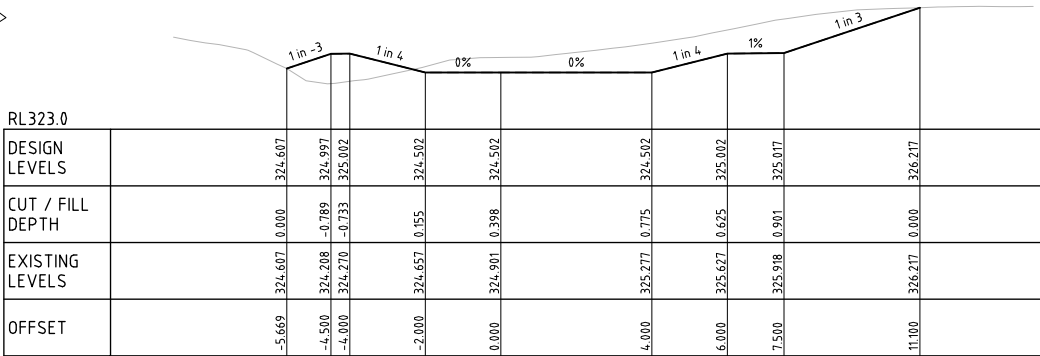
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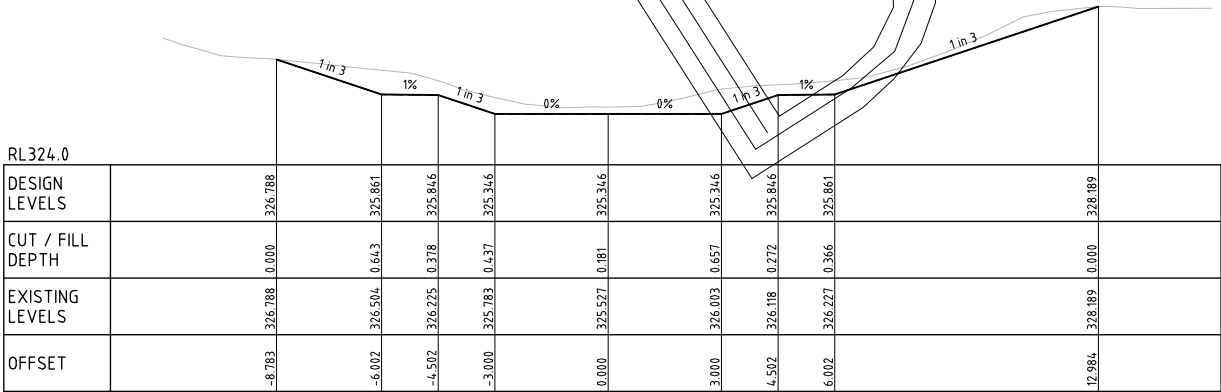
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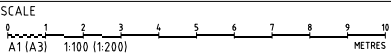


CH 1200.000



CH 1000.000

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|     |                  |            |       |          |         |        |



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DATUM  
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PROJECT MANAGER  
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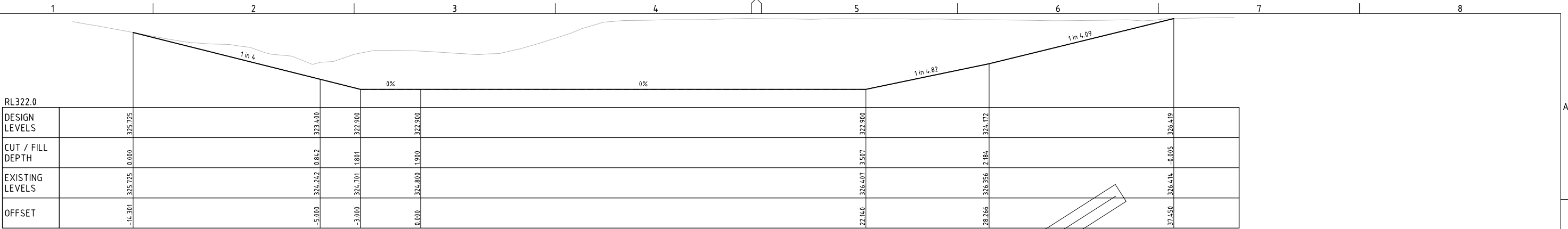
PROJECT NAME/PLANSET TITLE  
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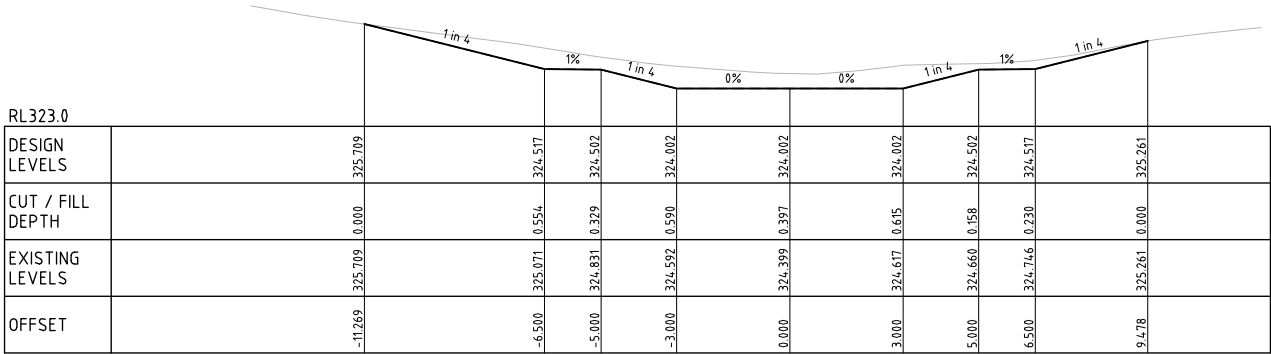
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| P2510821                              | PS01        | R02         | PS01-C611   | A        |

FOR CONCEPT DESIGN

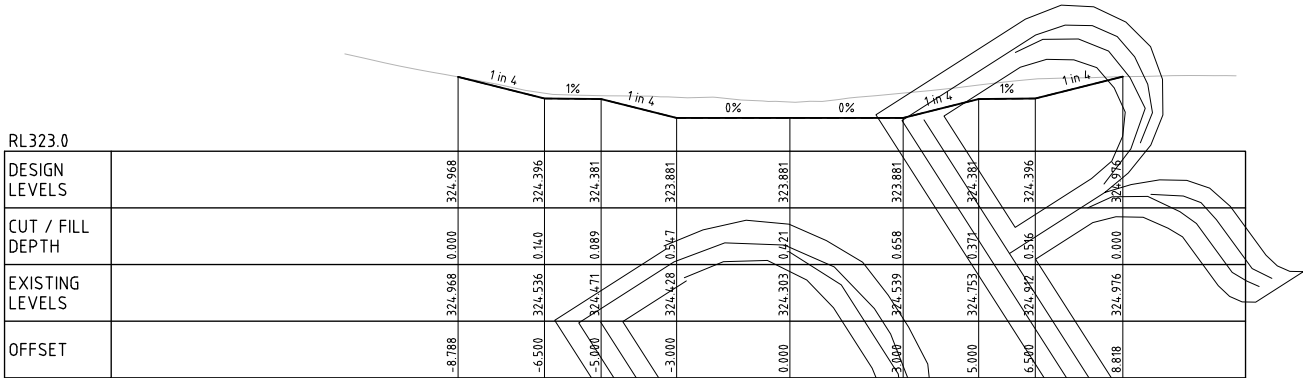




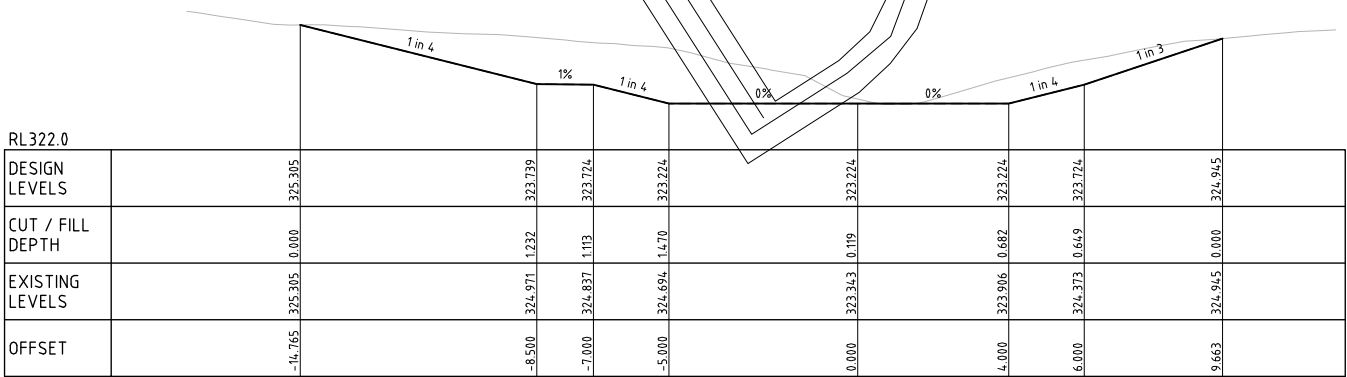
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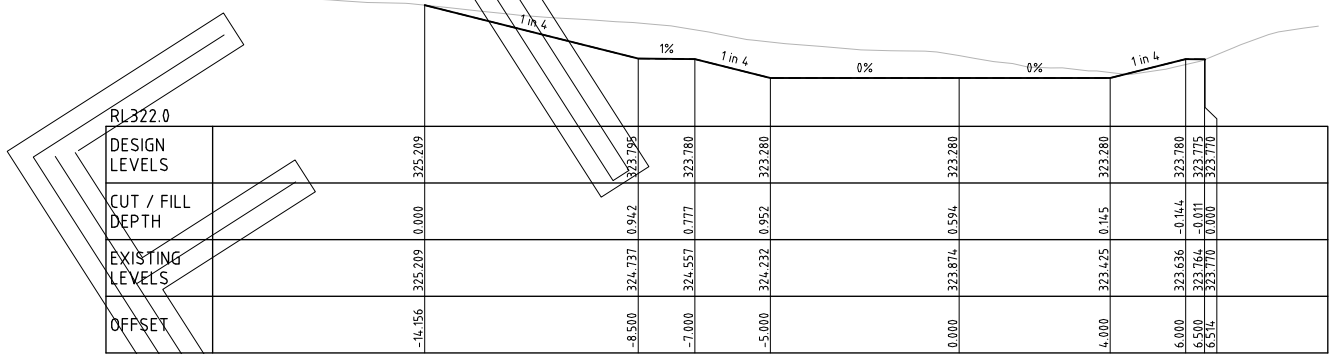
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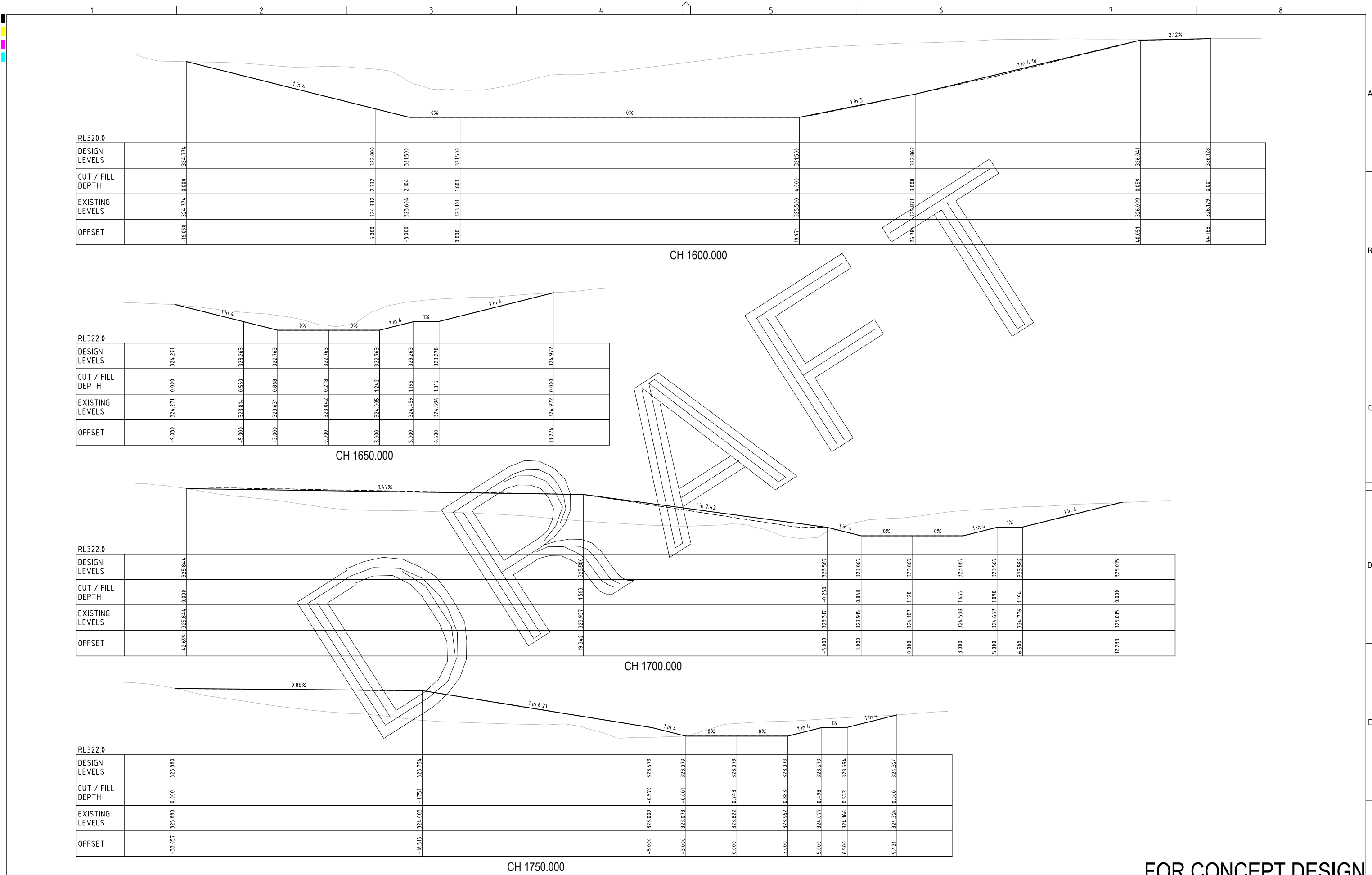


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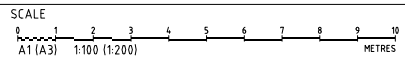


CH 1550.000





| REV | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD |
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|---|-------|-----------------|--------|
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| PRELIMINARY CIVIL ENGINEERING PLANS   |       |                 |        |
| MUTTAMA CREEK, COOTAMUNDRA  |       |                 |        |
| NSW 2590 AUSTRALIA  |       |                 |        |

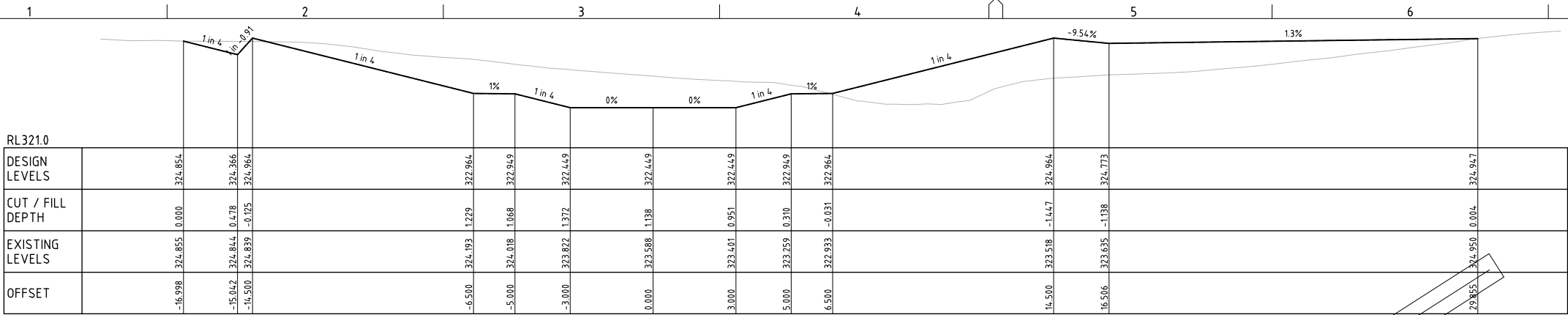
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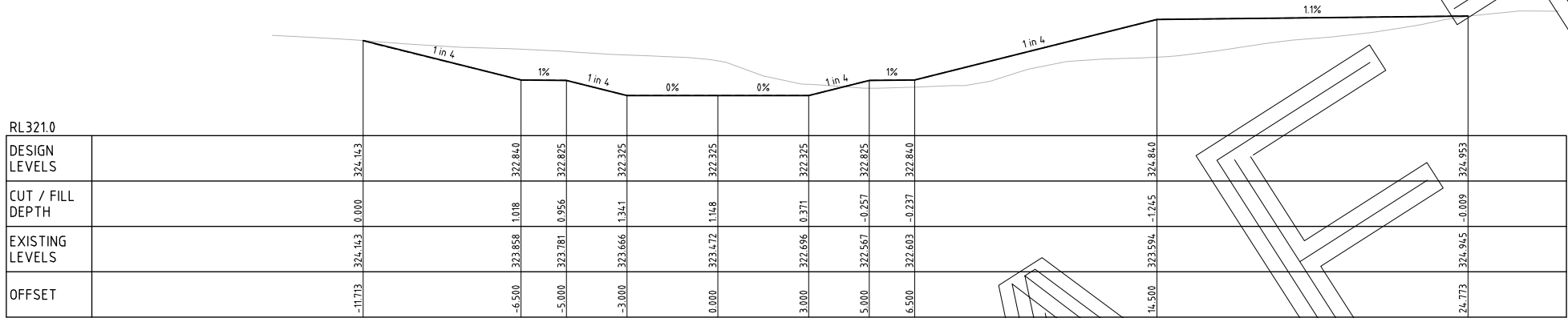
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| PROJECT NO.                           | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
| P2510821                              | PS01        | R02         | PS01-C613   | A        |

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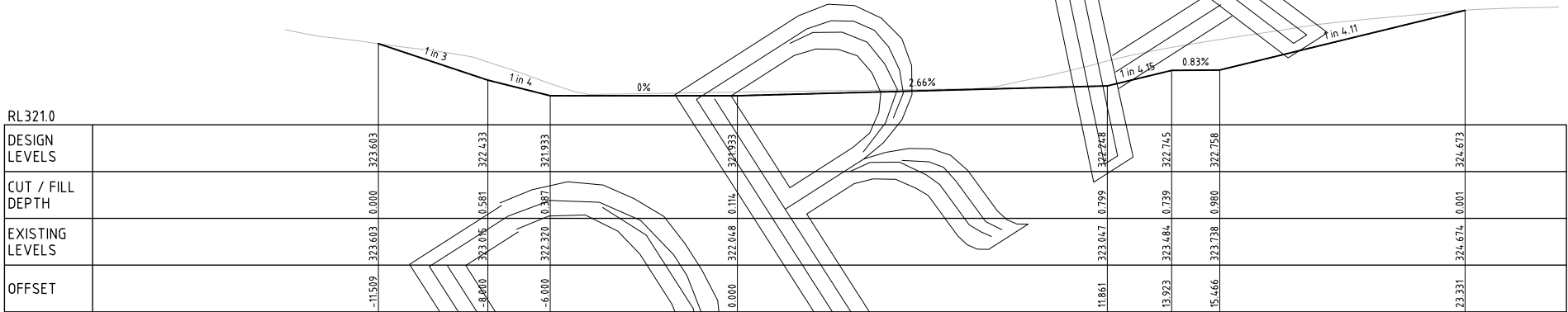




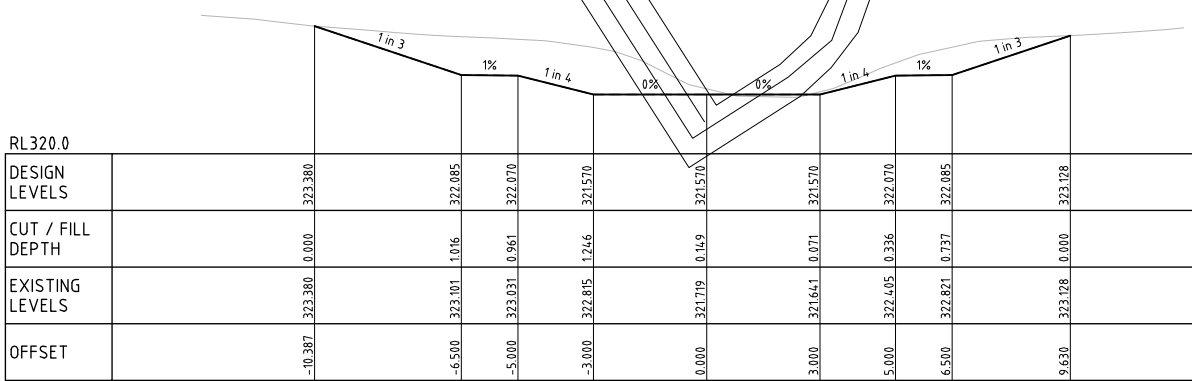
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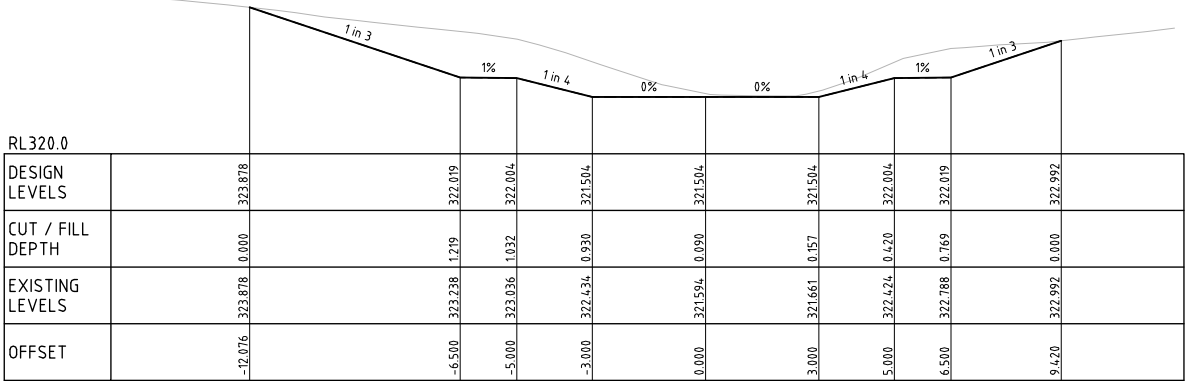
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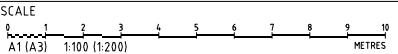
CH 2000.000



CH 2023.275

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| REV | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPROVD |
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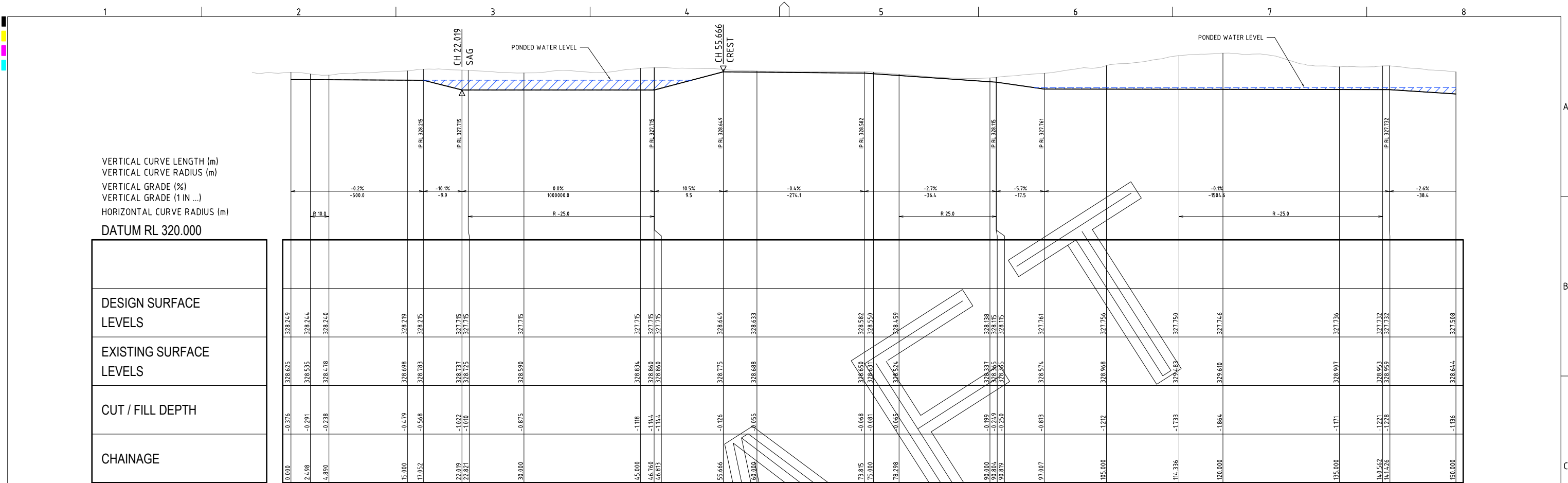
GRID  
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mAH  
PROJECT MANAGER  
JW  
CLIENT  
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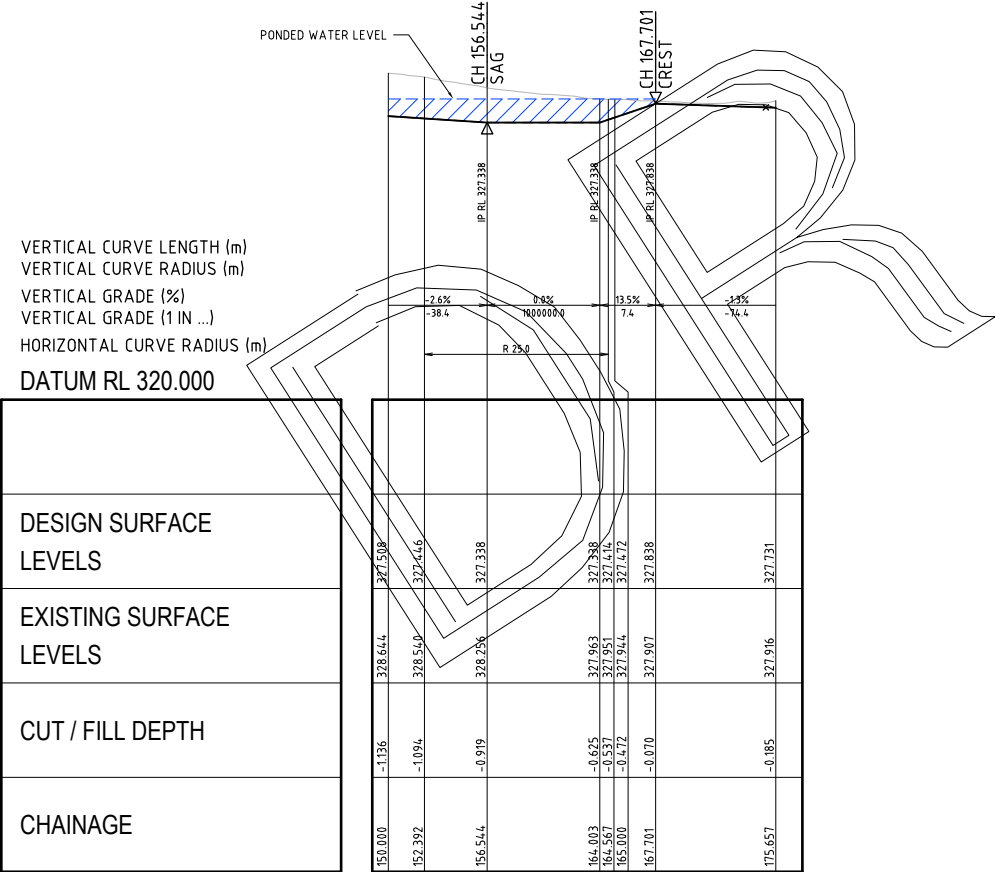
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| PROJECT NO.<br>P2510821               | PLANSET NO.<br>PS01 | RELEASE NO.<br>R02 | DRAWING NO.<br>PS01-C614 | REVISION<br>A |





CREEK CHANNEL LONG. SECTION (CH 0 - CH 150)

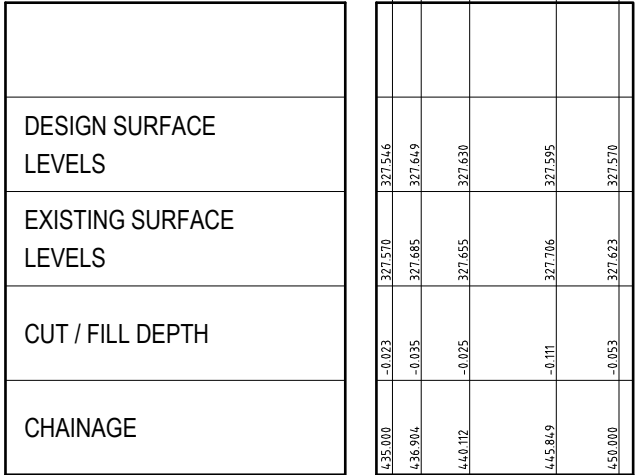
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VERTICAL - 1:100



CREEK CHANNEL LONG. SECTION (CH 150 - CH 175.657)

SCALE: HORIZONTAL - 1:250  
VERTICAL - 1:100

VERTICAL CURVE LENGTH (m)  
VERTICAL CURVE RADIUS (m)  
VERTICAL GRADE (%)  
VERTICAL GRADE (1 IN ...)  
HORIZONTAL CURVE RADIUS (m)  
DATUM RL 320.000



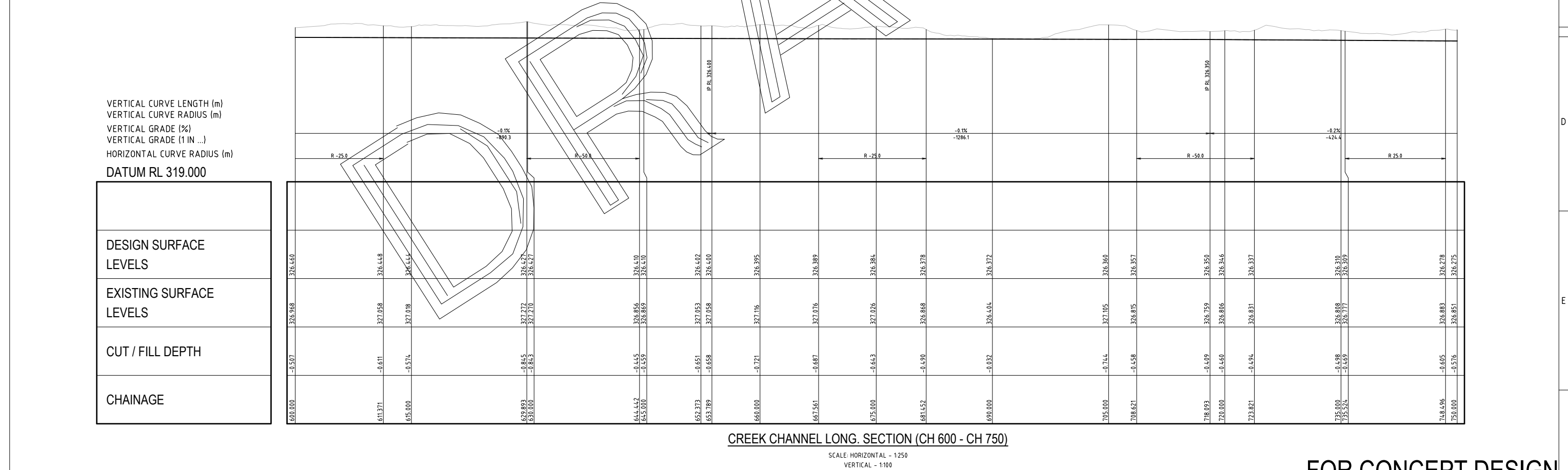
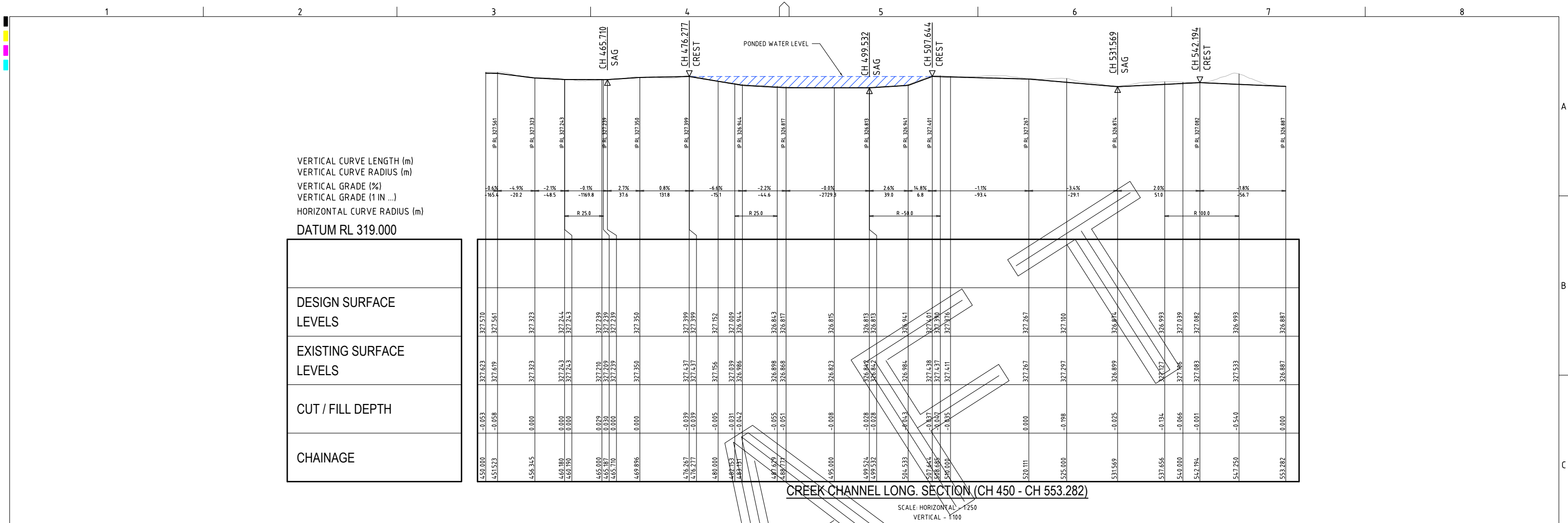
CREEK CHANNEL LONG. SECTION (CH 435 - CH 450)

SCALE: HORIZONTAL - 1:250  
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FOR CONCEPT DESIGN

| REV                              | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD | SCALE  | GRID | DATUM | PROJECT MANAGER | CLIENT | <div><div><div></div><div></div><div></div></div><div><div>m</div><div>artens</div><div>&amp; Associates Pty Ltd</div></div><div>Consulting Engineers<br/>Environment<br/>Water<br/>Geotechnical<br/>Civil</div></div> | DRAWING TITLE   |   |                                       |                          |               |
|----------------------------------|------------------|------------|-------|----------|---------|--------|--|------|-------|-----------------|--------|--|---|---|---------------------------------------|--------------------------|---------------|
| A                                | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        | <div><div><div>02.55.07.510.012.515.017.520.022.525.0</div><div>A1 (A3) 1:250 (1:500)</div></div><div><div>02345678910</div><div>A1 (A3) 1:100 (1:200)</div></div></div> <div>DISCLAIMER &amp; COPYRIGHT<br/>This plan must not be used for construction unless signed as approved by principal certifying authority.<br/>All measurements in millimetres unless otherwise specified.<br/>This drawing must not be reproduced in whole or part without prior written consent of Martens &amp; Associates Pty Ltd.<br/>(C) Copyright Martens &amp; Associates Pty Ltd</div> | ---  | mAHD  | JW              | CGRC   |  | PROJECT NAME/PLANSET TITLE<br><b>MASTER PLAN FOR MUTTAMA CREEK</b><br>PRELIMINARY CIVIL ENGINEERING PLANS<br>MUTTAMA CREEK, COOTAMUNDRA<br>NSW 2590 AUSTRALIA | Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8787<br>Email: mail@martens.com.au Internet: www.martens.com.au | EARTHWORKS SITE SECTIONS<br>SHEET - 7 |                          |               |
| PRINTED: --- - USER: NADJOSKE    |                  |            |       |          |         |        |  |      |       |                 |        |  | PROJECT NO.<br>P2510821   | PLANSET NO.<br>PS01   | RELEASE NO.<br>R02                    | DRAWING NO.<br>PS01-C660 | REVISION<br>A |
| A1 / A3 LANDSCAPE (A/LC_v02.0.0) |                  |            |       |          |         |        |  |      |       |                 |        |  | DRAWING ID: P2510821-PS01-R02-C660  |   |                                       |                          |               |





REV

DESCRIPTION

DATE

DRAWN

DESIGNED

CHECKED

APPROVD

A

MINOR AMENDMENTS

24/06/2025

NP

YAI

SCALE

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A1 (A3) 1:250 (1:500)

0 1 2 3 4 5 6 7 8 9 10

A1 (A3) 1:100 (1:200)

GRID

---

DATUM

mAHD

PROJECT MANAGER

JW

CLIENT

CGRC

PROJECT NAME/PLANSET TITLE

MASTER PLAN FOR MUTTAMA CREEK  
PRELIMINARY CIVIL ENGINEERING PLANS

MUTTAMA CREEK, COOTAMUNDRA  
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Environment  
Water  
Geotechnical  
Civil

Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767  
Email: mail@martens.com.au Internet: www.martens.com.au

DRAWING TITLE

EARTHWORKS SITE SECTIONS  
SHEET - 8

PROJECT NO.

P2510821

PLANSET NO.

PS01

RELEASE NO.

R02

DRAWING NO.

PS01-C661

REVISION

A

PRINTED

---

USER: NP/PAUSE

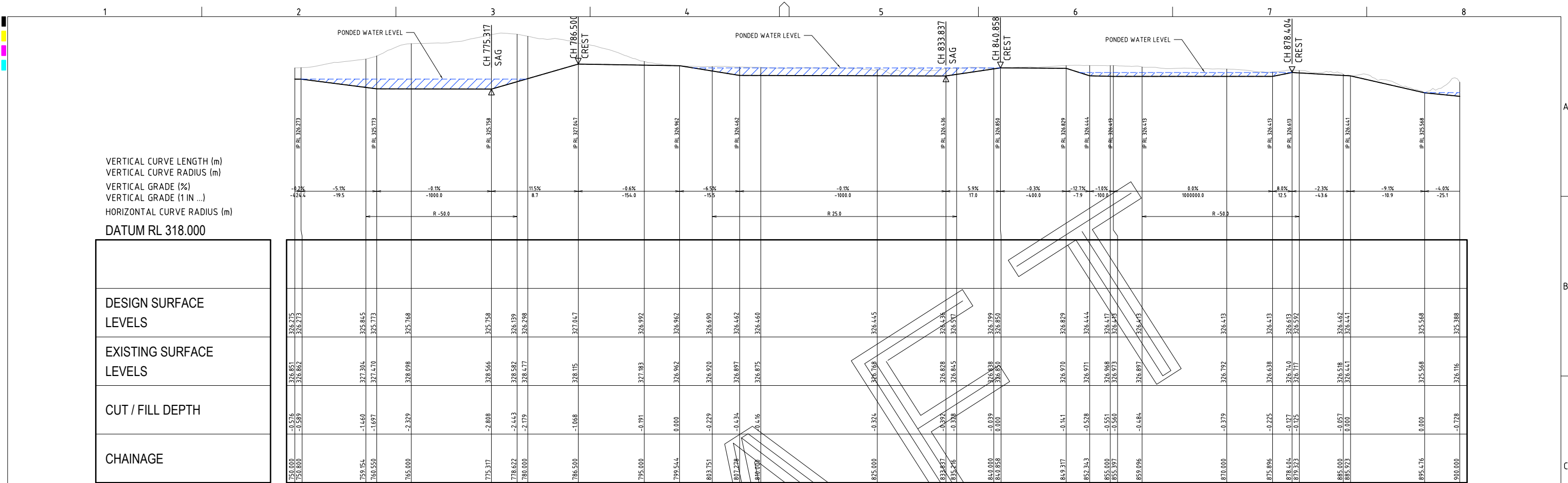
A1 / A3 LANDSCAPE (A1/LC\_02.0.01)

DRAWING ID: P2510821-PS01-R02-C661

0 1 2 3 4 5 6 7 8 9 10

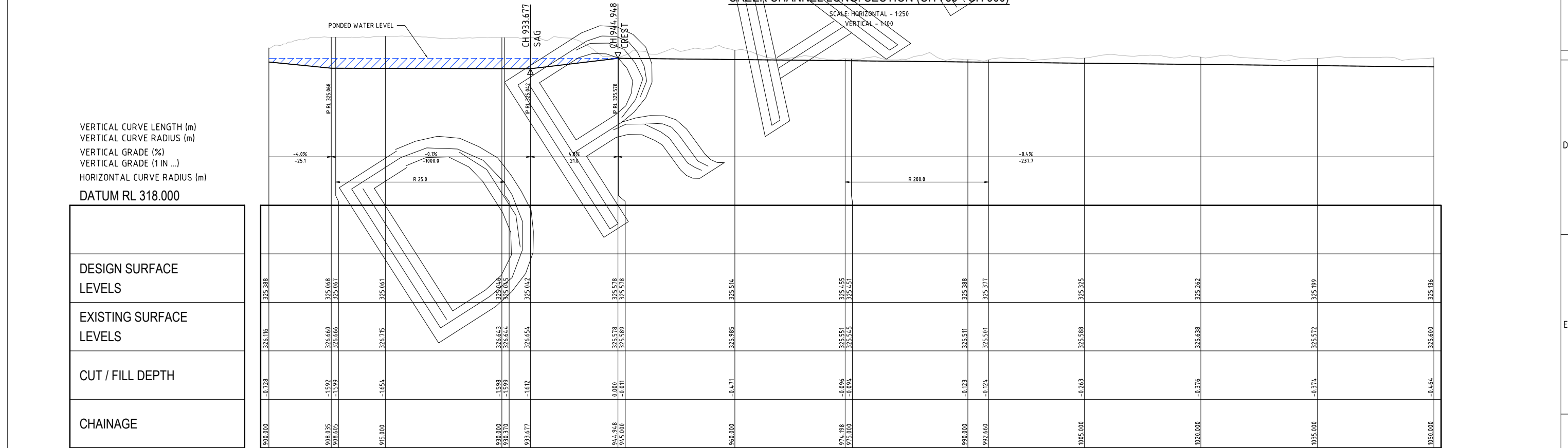
FOR CONCEPT DESIGN





CREEK CHANNEL LONG. SECTION (CH 750 - CH 900)



SCALE: HORIZONTAL - 1:250  
VERTICAL - 1:100



CREEK CHANNEL LONG. SECTION (CH 900 - CH 1050)

SCALE: HORIZONTAL - 1:250  
VERTICAL - 1:100

FOR CONCEPT DESIGN

| REV  | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPRVD | SCALE   | GRID | DATUM   | PROJECT MANAGER | CLIENT  |  <div>Consulting Engineers<br/>Environment<br/>Water<br/>Geotechnical<br/>Civil</div> | DRAWING TITLE                         |  |             |             |             |          |
|--|------------------|------------|-------|----------|---------|--------|---|------|---|-----------------|---|--|---------------------------------------|--|-------------|-------------|-------------|----------|
| A  | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |        | <div>0 2.5 5.0 7.5 10.0 12.5 15.0 17.5 20.0 22.5 25.0<br/>A1 (A3) 1:250 (1:500) METRES</div> <div>0 1 2 3 4 5 6 7 8 9 10<br/>A1 (A3) 1:100 (1:200) METRES</div> | ---  | mAHD  | JW              | CGRC  |  | EARTHWORKS SITE SECTIONS<br>SHEET - 9 |  |             |             |             |          |
|  |                  |            |       |          |         |        | DISCLAIMER & COPYRIGHT  |      | PROJECT NAME/PLANSET TITLE<br><b>MASTER PLAN FOR MUTTAMA CREEK</b><br>PRELIMINARY CIVIL ENGINEERING PLANS<br><br>MUTTAMA CREEK, COOTAMUNDRA<br>NSW 2590 AUSTRALIA |                 |  <div>Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767<br/>Email: mail@martens.com.au Internet: www.martens.com.au</div> |  | PROJECT NO.                           |  | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
|  |                  |            |       |          |         |        |   |      |   |                 |   |  | P2510821                              |  | PS01        | R02         | PS01-C662   | A        |
| PRINTED: A1 / A3 LANDSCAPE (A1/LC_v02.0.0) |                  |            |       |          |         |        |   |      |   |                 |   |  | DRAWING ID: P2510821-PS01-R02-C662    |  |             |             |             |          |





|          |        |          |         |        |               |
|----------|--------|----------|---------|--------|---------------|
| 1050.000 | -0.464 | 325.600  | 325.136 |        |               |
| 1059.131 | -0.664 | 325.759  | 325.095 | -0.44% |               |
| 1065.000 | -0.802 | 325.875  | 325.073 | -237.7 |               |
| 1070.422 | -0.797 | 325.84.7 | 325.050 |        | P. RL 325.050 |

SCALE: HORIZONTAL - 1:250  
VERTICAL - 1:100



Technical drawing of a road cross-section showing a sag vertical curve. The drawing includes a plan view of the road with a 50.0m radius curve and a side elevation view. The side elevation shows the road profile with elevations ranging from 324.542 to 324.866. Key points include the start of the curve (CH 1+000), the lowest point (SAG), and the end of the curve (CH 1+050). The road width is 7.50m. The drawing is labeled 'CH 1' and 'SAG'.

SCALE: HORIZONTAL - 1:250  
VERTICAL - 1:100



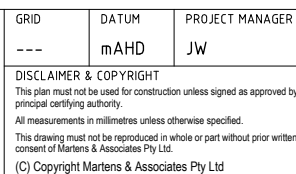
Plan view of a road alignment showing stationing from 1230.000 to 1324.502. The drawing includes a centerline, offset lines, and various geometric data points. Key features include a curve with R=50.0, a curve with R=26.0, and a curve with R=50.0. The alignment is labeled 'CH' at the end. The drawing also shows a cross-section of a road with a 10.0% grade and a 10.0% offset.

SCALE: HORIZONTAL - 1:250  
VERTICAL - 1:100

SCALE

0 2.5  
A1 (A3) 1:2

0 1  
A1 (A3) 1:1



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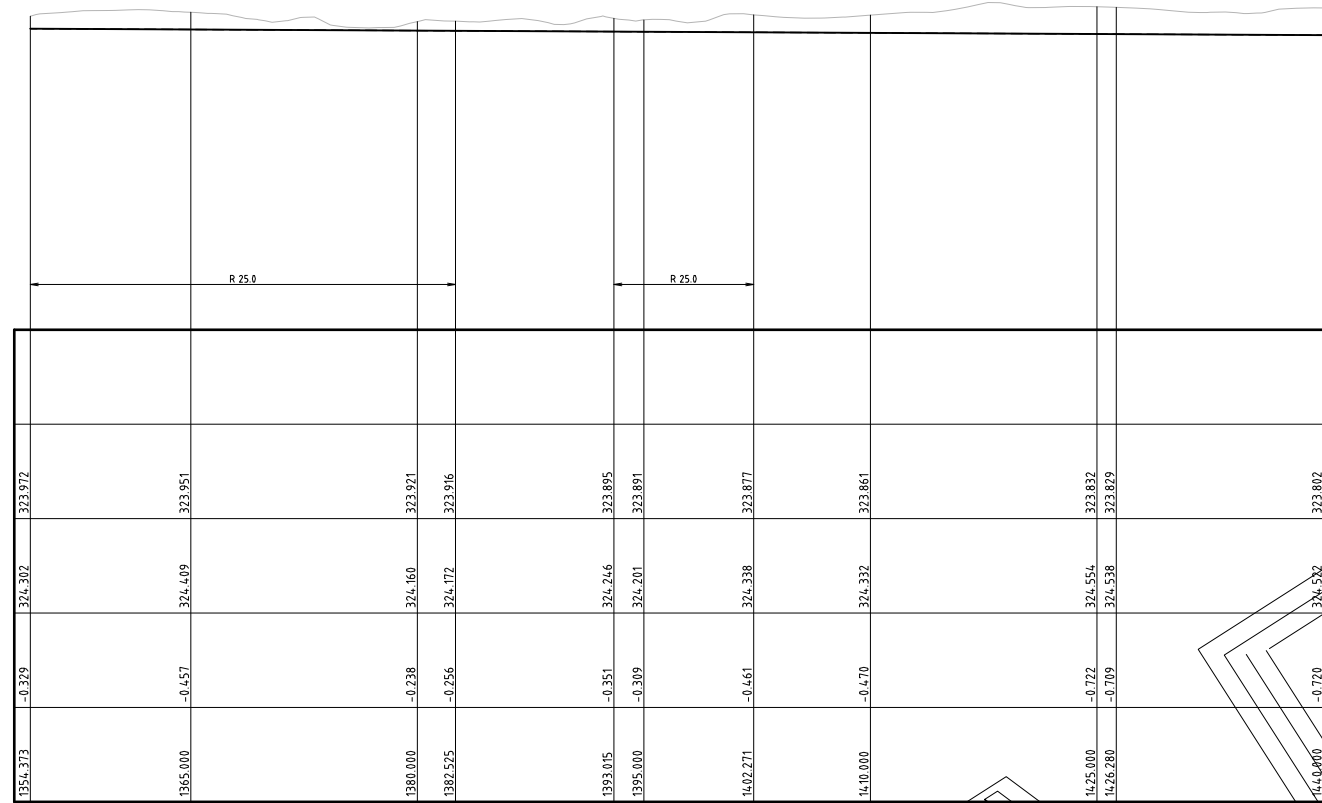
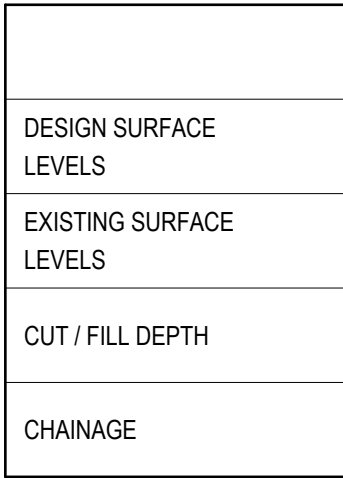
Consulting Engineers

Environment  
Water  
Geotechnical  
Civil

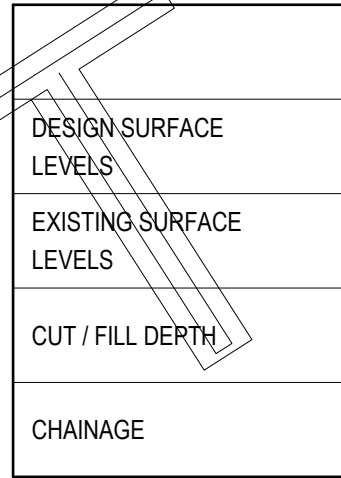
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Email: [mail@martens.com.au](mailto:mail@martens.com.au) Internet: [www.martens.com.au](http://www.martens.com.au)

|  |             |             |             |          |
|--|-------------|-------------|-------------|----------|
| DRAWING TITLE                          |             |             |             |          |
| EARTHWORKS SITE SECTIONS<br>SHEET - 10 |             |             |             |          |
| PROJECT NO.                            | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
| P2510821                               | PS01        | R02         | PS01-C663   | A        |

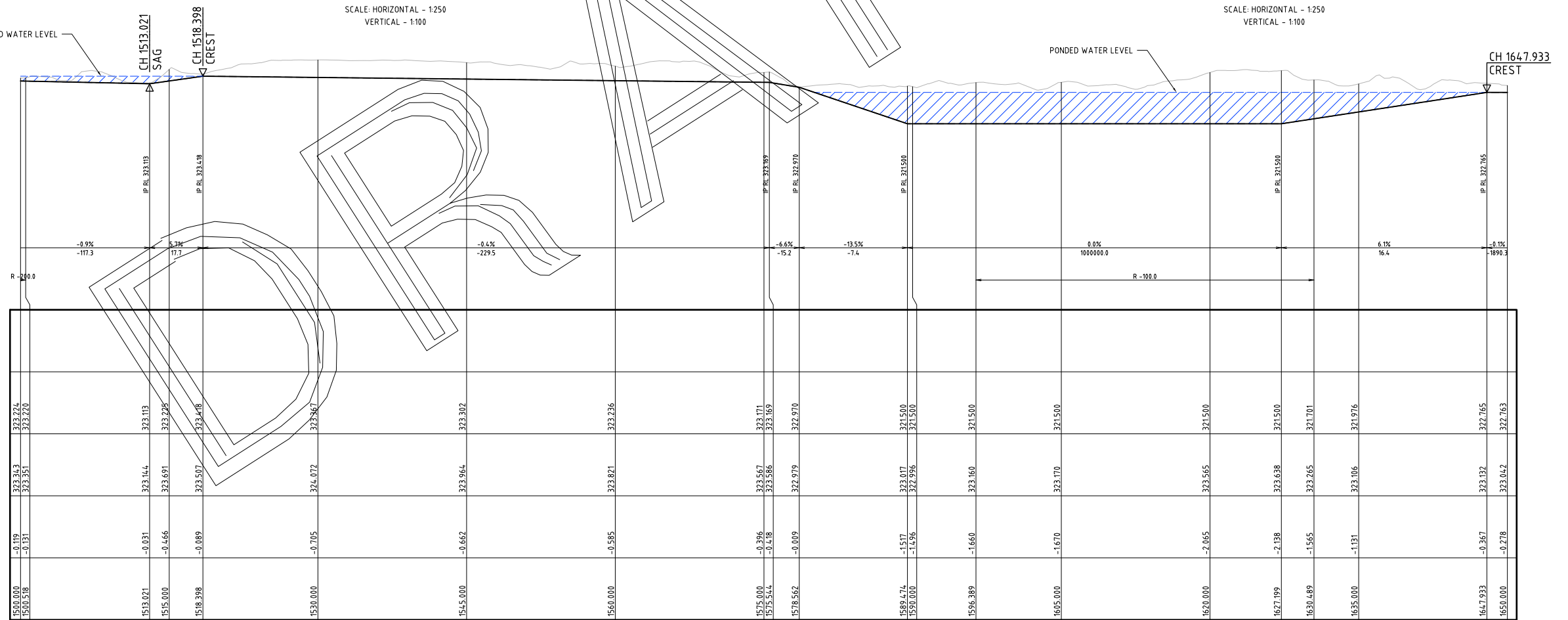
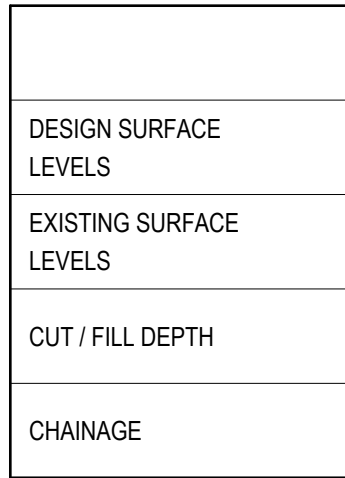
DRAWING ID: P2510821-PS01-R02-C663



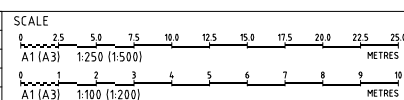
SCALE: HORIZONTAL - 1:250  
VERTICAL - 1:100



SCALE: HORIZONTAL - 1:250  
VERTICAL - 1:100



SCALE: HORIZONTAL - 1:250  
VERTICAL - 1:100

[illegible]

|      |       |                 |
|------|-------|-----------------|
| GRID | DATUM | PROJECT MANAGER |
| ---  | mAHD  | JW              |

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This plan must not be used for construction unless signed as approved by principal certifying authority.

All measurements in millimetres unless otherwise specified.

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|                            |  |
|----------------------------|--|
| CLIENT                     | CGRC   |
| PROJECT NAME/PLANSET TITLE | MASTER PLAN FOR MUTTAMA CREEK<br>PRELIMINARY CIVIL ENGINEERING PLANS<br>MUTTAMA CREEK, COOTAMUNDRA<br>NSW 2590 AUSTRALIA |



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|  |             |             |             |          |
|--|-------------|-------------|-------------|----------|
| DRAWING TITLE                          |             |             |             |          |
| EARTHWORKS SITE SECTIONS<br>SHEET - 11 |             |             |             |          |
| PROJECT NO.                            | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
| P2510821                               | PS01        | R02         | PS01-C664   | A        |

FOR CONCEPT DESIGN





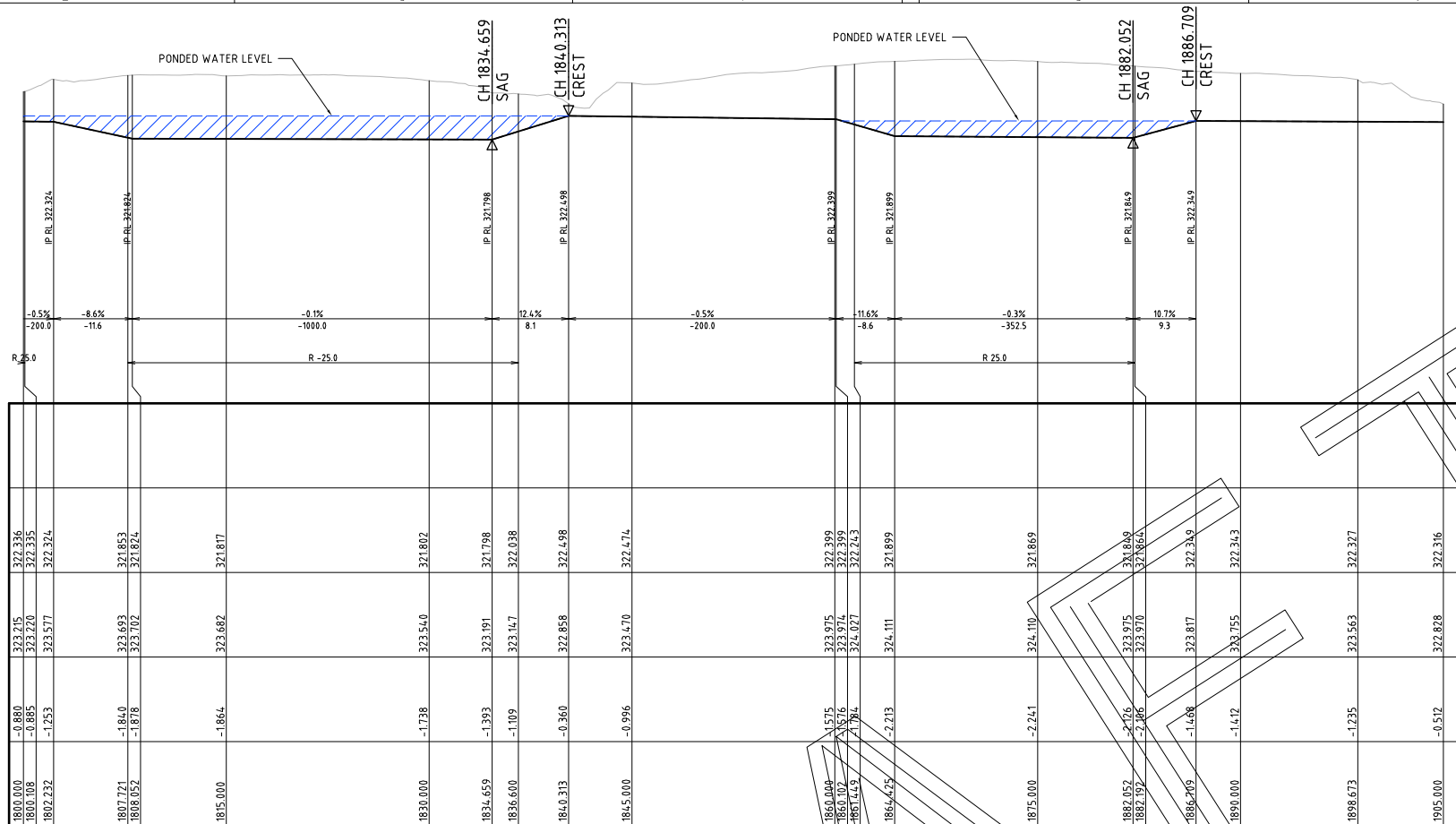
VERTICAL CURVE LENGTH (m)  
VERTICAL CURVE RADIUS (m)  
VERTICAL GRADE (%)  
VERTICAL GRADE (1 IN ...)  
HORIZONTAL CURVE RADIUS (m)  
DATUM RL 314.000

DESIGN SURFACE  
LEVELS

EXISTING SURFACE  
LEVELS

CUT / FILL DEPTH

CHAINAGE



CREEK CHANNEL LONG. SECTION (CH 1800 - CH 1905)

SCALE: HORIZONTAL - 1:250  
VERTICAL - 1:100

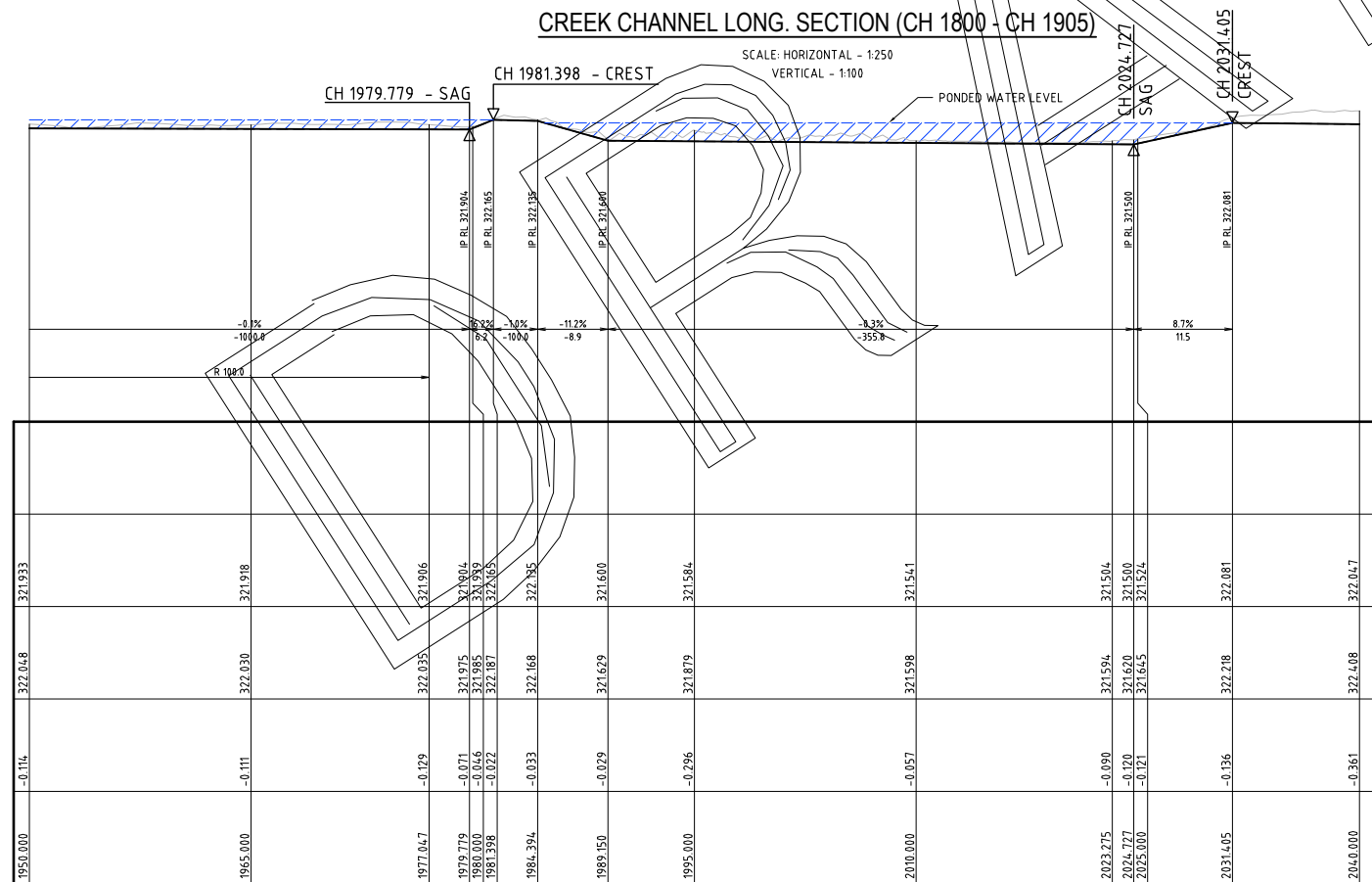
VERTICAL CURVE LENGTH (m)  
VERTICAL CURVE RADIUS (m)  
VERTICAL GRADE (%)  
VERTICAL GRADE (1 IN ...)  
HORIZONTAL CURVE RADIUS (m)  
DATUM RL 314.000

DESIGN SURFACE  
LEVELS

EXISTING SURFACE  
LEVELS

CUT / FILL DEPTH

CHAINAGE



CREEK CHANNEL LONG. SECTION (CH 1950 - CH 2040)

SCALE: HORIZONTAL - 1:250  
VERTICAL - 1:100

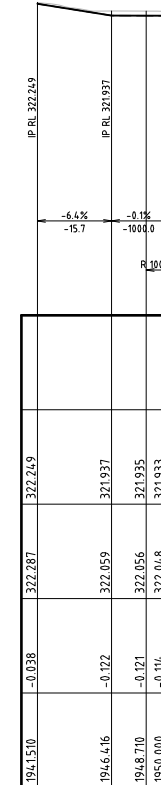
VERTICAL CURVE LENGTH (m)  
VERTICAL CURVE RADIUS (m)  
VERTICAL GRADE (%)  
VERTICAL GRADE (1 IN ...)  
HORIZONTAL CURVE RADIUS (m)  
DATUM RL 314.000

DESIGN SURFACE  
LEVELS

EXISTING SURFACE  
LEVELS

CUT / FILL DEPTH

CHAINAGE

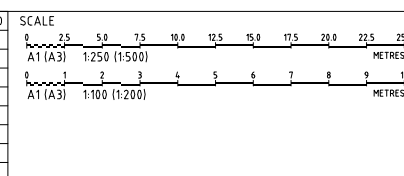


CREEK CHANNEL LONG. SECTION (CH 1941.510 - CH 1950)

SCALE: HORIZONTAL - 1:250  
VERTICAL - 1:100

FOR CONCEPT DESIGN

| REV | DESCRIPTION      | DATE       | DRAWN | DESIGNED | CHECKED | APPROVED |
|-----|------------------|------------|-------|----------|---------|----------|
| A   | MINOR AMENDMENTS | 24/06/2025 | NP    | YAI      |         |          |
|     |                  |            |       |          |         |          |
|     |                  |            |       |          |         |          |
|     |                  |            |       |          |         |          |
|     |                  |            |       |          |         |          |
|     |                  |            |       |          |         |          |
|     |                  |            |       |          |         |          |
|     |                  |            |       |          |         |          |
|     |                  |            |       |          |         |          |
|     |                  |            |       |          |         |          |



GRID  
---  
mAH  
JW

PROJECT NAME/PLANSET TITLE  
MASTER PLAN FOR MUTTAMA CREEK  
PRELIMINARY CIVIL ENGINEERING PLANS

MUTTAMA CREEK, COOTAMUNDRA  
NSW 2590 AUSTRALIA

CLIENT  
CGRC

PROJECT NAME/PLANSET TITLE  
MASTER PLAN FOR MUTTAMA CREEK  
PRELIMINARY CIVIL ENGINEERING PLANS

MUTTAMA CREEK, COOTAMUNDRA  
NSW 2590 AUSTRALIA

Consulting Engineers  
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Email: mail@martens.com.au Internet: www.martens.com.au

| DRAWING TITLE                          |             |             |             |          |
|--|-------------|-------------|-------------|----------|
| EARTHWORKS SITE SECTIONS<br>SHEET - 13 |             |             |             |          |
| PROJECT NO.                            | PLANSET NO. | RELEASE NO. | DRAWING NO. | REVISION |
| P2510821                               | PS01        | R02         | PS01-C666   | A        |