

LAKE PILLANS WETLAND ACCESSIBLE TRAIL / CARPARK

CLIENT + CONSULTANTS:



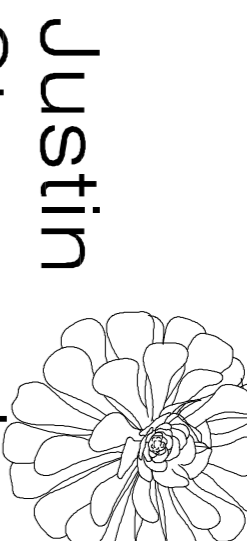
Lithgow
CITY COUNCIL

LAKE PILLANS WETLANDS
Wetlands Lane, LITHGOW NSW 2790



micconaghyp/1

PO Box 111, Hazelbrook NSW 2790
Mobile: 0419 229 320 Email: 1h@micm.com.au



Justin Staggard Pty Ltd
ALLA Registered Landscape Architect

ABN: 61 618 841 479 P.O. Box 206 Bathurst NSW 2337
BATHURST OFFICE Email: justinstaggard@staggard.com.au
Mob: 0488 742 850 Email: justinstaggard@staggard.com.au

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
- DO NOT SCALE FROM THIS DRAWING.
- CONSTRUCTION PRIOR TO COMMENCEMENT OF ANY LANDSCAPE WORKS. PLEASE CONTACT LOCAL LANDSCAPE CONSTRUCTION OFFICERS. THE CONTRACTOR MUST VERIFY ALL SERVICES ON SITE PRIOR TO ALL EXCAVATION WORKS.



CONTRACT DOCUMENTATION DRAFT ISSUE

| DRAWING SCHEDULE | Title |
|------------------|-------|
| Sheet Number | |

| PLAYSPACE / LANDSCAPE | Scale | Description |
|-----------------------|-------|--------------------------------|
| Drawing Schedule | | |
| LP/CP CD L01 Rev - | 1:750 | Cover Sheet / Drawing Schedule |
| LP/CP CD L02 Rev - | 1:500 | Sheet Plan |
| LP/CP CD L03 Rev - | 1:200 | Area 1 Layout Plan |
| LP/CP CD L04 Rev - | 1:200 | Area 1 Detail Plan |
| LP/CP CD L05 Rev - | 1:200 | Area 2 Layout Plan |
| LP/CP CD L06 Rev - | 1:200 | Area 2 Detail Plan |
| LP/CP CD L07 Rev - | 1:300 | Area 3 Layout Plan |
| LP/CP CD L08 Rev - | 1:100 | Area 4 Layout Plan |
| LP/CP CD L09 Rev - | 1:200 | Area 5 Layout Plan |

| DETAILS | |
|---------------------|------------------|
| LP/CP CD DS01 Rev - | Details Sheet 01 |
| LP/CP CD DS02 Rev - | Details Sheet 02 |
| LP/CP CD DS03 Rev - | Details Sheet 03 |
| LP/CP CD DS04 Rev - | Details Sheet 04 |

NOTES

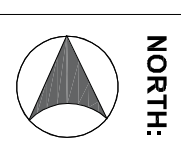
- ADDRESS: LAKE PILLANS WETLANDS, Wetlands Lane, Lithgow NSW 2790**
- All items noted as proposed are to be priced by the Contractor.
 - Read all Landscape drawings and specifications and clarify any discrepancies with the Client and Superintendent prior to undertaking any works.
 - The Contractor is to locate and confirm all existing services and service covers, building facades and footings, whether shown on the drawing or not, prior to the commencement of works. The Contractor shall contact Dial before you Dig to obtain any relevant service information prior to the commencement of works. The Contractor is responsible for retaining, protecting and any damage to all existing services, service covers, building facades, footings.
 - The Contractor is required to provide and undertake a Traffic & Pedestrian Management Plan of the work site to the approval of the Superintendent prior to the commencement of works. Works are to be undertaken to ensure safe pedestrian and vehicular access & egress to all addresses at all times during the construction works period. Where there is variation to the proposed works, a Traffic & Pedestrian Management Plan must be re-submitted and undertaken to the approval of the Superintendent. Safe access or signed alternatives to be provided to all footpaths, crossovers & crossings at all times.
 - Contractor to provide evidence of general company and site specific OHS procedures and requirements.
 - Site access to be obtained via Wetlands Lane. Contractor is to confirm this access to be adequate for the delivery of the construction works at the time of Tender. If determined by the contractor not to be suitable at the time of Tender, alternative access points are to be nominated for consideration and approval at the time of Tender. The contractor will be responsible for all costs associated with site access including, but not limited to rectification of any and all damages caused by the construction of the project where they may occur.

01 - DRAFT ISSUE JS JS 25/07/2023
ISSUE REV DESCRIPTION DWN CWN DATE

PROJECT:
**LAKE PILLANS WETLANDS
ACCESSIBLE WALL**
LOCATION: LITHGOW, NSW, 2790

DWG NAME:
COVER SHEET

STATUS: FOR INFORMATION

DATE: 07.07.2023 **NORTH:** 

SCALE: 1:750

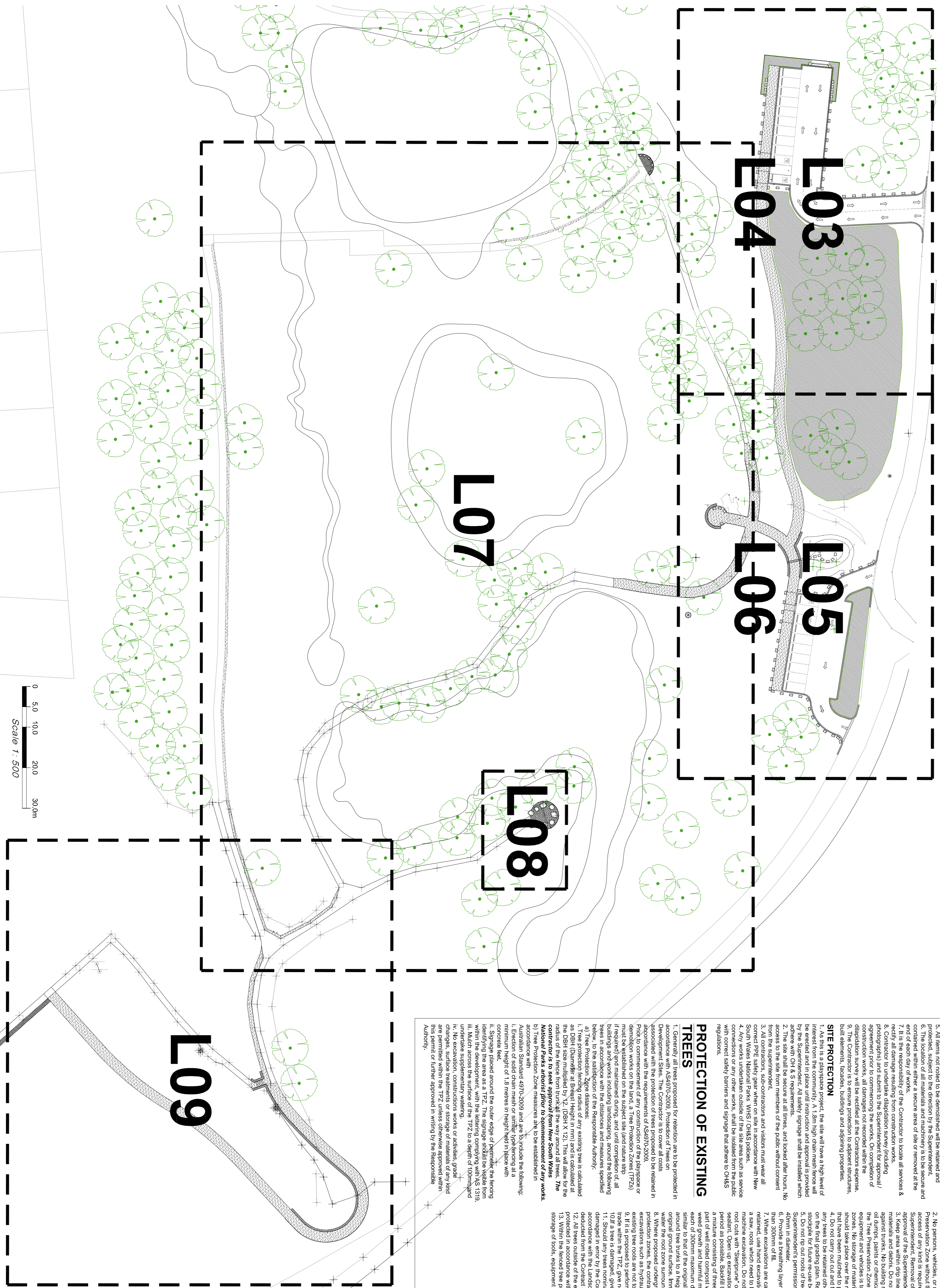
BY/CHK: JS / -

SHEET: 1 / -

DWG NO: **L01** REV: -

DRAFT ISSUE

SHEET PLAN



SITE MANAGEMENT NOTES

GENERAL

1. The Contractor is to verify all dimensions and levels on site and to match any existing site levels where proposed works include excavation.
2. The Contractor shall notify the Superintendent or their representative at the specified stages in order to arrange inspection of works and materials (deemed necessary). A minimum of 3 days notice shall be provided prior to inspection of any work.
3. Site compound location to be agreed on site and authorized by the Superintendent, extent of works, and / or identified to be related are bound by the tree protection section.
5. All items not noted to be demolished will be retained and protected, subject to the direction by the Superintendent.
6. The location of all materials and machinery is to be secure and end of each day of works, secure areas of site or removed at the end of each day of works.
7. It is the responsibility of the Contractor to locate all services & utilities.
8. Contractor to undertake mitigation survey (providing a copy of the survey to the Superintendent) prior to commencement of construction works, all damages not recorded within the mitigation survey will be rectified at the Contractor's expense.
9. The Contractor to ensure protection to adjacent structures, built elements, easements, buildings and adjoining properties.

