



Legend

(a)	ABOVE
C	CLADDING TYPE
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
DP	DOWNPIPE
F	FRIDGE
FG	FIXED GLASS
LVR	LOUVRED GLASS
MR	METAL ROOF
PB	PLASTERBOARD
SG	SLIDING GLASS
SNK	SINK
STR	STORAGE
(u)	UNDER
VNL	VINYL

[illegible]

Site	Lot 4, 109-129 Kelso Street , Singleton, NSW 2330
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Project No. 18120-02-ACC-2010

Project Status	Development Application
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Drawn Checked	SH SH
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Plot Date _____

21.11.2024

Drawing Title

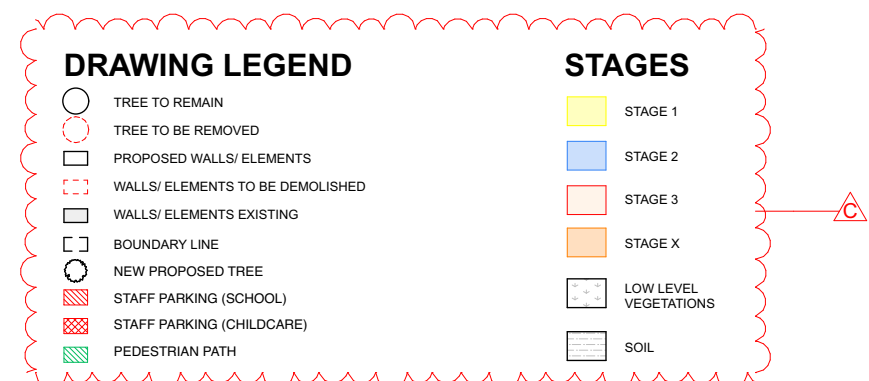
Cover Page and Site Plan

Demolition Site Plan

DA001

Drawing No.
Drawing Issue.

2



1 Site Plan Demolition

Scale 1:1000



Singleton Primary BGA

Legend	
(a)	ABOVE
C	CLADDING TYPE
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
DP	DOWNPIPE
F	FRIDGE
FG	FIXED GLASS
LVR	LOUVRED GLASS
MR	METAL ROOF
PB	PLASTERBOARD
SG	SLIDING GLASS
SNK	SINK
STR	STORAGE
(u)	UNDER
VNL	VINYL

Rev	Description	Date
A	Carspace & tree amendment	20/5/2024
B, C, D, E	Carpark allocations, additional landscape and pedestrian paths, Staging revised, A/C Plant relocated, Site sections added	31/10/2024
F	Staff car parking rearranged	21/11/2024

Site Lot 4, 109-129 Kelso Street, Singleton, NSW 2330

Project No. 18120-02-ACC-2010

Project Status Development Application

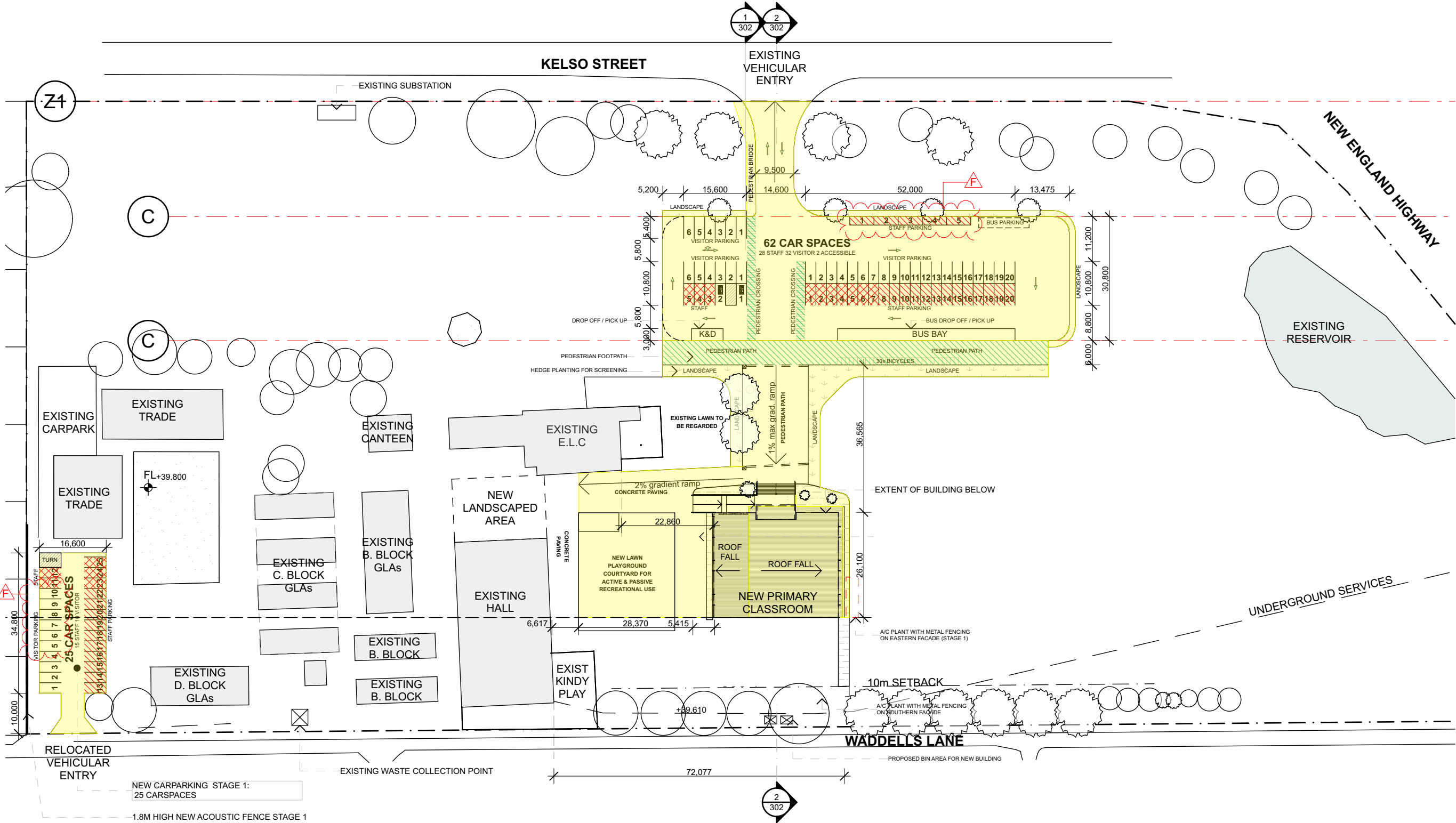
Drawn I Checked SH I SH

Plot Date
21.11.2024

Drawing Title
Cover Page and Site Plan
Proposed Site
Plan Stage 1

DA002

Drawing No. 03
Drawing Issue.



1 Site Plan Stage 1

Scale 1:1000@A3

DRAWING LEGEND

- TREE TO REMAIN
- TREE TO BE REMOVED
- PROPOSED WALLS/ ELEMENTS
- WALLS/ ELEMENTS TO BE DEMOLISHED
- WALLS/ ELEMENTS EXISTING
- BOUNDARY LINE
- NEW PROPOSED TREE
- STAFF PARKING (SCHOOL)
- STAFF PARKING (CHILDCARE)
- PEDESTRIAN PATH

STAGES

- STAGE 1
- STAGE 2
- STAGE 3
- STAGE X
- LOW LEVEL VEGETATIONS
- SOIL



Singleton
Primary
BGA

Legend	
(a)	ABOVE
C	CLADDING TYPE
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
DP	DOWNPIPE
F	FRIDGE
FG	FIXED GLASS
LVR	LOUVRED GLASS
MR	METAL ROOF
PB	PLASTERBOARD
SG	SLIDING GLASS
SNK	SINK
STR	STORAGE
(u)	UNDER
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Site Lot 4, 109-129 Kelso Street, Singleton, NSW 2330

Project No. 18120-02-ACC-2010

Project Status Development Application

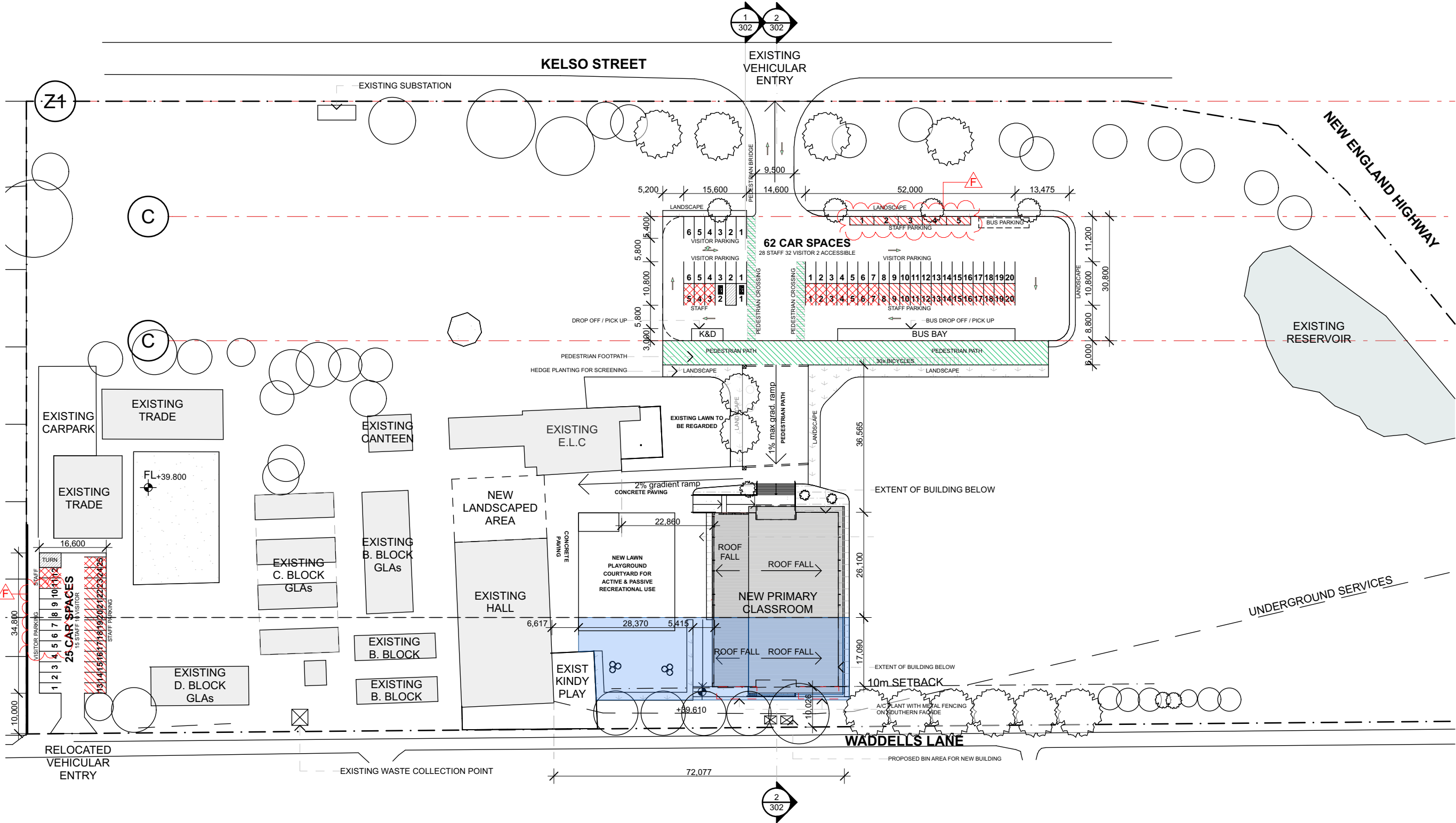
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Plot Date
21.11.2024

Drawing Title
Cover Page and Site Plan
Proposed Site
Plan Stage 2

DA003

Drawing No.
Drawing Issue. 03



1 Site Plan Stage 2
Scale 1:1000@A3

DRAWING LEGEND

- TREE TO REMAIN
- TREE TO BE REMOVED
- PROPOSED WALLS/ ELEMENTS
- WALLS/ ELEMENTS TO BE DEMOLISHED
- WALLS/ ELEMENTS EXISTING
- BOUNDARY LINE
- NEW PROPOSED TREE
- STAFF PARKING (SCHOOL)
- STAFF PARKING (CHILDCARE)
- PEDESTRIAN PATH

STAGES

- STAGE 1
- STAGE 2
- STAGE 3
- STAGE X
- LOW LEVEL VEGETATIONS
- SOIL



Singleton
Primary
BGA

Legend	
(a)	ABOVE
C	CLADDING TYPE
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
DP	DOWNPIPE
F	FRIDGE
FG	FIXED GLASS
LVR	LOUVRED GLASS
MR	METAL ROOF
PB	PLASTERBOARD
SG	SLIDING GLASS
SNK	SINK
STR	STORAGE
(u)	UNDER
VNL	VINYL

Rev	Description	Date
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F	Staff car parking rearranged	21/11/2024

Site Lot 4, 109-129 Kelso Street, Singleton, NSW 2330

Project No. 18120-02-ACC-2010

Project Status Development Application

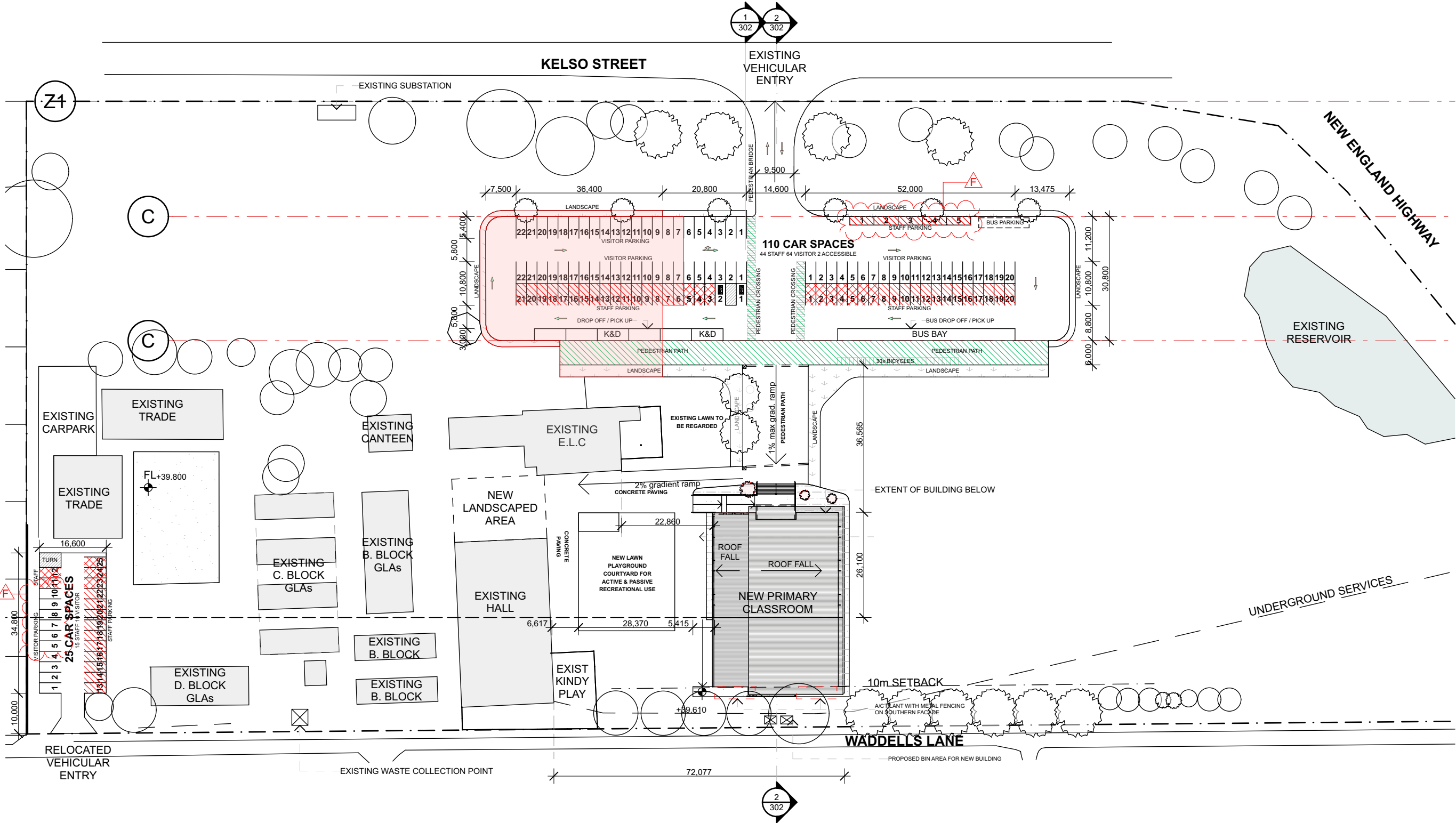
Drawn I Checked SH I SH

Plot Date
21.11.2024

Drawing Title
Cover Page and Site Plan
Proposed Site
Plan Stage 3

DA004

Drawing No. 03
Drawing Issue.



1 Site Plan Stage 3
Scale 1:1000@A3

DRAWING LEGEND

- TREE TO REMAIN
- TREE TO BE REMOVED
- PROPOSED WALLS/ ELEMENTS
- WALLS/ ELEMENTS TO BE DEMOLISHED
- WALLS/ ELEMENTS EXISTING
- BOUNDARY LINE
- NEW PROPOSED TREE
- STAFF PARKING (SCHOOL)
- STAFF PARKING (CHILDCARE)
- PEDESTRIAN PATH

STAGES

- STAGE 1
- STAGE 2
- STAGE 3
- STAGE X
- LOW LEVEL VEGETATIONS
- SOIL



Singleton
Primary
BGA

Legend	
(a)	ABOVE
C	CLADDING TYPE
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
DP	DOWNPIPE
F	FRIDGE
FG	FIXED GLASS
LVR	LOUVRED GLASS
MR	METAL ROOF
PB	PLASTERBOARD
SG	SLIDING GLASS
SNK	SINK
STR	STORAGE
(u)	UNDER
VNL	VINYL

Rev	Description	Date
A	Carspace & tree amendment	20/5/2024
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F	Staff car parking rearranged	21/11/2024

Site Lot 4, 109-129 Kelso Street, Singleton, NSW 2330

Project No. 18120-02-ACC-2010

Project Status Development Application

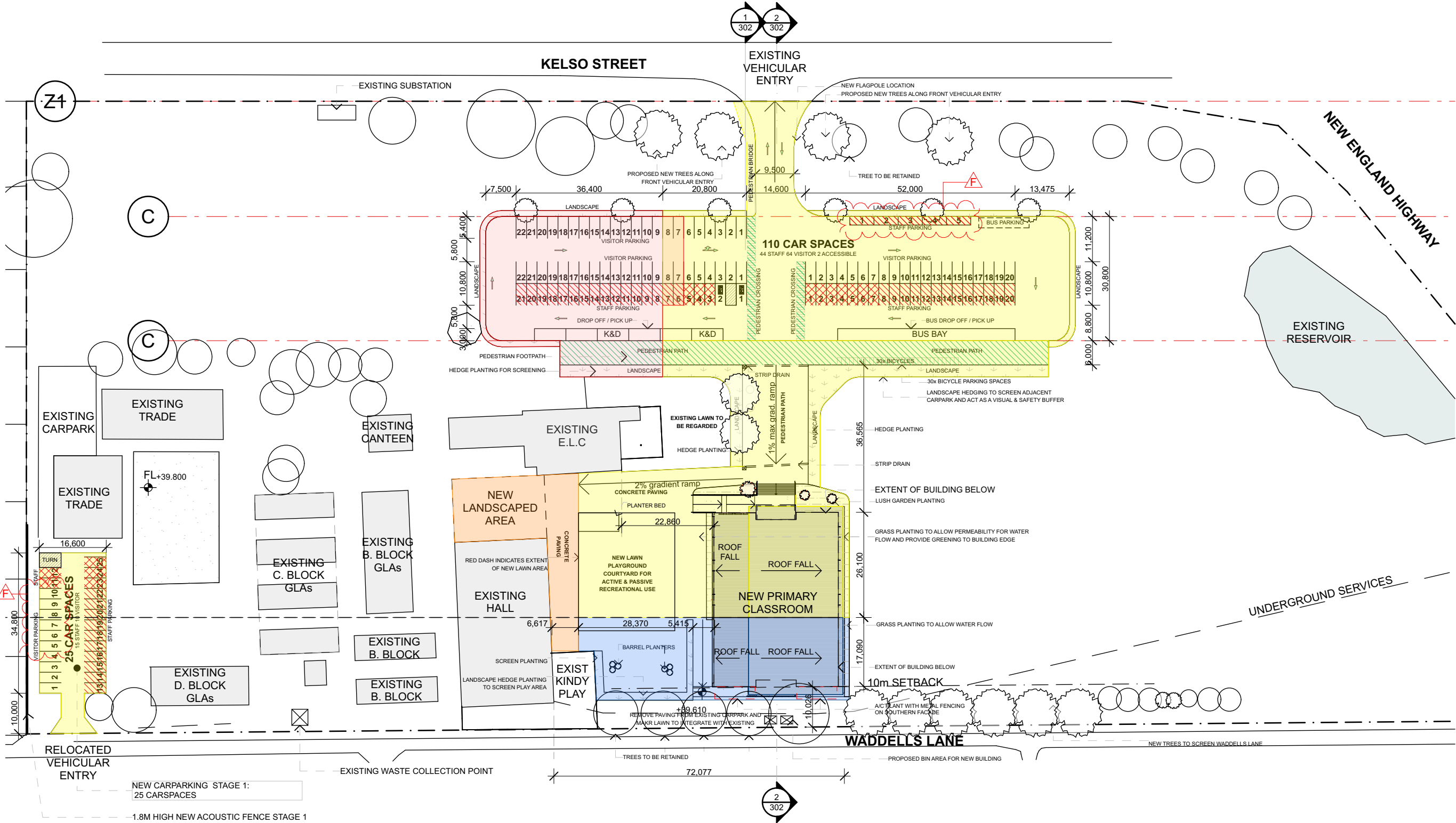
Drawn I Checked SH I SH

Plot Date
21.11.2024

Drawing Title
Cover Page and Site Plan
Proposed
Staged Site Plan

DA005

Drawing No. Drawing Issue. 03



1 Staged Site Plan
Scale 1:1000@A3

NOTE: FOR LANDSCAPE
DETAILS, REFER TO LANDSCAPE
CONSULTANT DRAWINGS

DRAWING LEGEND

- TREE TO REMAIN
- TREE TO BE REMOVED
- PROPOSED WALLS/ ELEMENTS
- WALLS/ ELEMENTS TO BE DEMOLISHED
- WALLS/ ELEMENTS EXISTING
- BOUNDARY LINE
- NEW PROPOSED TREE
- STAFF PARKING (SCHOOL)
- STAFF PARKING (CHILDCARE)
- PEDESTRIAN PATH

FILL LEGEND

- STAGE 1
- STAGE 2
- STAGE 3
- STAGE X
- LOW LEVEL VEGETATIONS
- SOIL



Singleton
Primary
BGA

Legend	
(a)	ABOVE
C	CLADDING TYPE
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
DP	DOWNPIPE
F	FRIDGE
FG	FIXED GLASS
LVR	LOUVRED GLASS
MR	METAL ROOF
PB	PLASTERBOARD
SG	SLIDING GLASS
SNK	SINK
STR	STORAGE
(u)	UNDER
VNL	VINYL

Rev	Description	Date
		31/10/2024
F	Staff car parking rearranged	21/11/2024

Site Lot 4, 109-129 Kelso Street, Singleton, NSW 2330

Project No. 18120-02-ACC-2010

Project Status Development Application

Drawn I Checked SH I SH

Plot Date

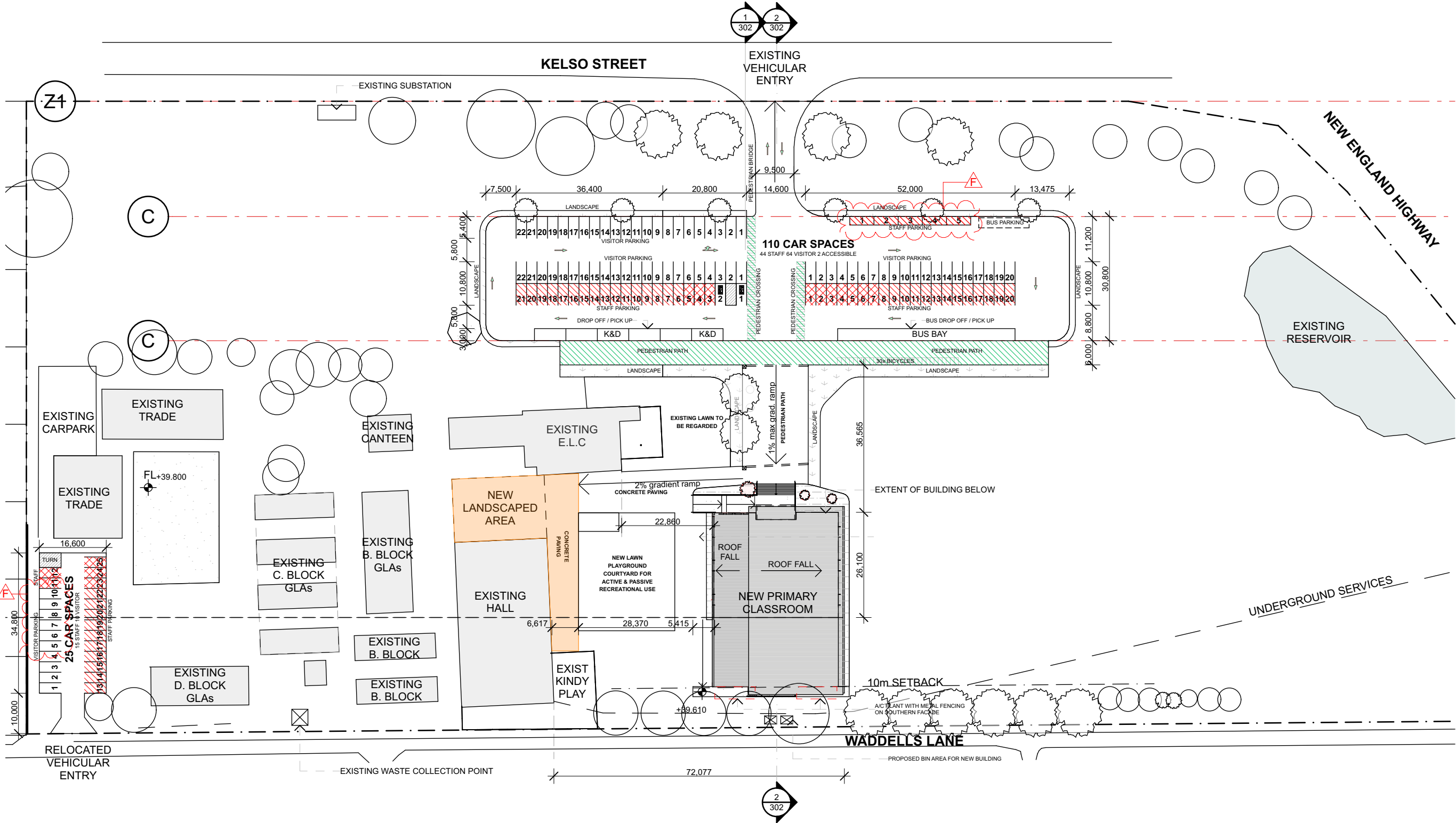
21.11.2024

Drawing Title

Cover Page and Site Plan
Proposed Site
Plan Stage X

DA006

Drawing No. Drawing Issue. 02



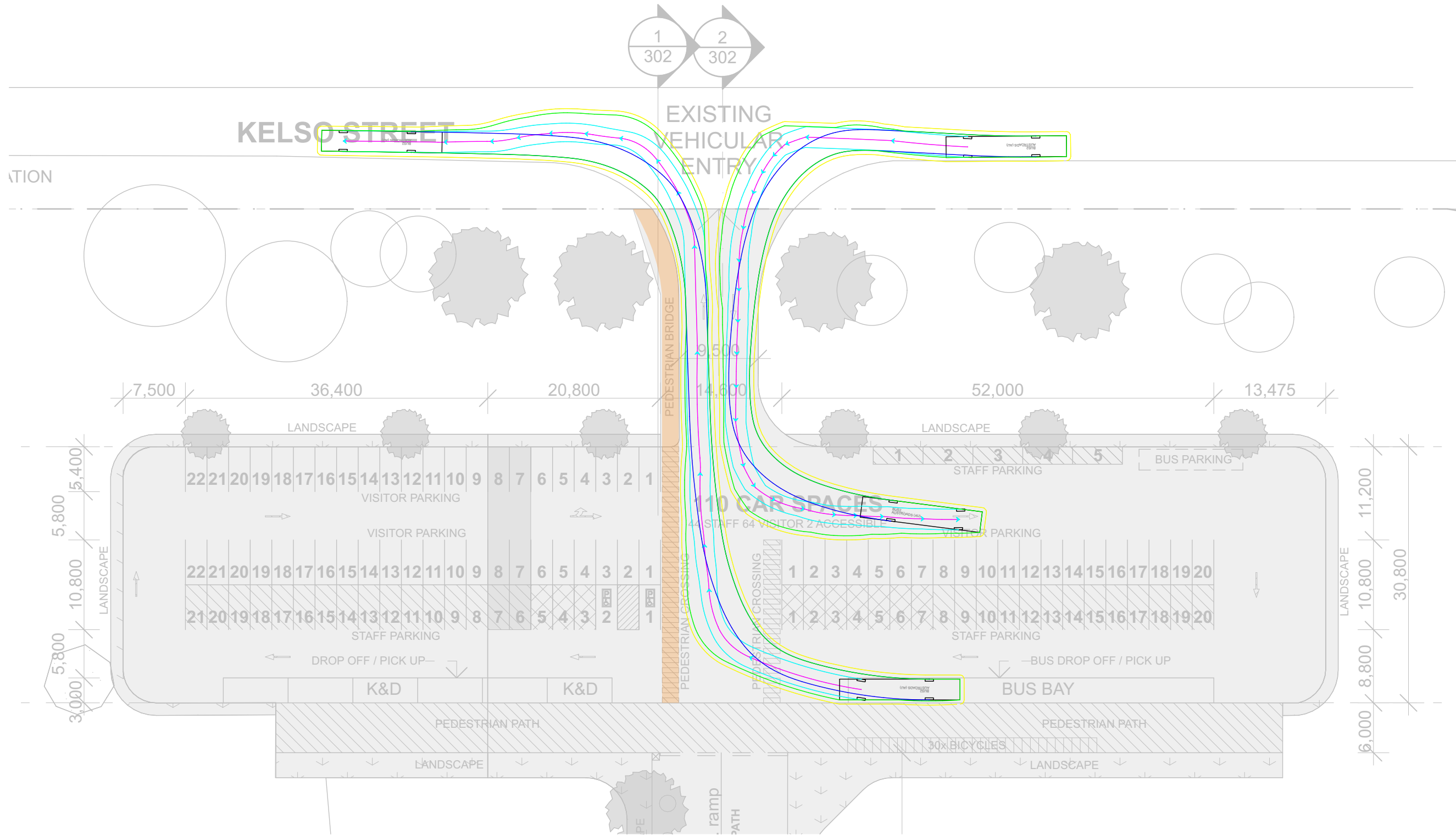
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Scale 1:1000@A3

DRAWING LEGEND

- TREE TO REMAIN
- TREE TO BE REMOVED
- PROPOSED WALLS/ ELEMENTS
- WALLS/ ELEMENTS TO BE DEMOLISHED
- WALLS/ ELEMENTS EXISTING
- BOUNDARY LINE
- NEW PROPOSED TREE
- STAFF PARKING (SCHOOL)
- STAFF PARKING (CHILDCARE)
- PEDESTRIAN PATH

STAGES

- STAGE 1
- STAGE 2
- STAGE 3
- STAGE X
- LOW LEVEL VEGETATIONS
- SOIL



Singleton Primary BGA

Legend

- | | |
|------|---------------|
| (a) | ABOVE |
| C | CLADDING TYPE |
| COL | COLUMN |
| CONC | CONCRETE |
| CPT | CARPET |
| CT | CERAMIC TILE |
| DP | DOWNPIPE |
| F | FRIDGE |
| FG | FIXED GLASS |
| LVR | LOUVRED GLASS |
| MR | METAL ROOF |
| PB | PLASTERBOARD |
| SG | SLIDING GLASS |
| SNK | SINK |
| STR | STORAGE |
| (u) | UNDER |
| VNL | VINYL |

Rev	Description	Date
		21/11/2024

Site Lot 4, 109-129 Kelso Street ,
Singleton, NSW 2330

Project No. 18120-02-ACC-2010

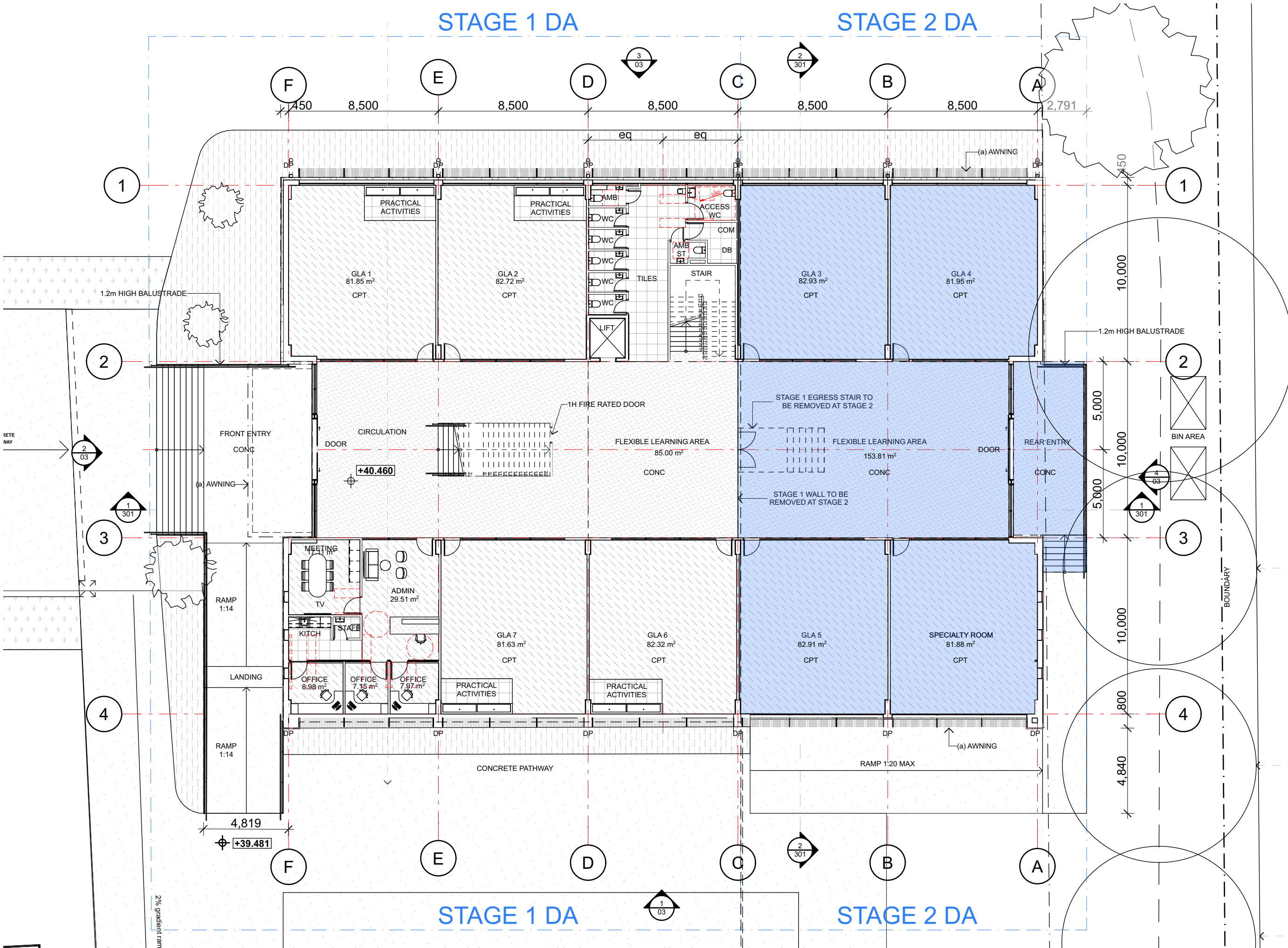
Project Status Development Application

Drawn I Checked SH I
SH

Plot Date
21.11.2024

Drawing Title
Cover Page and Site Plan
Pedestrian &
Vehicle
Movement Plan

DA007



C E M

CHRISTIAN
EDUCATION
MINISTRIES

Singleton Primary
BGA

Legend

(a)

ABOVE

C

CLADDING TYPE

COL

COLUMN

CONC

CONCRETE

CPT

CARPET

CT

CERAMIC TILE

DP

DOWNPIPE

F

FRIDGE

FG

FIXED GLASS

LVR

LOUVRED GLASS

MR

METAL ROOF

PB

PLASTERBOARD

SG

SLIDING GLASS

SNK

SINK

STR

STORAGE

(u)

UNDER

VNL

VINYL

Rev	Description	Date
A	Carspace & tree amendment	20/5/2024

Site

Lot 4, 109-129 Kelso Street ,
Singleton, NSW 2330

Project No.

