



Level One Inspection and Testing

PROJECT: ALLUVIUM ESTATE STAGE 1
REPORT NUMBER: AGTE21118

| Geotechnical Investigation and Design | Pavement Investigation and Design | Residential | Environmental Assessment |
| Earthworks Specification's | Level 1 Supervision | Retaining Walls | Slope Stability Assessment |
Adelaide | Ballarat | Melbourne | Warrnambool | Queensland



Prepared for:
Wayne Horne Earthmoving
26 April 2021



Contents

Contents	2
1. Introduction	3
2. Scope of Works	3
3. Inspections / Supervision	3
4. Testing	3
5. Conclusion.....	4
6. Applicability	5
Appendix A – Site Plan.....	6
Appendix B – Laboratory Test Results	7
Appendix C – Site Photos	8

1. Introduction

Australian Geotechnical Testing (AGT) has been engaged by Wayne Horne Earthmoving to provide Level 1 Geotechnical Supervision for allotment filling of Alluvium Estate Stage 1 project.

This Level 1 report presents the results of supervision activities, compaction and moisture control, material placement and laboratory testing for ground works undertaken for the project. This report covers construction activities carried out **4th February 2020 till 4th March 2021**.

2. Scope of Works

The scope of works involved the placement of imported General Fill. Fill Material was placed in Level one fill areas, in accordance with **AS 3798-2007, Guidelines on earthworks for commercial and residential developments and project specifications**. The level of FILL to be placed is less than 5m as per AS3798 Section 1.1.

The fill material is required as per AS3798 and the project specification to achieve:

- **95% Standard Maximum Dry Density (Compaction)**

General fill material used for the construction was locally sourced and predominantly comprising of **CLAY**.

3. Inspections / Supervision

Level 1 supervision and inspection was undertaken including the supervision and inspections regarding the stripping and removal as per AS3798 Section 3 shall have removed:

- Organic soils, such as topsoils, severely root affected subsoils and peat.
- Contaminated soils are part of the brief.
- Materials which undergo volume change or loss of strength when disturbed and exposed to moisture.
- Silts, or materials that have deleterious engineering properties of silt.
- Other materials with properties that are unsuitable for the forming of structural fill.
- Fill that contains wood, metal plastic, boulders or other deleterious material, in sufficient proportions to affect the required performance of the fill.
- The maximum particle size of any rocks or other lumps, within the layer, has not exceeded two-thirds ($\frac{2}{3}$) of the compacted layer thickness.

The lots inspected were essentially homogeneous in relation to material type and moisture condition, rolling response and compaction technique and which has been used for the assessment of relative compaction of an area of work (AS3798 Section 1.2.8).

Prior to placement any existing filled ground, for which the conditions of the placement are not adequately documented have not been assumed to have been of either standard compaction or of the composition adequate to support fill or any loads has been removed (AS3798 Section 2).

4. Testing

The project was classified as **Commercial**, thereby requiring a minimum compaction result of **95%** density ratio Standard Compaction for the **cohesive soils** (AS 1289 5.7.1 & 5.1.1) throughout the Level 1 Fill and in

accordance with AS 3798-2007 – Table 5.1. The test was performed using a Nuclear Density Gauge for field density determination AS 1289.5.8.1.

As a minimum testing was undertaken either 1 test per lot, 1 test per 1,000m² per layer, or 1 test per 200m³ distributed reasonably evenly throughout full depth and area as per AS3798 Table 8.1.

The material was placed in approximately 200mm loose layers, rolling effort with on-site Compactor (to seal of each layer of placed General Fill material) to a compacted 150mm layer that achieved 95% Standard Compaction which met Australian Standards specifications. This was considered the best method to achieve compaction using the plant and machinery available.

The NATA compaction reports verify the achievement of the minimum density requirement of 98% Standard Compaction throughout the full depth area, with each layer tested accordingly. All test results were provided to our client for inclusion within their internal quality system.

At the completion of the structural layers and material within 150mm of permanent subgrade level in cuttings, test rolling was undertaken, and the layers withstood test rolling without visible deformation or springing (AS 3798 Section 5.5).

The area covered by this Level 1 Supervision report (site plan) are shown in the Appendix A, the Controlled-fill Certificates are shown in Appendix B, the results of the Laboratory Testing are shown in Appendix C, and the site photos are also indicated in Appendix D.

5. Conclusion

On the completion of the earthworks and after analysing the materials used, it has been concluded that the filling procedure **conducted by Client satisfies** the general requirements of AS 3798 regards to the placement of fill materials on a project under Level 1 Supervision and in accordance with the project specification as provided to AGT.

The fill meets the requirements for “structural fill for residential applications” in accordance with AS3798. The fill has been placed, compacted, and tested in accordance with AS3798 and the fill meets the requirements for controlled fill in accordance with AS2870 (2011) “Residential Slabs and Footings”.

This report has been prepared for the benefit of our client with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement. No responsibility for this report will be taken by AGT if it is altered in any way, or not reproduced in full.

6. Applicability

The findings and conclusions contained in this Report are made based on site conditions that existed at the time this work was conducted. The conclusions presented in this report are relevant to the conditions of the site and the state of legislation currently enacted as at the date of this report.

Findings and conclusions are made assuming that the soil, groundwater, geological and chemical conditions detailed within this report are accurate and remain applicable to the site at the time of writing. No other warranties are made or intended.

AGT has used a degree of skill and care ordinarily exercised by reputable members of our profession practicing in the same or similar locality.

AGT does not make any representation or warranty that the conclusions in this report will be applicable in the future as there may be changes in the condition of the site, applicable legislation or other factors that would affect the conclusions contained in this report.

This report has been prepared exclusively for use by our Client. This report cannot be reproduced without the written authorisation of AGT and then can only be reproduced in its entirety.

A handwritten signature in black ink that reads 'Amir Farazmand'.

Amir Farazmand
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0419 349 906





Appendix A – Site Plan

NOTES:

- THE WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT INFRASTRUCTURE DESIGN MANUAL (I.D.M.) STANDARD DRAWINGS AND SPECIFICATIONS. WORKS SHALL BE CARRIED OUT TO THE SATISFACTION OF COUNCIL'S SUPERVISING OFFICER.
- THE CONTRACTOR IS RESPONSIBLE FOR SAFETY OF WORK ON SITE IN ACCORDANCE WITH APPROPRIATE LEGISLATION. THEY SHALL ERECT AND MAINTAIN ALL SHORING, PLANKING AND STRUTTING, DEWATERING DEVICES, BARRICADES, SIGNS, LIGHTS, ETC. NECESSARY TO KEEP WORKS IN A SAFE AND STABLE CONDITION, AND TO PROTECT THE PUBLIC FROM HAZARDS ASSOCIATED WITH THE WORKS.
- THE CONTRACTOR SHALL:
 - COMPLY WITH THE SAFETY REQUIREMENTS OF THE MINES ACT, GENERAL REGULATIONS AND STATUTORY RULES, AND THE MINES (TRENCHES) REGULATIONS 1982.
 - NOTIFY THE OCCUPATIONAL HEALTH AND SAFETY AUTHORITY OF HIS INTENTION TO COMMENCE TRENCHING OPERATIONS WHERE TRENCHES ARE 1.5 METRES OR DEEPER.
 - ENSURE THAT THE MINE MANAGER OR HIS DEPUTY AS REQUIRED BY THE REGULATIONS IS IN ATTENDANCE WHEN TRENCHING OPERATIONS ARE IN PROGRESS.
- THE CONTRACTOR IS TO NOTIFY COUNCIL AND ALL SERVICE AUTHORITIES SEVEN (7) DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- THE LOCATION OF EXISTING SERVICES SHOULD BE DETERMINED BY THE CONTRACTOR PRIOR TO COMMENCING ANY EXCAVATION BY CONTACTING ALL RELEVANT SERVICE AUTHORITIES. ANY EXISTING SERVICES SHOWN ON THE DRAWINGS ARE OFFERED AS A GUIDE ONLY AND ARE NOT GUARANTEED AS CORRECT.
- TREES MARKED ON THE APPROVED PLANS FOR REMOVAL MUST BE REMOVED FROM THE SITE PRIOR TO THE COMMENCEMENT OF WORKS. NO EXCAVATION SHALL BE CARRIED OUT WITHIN 5.0m OF ANY EXISTING TREE UNTIL APPROVAL HAS BEEN GIVEN BY COUNCIL'S SUPERVISING OFFICER. THE REMOVAL OR RETENTION OF EXISTING TREES MUST BE IN ACCORDANCE WITH THE APPROVED LANDSCAPE PLANS. OTHERWISE, APPROVAL WILL BE REQUIRED FROM COUNCIL'S LANDSCAPE APPROVAL OFFICER.
- ALL ROAD CHAINAGES ARE MEASURED ALONG THE ROAD DESIGN LINE EXCEPT KERB RETURNS AND COURTHEADS, WHERE LIP OF KERB CHAINAGES ARE SPECIFIED. ALL DIMENSIONS AND RADII ARE GIVEN TO THE LIP OF KERB UNLESS NOTED OTHERWISE. DO NOT SCALE OFF THESE DRAWINGS, WRITTEN DIMENSIONS ONLY SHALL BE USED.
- CONDUIT LOCATIONS ARE SUBJECT TO AMENDMENT AND CONDUITS SHALL NOT BE LAID UNTIL WRITTEN APPROVAL IS GIVEN BY THE SUPERINTENDENT. CONDUITS TO BE PLACED A MINIMUM OF 5m FROM BOUNDARIES/EASEMENTS AND TO THE SATISFACTION OF THE SUPERINTENDENT. BOTH KERBS ARE TO BE MARKED WITH THE LETTERS G,W,E AND T ABOVE CONDUIT LOCATIONS AS SPECIFIED. TELSTRA CONDUITS WILL BE SUPPLIED BY TELSTRA AT TELSTRA'S EXPENSE. IN TRENCHES EXCAVATED AND BACKFILLED BY THE CONTRACTOR, TELSTRA SIZE VARIES - WHITE P.V.C., TELSTRA TO BE NOTIFIED 7 DAYS PRIOR TO PLACEMENT OF CONCRETE WORKS. GAS AND WATER CONDUITS TO BE 50mm DIA. HEAVY DUTY P.V.C. LAID AT A MINIMUM DEPTH OF 600mm BELOW ROAD FINISHED SURFACE LEVELS.
- SUBSOIL DRAINS SHALL BE INSTALLED BEHIND ALL KERB AND CHANNEL AS PER I.D.M. & COUNCIL SPECIFICATIONS AND STANDARD DRAWINGS.
- ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM.
- THE CONTRACTOR SHALL CO-OPERATE WITH OTHER AUTHORITIES AND SHALL ENSURE THAT ALL SERVICES ARE INSTALLED PRIOR TO THE FINAL PAVEMENT COURSE. THE CONTRACTOR SHALL CHECK WITH THE SUPERINTENDENT THE EXACT LOCATION OF ALL SERVICES PRIOR TO THE INSTALLATION OF CONDUITS.
- ANY EXISTING PAVEMENT OR DRAINAGE WORKS DAMAGED DURING CONSTRUCTION OR THE MAINTENANCE PERIOD TO BE REINSTATED TO THE SATISFACTION OF THE COUNCIL REPRESENTATIVE.
- FILLING IN PROPERTIES AND ROAD RESERVE IS TO BE CARRIED OUT USING APPROVED CLAY FILL. TOPSOIL AND ALL VEGETABLE MATTER TO BE STRIPPED FROM FILL SITE PRIOR TO FILLING. ALL FILLING TO BE CARRIED OUT IN 150mm LAYERS AND COMPACTED TO 95% OF MAX. DRY DENSITY UNDER THE STANDARD AASHTO TEST. ALL FILLING TO COMPLY WITH AS 3798/1996, APPENDIX B, LEVEL 1. INDIVIDUAL LOT CERTIFICATES ARE TO BE PROVIDED TO THE SUPERINTENDENT. IF ANY EXISTING SUBSTANDARD FILLING IS ENCOUNTERED ON THE SITE, IT MUST BE REMOVED AND REPLACED WITH APPROVED FILL MATERIAL COMPACTED TO COUNCIL REQUIREMENTS. A GEOTECHNICAL REPORT MUST BE SUBMITTED SHOWING DETAILS OF DEPTH, TYPE OF MATERIAL AND DENSITY OF THE FILL AREAS CONCERNED.
- THE NATURE STRIPS AND CUT OR FILLED AREAS ARE TO BE TOPSOILED WITH 75mm OF APPROVED MATERIAL. IF THE LOCAL SOIL IS NOT SUITABLE, APPROVED SOIL SHALL BE IMPORTED AT THE CONTRACTOR'S EXPENSE.
- UNLESS OTHERWISE SHOWN, BATTERS INTO ALLOTMENTS SHALL NOT BE STEEPER THAN 1 IN 3 CUT AND 1 IN 6 FILL. CUT BATTERS ARE TO BE GRASSED AND MULCHED WITH A MIXTURE OF CHOPPED GRASS, STRAW AND BITUMEN EMULSION.
- LOTS SHALL BE GRADED TO ENSURE A MINIMUM GRADE OF 1 IN 150 ON THE LOWEST SIDE BOUNDARY TO THE POINT OF DRAINAGE UNLESS NOTED OTHERWISE.
- STORMWATER DRAINS UNDER PAVEMENTS, FOOTPATHS AND DRIVEWAYS TO BE BACKFILLED WITH CLASS 3 CRUSHED ROCK UNLESS NOTED OTHERWISE.
- STORMWATER DRAINS BEHIND KERB SHALL BE BACKFILLED IN ACCORDANCE WITH 'DRAINAGE TRENCH BACKFILL' DETAIL ON SHEET 21, UNLESS NOTED OTHERWISE.
- DRAINAGE PIT LIDS SHALL BE LIGHT WEIGHT COVERS SUCH AS 'SVC' OR 'TERRAFIRMA' OR AN APPROVED EQUIVALENT UNLESS NOTED OTHERWISE IN PIT SCHEDULE. ALL GRATES SHALL BE CLASS 'D' AND COMPLY WITH AS3996. STEP IRONS SHALL CONFORM TO COUNCIL STD DWGS.
- HOUSE DRAINS SHALL BE CONNECTED DIRECT TO AN UNDERGROUND DRAIN OR PIT IF POSSIBLE.
- ALL DRAINAGE PIPES UNDER ROADS SHALL BE INSTALLED IN ACCORDANCE WITH SD 310.
- PROPERTY INLET PITS ARE TO BE LOCATED 100m FROM LOW SIDE BOUNDARY UNLESS OTHERWISE SHOWN. INVERT LEVEL OF PROPERTY INLET IS TO BE A MINIMUM OF 500mm BELOW FINISHED/EXISTING SURFACE LEVEL. PROPERTY INLET PITS SHALL BE MODIFIED BY OMITTING THE GRATED COLLECTION PIT COMPONENTS OF THE ASSEMBLY.
- COUNCIL'S INFRASTRUCTURE WORKS SUPERVISOR IS TO BE NOTIFIED TWO (2) CLEAR DAYS PRIOR TO COMMENCEMENT OF WORKS.
- DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAIL ON SHEET 2.
- ALL FOOTPATHS AND SHARED PEDESTRIAN/BICYCLE PATHS SHALL BE 125mm THICK CONCRETE AND CONFORM TO SD205. TACTILE GROUND SURFACE INDICATORS (TGSII) ARE TO BE INSTALLED AT ALL PRAM CROSSINGS AND PEDESTRIAN CROSS POINTS IN ACCORDANCE WITH AS1428, UNLESS OTHERWISE SHOWN.
- SIGNS, PAVEMENT MARKINGS AND DELINEATORS ARE TO BE INSTALLED AS APPLICABLE IN ACCORDANCE WITH AS1742.2. ALL PAVEMENT MARKINGS TO BE LONG LIFE ROAD MARKING WITH LONGITUDINAL LINES IN THERMOPLASTIC AND TRANSVERSE MARKINGS IN COLD APPLIED.
- ANY SOFT ROCK USED IS TO CONFORM TO THE CITY OF BALLARAT SPECIFICATION FOR RIPPED ROCK.
- APPROPRIATE SILTATION CONTROL IS TO BE CARRIED OUT DURING THE CONSTRUCTION AND MAINTENANCE PERIODS.

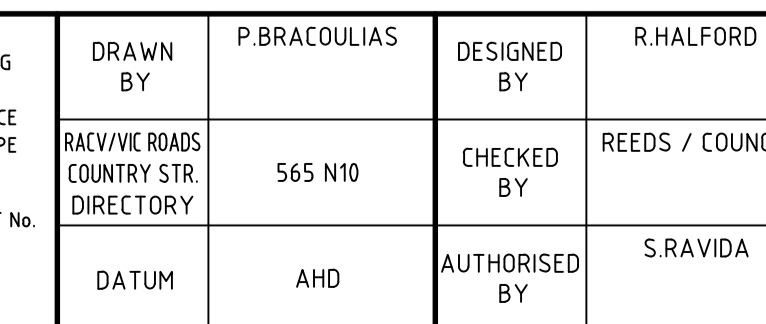
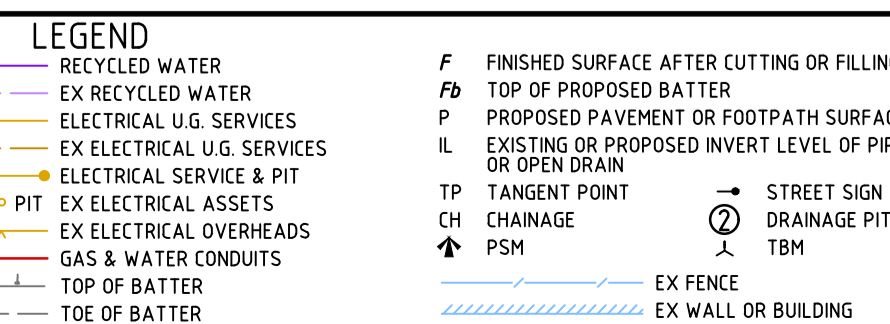
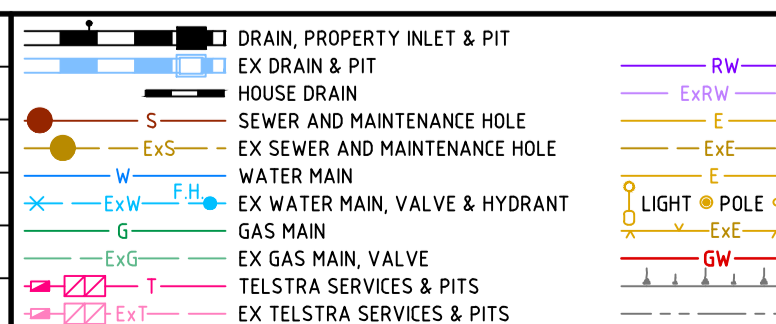
SERVICES SCHEDULE

STREET NAME	GAS	D-WATER	TELEC.	ELECT.	ELECT. POLES	SEWER	STREET TREES	ROAD RESERVE
CUMBERLAND BOULEVARD	2.10 W	2.70 W	1.90 E	2.60 E		N/A	2.30 BOTH	20.00
BARWON AVENUE	2.10 E	2.60 E	2.10 W	2.60 W		1.00 E	4.00 BOTH	18.00
ERSKINE ROAD	2.10 S	2.70 S	1.90 N	2.60 N		0.80 S	1.00 B.O.K. BOTH	20.00
SUGARLOAF STREET	2.10 S	2.60 S	1.85 N	2.60 N		N/A	1.00 B.O.K. BOTH	18.00
SERVICE ROAD	4.125 S	4.725 S	2.825 S	3.375 S		N/A	1.00 B.O.K. BOTH	10.00
BALLARAT - CARNGHAM RD WEST OF WETLANDS	2.175 S	X EX 4.2 S VAR.3.0-3.9 N	X EX - 4.5M 0.225 S	X EX -0.2 S 0.575 S	1.3 S	EX 1.3 N	-	4.0 APPROX.
BALLARAT - CARNGHAM RD ADJ. TO WETLANDS	1.125 S	X EX 4.4 S 3.9 N	X EX - 4.5M 2.85 S	X EX -0.15 S 3.2 S	3.66 S	EX 1.3 N	-	4.0 APPROX.
BALLARAT - CARNGHAM RD ADJ. TO SERVICE RD	X EX 0.45 S 0.44 S	X EX 4.4 S 3.9 N	X EX - 4.5M -	-	3.2 S	EX 1.3 N	-	4.0 APPROX.