PROTECTION OF EXISTING TREES (CONT)

1. As this is a play-space project, the site will have a high level of public use. The Contractor is to ensure that the site is safe for children and in a safe condition for the public. All safety signage shall be installed which adhere with OH & S requirements.
2. The site shall be secure at all times, and locked after hours. No access to the site shall be permitted by the public without consent.
3. All contractors, sub-contractors and visitors must wear all correct PPE safety gear when on site in accordance with New South Wales National Parks WHS OHS policies.
4. All workers or other vehicles shall be excluded from the public with correct safety barriers and signage that adhere to OHS & S regulations.

SITE PROTECTION

1. Generally, all trees proposed for retention are to be protected in accordance with the requirements of AS4970-2009, associated with the protection of trees proposed to be retained in accordance with the requirements of AS4970-2009.
2. Prior to commencement of any construction of the play-space or other works on site, a Tree Protection Zone (TPZ) shall be established around the trees in accordance with the requirements of AS4970-2009 (TPZs) (if required) and maintained during, and until completion of, all buildings and works including landscaping, around the following trees in accordance with the distances and measures specified below, to the satisfaction of the Responsible Authority:
1. Tree protection fencing radius of any existing tree is calculated as DBH (Diameter at Breast Height in mm) and is calculated at the radius of the tree from trunk, all the way around all trees. **The Minimal Protection Zone must be established prior to commencement of any works.**
2. Tree Protection Zone measures are to be established in accordance with Australian Standard 4970-2009 and are to include the following:
 - i. Signage placed around the outer edge of perimeter the fencing identifying the tree as a TPZ. The signage should be visible from all directions.
 - ii. A fence across the surface of the TPZ to a depth of 100mm and undertake supplementary watering.
 - iii. No excavation, construction works or activities, grade changes, surface treatments or storage of materials of any kind within the TPZ.
 - iv. This permit or further approved in writing by the Responsible Authority.

PROTECTION OF EXISTING TREES

1. All supports and bracing should be outside the TPZ and any excavation for supports or bracing should avoid damaging roots where possible.
2. Where necessary, all works within the TPZ for the retention of existing trees shall be approved by the Responsible Authority.
3. Where construction is approved within the TPZ, fencing and mulching should be placed at the outer point of the construction zone.
4. Where there are approved works within the TPZ, it may only be reduced to therefore amount by an authorised person only during approved construction within the TPZ, and must be restored in accordance with the above requirements at all other times.
5. No persons, vehicles, or machinery are to enter the Tree Preservation Zone without the consent of the Superintendent. If access of any kind is required through a TPZ contact the Superintendent. Removal of plant material of any kind requires approval of the Superintendent.
6. The Superintendent shall ensure that all equipment, building materials and debris, do not lean materials, equipment or debris against trunks. No building materials whatsoever, including fuel, oil drums, pallets or chemicals is allowed within or to be stored on the Tree Preservation Zone, the servicing and clearing of root zones, no storage of material, equipment, or temporary building should take place over the root zone of any tree, including areas that have been mulched to protect trees.
7. Do not carry out cut and all operations within the drip line of trees. Do not use any equipment or machinery that is capable of scooping for future re-use being the exception.
8. Superintendents permission for removal of trees greater than 30mm of girth.
9. Provide a watering layer around the collar of trees in more than 30mm of fill.
10. Where excavations are carried out in the vicinity of trees to be retained, use them excavation to locate any roots, then cut with machine excavation. Do not use an axe to cut roots. Seal tree root cuts with 'Seigneur' or equivalent approved tree wound sealant. Open up excavations under tree canopies for as short a period as possible. Backfill or excavations around tree roots with part of well rotted compost with a neutral pH value, free from weed growth and harmful materials. Place the backfill layers, each of 300mm maximum depth, compacted to a dry density similar to that of the original or surrounding soil. Do not backfill original ground surface. Immediately after backfilling, thoroughly water the root zone surrounding the tree.
11. Where proposed underground services are required within tree protection zones, the contractor is to allow non-detractive root existing tree roots are not to be damaged.
12. If it is proposed to perform work on trees or any work of any trade within the TPZ, give notice and obtain instructions.
13. If a tree is damaged, give notice and obtain instructions.
14. The Contractor shall ensure that all work is carried out in accordance with the Landscaping Technical Specification and as directed from the Contract Sum.
15. All trees outside of the extent of works are to be retained and protected in accordance with the Landscaping Technical Specification.
16. Within the fenced tree protection zone, there is to be no storage of tools, equipment or materials.

DRAFT ISSUE

CLIENT + CONSULTANTS:

Littjans CITY COUNCIL
 LAKE PILLANS WETLANDS
 Wellands Lane, LITHGOW NSW 2790

micconaghyp/
 P.O. Box 111, Hazelbrook NSW 2779
 Mobile: 0419 229 920 Email: r@micm.com.au

Justin Staggard Pty Ltd
 ALLA Registered Landscape Architect
 ABN: 61 618 841 479
 BALMAIN OFFICE Email: justin@staggard.com.au
 Mob: 0488 742 850 Email: justin@staggard.com.au

- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
 2. UNDO SCALE FROM THIS DRAWING.
 3. UNDO DIMENSIONS ON SITE PRIOR TO CONSTRUCTION
 4. PRIOR TO COMMENCEMENT OF ANY LANDSCAPE WORKS, PLEASE CONTACT COUNCIL'S LANDSCAPE CONSTRUCTION OFFICERS. THE CONTRACTOR MUST VERIFY ALL SERVICES ON SITE PRIOR TO ALL EXCAVATION WORKS.

DWG NO: **L02** REV: -

STATUS: FOR INFORMATION

DATE: 07.07.2023 NORTH:

SCALE: 1 : 500

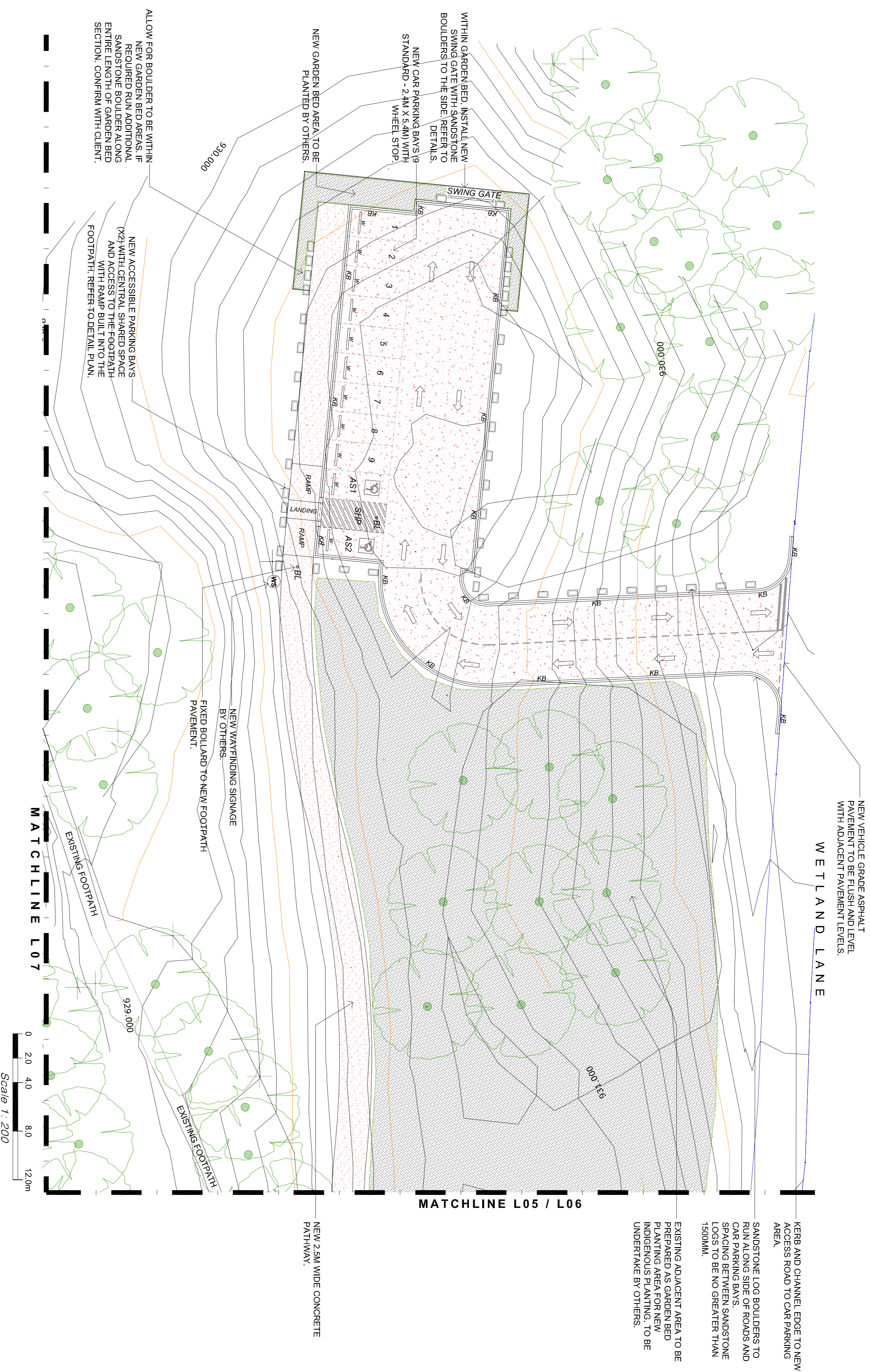
BY/CHK: JS / -

SHEET: 2 / -

PROJECT: LAKE PILLANS WETLANDS ACCESSIBLE WALL
 LOCATION: LITHGOW, NSW, 2790
 DWG NAME: SHEET SHEET

ISSUE NO: 01 DRAFT ISSUE JS JS 25/07/2023
 ISSUE NO: 02 DRAFT ISSUE JS JS 25/07/2023

AREA 1 LAYOUT PLAN



FOOTPATH CONCRETE SPECIFICATION:

100mm THK. CONCRETE S148, S172 MESH TOP, (40mm COVER)
 100mm CLASS 3 FOR SUB-BASE COMPACTED TO MIN. 98% MDD
 ON APPROVED PREPARED SUBGRADE (MIN. 3% CBR) TO AS3798
 PROVIDE SAW-CUTS @ 3 AT 1.5m GRID CENTRES TYPICAL.
 CONCRETE STRENGTH $f_c = 25MPa$

CAR PARK ASPHALT SPECIFICATION:

30mm THK. SIZE 7mm ASPHALT WEARING COURSE
 40mm THK. SIZE 14mm TYPE N COMPACTED ASPHALT BASE COURSE (MIN. 97% MDD)
 70mm SPRAYED SEAL & FINISH COURSE
 150mm CLASS 3 FOR SUB-BASE COMPACTED TO MIN. 98% MDD
 ON APPROVED PREPARED SUBGRADE (MIN. 3% CBR) TO AS3798

CLIENT + CONSULTANTS:

Littjans City Council
 LAKE PILLANS WETLANDS
 Wellands Lane, LITHGOW NSW 2790

ricconaghyp/1
 P.O. Box 111, Hazelbrook NSW 2779
 Mobile: 0419 229 320 Email: ric@ricconaghyp.com.au

Justin Staggard Pty Ltd
 A/LA Registered Landscape Architect
 ABN: 61 618 841 479 P.O. Box 206 Baringong VIC 3557
 BALLARAT OFFICE Email: justin@staggard.com.au
 Mob: 0488 742 850 Email: justin@staggard.com.au

LEGEND

- ASPHALT (VEHICLE PAVEMENT)
- CONCRETE KERB AND CHANNEL
- CONCRETE PEDESTRIAN PAVEMENT
- CAR PARKING LINE MARKING
- PARKING WHEEL STOPS
- SANDSTONE LOG BOULDERS
- BOLLARDS
- GARDEN BED PLANTING (BY OTHERS)
- MAINTENANCE GATE (SWING GATE)
- EXISTING TREES (NOT SURVEYED)
- UTURE WAFINDING SIGNAGE (BY OTHERS)

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
- DO NOT SCALE FROM THIS DRAWING.
- VERIFY ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
- PRIOR TO COMMENCEMENT OF ANY LANDSCAPE WORKS, PLEASE CONTACT COINCIS LANDSCAPE CONSTRUCTION OFFICERS. THE CONTRACTOR MUST VERIFY ALL SERVICES ON SITE PRIOR TO ALL EXCAVATION WORKS.

PROJECT:
 LAKE PILLANS WETLANDS ACCESSIBLE WALL
 LOCATION: LITHGOW, NSW, 2790

DWG NAME:
 AREA 1 LAYOUT PLAN

STATUS: FOR INFORMATION

DATE: 07.07.2023
SCALE: 1 : 200
BY/CHK: JS
SHEET: 3 / -

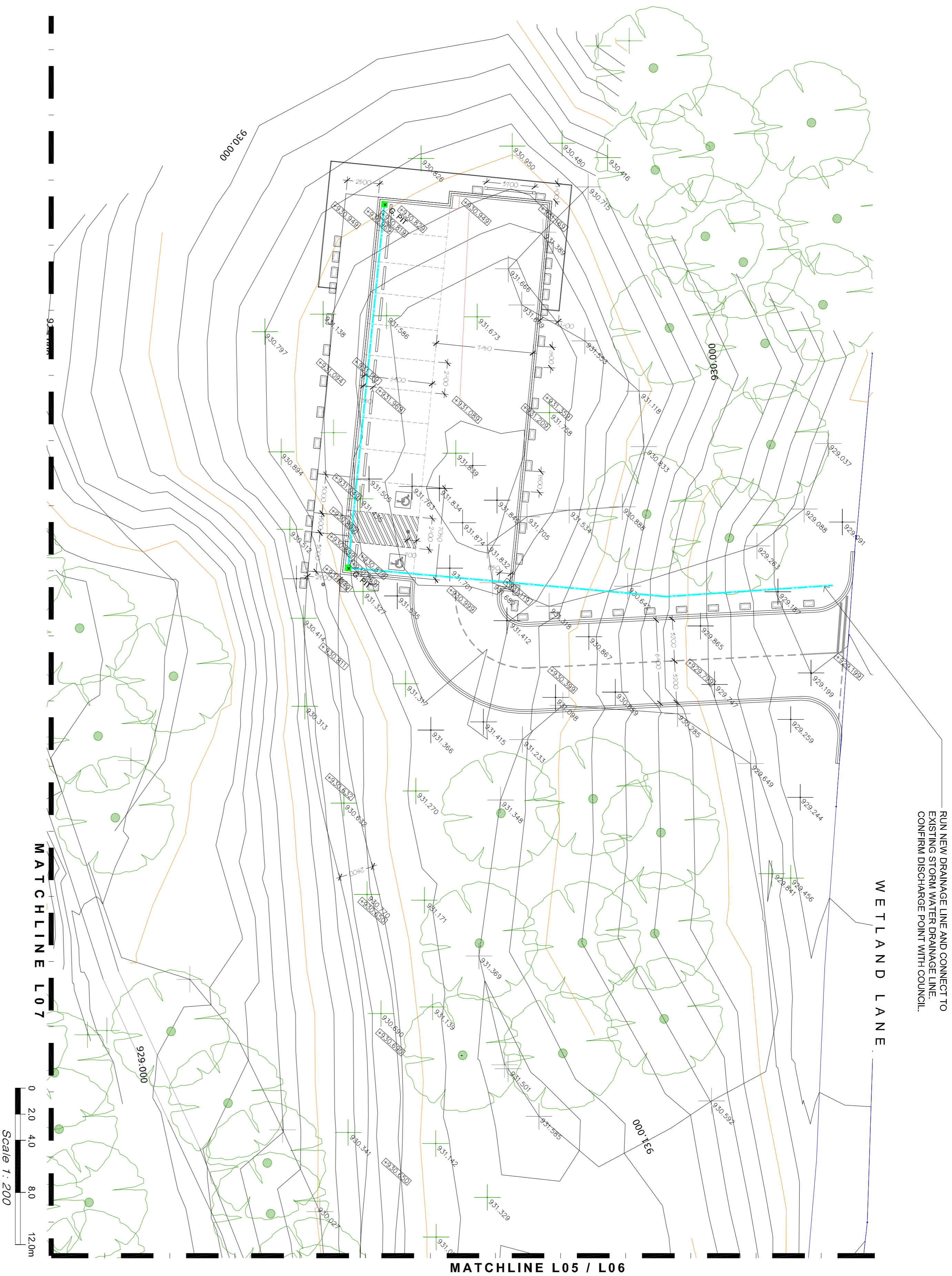
DATE: 07.07.2023
SCALE: 1 : 200
BY/CHK: JS
SHEET: 3 / -

DRAFT ISSUE

L03

REV:

AREA 1 DETAIL PLAN



RUN NEW DRAINAGE LINE AND CONNECT TO EXISTING STORM WATER DRAINAGE LINE. CONFIRM DISCHARGE POINT WITH COUNCIL.

WETLAND LANE

MATCHLINE L05 / L06

MATCHLINE L07

Scale 1 : 200

DRAINAGE

All storm water drainage works shall be undertaken by the appointed contractor and forms part of this contract.

DRAINAGE AND PLUMBING

Provide storm water and subsol drainage, including connection to approved discharge points as required. Investigate and determine the location of suitable potable water supply. Underground services and surface drainage layouts indicated are diagrammatic only, and are subject to the requirements of the relevant authority.