18120-02-ACC-2010

Project Status

Development Application

Drawn I

Checked

SH I

SH

Plot Date

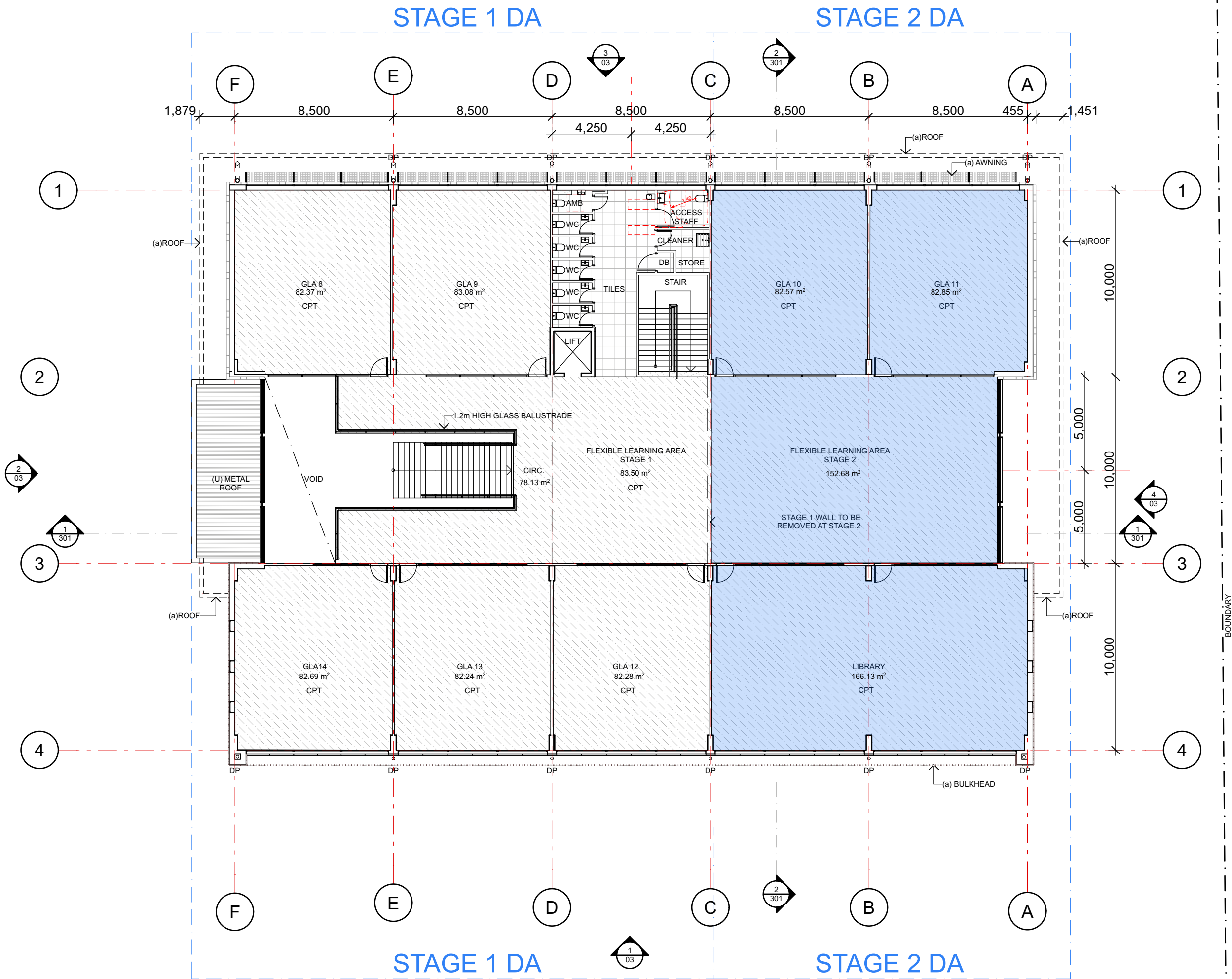
21.05.2024

Drawing Title

General Arrangement
Ground Floor
Plan

DA100

Drawing No.



C E M

CHRISTIAN
EDUCATION
MINISTRIES

Singleton Primary
BGA

Legend

(a)

ABOVE

C

CLADDING TYPE

COL

COLUMN

CONC

CONCRETE

CPT

CARPET

CT

DP

DOWNPIPE

F

FG

FIXED GLASS

LVR

LOUVRED GLASS

MR

METAL ROOF

PB

PLASTERBOARD

SG

SLIDING GLASS

SNK

SINK

STR

STORAGE

(u)

UNDER

VNL

VINYL

Rev	Description	Date
A	Carspace & tree amendment	20/5/2024

Site

Lot 4, 109-129 Kelso Street,
Singleton, NSW 2330

Project No.

18120-02-ACC-2010

Project Status

Development Application

Drawn I

Checked

SH I

SH

Plot Date

21.05.2024

Drawing Title

General Arrangement
First Floor Plan

DA101

Drawing No.



Singleton Primary
BGA

Legend

(a)	ABOVE
C	CLADDING TYPE
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
DP	DOWNPIPE
F	FRIDGE
FG	FIXED GLASS
LVR	LOUVRED GLASS
MR	METAL ROOF
PB	PLASTERBOARD
SG	SLIDING GLASS
SNK	SINK
STR	STORAGE
(u)	UNDER
VNL	VINYL

Rev	Description	Date
A	Carspace & tree amendment	20/5/2024

Site *Lot 4, 109-129 Kelso Street ,
Singleton, NSW 2330*

Project No. *18120-02-ACC-2010*

Project Status *Development Application*

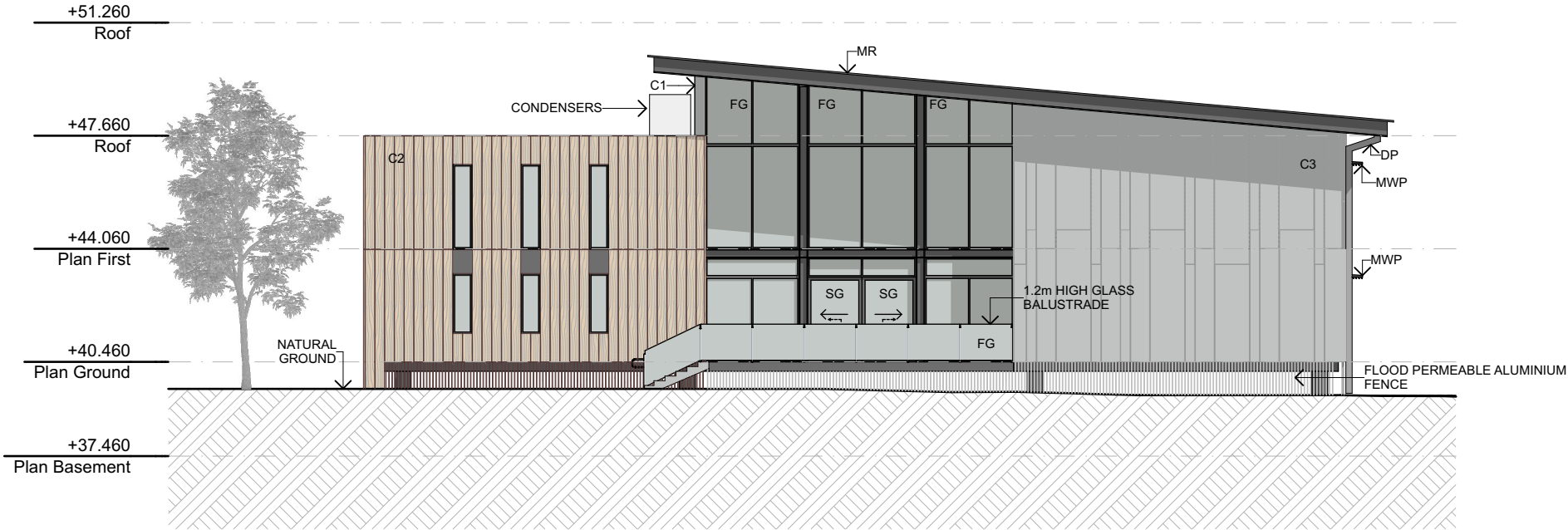
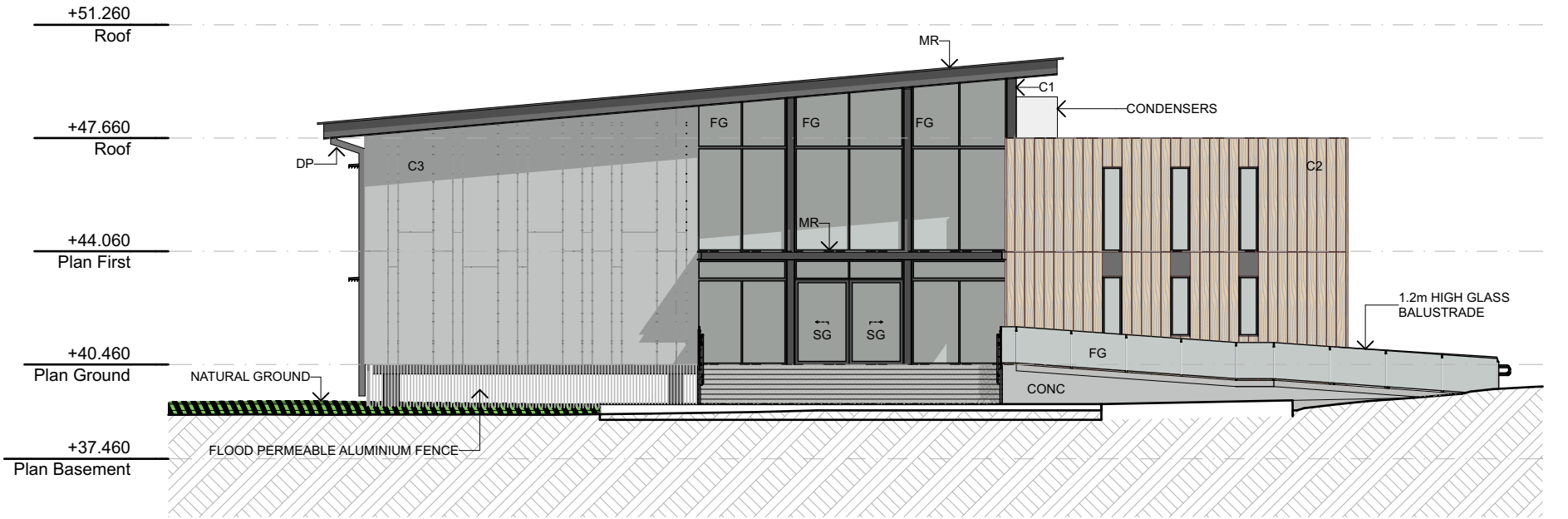
Drawn I Checked *SH I
SH*

Plot Date
21.05.2024

Drawing Title
Elevations

DA200

Drawing No.





Singleton Primary
BGA

Legend

(a)	ABOVE
C	CLADDING TYPE
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
DP	DOWNPIPE
F	FRIDGE
FG	FIXED GLASS
LVR	LOUVRED GLASS
MR	METAL ROOF
PB	PLASTERBOARD
SG	SLIDING GLASS
SNK	SINK
STR	STORAGE
(u)	UNDER
VNL	VINYL

Rev	Description	Date
A	Carspace & tree amendment	20/5/2024

Site Lot 4, 109-129 Kelso Street, Singleton, NSW 2330

Project No. 18120-02-ACC-2010

Project Status Development Application

Drawn I Checked SH I SH

Plot Date 21.05.2024

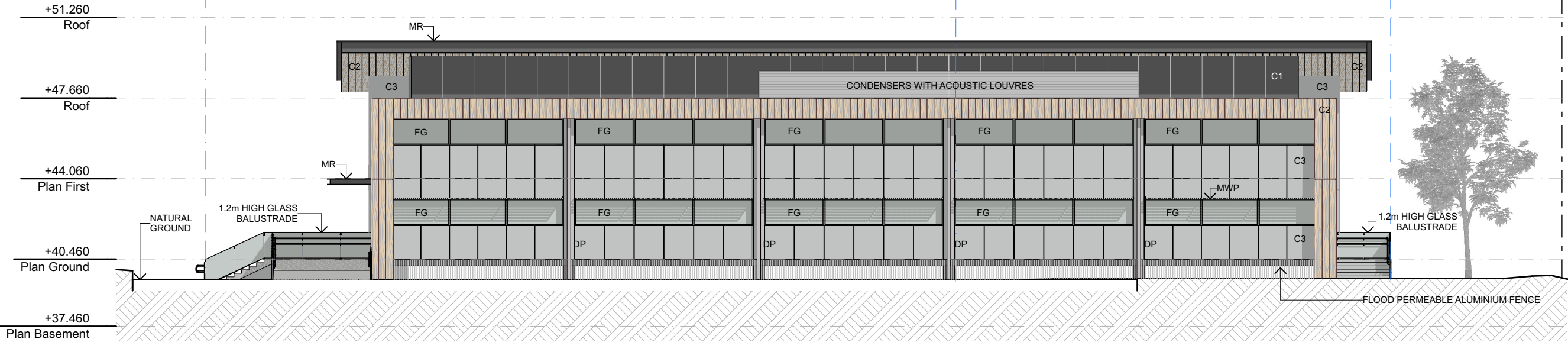
Drawing Title Elevations
Elevations

DA201

Drawing No.

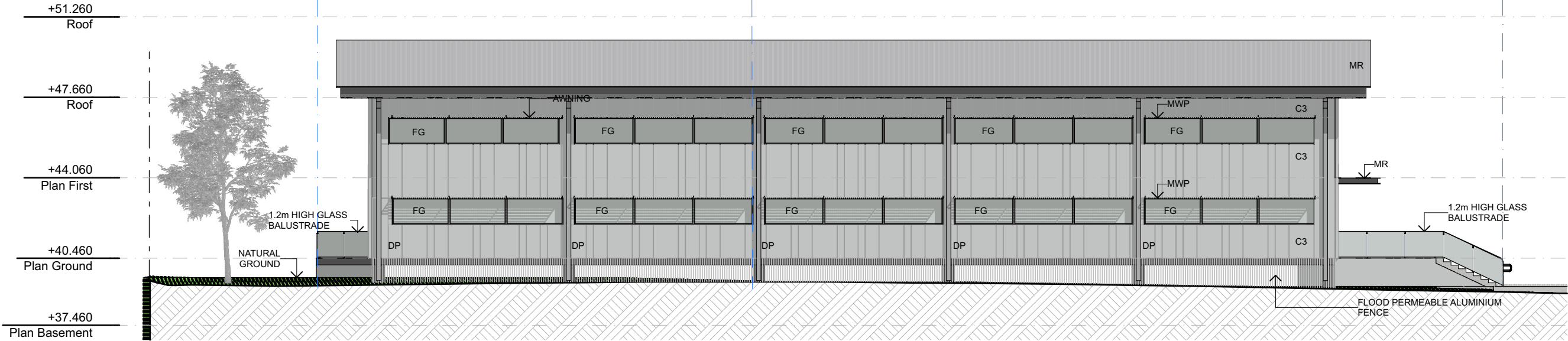
STAGE 1 DA

STAGE 2 DA



STAGE 2 DA

STAGE 1 DA





Singleton Primary
BGA

Legend

(a)	ABOVE
C	CLADDING TYPE
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
DP	DOWNPIPE
F	FRIDGE
FG	FIXED GLASS
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SNK	SINK
STR	STORAGE
(u)	UNDER
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Rev	Description	Date
A	Carspace & tree amendment	20/5/2024

Site Lot 4, 109-129 Kelso Street ,
Singleton, NSW 2330

Project No. 18120-02-ACC-2010

Project Status Development Application

Drawn I Checked SH I
SH

Plot Date
21.05.2024

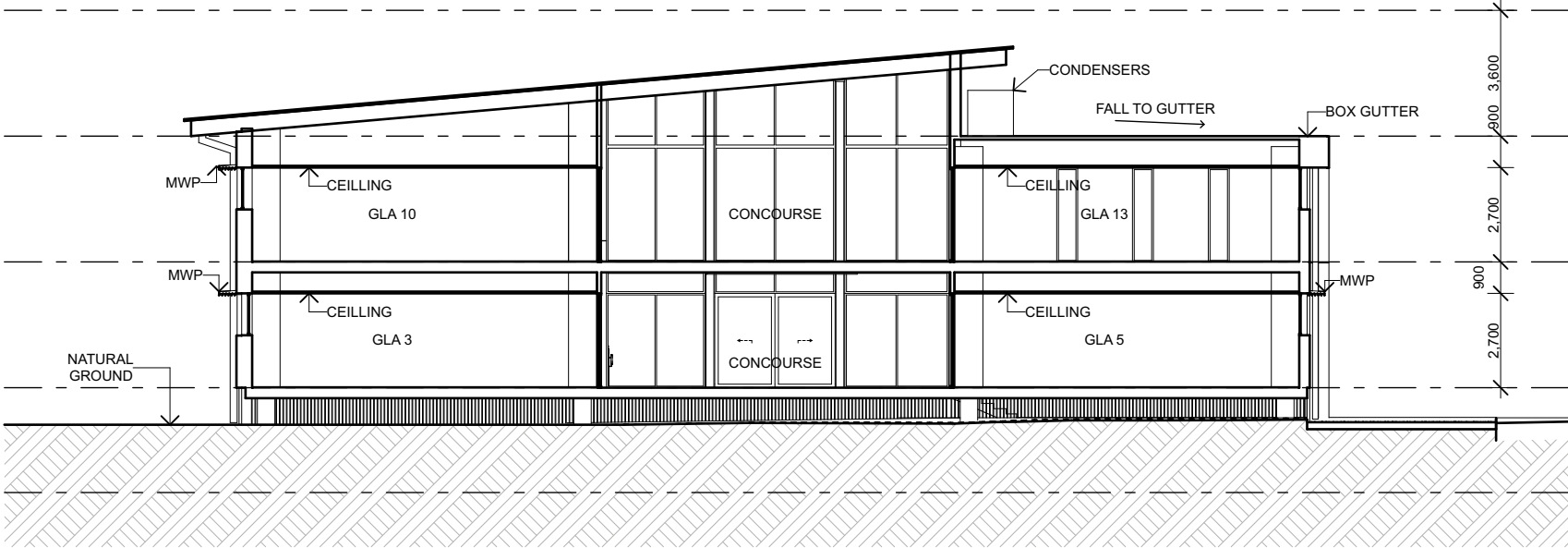
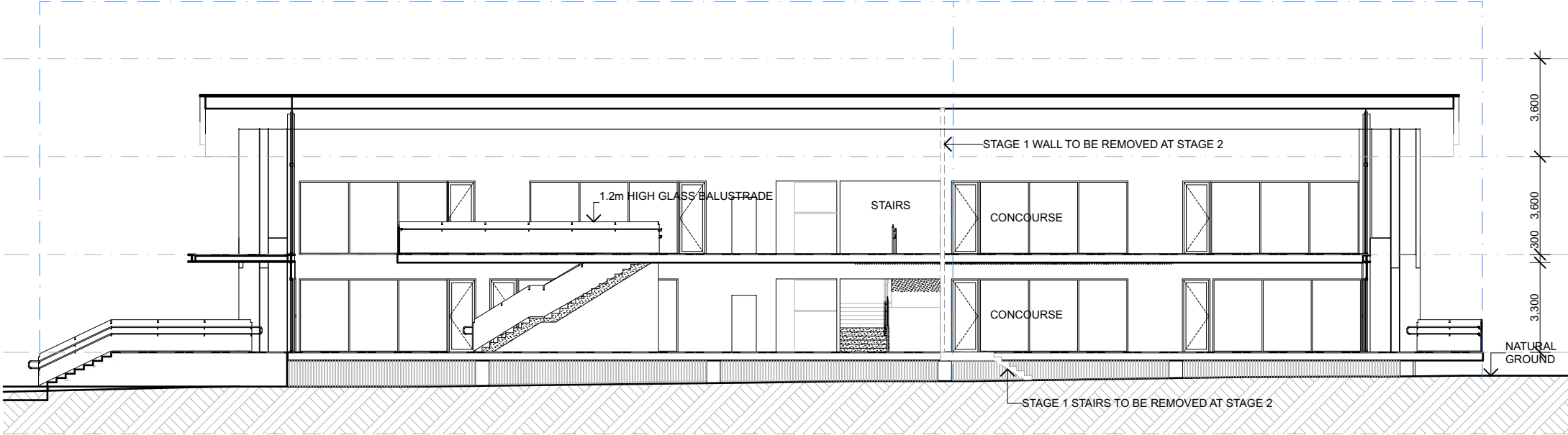
Drawing Title
Sections
Sections

DA301

Drawing No.

STAGE 1 DA

STAGE 2 DA



Singleton
Primary
BGA

Legend	
(a)	ABOVE
C	CLADDING TYPE
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
DP	DOWNPIPE
F	FRIDGE
FG	FIXED GLASS
LVR	LOUVRED GLASS
MR	METAL ROOF
PB	PLASTERBOARD
SG	SLIDING GLASS
SNK	SINK
STR	STORAGE
(u)	UNDER
VNL	VINYL

Rev	Description	Date
		31/10/2024

SiteLot 4, 109-129 Kelso Street ,
Singleton, NSW 2330

Project No.18120-02-ACC-2010

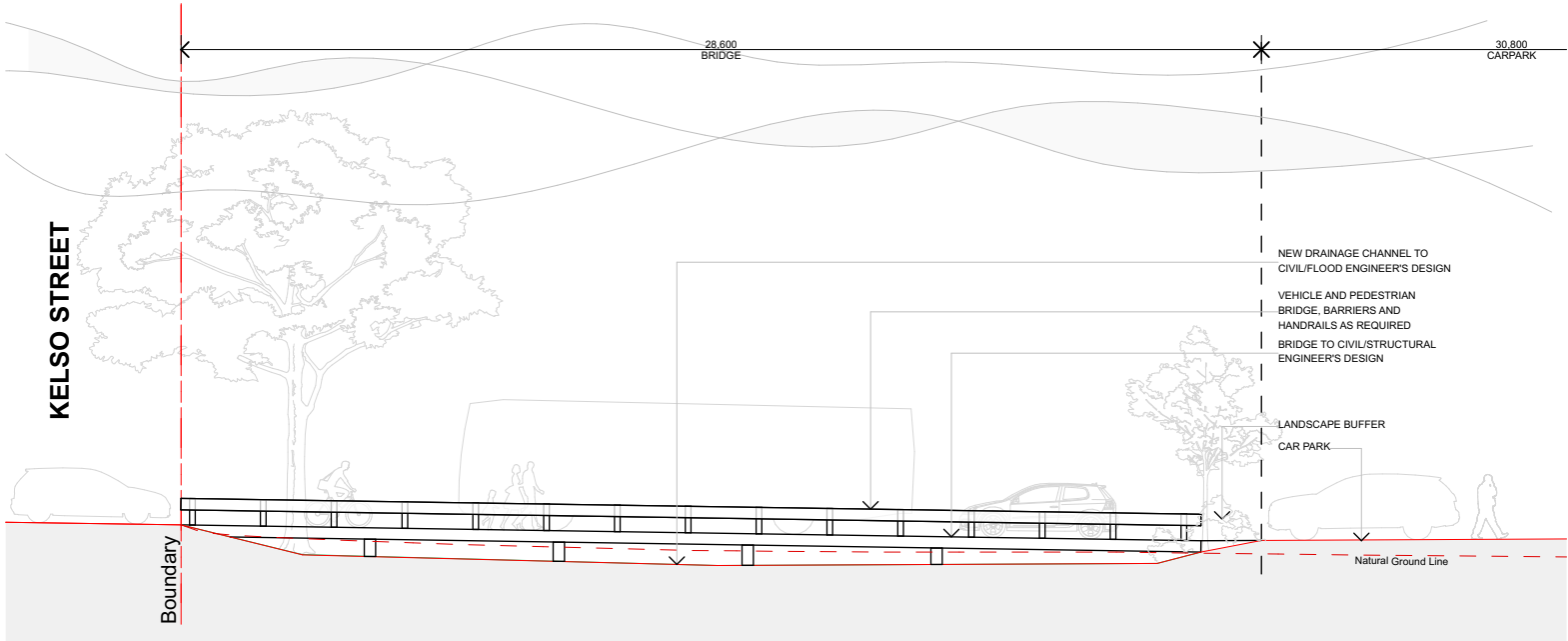
Project StatusDevelopment Application

Drawn I CheckedSH I
SH

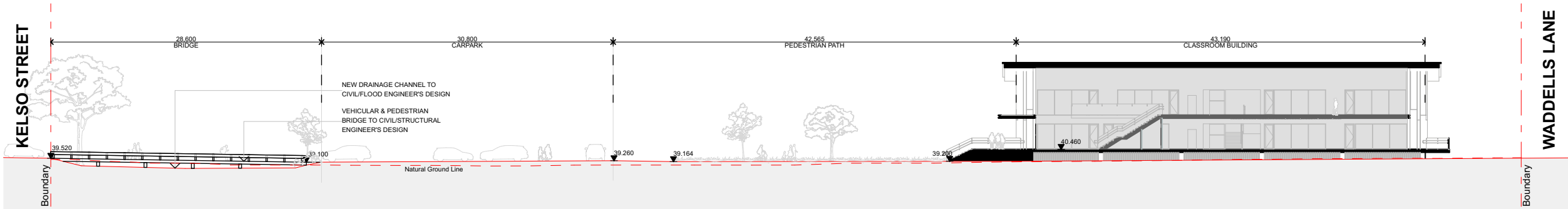
Plot Date
31.10.2024

Drawing Title
Sections
Site Sections

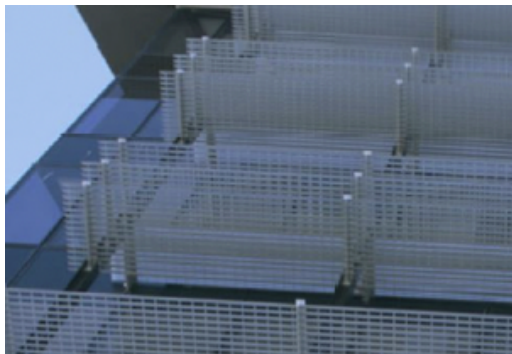
DA302



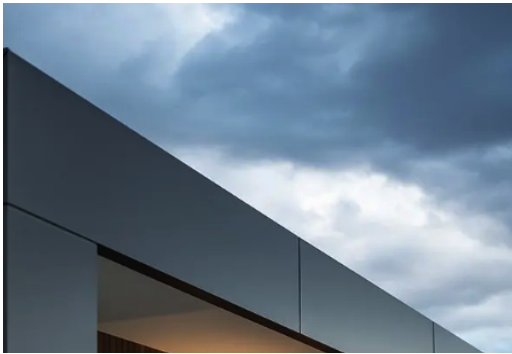
1 Section C (Bridge)
Scale 1:200



2 Section D (Site)
Scale 1:500



1
MESH WINDOW PROTECTION
MWP



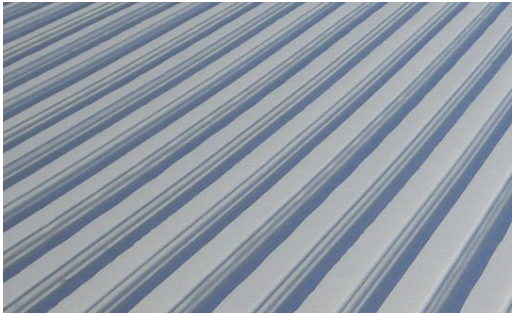
2
METAL CLADDING TYPE 1
C1



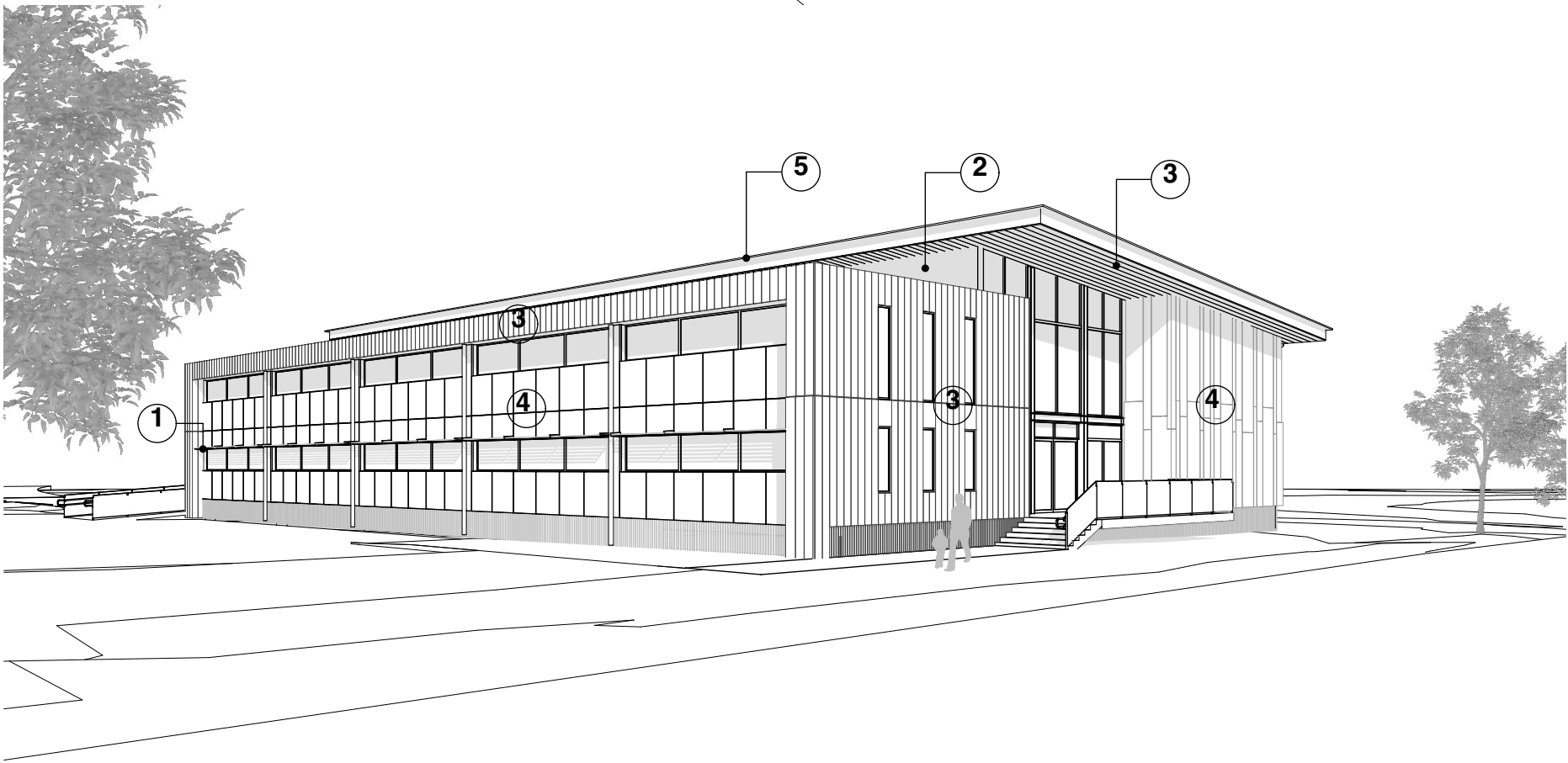
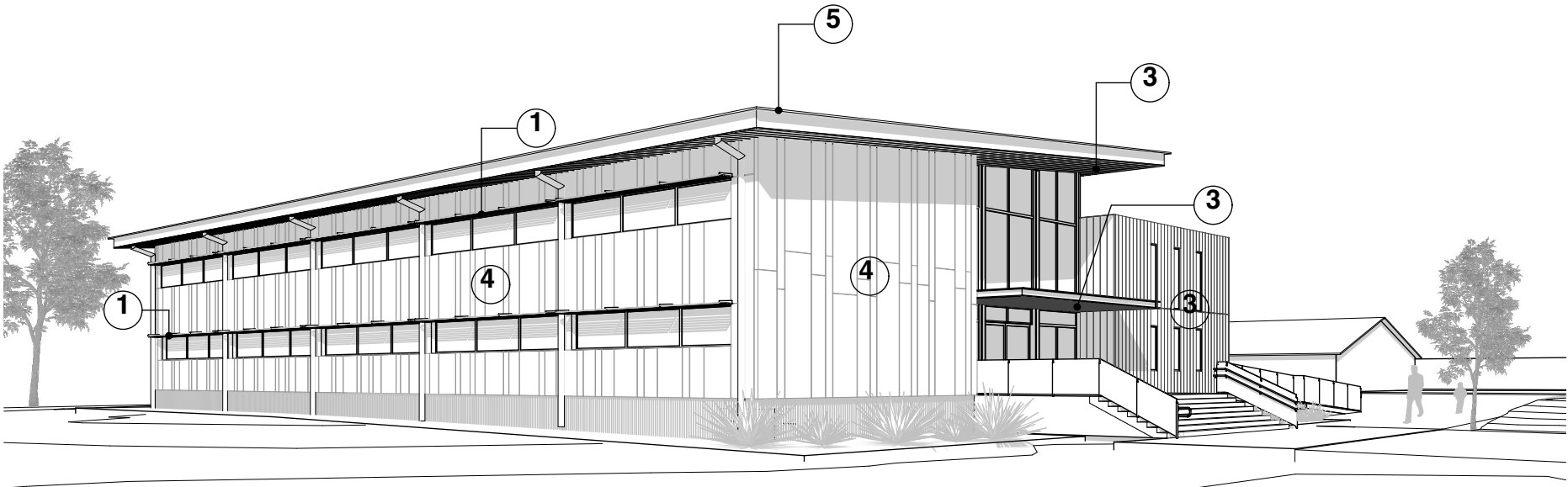
3
METAL CLADDING TYPE 2
C2