* DENOTES EXISTING SERVICE EXACT LOCATION TO BE PROVEN ON SITE BY CONTRACTOR.
ALL OFFSETS ARE REFERENCED TO NEAREST T.B.

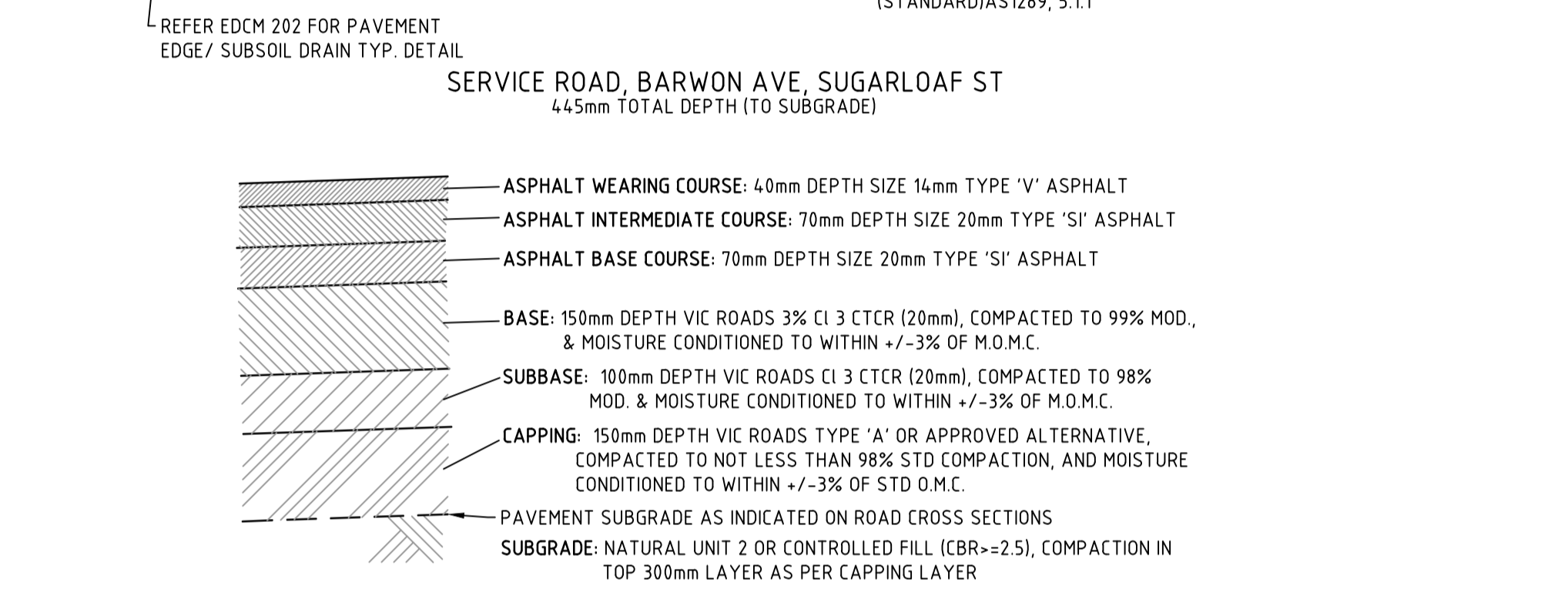
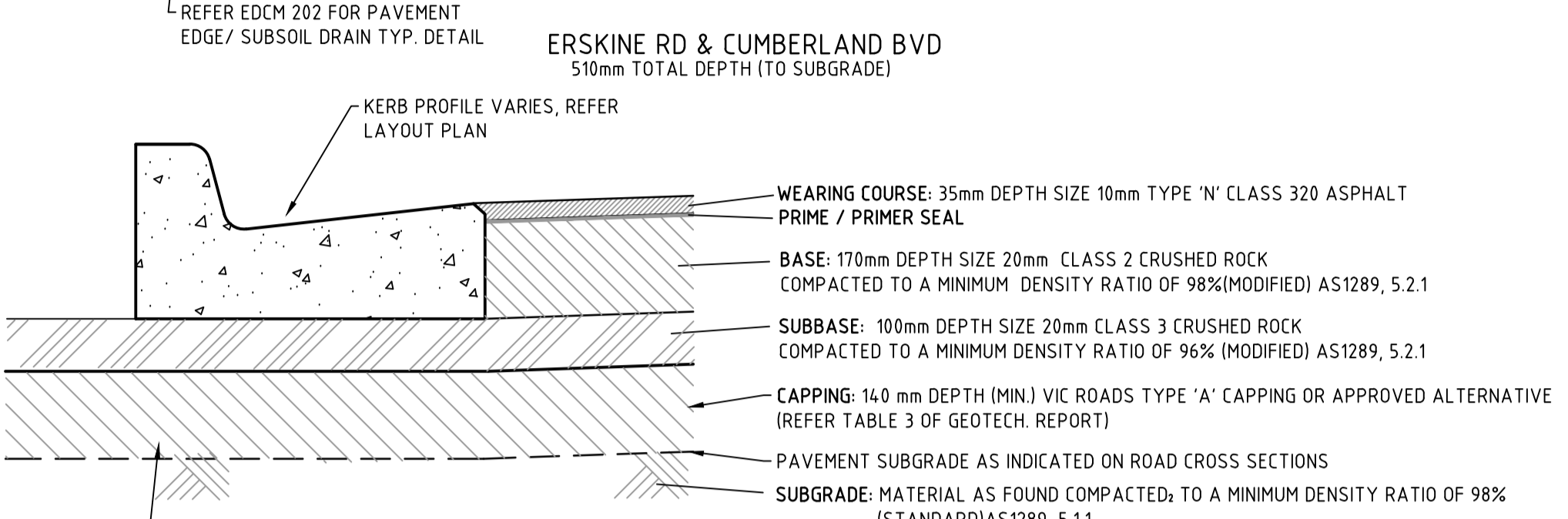
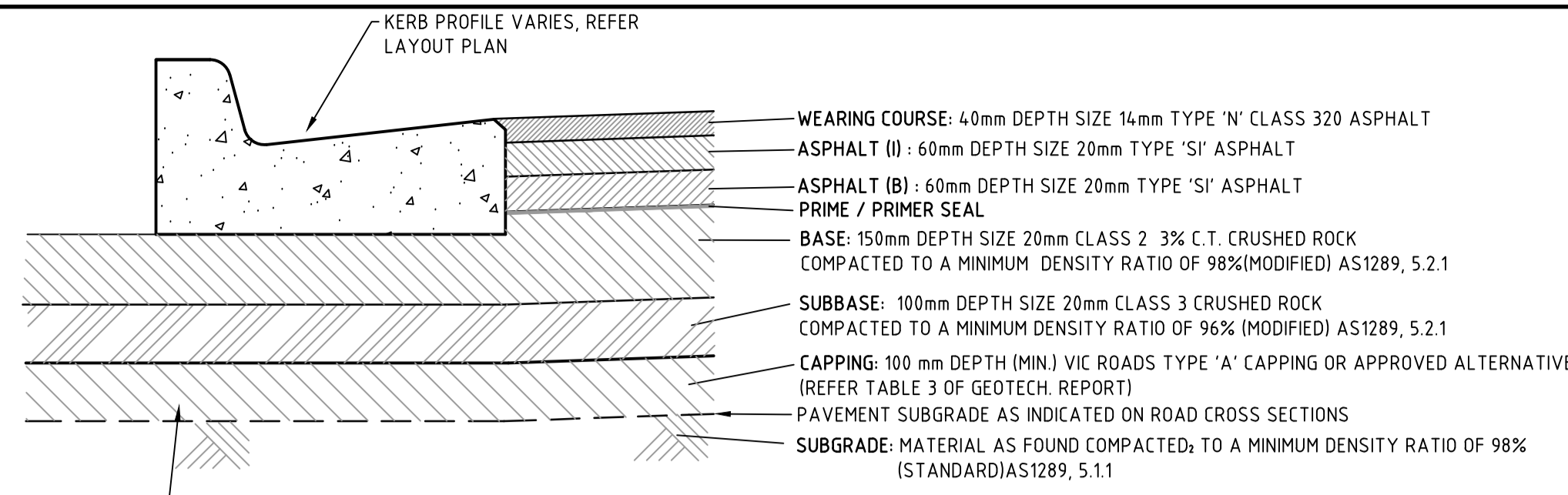
THIS DRAWING IS NOT TO BE COPIED OR SCALED