Inspect the site during the tender period and include all authority requirements in the contract sum. Where required to connect into existing drains, include cost of locating, excavating and re-installing pits, roads, kerbs, nature strips, footpaths and the like. Where authority requirements vary from those indicated, obtain clarification from the superintendent before commencing.

DRAINAGE MATERIALS

Pipes and fittings: Pipes and fittings shall comply with the relevant codes, AS 1254 Unplasticised PVC (UPVC) pipes and fittings for storm and surface water applications
 AS 1631 Cast grey and ductile iron non-pressure pipes and fittings
 AS 2439 Perforated plastics drainage and effluent pipe and fittings
 AS 3688 Water supply - Copper and copper alloy body compression and capillary fittings and threaded-end connectors.
 AS 4056 Precast concrete pipes (pressure and non-pressure)
 Unless otherwise indicated, pipe work grades shall be:
 UPVC for stormwater, Class HD (AS 1254)
 Concrete shall be used for stormwater only
 Copper: Type D (AS 1432)
 Include bends, traps, disconnecter gullies, junctions, inspection openings and other fittings as required.
 Joining: Joining shall comply with the relevant codes.
 AS 1646 Elastomeric seals for waterworks purposes.
 AS/NZS 3879 Solvent cements and priming fluids for use with unplasticised PVC (UPVC) pipes and fittings.
 Vitrified clay and concrete pipes and fittings shall be joined with rubber ring joints.
 UPVC pipes and fittings shall be rubber ring jointed or solvent welded with contrasting colour dyes. Use pink cleaning agent and blue bonding agent to verify that the cleaning has taken place before bonding.

EXECUTION

Pipe laying: Comply with manufacturer's instructions and relevant codes.
 AS 2032 Code of practice for installation of UPVC pipe systems.
 AS 3725 Loads on buried concrete pipes.
 Lay pipes to uniform gradients, in straight runs, with watertight joints and spigot ends in the direction of flow. Use pipes in full lengths unless not otherwise practicable.
 Ensure that fittings which require maintenance are easily accessible. Keep drains clear of paths and at least 600 mm clear of walls where practicable.
 Bedding: Unless otherwise directed, drainage pipes, including bends and collars, shall be fully bedded on 75 mm of suitable sand or fine crushed rock. Do not back-fill until drains have been inspected, tested where required, and approved by the relevant authority and the superintendent.
 UPVC pipes shall be covered with 100 mm of bedding material.
 Gradients: Lay pipes to the maximum gradients practicable in relation to site levels, required depth of cover and authority's requirements, but not less than:
 Typediameter (mm)Grades (UPVC/Grades (Clay and Concrete)
 Storm water1001 in 1001 in 801501 in 1501 in 100Subsoil90:1501 in 3001 in 200
 Storm water drains shall be sewer grade, minimum diameter 100 mm, except connections between collection pits may be 90 mm UPVC storm water pipe laid at minimum gradient of 1:80.
 Cover: For underground pipes ensure cover not less than: Typedeh vehicle access/vehicle access/under pavement/slabs
 Clay200mm450mm300mmConcrete200mm450mm 300mmUPVC300mm 600mm450mmWhen minimum cover is not practicable, encase that section of pipe in 150 mm thick 20 MPa concrete. Make adequate provision for expansion movement in pipe. Alternatively, use Class X reinforced concrete pipe with rubber ring joints for storm water only, or cast iron pipe where approved by the superintendent. No part of the pipe or pipe collars shall intrude into pavement base course.
 Encased UPVC pipe: Where pipes pass through or are encased in concrete, include suitable bond-breaking collars or wrapping to enable free thermal movement or otherwise construct suitable expansion joints to pipework. Ensure sufficient space and wrapping around fittings. Wrapping type may include no less than 20 mm neoprene material.
 Inspection openings: Include inspection openings complete with purpose made covers at all bends and junctions and at 9000 mm intervals. On completion remove all debris and flush pipework completely clean. Hand over the work in a neat and tidy condition. Make good any adjacent roads, paths, landscaping, buildings and outside site boundaries were damaged or disturbed by drainage works.

STORMWATER DRAINAGE

Generally: Install storm water pipes, surface drains, agricultural drains and drainage pits to approved discharge points. Include inspection pits and access covers as required.

SUBSOIL DRAINAGE

Generally: Agricultural drains where indicated or required shall intercept groundwater seepage and prevent water build-up. Connect drains to storm water pits. Provide inspection openings at the upstream end of agricultural pipes as detailed.

AGRICULTURAL DRAIN

Agricultural drain: Agricultural drain materials may include:
 Perforated plastic pipe: Type 1, Class 100 (Corrugated) (AS 2439).
 Slotted 100 mm diameter UPVC pipes.
 Other suitable proprietary products including geotextile drainage fabric.

INSTALLATION

Installation: Lay pipes to suitable falls and surround with 150 mm layer of 20 mm crushed rock screenings.
 Back-fill with clean rubble to the underside of pavements, slabs, and top-soil filling.

GRADING

All pavements to have a cross-fall of 1 in 100 with maximum longitudinal grade for all paths is to be greater than 1 in 20.
 Refer to proposed grading levels as shown.

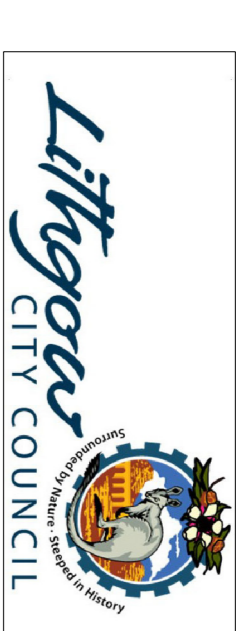
FINISHES

Ensure all paving surfaces finish flush with adjacent surfaces.
 Refer to details for individual dimensions of elements and required levels and elevations.

SETOUT

Contractor to prepare a setout of all new works for approval prior to proceeding with new works.
 Refer to details for individual dimensions of elements
 Site setout to be reviewed by the Landscape Architect prior to commencement of works to confirm all locations are correct and fall zones are achieved.
 A AutoCAD file can be provided to assist with site set-out.

CLIENT + CONSULTANTS:



PO Box 111, Hazelbrook NSW 2779
 Mobile: 0419 229 520 Email: h@micconaghyp.com.au

Justin Staggard Pty Ltd

ALLA Registered Landscape Architect

ABN: 61 618 841 479 P.O. Box 206 Baulkonia NSW 3567
 Baulkonia Office Email: justin@staggard.com.au
 Mob: 0488 742 850 Email: justin@staggard.com.au

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
2. UPVC SCALE FROM THIS DRAWING.
3. CONSTRUCTION CONDITIONS ON SITE PRIOR TO PRIOR TO COMMENCEMENT OF ANY LANDSCAPE WORKS PLEASE CONTACT CONSULTANTS LANDSCAPE CONSTRUCTION OFFICERS. THE CONTRACTOR MUST VERIFY ALL SERVICES ON SITE PRIOR TO ALL EXCAVATION WORKS.

LEGEND

| | |
|--|--|
| | EXISTING SPORT LEVELS |
| | EXISTING SITE CONTOURS (200MM INTERVALS) |
| | PROPOSED SPOT LEVELS |
| | DIMENSIONS (MM) |
| | UPVC PIPE DRAINAGE PIPE |
| | STORM WATER PIT / GRATED COVER |
| | G. HT |

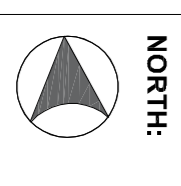
| | | | |
|-------|-------------|-------------|------------|
| 01 | DRAFT ISSUE | JS | 25/07/2023 |
| ISSUE | REV | DESCRIPTION | DATE |