4
COMPRESSED FIBRE CEMENT
CLADDING TYPE 3 WITH POWDER
COATED WINDOW FRAME
C3



5
COLOURBOND METAL ROOFING
MR



CHRISTIAN
EDUCATION
MINISTRIES

Singleton Primary BGA

Legend

(a)	ABOVE
C	CLADDING TYPE
COL	COLUMN
CONC	CONCRETE
CPT	CARPET
CT	CERAMIC TILE
DP	DOWNPIPE
F	FRIDGE
FG	FIXED GLASS
LVR	LOUVRED GLASS
MR	METAL ROOF
PB	PLASTERBOARD
SG	SLIDING GLASS
SNK	SINK
STR	STORAGE
(u)	UNDER
VNL	VINYL

Rev	Description	Date
A	Carspace & tree amendment	20/5/2024

Site **Lot 4, 109-129 Kelso Street ,
Singleton, NSW 2330**

Project No. **18120-02-ACC-2010**

Project Status **Development Application**

Drawn I Checked **SH I
SH**

Plot Date
21.05.2024

Drawing Title
**Materials
Materials Palette**

DA400

Drawing No.



BULK EXCAVATION NOTES:

GENERAL NOTES:

- B1. All work shall be carried out in accordance with RTA and the Council's standard specifications and Auspec 1 to the requirements of council's engineer. Where discrepancies exist between the authorities specifications adopt the more severe and refer to engineer for approval.
- B2. Inspections shall be carried out at the following stages:
a) prior to installation of erosion and sediment control structures.
b) prior to backfilling pipelines, subsoil drains and dams.
c) prior to casting of pits and other concrete structures, including kerb and gutter.
d) proof roller test of sub-grade and sub base.
e) roller test of completed pavement prior to placement of wearing course.
f) formwork prior to pouring concrete in parking area, footpath crossing and other associated works.
g) prior to backfilling public utility crossings in road reserve.
h) prior to placement of asphaltic concrete.
i) final inspections after all works are completed and 'as-built' plans have been submitted to council.
- B3. No trees shall be removed other than those affected by road and drainage works in accordance with council's tree preservation order.
- B4. Make smooth junctions with existing works.
- B5. No work shall be carried out on adjoining properties without the written permission from the owner.
- B6. Vehicular access and all services shall be maintained at all times to adjoining properties affected by construction.
- B7. All rubbish, buildings, sheds and fences shall be removed to satisfaction of council engineer.

BULK EXCAVATION NOTES:

- B8. The site shall be cleared of al topsoil, trees, stumps, roots and all other unsuitable materials to an approved subgrade of natural soil or rock having a min. allowable bearing pressure of 150kPa.
- B9. All cut batters shall be no steeper than 1:2 (vert:horiz).
- B10. All fill areas shall be compacted with a vibrating smooth drum roller of not less than 10 tonnes static mass. Fill materials shall be placed using a max. compaction layer thickness of 200mm (loose) and compacted to the following min. dry density ratios at a moisture content within 2% of optimum:
- Filling used as subgrade for roadways = 100% standard to AS 1289 5.1.1
- Filling to be used for house foundations = 100% standard to AS 1289 5.1.1
- General filling = 95% standard to AS 1289 5.1.1
- B11. All excavated surface shall be proof rolled using a smooth drum roller of min. 10 tonnes drum module, by typically 8 to 10 passes. Any soft spots detected should be excavated out by at least 0.3m and compacted. Moisture conditioning may be required to ensure that the subgrade is properly compacted.
- B12. Fill batters shall be constructed to a max. slope of 1:14 although flatter slopes may be dictated by the landscaping requirements. Slopes to be grassed shall be no steeper than 1:4.
- B13. Interpolation of depths or levels on the drawings shall be performed linearly for tender purposes and confirmed on site. Falls between grid lines shall also be linear.
- B14. Where fill is placed on sloping ground (at a slope greater than 1:18) benches shall be cut into the natural ground to a min. depth of 100mm.
- B15. The exposed natural ground surface shall be loosened to a depth of 200mm, moisture conditioned and compacted to the same requirements as for the fill material noted in B9.
- B16. Approved fill material shall be placed in near horizontal layers 200mm thick (max.) when loose, in a uniform manner over the site. Each layer shall be fully compacted to the standard required by note B10. Compaction shall be carried out within 2% of optimum moisture content. Batter faces shall be over filled and cut back. A 50mm sand blinding layer shall be placed and compacted beneath all slabs on grade.
- B17. The filling works shall be tested during construction to ensure compliance with specification. Testing frequency shall be not less than:
a) 1 test per 300 cubic meters distributed evenly throughout the full span depth and area, or
b) 1 test per layer per material type per 500 square meters; whichever requires the most tests.
c) as required by AS 3198.
AS 1289. Test results shall be submitted to the engineer for his approval. For any area of the works, not meeting the required standards, all material represented by the test shall be further compacted or reworked, and retested.
- B18. Compaction shall be reduced to 90% max. dry density (to AS 1289 5.1.1) within 1000 from the back of retaining walls.

BULK EXCAVATION NOTES CONTINUED:

- B19. It shall be the responsibility of the contractor to ensure that the min. allowable bearing capacity is achieved. It shall also be the responsibility of the contractor to ensure that the bearing material achieved is not reactive, otherwise the design engineer shall be notified for further instructions.
- B20. In all locations where excavated surfaces become softened or loosened due to adverse weather, ground seepage, or other causes, all such soft of loose material shall be removed down to the level where allowable bearing capacity of foundation material is as specified.
- B21. All excavations shall be maintained free of water by provision of relief drains or drainage to suitable collection sumps for removal by pumping or manual means.
- B22. The granular material shall be cohesionless material having a plasticity index not exceeding 15 and free of deleterious and organic matter. 100% of the material shall pass the 75mm sieve and material passing the 0.425mm sieve shall have a linear shrinkage not greater than 6%. The material shall be approved for use by the geotechnical engineer.
- B23. Base course material shall be compacted in layers not exceeding 150mm to a minimum 100 % of the maximum dry density as determined by AS 1289, 5.2.1 the material shall be approved by the engineer.
- B24. All fill shall be free draining. All earthworks to be I.A.W. AS 3798.
- B25. A 10m wide, continuous strip of buffalo grass shall be placed behind the back of all new kerbs immediately after the completion of the footpath grading, maintained and replaced as required during the maintenance period.
- B26. Allow to locate and relocate any existing services as required.

ROADWORKS NOTES:

GENERAL NOTES:

- R1. Sub grade, sub base and base shall be compacted I.A.W. Council's specifications.
- R2. Subsoil drains shall be provided generally on the cut side of roads but may be on both sides (except where there is storm water drainage) or as shown on plans and I.A.W. Engineer's requirements.
- R3. Where storm water pipes are to be connected to kerbs 1 00x100 heavy duty galvanized steel kerb outlets shall be p laced in roll kerb and 90mm dia. galv. steel pipe section shall be placed in upright kerb on low side of lots. Provide suitable adapter to allow connection of 90mm diameter storm water grade pipe.
- R4. Gutter slots shall be provided at regular intervals and at pits (only where temporary seal finishes below lip of gutter).
- R5. Service conduits shall be placed as directed by Energy Australia, Telstra and as required by Sydney Water and other utility companies.
- R6. Proposed services crossing existing roads shall be thrust bored under the road so as not to damage existing surface.
- R7. Concrete footpath construction shall be bonded with Council pending completion of services.
- R8. All roads shall be temporarily sealed; the final AC shall be bonded with Council and placed following approval from C ouncil.
- R9. Signposting and line markings shall conform to AS 1742.2 a nd raised retro-reflective pavement markers shall conform to AS 1906. All aprons and kerb face on central islands of roundabouts and all other islands should be delineated by reflective white marking.
- R10. Street signs to Council standard shall be installed by the developer, street names shall be stenciled on kerb at intersections.
- R11. Pavement materials including asphaltic, sprayed seals, base courses and sub-base courses shall comply with the requirements and grading limits as specified by Council unless noted otherwise.
- R12. Pavement subsoil drainage shall drain into drainage pits
- R13. Pavement subsoil drainage to have cleanouts at start of each run, and at intervals not exceeding 80m. Cleanouts located at rear of kerb or edge of shoulder, as applicable.

ROAD PAVEMENT CONSTRUCTION NOTES:

- R14. All work shall be in accordance with the Council and RTA specifications.
- SUBGRADE

R15. Filling beneath roadways shall be compacted in accordance with General Note E10.

R16. The top 150mm of road subgrade formation shall be compacted to the standard required by General Note E10.

R17. The subgrade shall be proof rolled to detect any soft spots. Soft spots if detected shall be removed and recompacted.

R18. The subgrade shall be constructed to a tolerance of +15mm to -30mm of design level.

SUB BASE

R19. Sub base materials shall be crushed rock material of 30mm nominal size conforming with Council's specification, and having a Laboratory soaked CBR in excess of 30. The portion of material passing a 75 micron sieve shall have a maximum plasticity index of 12 or approved equivalent.

R20. Sub base layers shall be compacted to 98% modified compaction to AS 1289 5.2.1, at a moisture content within ±2% of optimum.

R21. The sub base shall be constructed to a tolerance of ±10mm of design level.

R22. The surface of the sub base shall not deviate from a 3.0m straight edge laid in any direction by more than 15mm.

BASE COURSE

R23. Base course materials shall be crushed rock materials of 20mm nominal size conforming with Council's specification, and having a laboratory soaked CBR in excess of 80. The portion of material passing a 75 micron sieve shall have a maximum plasticity index of 6 or approved equivalent.

R24. Base course layers shall be compacted to 98% modified compaction to AS1289 5.2.1, at a moisture content within ±2% of optimum.

The base course shall be constructed to a minimum layer thickness equal to the design thickness and to within ±10mm of design level.

R25. The surface of the base course shall not deviate from a 3.0m straight edge laid in any direction by more than 12mm.
- ROAD PAVEMENT CONSTRUCTION NOTES CONTINUED:
- BITUMEN SPRAY SEAL

R26. Sprayed bituminous seals shall be constructed in accordance with council and RTA specifications and guidelines.

R27. A 7mm primer seal shall be used below all flush seals.

R28. The bitumen spray seal shall consist of a 2 coat flush seal comprising a minimum of 2 coats binder and 2 coats of crushed aggregate, as follows:
- 1st coat 14mm
- 2nd coat 10mm

R29. Bitumen shall be class 170 to AS 2088.

ASPHALTIC CONCRETE

R30. Asphaltic concrete seals shall be constructed in accordance with council and RTA specifications and guidelines.

R31. A 7mm primer seal shall be used below Asphaltic concrete seal.

R32. Asphaltic concrete seals shall consist of AC10 SBS over the primer seal, compacted in two layers not exceeding 25mm in thickness. Provide Class 320 polymer modified Asphalt to roundabouts and maneuvering areas.

CONCRETE PAVEMENTS

R33. Refer to drawings for additional requirements.

TOLERANCE

R34. Finished road levels shall be within ±10mm of the design level and shall not deviate from a 3.0m straight edge laid in any direction by more than 5.0mm.

R35. Design thickness of sub bases, bases and seals are minimum thickness following compaction.

R36. Tolerances shall conform to additional requirements of council and the RTA.

STORMWATER DRAINAGE NOTES:

GENERAL NOTES:

D1. All levels are to Australian Height Datum (AHD), unless noted otherwise.

D2. Dimensions shall not be scaled from drawings.

D3. The Contractor must verify all dimensions on site prior to commencement of the works.

D4. These plans shall be read in conjunction with the approved Architectural, Structural, Mechanical, Hydraulic, Electrical, Landscape & other Consultants drawings.

D5. Where new work abuts existing, the Contractor shall ensure a smooth even profile free from abrupt changes.

D6. The Contractor shall arrange for all survey setout & as-built to be performed by a Registered Surveyor.

D7. Invert levels are given at critical locations. The Contractor/Drainer shall determine levels on minor drainage lines and confirm design levels.

D8. Stormwater drains min. fall 1:100, unless noted otherwise.

D9. Advise Engineer for inspection of all Stormwater works, pipes & pits, prior to covering. Provide as-built survey upon completion.

D10. Construction of Drainage to conform with the requirements of the relevant Authority or Council.

D11. Connections to new & existing drainage shall be neatly trimmed & cement rendered to a smooth finish.

D12. All work shall be in accordance with AS3500 'National Plumbing & Drainage Code', unless noted otherwise.

D13. The Contractor shall expose the full drainage route and point of discharge from the site and confirm levels prior to commencing construction.

EXISTING SERVICES NOTES:

D14. The Contractor shall excavate for, locate and co-ordinate with all services within & beyond the property line prior to the commencement of the Works.

D15. Existing services which are to remain shall be adjusted as necessary to suit the new Works.

D16. Existing services no longer required shall be capped off and removed out of sight to the relevant authorities requirements.

D17. Care is to be taken when excavating near existing services. Obtain services setout prior to works. Hand excavate as required to avoid damage to services.

D18. Construct temporary services as required.

DRAINAGE PIPES NOTES:

D19. UPVC type pipes shall be used for pipes not greater than 300mm diameter, unless noted otherwise. UPVC pipes shall have solvent welded watertight joints.

D20. Pipe diameter greater than 300mm shall be FRC type pipe (Class '3', unless noted otherwise.

D21. Pipe laying, bedding & backfill to be in accordance with the specification and the pipe manufacturer's requirements.

D22. Where UPVC drainage pipes pass under slabs, sewer grade pipes shall be used.

D23. Contractor shall supply & install all proprietary fittings for connections & junctions.

D24. Additional subsoil drainage may be required where site conditions & groundwater dictate. Refer to Engineer for site inspection.

D25. Pipes to be 100Ø unless noted otherwise.

D26. Outlet pipes from pits shall have invert level at least 30mm lower than the invert level of the lowest pipe entering the pit.

D27. Inspection openings or stormwater pits shall be located where shown on the drawings and at the following locations:
a. Each point of connection
b. Even spacing not more than 30m apart.
c. Each end of any inclined jump-up which exceeds 6m in length.
d. Each connection to an existing stormwater drain.
e. Any change of direction greater than 45°.

D28. Inspection openings shall be min 150Ø and shall be plugged or capped in accordance with AS3500.

D29. Planter boxes bases to be lined with 'Atlantis Drainage Cell' or approved equivalent wrapped in geotextile and draining to subsoil drainage pipes connected to the main stormwater system. Co-ordinate with requirements of Landscape Architect.

D30. Junctions in stormwater drains shall be made by means of a proprietary coupler or for pipes of at least 350Ø opening cut as detailed on the drawings.

DRAINAGE PITS NOTES:

D31. All pits and arrestors shall be constructed to the relevant authorities requirements. Provide local falls to pits.

D32. Minimum cover to all reinforcement in concrete to be 40mm.

D33. Minimum Drainage pit size shall be as follows:

Depth to Invert (mm)	Minimum Internal Dimensions (mm)		
	Rectangular Width	Rectangular Length	Circular Diameter
≤600	450	450	600
>600 ≤900	600	600	900
>900 ≤1200	600	900	1000
>1200	900	900	1000

D34. All pits to have galvanised hinged lockable gratings equivalent to "Grate Drainage Products Pty Ltd" heelguard type. Use Class B in general areas and Class D in areas subject to vehicles.

D35. Drainage pit size may need to be increased over minimum to suit pipe size. Pit internal dimensions shall be of least 3 00mm greater than external diameter of corresponding pipe.

D36. Pits deeper than 1000mm are to be fitted with step irons at 300mm centres. Contact Engineer for typical detail.

D37. All exposed pit edges shall be rounded with 20mm radius or 20 x 20 chamfer.

D38. Walls of cast in situ pits shall be 200mm (min.) thick concrete, grade N32, unless noted otherwise.

D39. Pits shall be reinforced with SL81 fabric, central in walls & base slab U.N.O. Mesh to be lapped 400mm. Lap mesh at corners or use N12-200 "L" bars lapping 400 each way.

D40. Approved precast pits may be used.

D41. Bases of drainage pits shall be grouted to prevent ponding of water, unless noted otherwise.

SAG INLET PIT NOTES:

1. Compressive strength of concrete to be a minimum of 20 MPa at 28 days.

2. Top of benching shall be 1/2 of outlet pipe diameter.

3. ø100 subsoil drainage pipe 3m long wrapped in fabric sock to be provided at invert level either side of inlet pipes.

4. All pits to have galvanised hinged lockable gratings equivalent to "grate drainage products pty ltd" heelguard type. Use class B in general areas and class D in areas subject to vehicles.

5. Provide step irons where pit is deeper than 1200.

SITE WORKS NOTES:

ACCESSIBILITY NOTES:

S1. All continuous accessible paths of travel shall be provided with a slip resistant surface that is also easily traversable by a wheelchair. A steel cove finish shall be used subject to approval of test samples.

S2. Storm water grates on the accessible path of travel shall have spaces not more than 13mm wide and not more than 150mm long. The long dimension shall be placed transverse to the dominant direction of travel.

S3. Concrete surfaces and finishes shall be in accordance with the client selection as detailed on the Architect's and Landscape Architect's drawings.

S4. All works internal to the site shall be inspected by the engineer and certified upon completion.

LEGEND	
	Denotes stormwater pipe.
	Denotes subsoil drain.
	Denotes pipe diameter in mm.
	Denotes existing pipe
	Pipe grade as a percentage (min)
	Denotes invert level.
	Denotes ground level.
	Denotes reduced level.
	Denotes stormwater pit.
	Denotes grated stormwater pit.
	Denotes kerb entry & roadway pit system (900 x 600)
	Denotes 100 wide x 100 min. depth grated drain type "ACO KS100" with Class A antislip stainless steel heelguard grates U.N.O. Grated drains in areas subject to vehicle loads to be N100 and have Class D "ACO" perforated steel grating.
	Denotes downpipes.
	Denotes downpipe with spreader

NOTE: ALL CONCRETE TO BE 32 MPa WITH 40 COVER TO REINFORCEMENT U.N.O.

DEMLAKIAN
INTELLIGENT THINKING

					This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes.	FOR DEVELOPMENT APPLICATION	ARCHITECT: CHRISTIAN EDUCATION MINISTRIES	PROJECT: ACC SINGLETON KELSO STREET, SINGLETON	222120	DESIGNED: DW			
							CLIENT: AUSTRALIAN CHRISTIAN COLLEGE	TITLE: CIVIL NOTES	CHECKED: DW	DRAWN: RAL			
P2	19.05.2023	ISSUED FOR DA			NZ	It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.			DRAWING: C01	REVISION: P2	DATE: SEP 22		
P1	16.09.2022	PRELIMINARY ISSUE			RAL								
REVISION	DATE	DESCRIPTION			BY								

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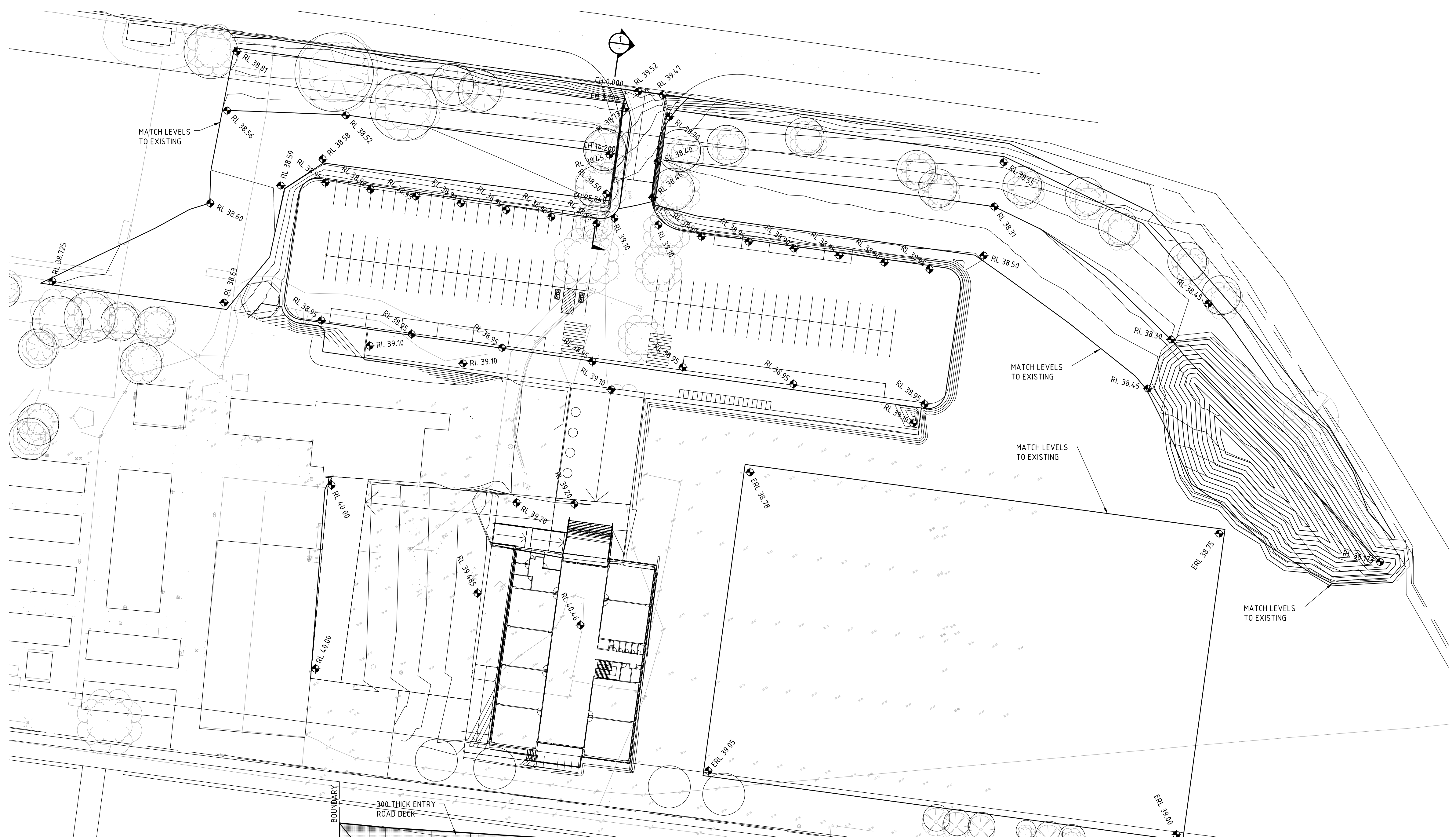
CIVIL PLAN

SCALE 1:500

- RL 40.09 PROPOSED SPOT LEVELS
ERL 40.15 EXISTING SPOT LEVELS

BOUNDARY		300 THICK ENTRY ROAD DECK		300 THICK ROAD PIERS		-2.622%		0.497%		-1.28%	
R.L. 37.000		IP: 39.511									
BRIDGE SURFACE	39.52	39.52	39.456	39.42	39.356	39.302	39.228	39.164	39.100	39.000	38.870
CHANNEL SURFACE	39.52	39.52	38.734	38.42	38.445	38.500	38.500	38.500	38.800	38.800	38.700
EXISTING SURFACE	39.52	39.46	39.43	39.26	39.15	38.85	38.99	38.85	38.83	38.70	38.70
CHAINAGE	0.000	3.000	5.000	10.000	14.000	15.000	20.000	25.000	26.448	27.000	30.000

LONGITUDINAL SECTION 1
SCALES: HORIZONTAL 1:250 VERTICAL 1:50



	P9	23.05.2024	UPDATED PARKING SPACES	NZ
	P8	19.05.2023	ISSUED FOR DA	NZ
	P7	26.04.2023	UPDATED CARPARK LEVELS	NZ
	P6	30.03.2023	UPDATED BUILDING AND DRIVEWAY	NZ
	P5	28.03.2023	UPDATED LEVELS	NZ
REVISION	DATE	DESCRIPTION		BY

This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes.
It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.

FOR DEVELOPMENT APPLICATION

ARCHITECT:	CHRISTIAN EDUCATION MINISTRIES	PROJECT:	ACC SINGLETON KELSO STREET, SINGLETON	DESIGNED:	NZ
CLIENT:	AUSTRALIAN CHRISTIAN COLLEGE	TITLE:	CIVIL PLAN	DRAWN:	MR
				CHECKED:	NZ
				DATE:	SEP 22
				222120	ORIGINAL: A1 DWG
				C02 P9	



PAVEMENT PLAN 1 SCALE 1:200

- DENOTES EXTENT OF NEW BUILDING. REFER TO STRUCTURAL DRAWINGS.
- DENOTES NEW ASPHALT CARPARK PAVEMENT
- DENOTES NEW COURTYARD PAVEMENT
- DENOTES FOOTPATH AREA AROUND BUILDING.

- NOTE: PAVEMENT DESIGN FOR MRV
- NOTE: CONTRACTOR TO PROVIDE TRAFFIC CONTROL TO COUNCIL SATISFACTION
- NOTE: CONTRACTOR SHALL LOCATE ALL EXISTING AFFECTED SERVICES & ARRANGE PROTECTION, RELOCATION / ADJUSTMENT WITH RELEVANT AUTHORITY
- NOTE: PROVIDE 2N16 x 1600 LONG UNDER TOP REINFORCEMENT TO ALL RE-ENTRANT CORNERS, TYPICAL

	P5	11.04.2024	UPDATED ARCHITECTURAL PLANS		NZ	This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes.	FOR DEVELOPMENT APPLICATION	ARCHITECT: CHRISTIAN EDUCATION MINISTRIES	PROJECT: ACC SINGLETON KELSO STREET, SINGLETON	222120	DESIGNED: NZ	
	P4	19.09.2023	ISSUED FOR DA		NZ						DRAWN: MR	
	P3	19.05.2023	ISSUED FOR DA		NZ						CHECKED: NZ	
	P2	30.03.2023	UPDATED BUILDING AND DRIVEWAY		NZ							
	P1	28.03.2023	PRELIMINARY ISSUE		NZ							
	REVISION	DATE	DESCRIPTION		BY							
						It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.	FOR DEVELOPMENT APPLICATION	CLIENT: AUSTRALIAN CHRISTIAN COLLEGE	TITLE: PAVEMENT PLAN SHEET 1	DRAWING: C03	REVISION: P5	DATE: SEP 22



<u>NOTE:</u> PAVEMENT DESIGN FOR MRV	<u>NOTE:</u> CONTRACTOR TO PROVIDE TRAFFIC CONTROL TO COUNCIL SATISFACTION	<u>NOTE:</u> CONTRACTOR SHALL LOCATE ALL EXISTING AFFECTED SERVICES & ARRANGE PROTECTION, RELOCATION / ADJUSTMENT WITH RELEVANT AUTHORITY	<u>NOTE:</u> PROVIDE 2N16 x 1600 LONG UNDER TOP REINFORCEMENT TO ALL RE-ENTRANT CORNERS, TYPICAL
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	P5	23.05.2024	UPDATED PARKING SPACES	NZ	This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes.	FOR DEVELOPMENT APPLICATION	ARCHITECT:	CHRISTIAN EDUCATION MINISTRIES	PROJECT:	ACC SINGLETON KELSO STREET, SINGLETON	222120	DESIGNED:	NZ	ORIGINAL: A1 DWG			
	P4	19.09.2023	ISSUED FOR DA	NZ			DRAWN:	MR									
	P3	19.05.2023	ISSUED FOR DA	NZ			CHECKED:	NZ									
	P2	30.03.2023	UPDATED BUILDING AND DRIVEWAY	NZ	It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.		CLIENT:	AUSTRALIAN CHRISTIAN COLLEGE	TITLE:	PAVEMENT PLAN SHEET 2	DRAWING:	C04	REVISION:		P5	DATE:	SEP 22
	P1	28.03.2023	PRELIMINARY ISSUE	NZ													
	REVISION	DATE	DESCRIPTION				BY										



STORMWATER PLAN - SHEET 1

ALL PIPES TO BE Ø150 UPVC @ 1% FALL, TYPICAL U.N.O.
ALL STORMWATER PITS TO CONTAIN ENVIROPODS

DOWNPipes & ROOF GUTTER DESIGN BY HYDRAULIC CONSULTANT
SUITABLE TO CONVEY 100 YEAR ARI STORM TO PIT 7/1

SCALE 1:200

NOTE: ALL ACCESS COVERS TO BE FITTED
WITH A CHILD PROOF SAFETY LOCK.

NOTE: FENCES SHALL BE CONSTRUCTED IN A
MANNER NOT TO IMPEDE OVERLAND
FLOWS

Denotes stormwater pipe.
Denotes subsoil drain.
100Ø
Denotes pipe diameter in mm.
Pipe grade as a percentage
1%
I.L.139.50
G.L.139.50
R.L.139.50
Denotes invert level.
Denotes ground level.
Denotes reduced level.

Denotes grated stormwater pit.
Denotes 300 wide x 300 min. depth SPEL hydrochannel

FOR DEVELOPMENT
APPLICATION

ARCHITECT: CHRISTIAN EDUCATION
MINISTRIES
CLIENT: AUSTRALIAN CHRISTIAN COLLEGE

PROJECT: ACC SINGLETON
KELSO STREET, SINGLETON
TITLE: STORMWATER PLAN
SHEET 1

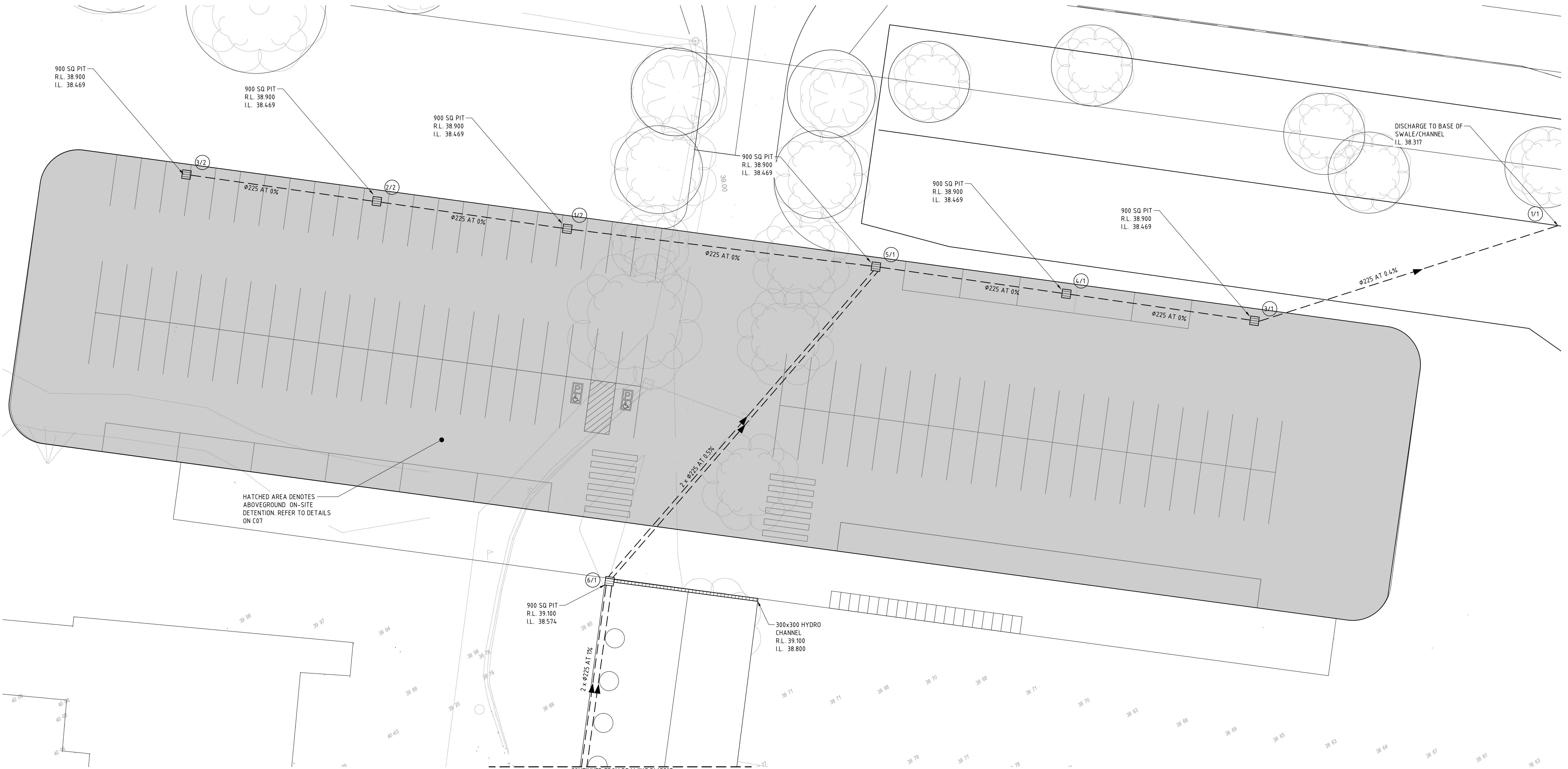


DEMLAKIAN
INTELLIGENT THINKING

222120

DRAWING: C05
REVISION: P3
DATE: SEP 22

DESIGNED: NZ
DRAWN: MR
CHECKED: NZ
DATE: SEP 22



STORMWATER PLAN - SHEET 2

ALL PIPES TO BE Ø150 UPVC @ 1% FALL, TYPICAL U.N.O.
ALL STORMWATER PITS TO CONTAIN ENVIROPODS

SCALE 1:200

NOTE: ALL ACCESS COVERS TO BE FITTED
WITH A CHILD PROOF SAFETY LOCK.

NOTE: FENCES SHALL BE CONSTRUCTED IN A
MANNER NOT TO IMPEDE OVERLAND
FLOWS

— — — — — Denotes stormwater pipe.
— — — — — Denotes subsoil drain.
— 100Ø — Denotes pipe diameter in mm.
1% — Pipe grade as a percentage
I.L. 139.50 Denotes invert level.
G.L. 139.50 Denotes ground level.
R.L. 139.50 Denotes reduced level.

— — — — — Denotes grated stormwater pit.
— — — — — Denotes 300 wide x 300 min. depth SPEL hydrochannel

OSD DETAILS:
SURFACE RL = 38.90 to 38.95
AREA = 2500 sqm
T.W.L = 39.07
AVERAGE DEPTH = 0.08m
VOLUME REQUIRED = 80.7 cum
VOLUME PROVIDED = 200 cum

	P4	23.05.2024	UPDATED PARKING SPACES	NZ
	P3	19.09.2023	ISSUED FOR DA	NZ
	P2	19.05.2023	ISSUED FOR DA	NZ
	P1	28.03.2023	PRELIMINARY ISSUE	NZ
	REVISION	DATE	DESCRIPTION	BY

This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes.
It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.

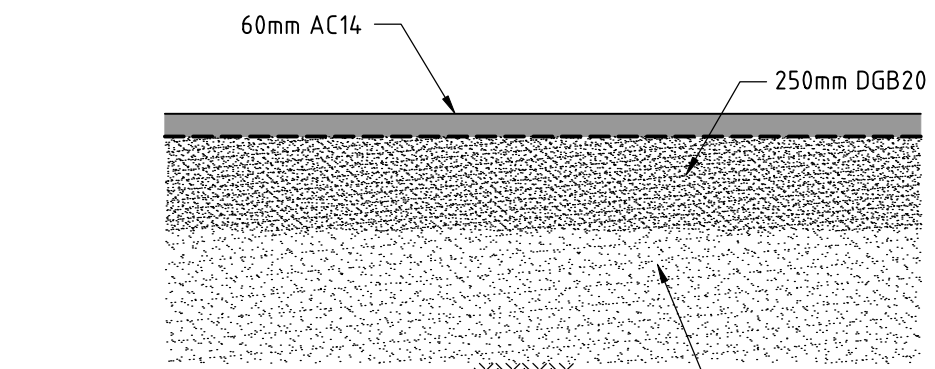
FOR DEVELOPMENT
APPLICATION

ARCHITECT: CHRISTIAN EDUCATION
MINISTRIES
CLIENT: AUSTRALIAN CHRISTIAN COLLEGE

PROJECT: ACC SINGLETON
KELSO STREET, SINGLETON
TITLE: STORMWATER PLAN
SHEET 2

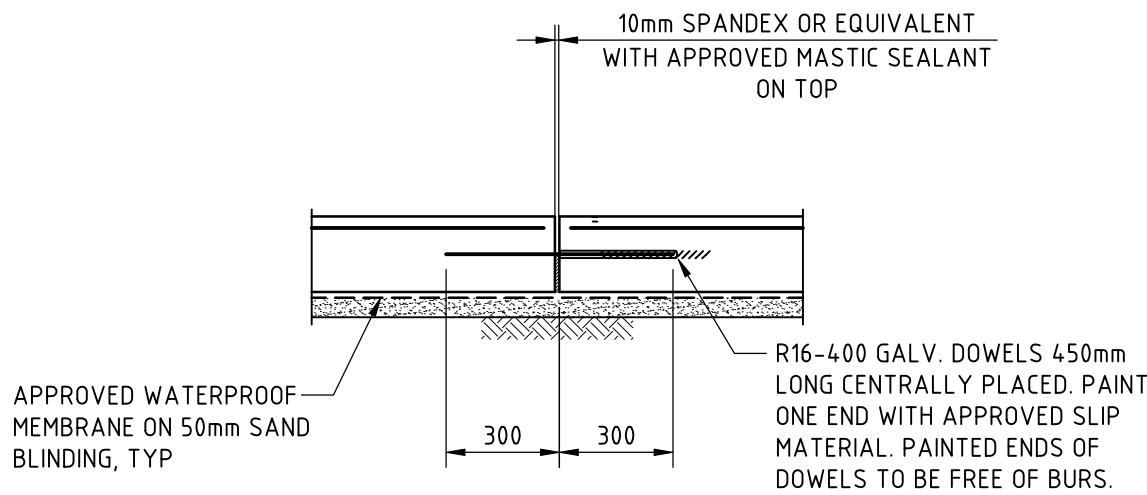
222120
DRAWING: C06
REVISION: P4
DATE: SEP 22

DESIGNED: NZ
DRAWN: MR
CHECKED: NZ
ORIGINAL: A1 DWG

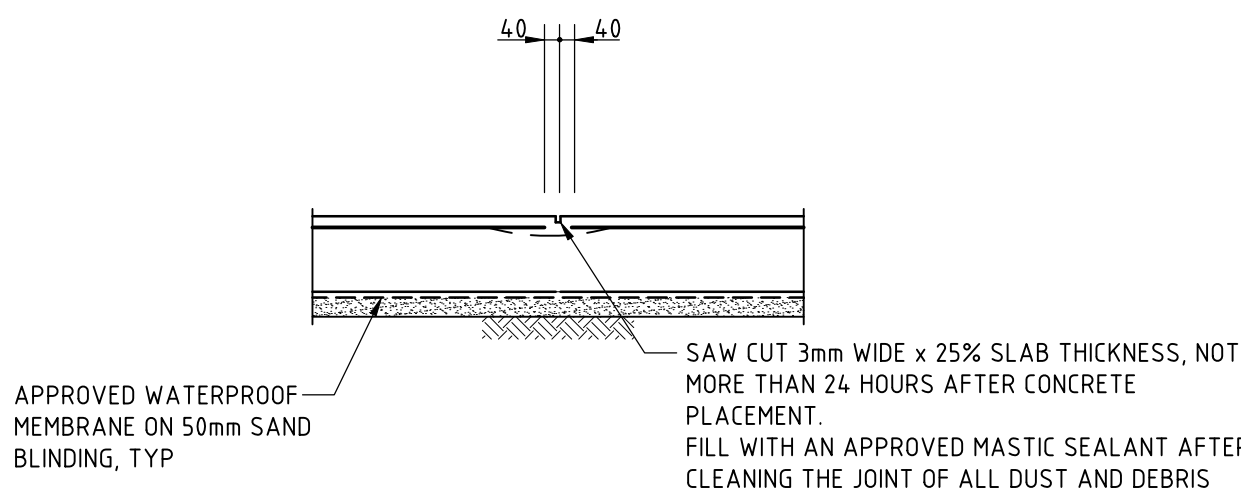


SUBGRADE TO HAVE CBR = 3.0 (MIN).
BOX OUT SUBGRADE TO AT LEAST 300mm BELOW SUB-BASE.
PROOF ROLL & COMPACT SUBGRADE TO A MINIMUM OF 95%
STANDARD MAXIMUM DRY DENSITY. ALLOW FOR LIME OR
CEMENT STABILISATION AS REQUIRED.

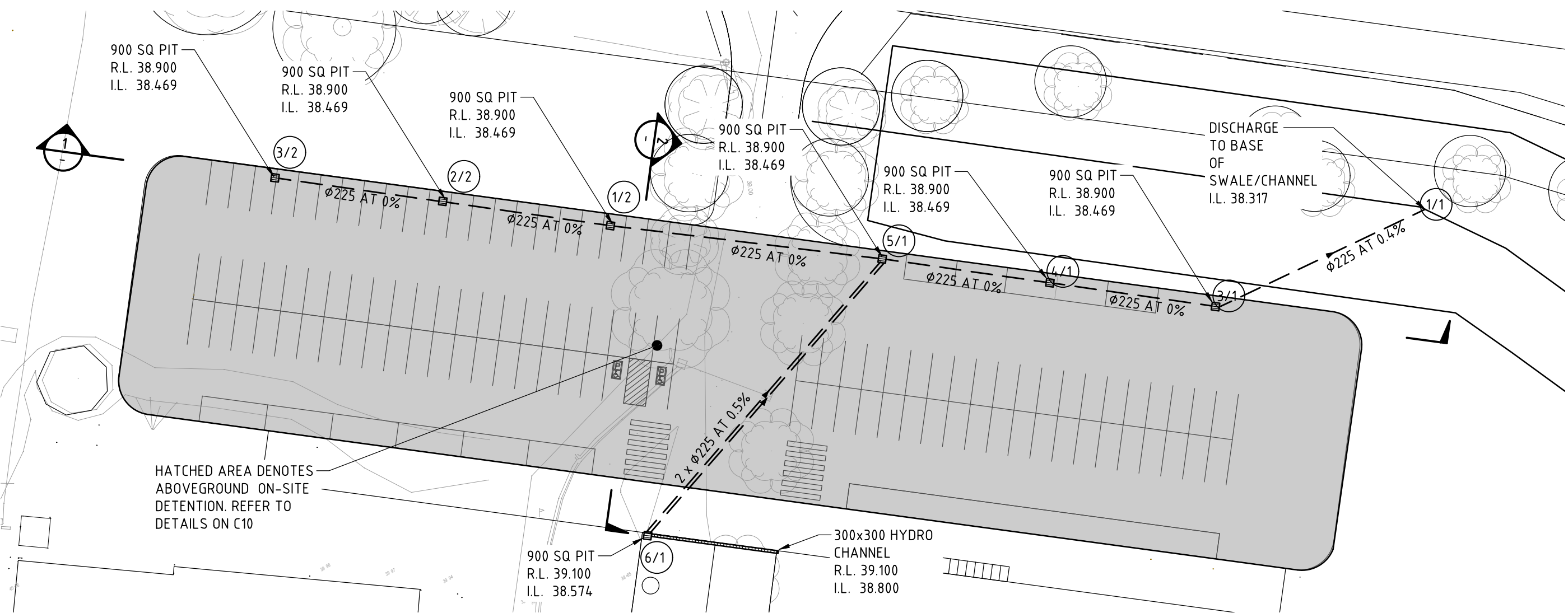
HEAVY DUTY ASPHALT PAVEMENT DETAIL
SCALE 1:20



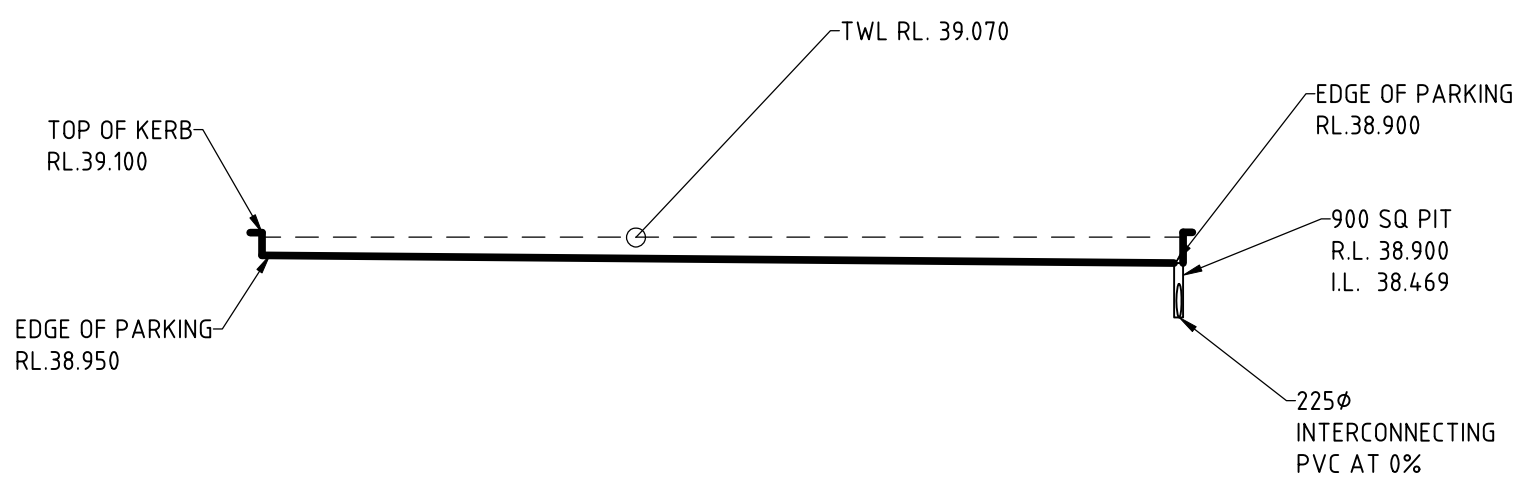
DJ - TYPICAL DOWEL JOINT
SCALE 1:20



CJ - TYPICAL CONTROL JOINT
SCALE 1:20

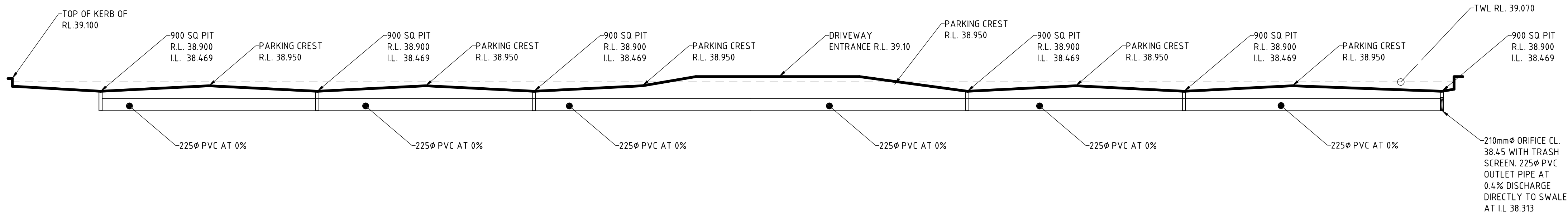


OSD PLAN
SCALE 1:500



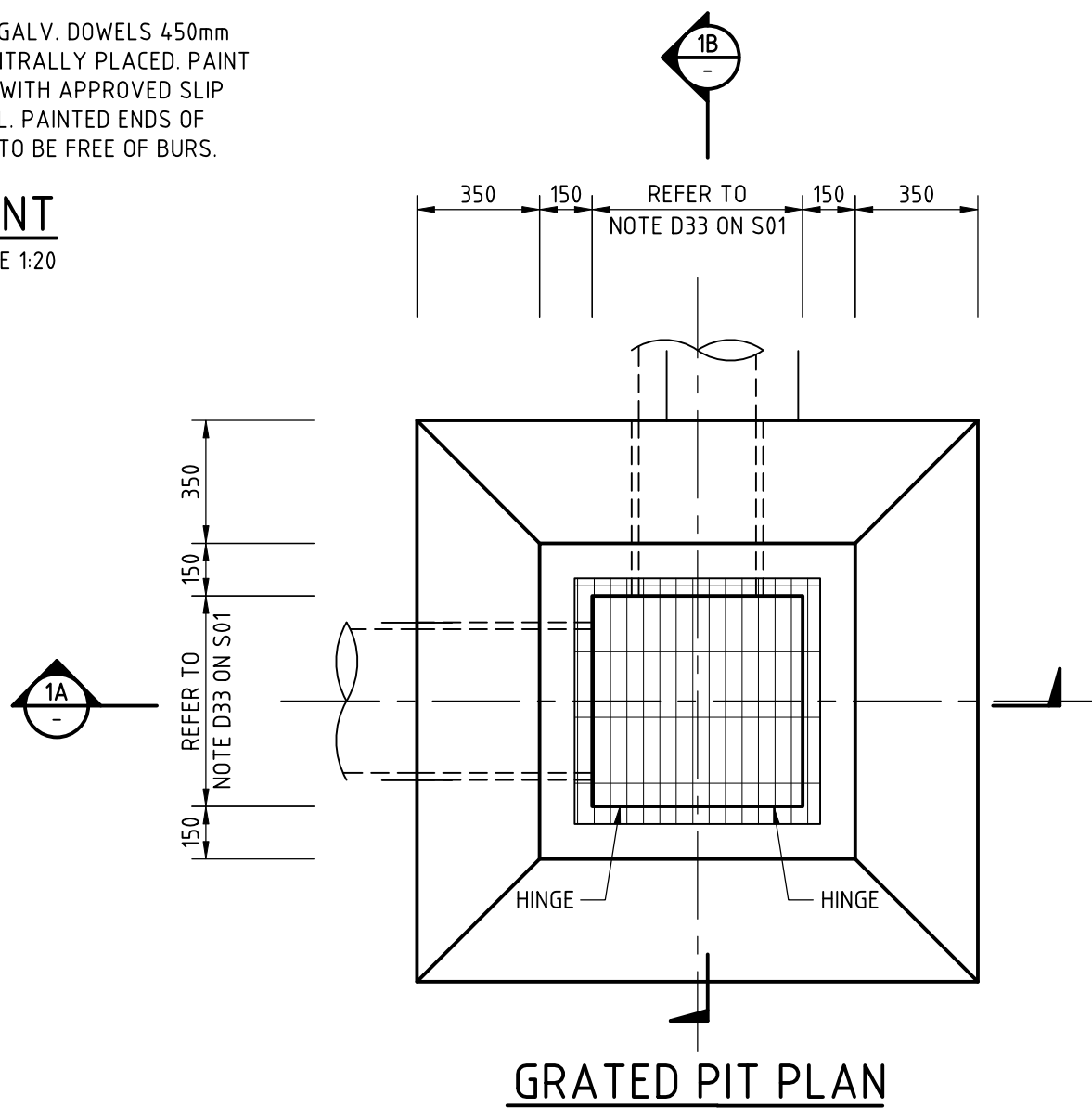
OSD SECTION 2

HORIZONTAL SCALE 1:250
VERTICAL SCALE 1:20

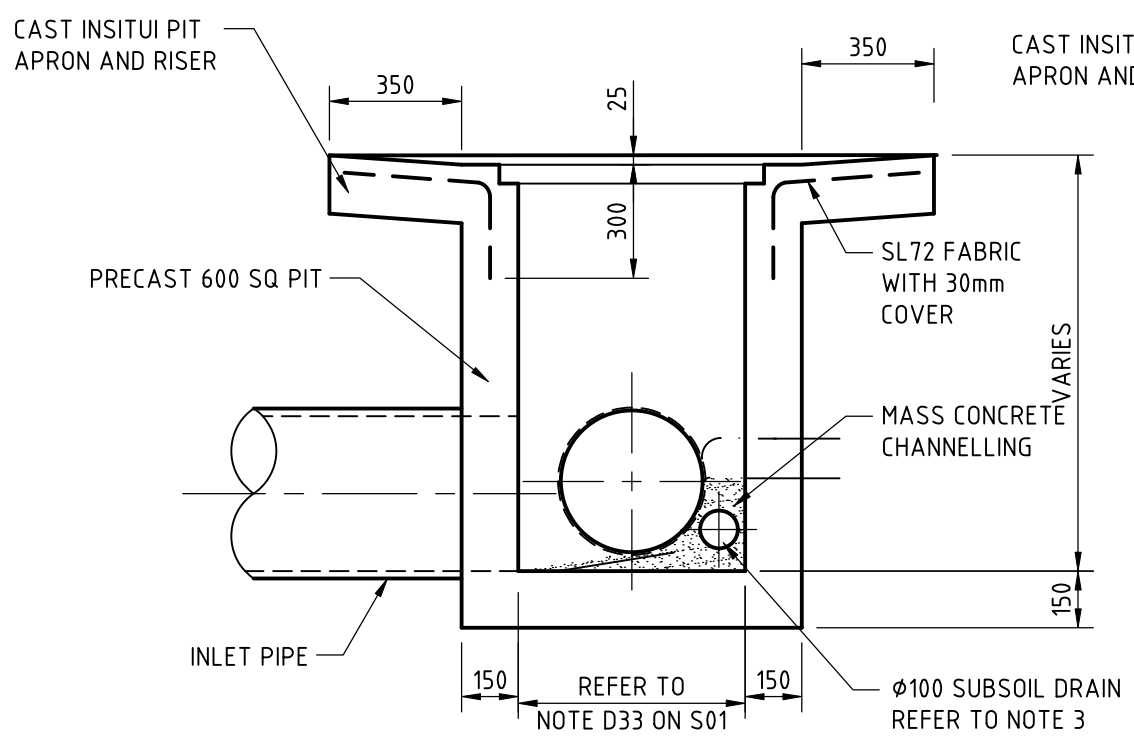


OSD SECTION 1

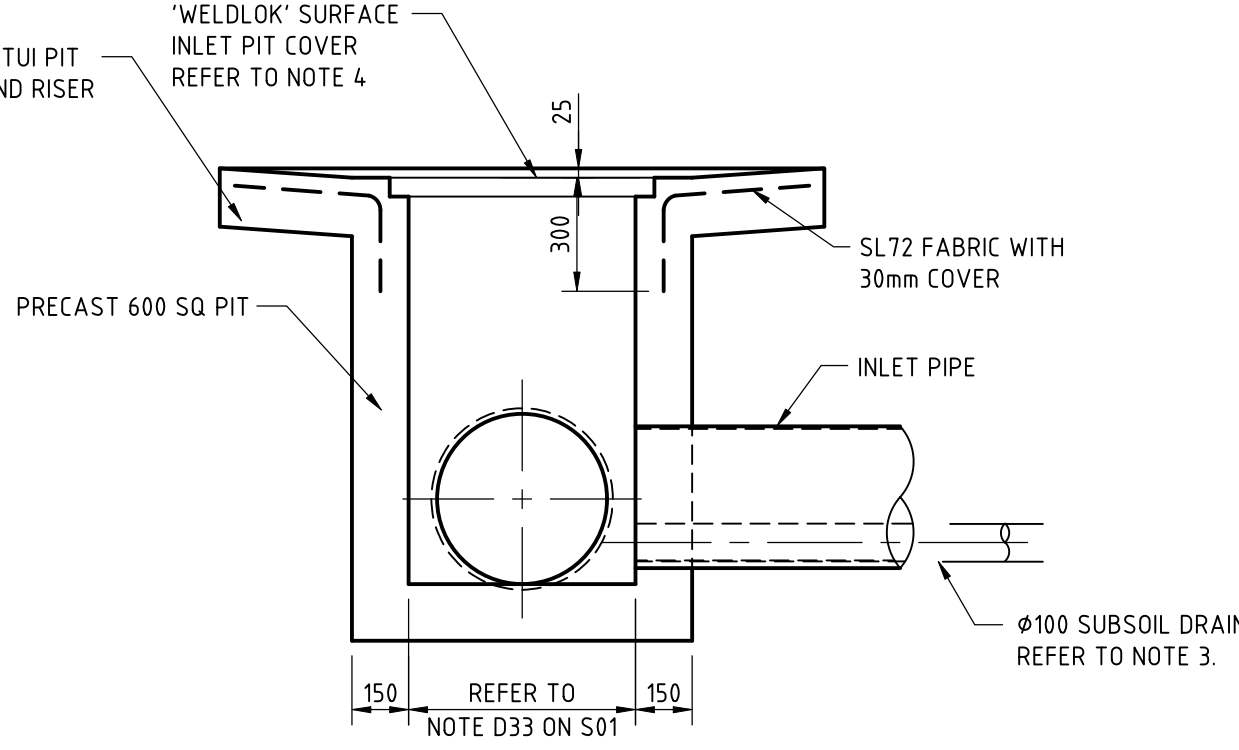
HORIZONTAL SCALE 1:250
VERTICAL SCALE 1:20



GRATED PIT PLAN



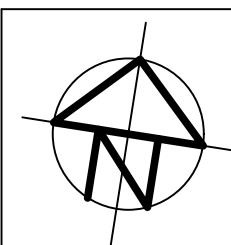
DETAIL 1A
SCALE 1:20



DETAIL 1B
SCALE 1:20

SAG INLET PIT NOTES:

1. COMPRESSIVE STRENGTH OF CONCRETE TO BE A MINIMUM OF 20MPa AT 28 DAYS.
2. TOP OF BENCHING SHALL BE 1/2 OF OUTLET PIPE DIAMETER.
3. Ø100 SUBSOIL DRAINAGE PIPE 3m LONG WRAPPED IN FABRIC SOCK TO BE PROVIDED AT INVERT LEVEL EITHER SIDE OF INLET PIPES.
4. PIT GRATE TO BE 'WELDLOK' OR APPROVED EQUIVALENT.
5. PROVIDE STEP IRONS WHERE PIT IS DEEPER THAN 1200



P5	23.05.2024	UPDATED PARKING SPACES	NZ
P4	19.09.2023	ISSUED FOR DA	NZ
P3	19.05.2023	ISSUED FOR DA	NZ
P2	30.03.2023	UPDATED BUILDING AND DRIVEWAY	NZ
P1	28.03.2023	PRELIMINARY ISSUE	NZ
REVISION	DATE	DESCRIPTION	BY

This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes.

It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.