VERSION	REMARKS	DATE	BY
H	AMENDED AS PER VIC ROADS COMMENTS 27.05	31.05.19	RDH
G	MISC. AMENDMENTS	23.05.19	RDH
F	REVIEWED, ISSUED FOR CONSTRUCTION	14.05.19	RDH
E	ISSUED FOR CONSTRUCTION	10.04.19	RDH
D	ISSUED FOR TENDER	18.02.19	RDH

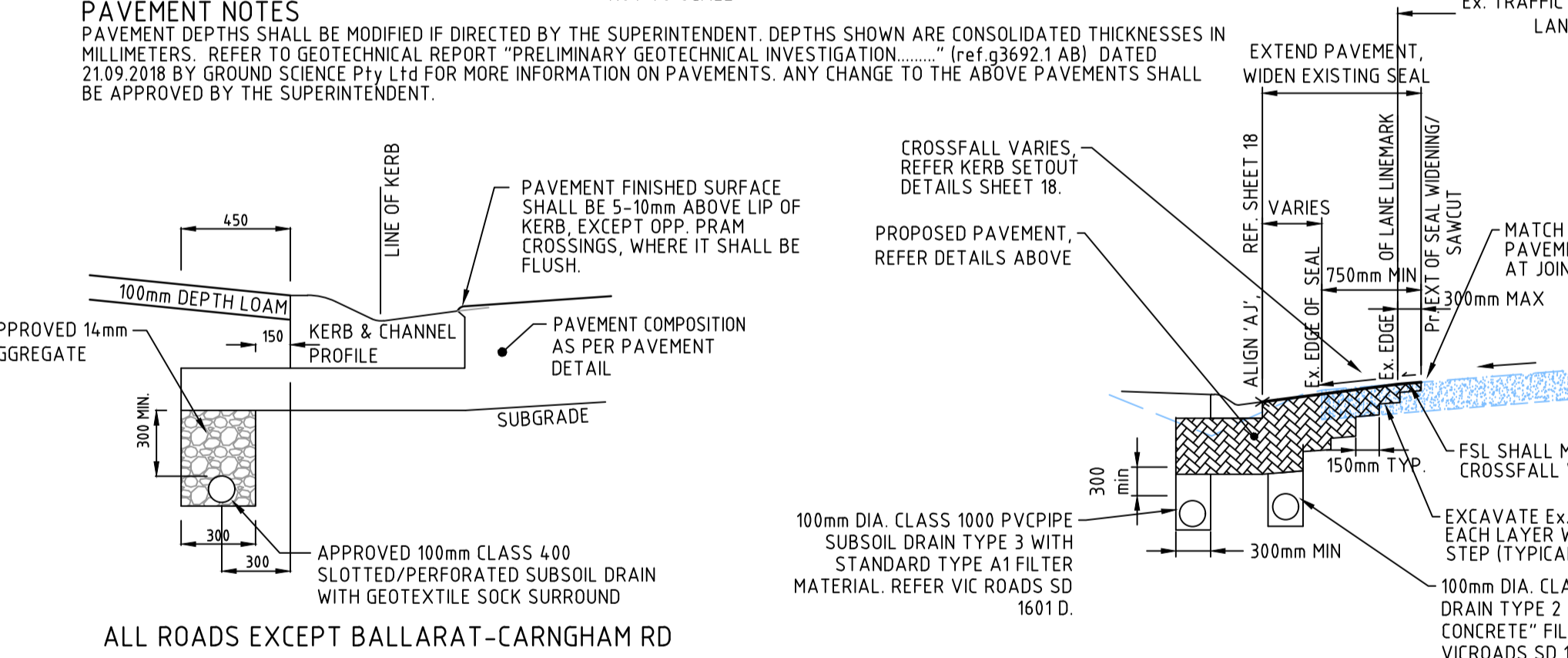


CITY OF BALLARAT
ALLUVIUM ESTATE
STAGE 1
GENERAL NOTES, LOCALITY PLAN
& DRAWING INDEX

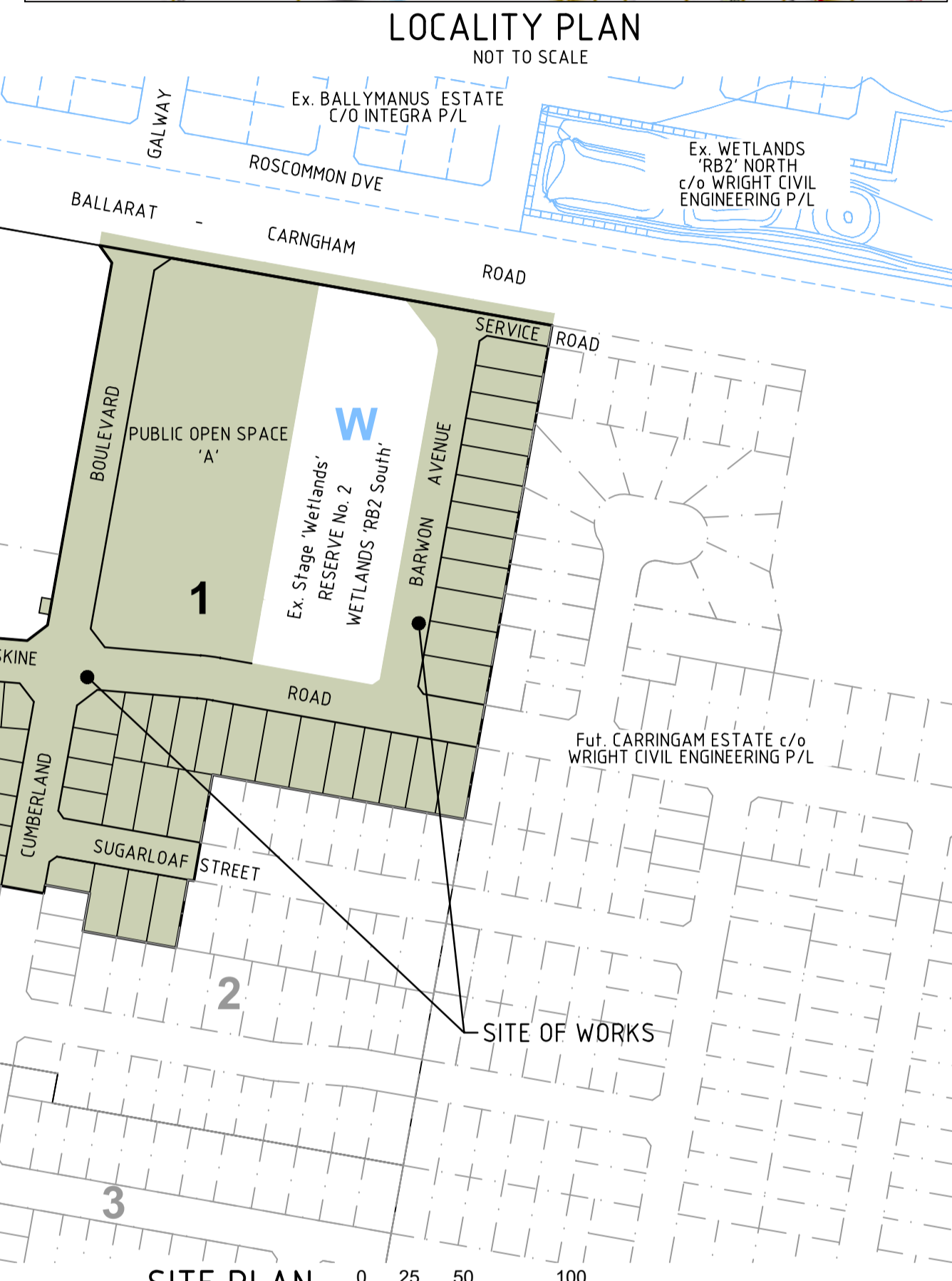
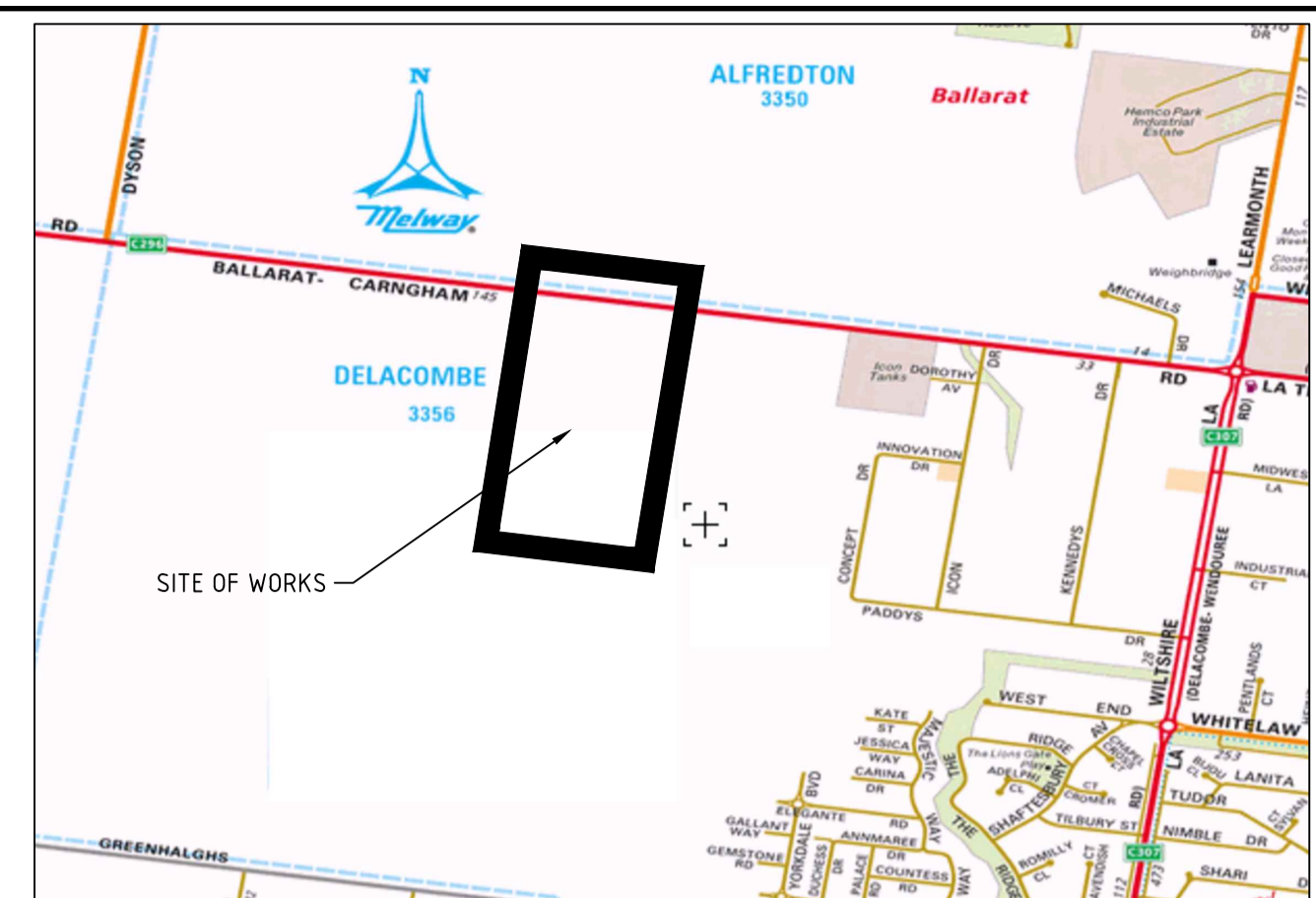
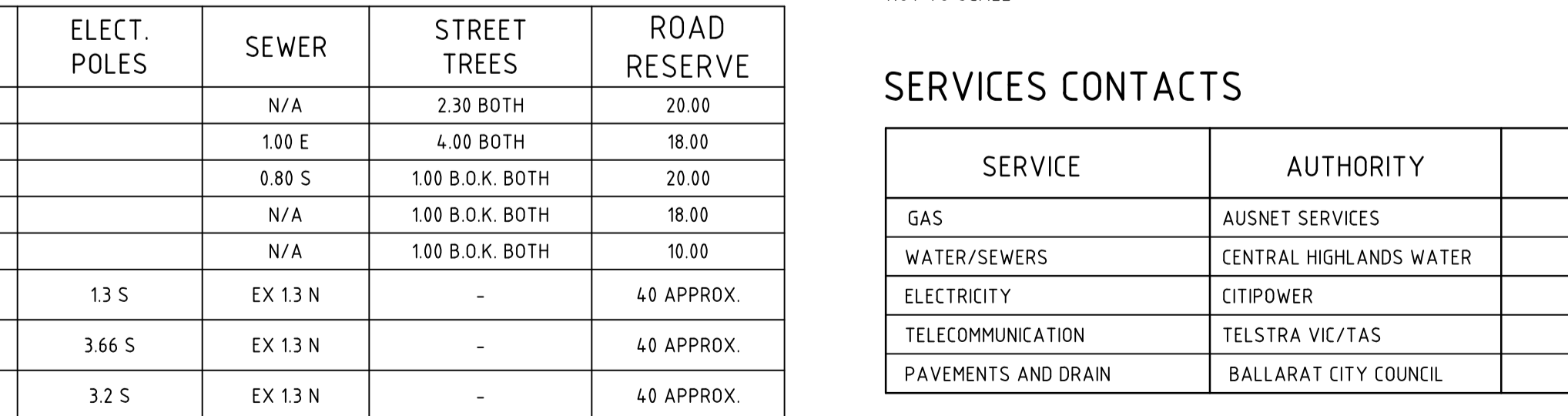
DRAWING No.	VERSION
1R1	H
REFERENCE	
22558e_1	
SHEET	1 OF 27



PAVEMENT DETAILS
NOT TO SCALE



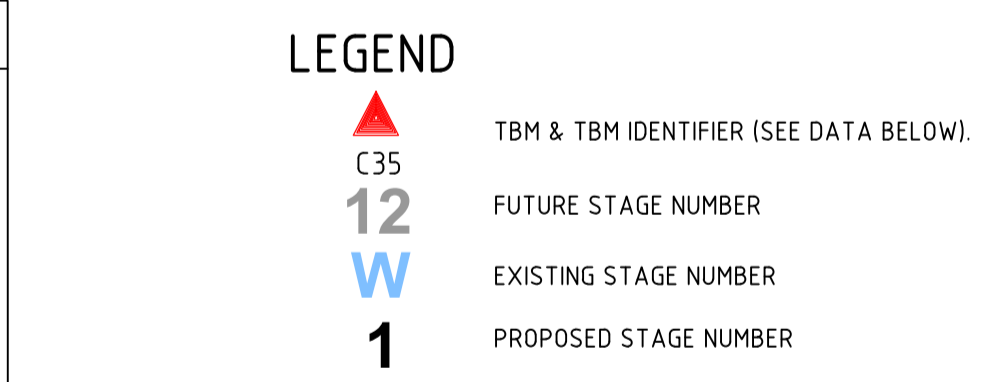
PAVEMENT/SUBSOIL DRAIN DETAILS
TYPICAL DETAILS
NOT TO SCALE



DRAWING INDEX

SHEET NO.	DRAWING TITLE
1R1	GENERAL NOTES, LOCALITY PLAN & DRAWING INDEX
1R2	LAYOUT PLAN - 1
1R3	LAYOUT PLAN - 2
1R4	ROAD LONGITUDINAL AND CROSS SECTIONS - 1 BARWON AVENUE
1R5	ROAD CROSS SECTIONS - 2 BARWON AVENUE & BALLARAT-CARNGHAM ROAD LHT LANE
1R6	ROAD LONGITUDINAL AND CROSS SECTIONS - 1 CUMBERLAND BVD
1R7	ROAD CROSS SECTIONS - 2 CUMBERLAND BVD
1R8	ROAD CROSS SECTIONS - 3 CUMBERLAND BVD
1R9	ROAD CROSS SECTIONS - 4 CUMBERLAND BVD
1R10	ROAD LONGITUDINAL AND CROSS SECTIONS - 1 ERSKINE RD
1R11	ROAD CROSS SECTIONS - 2 ERSKINE RD
1R12	ROAD CROSS SECTIONS - 3 ERSKINE RD
1R13	ROAD CROSS SECTION 4 - ERSKINE RD, ROAD LONG. & CROSS SECT. 1 - SERVICE ROAD
1R14	ROAD CROSS SECTION 2 - SERVICE ROAD, ROAD LONG. & CROSS. SECT. 1 - SUGARLOAF ST
1R15	ROAD CROSS SECTIONS 2 - SUGARLOAF STREET
1R16	INTERSECTION DETAILS AND ALIGNMENT PROFILES - 1
1R17	INTERSECTION DETAILS AND ALIGNMENT PROFILES - 2
1R18	INTERSECTION DETAILS AND ALIGNMENT PROFILES - 3
1R19	DRAINAGE LONGITUDINAL SECTIONS - 1
1R20	DRAINAGE LONGITUDINAL SECTIONS - 2
1R21	DRAINAGE LONGITUDINAL SECTIONS - 3, PIT SCHEDULE & TYPICAL DETAILS
1R22	LINEMARKING AND SIGNAGE PLAN, LAYOUT PLAN - 1
1R23	LINEMARKING AND SIGNAGE PLAN, LAYOUT PLAN - 2
1R24	PLAN OF SUBDIVISION
1R25	COUNCIL / VIC ROADS DEMARKATION PLAN, VIC ROADS SPLITTER ISLAND
1R26	ALIGNMENT SET OUT DATA - 1 & ALIGNMENT PROFILES - 4
1R27	ALIGNMENT SET OUT DATA - 2, PIT DETAILS

LEGEND



TBM DATA

No.	Easting	Northing	R.L.	Description
1	746 988.201	5 838 417.231	435.658	STN 1 SPIKE
10	746 819.104	5 838 310.567	435.547	STN 10 PIPE
12	746 710.274	5 838 079.238	437.332	STN 12 PIPE
11	746 914.267	5 838 152.614	435.669	STN 11 PIPE

WARNING
 BEWARE OF UNDERGROUND SERVICES
 THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

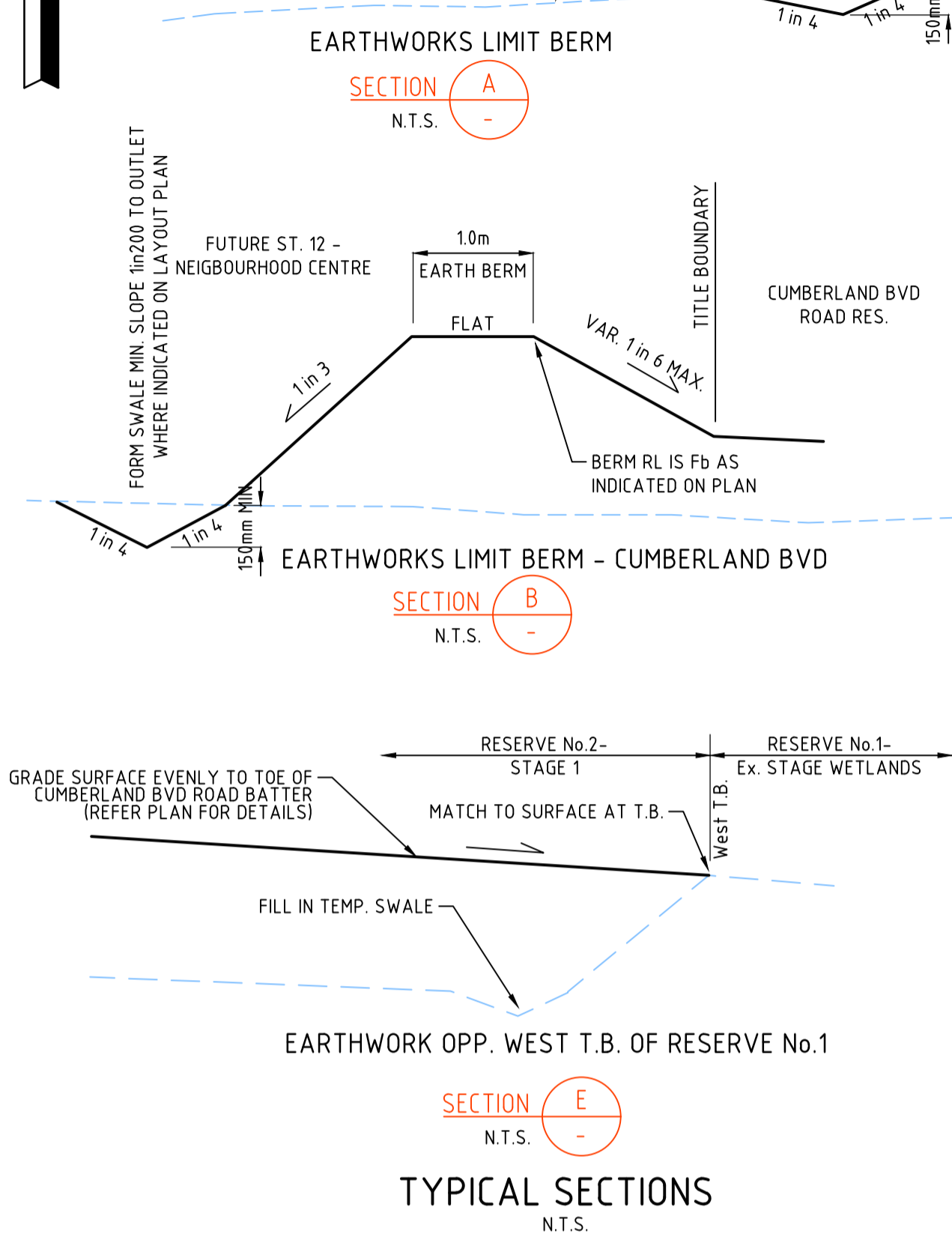
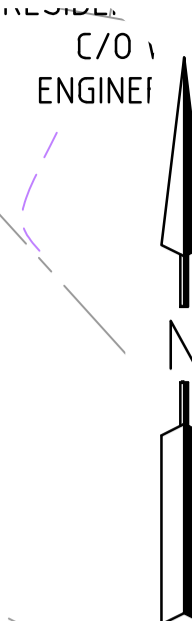
CONSTRUCTION PLAN

H:\22558\STAGE 1\CADD\DWG\SET\ROAD AND DRAINAGE\22558E_1R1.DWG

FUTURE STAGE 12

RESERVE No.1

EXISTING STAGE WETLANDS



LAYOUT LEGEND

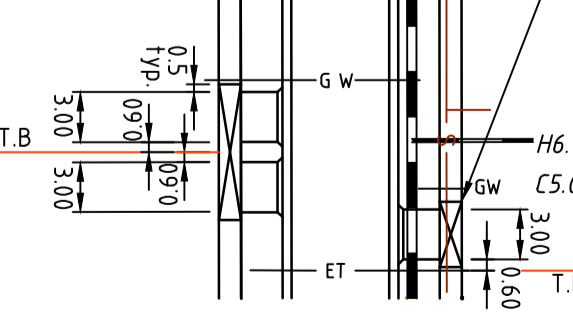
- EXISTING FEATURES (GENERALLY)
FUTURE FEATURES (GENERALLY)
ES 150x150 CONCRETE EDGE STRIP AT PAV'T EXTENT WITH SUBSOIL DRAIN UNDERNEATH, CONNECTED TO KERB SUBSOIL DRAINS.
B2 600mm BARRIER TYPE KERB AND CHANNEL AS PER No.2 (B) ON CITY OF BALLARAT SD-K1
GW PROPOSED GAS & WATER CONDUITS
ET PROPOSED ELECT. & TELECOMM. CONDUITS
PROPOSED OVERALL DIRECTION OF LOT FALL TO LEGAL POINT OF DISCHARGE
EXISTING SURFACE CONTOURS (0.2m INT.)
PROPOSED DRAIN / EASEMENT DRAIN, WITH EASEMENT DRAIN CONNECTION (EDC) AS PER I.D.M. SD 515. ALL EDC ARE OFFSET 1.0m FROM TITLE BOUNDARY UNLESS NOTED OTHERWISE.
CUT EARTHWORKS - CUT AREA WITHIN LOTS GREATER THAN 150mm DEPTH (REFER NOTE 2 BELOW).
FILL EARTHWORKS - FILL AREA WITHIN LOTS GREATER THAN 150mm DEPTH (REFER NOTE 2 BELOW).
PROPOSED 150mm DEPTH CL 3 (NOM 20mm) F.C.R. PAVEMENT, BATTER TO SURFACE @ 1in6 AT EDGES & ACHIEVE FREE DRAINING SURFACE.
SECTION MARKER DENOTING SECTION 'A' ON THIS SHEET
PROPOSED SWALE

LAYOUT PLAN 1

Scale 1:500 @ A1

NOTES

- 1. DESIGN LINE IS CENTRAL OR PARALLEL TO ROAD RESERVE TITLE BOUNDARY IN ALL PLACES, UNLESS NOTED OTHERWISE. ITS LOCATION IS INDICATED ON TYPICAL CROSS-SECTIONS UNLESS NOTED OTHERWISE.
2. THIS PLAN SHOWS ONLY APPROXIMATE EXTENTS & LEVELS OF FILL TO BE PLACED DURING CONSTRUCTION. DEPTH OF FILL USED FOR TOP DRESSING ALL ALLOTMENTS MAY VARY BY UP TO 0.15m. THE EXTENT OF FILL SHOWN IS BASED ON DESIGN AND MAY BE SUBJECT TO CHANGE FOLLOWING FINAL INSPECTION BY GEOTECHNICAL ENGINEER.
3. REFER TO LINEMARKING OR INTERSECTION DETAIL SHEETS FOR TACTILE MARKING DETAILS.
4. I.D.M. = "INFRASTRUCTURE DESIGN MANUAL".
5. ALL STANDARD DRAWINGS NOTED REFER TO STANDARD DRAWINGS IN THE I.D.M. UNLESS NOTED OTHERWISE.



TYPICAL NOTATIONS - EXAMPLE

Table with 4 columns: VERSION, REMARKS, DATE, and initials. Includes entries for 'ISSUED FOR CONSTRUCTION', 'ISSUED FOR TENDER', and 'ISSUED FOR APPROVAL'.

LEGEND table with 4 columns: Symbol, Description, and Abbreviation. Lists symbols for drains, water mains, electrical services, and fences.

Table with 4 columns: DRAWN BY, DESIGNED BY, CHECKED BY, AUTHORIZED BY. Lists names like P.BRACOLIUS, R.HALFORD, and S.RAVIDA.

REEDS CONSULTING logo and contact information including website and address.

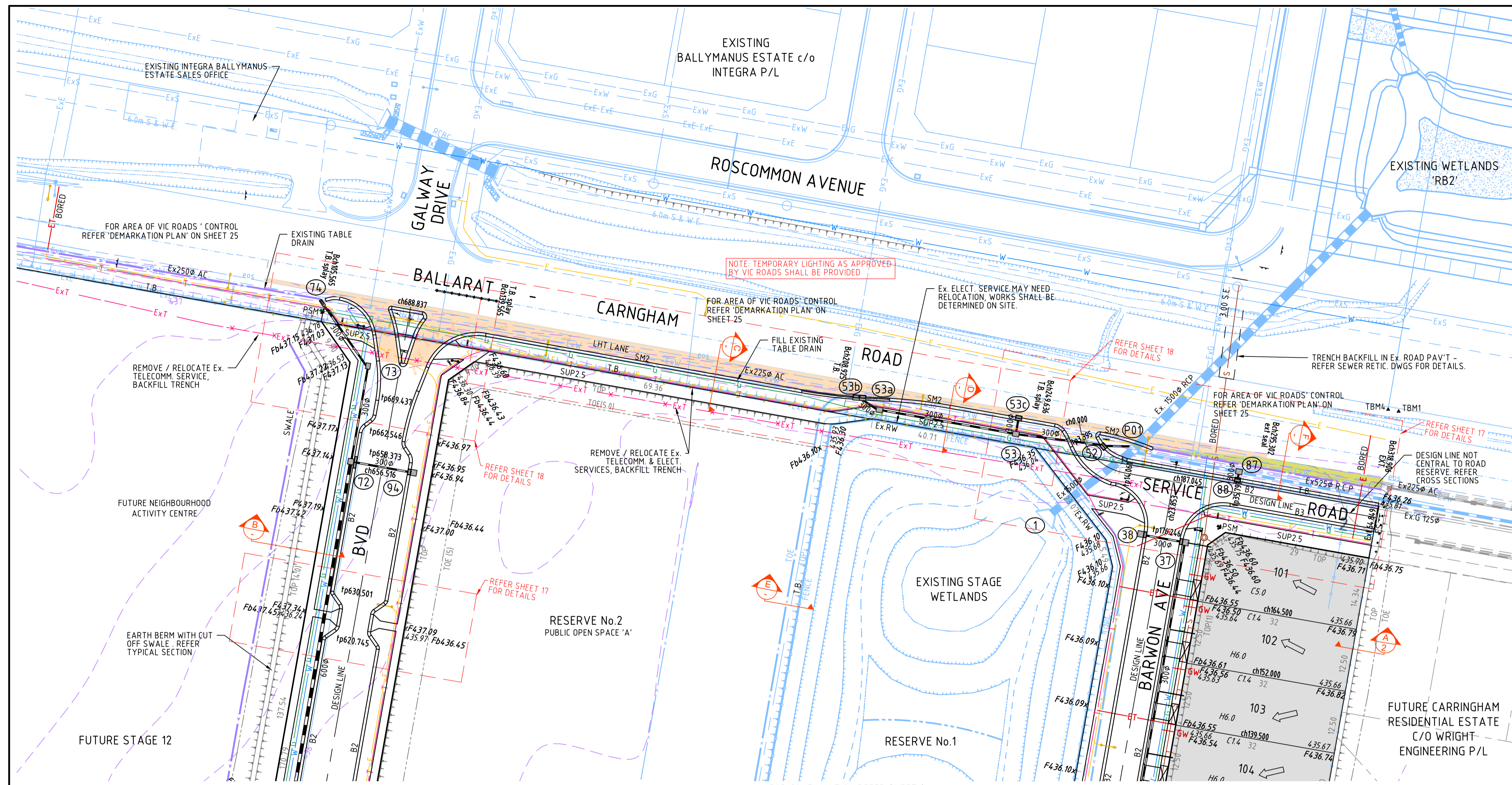
LAND SURVEYING CIVIL ENGINEERING PLANNING DEVELOPMENT CONSULTING text.

CITY OF BALLARAT ALLUVIUM ESTATE STAGE 1 LAYOUT PLAN - 1. Includes drawing number 1R2, version G, and sheet 2 of 27.

WARNING BEWARE OF UNDERGROUND SERVICES THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

CONSTRUCTION PLAN logo.

H:\22558\STAGE 1\CADD\DWG SET\ROAD AND DRAINAGE\22558E_1R2_3_16-18_26.DWG



LAYOUT LEGEND

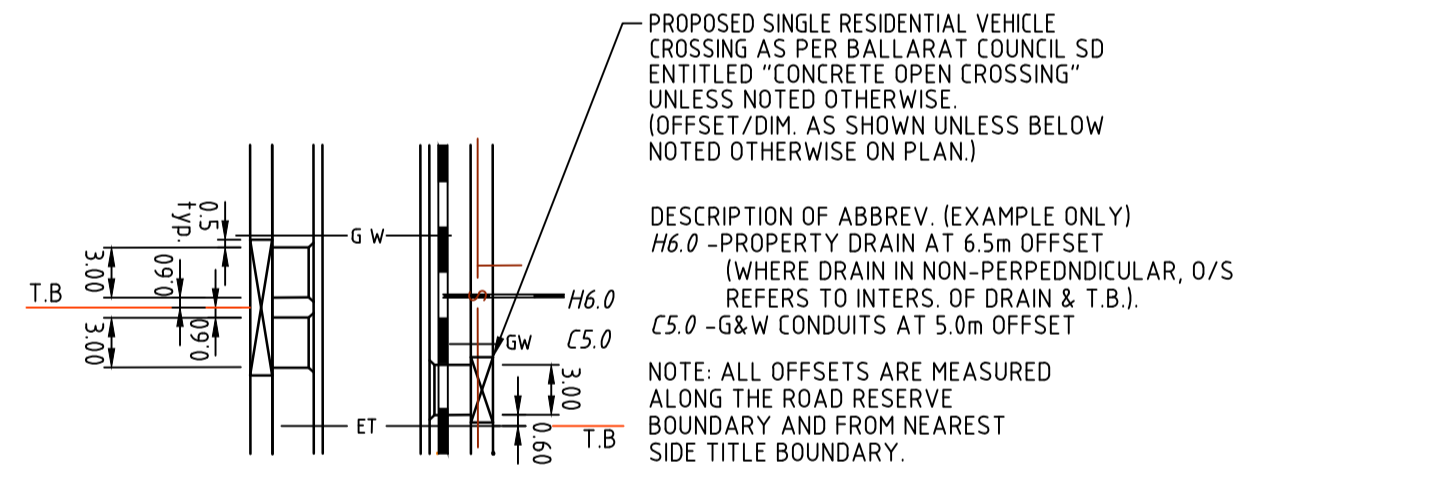
EXISTING FEATURES (GENERALLY)

FUTURE FEATURES (GENERALLY)