PROJECT: LAKE PILLANS WETLANDS ACCESSIBLE WALL
 LOCATION: LITHGOW, NSW, 2790

DWG NAME: AREA 1 DETAIL PLAN

STATUS: FOR INFORMATION

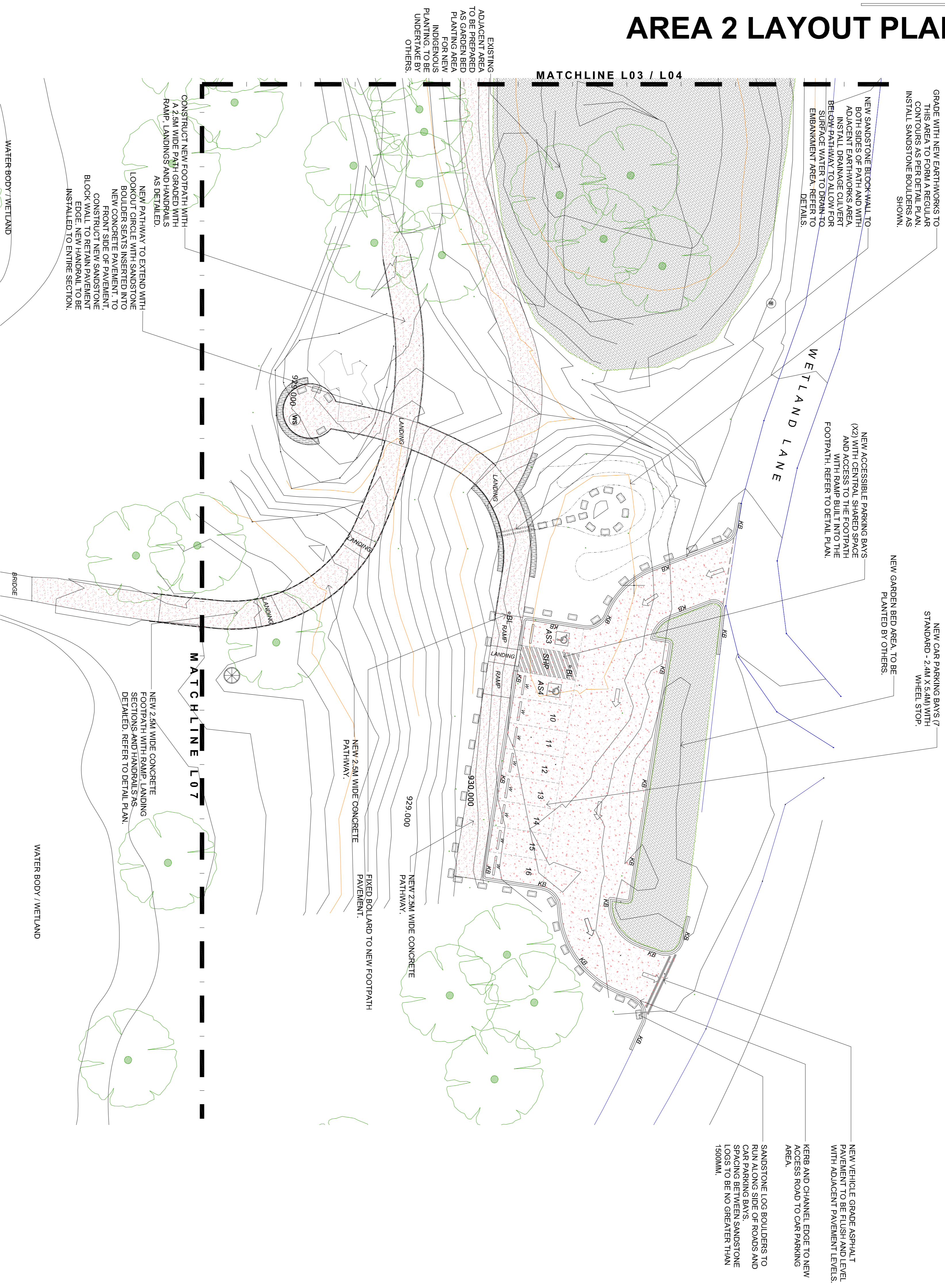
DATE: 07.07.2023
 SCALE: 1 : 200
 BY/CHK: JS / -
 SHEET: 4 / -



DWG NO: L04
 REV: -

DRAFT ISSUE

AREA 2 LAYOUT PLAN

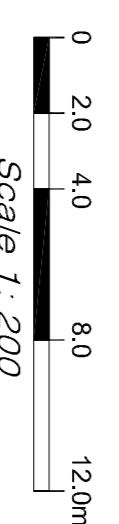


FOOTPATH CONCRETE SPECIFICATION:

100mm THK. CONCRETE S148, S172 MESH TOP, (40mm COVER)
 100mm CLASS 3 FOR SUB-BASE COMPACTED TO MIN. 98% MDD
 ON APPROVED PREPARED SUBGRADE (MIN. 3% CBR) TO AS3798
 PROVIDE SAW-CUTS @ 3 AT 1.5m GRID CENTRES TYPICAL.
 CONCRETE STRENGTH $f_c = 25MPa$

CAR PARK ASPHALT SPECIFICATION:

30mm THK. SIZE 7mm ASPHALT WEARINGS COURSE
 40mm THK. SIZE 14mm TYPE N COMPACTED ASPHALT BASE COURSE (MIN. 97% MDD)
 7mm SPRAYED SEAL & FINISH COURSE
 150mm CLASS 3 FOR SUB-BASE COMPACTED TO MIN. 98% MDD
 ON APPROVED PREPARED SUBGRADE (MIN. 3% CBR) TO AS3798



DRAFT ISSUE

DWG NO: **L05**

DATE: 07.07.2023
 SCALE: 1 : 200
 BY/CHK: JS / -
 SHEET: 5 / -

PROJECT: LAKE PILLANS WETLANDS ACCESSIBLE WALL
 LOCATION: LITHGOW, NSW, 2790
 DWG NAME: AREA 2 LAYOUT PLAN
 STATUS: FOR INFORMATION

LEGEND

| | |
|--|---------------------------------------|
| | ASPHALT (VEHICLE PAVEMENT) |
| | CONCRETE KERB AND CHANNEL |
| | CONCRETE PEDESTRIAN PAVEMENT |
| | CAR PARKING LINE MARKINGS |
| | CONCRETE WHEEL STOPS |
| | SANDSTONE LOG BOULDERS |
| | BOLLARDS |
| | GARDEN BED PLANTING (BY OTHERS) |
| | CULVERT DRAIN |
| | EXISTING TREES (NOT SURVEYED) |
| | FUTURE WAYFINDING SIGNAGE (BY OTHERS) |

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
- DO NOT SCALE FROM THIS DRAWING.
- WORKS TO BE CONSTRUCTED PRIOR TO COMMENCEMENT OF ANY LANDSCAPE WORKS. PLEASE CONTACT COINCIS LANDSCAPE CONSTRUCTION OFFICERS. THE CONTRACTOR MUST VERIFY ALL SERVICES ON SITE PRIOR TO ALL EXCAVATION WORKS.

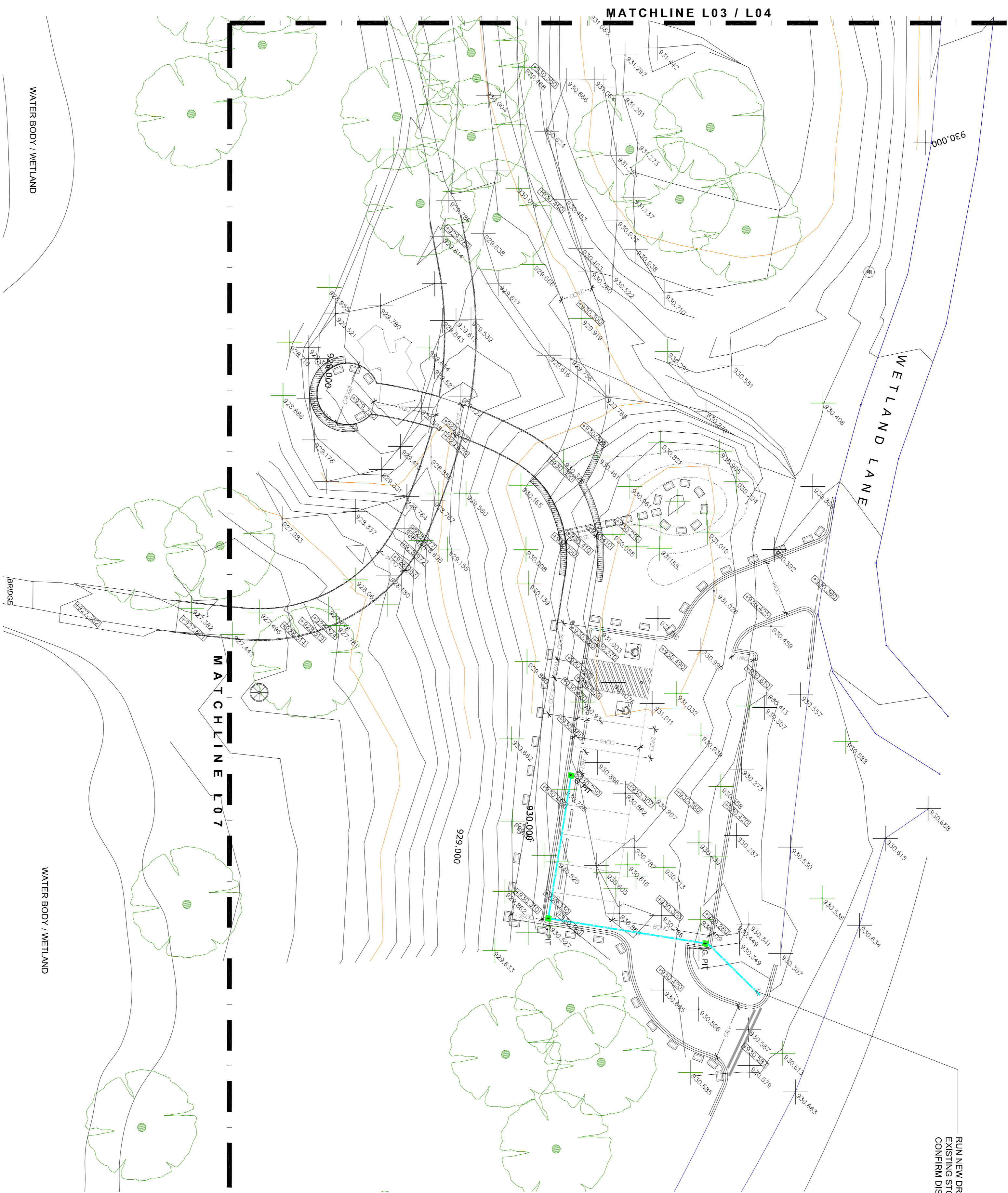
CLIENT + CONSULTANTS:

Lithgow CITY COUNCIL
 LAKE PILLANS WETLANDS
 Wetlands Lane, LITHGOW NSW 2790

ric miconaghpy
 P.O. Box 111, Hazelbrook NSW 2779
 Mobile: 0419 229 920 Email: r@mymk.com.au

Justin Staggard Pty Ltd
 A/LA Registered Landscape Architect
 ABN: 61 618 841 479 P.O. Box 206 Baringong VIC 3567
 BULLLAHAT Office Email: justin@staggard.com.au
 Mob: 0488 742 850 Email: jst@staggard.com.au

AREA 2 DETAIL PLAN



RUN NEW DRAINAGE LINE AND CONNECT TO EXISTING STORM WATER DRAINAGE LINE. CONFIRM DISCHARGE POINT WITH COUNCIL.

