A1

enstruct CIVIL ENGINEERING WORKS

ALBURY WODONGA REGIONAL HOSPITAL PROJECT NORTHEAST BUILDING REF

201 BORELLA ROAD, ALBURY, NSW 2640

CIVIL ENGINEERING WORKS DRAWING LIST:

6939-CV-1001 NORTHEAST BUILDING REF COVER SHEET
6939-CV-1002 NORTHEAST BUILDING REF NOTES SHEET

6939-CV-1001 NORTHEAST BUILDING REF EROSION AND SEDIMENT CONTROL PLAN
6939-CV-1101 NORTHEAST BUILDING REF EROSION AND SEDIMENT CONTROL DETAILS

6939-CV-1301 NORTHEAST BUILDING REF SITEWORKS PLAN
6939-CV-2530 TEMPORARY CARPARK CIVIL WORKS PLAN

TO BE PRINTED IN FULL COLOUR



enstruct group pty Itd

Level 4, 2 Glen Street Milsons Point NSW 2061 Australia

> 8904 1444 8904 1555 m.au

201 BORELLA ROAD, ALBURY, NSW

NOT FOR CONSTRUCTION

ALBURY WODONGA REGIONAL HOSPITAL PROJECT NORTHEAST BUILDING REF
COVER SHEET

FOR REF

scale at A1
NTS

drawn
BEJ

checked
TAH

project no.
sheet
AWH-ENS-CV-EW-NEB-1001

frev.
02

BOUNDARY AND EASEMENTS NOTE

The property boundary and easements locations shown on enstruct drawing's have been based from information received from Walpole Surveying.

Enstruct makes no guarantees that the boundary or easement information shown is correct. enstruct will accept no liabilities for boundary inaccuracies. The contractor/builder is advised to check/confirm all boundaries in relation to all proposed work prior to the commencement of construction. Boundary inaccuracies found are to be reported to the superintendent prior to construction starting.

BULK EARTHWORKS GENERAL NOTES

- 1. All bulk earthworks setout from grid lines U.N.O.
- 2. (i) All permanent batter max slope of 3(H): 1(V) U.N.O. (ii) All temporary batter max slope of 2(H):1(V) U.N.O.
- Batters are not to exceed Geotechnic engineer specifications. 3. Excavated material may be used as structural fill provided, (i) it complies with the specification requirements for fill
- (ii) the placement moisture content complies with the Geotechnical Consultants requirements, and allows filling to be placed and proofrolled in accordance with the specification. Where necessary the Contractor must moisture condition the excavated material to meet these requirements. 4. Compact fill areas and subgrade to not less than:

Location

Standard dry density Moisture (AS 1289 5.1.1.) (OMC)

Under building slabs on ground: 98% ±2% 98% ±2% Under roads and carparks: 95% ±2% Landscaped areas:

5. Before placing fill, proof roll exposed subgrade with a 10 tonne minimum roller to test subgrade and then remove soft spots (areas with more than 3mm movement under roller). Soft spots to be replaced with GRANULAR fill U.N.O. 6. Contractor to provide proof roll compaction evidence for

7. Contractor shall place safety barriers around excavations in accordance with relevant safety regulations. 8. For interpretation of bulk earthworks foot print line shown on the bulk earthworks drawings refer to the bulk earthworks construction legend.

9. Bulk earthwork drawings are not to be used for detailed excavation

10. Refer to Geotechnical Report prepared by -Civil Test Pty Ltd 4230352-2-Preliminary

DBYD SERVICES NOTE

"Public Service Utility information shown on plan has been complied from information received from Dial Before You Dig inquiry, reference Number **34114503**, which was obtained on 02/05/2023 Unless specifically shown otherwise, this location and depth of services shown on this plan have not been verified.

The location of services shown on this drawing have been plotted as accurately as possible from diagrams provided by service authorities and should be confirmed by site inspection."

RETAINING WALLS

- Drainage shall be provided as shown on the drainage drawings. Backfilling shall be carried out after grout or concrete has reached a minimum strength of 0.85 f/c. Backfilling shall be approved granular material compacted in layers not exceeding 200mm to 95% Standard compaction unless noted otherwise.
- Provide waterproofing to back of walls as specified or noted. Where retaining walls rely on connecting structural elements for stability, do not backfill against the wall unless it is adequately propped or the elements have been constructed and have sufficient strength to withstand the loads.
- 5. For all temporary batters obtain geotechnical engineers

SURVEY AND SERVICES INFORMATION SURVEY

Origin of levels Datum of levels

A.H.D AUSTRALIAN HEIGHT DATUM Coordinate system : MGA 2020 Survey prepared by: Walpole Surveying
Setout Points: CONTACT THE SURVEYOR

enstruct does not guarantee that the survey information shown on these drawings is accurate and will accept no liability for any inaccuracies in the survey information provided to us from any cause whatsoever.

UNDERGROUND SERVICES - WARNING The locations of underground services shown on enstruct drawings have been plotted from diagrams provided by service authorities. This information has

been prepared solely for the authorities own use and may not necessarily be updated or accurate. The position of services as recorded by the authority at the time of installation may not reflect changes in

the physical environment subsequent to installation. enstruct does not guarantee that the services information shown on these drawings shows more than the presence or absence of services, and will accept no liability for inaccuracies in the services information shown from any cause whatsoever.

The Contractor must confirm the exact location and extent of services prior to construction and notify any conflict with the drawings immediately to the Engineer/Superintendent.

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The contractor is to get approval from the relevant state survey department, to remove/adjust any survey mark. This includes but is not limited to: State Survey Marks (SSM), Permanent Marks (PM), cadastral reference marks or any other survey mark which is to be removed or adjusted in any way.

enstruct plans do not indicate the presence of any survey mark. The contractor is to undertake their own search.

CONCRETE NOTES

EXPOSURE CLASSIFICATION: External: B2

CONCRETE

Place concrete of the following characteristic compressive strength f'c as defined in AS 1379.

Location	AS 1379 f'c MPa	Specified	Nominal	
	at 28 days	Slump	Agg. Size	
Kerbs	S20	80	20	
Pavements	S32	80	20	
Retaining wall footing	S40	80	20	

- 1. Use Type 'GP' cement, unless otherwise specified. 2. All concrete shall be subject to project assessment and testing to AS
- 3. Consolidate by mechanical vibration. Cure all concrete surfaces as
- directed in the Specification.
- 4. For all falls in slab, drip grooves, reglets, chamfers etc. refer to Architects drawings and specifications.
- 5. The location of all construction joints shall be submitted to Engineer 6. No holes or chases shall be made in the slab without the approval of
- the Engineer. 7. Slurry used to lubricate concrete pump lines is not to be used in any
- 8. All building slabs cast on ground require sand blinding with a Concrete Underlay. Refer to structural drawings.

FORMWORK

1. The design, certification, construction and performance of the formwork, falsework and backpropping shall be the responsibility of the contractor. Proposed method of installation and removal of formwork is to be submitted to the superintendent for comment prior to work being carried out.

CONCRETE FINISHING NOTES

- 1. All exposed concrete pavements are to be broomed finished. 2. All edges of the concrete pavement including keyed and dowelled joints are to be finished with an edging tool.
- 3. Concrete pavements with grades greater than 10 % shall be heavily broomed finished.
- 4. Carborundum to be added to all stair treads and ramped crossings U.N.O.

CONCRETE REINFORCEMENT NOTES

- 1. Fix reinforcement as shown on drawings. The type and grade is indicated by a symbol as shown below. On the drawings this is followed by a numeral which indicates the size in millimetres of the reinforcement. N. Hot rolled ribbed bar grade D500N
- R. Plain round bar grade R250N RL. Rectangular mesh grade 500L
- Provide bar supports or spacers to give the following concrete cover to all reinforcement unless otherwise noted on drawings.
- Footings 50 top, 50 bottom, 50 sides.

30 generally.

- 30 when cast in forms but later exposed to weather or ground .. when cast directly in contact with ground.
- 3. Cover to reinforcement ends to be 50 mm u.n.o. 4. Provide N12-450 support bars to top reinforcement as
- required, Lap 500 U.N.O. 5. Maintain cover to all pipes, conduits, reglets, drip grooves
- All cogs to be standard cogs unless noted otherwise. Fabric end and side laps are to be placed strictly in accordance with the manufacturers requirements to achieve a full tensile lap. Fabric shall be laid so that there is a maximum of 3 layers at any location.

FABRIC LAPS ______ ____25

KERBING NOTES

as per table below.

Includes all kerbs, gutters, dish drains, crossings and edges.

8. Laps in reinforcement shall be made only where shown

on the drawings unless otherwise approved. Lap lengths

- 1. All kerbs, gutters, dish drains and crossings to be constructed on minimum 75mm granular basecourse compacted to minimum 98% modified maximum dry density in accordance with AS 1289 5.2.1. 2. Expansion joints (EJ) to be formed from 10mm compressible cork
- filler board for the full depth of the section and cut to profile. Expansion joints to be located at drainage pits, on tangent points of curves and elsewhere at 12m centres except for integral kerbs where the expansion joints are to match the joint locations in slabs. 3. Weakened plane joints to be min 3mm wide and located at 3m
- centres except for integral kerbs where weakened plane joints are to match the joint locations in slabs
- 4. Broomed finished to all ramped and vehicular crossings, all other kerbing or dish drains to be steel float finished.

5. In the replacement of kerbs - Existing road pavement is to be sawcut

- 900mm from: Lip of gutter, invert of kerb, or edge of dish drain. Upon completion of new kerbs, new basecourse and surface is to be laid 900mm wide to match existing materials and thicknesses.
- 6. Existing allotment drainage pipes are to be built into the new kerb
- with a 100mm dia hole. 7. Existing kerbs are to be completely removed where new kerbs are shown.

SITEWORKS NOTES

1. All basecourse material to comply with RMS specification No 3051 and compacted to minimum 98% modified dry density in accordance with AS 1289 2. All trench backfill material shall be compacted to the

same density as the adjacent material. 3. All service trenches under vehicular pavements shall be backfilled with an approved select material and compacted to a minimum 98% standard maximum dry density in accordance with AS 1289 5.1.1

GENERAL NOTES

- 1. Contractor must verify all dimensions and existing levels on site prior to commencement of works. Any discrepancies to be reported to the
- 2. Strip all topsoil from the construction area. All stripped topsoil shall be disposed of off-site unless directed otherwise.
- 3. Make smooth connection with all existing works.
- 4. Compact subgrade under buildings and pavements to minimum 98% standard maximum dry density in accordance with AS 1289 5.1.1. Compaction under buildings to extend 2m minimum beyond building footprint.
- 5. All work on public property, property which is to become public property, or any work which is to come under the control of the Statutory Authority; the Contractor is to ensure that the drawings used for construction have been approved by all relevant authorities prior to commencement site.
- 6. All work on public property, property which is to become public property, or any work which is to come under the control of the Statutory Authority is to be carried out in accordance with the requirements of the relevant Authority. The Contractor shall obtain these requirements from the Authority. Where the requirements of the Authority are different to the drawings and specifications, the requirements of the Authority shall be applicable. 7. For all temporary batters refer to geotechnical recommendations.

REFERENCE DRAWINGS

1. These drawings have been based from, and to be read in conjunction with the following Consultants drawings. Any conflict to the drawings must be notified immediately to the Engineer.

J		,	0	
Consultant	Dwg Title	Dwg No	Rev	Date
Hassell	Draft Concept Design		10/0	05/2024

JOINTING NOTES

Vehicular Pavement Jointing

- 1. All vehicular pavements to be jointed as shown on drawings. 2. Keyed construction joints should generally be located at a
- maximum of 6m centres. 3. Sawn joints should generally be located at a maximum of 6m centres or 1.5 x the spacing of keyed joints, where key joint spacing is less than 4m, with dowelled expansion joints at
- maximum of 30m centres 4. Provide 10mm wide full depth expansion joints between buildings
- and all concrete or unit pavers. 5. The timing of the saw cut is to be confirmed by the contractor on site. Site conditions will determine how many hours after the concrete pour before the saw cuts are commenced. Refer to the specification for weather conditions and temperatures required.

6. Vehicul	ar pave	ment joi	nting as	follows	. '	
S DEJA	SJ	F A C E	O F	KERB	DEJ	SJ
I I	im MAX			6m MAX		
DEJA				<u> </u>		
30m MAX						
DEJA						
EJ	FΑ	CE O	F BU	ILDII	N G	

Pedestrian Footpath Jointing

- 1. Expansion joints are to be located where possible at tangent points of curves and elsewhere at max 6.0m centres. 2. Weakened plane joints are to be located at a max 1.5 x width of the pavement.
- 3. Where possible joints should be located to match kerbing and / or adjacent pavement joints. 4. All pedestrian footpath jointings as follows (uno).

	F	ACE C	F KER	₹В		
WPJP	WPJP	EJP	WPJP	WPJP.	EJP	***
-			6.0m	MAX	1	.5 x W (1.5m MAX)

CIVIL SAFETY IN DESIGN

enstruct (NSW) Pty Ltd operates under Safe Work Australia's code of Conduct for the Safe Design of Structures. These drawings shall be read in conjunction with the enstruct Civil risk and Solutions Register.

Under the Code of Conduct it is the Client's responsibility to provide a copy of the Civil Risk and Solutions Register to the Principal Contractor.

It is the Principal Contractor's responsibility to review the hazards and risks identified during the design process to ensure a safe workplace is maintained for the construction, maintenance and eventual demolition of the civil infrastructure.

EROSION AND SEDIMENT CONTROL

1. All work shall be generally carried out in accordance with

(A) Local authority requirements, (B) EPA - Pollution control manual for urban stormwater, (C) LANDCOM NSW - Managing Urban Stormwater: Soils and

Construction ("Blue Book"). 2. Erosion and sediment control drawings and notes are provided for the whole of the works. Should the Contractor stage these works then the design may be required to be modified. Variation to these details may require approval by the relevant authorities.

The erosion and sediment control <u>plan</u> shall be implemented and adapted to meet the varying situations as work on site progresses. 3. Maintain all erosion and sediment control devices to the satisfaction

of the superintendent and the local authority. 4. When stormwater pits are constructed prevent site runoff entering

5. Minimise the area of site being disturbed at any one time. 6. Protect all stockpiles of materials from scour and erosion. Do not stockpile loose material in roadways, near drainage pits or in

the pits unless silt fences are erected around pits.

7. All soil and water control measures are to be put back in place at the end of each working day, and modified to best suit site

conditions. 8. Control water from upstream of the site such that it does not

enter the disturbed site. 9. All construction vehicles shall enter and exit the site via the

temporary construction entry/exit

10. All vehicles leaving the site shall be cleaned and inspected before leaving. 11. Maintain all stormwater pipes and pits clear of debris and

sediment. Inspect stormwater system and clean out after each

storm event. 12. Clean out all erosion and sediment control devices after each storm event.

Sequence Of Works

watercourses

1. Prior to commencement of excavation the following soil

management devices must be installed:

1.1. Construct silt fences below the site and across all potential runoff sites

1.2. Construct temporary construction entry/exit and divert runoff to suitable control systems 1.3. Construct measures to divert upstream clean flows into existing

stormwater system 1.4. Construct sedimentation traps/basin (if any) including outlet control and overflow; otherwise allocate a place for the runoff and temporary

sediment storage

1.5. Construct turf lined swales. 1.6. Provide sandbag sediment traps upstream of existing pits.

2. Construct geotextile filter pit surround around all existing pits and proposed pits as they are constructed 3. On completion of pavement provide sand bag kerb inlet sediment

4. Provide and maintain a strip of turf on both sides of all roads

after the construction of kerbs. WATER QUALITY TESTING

REQUIREMENTS Prior to discharge of site stormwater, groundwater and seepage water into council's stormwater system, contractors must undertake water quality tests in conjunction with a suitably qualified environment consultant outlining the following:

- Compliance with the criteria of the Australian and New Zealand

Guidelines for Fresh and Marine Water Quality (2000) If required subject to the environmental consultants advice provide remedial measures to improve the quality of water that is to be discharged into Councils storm water drainage system. This should include comments from a suitably qualified environmental consultant confirming the suitability of these remedial measures to manage the water discharged from the site into Councils storm water drainage system. Outlining the proposed, ongoing monitoring, contingency plans and validation program that will be in place to continually monitor the quality of water discharged from this site. This should outline the frequency of water quality testing that will be undertaken by a suitably qualified environmental consultant.

SAFETY IN DESIGN

Contractor to refer to the Civil Risk and Solutions

EXISTING SERVICES

within the site. Location of all services to be verified by the Contractor prior to commencing works. Contractor to confirm with relevant authority regarding measures to be taken to ensure services are protected or procedures are in place to demolish and/or relocate. **EXISTING STRUCTURES**

Contractor to be aware existing services are located

Contractor to be aware existing structures may exist within the site. To prevent damage to existing structure(s) and/or personnel, site works to be carried out as far as practicably possible from existing structure(s).

Contractor to be aware existing trees exist within the site

which need to be protected. To prevent damage to trees

and/or personnel, site works to be carried out as far as

practicably possible from existing trees. Advice needs to be sought from Arborist and/or Landscape Architect on measures required to protect trees.

EXISTING TREES

GROUNDWATER Contractor to be aware ground water levels are close to existing surface level. Temporary de-watering may

EXCAVATIONS

Deep excavations due to stormwater drainage works is required. Contractor to ensure safe working procedures are in place for works. All excavations to be fenced off and batters adequately supported to approval of Geotechnical Engineer

GROUND CONDITIONS Contractor to be aware of the site geotechnical conditions. Refer to geotechnical report by Civil Test Pty Ltd 4230352-2 Preliminary for

be required during construction works

HAZARDOUS MATERIALS

Existing asbestos products & contaminated material may be present on site. Contractor to ensure all hazardous materials are identified prior to commencing works. Safe working practices as per relevant authority to be adopted and appropriate PPE to be used when handling all hazardous materials. Refer to geotechnical/environmental report by Civil Test Pty Ltd 4230352-2 Preliminary for details.

CONFINED SPACES

Contractor to be aware of potential hazards due to working in confined spaces such as stormwater pits, trenches and/or tanks. Contractor to provide safe working methods and use appropriate PPE when entering confined spaces.

MANUAL HANDLING

Contractor to be aware manual handling may be required during construction. Contractor to take appropriate measures to ensure manual handling procedures and assessments are in place prior to commencing works.

Contractor to ensure appropriate measures are taken to prevent pollutants from construction works contaminating

WATER POLLUTION

the surrounding environment. SITE ACCESS/EGRESS Contractor to be aware site works occur in close proximity to

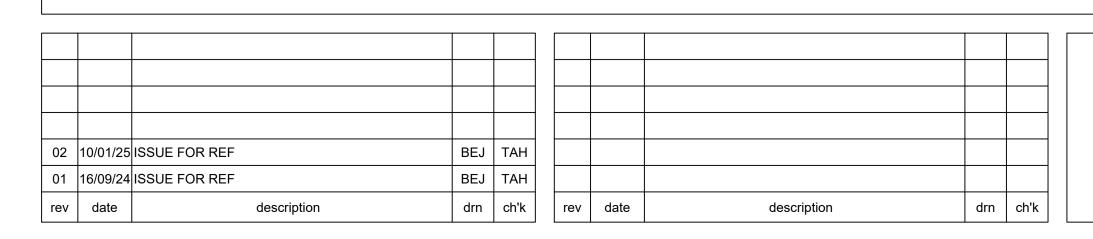
footpaths and roadways. Contractor to erect appropriate

barriers and signage to protect site personnel and public.

VEHICLE MOVEMENT

Contractor to supply and comply with traffic management plan and provide adequate site traffic control including a certified traffic marshall to supervise vehicle movements where necessary.

NOT FOR CONSTRUCTION





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ALBURY WODONGA REGIONAL HOSPITAL **PROJECT**

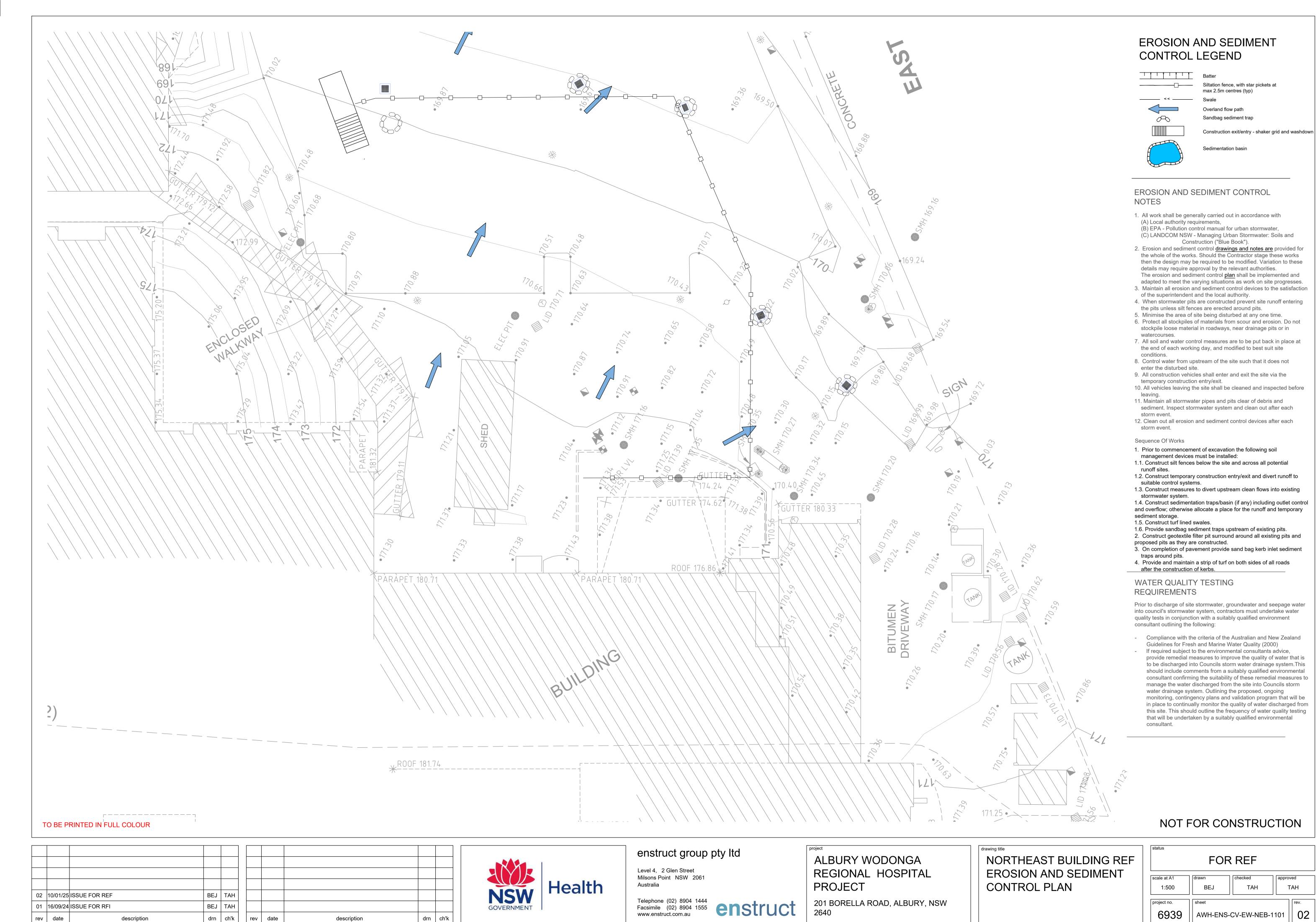
201 BORELLA ROAD, ALBURY, NSW

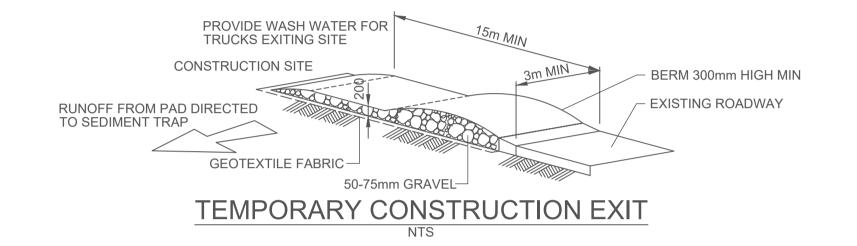
NORTHEAST BUILDING REF **NOTES SHEET**

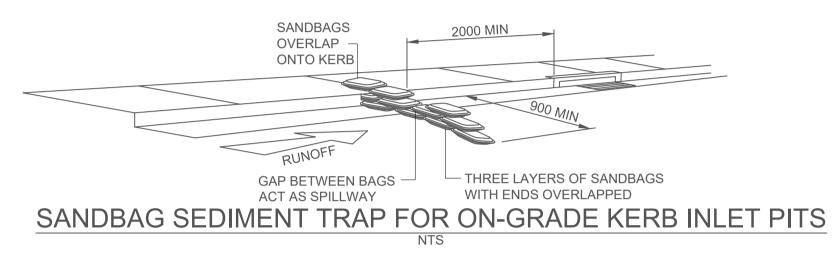
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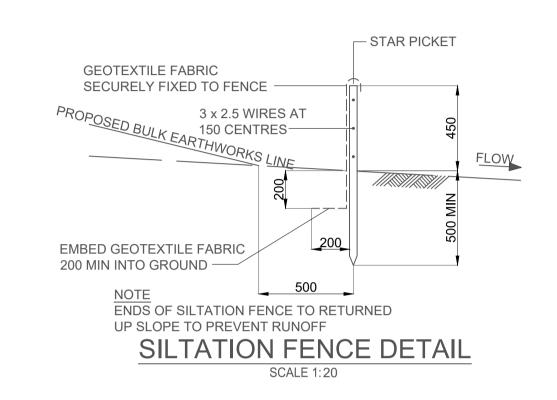
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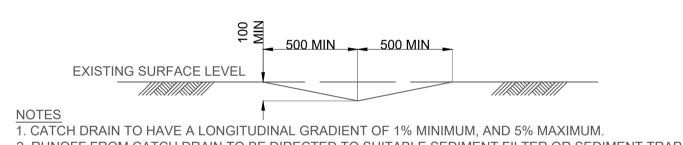
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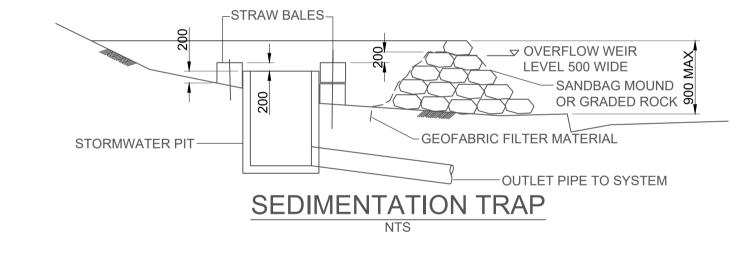


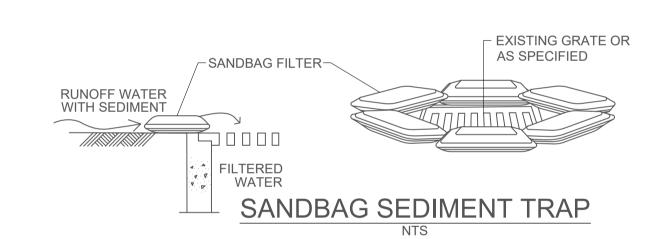
NOTES

1. CATCH DRAIN TO HAVE A LONGITUDINAL GRADIENT OF 1% MINIMUM, AND 5% MAXIMUM.

2. RUNOFF FROM CATCH DRAIN TO BE DIRECTED TO SUITABLE SEDIMENT FILTER OR SEDIMENT TRAP.







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02 10/01/25 ISSUE FOR REF BEJ TAH 01 16/09/24 ISSUE FOR REF rev date drn ch'k rev drn ch'k description date description



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ALBURY WODONGA REGIONAL HOSPITAL **PROJECT**

201 BORELLA ROAD, ALBURY, NSW

FOR REF NORTHEAST BUILDING REF

EROSION AND SEDIMENT

CONTROL DETAILS SHEET

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