PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2021/1180

Date: 17 August 2021

Queensland Government

ENGINEERING SERVICES REPORT

OXLEY PDA – Stage 2

by KN Group Pty Ltd

May 2021

Version 2

Document

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INTRODUCTION

KN Group was commissioned by Economic Development Queensland (EDQ) to prepare an engineering services report for the proposed redevelopment of the former Oxley Secondary College site located at Seventeen Mile Rocks Road, Oxley.

The proposed Stage 2 development will create a total of 48 new residential allotments, conservation area and open space areas (refer to the Place Design Group plans attached in Appendix A).

It should be noted that this Engineering Services Report refers to the development of Stage 2 of the Oxley PDA development, while other previous stages have been considered as part of the engineering planning and design, these previous stages were part of a separate development application and subsequent approval.

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SITE CHARACTERISTICS

The proposed development site is located within Lot 600 on SP236626 and Lot 500 on SP142916, and the existing condition of the proposed development site is a recently demolished Secondary College, sporting fields and a childcare centre. The land consists of mostly grass cover and numerous small to large trees dispersed around the site.

The proposed development site is bounded by Seventeen Mile Rocks Road to the south, Cliveden Avenue to the north, existing residential properties to the east and large lot residential properties to the west. The currently under construction Stage 1 of the development is directly adjacent to the proposed Stage 2 development. The location of the subject site is shown in Figure 2.1.

Figure 2.1 Locality Plan

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LAND TOPOGRAPHY AND SITE DRAINAGE

The southern and eastern boundaries of the site are defined by steep batters adjoining existing residential allotments. The runoff from these existing residential allotments and steep batters fall generally in a northern direction towards the proposed local recreation park. The maximum and minimum reduced levels within the proposed development site are RL 33m AHD in the south- of the site and RL 9m AHD in the north of the site.

The approved Stage 1 development is to provide stormwater drainage controls and treatment to cater for the proposed Stage 2 development.

EROSION AND SEDIMENT CONTROL

During the construction phase of the development, erosion and sediment control measures will be implemented and maintained. An erosion and sediment control strategy will be created during the Operational Works phase of the development which will recognise the potential risks and control measures will be designed accordingly.

INFRASTRUCTURE FOR DEVELOPMENT

Roadworks

The proposed development will feature an internal road network with roads of varying classification, forming a road hierarchy and complying to BCC standards. The road network will provide access to each individual allotment by connecting to Seventeen Mile Rocks Road, including the construction of concrete footpaths. All verge works are to be in accordance with the proposed typical cross-sections for residential streets.

Appendix C shows the proposed road network and hierarchy for the proposed development. The design of roadworks will be in accordance with BCC requirements, Austroads Guidelines and all other relevant standards and specifications.

External roadworks is proposed on Seventeen Mile Rocks Road generally in accordance with the TTM report 18BRT0087-02B. These works include provision of two eastbound lanes on Seventeen Mile Rocks Road on approach and departure to the existing intersection with Kingsgate Street and the Service Road.

Appendix H shows the proposed extent of upgrade works at the intersection of Seventeen Mile Rocks Road / Kingsgate Street / service road.

Earthworks

Due to the natural landform of the site, bulk earthworks will be required throughout the site to make the allotments suitable for standard slab on ground dwelling construction. Retaining walls will be utilised at lot boundaries where necessary to create building platforms. The proposed bulk earthworks will adjoin neatly with surrounding existing levels on the common boundaries of the proposed development site and the final constructed levels of Stage 1.

Butler Partners have been engaged by Economic Development Queensland (EDQ) to undertake broad-scale geotechnical investigations across the development and provide expert advice regarding slope stability. From geotechnical works to date Butler Partners have identified varying soil conditions characterised by a discontinuous surface layer of fill underlain by soft to hard silty and sandy clays with interbedded layers of very loose to loose sands and clayey sands. In the more elevated areas around the site perimeter, the clayey sands

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were dense to very dense and the soils were underlain by extremely low strength mudstone, siltstone and sandstone.

A preliminary bulk earthworks plan has been included in Appendix B. The plan shows indicative areas of cut and fill for the proposed development in accordance with the Slope Stability Assessment. Earthworks will be required for road grades throughout the proposed development site and for finished surface levels in the proposed development to tie into the surrounding land at the boundary of the proposed development site.

Temporary earthworks will be required for Stage 2D until the existing Childcare Centre lease comes to an end and the building can be demolished. The temporary earthworks surface will be stabilised and erosion and sediment control measures will be implemented and maintained throughout the lease period. On completion of the demolition works the Stage 2D ultimate earthworks and civil works will be completed.

Stormwater Quality, Quantity & Flood Management

A Stormwater Management Plan (SMP) has been previously documented by DesignFlow and included in the Stage 1 application. DesignFlow has prepared a Technical Memorandum for the Stage 2 development application which provides a review of the Stage 2 development proposal in order to validate the stormwater and flood management strategies of the SMP.

Stormwater Drainage Infrastructure

A complete underground piped stormwater system will be provided as a part of the proposed development. The stormwater system will capture stormwater runoff in gullies and field inlets and convey it through underground infrastructure. The design of stormwater infrastructure within the site's eastern slopes will be in accordance with the recommendations provided in the Butler Partners Slope Stability Assessment and detailed in future Operational Works development applications.

The design of all stormwater infrastructure will be in accordance with Queensland Urban Design Manual (QUDM) and Brisbane City Council (BCC) standard drawings. A preliminary stormwater layout plan included in Appendix D shows the proposed layout of stormwater infrastructure for the proposed development.

Sewerage

The proposed development will be serviced with sewer reticulation by connecting each individual allotment to the proposed gravity sewerage mains. The gravity sewerage mains will discharge into an existing 150mm dia sewer located in the north-east corner of the site. Flows from the site will be transferred by the existing 225mm dia mains along Blackheath Road to the Blackheath Road Sewage Pump Station.

A hydraulic assessment of the sewerage network servicing the subject site has been undertaken by Urban Utilities (UU). The assessment indicates that the existing gravity mains and Sewage Pump Station have sufficient capacity to service the proposed development.

A preliminary sewerage layout plan has been included in Appendix E which shows the proposed sewerage infrastructure to be constructed as part of the proposed development. All sewerage infrastructure will be designed in accordance with the SEQ Water Supply and Sewerage Design and Construction Code and UU Design Criteria.

Water Reticulation

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New water reticulation mains will be constructed to service the proposed development with potable water. Water reticulation infrastructure associated with Stage 2 of the development will connect to existing mains located in the Blackheath Road road reserve to the north-east of the site.

A preliminary water reticulation layout has been included in Appendix F. All water reticulation will be designed in accordance with the SEQ Water Supply and Sewerage Design and Construction Code and UU Design Criteria.

Electrical and Telecommunications

All proposed allotments will be serviced with underground electricity and telecommunication (NBN) services. New infrastructure in relation to these utilities will be constructed as a part of the proposed development to service individual allotments. All electrical and NBN infrastructure will be constructed in accordance with the relevant authorities and service providers. Further information in regards to the services will be provided as a part of the Operational Works application.

SUMMARY

This engineering services report relating to the proposed Oxley PDA Stage 2 development has demonstrated the following:

- The proposal is for the construction of 48 residential allotments, conservation area and open space.
- The proposed road network will connect into Stage 1.
- Each individual allotment will have direct access onto the proposed road network.
- Earthworks will be necessary throughout the proposed development area to satisfy design lot pad levels, road grades and for the installation of underground infrastructure.
- New stormwater infrastructure will be constructed as a part of the new development. Stormwater flows will be conveyed through the proposed development site towards the open space area in the north of the site.
- A previously approved Stormwater Management Plan (SMP) discusses the potential impacts the proposed development will have on stormwater run-off quantity and quality. The report also details the necessary mitigation options required to avert such outcomes, ensuring that the impact is reduced to a level acceptable to BCC and ensuring the nominated management strategy is compliant with the BCC Development Guidelines and the State Planning Policy.
- New sewerage infrastructure will be created to service individual allotments. Gravity sewer mains will connect to existing infrastructure within the site.
- New water reticulation infrastructure will be constructed to service individual allotments. Reticulation mains will connect to existing infrastructure in the Blackheath Road road reserve.

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APPENDICES

Appendix A Plan of Subdivision

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Residential Allotment Mix	Stage 2
Villa Type 1 (10 - 11.9 x 28.8m)	20
Villa Type 2 (12 - 14.9m x 20.0m)	4
Courtyard Type 1 (15 - 17.9m x 28.5m)	6
Courtyard Type 2 (15 - 17.9mx 30.0m)	12
Traditional Type 1 (18.0m+ x 28.5m)	3
Traditional Type 2 (18.0m+ x 30.0m+)	3
TOTAL	48

LAND BUDGET	Stage 2A	Stage 2B	Stage 2C	Stage 2D	TOTAL
	(ha)	(ha)	(ha)	(ha)	(ha)
Total Stage Area	4.09	1.8	3.5	0.4	9.7
Public Recreation Park	0.35	1.8	0.0	0.0	2.2
Open Space Reserve	1.29	0.0	0.0	0.0	1.3
Conservation Open Space	0.00	0.0	3.5	0.0	3.5
Total Area of Road	0.62	0.0	0.0	0.2	0.8
Residential Allotments	1.83	0.0	0.0	0.2	2.1

ROAD LENGTH	Stage 2A		Stage 2D	TOTAL
	(metres)		(metres)	(metres)
Length of Road (14.0m) 7.5m pavement	28		87	115
Length of Road (14.0m) 5.5m pavement	250		0	250
Length of Road (12.0m) 5.5m pavement	140		35	175

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PROJECT

Oxley Priority Development Area

CLIENT

EDQ

KEY PLAN / NOTES

- SUBJECT SITE
- STAGING BOUNDARIES
- STORMWATER & ACCESS EASEMENT
- PUBLIC RECREATION PARK
- OPEN SPACE RESERVE
- EXISTING VEGETATION TO BE RETAINED WITHIN OPEN SPACE
- INDICATIVE PATHWAY

NOT FOR CONSTRUCTION

DRAWING TITLE

CONCEPT OPTION
STAGE TWO

DESIGN : CK
DOCUMENT : CK
PROJECT : 1018015
SCALE : 1:1000@A1
DATE : 26/05/2021

NORTH

SHEET NUMBER 1018015_50

REVISION Rev A

Plan of Development Design Requirements Residential Allotments 40 - 87

General:

1. All development is to be undertaken in accordance with the Development Approval, and Queensland Development Code (QDC), except as varied below.
2. The maximum height of buildings shall not exceed 2 storeys or 9.5m above ground level (refer to note 6 definition), whichever is lesser.
3. Maximum building location envelopes, shown on the Plan of Development are subject to future proposed easement, building exclusion zones, protected vegetation and covenants and/or other underground services registered on title.
4. Setbacks for a building or structure, means the shortest distance measured horizontally between the outermost projection of the building or structure to the vertical projection of the boundary of the lot where the building or structure is.
5. Ground level means -
   (a) the level of the natural ground; or
   (b) if the level of the natural ground has changed, the level lawfully changed (the prescribed level).