DRAINAGE

All storm water drainage works shall be undertaken by the appointed contractor and forms part of this contract.

DRAINAGE AND PLUMBING

Provide storm water and subsol drainage, including connection to approved discharge points as required. Investigate and determine the location of suitable potable water supply. Underground services and surface drainage layouts indicated are diagrammatic only, and are subject to the requirements of the relevant authority.

Inspect the site during the tender period and include all authority requirements in the contract sum. Where required to connect into existing drains, include cost of locating, excavating and re-installing pits, roads, kerbs, nature strips, footpaths and the like. Where authority requirements vary from those indicated, obtain clarification from the superintendent before commencing.

DRAINAGE MATERIALS

Pipes and fittings: Pipes and fittings shall comply with the relevant codes.
 AS 1254 Unplasticised PVC (UPVC) pipes and fittings for storm and surface water applications
 AS 1631 Cast grey and ductile iron non-pressure pipes and fittings
 AS 2439 Perforated plastics drainage and effluent pipe and fittings
 AS 3688 Water supply - Copper and copper alloy body compression and capillary fittings and threaded-end connectors.
 AS 4056 Precast concrete pipes (pressure and non-pressure)
 Unless otherwise indicated, pipe work grades shall be:
 UPVC for stormwater, Class HD (AS 1254)
 Concrete shall be used for stormwater only
 Copper: Type D (AS 1432)

Include bends, tees, disconnecter gullies, junctions, inspection openings, and other fittings as required.
 Joining: Joining shall comply with the relevant codes.
 AS 1646 Elastomeric seals for waterworks purposes.
 AS/NZS 3879 Solvent cements and priming fluids for use with unplasticised PVC (UPVC) pipes and fittings.
 Verified clay and concrete pipes and fittings shall be joined with rubber ring joints.
 Use root growth inhibitor.

UPVC pipes and fittings shall be rubber ring jointed or solvent welded with contrasting colour dyes. Use pink cleaning agent and blue bonding agent to verify that the cleaning has taken place before bonding.

EXECUTION

Pipe laying: Comply with manufacturer's instructions and relevant codes.
 AS 2032 Code of practice for installation of UPVC pipe systems.
 AS 3725 Loads on buried concrete pipes.

Lay pipes to uniform gradients. In straight runs, with watertight joints and spot ends in the direction of flow. Use pipes in full lengths unless not otherwise practicable.
 Ensure that fittings, which require maintenance, are easily accessible. Keep drains clear of paths and at least 600 mm clear of walls where practicable.
 Bedding: Unless otherwise directed, drainage pipes, including bends and collars, shall be fully bedded on 75 mm of suitable sand or fine crushed rock. Do not back-fill until drains have been inspected, tested where required, and approved by the relevant authority and the superintendent.

UPVC pipes shall be covered with 100 mm of bedding material.
 Gradients: Lay pipes to the maximum gradients practicable in relation to site levels, required depth of cover and authority's requirements, but not less than:
 Type Diameter (mm) Grades (UPVC/Grades (Clay and Concrete))
 Storm water 1001 in 1001 in 801501 in 1501 in 1005Subsoil90-1501 in 3001 in 200

Storm water drains shall be sewer grade, minimum diameter 100 mm, except connections between collection pits may be 90 mm UPVC storm water pipe laid at minimum gradient of 1:80.
 Cover: For underground pipes ensure cover not less than: Type/h vehicle access/vehicle access/under pavement slabs
 Clay/200mm/450mm/300mm/Concrete/200mm/450mm 300mm/UPVC/300mm 600mm/450mm/When minimum cover is not practicable, encase that section of pipe in 150 mm thick 20 MPa concrete. Make adequate provision for expansion movement in pipe. Alternatively, use Class X reinforced concrete pipe with rubber ring joints for storm water only, or cast iron pipe where approved by the superintendent. No part of the pipe or pipe collars shall intrude into pavement base course.

Encased UPVC pipe: Where pipes pass through or are encased in concrete, include suitable bond-breaking collars or wrapping to enable free thermal movement or otherwise construct suitable expansion joints to pipework. Ensure sufficient space and wrapping around fittings. Wrapping type may include no less than 20 mm neoprene material.
 Inspection openings: Include inspection openings complete with purpose made covers at all bends and junctions and at 9000 mm intervals. On completion remove all debris and flush pipework completely clean. Hand over the work in a neat and tidy condition. Make good any adjacent roads, paths, landscaping, buildings and outside site boundaries were damaged or disturbed by drainage works.

STORMWATER DRAINAGE
 Generally: Install storm water pipes, surface drains, agricultural drains and drainage pits to approved discharge points. Include inspection pits and access covers as required.
SUBSOIL DRAINAGE
 Generally: Agricultural drains where indicated or required shall intercept groundwater seepage and prevent water build-up. Connect drains to storm water pits. Provide inspection openings at the upstream end of agricultural pipes as detailed.

Agricultural drain: Agricultural drain materials may include:
 Perforated plastic pipe: Type 1, Class 100 (Corrugated) (AS 2439).
 Slotted 100 mm diameter UPVC pipes.
 Other suitable proprietary products including geotextile drainage fabric.
 Installation: Lay pipes to suitable falls and surround with 150 mm layer of 20 mm crushed rock screenings.
 Back-fill with clean rubble to the underside of pavements, slabs, and top-soil filling.

GRADING
 All pavements to have a cross-fall of 1 in 100 with maximum longitudinal grade for all paths is to be greater than 1 in 20.
 Refer to proposed grading levels as shown.
 Ensure all paving surfaces finish flush with adjacent surfaces.
 Refer to details for individual dimensions of elements and required levels and elevations.

SETOUT
 Contractor to prepare a setout of all new works for approval prior to proceeding with new works.
 Refer to details for individual dimensions of elements
 Site setout to be reviewed by the Landscape Architect prior to commencement of works to confirm all locations are correct and fall zones are achieved.
 A AutoCAD file can be provided to assist with site set-out.

DRAFT ISSUE

CLIENT + CONSULTANTS:



ric
mconaghyp/
 P.O. Box 111, Hazelbrook NSW 2779
 Mobile: 0419 229 520 Email: r1c@ricm.com.au

Justin Staggard Pty Ltd

ALLA Registered Landscape Architect
 ABN: 61 618 841 479 P.O. Box 206 Baringong NSW 3567
 BALMAIN OFFICE Email: Justin.staggard@allalandscape.com
 Mob: 0488 742 850 Email: Justin.staggard@allalandscape.com

NOTES:
 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED
 2. DOWN SCALE FROM THE DRAWING.
 3. CONSTRUCTION DIMENSIONS ON SITE PRIOR TO PRIOR TO COMMENCEMENT OF ANY LANDSCAPE WORKS PLEASE CONTACT OUR LANDSCAPE CONSTRUCTION OFFICERS. THE CONTRACTOR MUST VERIFY ALL SERVICES ON SITE PRIOR TO ALL EXCAVATION WORKS.

LEGEND

| | |
|--|--|
| | EXISTING SPORT LEVELS |
| | EXISTING SITE CONTOURS (200MM INTERVALS) |
| | PROPOSED SPOT LEVELS |
| | DIMENSIONS (MM) |
| | UPVC PIPE DRAINAGE PIPE |
| | STORM WATER PIT / GRATED COVER |
| | G. HT |

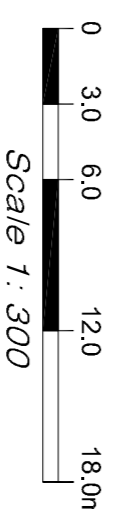
PROJECT:
 LAKE PILLANS WETLANDS ACCESSIBLE WALL
LOCATION: LITHGOW, NSW, 2790
DWG NAME:
 AREA 2 DETAIL PLAN

STATUS: FOR INFORMATION
DATE: 07.07.2023
SCALE: 1 : 200
BY/CHK: JS / -
SHEET: 6 / -

DWG NO.: L06
REV.: -

DRAFT ISSUE

AREA 3 PLAN



CLIENT + CONSULTANTS:

Lithgow City Council
LAKE PILLANS WETLANDS
Wetlands Lane, LITHGOW NSW 2790

ric mconaghyp/1
P.O. Box 111, Hazlebrook NSW 2779
Mobile: 0419 229 320 Email: r1@rm1.com.au

Justin Staggard Pty Ltd
ALLA Registered Landscape Architect
ABN: 81 618 841 479
BALLARAT OFFICE P.O. Box 206 Ballarong VIC 3587
Mob: 0488 742 850 Email: justin@staggard.com.au

LEGEND

- CONCRETE PEDESTRIAN PAVEMENT
- PEDESTRIAN PATHWAY HANDRAILS
- SANDSTONE LOG BOULDERS
- EXISTING TREES (NOT SURVEYED)
- FUTURE WAVYFINDING SIGNAGE (BY OTHERS)
- NEW WAVYFINDING SIGNAGE (BY OTHERS)

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. WORK SHALL BE DONE IN ACCORDANCE WITH THE 2019/2020 VOLUME 1 SPECIFICATIONS ON SITE PRIOR TO CONSTRUCTION.
3. PRIOR TO COMMENCEMENT OF ANY LANDSCAPE WORKS, PLEASE CONTACT COINCIS LANDSCAPE CONSTRUCTION OFFICERS. THE CONTRACTOR MUST VERIFY ALL SERVICES ON SITE PRIOR TO ALL EXCAVATION WORKS.

