

LEGEND

SITE BOUNDARY

PROPOSED SEDIMENT FENCE

PROPOSED DIVERSION SWALE

PROPOSED STOCKPILE LOCATION

NOTE: PIT PROTECTION TO BE PROVIDED FOR ALL NEW PITS WITHIN PROPOSED DEVELOPMENT

DRAWN J.BEVITT
DESIGNED A.BROWN
JOB MANAGER A.BROWN
VERIFIER

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT
B	RE-ISSUED FOR DA APPROVAL	WC		JH	10.04.19	<div><div><div></div></div><div>Lake Macquarie City Council</div></div> <div>DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED</div>
C	RE-ISSUED FOR DA APPROVAL	JB		JH	29.05.19	
D	RE-ISSUED FOR DA APPROVAL	JB		AB	06.12.19	
E	RE-ISSUED FOR DA APPROVAL	JB		AB	18.02.20	
F	RE-ISSUED FOR DA APPROVAL	JB		AB	27.02.20	
G	RE-ISSUED FOR DA APPROVAL	JB		AB	12.03.20	

ARCHITECT

EJE architecture

SCALE 1:750@A1

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PROJECT

HUNTER REGION SPORTS CENTRE EXPANSION, 45 STOCKLAND DRIVE, GLENDALE, N.S.W. 2285

DRAWING TITLE

CONCEPT EROSION AND SEDIMENT CONTROL PLAN

JOB NUMBER

NL181791

DRAWING NUMBER

DA-1.01

REVISION

G

DRAWING SHEET SIZE

= A1

NOT FOR CONSTRUCTION

Erosion and Sediment Control Notes					
The following notes may not be relevant to each development.					
General					
1. ESCP refers to Erosion and Sediment Control Plan and SWMP refers to Soil and Water Management Plan.					
2. ESC refers to erosion and sediment control.					
3. Sediment, includes, but is not limited to, clay, silt, sand, gravel, soil, mud, cement, and ceramic waste.					
4. Any reference to the Blue Book refers to Managing Urban Stormwater – Soils and Construction. Landcom, 2004.					
5. Any reference to the IECA White Books (2008) refers to IECA 2008. Best Practice Erosion and Sediment Control. Books 1-6.International Erosion Control Association (Australasia). Picton NSW.					
6. Any material deposited in any conservation area from works associated with the development shall be removed immediately by measures involving minimal ground and/or vegetation disturbance and no machinery, or following directions by Council and/or within a timeframe advised by Council.					
The ESCP					
7. The ESCP and its associated ESC measures shall be constantly monitored, reviewed, and modified as required to correct deficiencies. Council has the right to direct changes if, in its opinion, the measures that are proposed or have been installed are inadequate to prevent pollution.					
8. Prior to any activities onsite, the responsible person(s) is to be nominated. The responsible person(s) shall be responsible for the ESC measures onsite. The name, address and 24 hour contact details of the person(s) shall be provided to Council in writing. Council shall be advised within 48 hours of any changes to the responsible person(s), or their contact details, in writing.					
9. At least 14 days before the natural surface is disturbed in any new stage, the contractor shall submit to the Certifier, a plan showing ESC measures for that Stage. The degree of design detail shall be based on the disturbed area.					
10. At any time, the ESC measures onsite shall be appropriate for the area of disturbance and its characteristics including soils (in accordance with those required for the site as per DCP).					
11. The implementation of the ESCP shall be supervised by personnel with appropriate qualifications and/or experience in ESC on construction sites.					
12. The approved ESCP shall be available on-site for inspection by Council officers while work activities are occurring.					
13. The approved ESCP shall be up to date and show a timeline of installation, maintenance and removal of ESC measures.					
14. All ESC measures shall be appropriate for the Sediment Type(s) of the soils onsite, in accordance with the Blue Book, IECA White Books or other current recognised industry standard for ESC for Australian conditions.					
15. Adequate site data, including soil data from a NATA approved Laboratory, shall be obtained to allow the preparation of an appropriate ESCP, and allow the selection, design and specification of required ESC measures.					
16. All works shall be carried out in accordance with the approved ESCP (as amended from time to time) unless circumstances arise where:					
a) compliance with the ESCP would increase the potential for environmental harm; or					
b) circumstances change during construction and those circumstances could not have been foreseen; or					
c) Council determines that unacceptable off-site sedimentation is occurring as a result of a land-disturbing activity. In either case, the person(s) responsible may be required to take additional, or alternative protective action, and/or undertake reasonable restoration works within the timeframe specified by the Council.					
17. Additional ESC measures shall be implemented, and a revised ESCP submitted for approval to the certifier (within five business days of any such amendments) in the event that:					
a) there is a high probability that serious or material environmental harm may occur as a result of sediment leaving the site; or					
b) the implemented works fail to achieve Council’s water quality					





objectives specified in these conditions; or					
c) site conditions significantly change; or					
d) site inspections indicate that the implemented works are failing to achieve the “objective” of the ESCP.					
18. A copy of any amended ESCP shall be forwarded to an appropriate Council Officer, within five business days of any such amendments.					
Site establishment including clearing and mulching					
19.No land clearing shall be undertaken unless preceded by the installation of adequate drainage and sediment control measures, unless such clearing is required for the purpose of installing such measures, in which case, only the minimum clearing required to install such measures shall occur.					
20.Bulk tree clearing and grubbing of the site shall be immediately followed by specified temporary erosion control measures (e.g. temporary grassing or mulching) prior to commencement of each stage of construction works.					
21. Trees and vegetation cleared from the site shall be mulched onsite within 7 days of clearing.					
22.Appropriate measures shall be undertaken to control any dust originating due to the mulching of vegetation onsite.					
23.All office facilities and operational activities shall be located such that any effluent, including wash-down water, can be totally contained and treated within the site.					
24.All reasonable and practicable measures shall be taken to ensure stormwater runoff from access roads and stabilised entry/exit systems, drains to an appropriate sediment control device.					
25.Site exit points shall be appropriately managed to minimise the risk of sediment being tracked onto sealed, public roadways.					
26.Stormwater runoff from access roads and stabilised entry/exit points shall drain to an appropriate sediment control device.					
27.The Applicant shall ensure an adequate supply of ESC, and appropriate pollution clean-up materials are available on-site at all times.					
28.All temporary earth banks, flow diversion systems, and sediment basin embankments shall be machine-compacted, seeded and mulched within ten (10) days of formation for the purpose of establishing a vegetative cover, or lined appropriately.					
29.Sediment deposited off site as a result of on-site activities shall be collected and the area cleaned/rehabilitated as soon as reasonable and practicable.					
30.Concrete waste and chemical products, including petroleum and oil-based products, shall be prevented from entering any internal or external water body, or any external drainage system, excluding those on-site water bodies specifically designed to contain and/or treat such material. Appropriate measures shall be installed to trap these materials onsite.					
31.Brick, tile or masonry cutting shall be carried out on a pervious surface (e.g. grass or open soil) and in such a manner that any resulting sediment-laden runoff is prevented from discharging into a gutter, drain or water. Appropriate measures shall be installed to trap these materials onsite.					
32.Newly sealed hard-stand areas (e.g. roads, driveways and car parks) shall be swept thoroughly as soon as practicable after sealing/surfacing to minimise the risk of components of the surfacing compound entering stormwater drains.					
33.Stockpiles of erodible material shall be provided with an appropriate protective cover (synthetic or organic) if the materials are likely to be stockpiled for more than 10 days.					
34.Stockpiles, temporary or permanent, shall not be located in areas identified as no-go zones (including, but not limited to, restricted access areas, buffer zones, or areas of non-disturbance) on the ESCP.					
35.No more than 150m of a stormwater, sewer line or other service trench shall to be open at any one time.					
36.Site spoil shall be lawfully disposed of in a manner that does not result in ongoing soil erosion or environmental harm.					
37.Wherever reasonable and practicable, stormwater runoff entering the site from external areas, and non-sediment laden (clean) stormwater runoff entering a work area or area of soil disturbance, shall be diverted around or through that area in a manner that minimises soil erosion and the contamination of that water for all discharges up to the specified design storm discharge.					

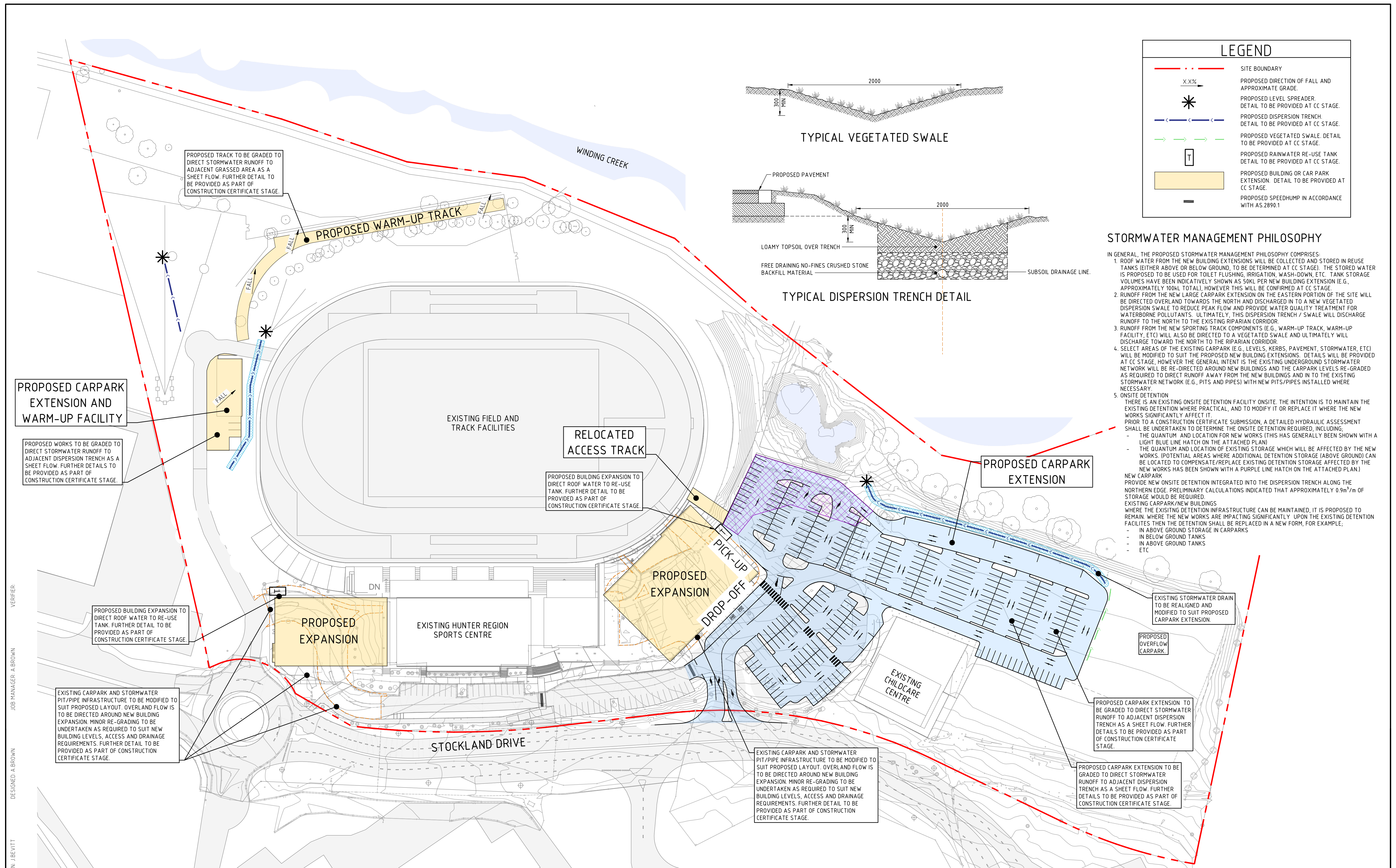
Site Management including Dust
38.Priority shall be given to the prevention, or at least the minimisation, of soil erosion, rather than the trapping of displaced sediment. Such a clause shall not reduce the responsibility to apply and maintain, at all times, all necessary ESC measures.
39.Measures used to control wind erosion shall be appropriate for the location and prevent soil erosion and emissions from site at all times, including working hours, out of hours, weekends, public holidays, and during any other shutdown periods.
40.The application of liquid or chemical-based dust suppression measures shall ensure that sediment-laden runoff resulting from such measures does not create a traffic or environmental hazard.
41.All cut and fill earth batters less than 3m in elevation shall be topsoiled, and grass seeded/hydr mulched within 10 days of completion of grading in consultation with Council.
42.All disturbed areas shall be stabilised in accordance with time lines in the Blue Book.
43.All reasonable and practicable measures shall be taken to prevent, or at least minimise, the release of sediment from the site.
44.Suitable all-weather maintenance access shall be provided to all sediment control devices.
45.Sediment control devices, other than sediment basins, shall be de-silted and made fully operational as soon as reasonable and practicable after a sediment-producing event, whether natural or artificial, if the device’s sediment retention capacity falls below 75% of its design retention capacity.
46.All erosion and sediment control measures, including drainage control measures, shall be maintained in proper working order at all times during their operational lives.
47.Washing/flushing of sealed roadways shall only occur where sweeping has failed to remove sufficient sediment and there is a compelling need to remove the remaining sediment (e.g. for safety reasons). In such circumstances, all reasonable and practicable sediment control measures shall be used to prevent, or at least minimise, the release of sediment into receiving waters. Only those measures that will not cause safety and property flooding issues shall be employed. Sediment removed from roadways shall be disposed of in a lawful manner that does not cause ongoing soil erosion or environmental harm.
48.Sediment removed from sediment traps and places of sediment deposition shall be disposed of in a lawful manner that does not cause ongoing soil erosion or environmental harm.
Sediment Basins – installation, maintenance and removal including sediment traps
49.As-Constructed plans shall be prepared for all constructed Sediment Basins and associated emergency spillways. Such plans shall verify the basin’s dimensions, levels and volumes comply with the approved design drawings. These plans may be requested by the Certifier or Council.
50.Sediment basins shall be constructed and fully operational prior to any other soil disturbance in their catchment.
51.Install an internal gated valve, or similar, in any outlet pipe once pipes installed, or install a sacrificial pipe from basin through wall to external outlet point. The valve shall be connected to a riser made from slotted pipe in the basin. The valve may be opened once captured water meets water quality requirements. The final setup for temporary internal outlet structures to be confirmed prior to construction with Council. This setup will enable discharge of treated water from site without need for pumping.
52.A sediment storage level marker post shall be with a cross member set just below the top of the sediment storage zone (as specified on the approved ESCP). At least a 75mm wide post shall be firmly set into the basin floor.
53.The Site Manager shall obtain the relevant approvals from the relevant organisations to discharge treated water from any existing basins. Organisations may include, but not be limited to, Hunter Water, and Council.
54.Where more than one stage is to be developed at one time, or before the preceding stage is complete, the sediment basin(s) for these stages shall have sufficient capacity to cater for all area directed to the basin(s).
55.Prior to any forecast weather event likely to result in runoff, any basins/traps shall be dewatered to provide sufficient capacity to capture sediment laden water from the site.
56.Sufficient quantities of chemicals/agents to treat captured water

shall be placed such that water entering the basin mixes with the chemical/agents and is carried into the basin to speed up clarification.
57.Any basin shall be dewatered within the X-day rainfall depth used to calculate the capacity of the basin, after a rainfall event.
58.Sufficient quantities of chemicals/agents to treat turbid water shall be securely stored on-site to provide for at least three complete treatments of all basins requiring chemically treatment onsite.
59.Prior to the controlled discharge (e.g. de-watering activities) from site including excavations and/or sediment basins, the following water quality objectives shall be achieved:
a) Total Suspended Solids (TSS) to a maximum 50 milligrams/L;
b) water pH between 6.5 and 8.5, unless otherwise required by the Council;
c) Turbidity (measured in NTUs) to a maximum of 60 NTU); and
d) EC levels no greater than background levels.
60.The Development Approval may require testing of additional water quality elements prior to discharge. E.g. including but not limited to metals, organic substances, chemicals or bacteriological indicators.
61.A sample of the released treated water shall be kept onsite in a clear container with the sample date recorded on it.
62.Water quality samples shall be taken at a depth no less than 200mm below the water surface of the basin.
63.No Aluminium based products may be used treat captured water onsite without the prior written permission from an appropriate Council Officer. The applicant shall have a demonstrated ability to use such products correctly and without environmental harm prior to any approval.
64.The chemical/agent used in Type D and Type F basins to treat captured water captured in the basin shall be applied in concentrations sufficient to achieve Council’s water quality objectives within the X-day rainfall depth used to calculate the capacity of the basin, after a rainfall event.
65.All Manufacturers’ Instructions shall be followed for any chemicals/agents used onsite, except where approved by the Responsible Person or an appropriate Council Officer.
66.The Applicant shall ensure that on each occasion a Type F or Type D basin was not de-watered prior to being surcharged by a following rainfall event, a report is presented to an appropriate Council officer within 5 days identifying the circumstances and proposed amendments, if any, to the basin’s operating procedures.
67.Settled sediment shall be removed as soon as reasonable and practicable from any sediment basin if:
a) it is anticipated that the next storm event is likely to cause sediment to settle above the basin’s sediment storage zone; or
b) the elevation of settled sediment is above the top of the basin’s sediment storage zone; or
c) the elevation of settled sediment is above the basins sediment marker line.
68.Scour protection measures placed on sediment basin emergency spillways shall appropriately protect the spillway chute and its side batters from scour, and shall extend a minimum of 3m beyond the downstream toe of the basin’s embankment.
69.Suitable all-weather maintenance access shall be provided to all sediment control devices.
70.Materials, whether liquid or solid, removed from any ESC measure or excavation during maintenance or decommissioning, shall be disposed of in a manner that does not cause ongoing soil erosion, water pollution or environmental harm.
71.All sediment basins shall remain fully operational at all times until the basin’s design catchment achieves 70% ground cover or surface stabilisation acceptable to Council.
72.The ESC measures installed during the decommissioning and rehabilitation of a sediment basin shall comply with same standards specified for the normal construction works.
73.A sediment basin shall not be decommissioned until all up-slope site stabilisation measures have been implemented and are appropriately working to control soil erosion and sediment runoff..
74.Immediately prior to the construction of the permanent stormwater treatment device, appropriate flow bypass conditions shall be established to prevent sediment-laden water entering the device.

Revegetation/Stabilisation
75.Temporary Stabilisation may be attained using vegetation, non rewettable soil polymers, or pneumatically applied erosion controls.
76.All cut and fill earth batters less than 3m in elevation shall be topsoiled, and grass seeded/hydr mulched within 10 days of completion of grading in consultation with Council.
77.At the completion of formation in any section, all disturbed areas shall be stabilised in accordance with time lines in the Blue Book.
78.The LMCC Seed mix shall be used unless stated on the ESCP/SWMP.
79.The pH level of topsoil shall be appropriate to enable establishment and growth of specified vegetation prior to initiating the establishment of vegetation.
80.Non rewettable binder shall be used in all hydr mulch/hydroseed/polymer mixes on slopes or works adjacent to a water course.
81.Soil ameliorants shall be added to the soil in accordance with an approved Landscape Plan, Vegetation Management Plan, and/or soil analysis.
82.Surface soil density, compaction and surface roughness shall be adjusted prior to seeding/planting in accordance with an approved Landscape Plan, Vegetation Management Plan, and/or soil analysis.
83.Procedures for initiating a site shutdown, whether programmed or un-programmed, shall incorporate revegetation of all soil disturbances unless otherwise approved by Council. The stabilisation works shall not rely upon the longevity of non-vegetated erosion control blankets, or temporary soil binders.
Site Monitoring and Maintenance
84.The Applicant shall ensure that appropriate procedures and suitably qualified personnel are engaged to plan and conduct site inspections and water quality monitoring throughout the construction and maintenance phase.
85.All ESC measures shall be inspected and any maintenance undertaken immediately:
a) at least daily (when work is occurring on-site); and
b) at least weekly (when work is not occurring on-site); and
c) within 24hrs of expected rainfall; and
d) within 18hrs of a rainfall event that causes runoff on the site.
86.Written records shall be kept onsite of ESC monitoring and maintenance activities conducted during the construction and maintenance periods, and be available to Council officers on request.
87.All environmentally relevant incidents shall be recorded in a field log that shall remain accessible to all relevant regulatory authorities.
88.All water quality data, including dates of rainfall, dates of testing, testing results and dates of water release, shall be kept in an on-site register. The register is to be maintained up to date for the duration of the approved works and be available on-site for inspection by all relevant regulatory authorities on request.
89.At nominated instream water monitoring sites, a minimum of 3 water samples shall be taken and analysed, and the average result used to determine quality.
Instream Works
90.All instream works (including in or adjacent to watercourses natural or manmade, flowing or not) shall be carried out in accordance with the IECA White Books.

NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	PROJECT	DRAWING TITLE	JOB NUMBER		
A	RE-ISSUED FOR DA APPROVAL	JB		AB	06.12.19			 Newcastle Suite 4, 215 Pacific Hwy, Charlestown NSW 2290 P.O. Box 180, Charlestown NSW 2290 Ph (02) 4943 1777 Fax (02) 4943 1577 Email newcastle@northrop.com.au ABN 81 094 433 100	HUNTER REGION SPORTS CENTRE EXPANSION, 45 STOCKLAND DRIVE, GLENDALE, N.S.W. 2285	CONCEPT EROSION AND SEDIMENT CONTROL NOTES	NL181791	
B	RE-ISSUED FOR DA APPROVAL	JB		AB	18.02.20							
C	RE-ISSUED FOR DA APPROVAL	JB		AB	27.02.20							
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						DRAWING NOT TO BE USED FOR CONSTRUCTION UNLESS VERIFICATION SIGNATURE HAS BEEN ADDED	THE COPYRIGHT OF THIS DRAWING REMAINS WITH NORTHROP CONSULTING ENGINEERS PTY LTD.	SCALE 1:750@A1			DRAWING NUMBER	REVISION
											DA-1.02	D
DRAWING SHEET SIZE = A1												



LEGEND

X.X%

SITE BOUNDARY

PROPOSED DIRECTION OF FALL AND APPROXIMATE GRADE.

PROPOSED LEVEL SPREADER. DETAIL TO BE PROVIDED AT CC STAGE.

PROPOSED DISPERSION TRENCH. DETAIL TO BE PROVIDED AT CC STAGE.

PROPOSED VEGETATED SWALE. DETAIL TO BE PROVIDED AT CC STAGE.

PROPOSED RAINWATER RE-USE TANK. DETAIL TO BE PROVIDED AT CC STAGE.

PROPOSED BUILDING OR CARPARK EXTENSION. DETAIL TO BE PROVIDED AT CC STAGE.

PROPOSED SPEEDHUMP IN ACCORDANCE WITH AS 2890.1

STORMWATER MANAGEMENT PHILOSOPHY

IN GENERAL, THE PROPOSED STORMWATER MANAGEMENT PHILOSOPHY COMPRISES:

1. ROOF WATER FROM THE NEW BUILDING EXTENSIONS WILL BE COLLECTED AND STORED IN REUSE TANKS (EITHER ABOVE OR BELOW GROUND, TO BE DETERMINED AT CC STAGE). THE STORED WATER IS PROPOSED TO BE USED FOR TOILET FLUSHING, IRRIGATION, WASH-DOWN, ETC. TANK STORAGE VOLUMES HAVE BEEN INDICATIVELY SHOWN AS 50KL PER NEW BUILDING EXTENSION (E.G., APPROXIMATELY 100KL TOTAL), HOWEVER THIS WILL BE CONFIRMED AT CC STAGE.
2. RUNOFF FROM THE NEW LARGE CARPARK EXTENSION ON THE EASTERN PORTION OF THE SITE WILL BE DIRECTED OVERLAND TOWARDS THE NORTH AND DISCHARGED IN TO A NEW VEGETATED DISPERSION SWALE TO REDUCE PEAK FLOW AND PROVIDE WATER QUALITY TREATMENT FOR WATERBORNE POLLUTANTS. ULTIMATELY, THIS DISPERSION TRENCH / SWALE WILL DISCHARGE RUNOFF TO THE NORTH TO THE EXISTING RIPARIAN CORRIDOR.
3. RUNOFF FROM THE NEW SPORTING TRACK COMPONENTS (E.G., WARM-UP TRACK, WARM-UP FACILITY, ETC) WILL ALSO BE DIRECTED TO A VEGETATED SWALE AND ULTIMATELY WILL DISCHARGE TOWARD THE NORTH TO THE RIPARIAN CORRIDOR.
4. SELECT AREAS OF THE EXISTING CARPARK (E.G., LEVELS, KERBS, PAVEMENT, STORMWATER, ETC) WILL BE MODIFIED TO SUIT THE PROPOSED NEW BUILDING EXTENSIONS. DETAILS WILL BE PROVIDED AT CC STAGE, HOWEVER THE GENERAL INTENT IS THE EXISTING UNDERGROUND STORMWATER NETWORK WILL BE RE-DIRECTED AROUND NEW BUILDINGS AND THE CARPARK LEVELS RE-GRADED AS REQUIRED TO DIRECT RUNOFF AWAY FROM THE NEW BUILDINGS AND IN TO THE EXISTING STORMWATER NETWORK (E.G., PITS AND PIPES) WITH NEW PITS/PIPES INSTALLED WHERE NECESSARY.
5. ONSITE DETENTION
THERE IS AN EXISTING ONSITE DETENTION FACILITY ONSITE. THE INTENTION IS TO MAINTAIN THE EXISTING DETENTION WHERE PRACTICAL, AND TO MODIFY IT OR REPLACE IT WHERE THE NEW WORKS SIGNIFICANTLY AFFECT IT.
PRIOR TO A CONSTRUCTION CERTIFICATE SUBMISSION, A DETAILED HYDRAULIC ASSESSMENT SHALL BE UNDERTAKEN TO DETERMINE THE ONSITE DETENTION REQUIRED, INCLUDING:
 - THE QUANTUM AND LOCATION FOR NEW WORKS (THIS HAS GENERALLY BEEN SHOWN WITH A LIGHT BLUE LINE HATCH ON THE ATTACHED PLAN)
 - THE QUANTUM AND LOCATION OF EXISTING STORAGE WHICH WILL BE AFFECTED BY THE NEW WORKS. (POTENTIAL AREAS WHERE ADDITIONAL DETENTION STORAGE (ABOVE GROUND) CAN BE LOCATED TO COMPENSATE/REPLACE EXISTING DETENTION STORAGE AFFECTED BY THE NEW WORKS HAS BEEN SHOWN WITH A PURPLE LINE HATCH ON THE ATTACHED PLAN.)

NEW CARPARK
PROVIDE NEW ONSITE DETENTION INTEGRATED INTO THE DISPERSION TRENCH ALONG THE NORTHERN EDGE. PRELIMINARY CALCULATIONS INDICATED THAT APPROXIMATELY 0.9m³/m OF STORAGE WOULD BE REQUIRED.
EXISTING CARPARK/NEW BUILDINGS
WHERE THE EXISTING DETENTION INFRASTRUCTURE CAN BE MAINTAINED, IT IS PROPOSED TO REMAIN. WHERE THE NEW WORKS ARE IMPACTING SIGNIFICANTLY UPON THE EXISTING DETENTION FACILITIES THEN THE DETENTION SHALL BE REPLACED IN A NEW FORM, FOR EXAMPLE:

- IN ABOVE GROUND STORAGE IN CARPARKS
- IN ABOVE GROUND TANKS
- IN ABOVE GROUND TANKS
- ETC

VERIFIER
JOB MANAGER: A.BROWN
DESIGNED: A.BROWN
DRAWN: J.BEVITT

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Lake Macquarie City Council

EJE architecture

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PROJECT

HUNTER REGION SPORTS CENTRE EXPANSION, 45 STOCKLAND DRIVE, GLENDALE, N.S.W. 2285

DRAWING TITLE

CONCEPT STORMWATER MANAGEMENT PLAN

JOB NUMBER

NL181791

DRAWING NUMBER	REVISION
DA-2.01	H

DRAWING SHEET SIZE = A1

ARCHITECT

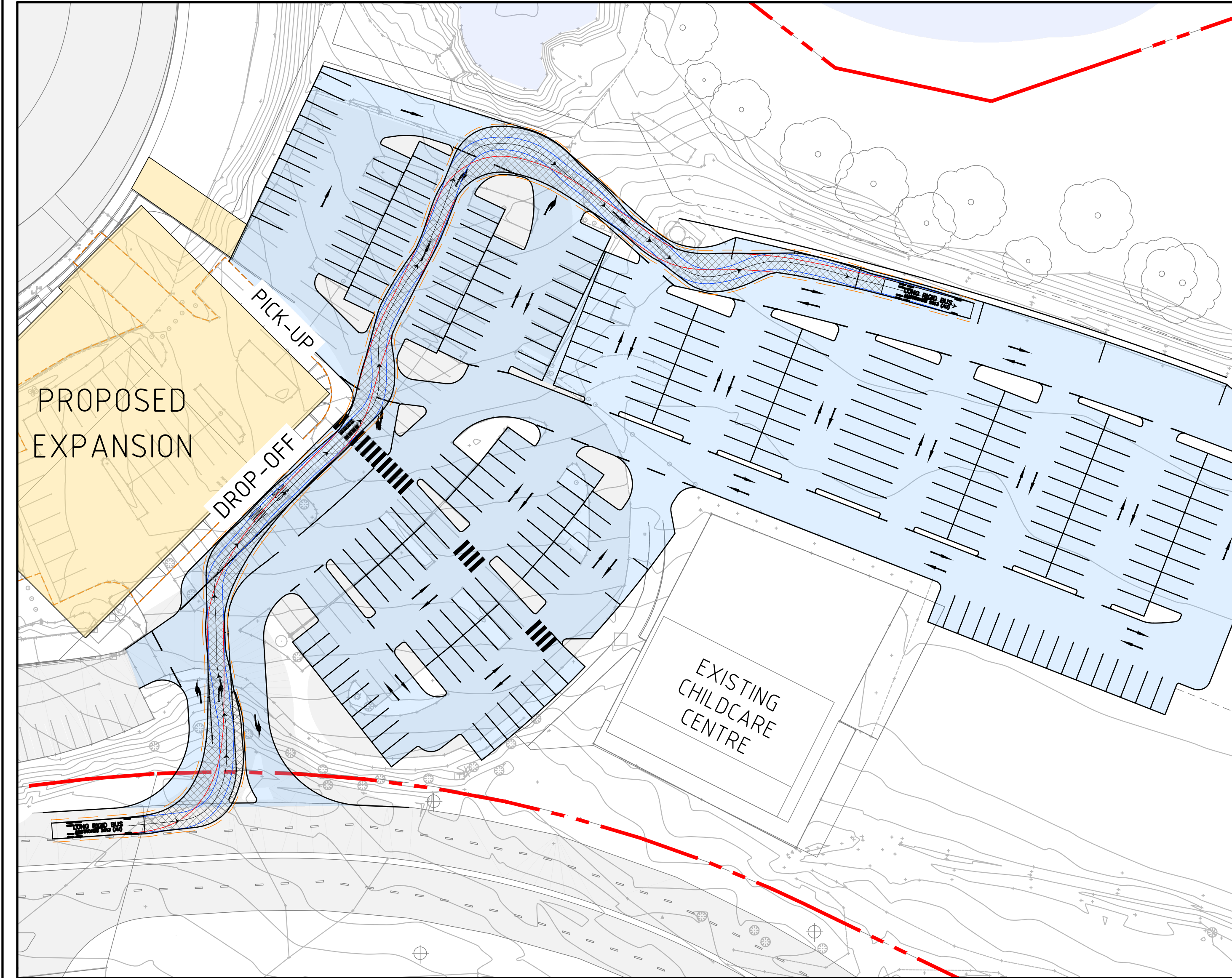
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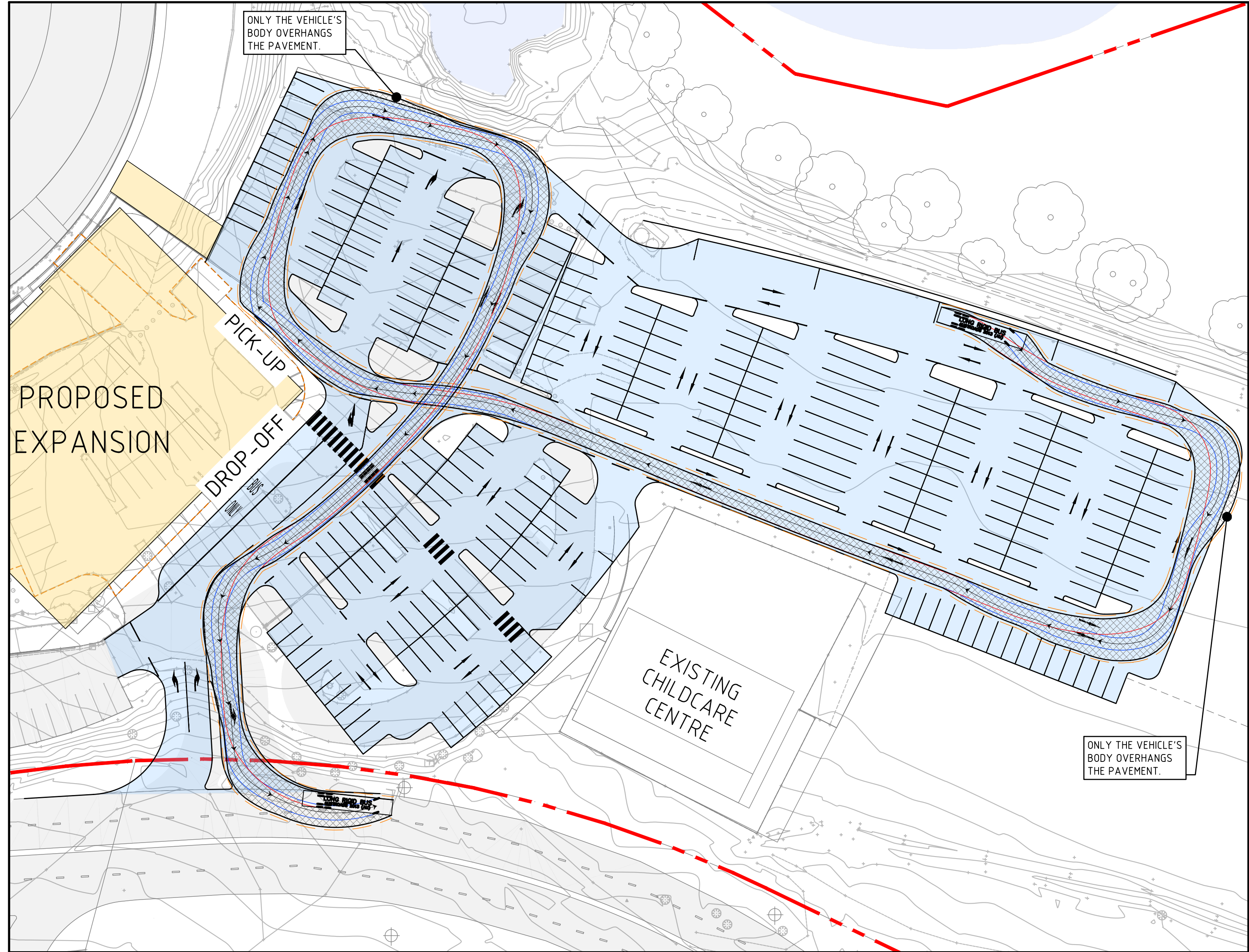
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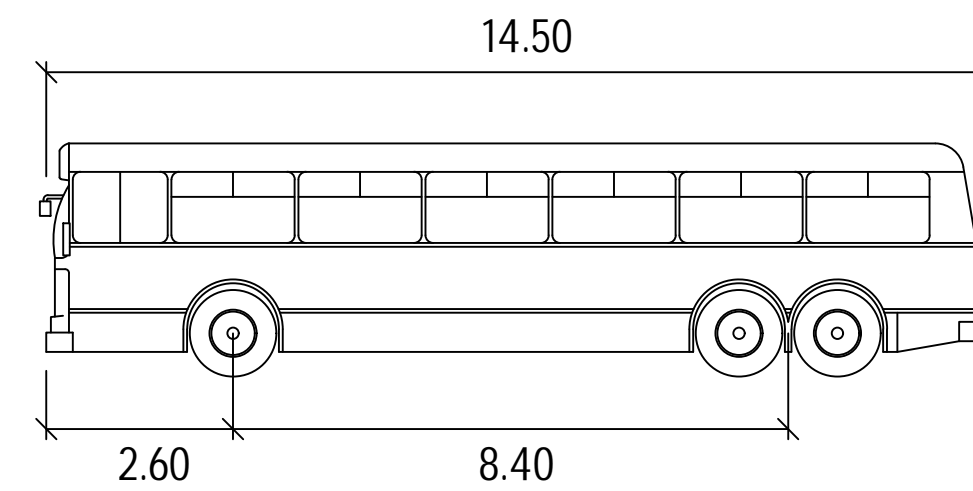
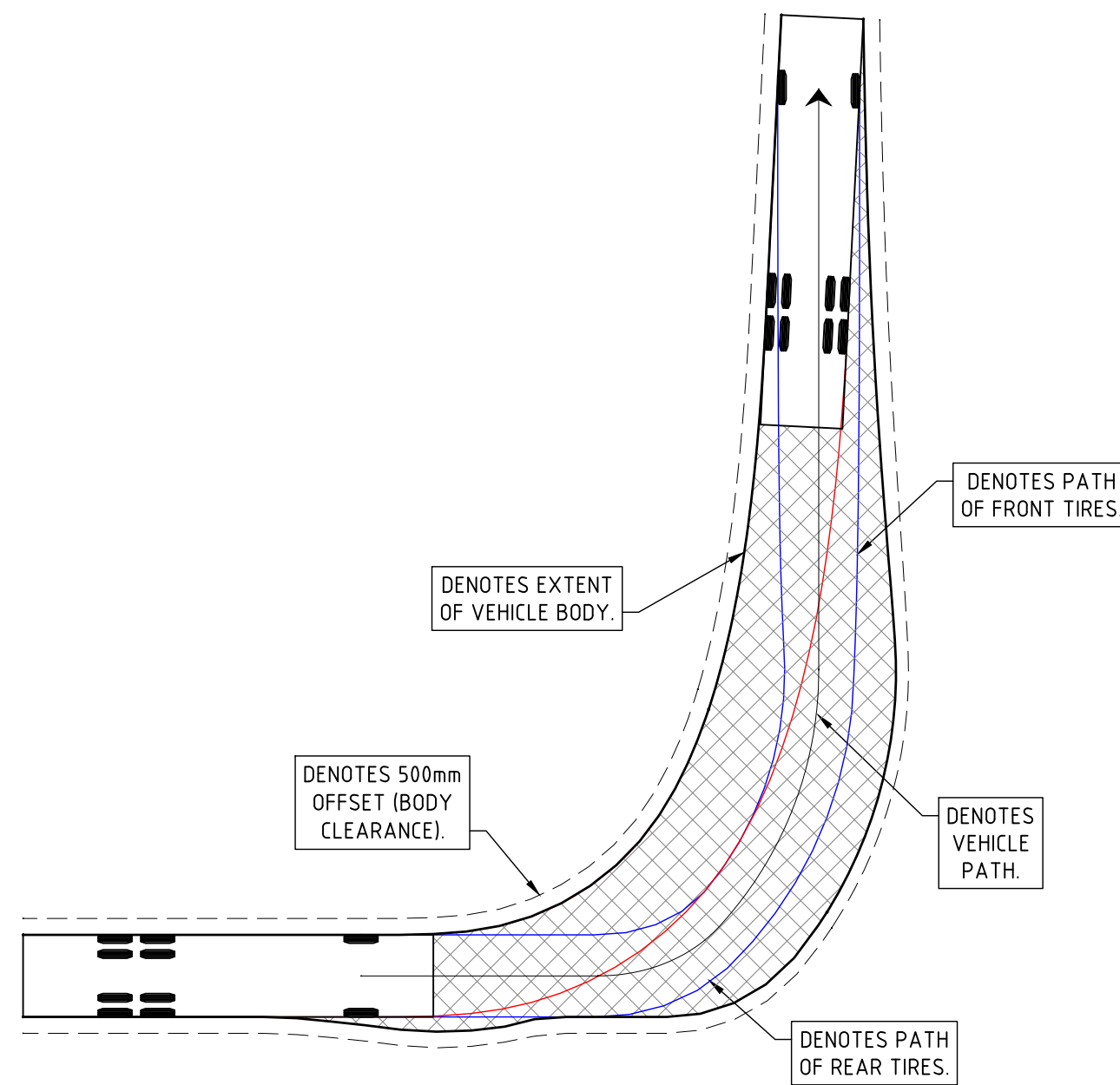
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BUS ENTRY SWEEP PATH
(DROP-OFF)



BUS EXIT SWEEP PATH
(PICK-UP)




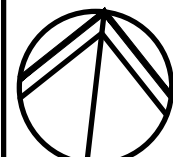

LONG RIGID BUS		meters
Width	:	2.50
Track	:	2.50
Lock to Lock Time	:	6.0
Steering Angle	:	46.4

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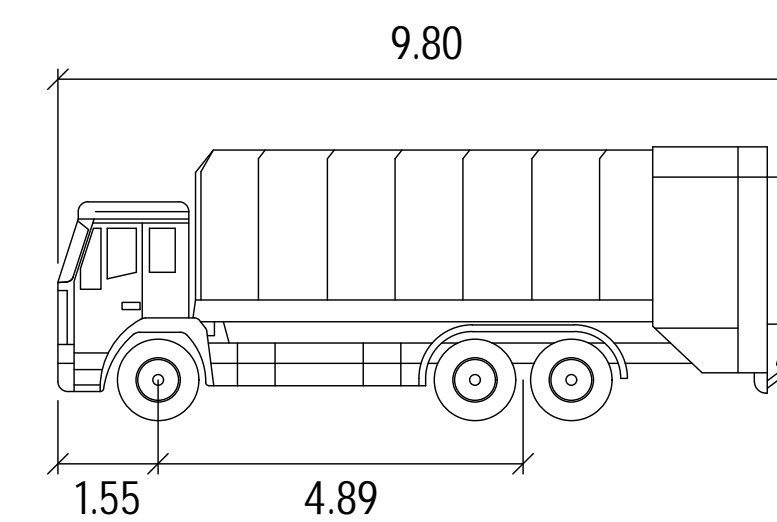
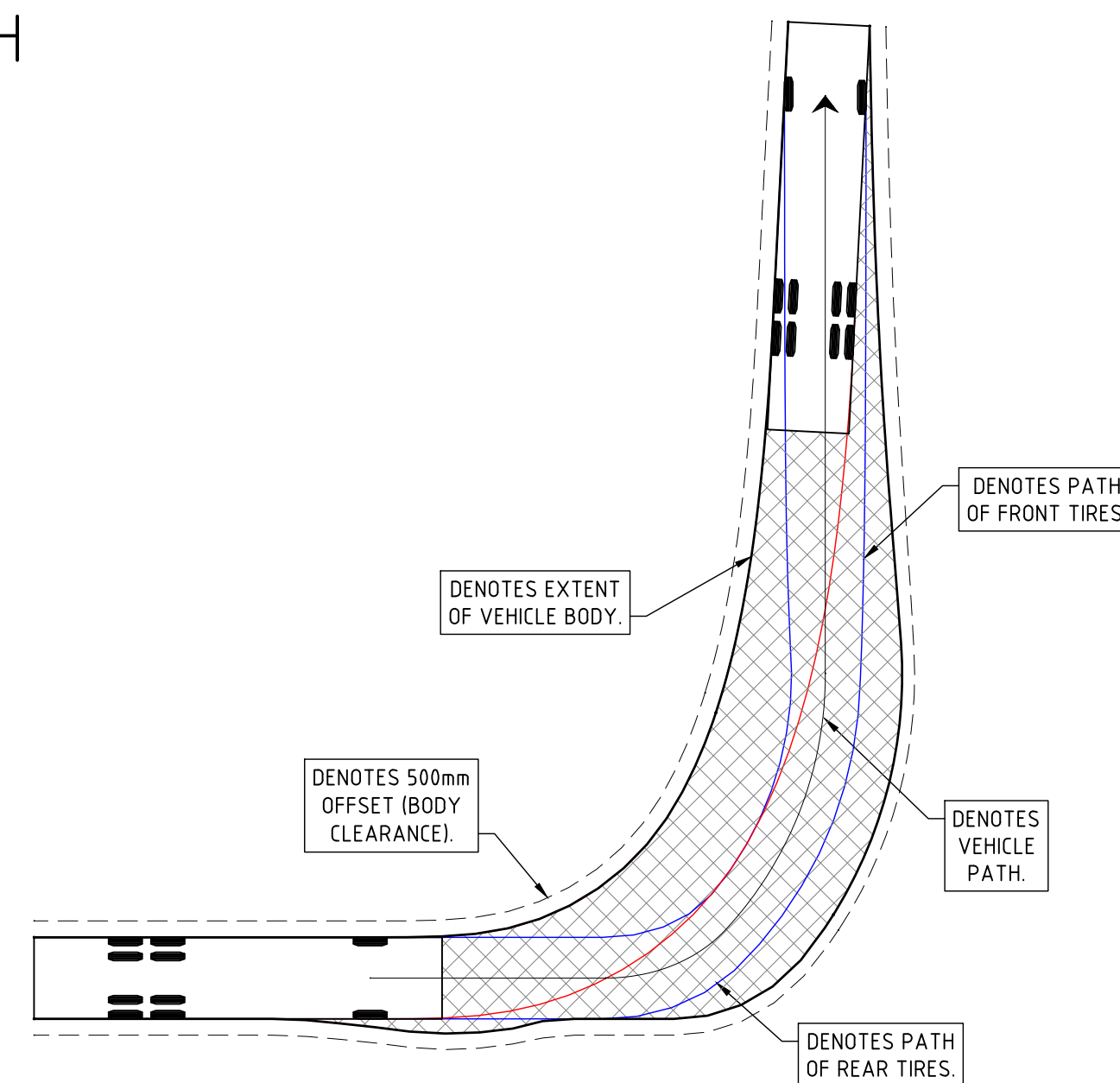
PROJECT
HUNTER REGION SPORTS CENTRE EXPANSION, 45 STOCKLAND DRIVE, GLENDALE, N.S.W. 2285

DRAWING TITLE
VEHICLE TURNING PATHS - SHEET 1

JOB NUMBER
NL181791
DRAWING NUMBER
DA-3.01
REVISION
E
DRAWING SHEET SIZE = A1

GARBAGE TRUCK ENTRY SWEEP PATH

GARBAGE TRUCK EXIT SWEEP PATH



VEOLIA	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 32.9

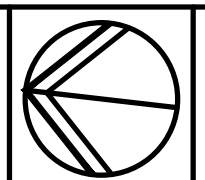
REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
A	ISSUED FOR DA APPROVAL				
B	RE-ISSUED FOR DA APPROVAL	JB		AB	18.02.20
C	RE-ISSUED FOR DA APPROVAL	JB		AB	27.02.20
					12.03.20



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**HUNTER REGION SPORTS
CENTRE EXPANSION,
45 STOCKLAND DRIVE,
GLENDALE, N.S.W. 2285**

VEHICLE TURNING PATHS
- SHEET 2

NL181791

DRAWING NUMBER

REVISION	
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DA-3.02 | C

DRAWING SHEET SIZE - A1

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