FOR DEVELOPMENT
APPLICATION

ARCHITECT: CHRISTIAN EDUCATION
MINISTRIES

CLIENT: AUSTRALIAN CHRISTIAN COLLEGE

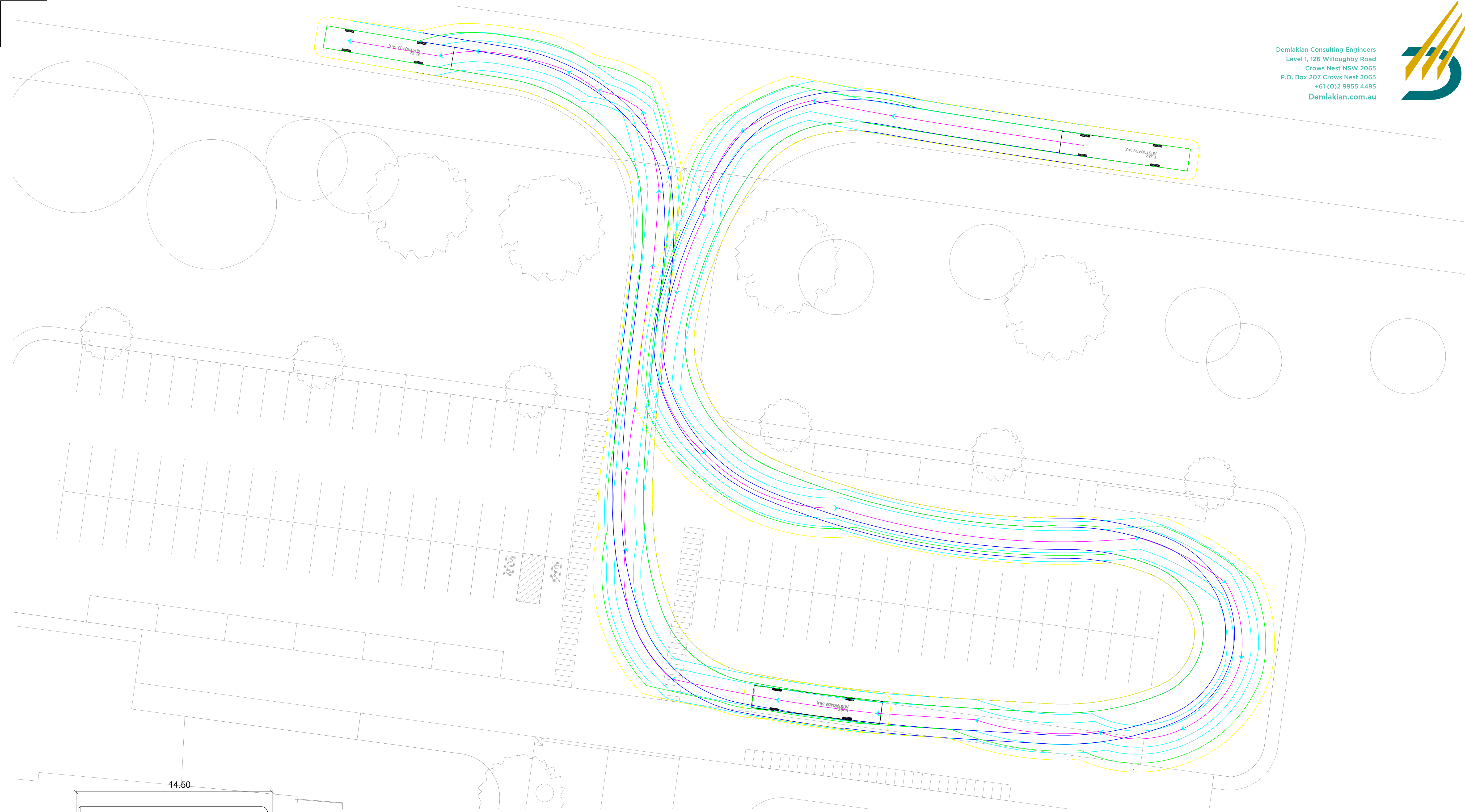
PROJECT: ACC SINGLETON
KELSO STREET, SINGLETON

TITLE: CIVIL/STORMWATER
DETAILS

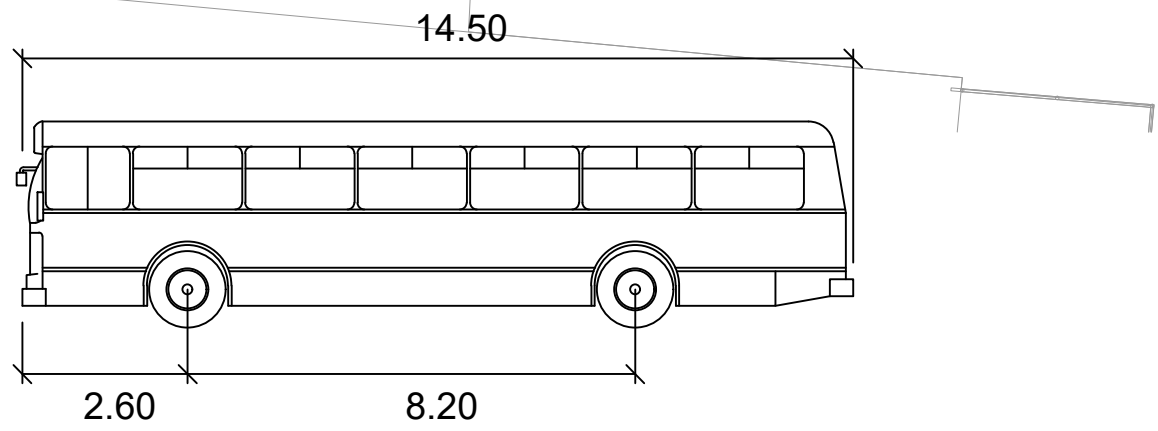
222120

DRAWING: C07
REVISION: P5

DESIGNED: NZ
DRAWN: MR
CHECKED: NZ
DATE: SEP 22



Demlakian Consulting Engineers
Level 1, 126 Willoughby Road
Crows Nest NSW 2065
P.O. Box 207 Crows Nest 2065
+61 (0)2 9955 4485
Demlakian.com.au



BUS2
Meters

- Width : 2.50
Track : 2.50
Lock to Lock Time : 6.0 s
Steering Angle : 44.3 deg

	P5	22.11.2024	UPDATED TO LATEST LAYOUT	SA	This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes.	FOR DEVELOPMENT APPLICATION	ARCHITECT: NBR5	PROJECT: ACC SINGLETON KELSO STREET, SINGLETON	222120	DESIGNED: NZ	
	P4	23.05.2024	UPDATED PARKIGN SPACES	NZ							DRAWN: MR
	P3	19.05.2023	ISSUED FOR DA	NZ			CHECKED: NZ				
	P2	30.03.2023	UPDATED BUILDING AND DRIVEWAY	NZ	It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.		CLIENT: AUSTRALIAN CHRISTIAN COLLEGE	TITLE: TURNING SWEEP PATH MAIN CARPARK	DRAWING: C08	REVISION: P5	DATE: SEP 22
	P1	28.03.2023	PRELIMINARY ISSUE	NZ							
	REVISION	DATE	DESCRIPTION				BY				



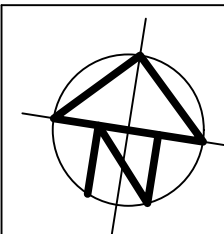
Height Table for VOL-Design vs Existing		Colour
Elevation		
-1.00 to -0.75		Green
-0.75 to -0.50		Yellow
-0.50 to -0.25		Blue
-0.25 to 0.00		Purple
0.00 to 0.25		Pink
0.25 to 0.50		Red
0.50 to 0.75		Orange
0.75 to 1.00		Brown
1.00 to 1.25		Grey
1.25 to 1.50		Dark Green

	P4	26.09.2023	ISSUED FOR DA	NZ	This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes.	FOR DEVELOPMENT APPLICATION	ARCHITECT:	CHRISTIAN EDUCATION MINISTRIES	PROJECT:	ACC SINGLETON KELSO STREET, SINGLETON	222120		DESIGNED:	NZ	ORIGINAL: A1 DWG
	P3	19.05.2023	ISSUED FOR DA	NZ			CHECKED:	NZ	DRAWN:	MR					
	P2	30.03.2023	UPDATED BUILDING AND DRIVEWAY	NZ			It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.	CLIENT:	AUSTRALIAN CHRISTIAN COLLEGE	TITLE:	CUT & FILL PLAN SHEET 1	DATE:	SEP 22		
	P1	28.03.2023	PRELIMINARY ISSUE	NZ			DRAWING:	C09	REVISION:	P4					
	REVISION	DATE	DESCRIPTION	BY											



SCALE 1:200

Height Table for VOL-Design vs Existing		Colour
Elevation		
-1.00 to -0.75		
-0.75 to -0.50		
-0.50 to -0.25		
-0.25 to 0.00		
0.00 to 0.25		
0.25 to 0.50		
0.50 to 0.75		
0.75 to 1.00		
1.00 to 1.25		
1.25 to 1.50		



P5	23.05.2024	UPDATED PARKING SPACES	NZ
P4	19.09.2023	ISSUED FOR DA	NZ
P3	19.05.2023	ISSUED FOR DA	NZ
P2	30.03.2023	UPDATED BUILDING AND DRIVEWAY	NZ
P1	28.03.2023	PRELIMINARY ISSUE	NZ
REVISION	DATE	DESCRIPTION	BY

It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.

FOR DEVELOPMENT
APPLICATION

CLIENT: AUSTRALIAN CHRISTIAN COLLEGE


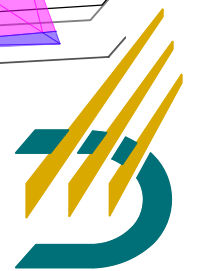
TITLE:	CUT & FILL PLAN
--------	-----------------

C10	P5
-----	----

DESIGNED: NZ	ORIGINAL: A1 DWG
DRAWN: MR	
CHECKED: NZ	
DATE: SEP 22	



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INTELLIGENT THINKING





SCALE 1:200

	P5	23.05.2024	UPDATED PARKING SPACES		NZ	This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes.	<div>FOR DEVELOPMENT APPLICATION</div>	ARCHITECT:	CHRISTIAN EDUCATION MINISTRIES		PROJECT:	ACC SINGLETON KELSO STREET, SINGLETON		222120		DESIGNED:	NZ	ORIGINAL: A1 DWG
	P4	19.09.2023	ISSUED FOR DA		NZ			DRAWN:	MR									
	P3	19.05.2023	ISSUED FOR DA		NZ			CHECKED:	NZ									
	P2	30.03.2023	UPDATED BUILDING AND DRIVEWAY		NZ			DATE:	SEP 22									
	P1	28.03.2023	PRELIMINARY ISSUE		NZ													
	REVISION	DATE	DESCRIPTION		BY							DRAWING:	C11	REVISION:	P5			
It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.								CLIENT:	AUSTRALIAN CHRISTIAN COLLEGE		TITLE:	CUT & FILL PLAN SHEET 3						

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-  RL 40.09 PROPOSED SPOT LEVELS
 ERL 40.15 EXISTING SPOT LEVELS

					This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes.	FOR DEVELOPMENT APPLICATION	ARCHITECT: CHRISTIAN EDUCATION MINISTRIES	PROJECT: ACC SINGLETON KELSO STREET, SINGLETON	DESIGNED: NZ		
										DRAWN: MR	
											CHECKED: NZ
	P1	26.09.2023		ISSUED FOR DA		It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.	CLIENT: AUSTRALIAN CHRISTIAN COLLEGE	TITLE: CIVIL PLAN SOUTHERN CARPARK	DRAWING: C12	REVISION: P1	DATE: SEP 22
	REVISION	DATE		DESCRIPTION							



PAVEMENT PLAN SOUTHERN CARPARK

SCALE 1:200

 DENOTES NEW ASPHALT CARPARK PAVEMENT

NOTE: PAVEMENT DESIGN FOR MRV

NOTE: CONTRACTOR TO PROVIDE TRAFFIC CONTROL TO COUNCIL SATISFACTION

NOTE: CONTRACTOR SHALL LOCATE ALL EXISTING AFFECTED SERVICES & ARRANGE PROTECTION, RELOCATION / ADJUSTMENT WITH RELEVANT AUTHORITY

NOTE: PROVIDE 2N16 x 1600 LONG UNDER TOP REINFORCEMENT TO ALL RE-ENTRANT CORNERS, TYPICAL

					This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes. It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.	FOR DEVELOPMENT APPLICATION	ARCHITECT: CHRISTIAN EDUCATION MINISTRIES CLIENT: AUSTRALIAN CHRISTIAN COLLEGE	PROJECT: ACC SINGLETON KELSO STREET, SINGLETON TITLE: PAVEMENT PLAN SOUTHERN CARPARK	222120		DESIGNED: NZ
											DRAWN: MR
											CHECKED: NZ
	P1	26.09.2023	ISSUED FOR DA	NZ					DRAWING: C13	REVISION: P1	DATE: SEP 22
REVISION	DATE		DESCRIPTION	BY							



STORMWATER PLAN - SOUTHERN CARPARK

SCALE 1:200

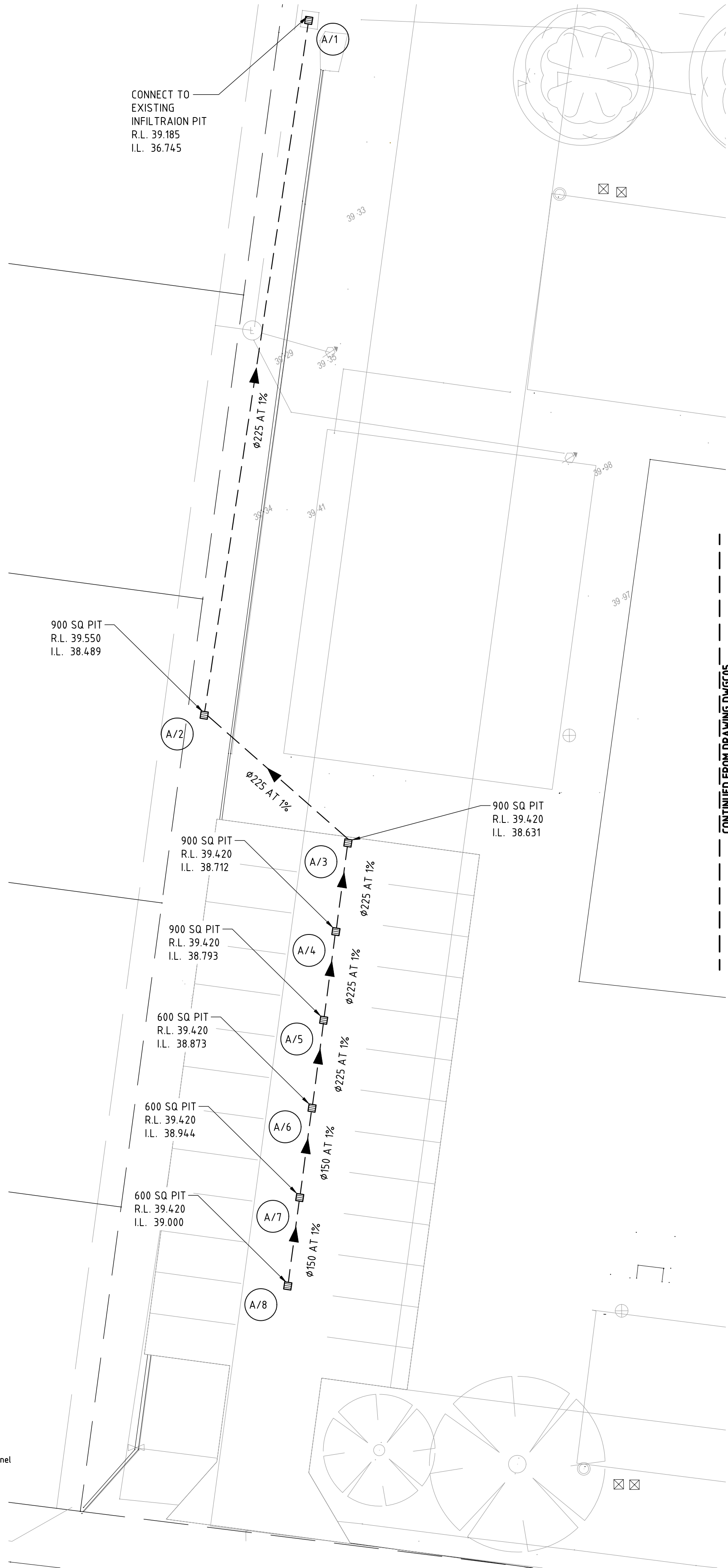
ALL PIPES TO BE Ø150 UPVC @ 1% FALL, TYPICAL U.N.O.
ALL STORMWATER PITS TO CONTAIN ENVIROPODS

NOTE: ALL ACCESS COVERS TO BE FITTED
WITH A CHILD PROOF SAFETY LOCK.

NOTE: FENCES SHALL BE CONSTRUCTED IN A
MANNER NOT TO IMPEDE OVERLAND
FLOWS

—▶— Denotes stormwater pipe.
--- Denotes subsoil drain.
—100Ø— Denotes pipe diameter in mm.
1% Pipe grade as a percentage
I.L.139.50 Denotes invert level.
G.L.139.50 Denotes ground level.
R.L.139.50 Denotes reduced level.

▬ Denotes grated stormwater pit.
▬ Denotes 300 wide x 300 min. depth SPEL hydrochannel



	P1	26.09.2023	ISSUED FOR DA	NZ
	REVISION	DATE	DESCRIPTION	BY

This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes.
It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.

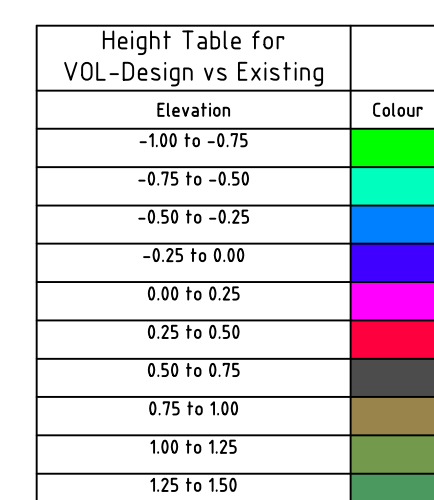
FOR DEVELOPMENT
APPLICATION

ARCHITECT: CHRISTIAN EDUCATION
MINISTRIES
CLIENT: AUSTRALIAN CHRISTIAN COLLEGE

PROJECT: ACC SINGLETON
KELSO STREET, SINGLETON
TITLE: STORMWATER PLAN
SOUTHERN CARPARK

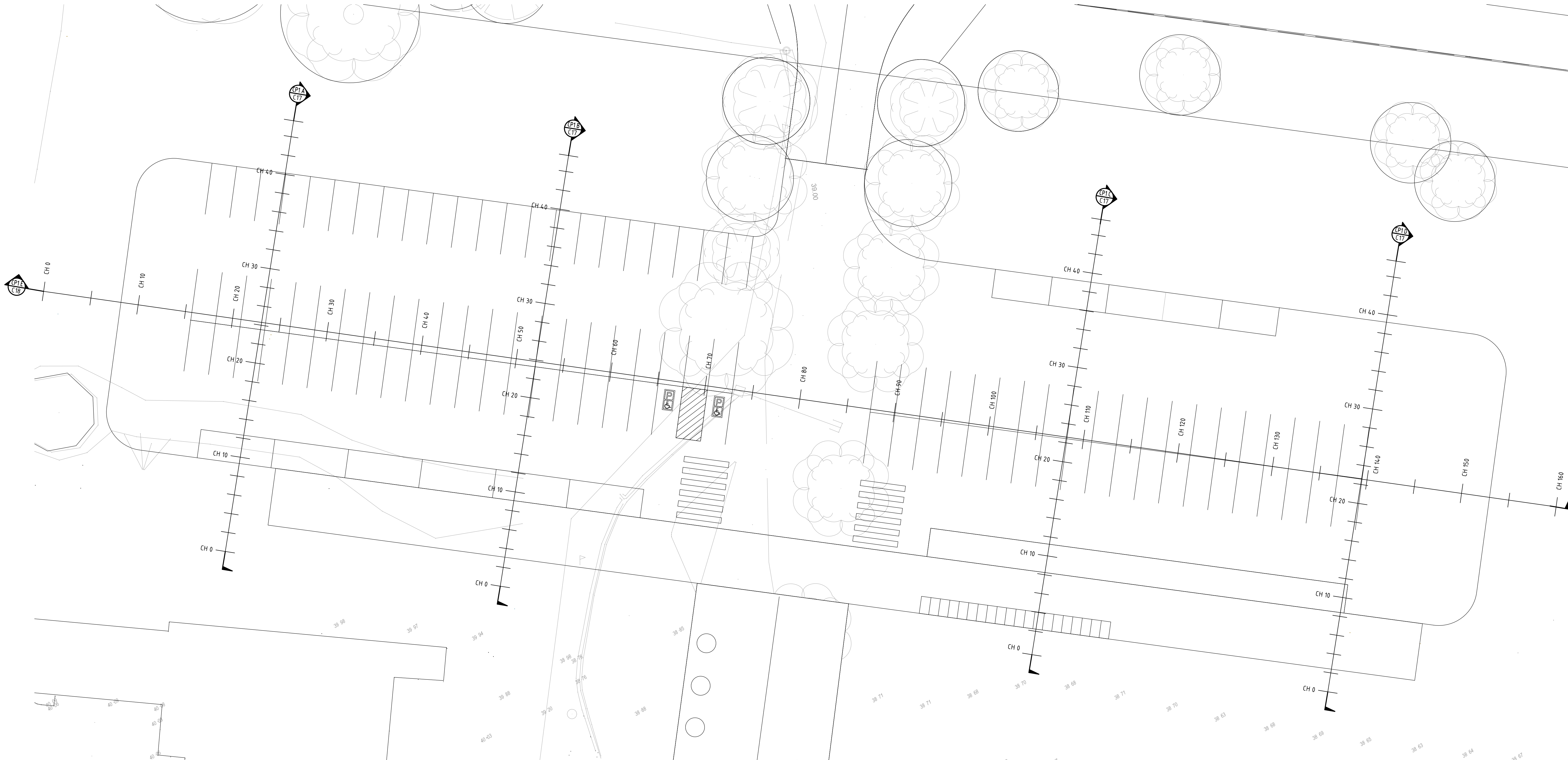
222120
DRAWING: C14
REVISION: P1
DATE: SEP 22

DESIGNED: NZ
DRAWN: MR
CHECKED: NZ
ORIGINAL: A1 DWG



SCALE 1:200

					This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes.	FOR DEVELOPMENT APPLICATION	ARCHITECT: CHRISTIAN EDUCATION MINISTRIES	PROJECT: ACC SINGLETON KELSO STREET, SINGLETON	222120	DESIGNED: NZ		
							CLIENT: AUSTRALIAN CHRISTIAN COLLEGE	TITLE: CUT & FILL PLAN SOUTHERN CARPARK		DRAWN: MR	CHECKED: NZ	
	P1	26.09.2023		ISSUED FOR DA			NZ				DATE: SEP 22	ORIGINAL: A1 DWG
	REVISION	DATE		DESCRIPTION			BY					



CHAINAGE PLAN MAIN CARPARK SCALE 1:200



	P2	23.05.2024	UPDATED PARKING SPACES	NZ
	P1	04.03.2024	ADDITIONAL INFORMATION AS REQUESTED BY COUNCIL	NZ
REVISION	DATE	DESCRIPTION		BY

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FOR DEVELOPMENT
APPLICATION

ARCHITECT: CHRISTIAN EDUCATION
MINISTRIES

CLIENT: AUSTRALIAN CHRISTIAN COLLEGE

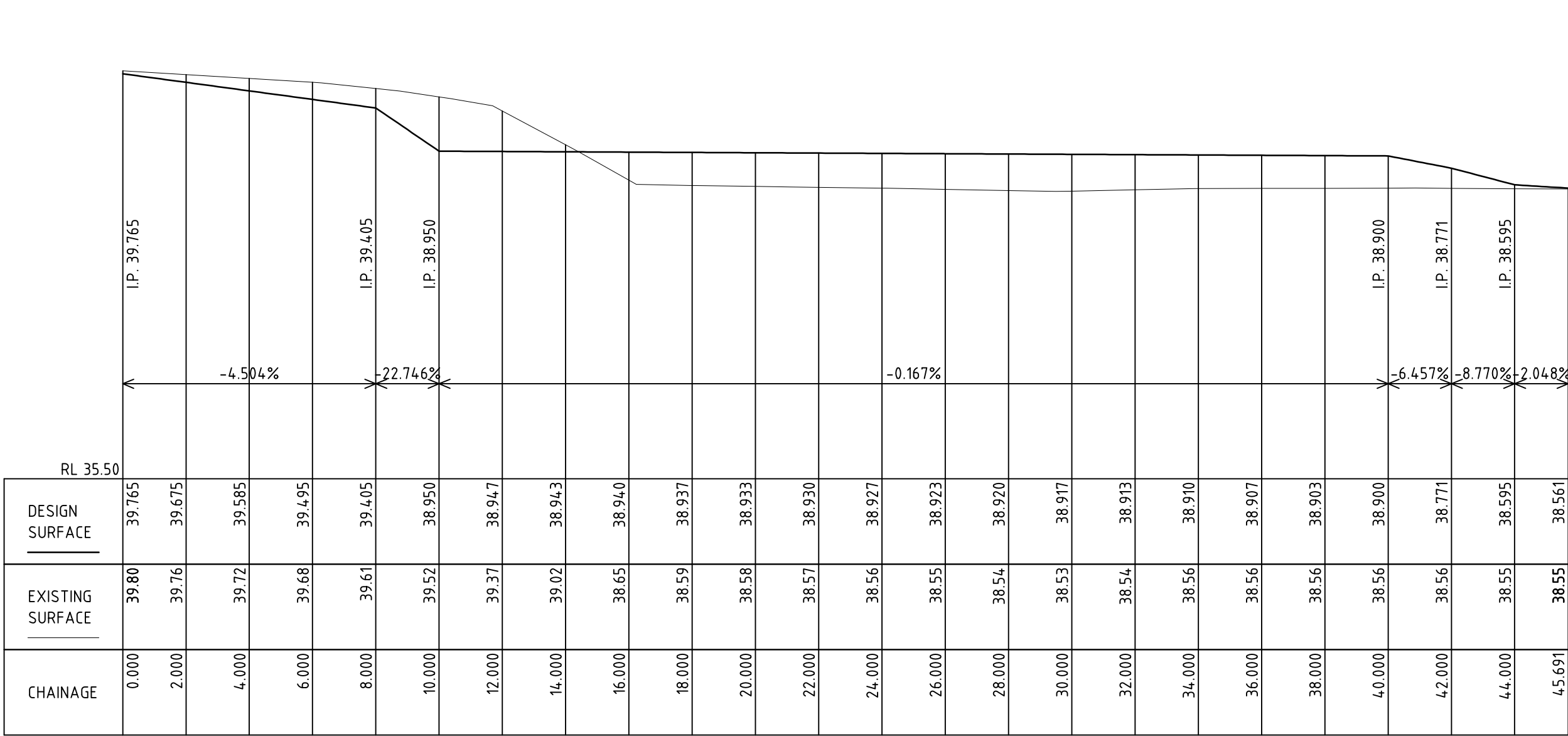
PROJECT: ACC SINGLETON
KELSO STREET, SINGLETON

TITLE: CHAINAGE PLAN
MAIN CARPARK

222120

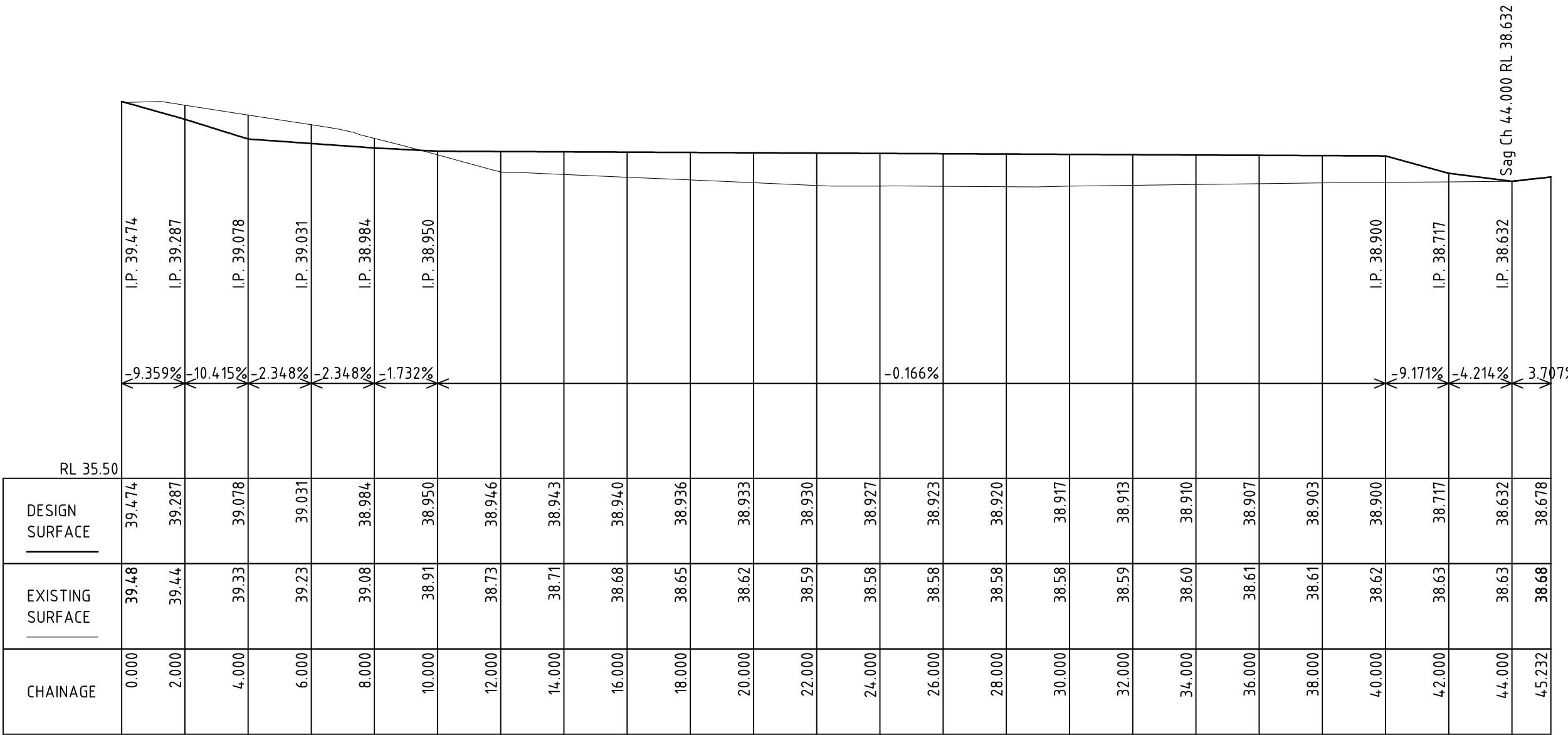
DRAWING: C16 REVISION: P2

DESIGNED: NZ
DRAWN: MR
CHECKED: NZ
DATE: SEP 22



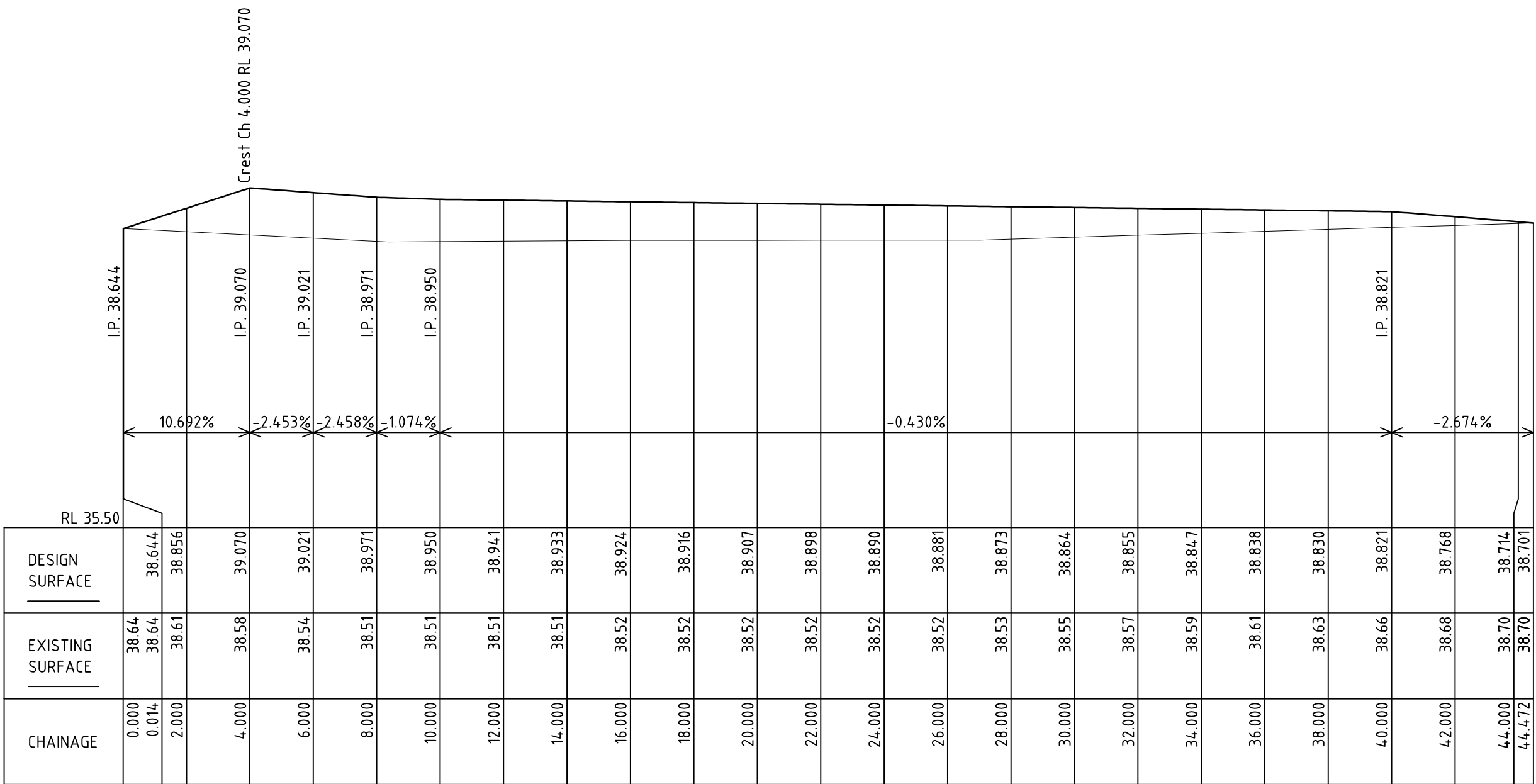
LONGITUDINAL SECTION
CP1 A Ch 0.000 To Ch 45.691
SCALES: HORIZONTAL 1:150 VERTICAL 1:50

SECTION CP1A
C16



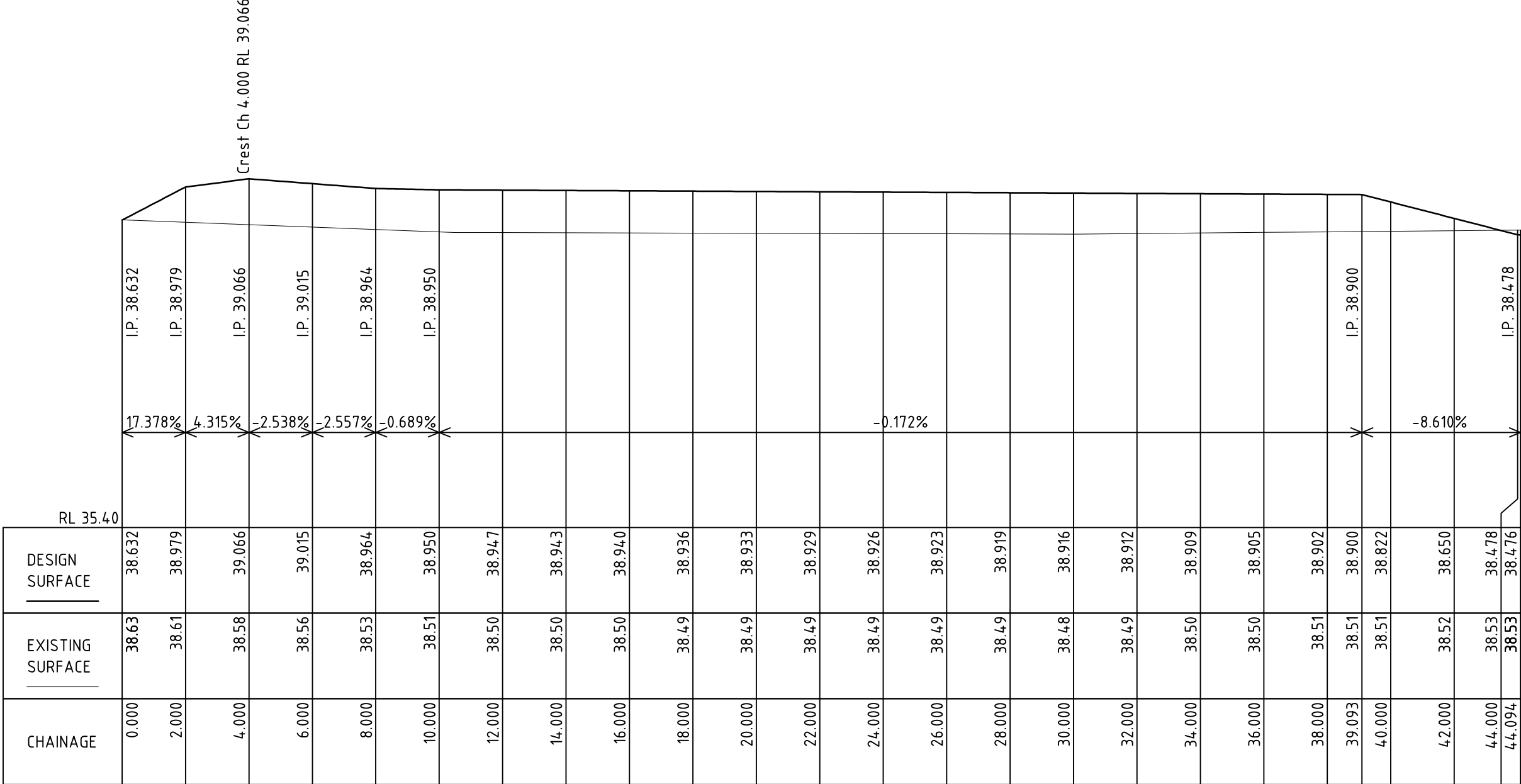
LONGITUDINAL SECTION
CP1 B Ch 0.000 To Ch 45.232
SCALES: HORIZONTAL 1:150 VERTICAL 1:50