PROJECT:
LAKE PILLANS WETLANDS
ACCESSIBLE WALL
LOCATION: LITHGOW, NSW, 2790

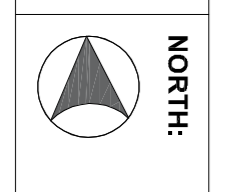
DWG NAME:
AREA 3 PLAN

STATUS: FOR INFORMATION

DATE: 07.07.2023
SCALE: 1:300
BY/CHK: JS
SHEET: 7 / -

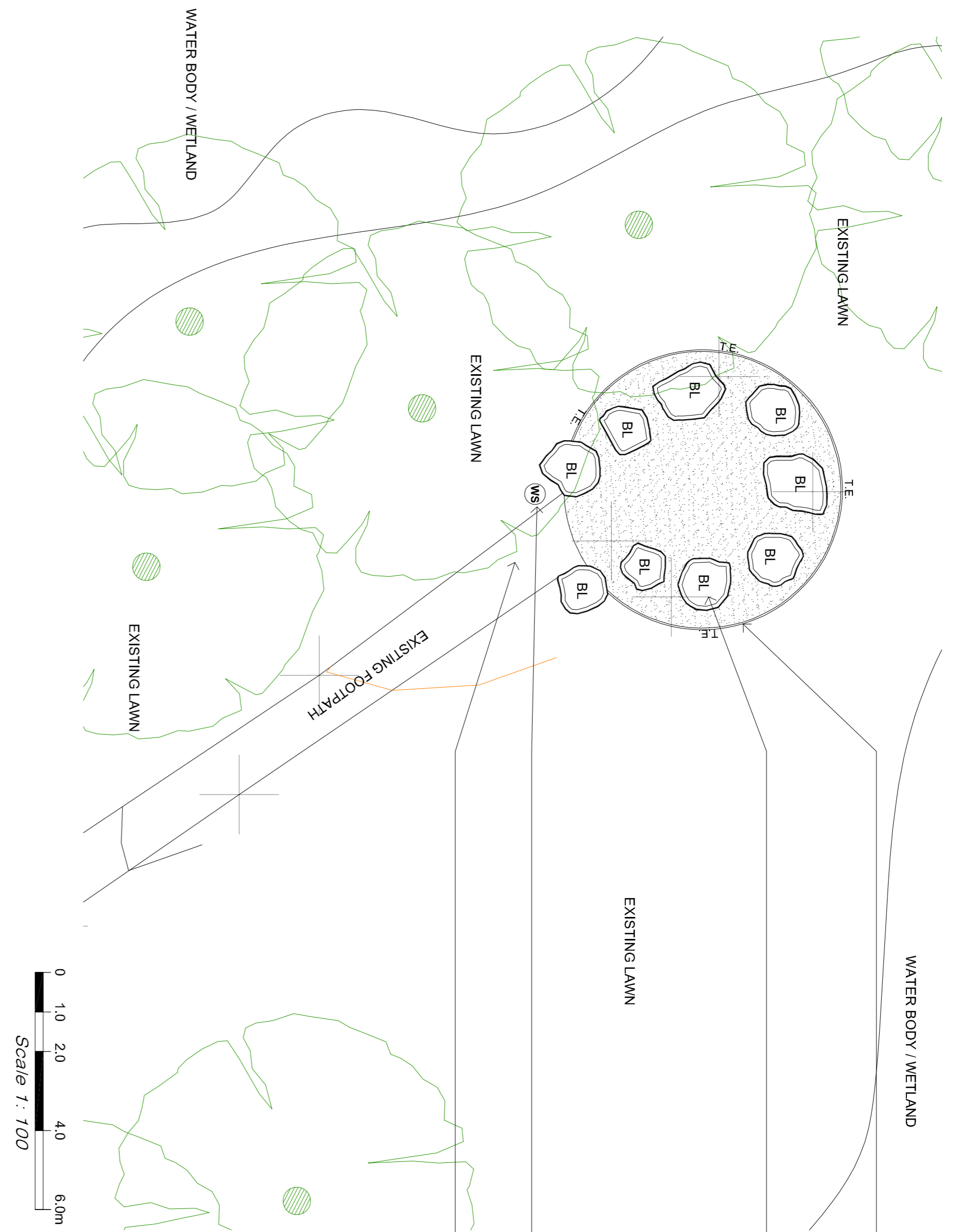
ISSUE NO: 01
DESCRIPTION: DRAFT ISSUE
DATE: JS 25/07/2023
CHK: JS
DATE:

DRAFT ISSUE
L07



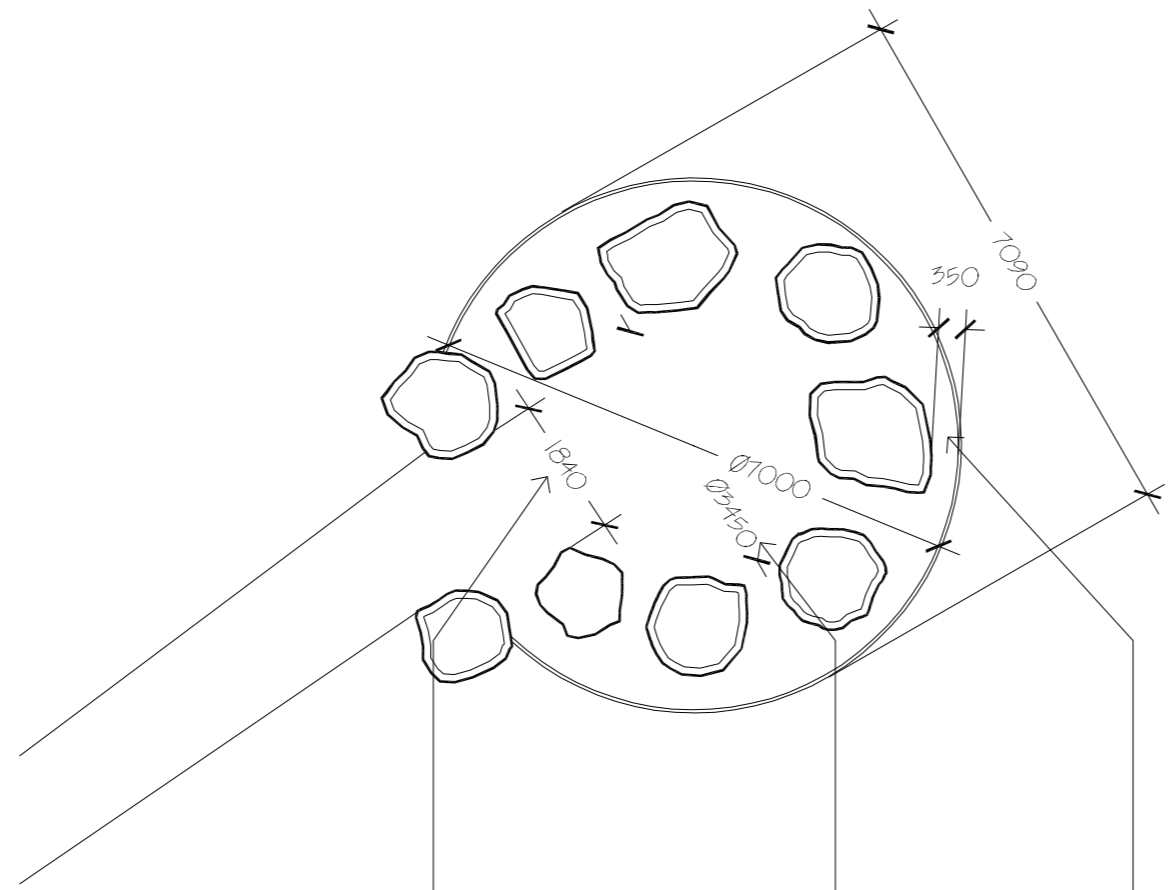
DWG NO: L07
REV:

AREA 4 PLAN

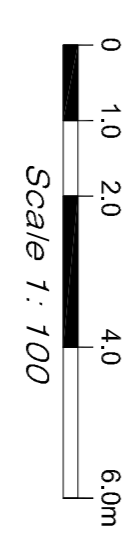


- GRAVEL CIRCLE WITH TIMBER EDGE TO CONTAIN THE GRAVEL SURFACE.
- RANDOM SHAPE SANDSTONE BOULDERS TO BE PLACED IN A CIRCULAR LAYOUT. REFER TO DETAILS.
- NEW WAYFINDING SIGN BY OTHERS AT LATER DATE.
- EXISTING CONCRETE PATH TO BE RETAINED AND NEW GRAVEL SURFACE TO BE FLUSH AND LEVEL WITH EXISTING PAVEMENT.