Streetscape and Articulation:

6. Dwellings must address a primary frontage with clear and well-lit access to the front door(s).
7. Dwellings must address each street and park frontage with 3 or more of:
   - Verandah or balcony;
   - Porches;
   - Awnings and shade structures;
   - Variation of roof and building line;
   - Inclusion of window openings;
   - Variation of building materials.
8. Front facade of the dwelling must include the following:
   - a front entrance door and window, with a sidelight;
   - a front verandah, portico or porch located over the front entrance, extending 1.6m forward of the entrance door.
9. External drainpipes must be integrated into the dwelling design where visible from the street.
10. Clotheslines, condenser units, hot water systems and all other ancillary items, excluding solar panels, must not be visible from the street.
11. Dwellings on corner lot 45, 55, 58, 68, 69, 74, 78 and 81 must address both primary street frontage and secondary street frontage.

Built Form:

12. Good design and energy efficiency is fundamental in building a sustainable home that uses as little energy and water as possible and provides a comfortable internal environment for occupants. The following are mandatory built form and inclusions to be incorporated into the design:
   - Eaves at 600mm for Lots 40-44 and 69-87,
   - Eaves at 450mm for Lots 45-68;
   - Dwellings must be designed for natural cross ventilation with well-considered placement of windows to draw breezes through the house;
   - Installation of Solar and Battery configuration by EDQ nominated preferred supplier; all dwellings to have a three-phase power connection which allow for:
     (a) Mandatory requirement for all garages to have a dedicated electrical circuit for future Electronic Vehicle charging;
     (b) Heat pump hot water systems;
     (c) Energy efficient air conditioning; and
     (d) A minimum 6kw solar and minimum 13.5kw battery with inverter maximum of 4kW export.
13. Dwellings to be designed to ensure passive street surveillance with habitable rooms overlooking the street. Bedrooms (excluding master bedrooms) and designated home theatre rooms do not generally provide opportunities for passive surveillance supporting CPTED principles requirements.

Setbacks and Site Cover:

14. Setbacks listed in the Plan of Development table are the minimum distance required unless otherwise specified on plan. Where distances are specified on the plan, they take precedence over the Plan of Development table.
15. Built to boundary walls are optional on 10 - 14.9m (Lots 46 - 54, 56 - 67) and:
   ·Built to boundary walls are to have a maximum length of 15 metres and a maximum height of 3.5 metres.
   ·Built to boundary walls on lots 56-58 applies to garages only.
   ·Driveways and garages are to correspond with nominated BTB wall locations, if a dwelling does not incorporate BTB walls, standard side setbacks apply.
   ·Eaves should not encroach (other than where dwellings are built to boundary) closer than 450mm to the lot boundary.
16. On corner lots, no building or structure over 2m high is built within the 4m by 4m truncation at the corner of the 2 road frontages.
17. Front verandah and covered areas such as porches to the front façade are permitted to extend into the front setback on the condition that the roofed area is not enclosed. For front setbacks, this roofed area can extend to no closer than 3.0 metres from the front boundary. For secondary frontage on corner lots the roofed area can extend to no closer than 1.5m from the secondary frontage boundary.

Steep Residential Lots :

18. Building designs for down slope, up slope and cross slope allotments must adhere to the good hillside construction practices and principals referred to in the Australian Geoguide LR8 (Construction Practice).
19. On up slope allotments (Lots 40-43 & 82-87) cut and fill permitted for the establishment of a suitable garage building pad, rooms adjoining the garage on the same building slab and associated entry features (porch, street frontage landscaping and driveway). The area excavated must only extend as far back as the rear wall of the garage.
20. On cross slope allotments (Lots 40-43) cut and fill is only permitted for the establishment of a suitable garage building pad and any associated entry features (porch, entrance hall, street frontage landscaping and driveway). The garage pad level must be located within 0.5m of the adjacent verge level.
21. All other elements of the home must be constructed to ensure no cut and/or fill is required, and must respond to the natural topography of the site.
22. Residential structures situated on lots 82-87 where additional buildings loads and slope medication works are to occur, must require additional testing and analysis in accordance with covenant stability analysis approved by a RPEQ Geotechnical engineer (qualified person) prior to works commencing demonstrating that the buildings loads and slope modification works proposed do not adversely affect slopt stability. The residential building plans must detail the earthworks and drainage proposed, building location situated on the block, detail building load (internal/external) as well as any maintenance access loading.

Retaining Wall requirements for inter-allotment and landscape retaining walls:

23. Inter-allotment retaining walls are permitted, however they must not exceed 1.0m in height. Design of retaining walls must ensure there are no adverse impacts (functional, financial or construction limitations) on adjoining allotments.
24. Retaining walls for landscaping purposes are permitted, and must not exceed 1.0m in height.
25. Terraced retaining wall structures are permitted, but must:
   - Have a minimum separation of 1.0m between the face of each wall;
   - Each wall must be a maximum height of 1.0m.
26. Retaining walls are engineer designed to withstand the lateral earth pressures and surcharges expected and include drains to prevent water pressures developing in the backfill. Construction of retaining walls must adhere to the Australian Geoguide LR6 (Retaining Walls). Boulder walls are not permitted.

Driveways, Off-Street Carparking and Garages:

27. Double width garages are not permitted on 10-11.9m wide allotments unless the dwelling is two-storey. Dwelling design must include a 1m upper storey or roof projection over at least 50% of the garage opening width.
28. Single storey dwellings on 10-11.9m wide allotments must incorporate a single or tandem configuration garage and the dwelling must include the following design elements:
   -habitable rooms fronting the public street and projecting forward 1.0m from the garage,
   -1.0m eave overhang to the garage or alternatively an arbour or architectural awning to add depth and cast shadow,
   -a front door incorporating glass or a sidelight incorporating glass,
   -incorporation of a large or multiple habitable room windows fronting the public street,
   -a combination of materials and colours including a minimum of 3 different materials and complimentary colours on the front facade (including the garage door but excluding glass).
29. Driveway crossovers for Lots 45-57 are to be a maximum width of 3.5m.
30. Driveway crossovers for Lots 58-68 are to be a width of 5.0m.
31. Driveways must avoid infrastructure / services within the road reserve such as dedicated on-street parking bays, drainage pits and service pillars.
32. Driveways must be constructed at the grade of the adjacent verge area. No grade changes to the verge for the driveway are permitted.
33. Driveways must integrate with and match the level of the footpath and must not be cut through the footpath.
34. Driveways must be completed prior to occupation of the dwelling.
35. Minimum off-street car parking requirements are 2 spaces per dwelling, one of which must be covered and enclosed in the form of a garage or carport.
36. For allotments 12.0m wide and greater, single, double or tandem garage configurations are permitted in accordance with the setbacks provided.
37. All dwellings must have a sectional, tilt or roller door to the garage.
38. For allotments 12.0m wide and greater, garages are permitted forward of the building wall, and must adhere to the following:
   - Must comply with garage setbacks as per the Plan of Development Table;
   - Must have a sectional, tilt or roller door to the garage; and
   - Must not obstruct ground floor windows of the dwelling.
39. Open carports are permitted for Lots 83-87 and must adhere to the following:
   - Be built forward of the 6.0m garage setback;
   - Be complimentary to the dwelling through its design, materials and colours;
   - Must be incorporated into front fence design and may include a gate across the carport entry to a height consistent with the front fence design; and
   - Be open at the front, but when on steep lots include battening or safety railing detail to the sides and rear of the structure where above ground level and be complimentary to the dwelling through its design, materials and colours.

Private Open Space and Privacy:

40. Private uncovered softscape in the front yard (no roof, hardstand driveways) must measure a minimum of:
   - Lots 45-68: 12sqm with a minimum dimension of 3.0m in any direction.
   - Lots 40-44 & 69-87: 30sqm with a minimum dimension of 3.0m in any direction.
41. Each dwelling must include a covered outdoor living area that must:
   - Be accessed from an internal living area;
   - Measure a minimum of 10sqm with a minimum dimension of 2.4m.
42. All first floor windows adjacent to a neighbouring lots private open space must be obscured to ensure occupants privacy where sill height is less than 1.7m.
43. Dwelling designs on Lots 73, 74, 75, 76, 77, 78,79 and 82 must ensure passive surveillance is provided to park frontage and primary street frontage. This is to be achieved through living spaces at both the front, and side/rear of the home. Verandahs facing the street are encouraged to ensure surveillance of the public street is maintained. Covered outdoor living areas are to be at the rear of the home and should be designed to ensure surveillance of the public park is maintained.

Fencing:

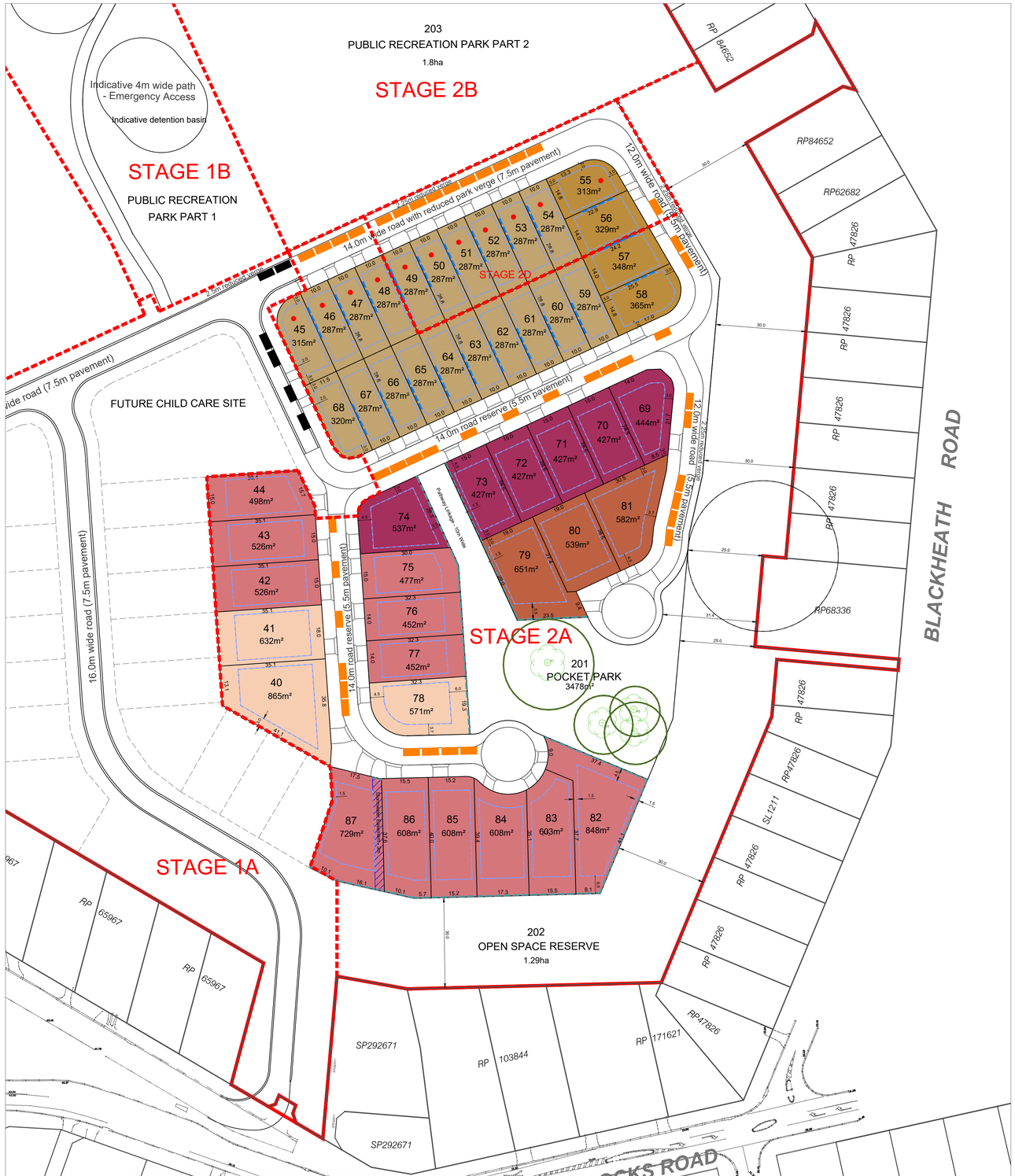
44. Fencing installed by the developer must not be altered, modified or removed without prior written approval from the statutory authority.
45. Fencing on all park, street and corner frontages must be a maximum of 1.5m high.
46. Fencing along rear boundaries of Lots 74, 75, 76, 77, 78, 82 - 87 is to be 1.5m high black powder coated permeable pool style fencing.
47. Fencing along side boundaries of Lot 73,79 and 82 is to be 1.5m high black powder coated permeable pool style fencing.
48. Front and rear fencing which extends across the drainage easement of Lot 87 requires a 1.5m (front) and 1.5m (rear) high black powder coated permeable pool style fence.

Domestic Outbuildings:

49. A domestic outbuilding associated with the dwelling of up to 16m² can be constructed within the building envelope as long as the earthworks are balanced earthworks (total fill is less than or equal to the total cut).

Minimum Finished Floor level (Lots 86 & 87)

50. Finished Floor levels in accordance with covenant requirement to achieve freeboard to stormwater discharge swale.



Plan of Development Table	10 - 11.9m wide Allotments (28.8m lot depth)		12 - 14.9m wide Allotments (20.0m+ lot depth)		15 - 17.9m wide Courtyard Allotments (28.5m lot depth)		15 - 17.9m wide Courtyard Allotments (30.0m+ lot depth)		18.0m+ wide Traditional Allotments (28.5m lot depth)		18.0m+ wide Traditional Allotments (30.0m+ lot depth)	
Setbacks	Ground Floor	First Floor	Ground Floor	First Floor	Ground Floor	First Floor	Ground Floor	First Floor	Ground Floor	First Floor	Ground Floor	First Floor
Front / Primary Frontage	3.0	3.0	3.0	3.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Garage	5.5	_	5.5	_	5.5	_	6.0	_	6.0	_	6.0	_
Optional Carport - Front	_	_	_	_	_	_	0.0	_	_	_	0.0	_
Rear	3.0	3.0	3.0	3.0	3.0	3.0	6.0	6.0	3.0	3.0	6.0	6.0
Side - Built to Boundary Wall	0.0	1.0	0.0	1.0	_	_	_	_	_	_	_	_
Side	1.0	1.5	1.0	1.5	1.5	2.0	1.5	2.0	1.5	2.0	1.5	2.0
Secondary Frontage - Corner Lots	2.0	2.0	2.0	2.0	3.0	3.5	3.0	3.5	3.7	4.2	3.7	4.2
Maximum Site Cover	60%		60%		60%		60%		60%		60%	

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PROJECT

Oxley Priority Development Area

CLIENT

EDQ

KEY PLAN / NOTES

- SUBJECT SITE
- STAGING BOUNDARIES
- STORMWATER & ACCESS EASEMENT
- MAXIMUM BUILDING LOCATION ENVELOPE
- OPTIONAL BUILT TO BOUNDARY WALL
- MANDATORY TWO STOREY DWELLING
- INDICATIVE DRIVEWAY LOCATION SUBJECT TO DETAIL DESIGN
- NOMINAL ON-STREET CAR SPACE (STAGE 2)
- NOMINAL ON-STREET CAR SPACE (STAGE 1*)
- EXISTING VEGETATION TO BE RETAINED WITHIN OPEN SPACE
- 1.5M HIGH BLACK POWDER COATED ALUMINIUM TUBULAR PERMEABLE POOL STYLE FENCING (DEVELOPER INSTALLED)

*CAR PARKS NOT COUNTED IN STAGE 1 POD.

NOT FOR CONSTRUCTION

DRAWING TITLE

PLAN OF DEVELOPMENT
STAGE 2

DESIGN : CK
DOCUMENT : CK
PROJECT : 1018015
SCALE : 1:1250@A1
DATE : 26/05/2021

NORTH

SHEET NUMBER 1018015_51

REVISION Rev A

Appendix B Road Hierarchy

Level 1, 62 Astor Terrace
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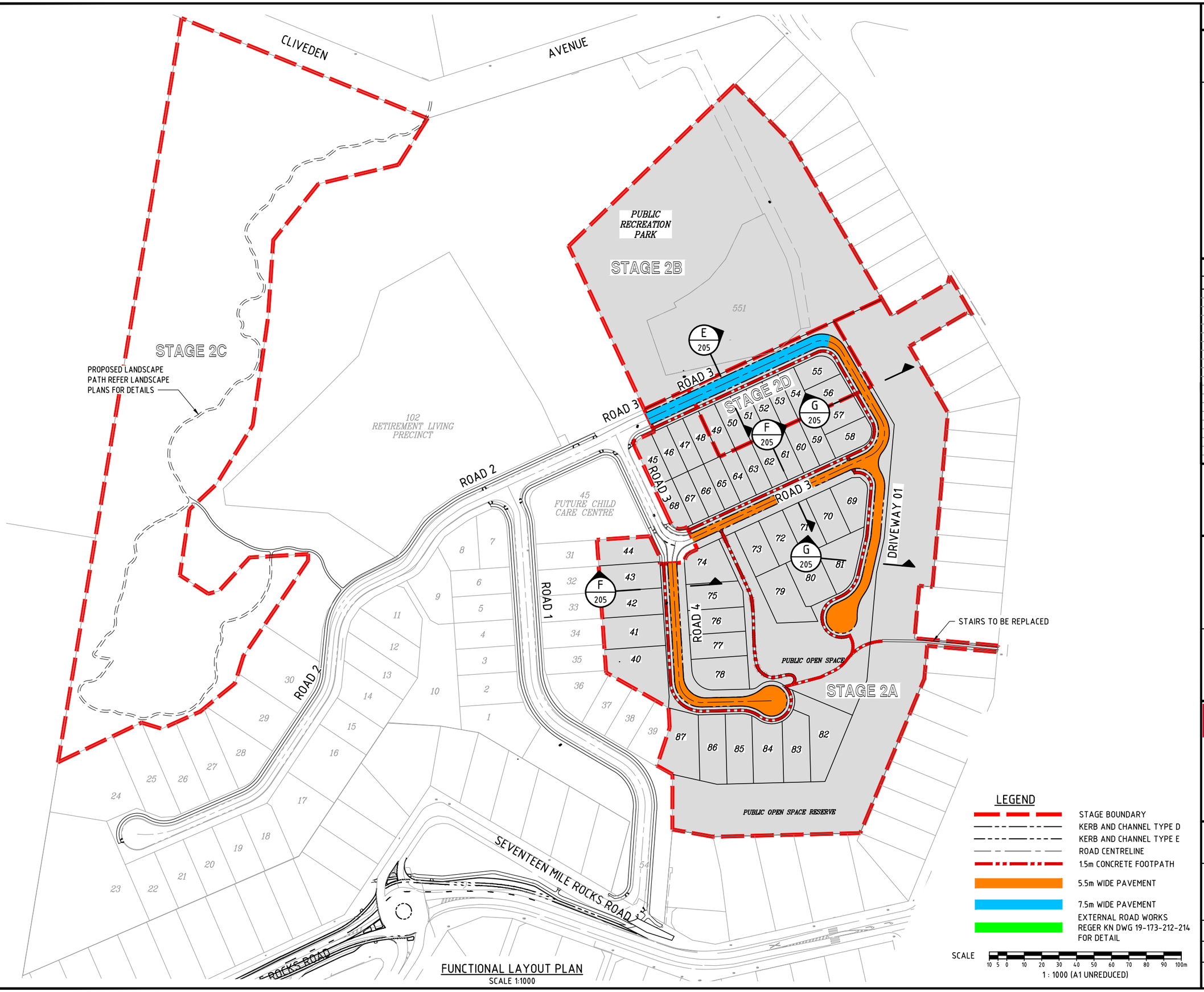

FUNCTIONAL LAYOUT PLAN
SCALE 1:1000

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

NORTH

LOCALITY PLAN

REVISIONS

No	Description	Date	By
A	ISSUED FOR APPROVAL	31.05.2021	CDB

Associated Consultants

Client
ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

Project
OXLEY SECONDARY COLLEGE REDEVELOPMENT STAGE 2

kn group
ABN 35 112 53 611
L1, 62 Astor Tce
Spring Hill Q 4000
07 3017 1900
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Approved

Drawing Title
FUNCTIONAL LAYOUT ROAD WORKS

Drawn	Designed	Checked	Date
CDB	JB	GBG	MAY 21

Scale	Sheet
AS SHOWN	4 of 12

A1	Drawing No 19-173-204	Revision A

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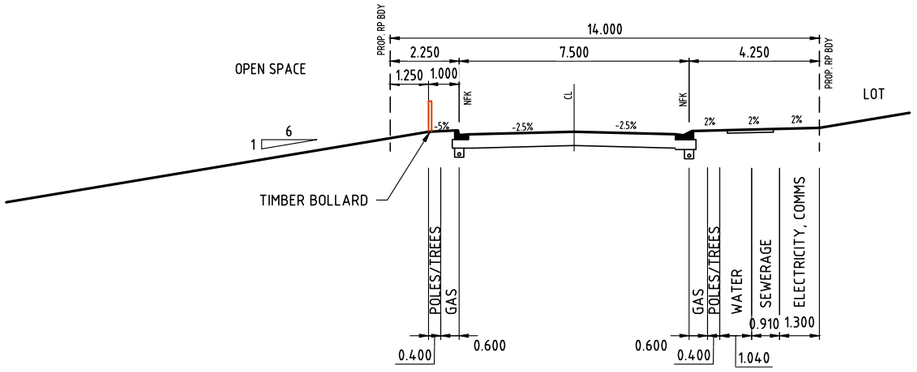
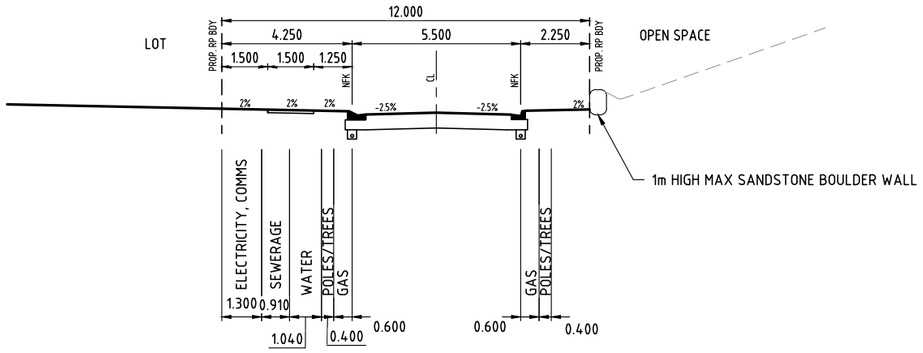


E 204 SECTION
SCALE 1:100



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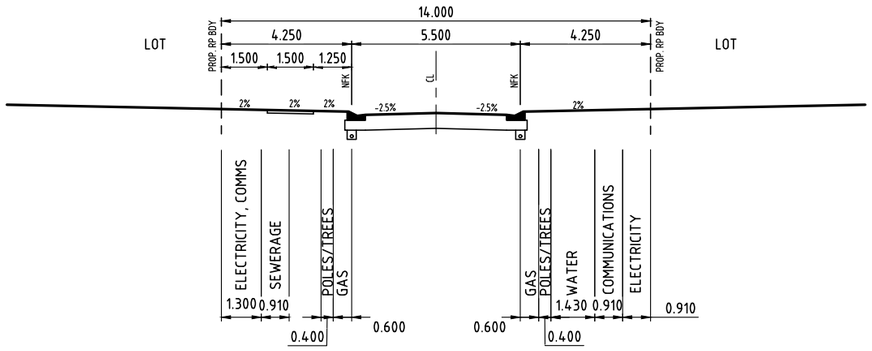

F 204 SECTION
SCALE 1:100

SCALE
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1 : 100 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

LOCALITY PLAN

REVISIONS

No	Description	Date	By
A	ISSUED FOR APPROVAL	31.05.2021	CDB

Associated Consultants

Client
ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

Project
OXLEY SECONDARY COLLEGE REDEVELOPMENT STAGE 2

kn group
ABN 35 112 53 611
L1, 62 Astor Tce
Spring Hill Q 4000
07 3017 1900
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Drawing Title
FUNCTIONAL LAYOUT
TYPICAL SECTIONS

Drawn	Designed	Checked	Date
CDB	JB	GBG	MAY 21

Scale	Sheet
AS SHOWN	5 of 12

A1	Drawing No	Revision
	19-173-205	A

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Appendix C Bulk Earthworks

Level 1, 62 Astor Terrace
Spring Hill Qld 4000
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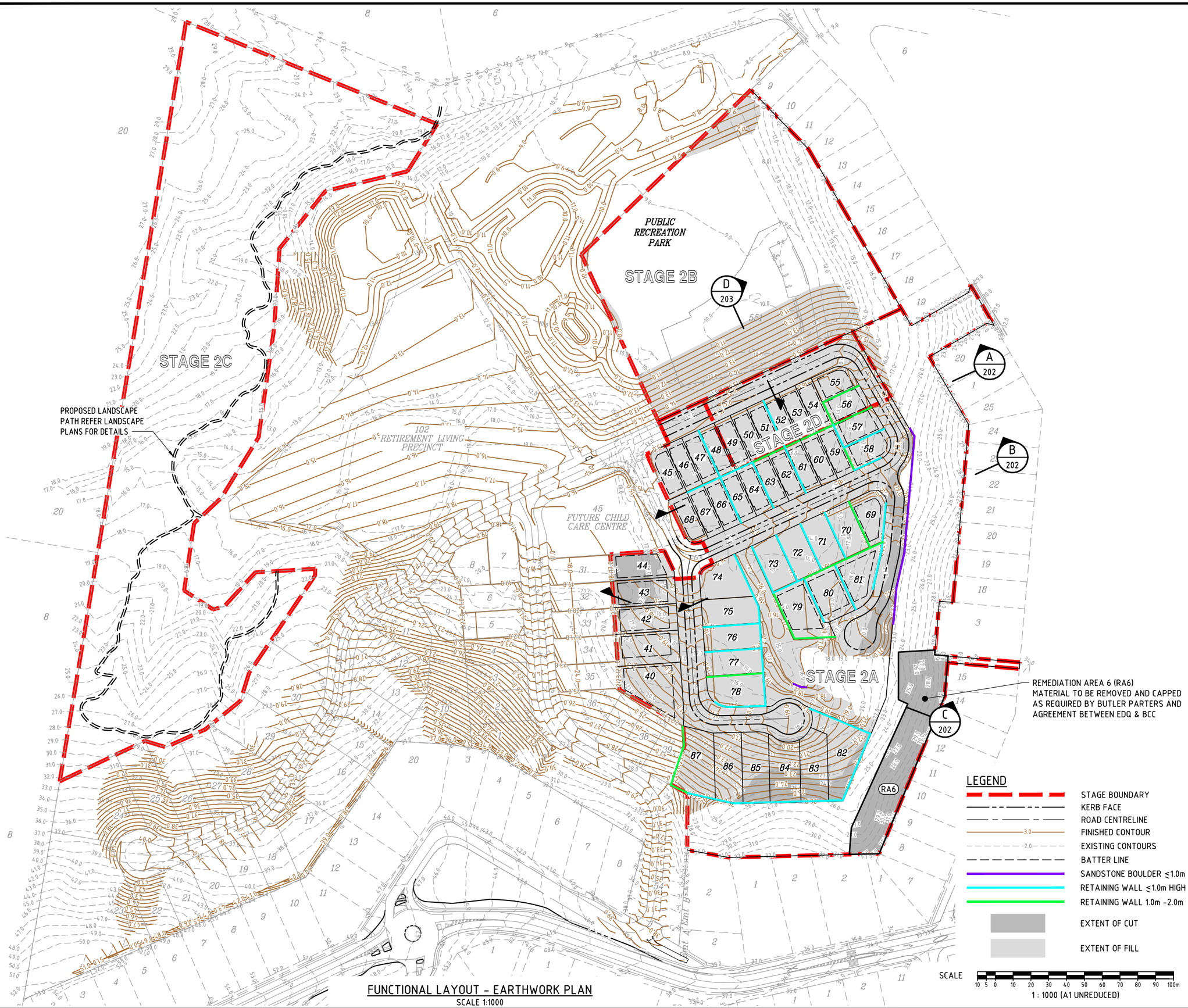

FUNCTIONAL LAYOUT - EARTHWORK PLAN
SCALE 1:1000

DO NOT SCALE THIS DRAWING
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LOCALITY PLAN

REVISIONS

No	Description	Date	By
A	ISSUED FOR APPROVAL	31.05.2021	CDB

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Client
ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

Project
OXLEY SECONDARY COLLEGE REDEVELOPMENT STAGE 2

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Drawing Title
FUNCTIONAL LAYOUT EARTHWORKS PLAN

Drawn	Designed	Checked	Date
CDB	JB	GBG	MAY 21

Scale	Sheet
AS SHOWN	1 of 12

A1	Drawing No 19-173-201	Revision A

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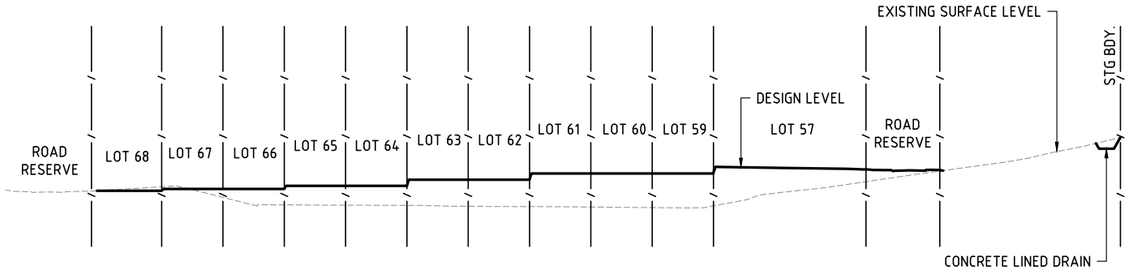

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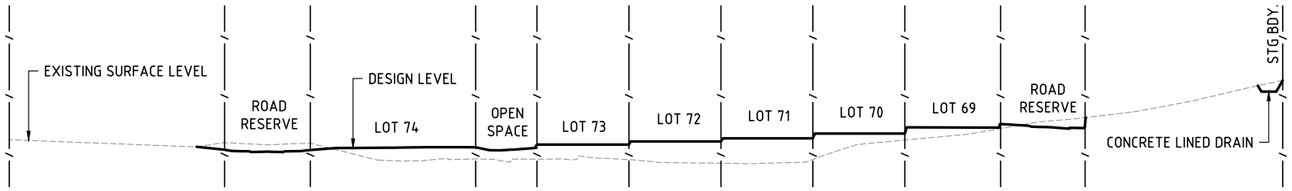

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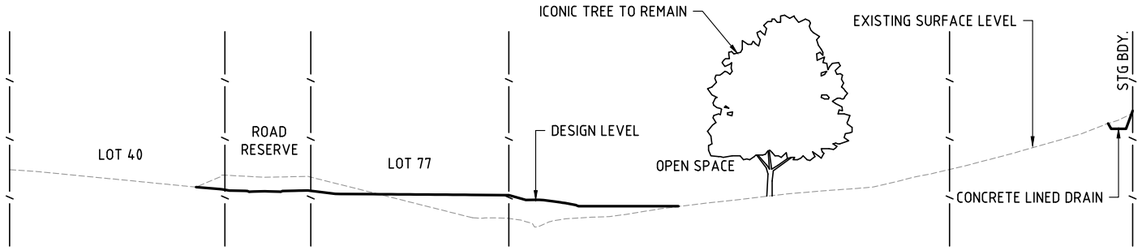

C 201 SECTION
SCALE 1:500

SCALE
10 5 0 10 20 30 40 50m
1 : 500 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

LOCALITY PLAN

REVISIONS

No	Description	Date	By
A	ISSUED FOR APPROVAL	31.05.2021	CDB

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Project
OXLEY SECONDARY COLLEGE REDEVELOPMENT STAGE 2

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L1, 62 Astor Tce
Spring Hill Q 4000
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Drawing Title
FUNCTIONAL LAYOUT
EARTHWORKS PLAN
SECTIONS - SHEET 1

Drawn	Designed	Checked	Date
CDB	JB	GBG	MAY 21

Scale	Sheet
AS SHOWN	2 of 12

A1	Drawing No	Revision
	19-173-202	A

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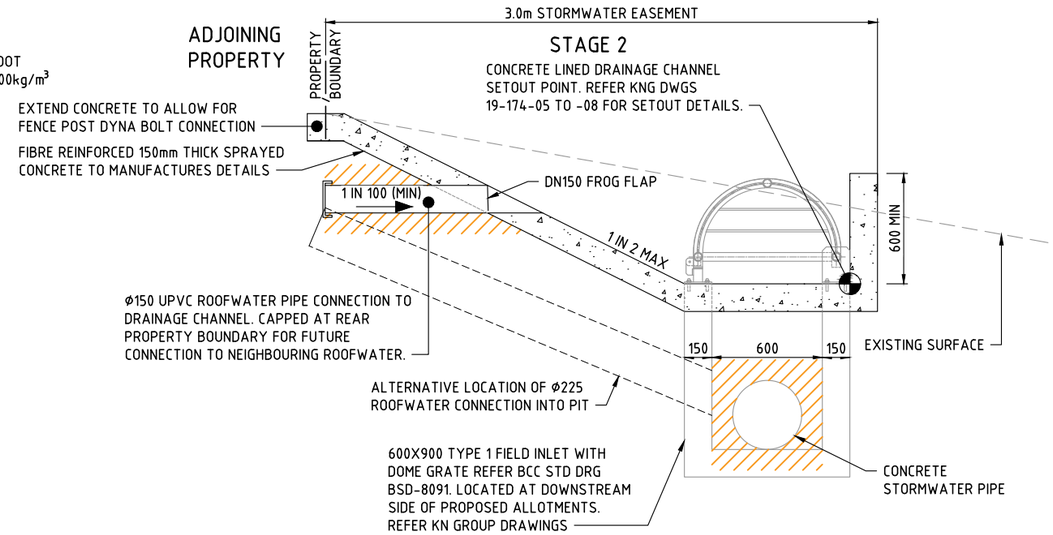
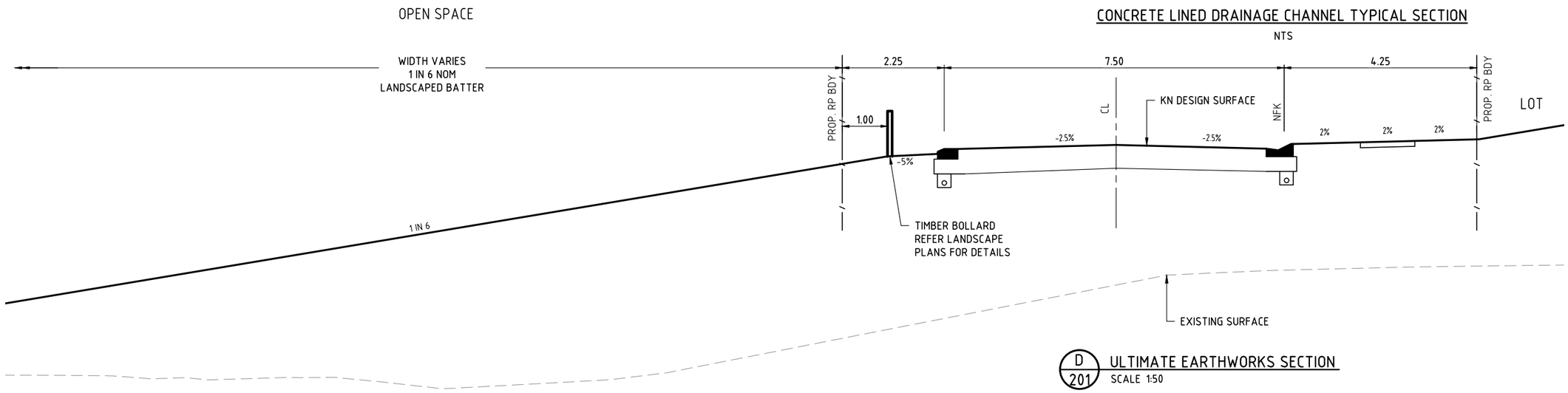
LEGEND

PIPE TRENCH TREE ROOT GROWTH INHIBITOR 200kg/m^3



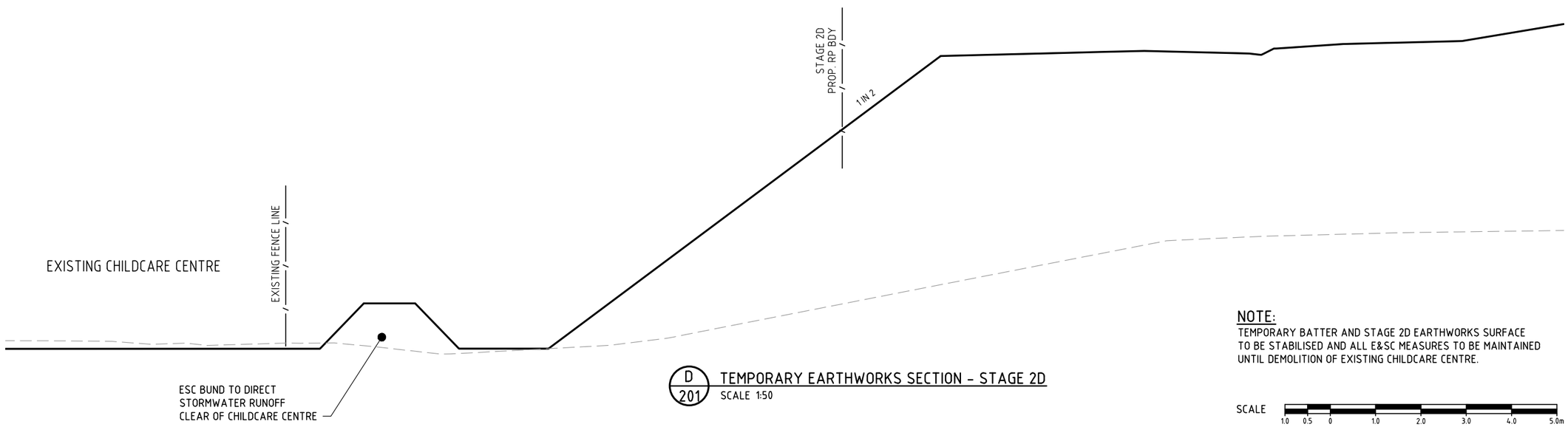
CONCRETE LINED DRAINAGE CHANNEL TYPICAL SECTION

NTS



D 201 ULTIMATE EARTHWORKS SECTION

SCALE 1:50



D 201 TEMPORARY EARTHWORKS SECTION - STAGE 2D

SCALE 1:50

NOTE:

TEMPORARY BATTER AND STAGE 2D EARTHWORKS SURFACE TO BE STABILISED AND ALL E&SC MEASURES TO BE MAINTAINED UNTIL DEMOLITION OF EXISTING CHILDCARE CENTRE.

SCALE 1.0 0.5 0 1.0 2.0 3.0 4.0 5.0m

1 : 50 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

LOCALITY PLAN

REVISIONS

No	Description	Date	By
A	ISSUED FOR APPROVAL	31.05.2021	CDB

Associated Consultants

Client

ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

Project

OXLEY SECONDARY COLLEGE REDEVELOPMENT STAGE 2

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L1, 62 Astor Tce
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Drawing Title

FUNCTIONAL LAYOUT
EARTHWORKS PLAN
SECTIONS - SHEET 2

Drawn	Designed	Checked	Date
CDB	JB	GBG	MAY 21

Scale	Sheet
AS SHOWN	3 of 12

A1	Drawing No	Revision
	19-173-203	A

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Appendix D Stormwater

Level 1, 62 Astor Terrace
Spring Hill Qld 4000
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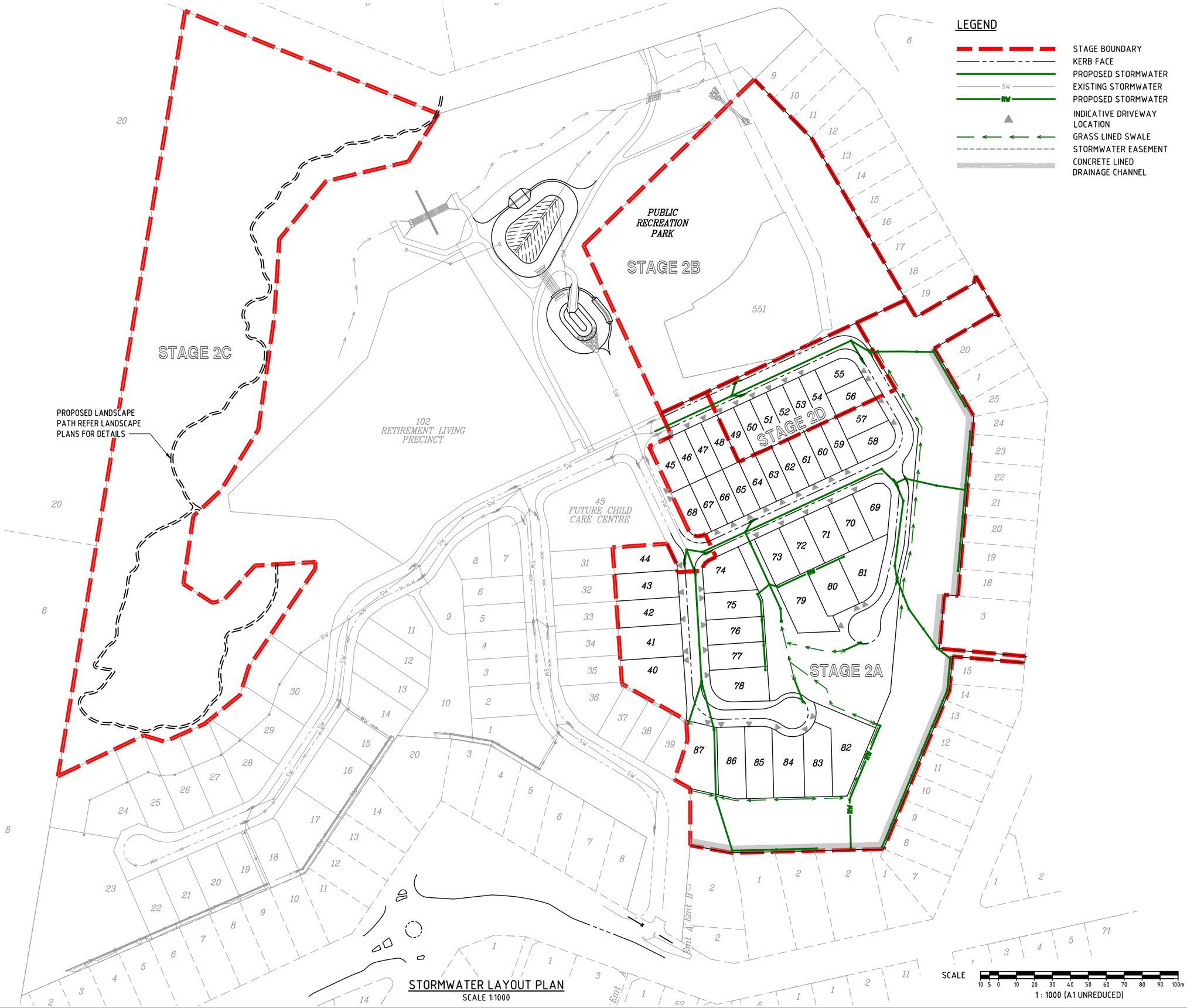

STORMWATER LAYOUT PLAN
SCALE 1:1000

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

NORTH

LOCALITY PLAN

REVISIONS

No	Description	Date	By
A	ISSUED FOR APPROVAL	31.05.2021	CDB

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Client
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Project
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L1, 62 Astor Tce
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Drawing Title
FUNCTIONAL LAYOUT STORMWATER

Drawn	Designed	Checked	Date
CDB	JB	GBG	MAY 21

Scale	Sheet
AS SHOWN	6 of 12

A1	Drawing No	Revision
	19-173-206	A

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Appendix E Sewerage

Level 1, 62 Astor Terrace
Spring Hill Qld 4000
07 3017 1900
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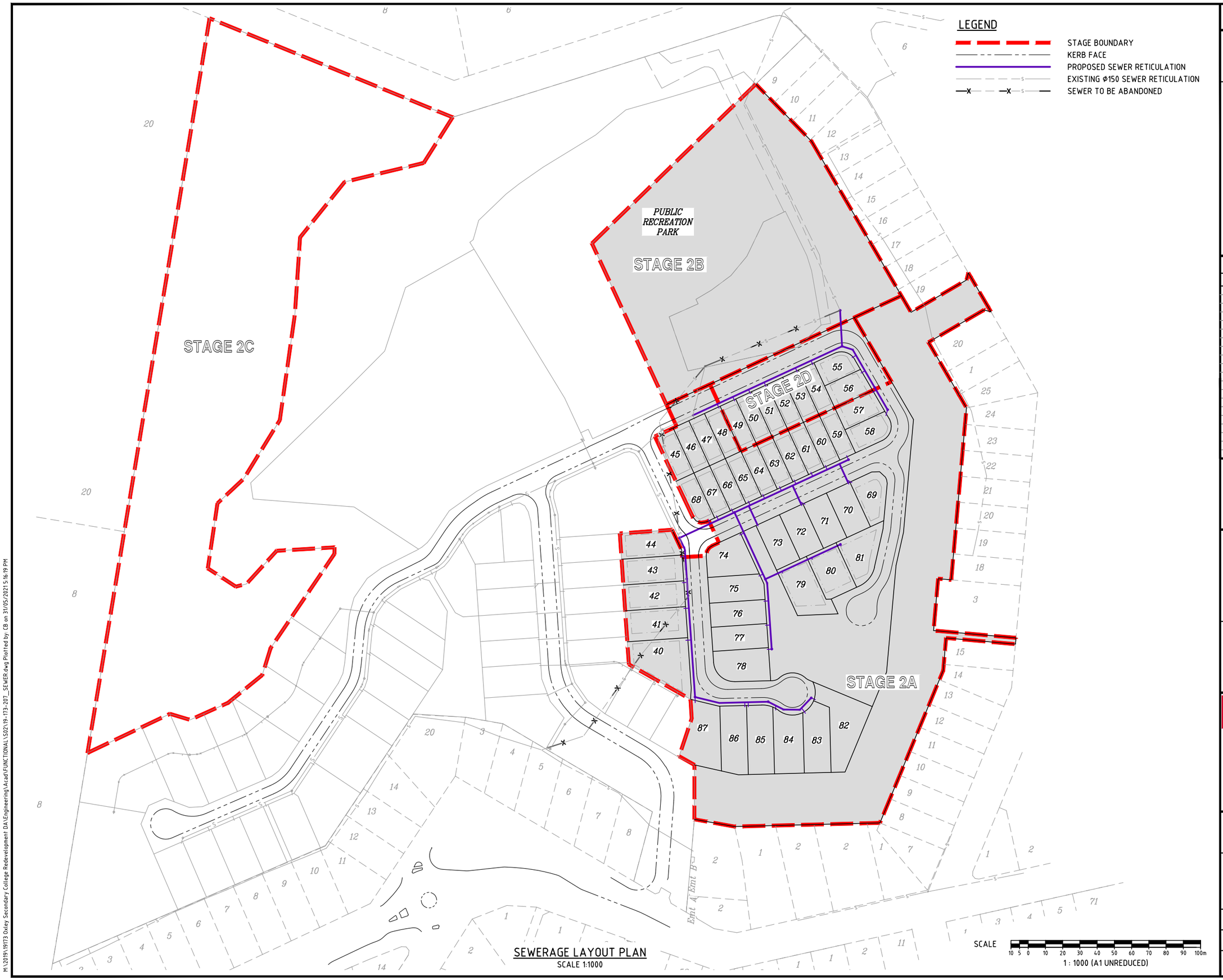

SEWERAGE LAYOUT PLAN
SCALE 1:1000

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

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LOCALITY PLAN

REVISIONS

No	Description	Date	By
A	ISSUED FOR APPROVAL	31.05.2021	CDB

Associated Consultants

Client
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L1, 62 Astor Tce
Spring Hill Q 4000
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Drawing Title
FUNCTIONAL LAYOUT
SEWERAGE LAYOUT PLAN

Drawn	Designed	Checked	Date
CDB	JB	GBG	MAY 21

Scale	Sheet
AS SHOWN	7 of 12

A1	Drawing No	Revision
	19-173-207	A

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Appendix F Water Reticulation

Level 1, 62 Astor Terrace
Spring Hill Qld 4000
07 3017 1900
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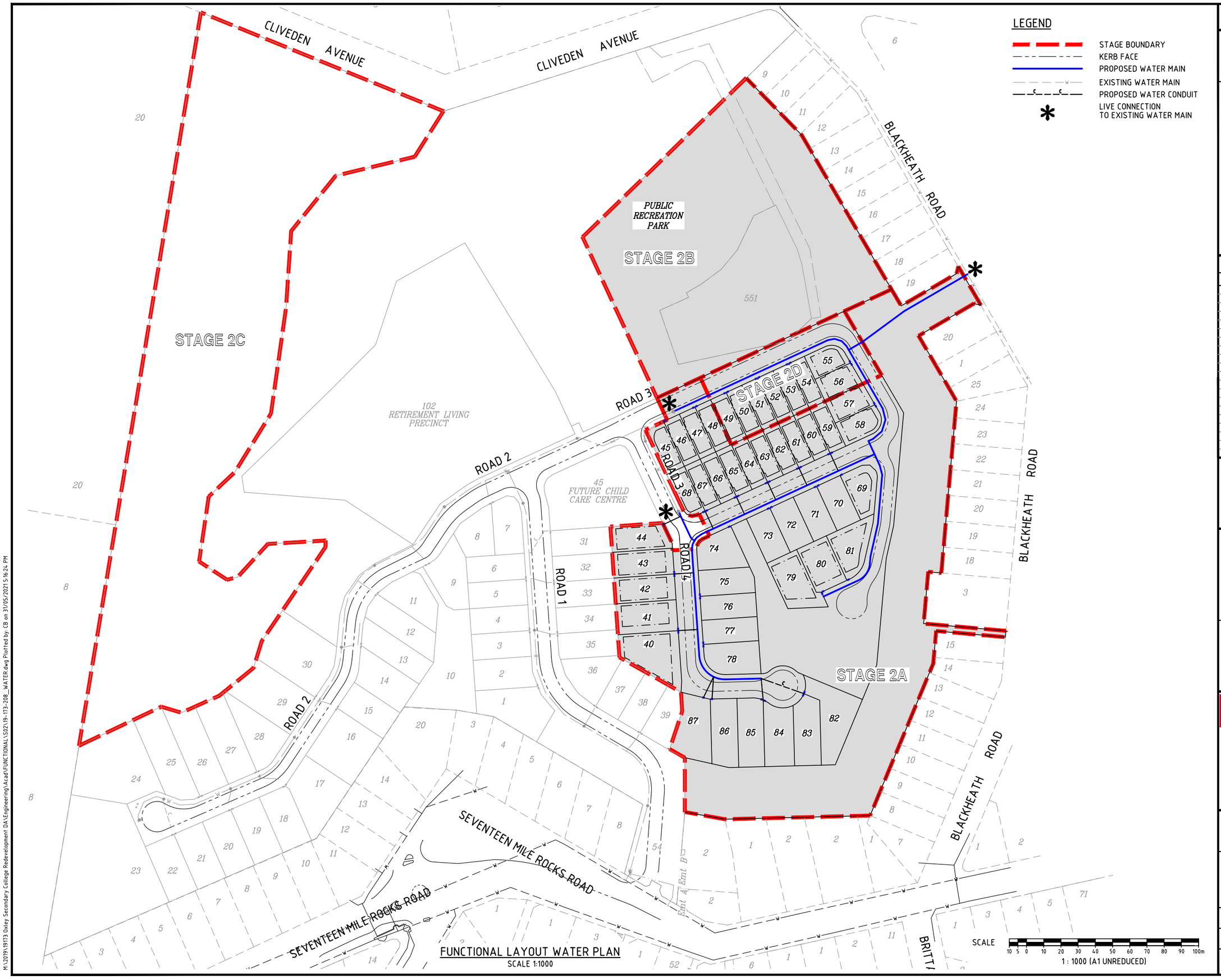

FUNCTIONAL LAYOUT WATER PLAN
SCALE 1:1000

DO NOT SCALE THIS DRAWING
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LOCALITY PLAN

REVISIONS

No	Description	Date	By
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Associated Consultants

Client
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Project
OXLEY SECONDARY COLLEGE REDEVELOPMENT STAGE 2

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Drawing Title
FUNCTIONAL LAYOUT WATER RETICULATION

Drawn	Designed	Checked	Date
CDB	JB	GBG	MAY 21

Scale	Sheet
AS SHOWN	8 of 12

A1	Drawing No	Revision
	19-173-208	A

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Appendix G Overall Services

Level 1, 62 Astor Terrace
Spring Hill Qld 4000
07 3017 1900
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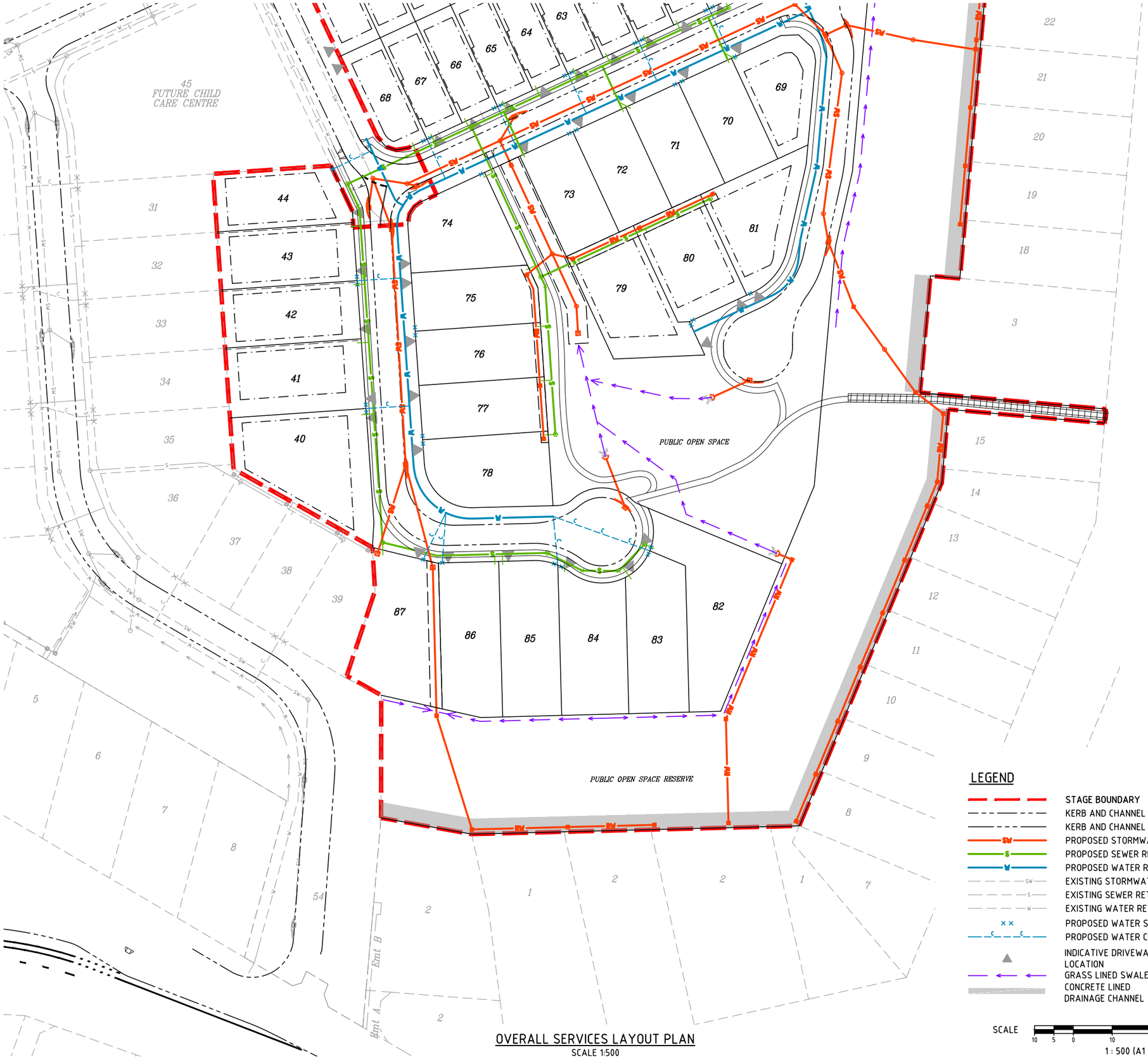
FOR CONTINUATION REFER KNG DWG No 19-173-210



OVERALL SERVICES LAYOUT PLAN

SCALE 1:500

LEGEND

- STAGE BOUNDARY
- KERB AND CHANNEL TYPE D
- KERB AND CHANNEL TYPE E
- PROPOSED STORMWATER
- PROPOSED SEWER RETICULATION
- PROPOSED WATER RETICULATION
- EXISTING STORMWATER
- EXISTING SEWER RETICULATION
- EXISTING WATER RETICULATION
- PROPOSED WATER SERVICE
- PROPOSED WATER CONDUIT
- INDICATIVE DRIVEWAY LOCATION
- GRASS LINED SWALE
- CONCRETE LINED DRAINAGE CHANNEL

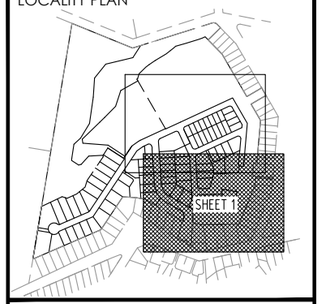
SCALE 10 5 0 10 20 30 40 50m

1 : 500 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!

NORTH

LOCALITY PLAN



REVISIONS

No	Description	Date	By
A	ISSUED FOR APPROVAL	31.05.2021	CDB

Associated Consultants

Client

ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

Project

OXLEY SECONDARY COLLEGE REDEVELOPMENT STAGE 2

kn group
ABN 35 112 53 611
L1, 62 Astor Tce
Spring Hill Q 4000
07 3017 1900
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Drawing Title

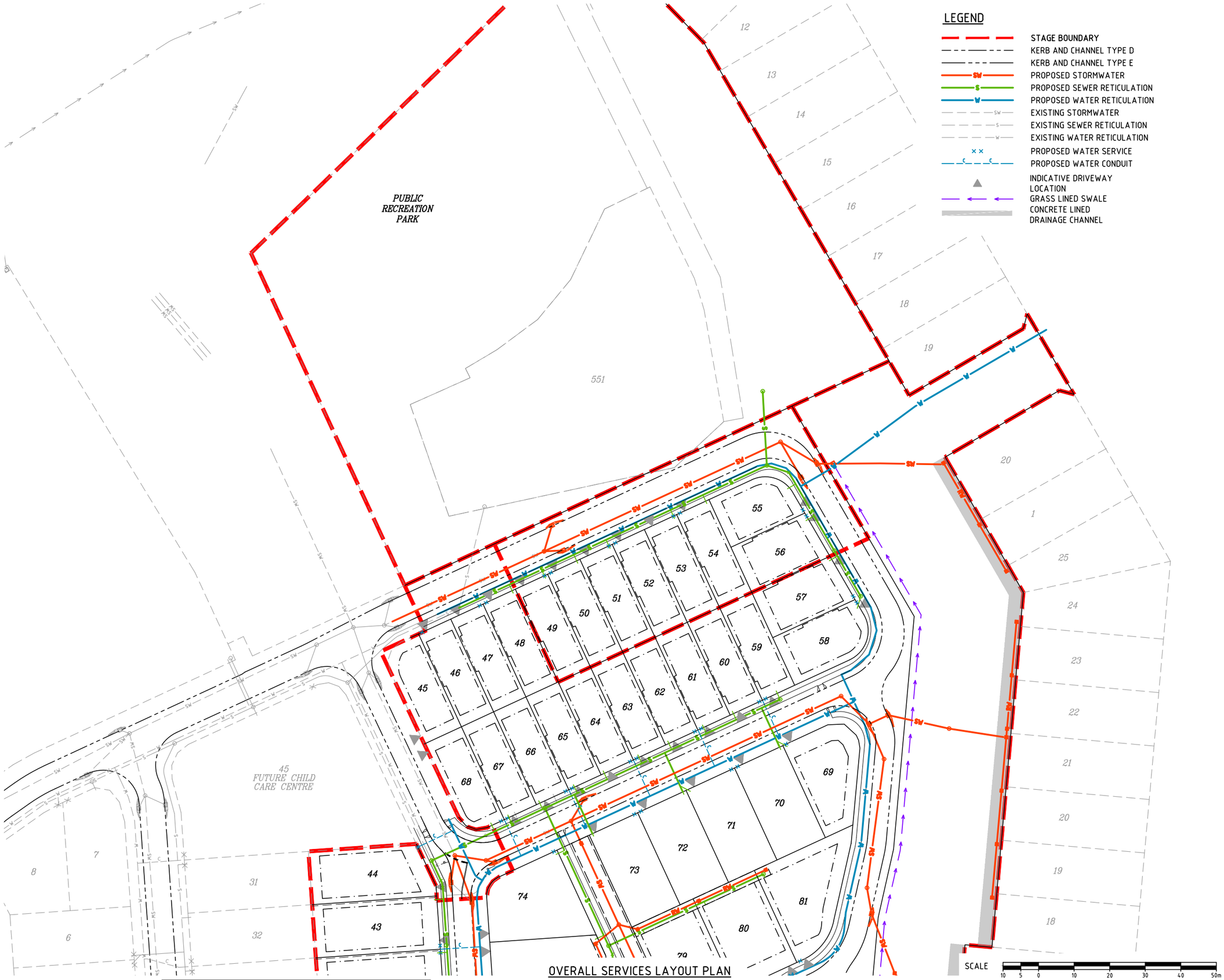
FUNCTIONAL LAYOUT
OVERALL SERVICES
SHEET 1

Drawn	Designed	Checked	Date
CDB	JB	GBG	MAY 21

Scale	Sheet
AS SHOWN	9 of 12

A1	Drawing No	Revision
	19-173-209	A

M:\2019\19173 Oxley Secondary College Redevelopment DA\Engineering\Acad\FUNCTIONAL\S02\19-173-209_210-SERV-ALL.dwg Plotted by: CB on 31/05/2021 5:16:29 PM



LEGEND

- STAGE BOUNDARY
- KERB AND CHANNEL TYPE D
- KERB AND CHANNEL TYPE E
- PROPOSED STORMWATER
- PROPOSED SEWER RETICULATION
- PROPOSED WATER RETICULATION
- EXISTING STORMWATER
- EXISTING SEWER RETICULATION
- EXISTING WATER RETICULATION
- PROPOSED WATER SERVICE
- PROPOSED WATER CONDUIT
- INDICATIVE DRIVEWAY LOCATION
- GRASS LINED SWALE
- CONCRETE LINED DRAINAGE CHANNEL

OVERALL SERVICES LAYOUT PLAN

SCALE 1:500

FOR CONTINUATION REFER KNG DWG No 19-173-209

SCALE 10 5 0 10 20 30 40 50m

1 : 500 (A1 UNREDUCED)

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LOCALITY PLAN

REVISIONS

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A	ISSUED FOR APPROVAL	31.05.2021	CDB

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Client

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Drawing Title

FUNCTIONAL LAYOUT
OVERALL SERVICES
SHEET 2

Drawn	Designed	Checked	Date
CDB	JB	GBG	MAY 21

Scale	Sheet
AS SHOWN	10 of 12

	Drawing No	Revision
A1	19-173-210	A

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Appendix H External Roadworks

Level 1, 62 Astor Terrace
Spring Hill Qld 4000
07 3017 1900
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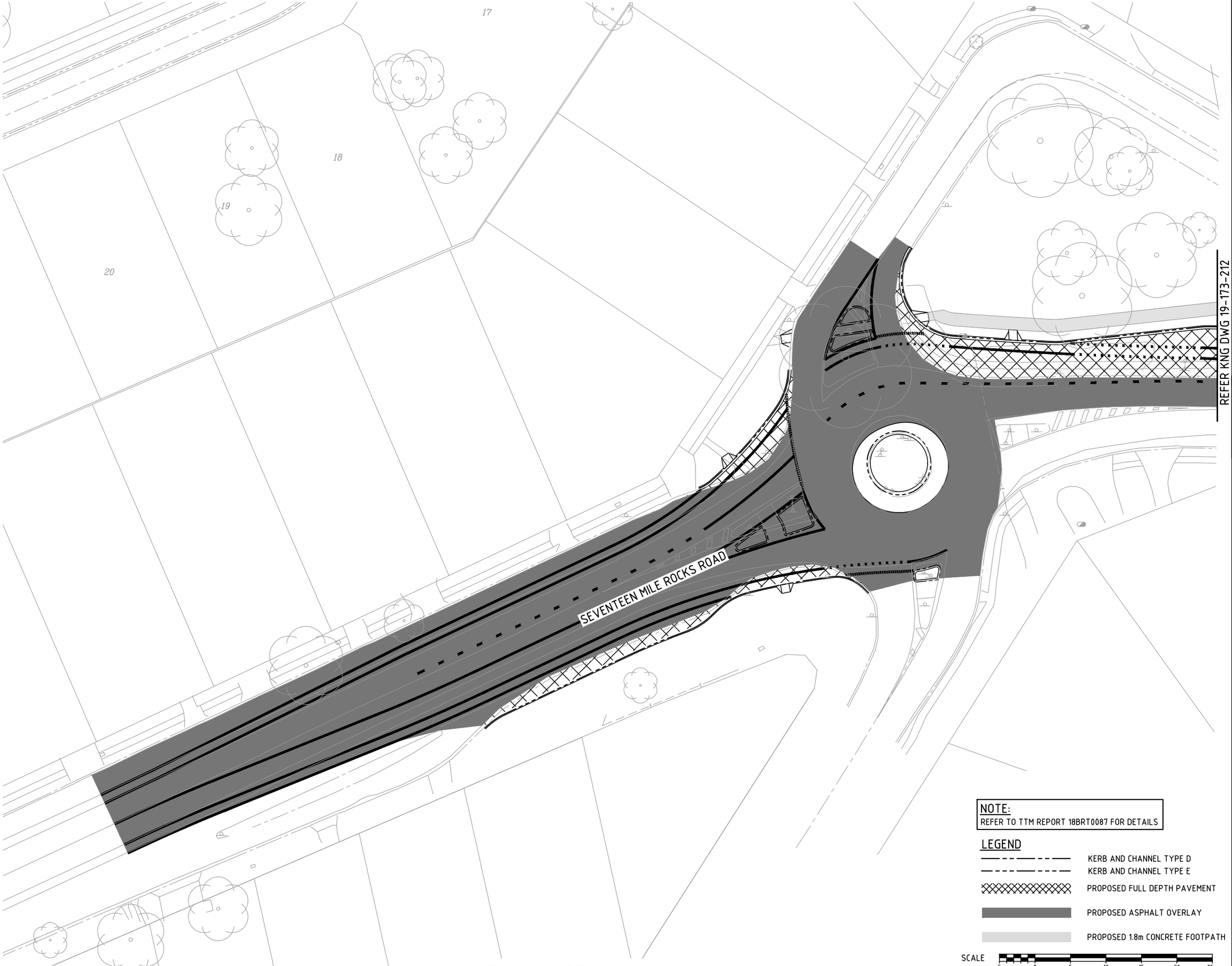

NOTE:
REFER TO TTM REPORT 18BRT0087 FOR DETAILS

LEGEND

- KERB AND CHANNEL TYPE D
- KERB AND CHANNEL TYPE E
- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED ASPHALT OVERLAY
- PROPOSED 1.8m CONCRETE FOOTPATH

SCALE 5 0 5 10 15 20 25m
1 : 250 (A1 UNREDUCED)

FUNCTIONAL LAYOUT PLAN
SCALE 1:250

DO NOT SCALE THIS DRAWING
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NORTH

LOCALITY PLAN

REVISIONS

No	Description	Date	By
A	ISSUED FOR APPROVAL	31.05.2021	CDB

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Client
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Project
OXLEY SECONDARY COLLEGE REDEVELOPMENT STAGE 2

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ABN 35 112 53 611
L1, 62 Astor Tce
Spring Hill Q 4000
07 3017 1900
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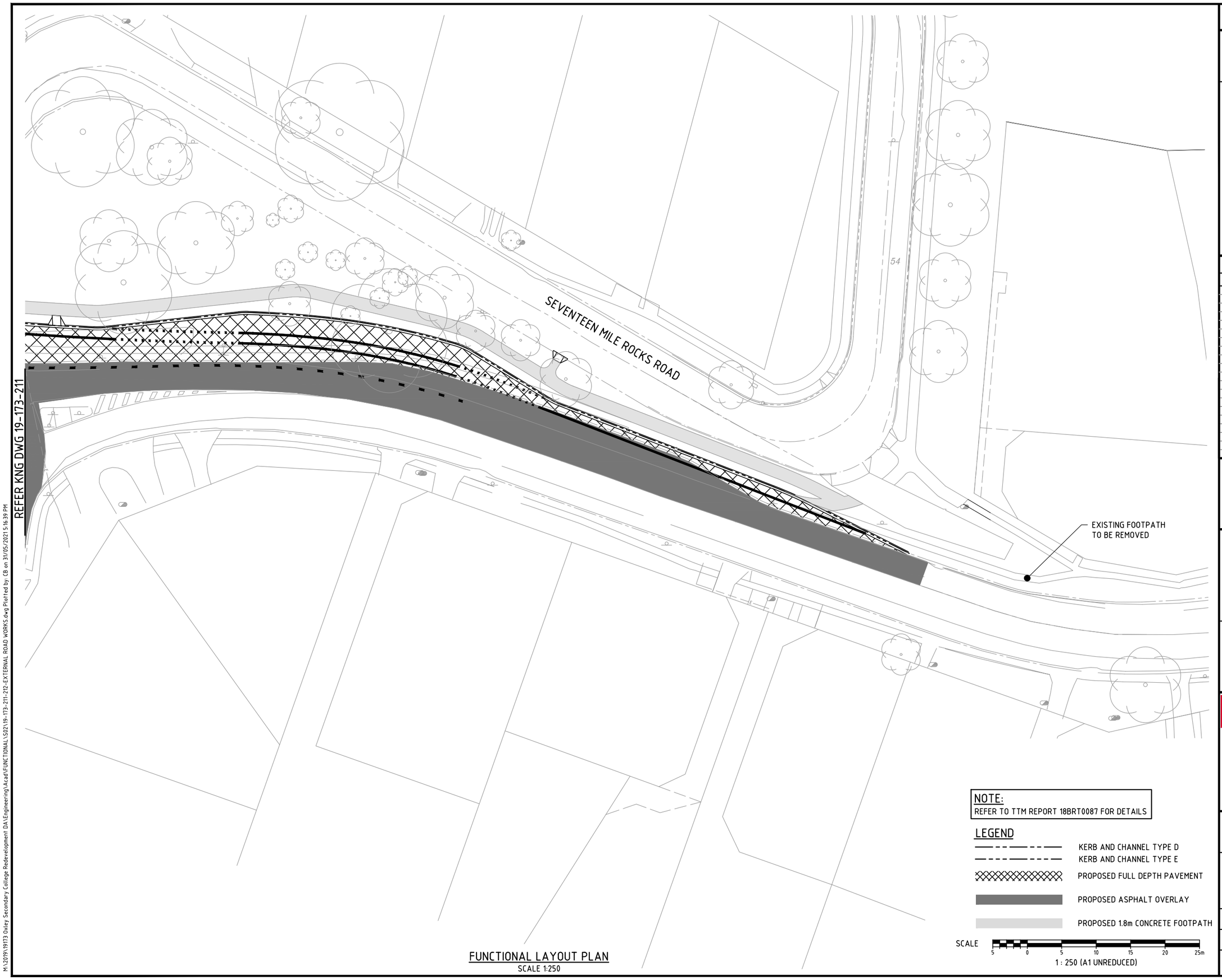
Drawing Title
FUNCTIONAL LAYOUT
EXTERNAL WORKS
SHEET 1

Drawn	Designed	Checked	Date
CDB	JB	GBG	MAY 21

Scale	Sheet
AS SHOWN	11 of 12

A1	Drawing No	Revision
	19-173-211	A

M:\2019\19173 Oxley Secondary College Redevelopment DA\Engineering\Acad\FUNCTIONAL\S02\19-173-211-212-EXTERNAL ROAD WORKS.dwg Plotted by: CB on 31/05/2021 5:16:37 PM



FUNCTIONAL LAYOUT PLAN
SCALE 1:250

REFER KNG DWG 19-173-211

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LOCALITY PLAN

REVISIONS

No	Description	Date	By
A	ISSUED FOR APPROVAL	31.05.2021	CDB

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Client

ECONOMIC DEVELOPMENT QUEENSLAND (EDQ)

Project

OXLEY SECONDARY COLLEGE REDEVELOPMENT STAGE 2

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L1, 62 Astor Tce
Spring Hill Q 4000
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Drawing Title

FUNCTIONAL LAYOUT
EXTERNAL WORKS
SHEET 2

Drawn	Designed	Checked	Date
CDB	JB	GBG	MAY 21

Scale	Sheet
AS SHOWN	12 of 12

A1	Drawing No	Revision
	19-173-212	A

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