SECTION CP1B
C16



LONGITUDINAL SECTION
CP1 C Ch 0.000 To Ch 44.472
SCALES: HORIZONTAL 1:150 VERTICAL 1:50

SECTION CP1C
C16



LONGITUDINAL SECTION
CP1 D Ch 0.000 To Ch 44.094
SCALES: HORIZONTAL 1:150 VERTICAL 1:50

SECTION CP1D
C16

	P1	04.03.2024	ADDITIONAL INFOMATION AS REQUESTED BY COUNCIL	NZ
REVISION	DATE		DESCRIPTION	BY

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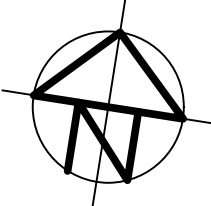
FOR DEVELOPMENT
APPLICATION

ARCHITECT: CHRISTIAN EDUCATION
MINISTRIES
CLIENT: AUSTRALIAN CHRISTIAN COLLEGE

PROJECT: ACC SINGLETON
KELSO STREET, SINGLETON
TITLE: MAIN CARPARK SECTIONS - SHEET 1

222120
DRAWING: C17
REVISION: P1
DATE: SEP 22

DESIGNED: NZ
DRAWN: MR
CHECKED: NZ
DATE: SEP 22

				
P1	04.03.2024	ADDITIONAL INFOMATION AS REQUESTED BY COUNCIL		NZ
REVISION	DATE	DESCRIPTION		BY

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FOR DEVELOPMENT APPLICATION

ARCHITECT: CHRISTIAN EDUCATION MINISTRIES

CLIENT: AUSTRALIAN CHRISTIAN COLLEGE

PROJECT: ACC SINGLETON
KELSO STREET, SINGLETON

TITLE: MAIN CARPARK SECTIONS - SHEET 2

222120

DRAWING: C18

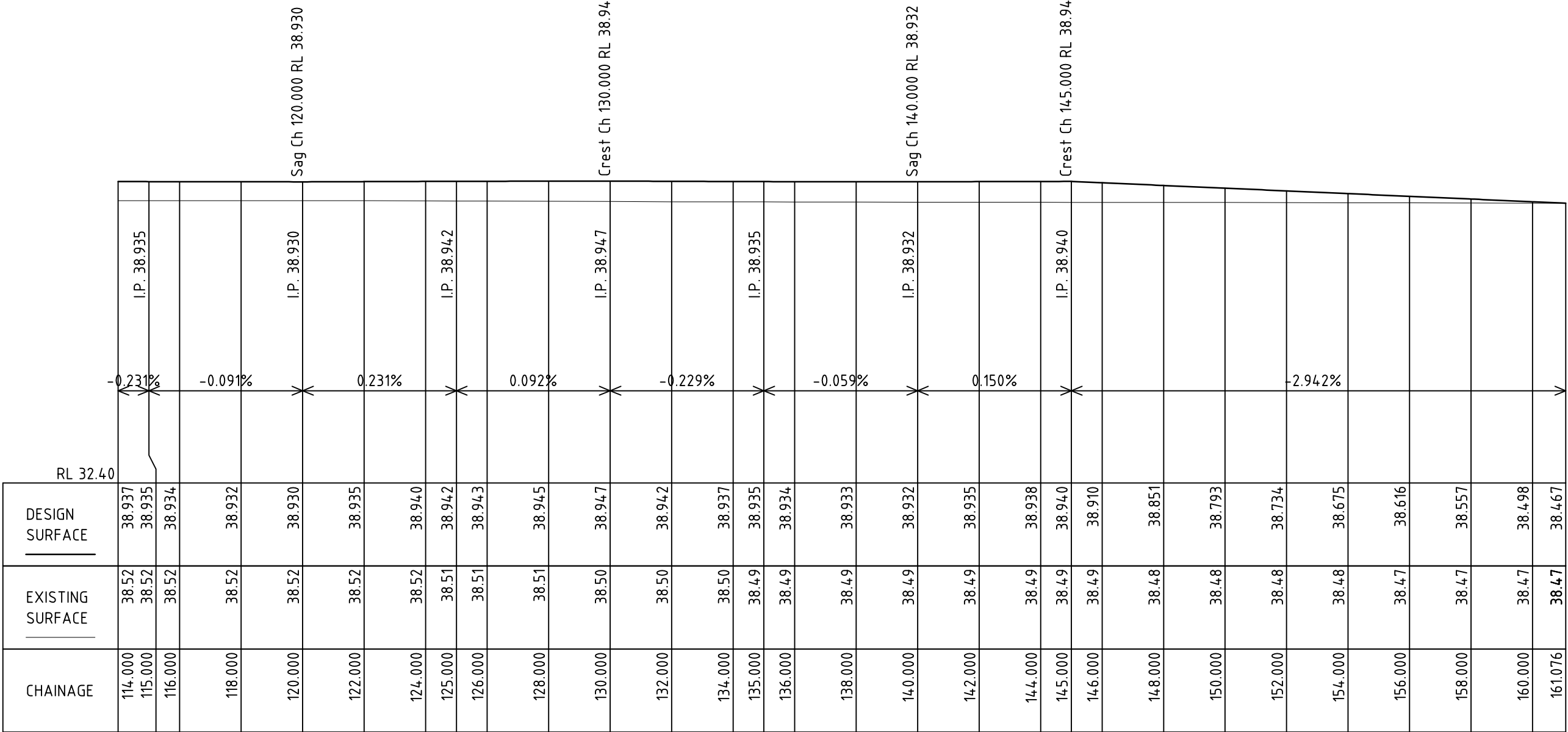
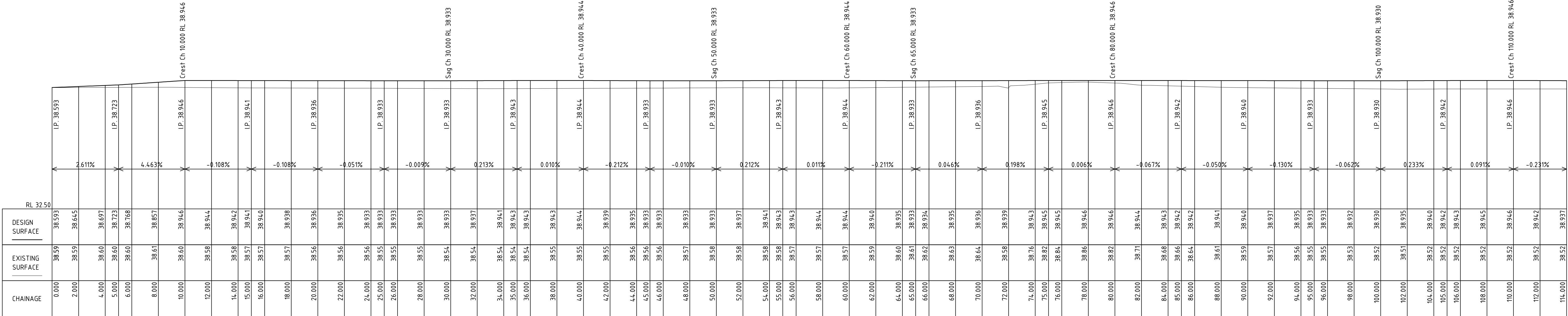
REVISION: P1

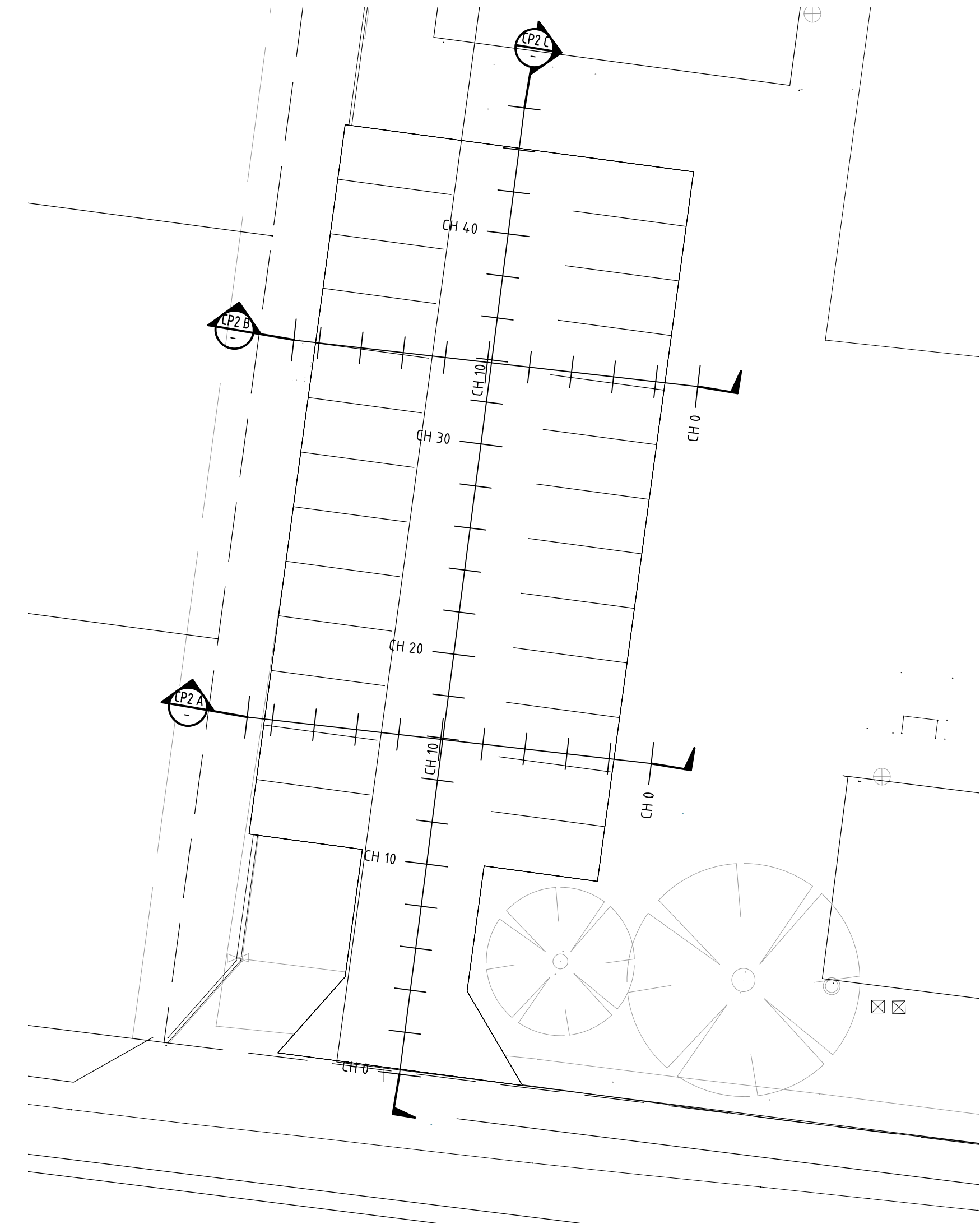
DESIGNED: NZ

DRAWN: MR

CHECKED: NZ

DATE: SEP 22





CHAINAGE PLAN SOUTHERN CARPARK SCALE 1:200

CHAINAGE	EXISTING SURFACE	DESIGN SURFACE	
0.000	39.63	39.630	I.P. 39.630
2.000	39.52	39.604	I.P. 39.604
4.000	39.51	39.575	I.P. 39.575
6.000	39.51	39.550	I.P. 39.550
8.000	39.47	39.527	I.P. 39.527
10.000	39.48	39.503	I.P. 39.503
12.000	39.50	39.475	I.P. 39.475
14.000	39.52	39.447	I.P. 39.447
16.000	39.58	39.423	I.P. 39.423
18.000	39.61	39.444	I.P. 39.444
20.000	39.63	39.437	I.P. 39.437
22.000	39.65	39.427	I.P. 39.427
24.000	39.68	39.448	I.P. 39.448
26.000	39.70	39.432	I.P. 39.432
28.000	39.72	39.431	I.P. 39.431
30.000	39.74	39.449	I.P. 39.449
32.000	39.76	39.428	I.P. 39.428
34.000	39.77	39.435	I.P. 39.435
36.000	39.79	39.445	I.P. 39.445
38.000	39.85	39.423	I.P. 39.423
40.000	39.85	39.439	I.P. 39.439
42.000	39.86	39.441	I.P. 39.441
44.000	39.93	39.468	I.P. 39.468
46.000	39.94	39.461	I.P. 39.461
46.240	39.94	39.941	I.P. 39.941

LONGITUDINAL SECTION
CP2 C Ch 0.000 to Ch 46.240
SCALES: HORIZONTAL 1:150 VERTICAL 1:50

SECTION CP2C

CHAINAGE	EXISTING SURFACE	DESIGN SURFACE	
0.000	39.83	39.831	I.P. 39.831
2.000	39.83	39.497	I.P. 39.497
4.000	39.82	39.480	I.P. 39.480
6.000	39.80	39.464	I.P. 39.464
8.000	39.79	39.448	I.P. 39.448
10.000	39.77	39.434	I.P. 39.434
12.000	39.73	39.450	I.P. 39.450
14.000	39.64	39.466	I.P. 39.466
16.000	39.57	39.482	I.P. 39.482
18.000	39.56	39.498	I.P. 39.498
19.200	39.53	39.534	I.P. 39.534

LONGITUDINAL SECTION
CP2 B Ch 0.000 to Ch 19.200
SCALES: HORIZONTAL 1:150 VERTICAL 1:50

SECTION CP2B

CHAINAGE	EXISTING SURFACE	DESIGN SURFACE	
0.000	39.53	39.532	I.P. 39.532
2.000	39.53	39.498	I.P. 39.498
4.000	39.53	39.478	I.P. 39.478
6.000	39.55	39.459	I.P. 39.459
8.000	39.57	39.440	I.P. 39.440
10.000	39.58	39.421	I.P. 39.421
12.000	39.60	39.439	I.P. 39.439
14.000	39.63	39.458	I.P. 39.458
16.000	39.66	39.477	I.P. 39.477
18.000	39.62	39.496	I.P. 39.496
19.200	39.60	39.597	I.P. 39.597

LONGITUDINAL SECTION
CP2 A Ch 0.000 to Ch 19.200
SCALES: HORIZONTAL 1:150 VERTICAL 1:50

SECTION CP2A



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	P1	04.03.2024	ADDITIONAL INFOMATION AS REQUESTED BY COUNCIL	NZ
REVISION	DATE		DESCRIPTION	BY

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FOR DEVELOPMENT
APPLICATION

ARCHITECT: CHRISTIAN EDUCATION
MINISTRIES

CLIENT: AUSTRALIAN CHRISTIAN COLLEGE

PROJECT: ACC SINGLETON
KELSO STREET, SINGLETON

TITLE: CHAINAGE PLAN & SECTIONS
SOUTHERN CARPARK

222120

DRAWING: C19

REVISION: P1

DESIGNED: NZ

DRAWN: MR

CHECKED: NZ

DATE: SEP 22



SEDIMENT FENCE CONSTRUCTION NOTES:

- SF1. Construct sediment fence as close as possible to parallel to the contours of the site.
- SF2. Drive 1.5m long star pickets into ground, 3m apart.
- SF3. Dig a 150mm deep trench along the upslope line of the fence for the bottom of the febric to be entrenched.
- SF4. Backfill trench over base of fabric.
- SF5. Fix self-supporting geotextile to upslope side of posts with wire ties or as recommended by geotextile manufacturer.
- SF6. Join sections of fabric at a support post with a 150mm overlap.

WIND EROSION FENCE CONSTRUCTION NOTES:

- WF1. Install fence to height and location as specified on sediment & erosion control plan.
- WF2. Cut a channel 200mm deep along fence line.
- WF3. Place a wire and light resistant, open-weave polymer mesh with 40% porosity on prevailing wind side of fence.
- WF4. Fasten mesh to all wires using ring fasteners at 100mm-150mm intervals on top and 300mm intervals on other wires.
- WF5. Use one ø75-ø100mm treated round post every 20 metres.
- WF6. Star pickets to be fitted with safety caps.

SITE STABILISATION ACCESS NOTES:

- SA1. Strip topsoil, level site and compact subgrade.
- SA2. Cover area with needle-punched geotextile or 30mm aggregate. minimum length 15m or to building alignment. minimum width 3m.
- SA3. Construct hump immediately within boundary to divert water to a sediment fence or sediment trap.

SOIL & WATER MANAGEMENT PLAN NOTES:

CONSTRUCTION SEQUENCE:

- MP1. Construct stabilised site accesses.
- MP2. Install all barrier fencing to exclude access to the nominated restricted areas.
- MP3. Construct earth banks and cut-off drains to direct overland flow beyond the site.
- MP4. Construct earth banks & cut-off drains to direct overland flow to the designated outlet pit.
- MP5. Strip and stockpile topsoil from those lands to be exposed to construction activities.
- MP6. Undertake works according to the engineering plans.

SITE INSPECTION MAINTENANCE CONDITIONS:

- MC1. Waste bins will be emptied as necessary. disposal of waste will be in a manner approved by the site superintendent.
- MC2. The site superintendent will inspect the site at least weekly and will:

a. Ensure that drains opeate properly and to effect any necessary repairs;

b. Remove spilled sand or other materials from hazard areas, including lands closer than five metres from areas of likely concentrated or high velocity flows especially waterways and paved areas;

c. Remove trapped sediment whenever less than design capacity remains within the structure;

d. Ensure rehabilitated lands have effectively reduced the erosion hazard and to initiate upgrading or repair as appropriate;

e. Maintain erosion and sediment control measures in a fully functioning condition until all earthwork activities are completed and the site is rehabilitated; and

f. Remove temporary soil conservation structures as the last activity in the rehabilitation program.

- MC3. As a part of the statutory “diligence and care” responsibilities, the site superintendent will keep a log book, making entries at least weekly, immediately before forecast rain and after rainfall. entries will include:

- a. The volume and intensity of any rainfall events;

b. The condition of any soil and water management works;

c. The condition of vegetation and any need to irrigate;

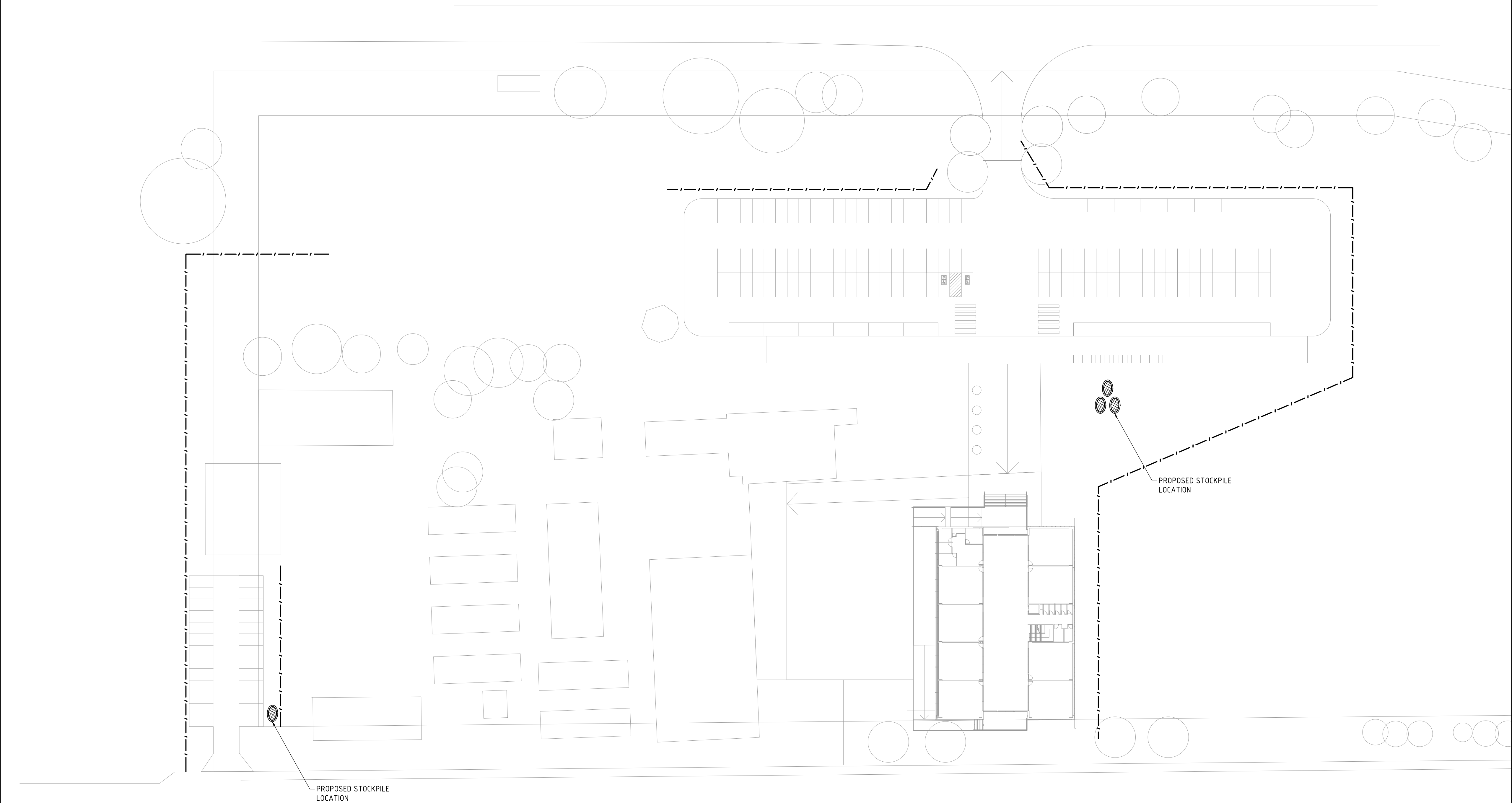
d. The need for dust prevention strategies; and

e. Any remedial works to be undertaken.

f. Each connection to an existing stormwater drain.

g. Any change of direction greater than 45°.

The book will be kept on-site and made available to any authorised person on request. it will be given to the project manager at the conclusion of works.



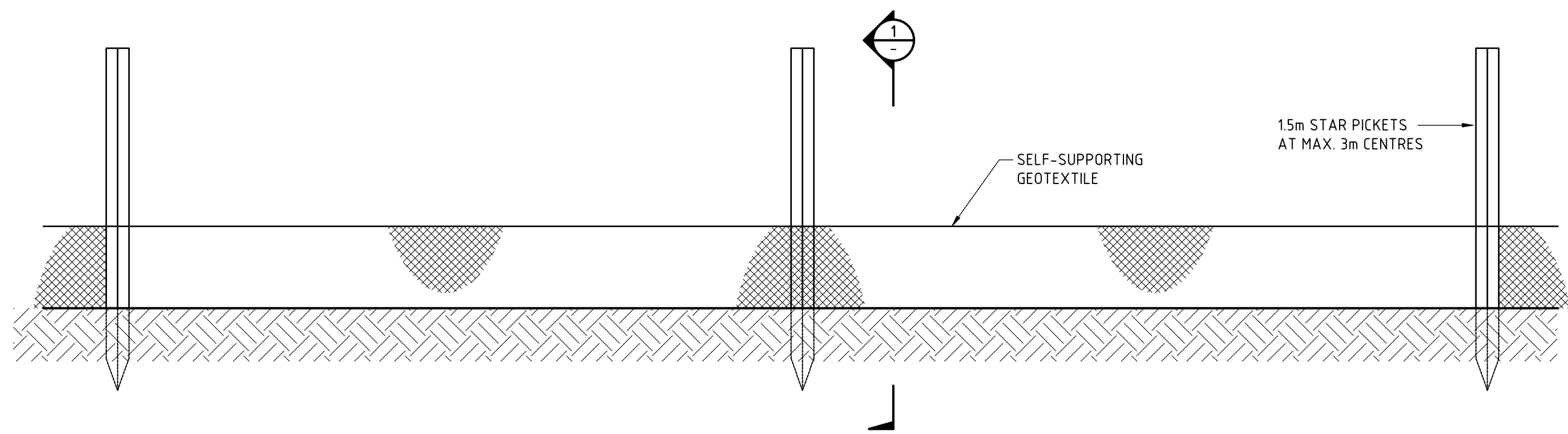
SEDIMENT CONTROL PLAN

SCALE 1:500

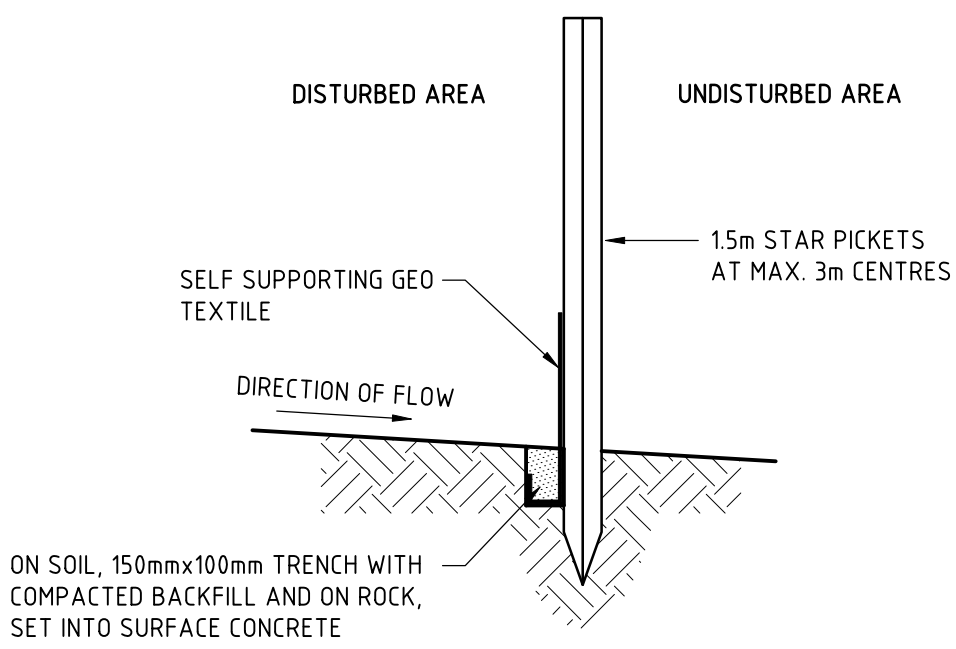
- DENOTES SEDIMENT CONTROL FENCE.
- DENOTES WIND EROSION FENCE.



					This drawing MUST be read in conjunction with ALL drawings for this project including but not limited to all construction notes. It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.	FOR DEVELOPMENT APPLICATION	ARCHITECT: CHRISTIAN EDUCATION MINISTRIES CLIENT: AUSTRALIAN CHRISTIAN COLLEGE	PROJECT: ACC SINGLETON KELSO STREET, SINGLETON TITLE: SEDIMENT AND EROSION CONTROL PLAN	222120		DESIGNED: NZ
											DRAWN: MR
											CHECKED: NZ
											DATE: SEP 22
REVISION	DATE	DESCRIPTION			BY				DRAWING: SE02	REVISION: P2	



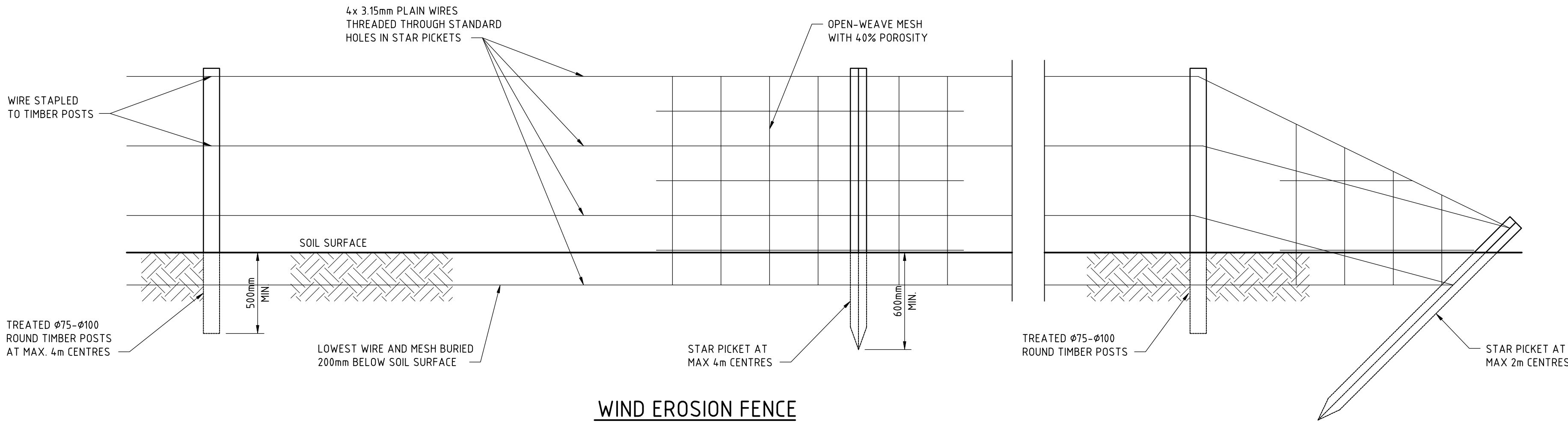
STANDARD SEDIMENT FENCE
SCALE 1:20



SECTION 1
SCALE 1:20

SEDIMENT FENCE CONSTRUCTION NOTES

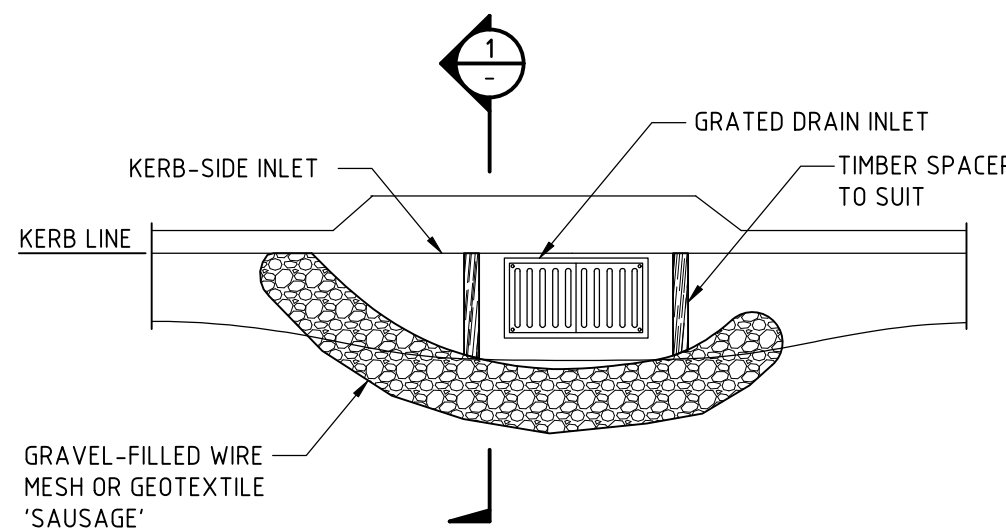
1. CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE.
2. DRIVE 1.5m LONG STAR PICKETS INTO GROUND, 3m APART.
3. DIG A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
4. BACKFILL TRENCH OVER BASE OF FABRIC.
5. FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES OR AS RECOMMENDED BY GEOTEXTILE MANUFACTURER.
6. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.



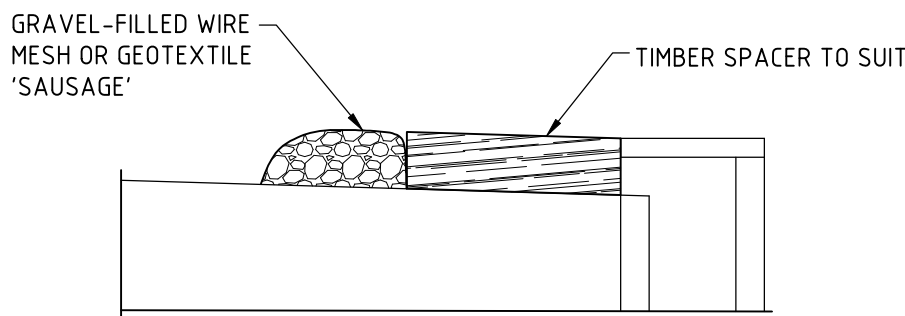
WIND EROSION FENCE
SCALE 1:20

WIND EROSION FENCE CONSTRUCTION NOTES

1. INSTALL FENCE TO HEIGHT AND LOCATION AS SPECIFIED ON SEDIMENT & EROSION CONTROL PLAN.
2. CUT A CHANNEL 200mm DEEP ALONG FENCE LINE.
3. PLACE A WIRE AND LIGHT RESISTANT, OPEN-WEAVE POLYMER MESH WITH 40% POROSITY ON PREVAILING WIND SIDE OF FENCE.
4. FASTEN MESH TO ALL WIRES USING RING FASTENERS AT 100mm-150mm INTERVALS ON TOP AND 300mm INTERVALS ON OTHER WIRES.
5. USE ONE 75-100mm TREATED ROUND POST EVERY 20 METRES.
6. STAR PICKETS TO BE FITTED WITH SAFETY CAPS.



SEDIMENT TRAP SOCK ARRANGMENT
SCALE 1:50



SECTION 1
SCALE 1:20

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					It is the Client's responsibility to ensure that works depicted on drawings or other documents produced by Demlakian Consulting Engineers have all approvals by relevant authorities as required.					DRAWN: MR
										CHECKED: NZ
P1	19.09.2023		ISSUED FOR DA	NZ			CLIENT: AUSTRALIAN CHRISTIAN COLLEGE	TITLE: SEDIMENT AND EROSION CONTROL DETAILS		DATE: SEP 22
REVISION	DATE		DESCRIPTION	BY					DRAWING: SE03	REVISION: P1



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D	Issue for Council RFI - additional landscape	MJW	RS	31.10.2024
C	Issue for Council RFI - additional landscape	MJW	RS	28.10.2024
B	Issue for Council RFI	MJW	RS	23.05.2024
A	Issue for DA	MJW	RS	28.03.2024
Issue	Revision Description	Drawn	Check	Date

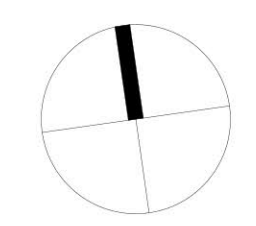
Legend

- Property boundary
- Existing trees to be retained and protected
- Proposed trees
- Levels

- Shrub & Accent planting
- Groundcover planting
- Lawn
- Mulch

- Concrete paving
- Steel garden edge

Key Plan



SITE IMAGE

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Client
CEM

Project
ACC Singleton
109-129 Kelso Street,
Singleton NSW 2330

Drawing Name
Landscape masterplan (render)

DEVELOPMENT APPLICATION

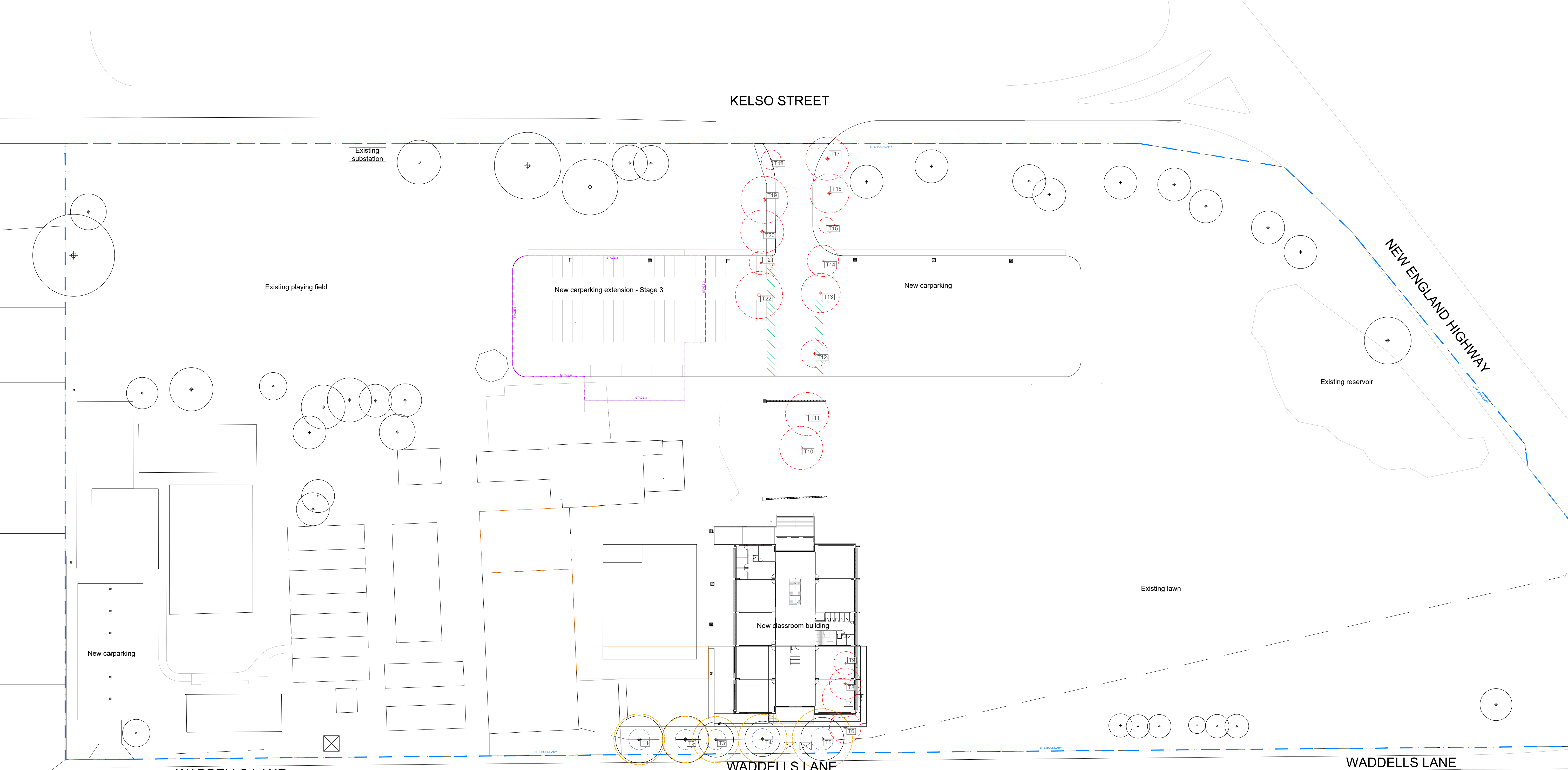
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Job Number
SS24-5320

0 2 5 10 15 25m

Drawing Number
C100

Issue
D



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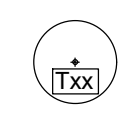
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Issue	Revision Description	Drawn	Check	Date

Legend

Property boundary



Existing trees to be retained and protected.
Refer to spec. Numbers correlate with Arborists Report



Existing trees to be removed.
Numbers correlate with Arborists Report

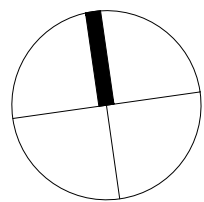


Tree protection zone (TPZ).
Refer to Arborists report for working around existing trees



Structural root zone (SRZ).
Refer to Arborists report for working around existing trees

Key Plan



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Project

ACC Singleton
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Singleton NSW 2330

Drawing Name

Existing tree management plan

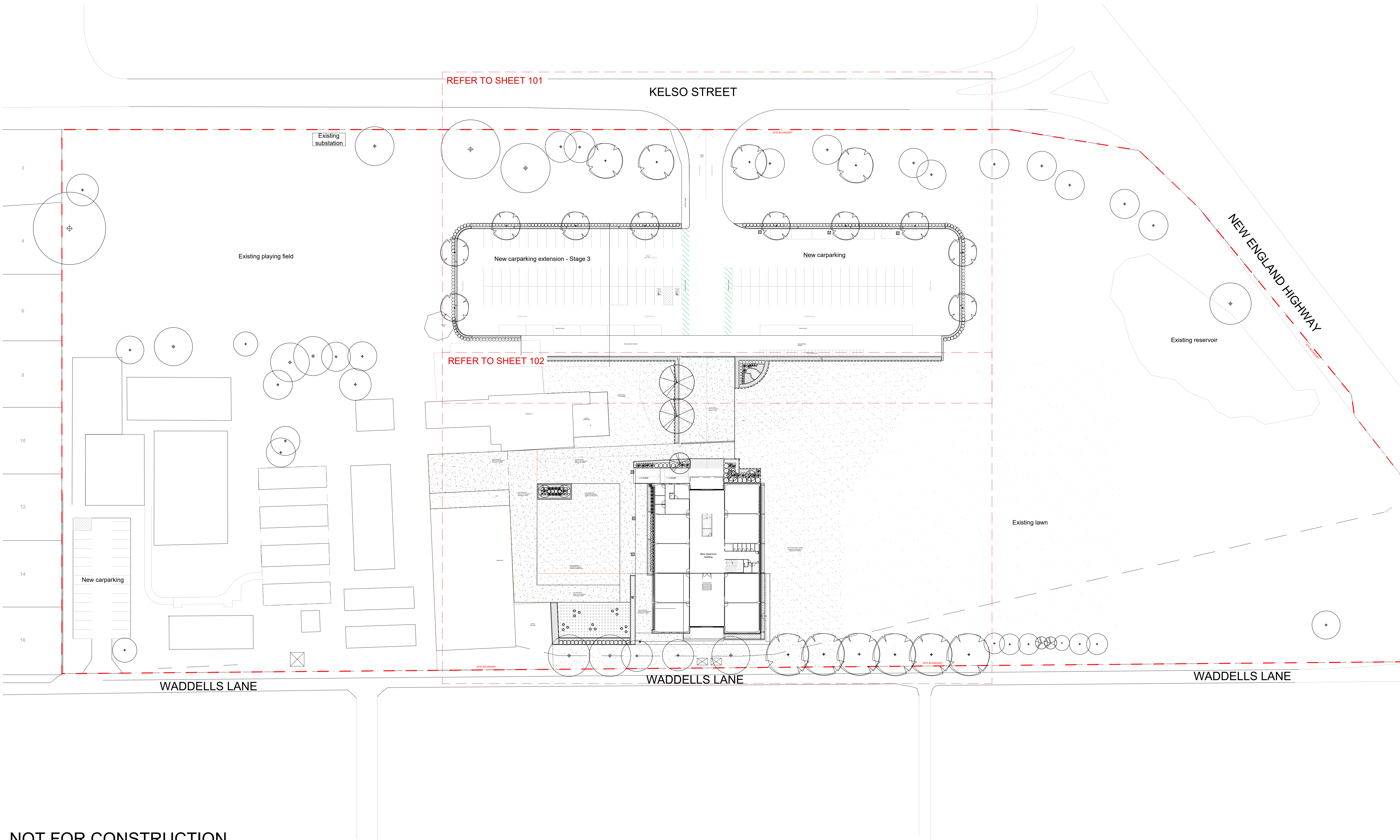
DEVELOPMENT APPLICATION

Scale 1:500 @ A1

Job Number
SS24-5320

Drawing Number
001

Issue
C



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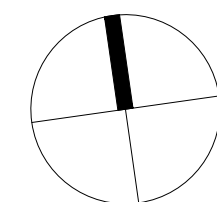
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A	Issue for DA	MJW	RS	28.03.2024
Issue	Revision Description	Drawn	Check	Date

Legend

- Property boundary
- Existing trees to be retained and protected
- Proposed trees
- Levels

- Shrub & Accent planting
- Groundcover planting
- Lawn
- Mulch
- Concrete paving
- Steel garden edge

Key Plan



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Drawing Name
Landscape masterplan

DEVELOPMENT APPLICATION

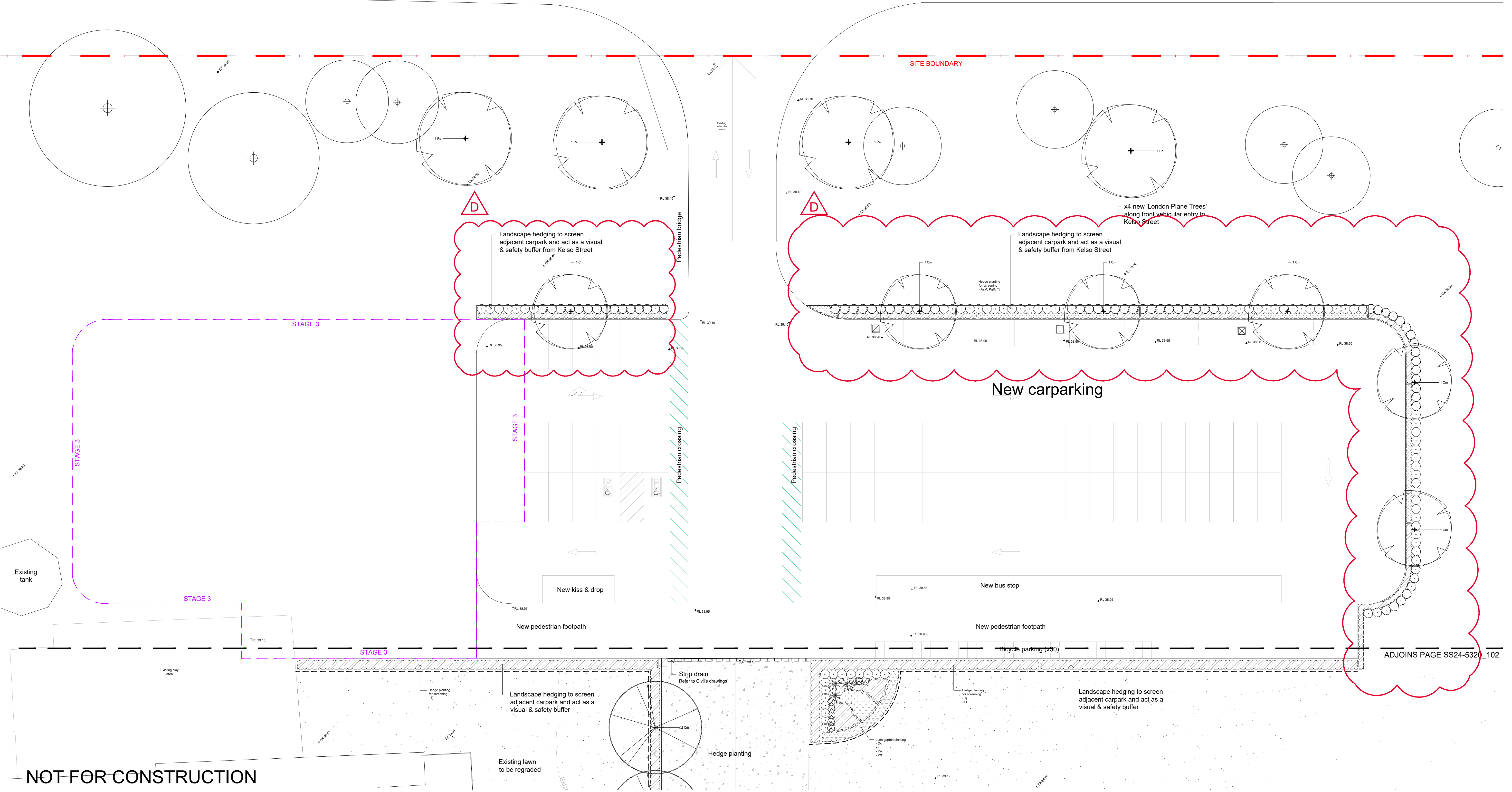
Scale 1:500 @ A1
Job Number
SS24-5320

0 2 5 10 15 25m
Drawing Number
100
Issue
D

Updated Landscape Plan

As discussed with Council, there is additional landscaping to the main carpark. Native trees, groundcovers & hedge planting are around the carpark as a visual and safety buffer from Kelso Street and the School.

KELSO STREET



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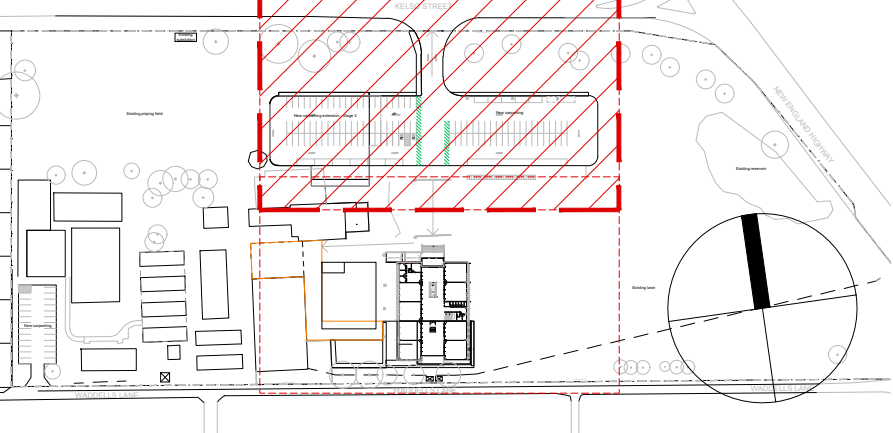
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A	Issue for DA	MJW	RS	28.03.2024
Issue	Revision Description	Drawn	Check	Date

Legend

- Property boundary
- Existing trees to be retained and protected
- Proposed trees
- Levels
- Shrub & Accent planting
- Groundcover planting
- Lawn
- Mulch
- Concrete paving
- Steel garden edge
- Stage 2
- Stage 3
- Stage 4

Key Plan

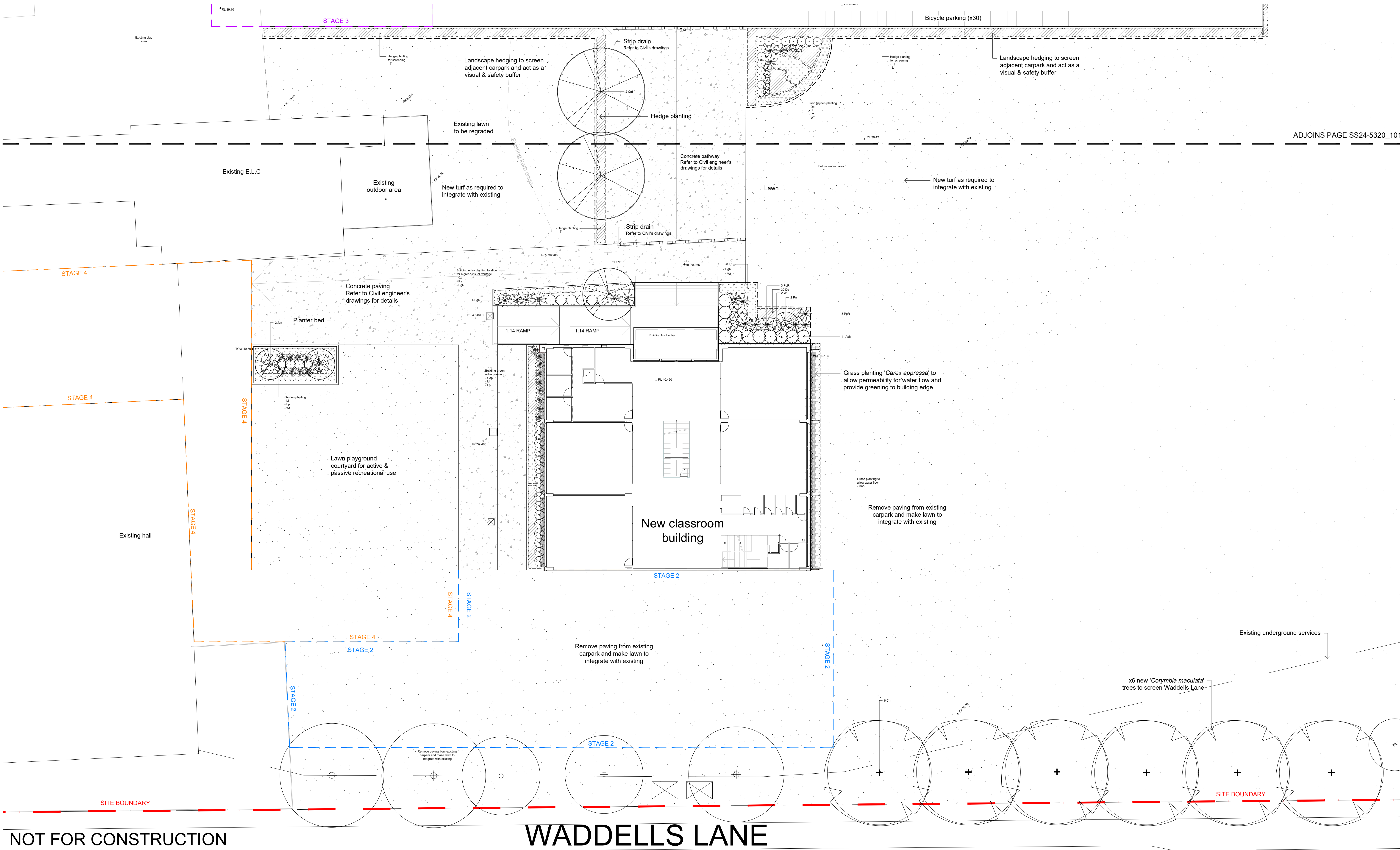


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Project
ACC Singleton
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Drawing Name
General arrangement plan 1
Stage 1

DEVELOPMENT APPLICATION
Scale 1:200 @ A1
Job Number
SS24-5320
Drawing Number
101
Issue
D



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WADDELLS LANE

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Issue	Revision Description	Drawn	Check	Date

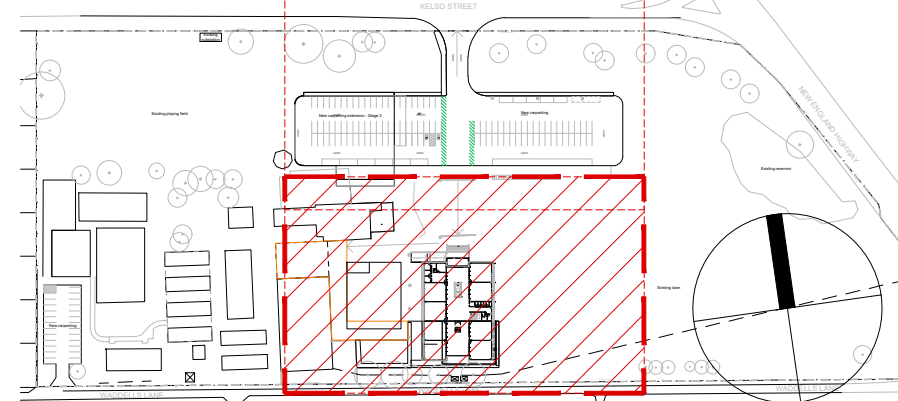
Legend

- Property boundary
- Existing trees to be retained and protected
- Proposed trees
- Levels
EX - Existing level
TOW - Top of wall level

- Shrub & Accent planting
Refer to sheet 500 for plant species
- Groundcover planting
Refer to sheet 500 for plant species
- Lawn
- Mulch
- Concrete paving
Refer to architect's detail
- Steel garden edge

- Stage 2
- Stage 3
- Stage 4

Key Plan



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Client
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Project
ACC Singleton
109-129 Kelso Street,
Singleton NSW 2330

Drawing Name
General arrangement plan 2
Stage 1

DEVELOPMENT APPLICATION

Scale 1:200 @ A1
Job Number
SS24-5320

0 1 2 4 6 10m
Drawing Number
102
Issue
D

As discussed with Council, there is additional landscaping to the main carpark. Native trees, groundcovers & hedge planting are around the carpark as a visual and safety buffer from Kelso Street and the School.

Site Boundary

New carparking

New bus stop

New pedestrian footpath

Bicycle parking (x30)

Landscaping and Infrastructure:







- x4 new 'London Plane Trees' along front vehicular entry to Kelso Street
- Landscape hedging to screen adjacent carpark and act as a visual & safety buffer from Kelso Street
- Hedge planting for screening - AUM, Pgh, TJ
- Lush garden planting - Ds, LJ, Pw, WT
- Strip drain Refer to Civil's drawings
- Hedge planting
- Existing outdoor area
- Pedestrian bridge
- Pedestrian crossing

Other Labels:

- RL 38.70
- RL 38.40
- RL 38.10
- RL 38.30
- RL 38.95
- RL 38.90
- RL 38.85
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- RL 24.90
-

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Issue	Revision Description	Drawn	Check	Date

	Shrub & Accent planting Refer to sheet 500 for plant species		Concrete paving To architect's detail
	Groundcover planting Refer to sheet 500 for plant species		Steel garden edge
	Lawn		
	Mulch		

Key Plan

The key plan shows the project site as a red-outlined rectangle with diagonal hatching. It is situated at the intersection of Main Street and Elm Street. To the west of the site are various commercial buildings and parking lots. To the east is a large circular area labeled 'Pond'. A north arrow is located in the bottom right corner.

Client
CEM

Project
ACC Singleton
109-129 Kelso Street,
Singleton NSW 2330

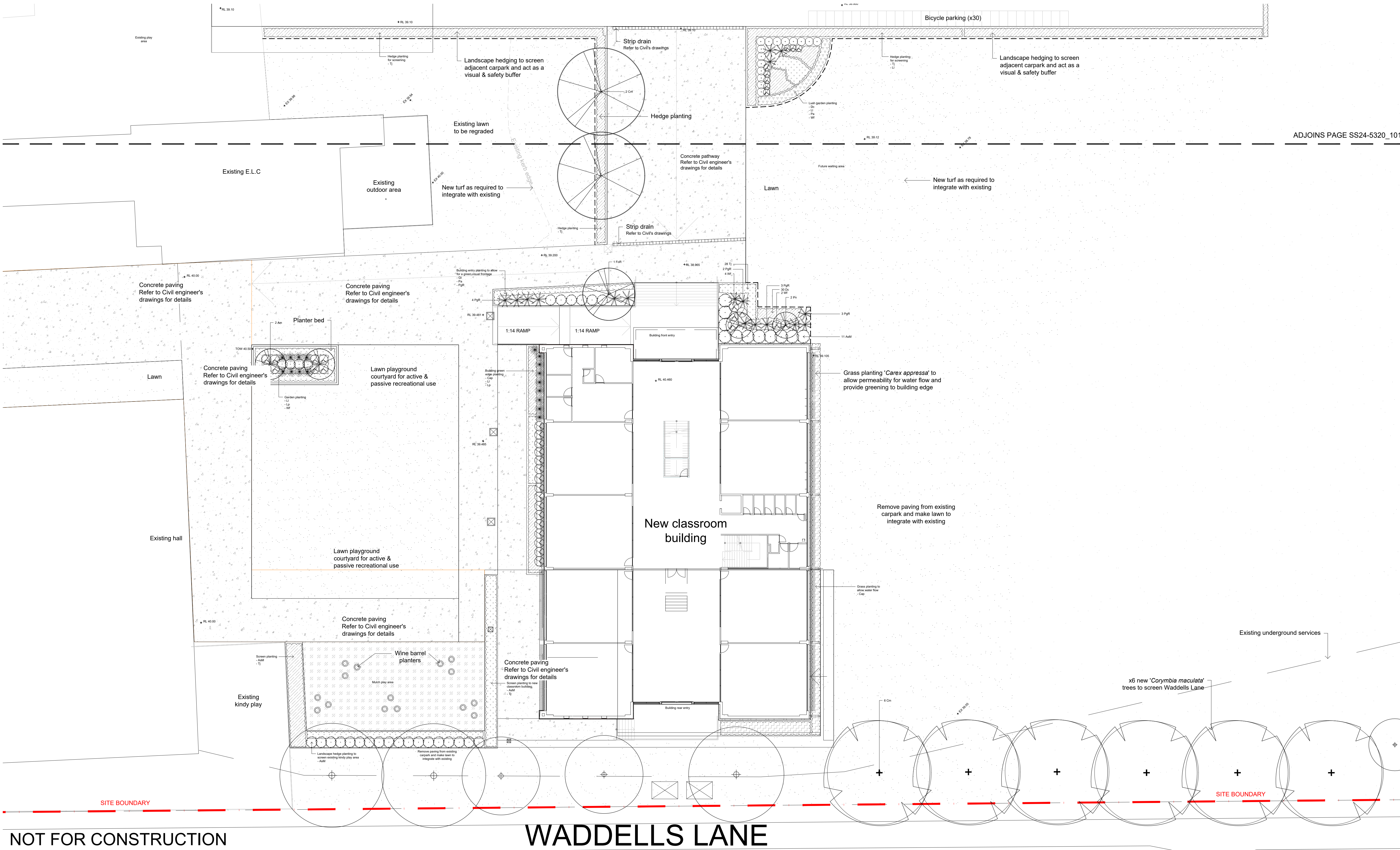
DEVELOPMENT APPLICATION

Scale 1:200 @ A1

Job Number SS24-5320

Drawing Number 201

Issue D



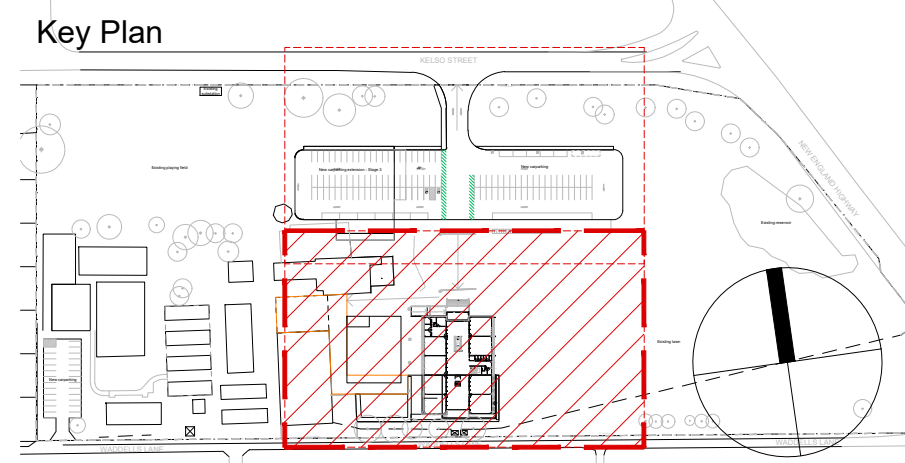
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Legend	Property boundary
Existing trees to be retained and protected	Proposed trees
Levels	Refer to sheet 500 for tree species
EX - Existing level	
TOW - Top of wall level	

Shrub & Accent planting	Concrete paving
Refer to sheet 500 for plant species	To architect's detail
Groundcover planting	Steel garden edge
Refer to sheet 500 for plant species	
Lawn	
Mulch	



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Client

CEM

Project

ACC Singleton

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Singleton NSW 2330

Drawing Name

General arrangement plan 2

Stage 2

DEVELOPMENT APPLICATION

Scale 1:200 @ A1

Job Number

SS24-5320

0 1 2 4 6 10m

Drawing Number

202

Issue

D

SPECIFICATION

GENERAL NOTES

References

All plans and details included in the project documents shall be read in conjunction with this specification. All structural and civil works components of the landscape design shall be referenced to engineers' details and specifications. Read this specification in conjunction with the plant and materials schedules on the drawings. If in doubt about any detail or if conflicts are found in the documents, seek advice.

Workmanship and Materials

The whole of the landscape works shall be carried out by a competent, trained and qualified landscape contractor who is experienced in horticultural practices, landscape construction and planting techniques. The landscape contractor shall hold a current Building Contractors License and/or be a financial member of LNA Landscape Association NSW & ACT or equivalent organisations in other states.

EXISTING TREES AND SHRUBS

Trees and Shrubs to be Retained and Protected

Identify and mark trees and shrubs to be retained using a suitable non-injurious, easily visible and identifiable means as required for the new works to ensure that all gardens are well drained. Connect the sub-soil drainage pipes to the nearest downstream stormwater pits. Include pipe filter socks and course sharp aggregate backfilling of trenches.

Work Near Trees and Shrubs

Keep the area of the drip-line free from construction material and debris. Do not place bulk materials and harmful materials under foliage canopies or near trees. Do not place spoil from excavations against tree trunks. Prevent wind-blown building materials, such as cement, from covering trees and other plants. Do not remove topsoil from, or add topsoil to, the area within the drip-line of trees.

EARTHWORKS

Excavation, Trimming and Filling

Except as otherwise noted in the contract, bulk excavation is excluded from the landscape works. After the completion of bulk excavation by others, trim and fill the excavated ground surfaces to achieve design levels to accommodate finish materials as detailed. Prepare the sub-grade surface as required for the various finished ground treatments.

Site Drainage

Keep the excavated works drained and free of standing water. Allow to supply and install sub-soil drainage pipes as required for the new works to ensure that all gardens are well drained. Connect the sub-soil drainage pipes to the nearest downstream stormwater pits. Include pipe filter socks and course sharp aggregate backfilling of trenches.

HARDWORKS

Furniture, Handrails, Balustrades

Supply and install the scheduled material pavement to the locations shown on plan. Ensure that all subgrade/subsurface works are complete prior to commencing paving. Confer with the engineer to ensure the structural integrity of the subgrade. Ensure that the base course under paved surfaces is a continuous plane offering a constant depth of bedding material not exceeding 50mm. If laying unit pavers in a cement mortar bed on a concrete sub-base ensure that joints in paving match the location of joints in the concrete. Refer to engineer's details for structural retaining walls, concrete stairs, concrete strength, reinforcing and joint placement.