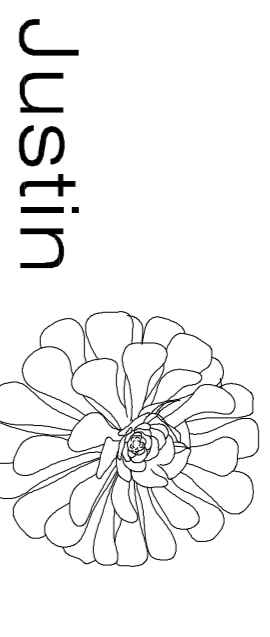
ALLOW THE SANDSTONE BOULDERS TO BE 350MM FROM THE TIMBER EDGE WITH GRAVEL TO ALLOW FOR MAINTENANCE ACCESS AND MOWING AROUND THE YARNING CIRCLE



SETOUT PLAN



CLIENT + CONSULTANTS:



ALLA Registered Landscape Architect
 ABN: 81 618 841 479 P.O. Box 206 Baringo VIC 3557
 BALLARAT OFFICE Mob: 0488 742 850 Email: just@staggard.com.au
 P.O. Box 111, Hazelbrook NSW 2719 Mobile: 0419 229 920 Email: jh@mjma.com.au

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
 2. UNDO SCALE FROM THIS DRAWING.
 3. VERIFY ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
 4. PRIOR TO COMMENCEMENT OF ANY LANDSCAPE WORKS, PLEASE CONTACT COINCIS LANDSCAPE CONSTRUCTION OFFICERS. THE CONTRACTOR MUST VERIFY ALL SERVICES ON SITE PRIOR TO ALL EXCAVATION WORKS.

LEGEND

| | |
|--|---------------------------------------|
| | NEW GRAVEL SURFACE |
| | TIMBER EDGE |
| | RANDOM SIZE SANDSTONE FLAT BOULDERS |
| | EXISTING TREES (NOT SURVEYED) |
| | FUTURE WAYFINDING SIGNAGE (BY OTHERS) |

01 - DRAFT ISSUE JS JS 25/07/2023
 ISSUE REQ DESCRIPTION DWN CHK DATE

PROJECT:
 LAKE PILLANS WETLANDS ACCESSIBLE WALL
LOCATION: LITHGOW, NSW, 2790

DWG NAME:
 AREA 4 PLAN

STATUS: FOR INFORMATION

DATE: 07.07.2023 **NORTH:**

SCALE: 1 : 100

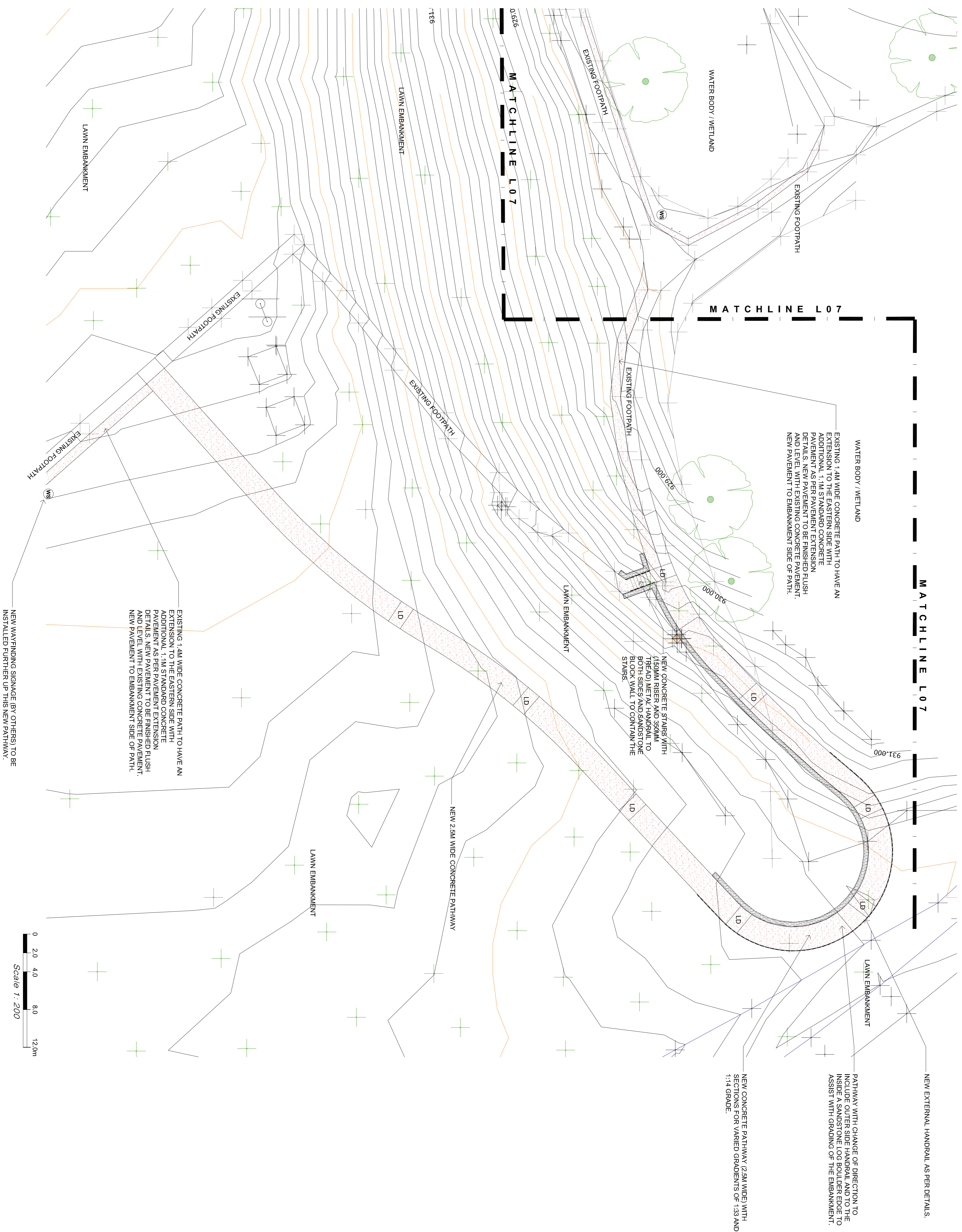
BY/CHK: JS / -

SHEET: 8 / -

DWG NO: L08 **REV:** -

DRAFT ISSUE

AREA 5 PLAN



| LEGEND | DESCRIPTION |
|--------|---|
| | CONCRETE PAVEMENT |
| | PEDESTRIAN PATHWAY HANDRAILS |
| | SANDSTONE LOG BOULDERS RETAINING WALL |
| | EXISTING TREES (NOT SURVEYED) |
| | CONCRETE STAIRS WITH HANDRAILS AND SANDSTONE LOG RETAINING WALL |
| | FUTURE WAYFINDING SIGNAGE (BY OTHERS) |
| | EXISTING CONCRETE PAVEMENT EXTENSION |
| | PATHWAY RAMP LANDING |

- NOTES:**
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
 - VERIFY ALL DIMENSIONS FROM THIS DRAWING.
 - VERIFY ALL DIMENSIONS ON SITE PRIOR TO CONSTRUCTION.
 - PRIOR TO COMMENCEMENT OF ANY LANDSCAPE WORKS, PLEASE CONTACT COINCIS. LANDSCAPE CONSTRUCTION OFFICERS. THE CONTRACTOR MUST VERIFY ALL SERVICES ON SITE PRIOR TO ALL EXCAVATION WORKS.

CLIENT + CONSULTANTS:

Lithgow City Council
 LAKE PILLANS WETLANDS
 Wetlands Lane, LITHGOW NSW 2790

ric mconaghyp/1
 P.O. Box 111, Hazlebrook NSW 2779
 Mobile: 0419 229 320 Email: r1@r1m.com.au

Justin Staggard Pty Ltd
 A/LA Registered Landscape Architect
 ABN: 61 618 841 479
 BALMAIN OFFICE P.O. Box 206 Balmain NSW 1535
 Mob: 0488 742 850 Email: justin@staggard.com.au

DRAFT ISSUE

DWG NO: **L09**

REV: **-**

PROJECT:
 LAKE PILLANS WETLANDS ACCESSIBLE WALL

LOCATION: LITHGOW, NSW, 2790

DWG NAME:
 AREA 5 PLAN

STATUS: FOR INFORMATION

DATE: 07.07.2023

SCALE: 1 : 200

BY/CHK: JS / -

SHEET: 9 / -

NORTH:

DATE: 25/07/2023

DWG CHK DATE: