ACS Engineers

CIVIL | ENVIRONMENTAL | PROJECT MANAGEMENT

HAACK - SANDY CREEK ROAD

590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285

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				SURVEY DATA		
				DATUM		
				MAP GRID		
				HEIGHT ORIGIN		
2	FOR APPROVAL	MS	23/06/2023	SURVEY BOOKS		
1	PRELIMINARY	MA	19/04/2023	MA	02/2023	
	REVISION/DETAILS	DWN	DATE	DES	DATE	

FILE: C:\12DS\DATA\ACSSYN\230008 HAACK - SANDY CREEK ROAD_615\DESIGN\DRAWING FILES\ACS-230008-GEN.DWG PLOT TIME: 10/7/2023 - 1:30PM BY USER: MARCELA.ALVES

MATT HAACK - HAACK LOGISTICS GROUP

590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285

HAACK - SANDY CREEK ROAD

590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285

COVER SHEET

ENGINEERING CERTIFICATION (RPEQ)				
#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		10/07/23

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DRAWING NUMBER: ACS-230008-GEN-01

REVISION: 2

GENERAL NOTES

1. THE CONTRACTOR IS TO VERIFY ALL SURFACE LEVELS. ANY DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER FOR DECISION BEFORE PROCEEDING WITH THE WORK.
2. THE BILL OF QUANTITIES (BOQ) IS PROVIDED AS A GUIDE ONLY. THE CONTRACTOR IS TO REVIEW THIS BOQ AGAINST THE PLANS AND VERIFY QUANTITIES AS A PART OF THEIR DUE DILIGENCE IN TENDERING. ANY DISCREPANCIES ARE TO BE REFERRED TO ACS ENGINEERS FOR CLARIFICATION.
3. THE CONTRACTOR IS RESPONSIBLE FOR ACCURATELY ASCERTAINING THE LOCATION OF EXISTING UNDERGROUND AND OVERHEAD SERVICES PRIOR TO THE COMMENCEMENT OF WORKS.
4. ALL WORK UNDER THIS CONTRACT SHALL BE CARRIED OUT IN ACCORDANCE WITH REQUIREMENTS OF THE WORKPLACE HEALTH AND SAFETY ACT 2011.

CONSTRUCTION NOTES

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ENGINEERS AND OTHER CONSULTANT'S DRAWINGS AND SPECIFICATIONS AND WITH OTHER SUCH WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
2. NO RESPONSIBILITY WILL BE TAKEN FOR DIMENSIONS OBTAINED BY SCALING THESE DRAWINGS.
3. ALL DIMENSIONS SHALL BE VERIFIED ON SITE BY THE CONTRACTOR WHO SHALL BE RESPONSIBLE FOR THEIR CORRECTNESS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE AND NEIGHBOURING STRUCTURES IN A SAFE AND STABLE CONDITION DURING CONSTRUCTION. NO PART SHALL BE OVER STRESSED.
5. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT LOCAL GOVERNMENT SPECS AND THE BY-LAWS AND ORDINANCES OF THE RELEVANT GOVERNMENT AUTHORITY.
6. THE CONTRACTOR SHALL PROVIDE TRAFFIC MANAGEMENT FOR THE DURATION OF CONSTRUCTION.
7. THE CONTRACTOR IS TO LOCATE, IDENTIFY AND ESTABLISH THE CONNECTIVITY OF ALL EXISTING SERVICES WITHIN THE LIMITS OF THE WORKS AND CONFIRM THIS INFORMATION WITH THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
8. PROPERTY BOUNDARIES ARE SUBJECT TO CONFIRMATION BY FIELD SURVEY CARRIED OUT BY A REGISTERED SURVEYOR.
9. ALL WORK SHALL BE JOINED NEATLY TO EXISTING FEATURES.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL MEASURING DEVICES, SAFETY EQUIPMENT AND MACHINERY REQUIRED TO CARRY OUT INSPECTIONS AS SPECIFIED OR REQUESTED.
11. THE CONTRACTOR SHALL RESTORE ALL EXTERNAL AREAS TO THE SITE, TO THEIR ORIGINAL CONDITION UPON COMPLETION OF THE WORKS.

EARTHWORKS

1. THE CONTRACTOR IS TO STRIP THE CONSTRUCTION AREA OF ALL GRASS, SHRUBS, RUBBISH, DELETERIOUS MATERIAL AND UNSUITABLE TOPSOIL AS NOMINATED BY THE ENGINEER. DISPOSAL OF THIS UNSUITABLE MATERIAL IS TO BE ON SITE. TOPSOIL APPROVED BY THE CLIENT FOR REUSE, IS TO BE STOCKPILED ON SITE AS DIRECTED. BULK EARTHWORKS IS TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL STANDARDS AND THE REQUIREMENTS OF AS3798.
2. THE CONTRACTOR SHALL PROVIDE DETAILS OF ALL TESTING TO THE ENGINEER PROGRESSIVELY THROUGH THE WORKS AND NOTIFY THE ENGINEER OF ANY NON-CONFORMANCES. ALL NON CONFORMING WORK IS TO BE RECTIFIED. PRIOR TO WORKS PROCEEDING, PROOF ROLL THE FILL AREA SUBGRADE. REMOVE SOFT AND OR COMPRESSIBLE ZONES AND REPLACE WITH SELECT SITE MATERIAL COMPACTED TO A DENSITY CONSISTENT WITH THAT NOTED FOR THE PROPOSED FILLING.
3. PROOF ROLLING NOMINATED SHALL BE CARRIED OUT USING A SINGLE AXLE HIGHWAY TRUCK WITH A REAR AXLE LOAD NOT LESS THAN 10 TONNES TYRES INFLATED TO 550kPa OR APPROVED EQUIVALENT. EQUIPMENT LABOUR AND LOADING REQUIRED FOR PROOF ROLLING IS TO BE PROVIDED BY THE CONTRACTOR.
4. ALL FILL UNDER FOOTINGS AND SLABS SHALL BE COMPACTED IN LAYERS NOT GREATER THAN 150mm TO 100% STANDARD COMPACTION FOR COHESIVE MATERIALS OR A DENSITY INDEX OF NOT LESS THAN 70% FOR NON COHESIVE MATERIALS.
5. TESTS SHALL BE CONDUCTED ON FILL AS REQUIRED BY THE CERTIFYING ENGINEER TO CONFIRM COMPACTION.
6. IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT THE SITE AND SURROUNDING AREAS FROM DAMAGE RESULTING FROM STORMWATER RUNOFF. TEMPORARY DIVERSION DRAINS AND OR OTHER DRAINAGE CONTROL DEVICES ARE TO BE IMPLEMENTED BY THE CONTRACTOR DURING CONSTRUCTION TO MINIMISE THE EFFECTS OF WEATHER.
7. IMPORTED FILL MATERIAL SHALL BE GRANULAR FILL. ALL FILL MATERIAL PLACED ON THE SITE COMPRISING ONLY NATURAL EARTH AND ROCK IS TO BE FREE OF CONTAMINANTS (AS DEFINED BY SECTION 11 OF THE ENVIROMENTAL PROTECTION ACT (EPA) 1994), NOXIOUS, HAZARDOUS, DELETERIOUS AND ORGANIC MATERIALS.
8. REFER TO LOCAL AUTHORITY DESIGN AND CONSTRUCTION MANUAL FOR ALLOWABLE CONSTRUCTION TOLERANCES.
9. IMPORTED FILL FOR BUILDING PAD SHALL MEET THE REQUIREMENTS OF AS3798 FOR IMPORTED FILL.
10. BUILDING PAD TO BE KEYED INTO NATURAL SURFACE AFTER TOPSOIL STRIP.

SURVEY

1. THE DATUM FOR ALL LEVELS IS THE AUSTRALIAN HEIGHT DATUM IN METRES AND PROJECTIONS ARE BASED ON GDA94 MGA ZONE 56 COORDINATE SYSTEM.
2. DETAILED SURVEY WAS CARRIED OUT BY VISION SURVEYS DWG 21963-SK-01..
3. PROPERTY BOUNDARIES, WHERE SHOWN, ARE COMPILED FROM THE DCDB. THE ACCURACY OF PROPERTY BOUNDARIES IS NOT TO BE RELIED UPON.
4. SOME SERVICES HAVE BEEN EXPOSED AND LOCATED BUT OTHER SERVICE POSITIONS ARE DERIVED FROM SURFACE FEATURES ONLY. PRIOR TO EXCAVATION THE RELEVANT AUTHORITY SHOULD BE CONTACTED FOR DETAILED LOCATION OF ALL SERVICES.

EXCAVATION ADJACENT TO POWER POLES

1. POSSIBLE TRENCH SHORING REQUIREMENTS NEAR POWER POLES TO BE COORDINATED WITH ENERGEX AND THE APPROPRIATE APPROVALS TO BE OBTAINED FROM ENERGEX PRIOR TO CONSTRUCTION COMMENCEMENT.
2. ANY TRENCHING REQUIREMENTS ADJACENT TO EXISTING POWER POLES SHALL HAVE THE POWER POLES ADEQUATELY SUPPORTED DURING TRENCHING AND BACKFILLING OPERATIONS. A CERTIFIED ENGINEERING ASSESSMENT OF THE COMPACTION OF BACKFILL MATERIAL IS TO BE PROVIDED TO AND ASSESSED BY ENERGEX TO ENSURE POLE STABILITY BEFORE REMOVAL OF ADDITIONAL SUPPORT.
3. ALL CONSTRUCTION WITHIN 3m OF OVERHEAD POWER LINES REQUIRE 'SAFETY ADVICE ON WORKING AROUND ELECTRICAL POSTS' FORM BS0001405F108 FROM ENERGEX.

ENVIRONMENTAL

1. THE EXTENT OF CLEARING OF VEGETATION SHALL BE KEPT TO THE ABSOLUTE MINIMUM NECESSARY TO UNDERTAKE THE WORKS.
2. SITE REVEGETATION AND ENVIRONMENTAL REQUIREMENTS SHALL BE CARRIED OUT TO THE SATISFACTION OF THE PRINCIPAL.
3. EROSION AND SEDIMENT CONTROLS ARE TO BE ESTABLISHED IN ACCORDANCE WITH DRAWINGS 10 & 12.

				SURVEY DATA	
				DATUM	
				MAP GRID	
				HEIGHT ORIGIN	
				SURVEY BOOKS	
2	FOR APPROVAL	MS	23/06/2023		
1	PRELIMINARY	MA	19/04/2023	MA	02/2023
	REVISION/DETAILS	DWN	DATE	DES	DATE

FILE: C:\12DS\DATA\ACSSYN\230008 HAACK - SANDY CREEK ROAD_615\DESIGN\DRAWING FILES\ACS-230008-GEN.DWG PLOT TIME: 23/6/2023 - 2:45PM BY USER: ACSENGINEER

MATT HAACK - HAACK LOGISTICS GROUP

590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285

HAACK - SANDY CREEK ROAD

590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285

GENERAL NOTES

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		23/06/23

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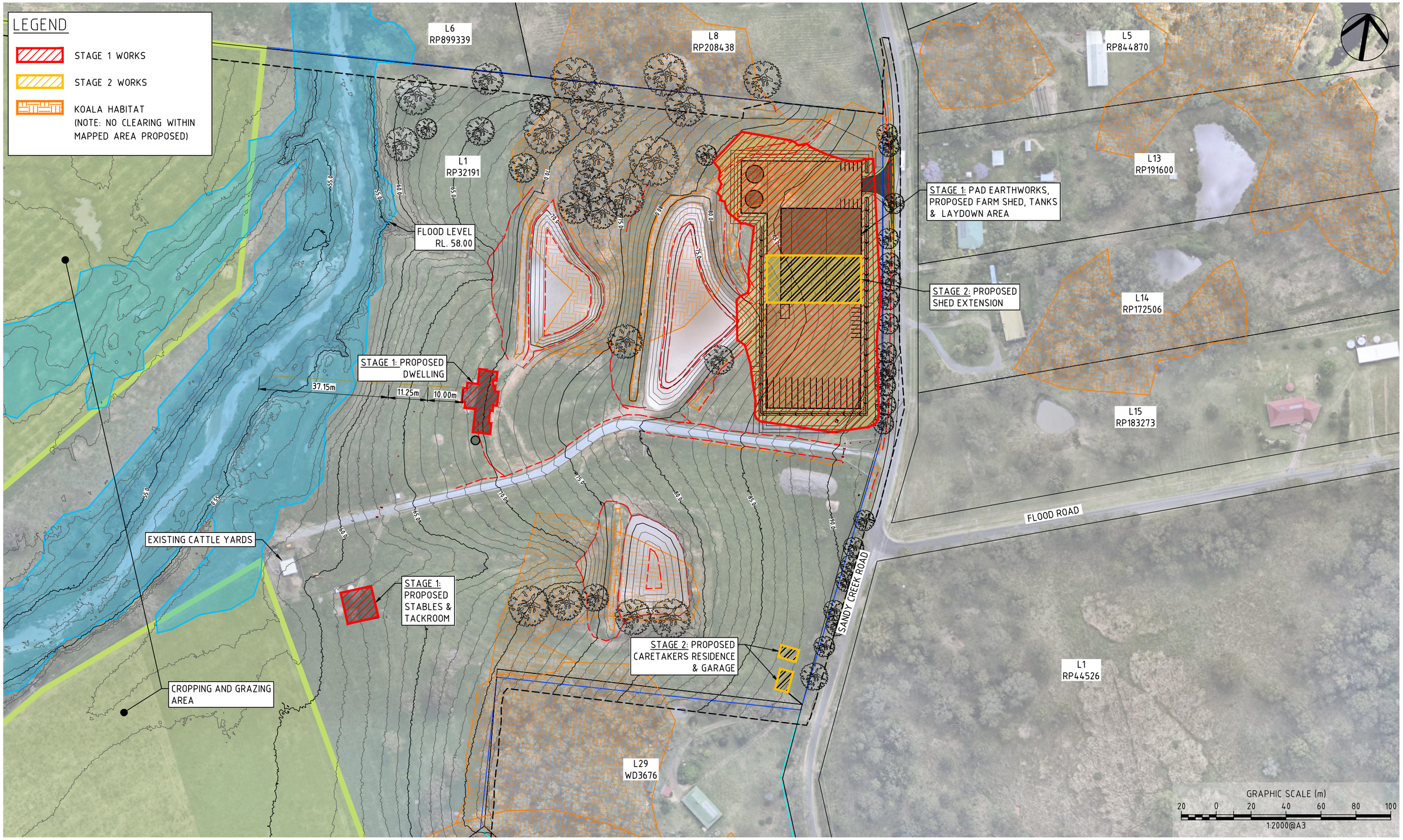
DRAWING NUMBER: ACS-230008-GEN-02

REVISION: 2



				SURVEY DATA		MATT HAACK - HAACK LOGISTICS GROUP
				DATUM		590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
				MAP GRID		
				HEIGHT ORIGIN		HAACK - SANDY CREEK ROAD
2	FOR APPROVAL	MS	23/06/2023	SURVEY BOOKS		
1	PRELIMINARY	MA	19/04/2023	MA	02/2023	590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
REVISION/DETAILS		DWN	DATE	DES	DATE	

FILE: C:\12DS\DATA\ACSSYN\230008 HAACK - SANDY CREEK ROAD_615\DESIGN\DRAWING FILES\ACS-230008-GEN.DWG PLOT TIME: 10/7/2023 - 2:05PM BY USER: MARCELAALVES

STAGING PLAN

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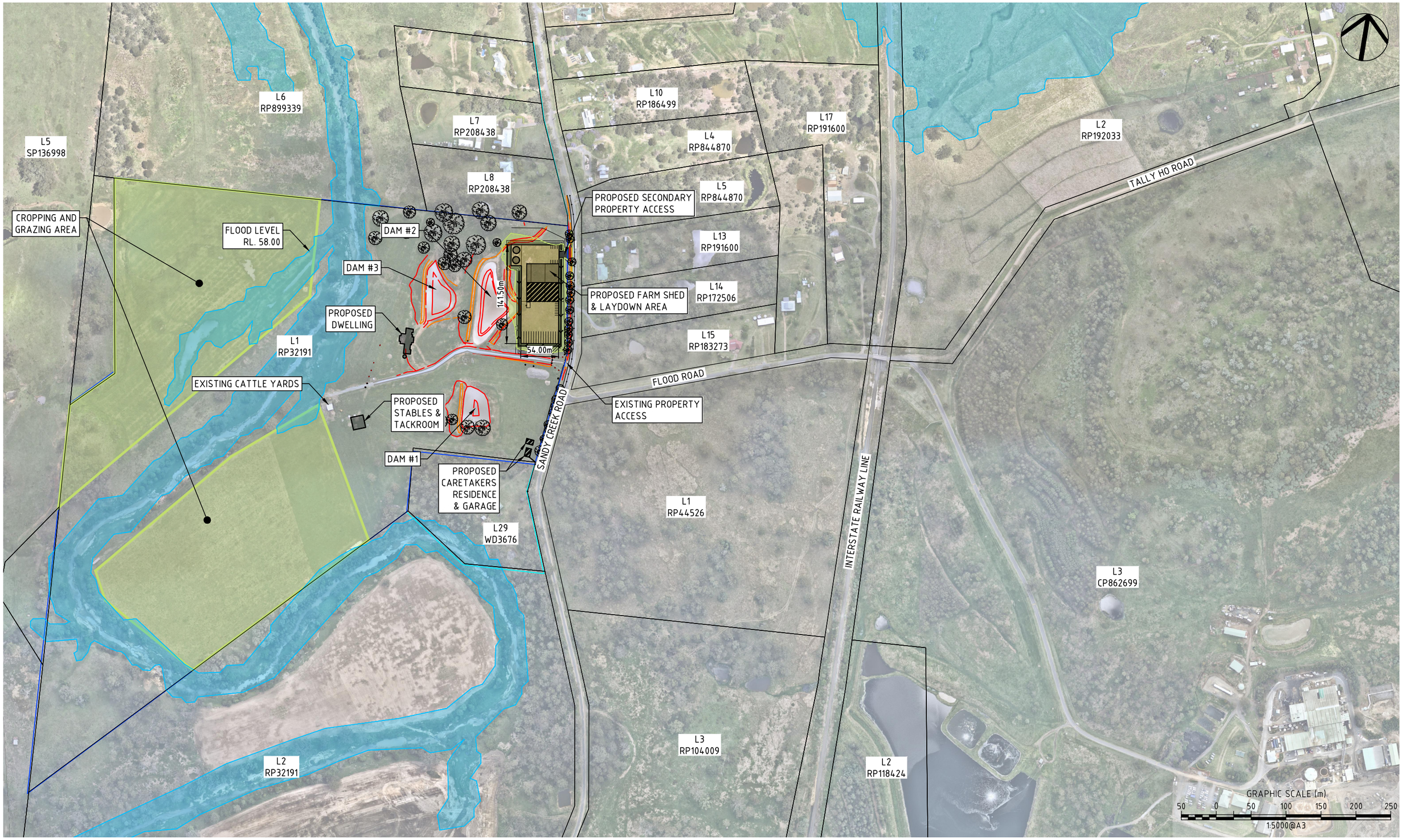
ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		10/07/23

DRAWING NUMBER: ACS-230008-GEN-03

REVISION: 2



				SURVEY DATA		MATT HAACK - HAACK LOGISTICS GROUP
				DATUM		590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
				MAP GRID		
				HEIGHT ORIGIN		HAACK - SANDY CREEK ROAD
2	FOR APPROVAL	MS	23/06/2023	SURVEY BOOKS		
1	PRELIMINARY	MA	19/04/2023	MA	02/2023	590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
REVISION/DETAILS		DWN	DATE	DES	DATE	

FILE: C:\12DS\DATA\ACSSYN\230008 HAACK - SANDY CREEK ROAD_615\DESIGN\DRAWING FILES\ACS-230008-GEN.DWG PLOT TIME: 23/6/2023 - 2:46PM BY USER: ACSENGINEER

OVERALL SITE LAYOUT PLAN

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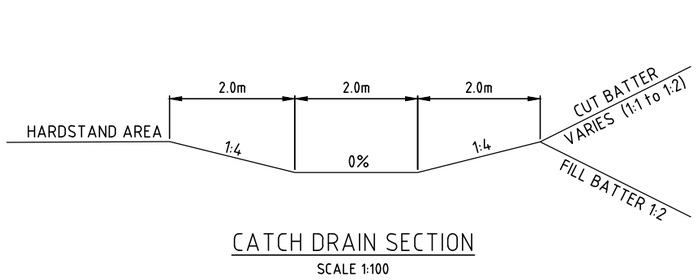
ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		23/06/23

DRAWING NUMBER: ACS-230008-GEN-04

REVISION: 2



CATCH DRAIN SECTION

SCALE 1:100

GRAVEL HARDSTAND

69.00m

CATCH DRAIN

2x 100kL (MIN) RAINWATER TANKS

30.00m

PROPOSED SECONDARY SEALED PROPERTY ACCESS. TO BE CONSTRUCTED AS PER TMR STD DWG 1807, TYPE C

15.00m

12.41m

PROPOSED FARM SHED AND LAYDOWN AREA

HARDSTAND FOR ACCESS TO TRUCK PARKING

14.151m

L1 RP32191

DAM 3

DAM 2

111.50m

FLOOD LEVEL RL. 58.00

GRAVEL HARDSTAND

76.56m

PROPOSED DWELLING (FFL 67.00m)

54.00m

RAINWATER TANK (45kL MIN)

CATCH DRAIN

FLOOD ROAD

SANDY CREEK ROAD

DAM 1

PROPOSED STABLES AND TACK ROOM

GRAPHIC SCALE (m)

12.5 0 12.5 25 37.5 50 62.5

1:1250@A3

				SURVEY DATA		MATT HAACK - HAACK LOGISTICS GROUP
				DATUM		590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
				MAP GRID		
				HEIGHT ORIGIN		HAACK - SANDY CREEK ROAD
2	FOR APPROVAL	MS	23/06/2023	SURVEY BOOKS		
1	PRELIMINARY	MA	19/04/2023	MA	02/2023	590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
	REVISION/DETAILS	DWN	DATE	DES	DATE	

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DETAILED LAYOUT PLAN - STAGE 1

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
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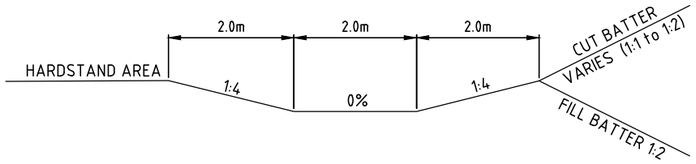
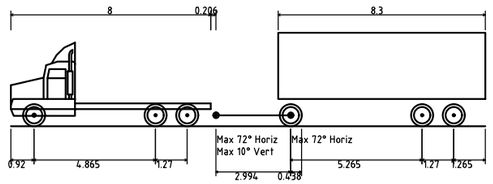
DRAWING NUMBER: ACS-230008-GEN-05

REVISION: 2

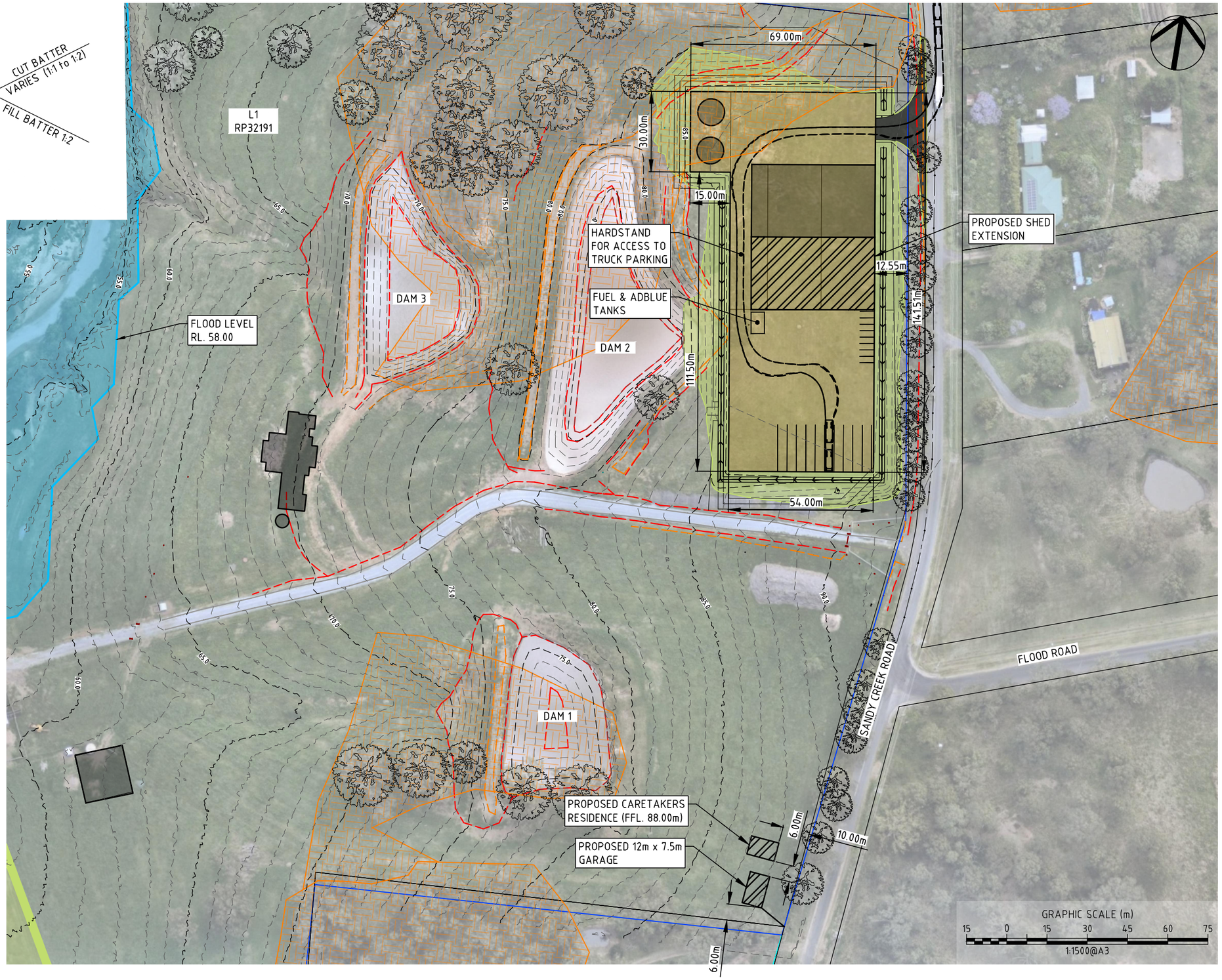


CATCH DRAIN SECTION

SCALE 1:100



Truck and Dog (19m)	
Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	3.738m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock-to-lock time	5.00s
Curb to Curb Turning Radius	12.640m



				SURVEY DATA		MATT HAACK - HAACK LOGISTICS GROUP
				DATUM		590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
				MAP GRID		
				HEIGHT ORIGIN		
2	FOR APPROVAL	MS	23/06/2023	SURVEY BOOKS		HAACK - SANDY CREEK ROAD
1	PRELIMINARY	MA	19/04/2023	MA	02/2023	590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
REVISION/DETAILS		DWN	DATE	DES	DATE	

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DETAILED LAYOUT PLAN - STAGE 2

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		23/06/23

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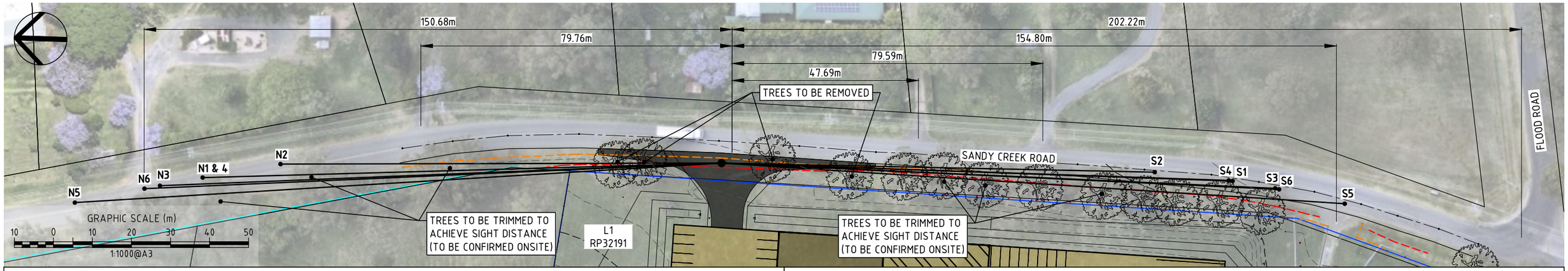
DRAWING NUMBER: ACS-230008-GEN-06

REVISION: 2

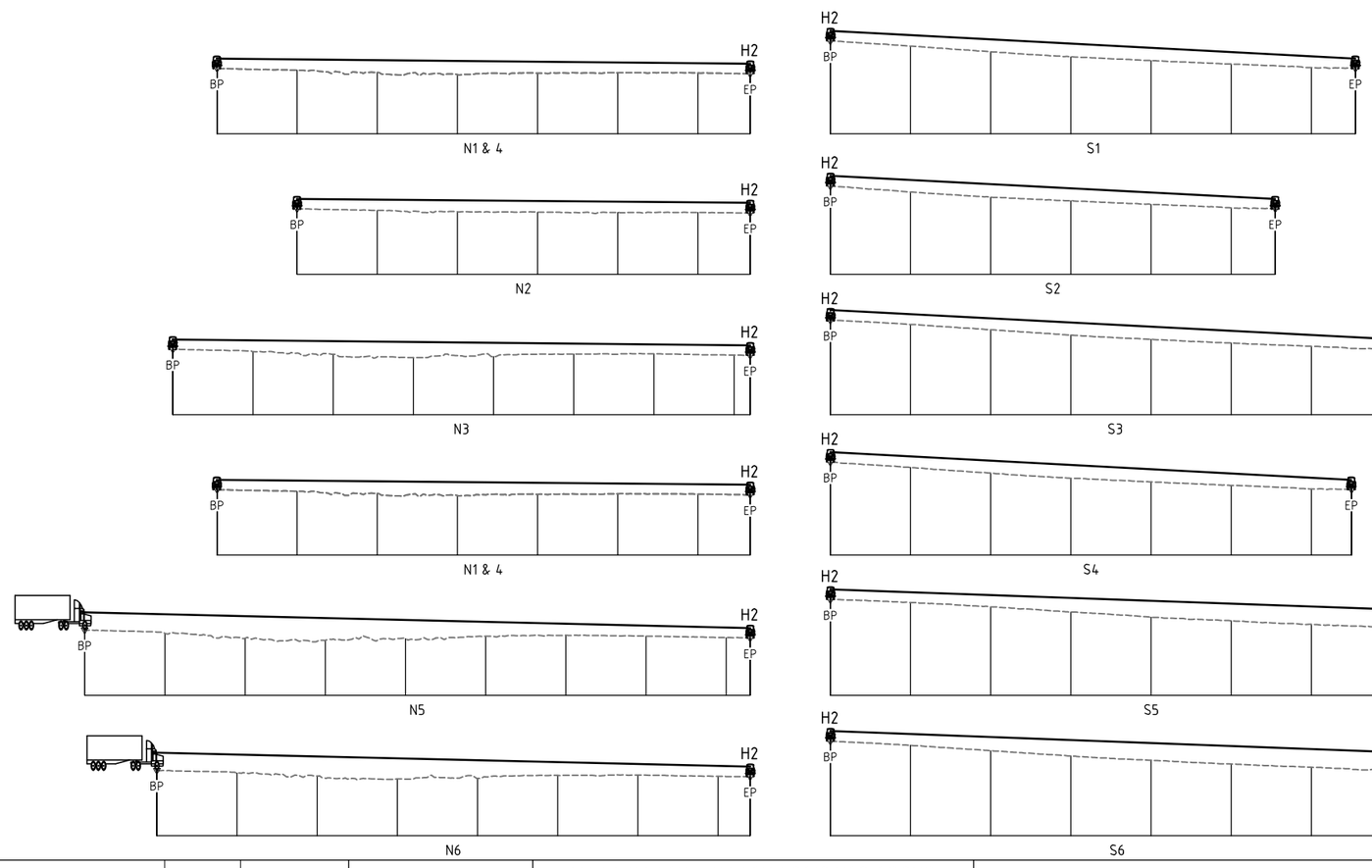


SIGHT DISTANCE REQUIREMENTS (EDD) - NORTHBOUND

CHECK CASE	VEHICLE	TIME OF DAY	V (km/hr)	h1 (m)	h2 (m)	Ot (s)	Rt (s)	d	GRADE (%)	SISD (m)	COMMENTS
N1	CAR	DAY	80	1.10	1.25	3.00	2.00	0.36	-0.50	133	SIGHT DISTANCE AVAILABLE MEETS REQUIRED SISD (EDD)
N2	CAR	NIGHT 1	80	0.65	1.25	2.60	2.00	0.46	-0.50	113	SIGHT DISTANCE AVAILABLE MEETS REQUIRED SISD (EDD)
N3	CAR	NIGHT 2	80	1.10	0.80	2.50	2.00	0.46	-0.50	144	SIGHT DISTANCE AVAILABLE MEETS REQUIRED SISD (EDD)
N4	TRUCK	DAY	80	2.40	1.25	3.00	2.00	0.24	-0.50	133	SIGHT DISTANCE AVAILABLE MEETS REQUIRED SISD (EDD)
N5	TRUCK	NIGHT 1	80	1.05	1.25	1.80	2.00	0.29	-0.50	166	SIGHT DISTANCE AVAILABLE MEETS REQUIRED SISD (EDD)
N6	TRUCK	NIGHT 2	80	2.40	0.80	0.80	2.00	0.29	-0.50	148	SIGHT DISTANCE AVAILABLE MEETS REQUIRED SISD (EDD)

SIGHT DISTANCE REQUIREMENTS (EDD) - SOUTHBOUND

CHECK CASE	VEHICLE	TIME OF DAY	V (km/hr)	h1 (m)	h2 (m)	Ot (s)	Rt (s)	d	GRADE (%)	SISD (m)	COMMENTS
S1	CAR	DAY	80	1.10	1.25	3.00	2.00	0.36	1.50	131	SIGHT DISTANCE AVAILABLE MEETS REQUIRED SISD (EDD)
S2	CAR	NIGHT 1	80	0.65	1.25	2.60	2.00	0.46	1.50	111	SIGHT DISTANCE AVAILABLE MEETS REQUIRED SISD (EDD)
S3	CAR	NIGHT 2	80	1.10	0.80	2.50	2.00	0.46	1.50	142	SIGHT DISTANCE AVAILABLE MEETS REQUIRED SISD (EDD)
S4	TRUCK	DAY	80	2.40	1.25	3.00	2.00	0.24	1.50	130	SIGHT DISTANCE AVAILABLE MEETS REQUIRED SISD (EDD)
S5	TRUCK	NIGHT 1	80	1.05	1.25	1.80	2.00	0.29	1.50	160	SIGHT DISTANCE AVAILABLE MEETS REQUIRED SISD (EDD)
S6	TRUCK	NIGHT 2	80	2.40	0.80	3.00	2.00	0.29	1.50	143	SIGHT DISTANCE AVAILABLE MEETS REQUIRED SISD (EDD)



				SURVEY DATA	MATT HAACK - HAACK LOGISTICS GROUP	PROPERTY ACCESS DETAIL
				DATUM		
				MAP GRID	590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285	
				HEIGHT ORIGIN		
2	FOR APPROVAL	MS	23/06/2023	SURVEY BOOKS	HAACK - SANDY CREEK ROAD	
1	PRELIMINARY	MA	02/02/2023	MA 02/2023	590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285	
REVISION/DETAILS		DWN	DATE	DES DATE		

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ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		23/06/23

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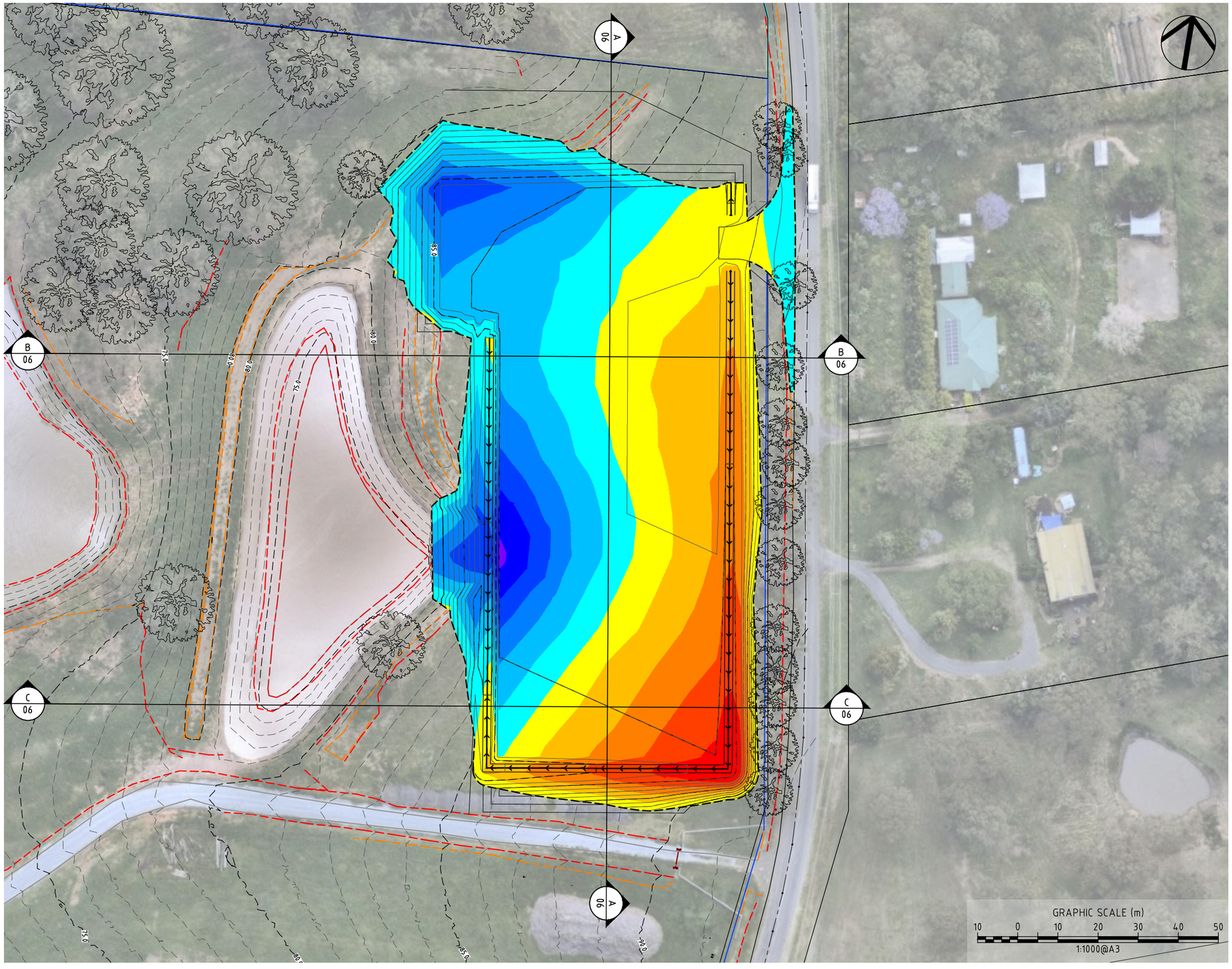
DRAWING NUMBER: ACS-230008-GEN-07

REVISION: 2



CUT/FILLDEPTH RANGE			
NO.	MIN. LEVEL	MAX. LEVEL	COLOUR
1	-5.000	-4.000	
2	-4.000	-3.000	
3	-3.000	-2.000	
4	-2.000	-1.000	
5	-1.000	0.000	
6	0.000	1.000	
7	1.000	2.000	
8	2.000	3.000	
9	3.000	4.000	
10	4.000	5.000	
11	5.000	6.000	

STRIPPING VOLUME:
PROPOSED PAD:

CUT VOLUME = 9459.6m^3
FILL VOLUME = 9606.5m^3

NET: 146.9m^3 (EXCESS FILL)

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2	FOR APPROVAL	MS	23/06/2023	SURVEY BOOKS		
1	PRELIMINARY	MA	19/04/2023	MA	02/2023	590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
REVISION/DETAILS		DWN	DATE	DES	DATE	

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BULK EATHWORKS PLAN - STAGE 1

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ENGINEERING CERTIFICATION (RPEQ)

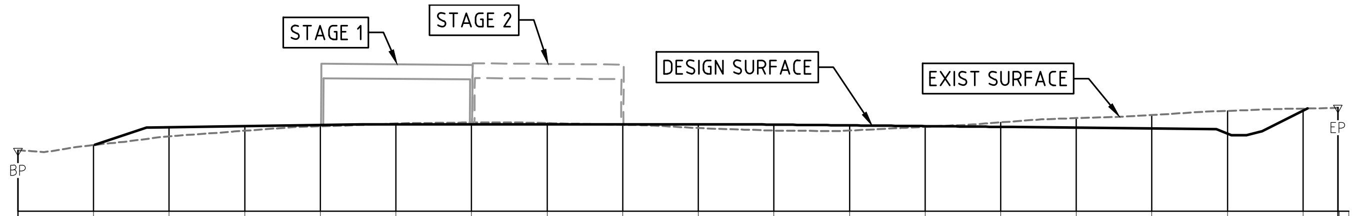
#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		23/06/23

DRAWING NUMBER: ACS-230008-GEN-08

REVISION: 2

GRAPHIC SCALE (m)
10 0 10 20 30 40 50
1:1000@A3

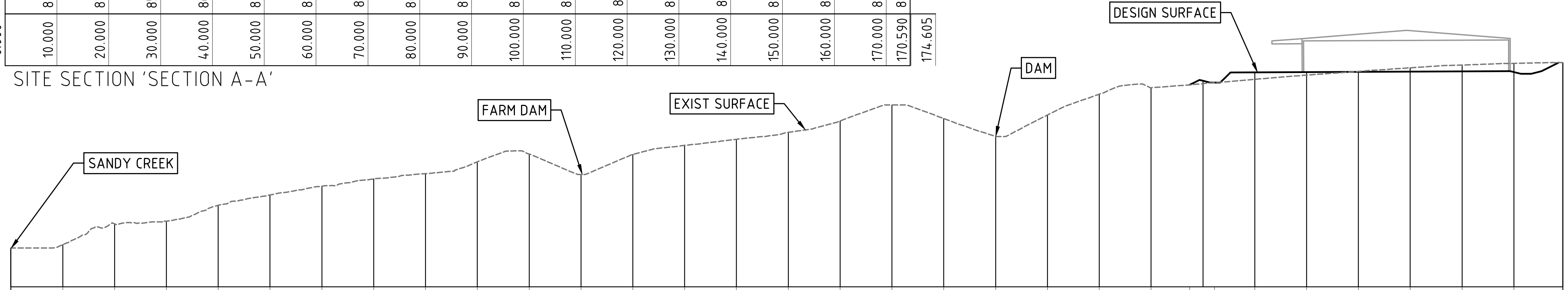
VERT EXAG 1:1
DATUM 75.000



DEPTH			1.206	0.606	0.149	-0.124	-0.252	-0.180	0.054	0.471	0.792	0.687	0.092	-0.596	-1.254	-1.772	-3.006	-0.286	0.000	
FSL			86.102	86.250	86.398	86.480	86.480	86.480	86.480	86.480	86.460	86.360	86.260	86.160	86.060	85.960	85.272	88.299	88.594	
ESL		83.754	84.896	85.644	86.249	86.604	86.732	86.660	86.426	86.009	85.669	85.673	86.168	86.756	87.314	87.732	88.278	88.585	88.682	
CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	170.000	170.590	174.605

SITE SECTION 'SECTION A-A'

VERT EXAG 1:1
DATUM 45.000



DEPTH																								0.000	0.558	1.348	0.589	-0.088	-0.735	-1.221	-1.682	
FSL																								83.969	84.749	86.381	86.425	86.470	86.514	86.559	86.428	
ESL	52.500	53.126	57.138	57.660	60.727	62.721	64.404	65.803	66.831	69.102	70.608	66.650	70.535	72.289	73.463	74.784	76.999	80.076	77.459	74.000	78.143	82.151	83.410		84.191	85.033	85.836	86.558	87.249	87.780	88.109	88.243
CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	170.000	180.000	190.000	200.000	210.000	220.000	227.449	230.000	240.000	250.000	260.000	270.000	280.000	290.000	299.451

SITE SECTION 'SECTION B-B'

VERT EXAG 1:1
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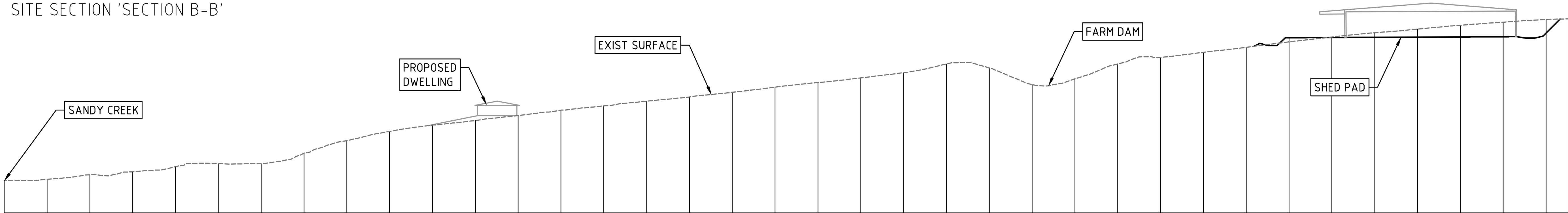

DEPTH																															0.000	0.981	-0.134	-1.076	-1.878	-2.732	-3.411	-3.173	
FSL																															83.876	85.882	85.926	85.971	86.015	86.060	86.104	86.965	
ESL		52.821	53.882	54.586	55.769	56.508	56.476	58.924	61.857	64.005	65.480	66.554	67.703	68.977	69.954	71.049	72.037	73.137	74.357	75.401	76.501	77.710	79.749	78.824	74.955	76.282	79.750	81.312	82.476	83.632		84.900	86.060	87.046	87.893	88.792	89.515	90.138	90.289
CHAINAGE	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	170.000	180.000	190.000	200.000	210.000	220.000	230.000	240.000	250.000	260.000	270.000	280.000	290.000	291.812	300.000	310.000	320.000	330.000	340.000	350.000	360.000	365.191

SITE SECTION 'SECTION C-C'

REV	REVISION/DETAILS	DWN	DATE
2	FOR APPROVAL	MS	23/06/2023
1	PRELIMINARY	MA	19/04/2023

SURVEY DATA	
DATUM	
MAP GRID	
HEIGHT ORIGIN	
SURVEY BOOKS	
DES: MA	DATE: 02/2023

MATT HAACK - HAACK LOGISTICS GROUP
590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285

HAACK - SANDY CREEK ROAD
590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285

SECTIONS

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY	[signature]	23/06/23

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DRAWING NUMBER: ACS-230008-GEN-09
REVISION: 2

FILE: C:\12DS\DATA\ACSSYN\230008 HAACK - SANDY CREEK ROAD_615\DESIGN\DRAWING FILES\ACS-230008-GEN.DWG PLOT TIME: 23/6/2023 - 2:47PM BY USER: ACSENGINEER

LANDSCAPE BUFFER

1. LANDSCAPE BUFFER TO BE 5M WIDE.
2. SPACING SHOULD RESULT IN PROMOTING QUICK VERTICAL GROWTH TO SHADE OUT WEED COMPETITION.
3. LANDSCAPING BUFFER (8m WIDE) TO BE PLANTED (MINIMUM PLANTING DENSITY OF ONE (1) TREE OR SHRUB PER 16M^2) WITH A MIXTURE OF UNDERSTOREY (SHRUB) AND OVERSTORY (TREE) SPECIES ENDEMIC TO THE LOCAL REGIONAL ECOSYSTEM CONSISTING OF:
   INSIDE ROW - LEPTOSPERMYM PETERSONII (EST. HEIGHT 4-5MN)
   MIDDLE ROW - MELALEUCA LINARIFOLIA (EST. HEIGHT 10M)
   OUTSIDE ROW - EUCALYPTUS MELANOPHLOIA (EST. HEIGHT 20M)

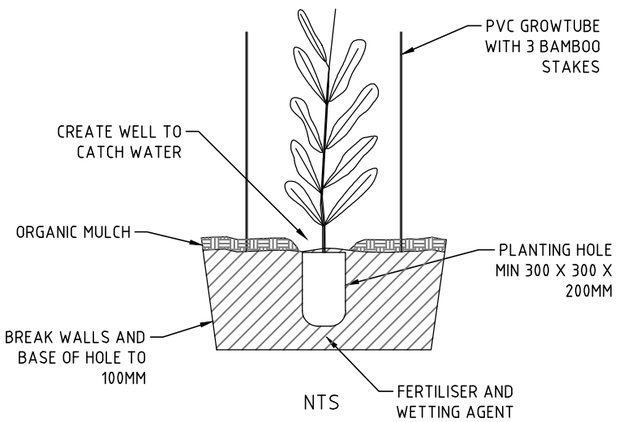
   OTHER SUITABLE ALTERNATIVES INCLUDE:
   - EUCALYPTUS MOLUCCANA
   - ANGOPHORA FLORIBUNDA
   - CORYMBIA DARKSONIANA
   - LOPHOSTEMEN SUAVEOLENS
   - MELALEUCA BRACTEATA
   - MELALEUCA TRICHOSTACHYA
4. 750MM TREES AND 500MM SHRUBS ARE TO BE PLANTED AS DETAILED IN INSET
5. BUFFER AREA TO BE FENCED TO PROTECT TREES FROM CATTLE
6. PLANTS TO BE MAINTAINED UNTIL ESTABLISHED. FAILURES TO BE REPLACED.

PLANTING REQUIREMENTS

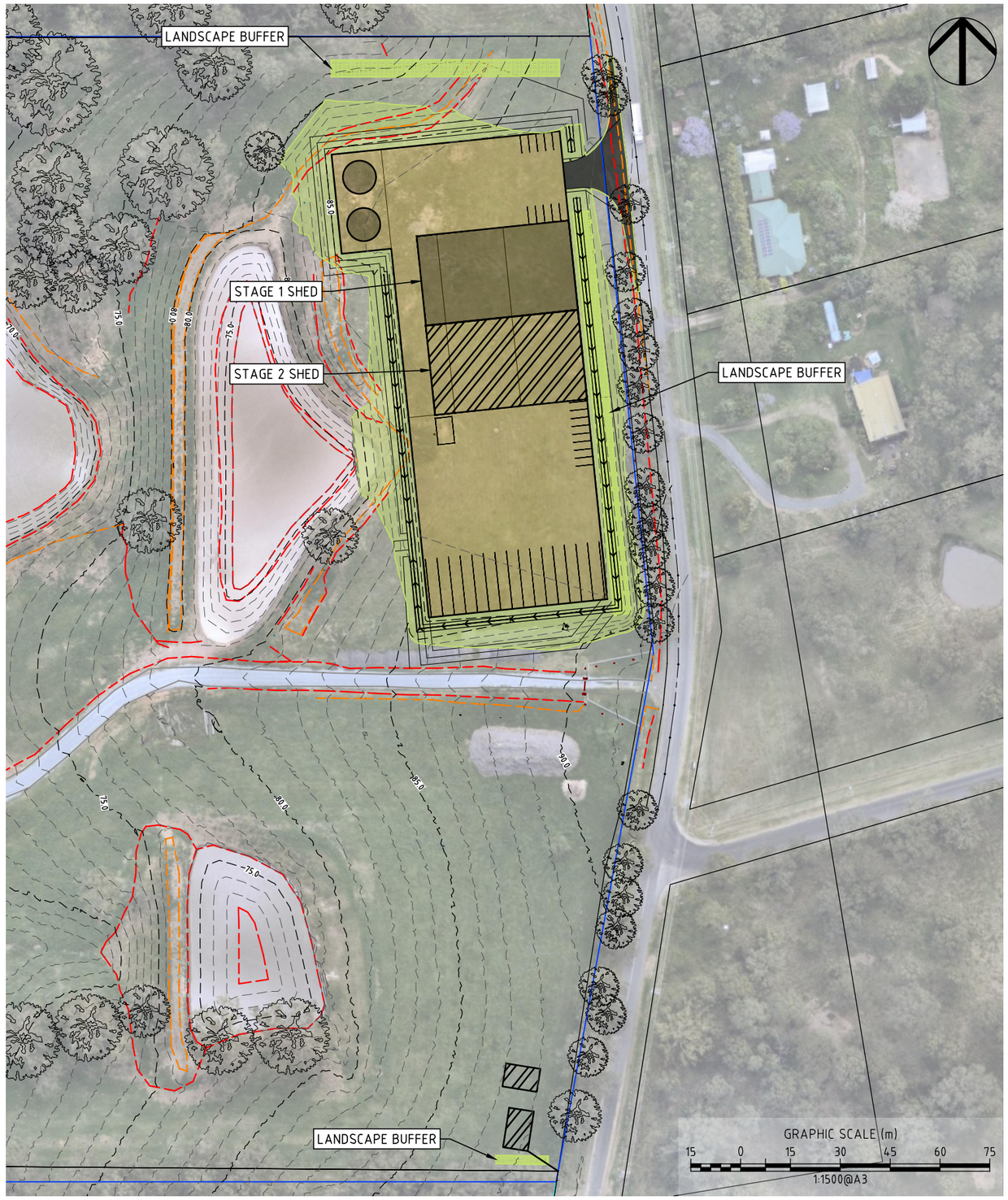
1. MULCHING
A. LAY ORGANIC MULCH SUCH AS HOOP PINE FINES OR SIMILAR (TO MEET AS4454-2003) TO PROTECT BARE SOIL, RETAIN SOIL MOISTURE AND SUPPRESS WEED RE-GROWTH.
B. ENSURE MULCH IS FREE OF WEED SEED OR FOREIGN OBJECTS.
C. SPREAD TO A DEPTH OF 100MM - 150MM AND ALLOW TO SETTLE FOR 4 WEEKS BEFORE PLANTING SEEDLINGS].
D. SPOT SPRAY EMERGING WEEDS AS NECESSARY.

2. PLANTING
A. RAKE AWAY AN AREA OF MULCH (MIN 300MM X 300MM) TO EXPOSE THE SOIL.
B. DIG A HOLE AT LEAST TWICE THE SIZE OF THE TUBE / POT (MIN 300MM X 300MM X 200MM DEEP)
C. DISTURB THE SURROUNDING SUBSTRATE UP TO 100MM TO AVOID LEAVING 'CLEAN' SIDES AND BASE OF THE HOLE PARTICULARLY WHEN AN AUGER HAS BEEN USED TO DIG THE HOLE.
D. POUR 5-6 LITERS OF WATER INTO THE HOLE AND ALLOW TO DRAIN FREELY.
E. ADD SLOW RELEASE FERTILISER AND SOIL WETTING AGENT TO THE BASE OF THE WELL AND COVER WITH A SMALL AMOUNT OF EXISTING SOI, OR MIX IN WITH THE SOIL TO BE PLACED BACK AROUND THE PLANT. AVOID ANY CONTACT OF THE FERTILISER AND SOIL WETTING AGENT WITH THE PLANT ROOTS.
F. PLANT THE SEEDLING SLIGHTLY BELOW THE SOIL LEVEL AND BACK FILL THE HOLE WITH EXISTING SOIL COVERING THE TOP OF THE POTTING MIX. CREATE A SMALL WELL TO CATCH WATER.
G. REPLACE MULCH AROUND THE PLANT. ENSURE NO MULCH TOUCHES THE BASE OF THE TRUNK, MAINTAINIUNG A SPACE OF 50-100MM BETWEEN MULCH AND TRUNK.
H. ERECT A 'GROWTUBE' AROUND EACH PLANT, REMOVE GROWTUBES WHEN PLANTS ARE AT 1.5 TIMES THE HEIGHT OF THE GROWTUBE.
I. WATER EACH PLANT THOROUGHLY WITHIN 1 HOUR OF PLANTING.

3. WATERING
A. FOLLOW-UP WATERING SHOULD CONSIST OF:
   - ONCE PER WEEK - FOR THE FIRST 4 WEEKS
   - ONCE PER FORTNIGHT - FOR 4 TO 6 WEEKS
   - ONCE PER MONTH - FOR 3 TO 6 MONTHS



NTS



				SURVEY DATA		MATT HAACK - HAACK LOGISTICS GROUP
				DATUM		590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
				MAP GRID		
				HEIGHT ORIGIN		HAACK - SANDY CREEK ROAD
2	FOR APPROVAL	MS	23/06/2023	SURVEY BOOKS		
1	PRELIMINARY	MA	19/04/2023	MA	02/2023	590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
REVISION/DETAILS		DWN	DATE	DES	DATE	

FILE: C:\12DS\DATA\ACSSYN\230008 HAACK - SANDY CREEK ROAD_615\DESIGN\DRAWING FILES\ACS-230008-GEN.DWG PLOT TIME: 10/7/2023 - 1:35PM BY USER: MARCELA.ALVES

LANDSCAPE PLAN

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		10/07/23

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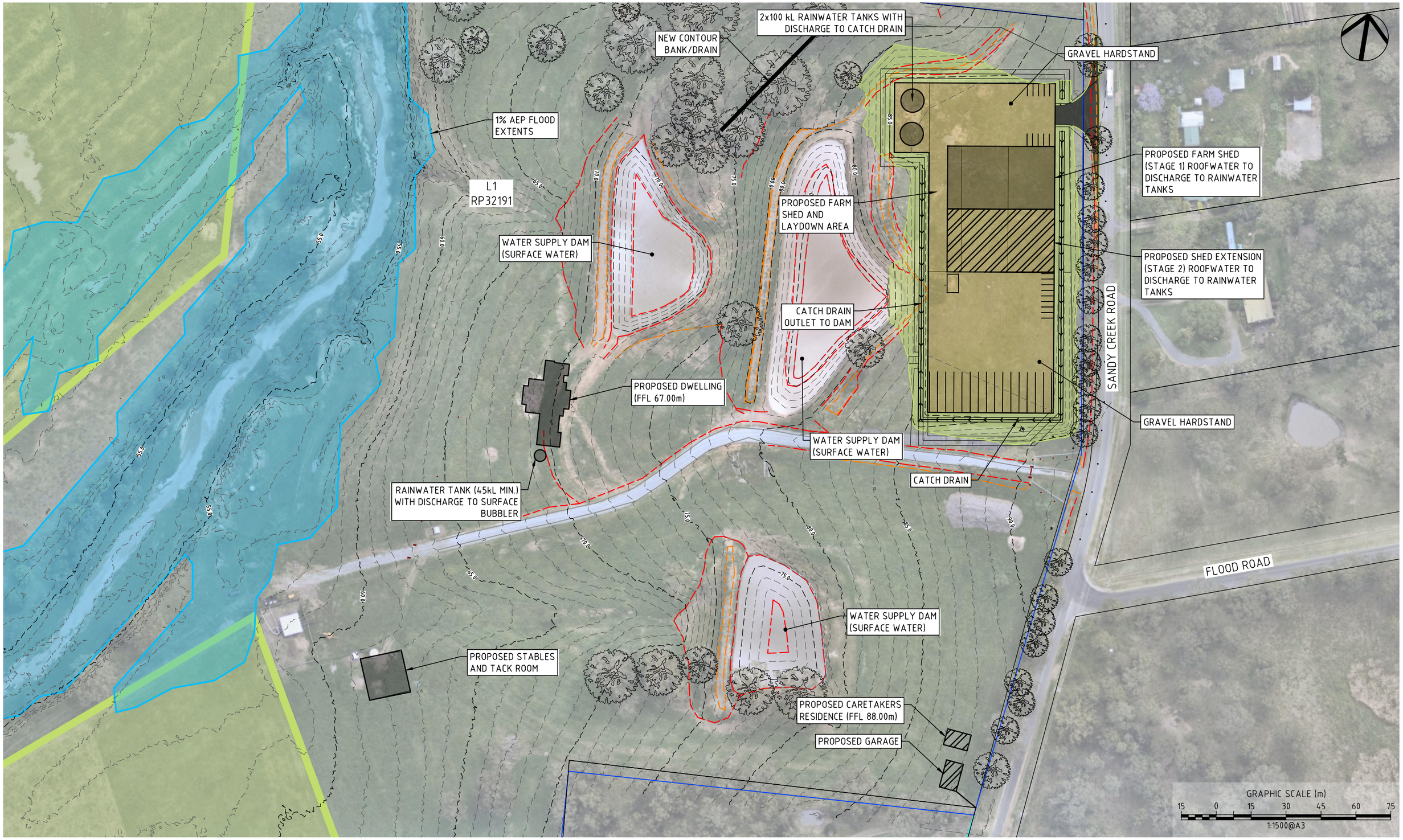
DRAWING NUMBER: ACS-230008-GEN-10

REVISION: 2



				SURVEY DATA		MATT HAACK - HAACK LOGISTICS GROUP
				DATUM		590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
				MAP GRID		
				HEIGHT ORIGIN		HAACK - SANDY CREEK ROAD
2	FOR APPROVAL	MS	23/06/2023	SURVEY BOOKS		
1	PRELIMINARY	MA	19/04/2023	MA	02/2023	590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
REVISION/DETAILS		DWN	DATE	DES	DATE	

FILE: C:\12DS\DATA\ACSSYN\230008 HAACK - SANDY CREEK ROAD_615\DESIGN\DRAWING FILES\ACS-230008-GEN.DWG PLOT TIME: 10/7/2023 - 1:36PM BY USER: MARCELAALVES

STORMWATER MANAGEMENT PLAN

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ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		10/07/23

DRAWING NUMBER: ACS-230008-GEN-11

REVISION: 2

SEDIMENT AND EROSION CONTROL - GENERAL NOTES:

1. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MUST BE IMPLEMENTED AND A REVISED EROSION AND SEDIMENT CONTROL PLAN (ESCP) MUST BE SUBMITTED FOR APPROVAL IN THE EVENT THAT SITE CONDITIONS CHANGE SIGNIFICANTLY FROM THOSE CONSIDERED WITHIN THE ESCP.
2. WHERE THERE IS A HIGH PROBABILITY THAT SERIOUS OR MATERIAL ENVIRONMENTAL HARM MAY OCCUR AS A RESULT OF SEDIMENT LEAVING THE SITE, APPROPRIATE ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MUST BE IMPLEMENTED SUCH THAT ALL REASONABLE AND PRACTICABLE MEASURES ARE BEING TAKEN TO PREVENT OR MINIMISE SUCH HARM. ONLY THOSE WORKS NECESSARY TO MINIMISE OR PREVENT ENVIRONMENTAL HARM SHALL BE CONDUCTED ON-SITE PRIOR TO APPROVAL OF THE AMENDED EROSION AND SEDIMENT CONTROL PLAN (ESCP).
3. IN CIRCUMSTANCES WHERE IT IS CONSIDERED NECESSARY TO PREPARE AN AMENDED EROSION AND SEDIMENT CONTROL PLAN (ESCP), AND WHERE THE DELIVERY OF SUCH AN AMENDED ESCP IS NOT IMMINENT, THEN ALL NECESSARY NEW OR MODIFIED EROSION AND SEDIMENT CONTROL WORKS MUST BE IN ACCORDANCE TO WITH IECA (2008) BEST PRACTICE EROSION & SEDIMENT CONTROL. UPON APPROVAL OF THE AMENDED ESCP ALL WORKS MUST BE IMPLEMENTED IN ACCORDANCE WITH THE AMENDED PLAN.

SITE ACCESS:

1. PRIOR TO THE COMMENCEMENT OF SITE WORKS, THE LOCATION OF THE SITE ACCESS POINT MUST BE VERIFIED WITH RELEVANT AUTHORITY.
2. SITE ACCESS IS RESTRICTED TO ONE LOCATION.
3. SITE EXIT POINT MUST BE APPROPRIATELY MANAGED TO MINIMISE THE RISK OF SEDIMENT BEING TRACKED ONTO SEALED PUBLIC ROADWAYS.
4. STORMWATER RUNOFF FROM ACCESS ROADS AND STABILISED ENTRY/EXIT POINTS MUST DRAIN TO AN APPROPRIATE SEDIMENT CONTROL DEVICE.

SOIL AND STOCKPILE MANAGEMENT:

1. ALL REASONABLE AND PRACTICABLE MEASURES MUST BE TAKEN TO OBTAIN THE MAXIMUM BENEFIT FROM EXISTING TOPSOIL, INCLUDING:
   (i) WHERE THE PROPOSED AREA OF SOIL DISTURBANCE DOES NOT EXCEED 2500m^2, AND THE TOPSOIL DOES NOT CONTAIN UNDESIRABLE WEED SEED, THE TOP 100mm OF SOIL LOCATED WITHIN AREAS OF PROPOSED SOIL DISTURBANCE (INCLUDING STOCKPILE AREAS) MUST BE STRIPPED AND STOCKPILED SEPARATELY FROM THE REMAINING SOIL.
   (ii) WHERE THE PROPOSED AREA OF SOIL DISTURBANCE EXCEEDS 2500m^2, AND THE TOPSOIL DOES NOT CONTAIN UNDESIRABLE WEED SEED, THE TOP 50mm OF SOIL MUST BE STRIPPED AND STOCKPILED SEPARATELY FROM THE REMAINING TOPSOIL, AND SPREAD AS A FINAL SURFACE SOIL.
   (iii) IN AREAS WHERE THE TOPSOIL CONTAINS UNDESIRABLE WEED SEED, THE AFFECTED SOIL MUST BE SUITABLY BURIED OR REMOVED FROM THE SITE.
2. STOCKPILES OF ERODIBLE MATERIAL THAT HAS THE POTENTIAL TO CAUSE ENVIRONMENTAL HARM IF DISPLACED MUST BE:
   (i) APPROPRIATELY PROTECTED FROM WIND, RAIN, CONCENTRATED SURFACE FLOW AND EXCESSIVE UP-SLOPE STORMWATER SURFACE FLOWS.
   (ii) LOCATED AT LEAST 2m FROM ANY HAZARDOUS AREA, RETAINED VEGETATION OR CONCENTRATED DRAINAGE LINE.
   (iii) LOCATED UP-SLOPE OF AN APPROPRIATE SEDIMENT CONTROL SYSTEM.
   (iv) PROVIDED WITH AN APPROPRIATE PROTECTIVE COVER (SYNTHETIC, MULCH OR VEGETATIVE) IF THE MATERIALS ARE LIKELY TO BE STOCKPILED FOR MORE THAN 28 DAYS.
   (v) PROVIDED WITH AN APPROPRIATE PROTECTIVE COVER (SYNTHETIC, MULCH OR VEGETATIVE) IF THE MATERIALS ARE LIKELY TO BE STOCKPILED FOR MORE THAN 10 DAYS DURING THOSE MONTHS THAT HAVE A HIGH EROSION RISK.
   (vi) PROVIDED WITH AN APPROPRIATE PROTECTIVE COVER (SYNTHETIC, MULCH OR VEGETATIVE) IF THE MATERIALS ARE LIKELY TO BE STOCKPILED FOR MORE THAN 5 DAYS DURING THOSE MONTHS THAT HAVE A EXTREME EROSION RISK.
3. A SUITABLE FLOW DIVERSION SYSTEM MUST BE ESTABLISHED IMMEDIATELY UP-SLOPE OF A STOCKPILE OF ERODIBLE MATERIAL THAT HAS THE POTENTIAL TO CAUSE ENVIRONMENTAL HARM IF DISPLACED IF THE UP-SLOPE CATCHMENT AREA DRAINING TO THE STOCKPILE EXCEEDS 1500m^2.

DRAINAGE CONTROL:

1. ALL DRAINAGE CONTROL MEASURES MUST BE APPLIED AND MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION PLANS.
2. 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, MUST 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.
3. DURING THE CONSTRUCTION PERIOD, ALL REASONABLE AND PRACTICABLE MEASURES MUST BE IMPLEMENTED TO CONTROL FLOW VELOCITIES IN SUCH A MANNER THAN PREVENTS SOIL EROSION ALONG DRAINAGE PATHS AND AT THE ENTRANCE AND EXIT OF ALL DRAINS AND DRAINAGE PIPES DURING ALL STORMS UP TO THE RELEVANT DESIGN STORM DISCHARGE.
4. TO THE MAXIMUM DEGREE REASONABLE AND PRACTICABLE, ALL WATERS DISCHARGED DURING THE CONSTRUCTION PHASE MUST DISCHARGE ONTO STABLE LAND, IN A NON-EROSIVE MANNER, AND AT A LEGAL POINT OF DISCHARGE.
5. WHEREVER REASONABLE AND PRACTICABLE, "CLEAN" SURFACE WATERS MUST BE DIVERTED AWAY FROM SEDIMENT CONTROL DEVICES AND ANY UNTREATED, SEDIMENT-LADEN WATERS.
6. DURING THE CONSTRUCTION PERIOD, ROOF WATER MUST BE MANAGED IN A MANNER THAT MINIMISES SOIL EROSION THROUGHOUT THE SITE, AND SITE WETNESS WITHIN ACTIVE WORK AREAS.
7. DRAINS ARE TO BE SIZED AND CONSTRUCTED TO ALLOW WATER TO DRAIN. THIS MAY INCLUDE CUTTING INTO THE EARTH TO OBTAIN THE REQUIRED FALL TO PERMIT DRAINAGE. DIMENSIONS GIVEN ARE A MINIMUM.

EROSION CONTROL:

1. ALL EROSION CONTROL MEASURES MUST BE APPLIED AND MAINTAINED IN ACCORDANCE WITH IECA (2008) BEST PRACTICE EROSION & SEDIMENT CONTROL.
2. THE APPLICATION OF LIQUID-BASED DUST SUPPRESSION MEASURES MUST ENSURE THAT SEDIMENT-LADEN RUNOFF RESULTING FROM SUCH MEASURES DOES NOT CREATE A TRAFFIC OR ENVIRONMENTAL HAZARD.
3. ALL TEMPORARY EARTH BANKS, FLOW DIVERSION SYSTEMS, AND EMBANKMENTS ASSOCIATED WITH CONSTRUCTED SEDIMENT BASINS MUST BE MACHINE-COMPACTED, SEEDED AND MULCHED FOR THE PURPOSE OF ESTABLISHING A TEMPORARY VEGETATIVE COVER WITHIN 10 DAYS AFTER GRADING.
4. UNPROTECTED SLOPE LENGTHS MUST NOT EXCEED 80m, OR AN EQUIVALENT VERTICAL FALL OF 3m DURING THE CONSTRUCTION PERIOD.
5. THE CONSTRUCTION AND STABILISATION OF EARTH BATTERS STEEPER THAN 6:1 (H:V) MUST BE STAGED SUCH THAT NO MORE THAN 3 VERTICAL-METRES OF ANY BATTER IS EXPOSED TO RAINFALL AT ANY INSTANT.
6. SYNTHETIC REINFORCED EROSION CONTROL MATS AND BLANKETS MUST NOT BE PLACED WITHIN, OR ADJACENT TO, RIPARIAN ZONES AND WATERCOURSES IF SUCH MATERIALS ARE LIKELY TO CAUSE ENVIRONMENTAL HARM TO WILDLIFE OR WILDLIFE HABITATS.
7. A MINIMUM 60% GROUND COVER MUST BE ACHIEVED ON ALL NON-COMPLETED EARTHWORKS EXPOSED TO ACCELERATED SOIL EROSION IF FURTHER CONSTRUCTION ACTIVITIES OR SOIL DISTURBANCES ARE LIKELY TO BE SUSPENDED FOR MORE THAN 30 DAYS DURING THOSE MONTHS WHEN THE EXPECTED RAINFALL IS LESS THAN 30mm; MINIMUM 70% COVER WITHIN 30 DAYS IF BETWEEN 30 AND 45mm; MINIMUM 70% COVER WITHIN 20 DAYS IF BETWEEN 45 AND 100mm; MINIMUM 75% COVER WITHIN 10 DAYS IF BETWEEN 100 AND 225mm; AND MINIMUM 80% COVER WITHIN 5 DAYS IF GREATER THAN 225mm. (ALTERNATIVE TO ABOVE)

SEDIMENT CONTROL:

1. ALL SEDIMENT CONTROL MEASURES MUST BE APPLIED AND MAINTAINED IN ACCORDANCE WITH IECA (2008) BEST PRACTICE EROSION & SEDIMENT CONTROL.
2. OPTIMUM BENEFIT MUST BE MADE OF EVERY OPPORTUNITY TO TRAP SEDIMENT WITHIN THE WORK SITE, AND AS CLOSE AS PRACTICABLE TO ITS SOURCE.
3. SEDIMENT TRAPS MUST BE INSTALLED AND OPERATED TO BOTH COLLECT AND RETAIN SEDIMENT.
4. THE POTENTIAL SAFETY RISK OF A PROPOSED SEDIMENT TRAP TO SITE WORKERS AND THE PUBLIC MUST BE GIVEN APPROPRIATE CONSIDERATION, ESPECIALLY THOSE DEVICES LOCATED WITHIN PUBLICLY ACCESSIBLE AREAS.
5. ALL REASONABLE AND PRACTICABLE MEASURES MUST BE TAKEN TO PREVENT, OR AT LEAST MINIMISE, THE RELEASE OF SEDIMENT FROM THE SITE.
6. SUITABLE ALL-WEATHER MAINTENANCE ACCESS MUST BE PROVIDED TO ALL SEDIMENT CONTROL DEVICES.
7. SEDIMENT CONTROL DEVICES MUST 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.
8. MATERIALS, WHETHER LIQUID OR SOLID, REMOVED FROM SEDIMENT CONTROL DEVICES DURING MAINTENANCE OR DECOMMISSIONING, MUST BE DISPOSED OF IN A MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.

SITE REHABILITATION:

1. ALL DISTURBED AREAS IDENTIFIED AS VERY LOW, LOW, MEDIUM, HIGH, OR EXTREME EROSION RISK MUST BE SUITABLY STABILISED WITHIN 30, 30, 20, 10 OR 5 DAYS RESPECTIVELY, OR PRIOR TO ANTICIPATED RAINFALL, WHICHEVER IS THE GREATER, FROM THE DAY THAT SOIL DISTURBANCES ON THE AREA HAVE BEEN FINALISED.
2. A MINIMUM 60% GROUND COVER MUST BE ACHIEVED ON ALL COMPLETED EARTHWORKS EXPOSED TO ACCELERATED SOIL EROSION WITHIN 30 DAYS DURING THOSE MONTHS WHEN THE EXPECTED RAINFALL IS LESS THAN 30mm; MINIMUM 70% COVER WITHIN 30 DAYS IF BETWEEN 30 AND 45mm; MINIMUM 70% COVER WITHIN 20 DAYS IF BETWEEN 45 AND 100mm; MINIMUM 75% COVER WITHIN 10 DAYS IF BETWEEN 100 AND 225mm; AND MINIMUM 80% COVER WITHIN 5 DAYS IF GREATER THAN 225mm. (ALTERNATIVE TO ABOVE)
3. NO COMPLETED EARTHWORK SURFACE MUST REMAIN DENUDED FOR LONGER THAN 60 DAYS.
4. THE TYPE OF GROUND COVER APPLIED TO COMPLETED EARTHWORKS IS COMPATIBLE WITH THE ANTICIPATED LONG-TERM LAND USE, ENVIRONMENTAL RISK, AND SITE REHABILITATION MEASURES.
5. UNLESS OTHERWISE DIRECTED BY THE SUPERINTENDENT OR WHERE DIRECTED BY THE APPROVED REVEGETATION PLAN, TOPSOIL MUST BE PLACED AT A MINIMUM DEPTH OF 75mm ON SLOPES 4:1 (H:V) OR FLATTER, AND 50mm ON SLOPES STEEPER THAN 4:1.
6. SOIL AMELIORANTS MUST BE ADDED TO THE SOIL IN ACCORDANCE WITH THE APPROVED LANDSCAPE/REVEGETATION PLANS AND/OR SOIL ANALYSIS.
7. TEMPORARY SITE STABILISATION PROCEDURES MUST COMMENCE AT LEAST 30 DAYS PRIOR TO THE NOMINATED SITE SHUTDOWN DATE. AT LEAST 70% STABLE COVER OF ALL UNSTABLE AND/OR DISTURBED SOIL SURFACES MUST BE ACHIEVED PRIOR TO ANY SHUTDOWN. THE STABILISATION WORKS MUST NOT RELY UPON THE LONGEVITY OF NON-VEGETATED EROSION CONTROL BLANKETS, OR TEMPORARY SOIL BINDERS.
8. ALL UNSTABLE OR DISTURBED SOIL SURFACES MUST BE ADEQUATELY STABILISED AGAINST EROSION (MINIMUM 70%) PRIOR TO COMMENCEMENT OF USE, OR SURVEY PLAN ENDORSEMENT.

REVISION/DETAILS		DWN	DATE
2	FOR APPROVAL	MS	23/06/2023
1	PRELIMINARY	MA	19/04/2023

SURVEY DATA
DATUM
MAP GRID
HEIGHT ORIGIN
SURVEY BOOKS

DES	DATE
MA	02/2023

MATT HAACK - HAACK LOGISTICS GROUP

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HAACK - SANDY CREEK ROAD

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EROSION AND SEDIMENT CONTROL - NOTES

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		23/06/23

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DRAWING NUMBER: ACS-230008-GEN-12

REVISION: 2

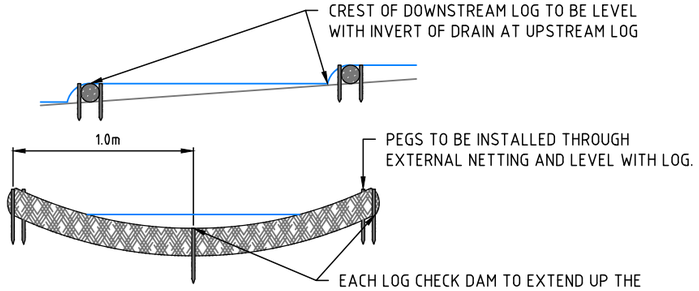
FILE: C:\12DS\DATA\ACSSYN\230008 HAACK - SANDY CREEK ROAD_615\DESIGN\DRAWING FILES\ACS-230008-GEN.DWG PLOT TIME: 23/6/2023 - 2:47PM BY USER: ACSENGINEER

SITE MANAGEMENT:

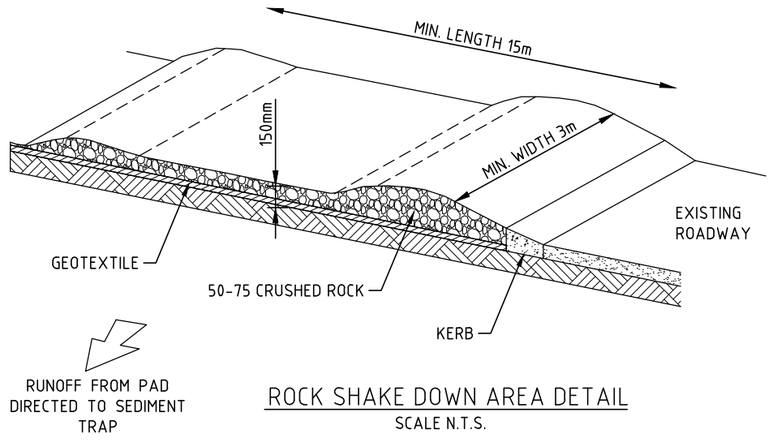
1. ALL OFFICE FACILITIES AND OPERATIONAL ACTIVITIES MUST BE LOCATED SUCH THAT ANY LIQUID EFFLUENT (E.G. PROCESS WATER, WASH-DOWN WATER, EFFLUENT FROM EQUIPMENT CLEANING, OR PLANT WATERING), CAN BE TOTALLY CONTAINED AND TREATED WITHIN THE SITE.
2. THE CONSTRUCTION SCHEDULE MUST AIM TO MINIMISE THE DURATION THAT ANY AND ALL AREAS OF SOIL ARE EXPOSED TO THE EROSIVE EFFECTS OF WIND, RAIN AND SURFACE WATER.
3. LAND-DISTURBING ACTIVITIES MUST BE UNDERTAKEN IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN (ESCP) AND ASSOCIATED DEVELOPMENT CONDITIONS.
4. LAND-DISTURBING ACTIVITIES MUST BE UNDERTAKEN IN SUCH A MANNER THAT ALLOWS ALL REASONABLE AND PRACTICABLE MEASURES TO BE UNDERTAKEN TO:
   (i) ALLOW STORMWATER TO PASS THROUGH THE SITE IN A CONTROLLED MANNER AND AT NON-EROSIVE FLOW VELOCITIES UP TO THE SPECIFIED DESIGN STORM DISCHARGE;
   (ii) MINIMISE SOIL EROSION RESULTING FROM RAIN, WATER FLOW AND/OR WIND;
   (iii) MINIMISE ADVERSE EFFECTS OF SEDIMENT RUNOFF, INCLUDING SAFETY ISSUES;
   (iv) PREVENT OR AT LEAST MINIMISE, ENVIRONMENTAL HARM RESULTING FROM WORK-RELATED SOIL EROSION AND SEDIMENT RUNOFF;
   (v) ENSURE THAT THE VALUE AND USE OF LAND/PROPERTIES ADJACENT TO THE DEVELOPMENT (INCLUDING ROADS) ARE NOT DIMINISHED AS A RESULT OF THE ADOPTED ESC MEASURES.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES MUST CONFORM TO THE STANDARDS AND SPECIFICATIONS CONTAINED IN:
   (i) THE DEVELOPMENT APPROVAL CONDITION ISSUED BY RELEVANT AUTHORITY; AND/OR
   (ii) THE APPROVED ESCP AND SUPPORTING DOCUMENTATION; OR
   (iii) THE LATEST VERSION OF IECA (2008) BEST PRACTICE EROSION & SEDIMENT CONTROL IF THE STANDARDS AND SPECIFICATIONS ARE NOT CONTAINED IN THE APPROVED ESCP.
6. ANY WORKS THAT MAY CAUSE SIGNIFICANT SOIL DISTURBANCE AND ARE ANCILLARY TO ANY ACTIVITY FOR WHICH REGULATORY BODY APPROVAL IS REQUIRED, MUST NOT COMMENCE BEFORE THE ISSUE OF THAT APPROVAL.
7. ADDITIONAL AND/OR ALTERNATIVE ESC MEASURES MUST BE IMPLEMENTED IN THE EVENT THAT THE RELEVANT AUTHORITY IDENTIFIES THAT UNACCEPTABLE OFF-SITE SEDIMENTATION IS OCCURRING AS A RESULT OF THE WORK ACTIVITIES.
8. LAND-DISTURBING ACTIVITIES MUST NOT CAUSE UNNECESSARY SOIL DISTURBANCE IF AN ALTERNATIVE CONSTRUCTION PROCESS IS AVAILABLE THAT ACHIEVES THE SAME OR EQUIVALENT OUTCOMES AT AN EQUIVALENT COST.
9. SEDIMENT (INCLUDING CLAY, SILT, SAND, GRAVEL, SOIL, MUD, CEMENT AND CERAMIC WASTE) DEPOSITED OFF THE SITE AS A DIRECT RESULT OF AN ON-SITE ACTIVITY, MUST BE COLLECTED AND THE AREA APPROPRIATELY CLEANED/REHABILITATED AS SOON AS REASONABLE AND PRACTICABLE, AND IN A MANNER THAT GIVES APPROPRIATE CONSIDERATION TO THE SAFETY AND ENVIRONMENTAL RISKS ASSOCIATED WITH THE SEDIMENT DEPOSITION.
10. ALL WASTE INCLUDING PETROLEUM AND OIL-BASED PRODUCTS, MUST BE PREVENTED FROM ENTERING AN INTERNAL WATER BODY, OR AN EXTERNAL DRAIN, STORMWATER SYSTEM, OR WATER BODY.
11. ALL FLAMMABLE AND COMBUSTIBLE LIQUIDS, INCLUDING ALL LIQUID CHEMICALS IF SUCH CHEMICALS COULD POTENTIALLY BE WASHED OR DISCHARGED FROM THE SITE, ARE STORED AND HANDLED ON-SITE IN ACCORDANCE WITH RELEVANT STANDARDS SUCH AS AS1940 THE STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.
12. NO MORE THAN 150m OF A STORMWATER, SEWER LINE OR OTHER SERVICE TRENCH MUST TO BE OPEN AT ANY ONE TIME.
13. SITE SPOIL MUST BE LAWFULLY DISPOSED OF IN A MANNER THAT DOES NOT RESULT IN ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
14. ALL FILL MATERIAL PLACED ON SITE MUST COMPRISE ONLY NATURAL EARTH AND ROCK, AND IS TO BE FREE OF CONTAMINANTS, BE FREE DRAINING, AND BE COMPACTED IN LAYERS NOT EXCEEDING 300mm TO 90% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289.

SITE MAINTENANCE:

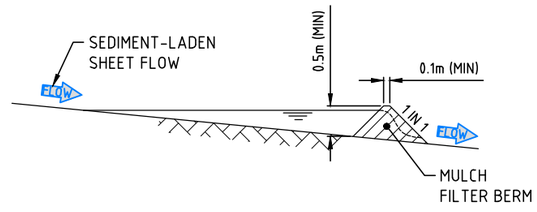
1. ENSURE ESC PLANS ARE ON SITE AT ALL TIMES.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING DRAINAGE CONTROL MEASURES, MUST BE MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES DURING THEIR OPERATIONAL LIVES.
3. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING DRAINAGE CONTROL MEASURES, MUST BE FULLY OPERATIONAL AND MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES DURING THE MAINTENANCE PERIOD AS SPECIFIED BY RELEVANT AUTHORITY.
4. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING DRAINAGE CONTROL MEASURES, MUST BE REMOVED AFTER ACHIEVING A SATISFACTORY "OFF-MAINTENANCE INSPECTION" BY THE RELEVANT AUTHORITY.
5. ALL DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES MUST BE INSPECTED:
   (i) AT LEAST DAILY (WHEN WORK IS OCCURRING ON-SITE);
   (ii) AT LEAST WEEKLY (WHEN WORK IS NOT OCCURRING ON-SITE);
   (iii) WITHIN 24 HOURS OF EXPECTED RAINFALL; AND
   (iv) WITHIN 18 HOURS OF A RAINFALL EVENT OF SUFFICIENT INTENSITY AND DURATION TO CAUSE RUNOFF ON-SITE).
   IF FAILURE HAS BEEN FOUND, IMMEDIATE REMEDIATIONS ARE REQUIRED AND TO A STANDARD WHICH ENSURES THE FAILURE DOES NOT CONTINUALLY OCCUR UNDER DESIGN RAINFALL CONDITIONS.
6. WASHING/FLUSHING OF SEALED ROADWAYS MUST 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 MUST 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 MUST BE DISPOSED OF IN A LAWFUL MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
7. SEDIMENT REMOVED FROM SEDIMENT TRAPS AND PLACES OF SEDIMENT DEPOSITION MUST BE DISPOSED OF IN A LAWFUL MANNER THAT DOES NOT CAUSE ONGOING SOIL EROSION OR ENVIRONMENTAL HARM.
8. MAINTENANCE IS TO OCCUR ON ALL EROSION AND SEDIMENT CONTROL MEASURES WHEN CAPACITY REDUCES BY 30%.
9. MAINTENANCE MOWING OF ALL ROAD SHOULDERS, TABLE DRAINS, BATTERS AND OTHER SURFACES LIKELY TO EXPERIENCE ACCELERATED SOIL EROSION MUST AIM TO LEAVE THE GRASS LENGTH NO SHORTER THAN 50mm WHERE REASONABLE AND PRACTICABLE.
10. MAINTENANCE MOWING MUST BE DONE IN A MANNER THAT WILL NOT DAMAGE THE PROFILE OF FORMED, SOFT EDGES, SUCH AS THE CREST OF EARTH EMBANKMENTS.
11. ENSURE RECORDS ARE KEPT OF DATES OF MAINTENANCE AND THE PERSONNEL RESPONSIBLE FOR UNDERTAKING THE MAINTENANCE.
12. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE SOIL EROSION IS LIMITED AS MUCH AS POSSIBLE. THE TECHNIQUES USED IN THE DESIGN SHOULD NOT BE TAKEN AS THE MAXIMUM CONTROLS ALLOWABLE, AND THE CONTRACTOR MAY ADD CONTROLS AS NECESSARY TO LIMIT SOIL EROSION AND SEDIMENTATION.
13. MONITORING SHALL BE UNDERTAKEN BY A PERSON WITH EXPERIENCE IN EROSION AND SEDIMENT CONTROL MONITORING. MONITORING IS TO BE UNDERTAKEN IN A MANNER WHICH COMPLIES WITH IECA GUIDELINES 2008, CHAPTER 7. SITE INSPECTION.



GEO LOGS (COIR LOGS)
NOT TO SCALE



ROCK SHAKE DOWN AREA DETAIL
SCALE N.T.S.



MULCH FILTER BERM SECTION
SCALE 1:100

RECOMMENDED MAX. BERM SPACING

LAND SLOPE	MAX. SPACING
<2%	30m
5%	25m
10%	15m
20%	8m

				SURVEY DATA		
				DATUM		
				MAP GRID		
				HEIGHT ORIGIN		
2	FOR APPROVAL	MS	23/06/2023	SURVEY BOOKS		
1	PRELIMINARY	MA	19/04/2023	MA	02/2023	
	REVISION/DETAILS	DWN	DATE	DES	DATE	

FILE: C:\12DS\DATA\ACSSYN\230008 HAACK - SANDY CREEK ROAD_615\DESIGN\DRAWING FILES\ACS-230008-GEN.DWG PLOT TIME: 23/6/2023 - 2:47PM BY USER: ACSENGINEER

MATT HAACK - HAACK LOGISTICS GROUP
590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285

HAACK - SANDY CREEK ROAD

590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285

EROSION AND SEDIMENT CONTROL - DETAILS

ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		23/06/23

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ACS Engineers
CIVIL | ENVIRONMENTAL | PROJECT MANAGEMENT

DRAWING NUMBER: ACS-230008-GEN-13
REVISION: 2

LEGEND

- GL — GEO LOG (COIR LOG)
- MB — MULCH BUNDS
- EXIT — ROCK PAD
- SEEDING
- FLOW — FLOW ARROW

				SURVEY DATA		MATT HAACK - HAACK LOGISTICS GROUP
				DATUM		590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
				MAP GRID		
				HEIGHT ORIGIN		HAACK - SANDY CREEK ROAD
2	FOR APPROVAL	MS	23/06/2023	SURVEY BOOKS		
1	PRELIMINARY	MA	19/04/2023	MA	02/2023	590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
REVISION/DETAILS		DWN	DATE	DES	DATE	

FILE: C:\12DS\DATA\ACSSYN\230008 HAACK - SANDY CREEK ROAD_615\DESIGN\DRAWING FILES\ACS-230008-GEN.DWG PLOT TIME: 23/6/2023 - 2:47PM BY USER: ACSENGINEER

EROSION AND SEDIMENT CONTROL - PLAN

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ENGINEERING CERTIFICATION (RPEQ)

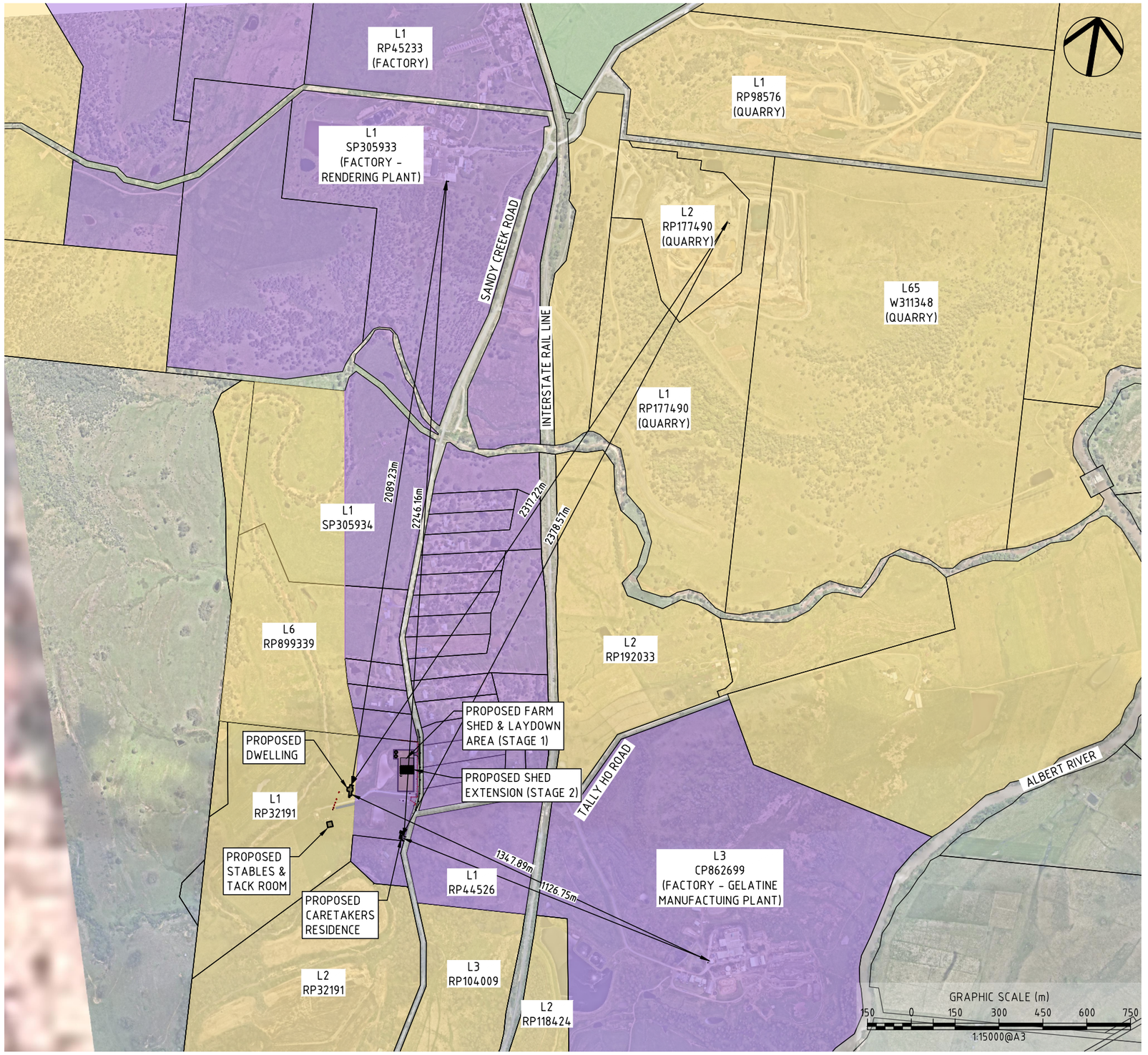
#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		23/06/23

DRAWING NUMBER: ACS-230008-GEN-14

REVISION: 2

LEGEND

- MEDIUM - HIGH IMPACT INDUSTRY PRECINCT
- RAIL DEPENDANT INDUSTRY PRECINCT
- SPECIAL INDUSTRY PRECINCT
- TRANSITION PRECINCT



				SURVEY DATA		MATT HAACK - HAACK LOGISTICS GROUP
				DATUM		590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
				MAP GRID		
				HEIGHT ORIGIN		HAACK - SANDY CREEK ROAD
2	FOR APPROVAL	MS	23/06/2023	SURVEY BOOKS		
1	PRELIMINARY	MA	19/04/2023	MA	02/2023	590 SANDY CREEK ROAD, JOSEPHVILLE QLD 4285
REVISION/DETAILS		DWN	DATE	DES	DATE	

FILE: C:\12DS\DATA\ACSSYN\230008 HAACK - SANDY CREEK ROAD_615\DESIGN\DRAWING FILES\ACS-230008-GEN.DWG PLOT TIME: 10/7/2023 - 1:31PM BY USER: MARCELAALVES

SURROUNDING PRECINCTS LAYOUT

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ENGINEERING CERTIFICATION (RPEQ)

#	FIELD	NAME	SIGNATURE	DATE
13697	CIVIL	S. SHAY		10/07/23

DRAWING NUMBER	REVISION
ACS-230008-GEN-15	2