Garden Walls, Fences, Steps, TGSi and Edging

Construct garden walls, fences, steps, TGSi and edging as shown on plan, as detailed and of the material scheduled. Provide footings, step nosings, tactile surfaces to comply with Australian Standards and applicable legislation. Refer to engineer's details for structural retaining walls, concrete stairs, concrete strength, reinforcing and joint placement.

Continuous, Unit and Loose Pavement

Install the scheduled material pavement to the locations shown on plan. Ensure that all subgrade/subsurface works are complete prior to commencing paving. Confer with the engineer to ensure the structural integrity of the subgrade. Ensure that the base course under paved surfaces is a continuous plane offering a constant depth of bedding material not exceeding 50mm. If laying unit pavers in a cement mortar bed on a concrete sub-base ensure that joints in paving match the location of joints in the concrete. Refer to engineer's details for structural retaining walls, concrete stairs, concrete strength, reinforcing, and joint type and placement.

• In situ concrete paths: Wood float coved finish, tool edged.

• Path joints: Construction joints at 3000mm centres max.

Landscape Structures

All landscape structures shall have a common appearance in detail and material content while providing for the functional design requirements. The structure of all elements shall consist of a base frame of structural grade hardwood timber of sizes that sustain spans and maintain stability. Refer to drawn details for further information.

SOFTWORKS

Site Soil Testing

Where site soil is to be retrieved from site and stored on site for reuse, undertake at least two (2) soil tests in locations as advised by the Project Manager or as shown on the plans. Provide results and recommendations regarding soil additives for the benefit of healthy plant growth and to adjust the soil components to achieve an appropriate planting medium for successful plant development. Where topsoil is imported to site no testing of the imported soil is necessary but ensure that imported soil can be supplied with test data to verify that it suits the design plants.

Subsoil

Excavate and/or fill all garden beds to bring the top of subsoil to at least 300mm below finished design soil levels. Excavate all turf areas to bring the subsoil to at least 100mm below finished design levels. In all areas shape the subsoil to fall to subsoil drains where applicable. Do not excavate within the drip line of trees and shrubs to be retained. Cultivate or rip the subsoil to a further depth of 100mm before placing top soil. Remove stones of size exceeding 25mm, clods of earth exceeding 50mm, and weeds, rubbish or other deleterious material brought to the surface during cultivation. Do not disturb services or existing tree roots. If necessary, cultivate these areas by hand. During cultivation, thoroughly mix in materials required to be incorporated into the subsoil, as recommended in the soil testing results and to manufacturer's recommendations. Trim the surface to design levels again after cultivation.

Subsoil Drainage

Provide and install subsoil drainage equal to Vinidex 65mm (min) Draincoil with filter sock at the base of slopes, on the high side of paths, at the base behind retaining walls and where water is likely to accumulate at depth in the soil. Connect all subsoil drainage to the nearest downstream stormwater pit to ensure that subsoil water is managed and channelled to a stormwater drainage system. On sites with cross fall of less than 1:50 install subsoil drains to remove excess water from the subsoil in areas where water is likely to accumulate and may not penetrate lower strata naturally. Rip the sub-base surface 150mm deep before placing any soil. Install drainage pipes in subsoil trenches backfilled with 10mm blue metal (basalt) equal to ANL Blue Metal.

Coordinate the connection of subsoil drains to stormwater pits with the Civil or Hydraulic contractor.

Topsoil

Import topsoil for the garden and turf areas, unless the topsoil can be provided from material recovered from the site, as recommended in the soil testing results. Spread the topsoil on the prepared subsoil

and grade evenly, compact lightly and uniformly in 150mm layers. Avoid differential subsidence and excess compaction and produce a finished topsoil surface which has the following characteristics:

- Finished to design levels, allowing for mulch or turf, which is to finish flush with adjoining hard surfaces such as paths and edges;
- Smooth and free from inorganic matter, stones or clods of soil;
- Graded to drain freely, without ponding, to catchment and/or sub-soil drains;
- Graded evenly to adjoining surfaces; and
- Ready for planting.

Compost

Provide, in accordance with AS 4454, well rotted vegetative material or animal manure, free from harmful chemicals, inorganic matter, grass, weeds and the reproductive parts of unwanted plants.

Fertiliser

Provide proprietary fertilisers, delivered to the site in sealed containers marked to show manufacturer or vendor, weight, fertiliser type, N-P-K ratio, recommended uses, application rates and safety procedures. Apply appropriate fertiliser suited to the provenance of plants (indigenous or exotic) included in the design.

Plants

Supply plants in accordance with the landscape design drawings and schedules, which have the following characteristics:

- Large healthy root systems, with no evidence of root curl, restriction or damage;
- Vigorous, well established, free from disease and pests, of good form consistent with the species/Variety;
- Hardened off, not soft or forced, and suitable for planting in the natural climatic conditions prevailing at the site in full sun, partial shade or full shade conditions;
- Grown in final containers for not less than twelve weeks;
- Trees, unless required to be multi-stemmed, shall have a single leading shoot; and
- Containers shall be free from weeds and of appropriate size in relation to the specified plant size.

Plant Installation

Following excavation of the planting hole, place and spread 15gms of wetting agent pre-mixed with one (1) litre of water. Place the plant correctly orientated to north or for best presentation. Backfill the planting holes with specified topsoil mixture. Lightly tamp and water to eliminate air pockets. Ensure that the backfill soil is not placed over the top of the root ball and that the root ball is not higher than the soil in which it is planted. Apply fertiliser, as specified around the plants in the soil at the time of planting.

Embankment Stabilisation

Where necessary and shown on the drawings prevent soil erosion or soil movement by stabilising embankments as follows. As a minimum, this should be on slopes steeper than or equal to 1:3 gradient. Stabilise embankments using biodegradable fibre reinforced heavy weight jute fabric. Lay fabric from top to bottom of slope. Install in accordance with manufacturer's specification, including 300 x 300mm anchor trench at top and bottom of slope, backfilled with soil over the fabric and compacted into the trenches. Using U-shaped galvanised steel pegs at 1000 mm centres generally and 250mm centres at edge overlaps, secure the fabric to the prepared soil surface. Plant through the fabric after it is installed.

Root Barrier

Supply and install root control barriers to all new tree plantings adjacent to walls, paths, kerbs and all service trenches, where their proximity poses a threat to the stability of the built infrastructure. Install in accordance with manufacturer's recommendations.

Mulch

Unless noted otherwise, mulch shall be approved proprietary recycled wood fibre or pine bark material. Place mulch in all garden beds to a depth of 75mm after all specified plants are installed. Keep mulch clear of all plant stems and rake to an even plane, flush with the surrounding surfaces evenly graded between design surface levels. Over fill to allow mulch to settle to the specified depth.

Stakes and Ties

Stakes shall be durable hardwood, straight, free of knots and twists, pointed at one end, in the following quantities and sizes for each of the various plant pot sizes:

- Plants >25 lt: 1 off 38 x 38 x 1200mm;
- Semi-advanced plants >75 lt: 2 off 50x50x 1800mm;
- Advanced plants >100 lt: 3 off 50 x 50 x 2400mm.

Turf

Turf shall be delivered to site as 25mm minimum thick cut rolls. Obtain turf from a specialist grower of cultivated turf. Turf shall have an even thickness, free from weeds and other foreign matter. Deliver turf to the site within 24 hours of being cut and lay it within 24 hours of delivery. Prevent it from drying out between cutting and laying. Lay the turf in the following manner:

- In stretcher pattern, joints staggered and close butted;
- Parallel long sides of level areas, with contours on slopes; and
- To finish flush, after lightly tamping, with adjacent finished surfaces and design levels.

Species: *Stenotaphrum secundatum* Sir Walter Soft-leaf Buffalo.

IRRIGATION

Scope: Unless otherwise noted or instructed irrigate all planted areas shown on plans including planters, tubs, gardens, turf and the like. The irrigation system shall be an automatic permanent system, with an irrigation controller self operated via a soil moisture sensor. The system shall be calibrated to deliver the optimum rate and volume of water appropriate to the type of plants in the design. The system shall be adjustable and fully serviceable. The layout of the entire irrigation system shall focus on delivering the required amount of water to maintain healthy and vigorous growth. The irrigation system shall be such that, component theft, vandalism, over-spray and wetting of paths shall be reduced to a minimum or eliminated with the use of drip, pop-up sprinklers and judiciously placed fixed spray emitters. Generally, do not use fine mist emitters that provide a drifting mist that may wet paths and the buildings unless specifically required by the design.

The Landscape Contractor shall engage a qualified irrigation consultant to design the system, document all components, accessories and materials for review by the Landscape Architect prior to starting landscape works generally.

LANDSCAPE MAINTENANCE

The Landscape Contractor shall rectify defects during installation and that become apparent in the works under normal use for the duration of the contract Defects Liability Period. Unless contracted otherwise, the Landscape Contractor shall maintain the contract areas by the implementation of industry accepted horticultural practices for 52 weeks from Practical Completion of the works. The landscape maintenance works shall include, but not be limited to:

- Replacing failed plants;
- Pruning;
- Insect and pest control;
- Fertilising;
- Maintaining and removing stakes and ties;
- Maintaining mulch;
- Mowing and top dressing;
- Irrigation and watering;
- Erosion control; and
- Weeding and rubbish removal.

Maintenance Log Book

Implement and keep a maintenance log book recording when and what maintenance work has been undertaken and what materials, actions and decisions have been used, implemented and concluded to keep the landscape always looking its best. Enter data daily and review information every 2 weeks. Observe trends and develop a maintenance regime around seasonal and observed event occurrences.

Maintenance Activities

During the defect maintenance period schedule the following activities to occur on a timely basis.

Plant replacement - Replace plants that have failed to mature, die or are damaged. Replacement plants shall be in a similar size and quality and identical species or variety to the plant that has failed. Replacement of plants shall be at the cost of the landscape contractor unless advised otherwise. If the cause of the failure is due to a controllable situation then correct the situation prior to replacing plants. Observe and replace failed plants within 2 weeks of observation.

Pruning - Prune dead wood, broken limbs, dead or infected foliage and as needed to develop strong, healthy plants to achieve the shape and form expected of the plant type. Observe daily and prune plants as necessary to maintain acceptable growth habit.

Insect, disease and pest control

- Avoid spraying:

- If ever possible;
- In wet weather or if wet weather is imminent;
- If target plants are still wet after rain;
- In windy weather; and
- If non-target species are too close.

Immediately report to the Project Manager any evidence of intensive weed infestation, insect attack or disease amongst plant material. Submit all proposals to apply chemicals and obtain approval before starting this work. When approved, spray with herbicide, insecticide, fungicide as appropriate in accordance with the manufacturers' recommendations. Observe daily and act as necessary to control any infestation or disease. Record in the logbook all relevant details of spraying activities including:

- Product brand / manufacturer's name,
- Chemical / product name,
- Chemical contents,
- Application quantity and rate,
- Date of application and location,
- Results of application, and
- Use approval authority.

Fertilising

Fertilise gardens with a proprietary slow release fertiliser applied in accordance with the manufacturer's directions and recommendations. Apply 6-12 monthly. Record in the logbook all relevant details of fertilising including:

- Product brand / manufacturer's name,
- Fertiliser / product name,
- Application quantity and rate, and
- Date of application and location.

Stakes and ties - Adjust and replace as required to ensure plants remain correctly staked. Remove those not required at the end of the planting establishment period (Defects Liability Period). Inspect and act at least every 2 weeks.

Maintaining mulch - Maintain the surface in a clean, tidy and weed free condition and reinstate the mulch as necessary to ensure correct depth as specified. Observe weekly and replenish mulch as required.

Mowing and top dressing - Mow the turf to maintain a grass height of between 30-50mm. Do not remove more than one third of the grass height at any one time. Remove grass clippings from the site after each mowing. Top dress to a maximum of 10mm to fill depressions and hollows in the surface. Mow weekly/fortnightly in warmer months. Mow monthly or as required in cooler months. Top dress at approximately 6 monthly intervals.

Irrigation and watering - Maintain the irrigation system to sure that each individual plant receives the required amount of water to maintain healthy and vigorous growth. Adjust and calibrate as required. Provide additional watering, if necessary but inspect irrigation weekly and make repairs as necessary.

Erosion control - Where necessary, maintain the erosion control fabric in a tidy and weed free condition and reinstate as necessary to ensure control measures are effective where deemed necessary. Inspect every 2 weeks and act to repair any damage as soon as possible.

Weeding and rubbish removal - During the plant establishment period remove by hand, rubbish and weed growth that may occur or re-occur throughout all planted, mulched and paved areas. The contractor shall target weeds that are capable of producing a major infestation of unwanted plants by seed distribution. Whenever possible, time weed removal to precede flowering and seed set. Constant observation and removal of weeds is essential.

PLANT SCHEDULE

SS24-5320 ACC Singleton BGA

Symbol	Botanical Name	Common Name	Mature Height (m.)	Mature Spread (m.)	Spacings	Pot Size
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Trees

Am	<i>Acacia melanoxylon</i>	Australian Blackwood	20	8	As Shown	75L
Cm	<i>Corymbia maculata</i>	Spotted Gum	20	10	As Shown	100L
For	<i>Fraxinus oxycarpa 'Raywood'</i>	Claret Ash	10	7	As Shown	75L
Pa	<i>Platanus x acerifolia</i>	London Plane Tree	30	10	As Shown	200L
Pn	<i>Pyrus nivalis</i>	Ornamental Pear	6	4	As Shown	75L

Accent / Shrubs

AsM	<i>Acmena smithii 'Minor'</i>	Lilly Pilly	2.5	2	As Shown	300mm
De	<i>Doryanthes excelsa</i>	Gynea Lily	2	3.5	As Shown	300mm
Go	<i>Goodenia ovata</i>	Hop Goodenia	1	2	As Shown	300mm
Lp	<i>Leptospermum polygalifolium</i>	Tea Tree	3	2.5	As Shown	300mm
PgR	<i>Photinia glabra 'Rubens'</i>	Photinia	3	2	As Shown	300mm
Wf	<i>Westringia fruticosa</i>	Coastal Rosemary	2	1.5	As Shown	300mm

Groundcovers and Grasses

Cap	<i>Carex appressa</i>	Tall Sedge	1	1	5/m2	150mm
Dc	<i>Dianella caerulea 'Breeze'</i>	Flax Lily	0.7	0.5	5/m2	150mm
Gt	<i>Gazania tomentosa</i>	Gazania	0.1	0.5	5/m2	150mm
Ld	<i>Lavandula dentata</i>	French Lavender	1	1	5/m2	150mm
LI	<i>Lomandra longifolia</i>	Matt Rush Grass	0.7	0.7	5/m2	150mm
PaN	<i>Pennisetum alopecuroides 'Nafra'</i>	Fox Tail Grass	0.8	0.8	5/m2	150mm
Tj	<i>Trachelospermum jasminoides</i>	Star Jasmine	0.2	0.5	5/m2	150mm

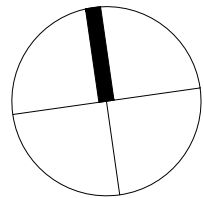
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The contractor shall check and verify all work on site (including work by others) before commencing the landscape installation. Any discrepancies are to be reported to the Project Manager or Landscape Architect prior to commencing work. Do not scale this drawing. Any required dimensions not shown shall be referred to the Landscape Architect for confirmation.

C	Issue for Council RFI - additional landscape	MJW	RS	28.10.2024
B	Issue for Council RFI	MJW	RS	23.05.2024
A	Issue for DA	MJW	RS	28.03.2024
Issue	Revision Description	Drawn	Check	Date

Legend

Key Plan



SITE IMAGE



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Client

CEM

Project

ACC Singleton
109-129 Kelso Street,
Singleton NSW 2330

Drawing Name

Landscape specification notes &
Indicative plant schedule

DEVELOPMENT APPLICATION

Scale

n/a

Job Number

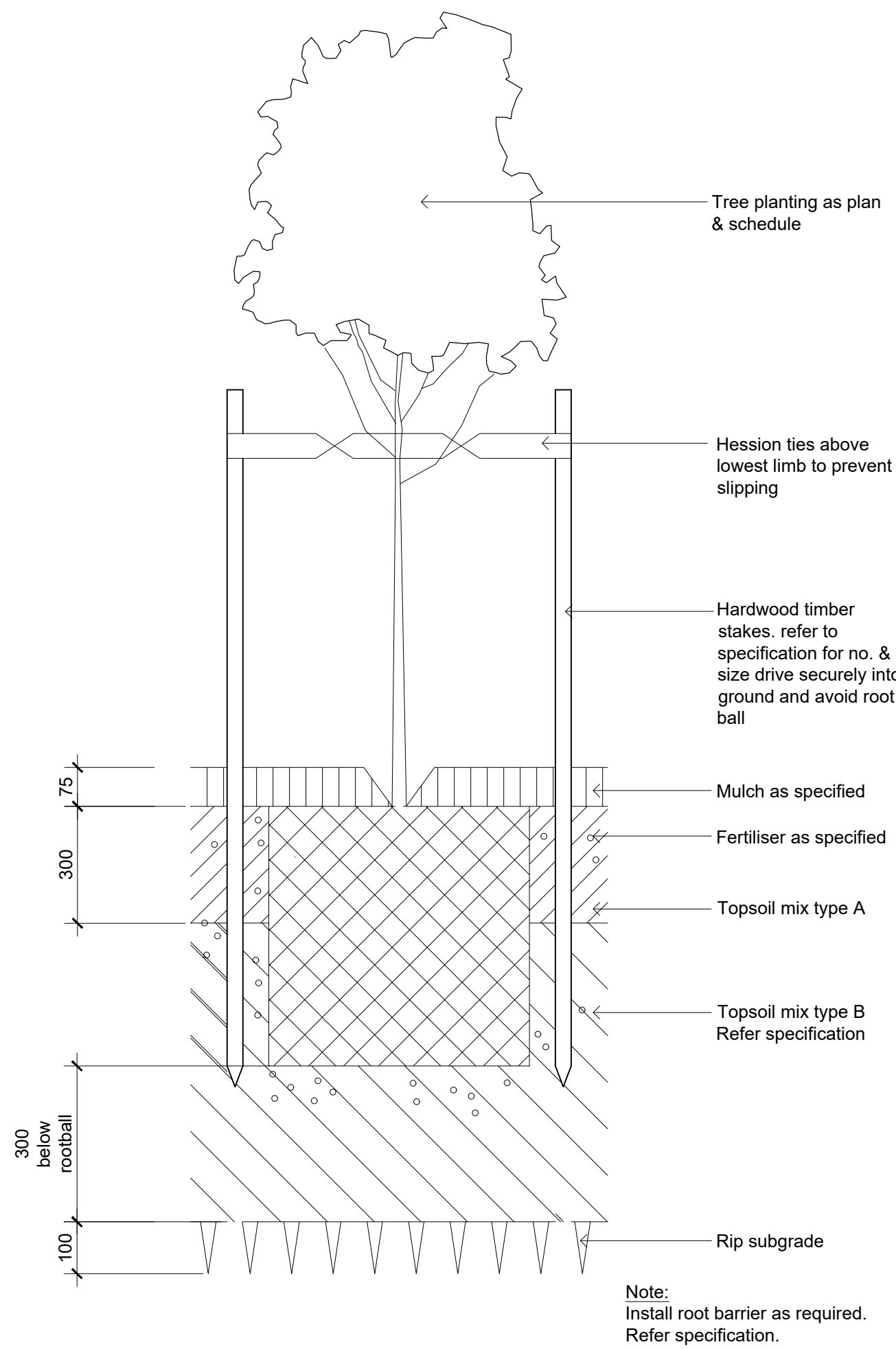
SS24-5320

Drawing Number

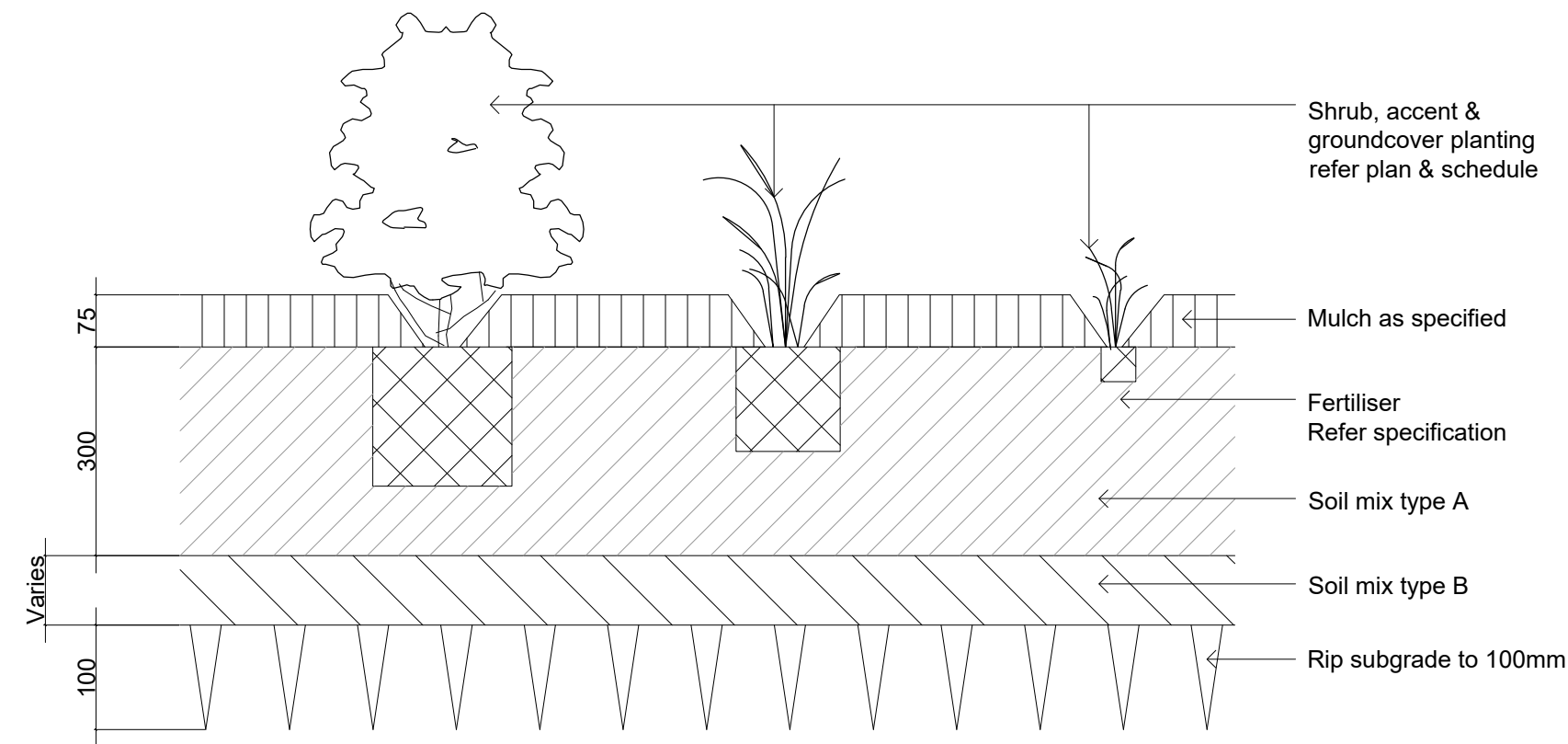
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Issue

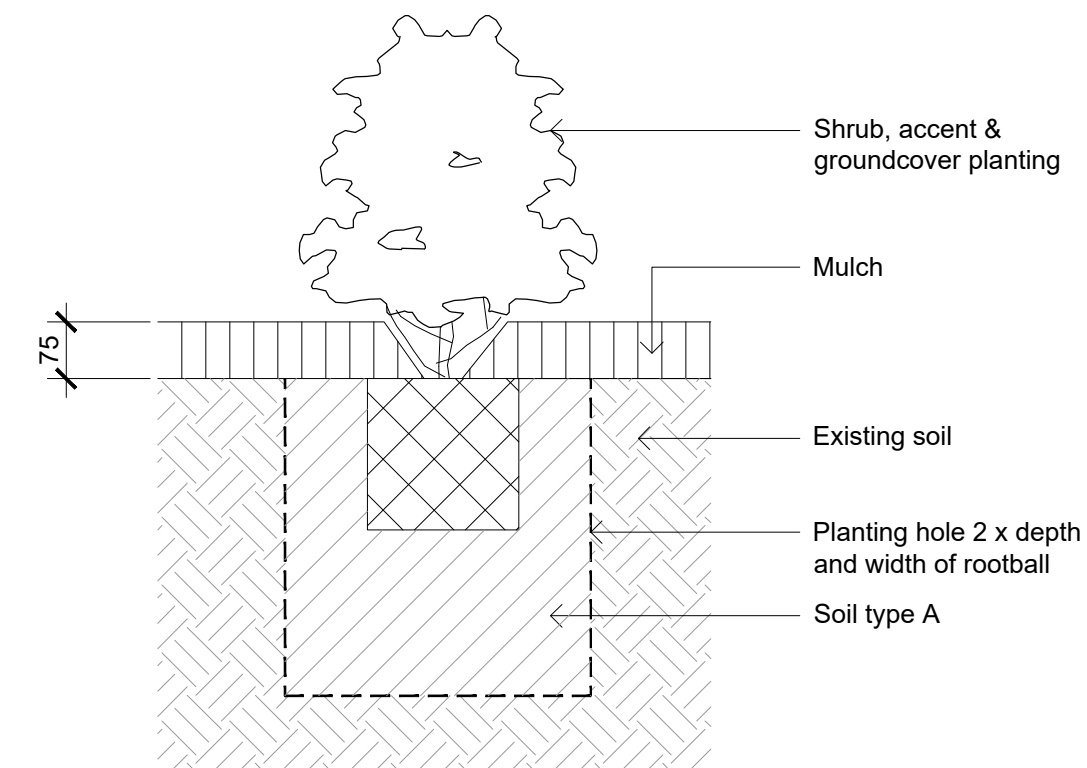
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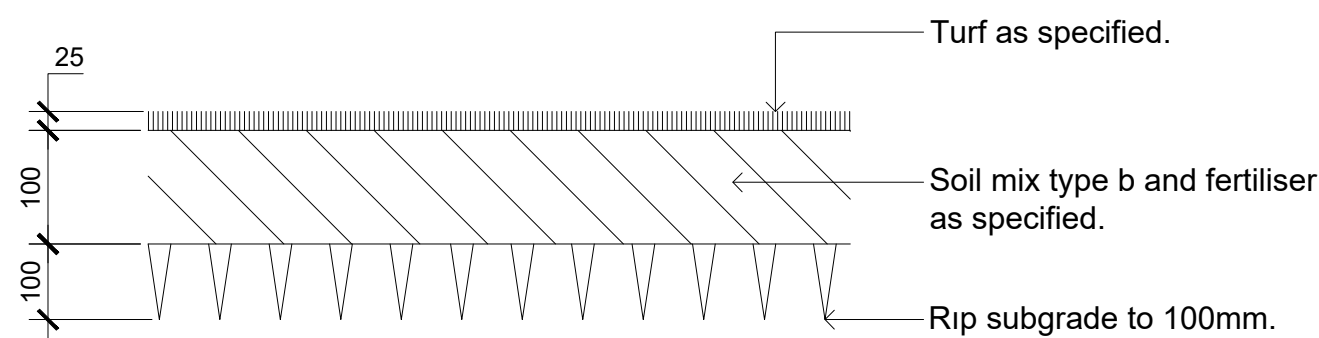
01 Tree Planting on Grade
501 1:10



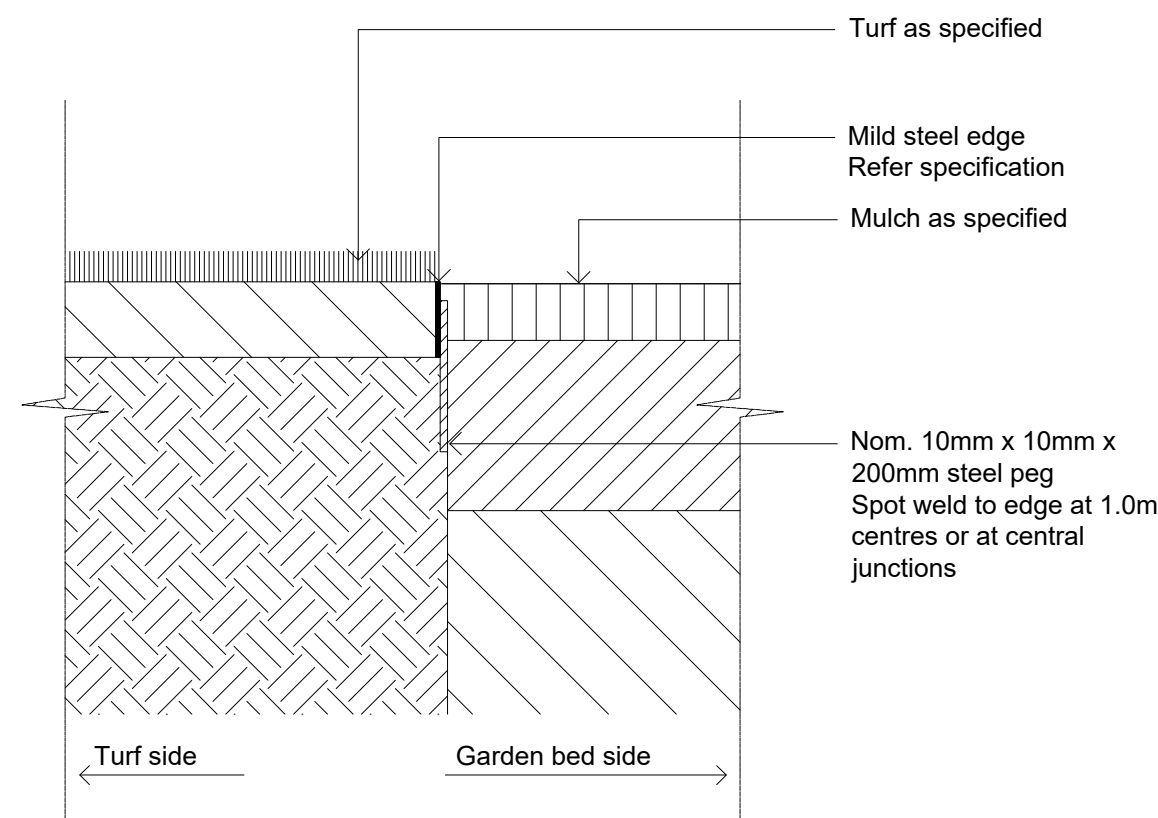
02 Detail Shrubs, Accents and Groundcovers Planting on Grade
501 1:10



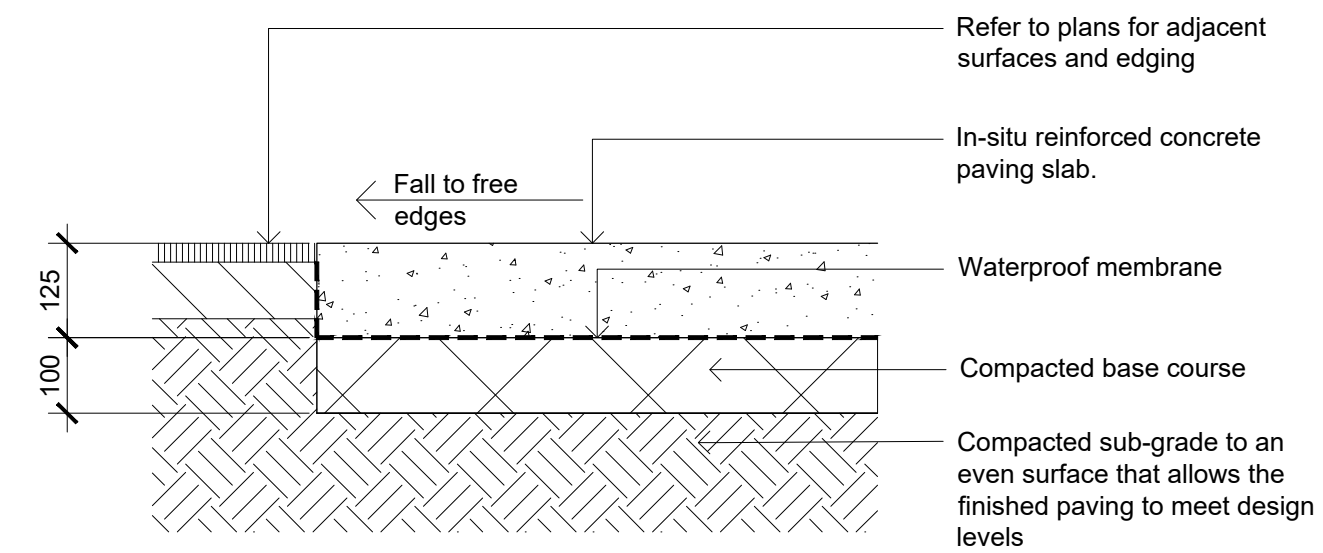
03 Pocket Planting in existing trees TPZ
501 1:10



04 Turf on Grade
501 1:10



05 Edge Type 1 Steel Edge
501 1:10



06 Insitu Concrete Paving - On grade
501 1:10

NOT FOR CONSTRUCTION

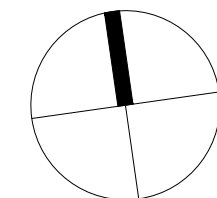
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Drawing Name
Landscape details

DEVELOPMENT APPLICATION

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