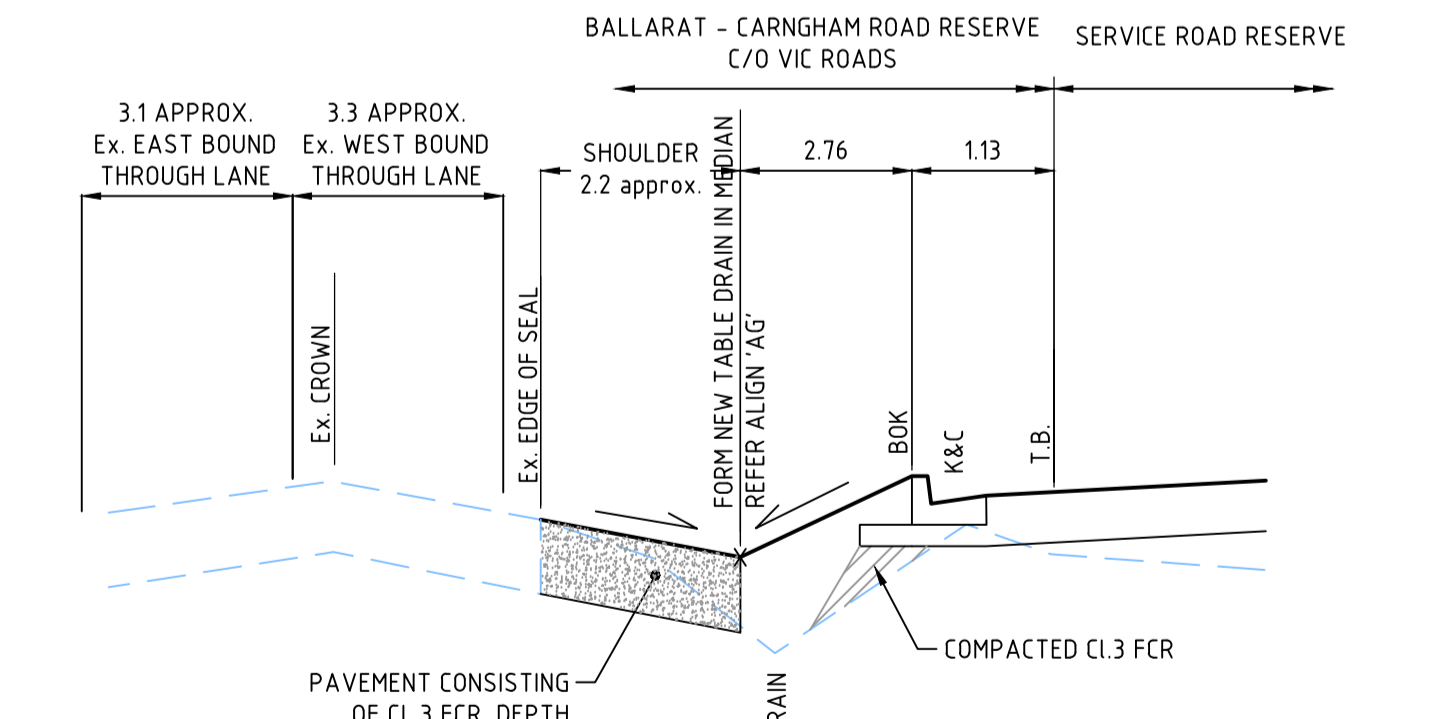
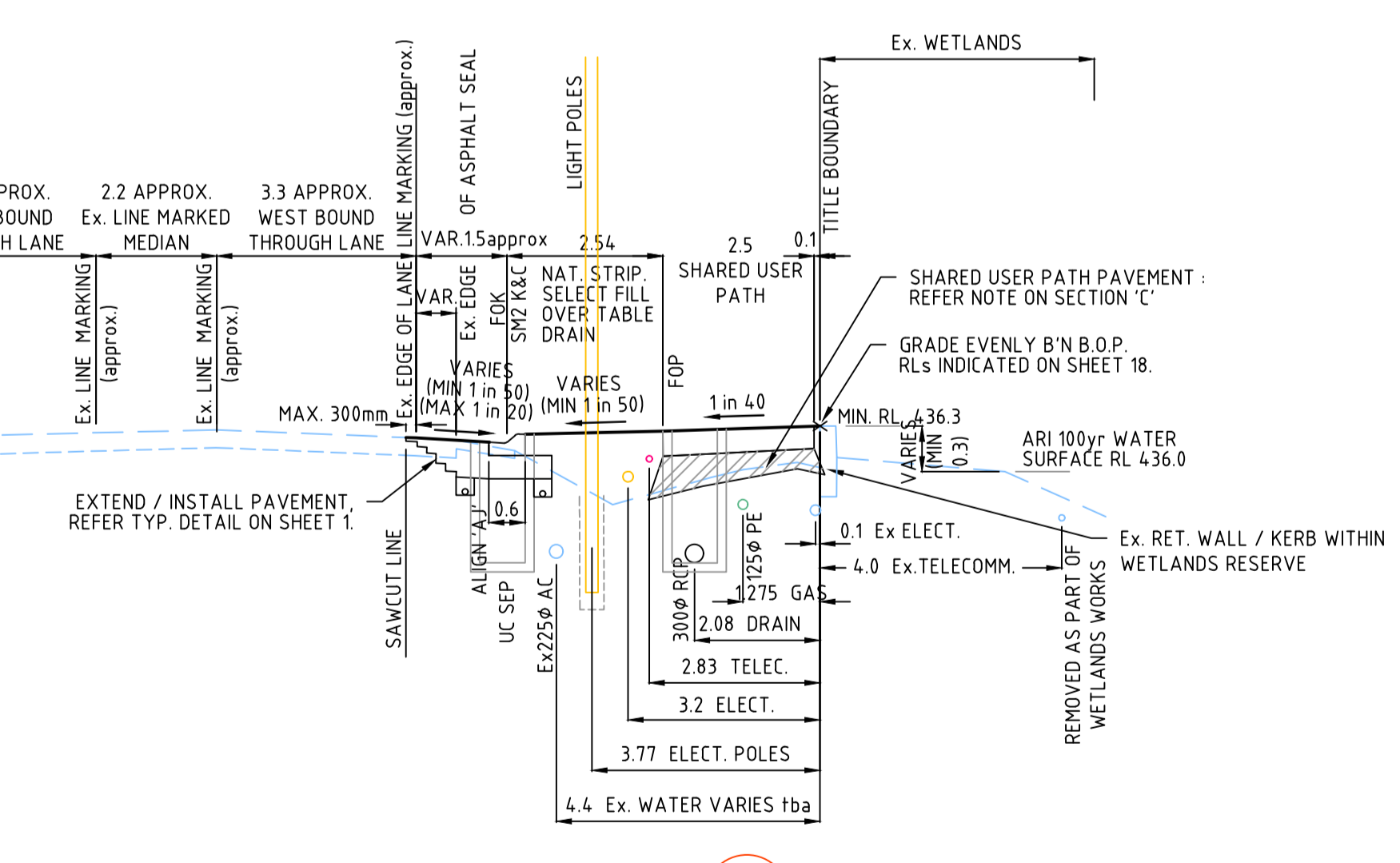
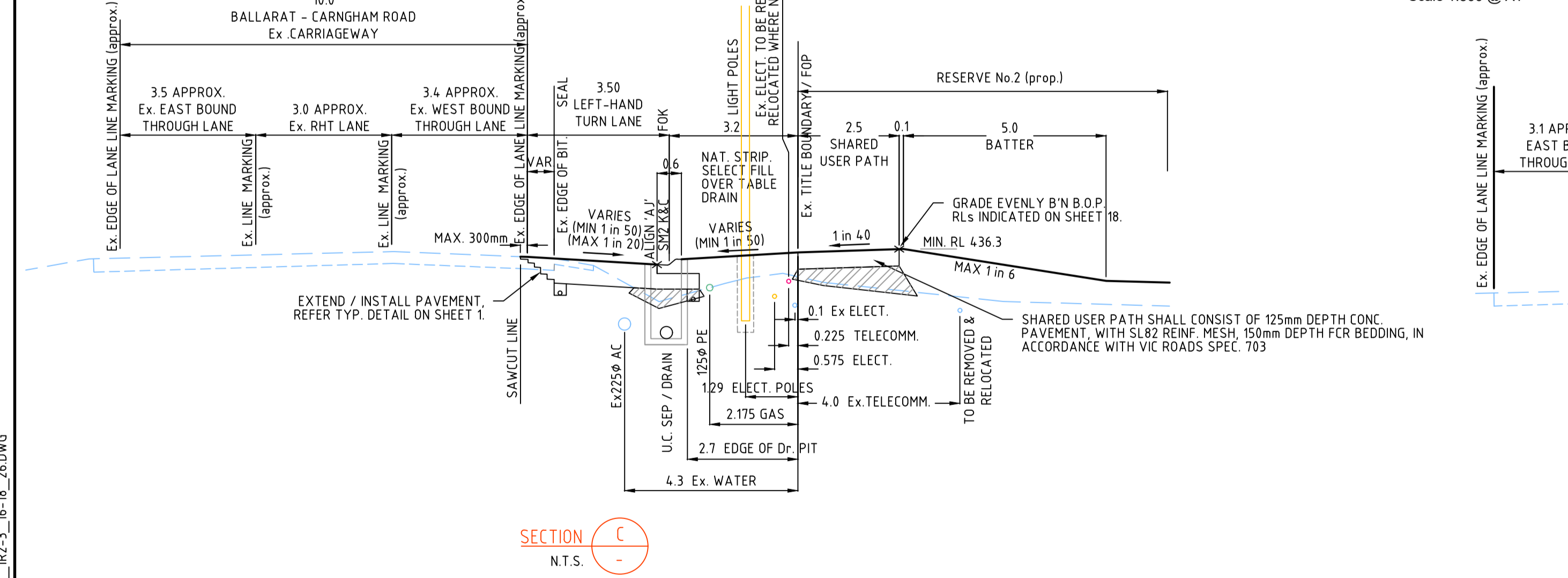
- ES 150x150 CONCRETE EDGE STRIP AT PAV'T EXTENT WITH SUBSOIL DRAIN UNDERNEATH, CONNECTED TO KERB SUBSOIL DRAINS.
- B2 600mm BARRIER TYPE KERB AND CHANNEL AS PER No.2 (B) ON CITY OF BALLARAT SD-K1
- B3 600mm BARRIER TYPE KERB AND CHANNEL OUTFALL AS PER EDCM301
- SM2 SEMI MOUNTABLE TYPE KERB AND CHANNEL AS PER VIC ROADS SD 2001
- SUP2.5 2.5m WIDTH SHARED USER PATH AS PER I.D.M. SD 205, WITH THICKNESS D=125mm
- Bch19565 CHAINAGE ALONG 5th TITLE BOUNDARY OF BALLARAT-CARRNGHAM ROAD
- eos EXISTING EDGE OF SEAL
- GW PROPOSED GAS & WATER CONDUITS
- ET PROPOSED ELECT. & TELECOMM. CONDUITS
- PROPOSED OVERALL DIRECTION OF LOT FALL TO LEGAL POINT OF DISCHARGE
- 437 EXISTING SURFACE CONTOURS (10.2m INT.)
- PROPOSED DRAIN / EASEMENT DRAIN, WITH EASEMENT DRAIN CONNECTION (EDC) AS PER I.D.M. SD 515. ALL EDC ARE OFFSET 1.0m FROM TITLE BOUNDARY UNLESS NOTED OTHERWISE.
- CUT EARTHWORKS - CUT AREA WITHIN LOTS GREATER THAN 150mm DEPTH (REFER NOTE 2 BELOW).
- FILL EARTHWORKS - FILL AREA WITHIN LOTS GREATER THAN 150mm DEPTH (REFER NOTE 2 BELOW).
- PROPOSED ASPHALT PAVEMENT WIDENING (BALLARAT-CARRNGHAM RD), REFER DETAILS ON OTHER SHEETS.
- PROPOSED UNSEALED SHOULDER PAVEMENT WIDENING (BALLARAT-CARRNGHAM RD), REFER DETAILS ON OTHER SHEETS.
- SECTION MARKER DENOTING SECTION 'A' ON THIS SHEET
- PROPOSED SWALE

- ### NOTES
- DESIGN LINE IS CENTRAL OR PARALLEL TO ROAD RESERVE TITLE BOUNDARY IN ALL PLACES, UNLESS NOTED OTHERWISE. ITS LOCATION IS INDICATED ON TYPICAL CROSS-SECTIONS UNLESS NOTED OTHERWISE.
 - THIS PLAN SHOWS ONLY APPROXIMATE EXTENTS & LEVELS OF FILL TO BE PLACED DURING CONSTRUCTION. DEPTH OF FILL USED FOR TOP DRESSING ALL ALLOTMENTS MAY VARY BY UP TO 0.15m. THE EXTENT OF FILL SHOWN IS BASED ON DESIGN AND MAY BE SUBJECT TO CHANGE FOLLOWING FINAL INSPECTION BY GEOTECHNICAL ENGINEER.
 - REFER TO LINEMARKING OR INTERSECTION DETAIL SHEETS FOR TACTILE MARKING DETAILS.
 - I.D.M. = "INFRASTRUCTURE DESIGN MANUAL"; EDCM = "ENGINEERING DESIGN AND CONSTRUCTION MANUAL" BY "GROWTH AREAS AUTHORITY".
 - ALL STANDARD DRAWINGS NOTED REFER TO STANDARD DRAWINGS IN THE I.D.M. UNLESS NOTED OTHERWISE.
 - VIC ROADS WORKS HOLD POINTS:
 - WORKS NOT TO BEGIN UNTIL ALL RELEVANT CONTROLS IN THE ENVIRONMENTAL MANAGEMENT PLAN ARE IMPLEMENTED.
 - TREATMENT OF UNSUITABLE SUBGRADE MATERIALS TO BE DISCUSSED WITH VICROADS AND DOCUMENTED.
 - CONTRACTOR SHALL PROVIDE FOR VICROADS TO BE PRESENT AT ALL TEST ROLLING.
 - THE CONTRACTOR SHALL USE ONLY REGISTERED ASPHALT MIXES UNLESS APPROVED BY VICROADS.
 - FORMWORK AND REINFORCEMENT PLACEMENT TO BE INSPECTED BY VICROADS FOR ALL REINFORCED CONCRETE ELEMENTS PRIOR TO CONCRETE PLACEMENT.
 - COMPACTION RESULTS FOR PAVEMENT LAYERS TO BE REVIEWED AND ACCEPTED BY VICROADS PRIOR TO PLACEMENT OF SUBSEQUENT PAVEMENT COURSES.
 - REDUNDANT PAVEMENT MARKINGS ARE TO BE GROUND OUT OR PRESSURE WASHED OFF, NOT PAINTED OVER.

LAYOUT PLAN 2
Scale 1:500 @ A1



TYPICAL NOTATIONS - EXAMPLE



WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

CONSTRUCTION PLAN

THIS DRAWING IS NOT TO BE COPIED OR SCALED

VERSION	REMARKS	DATE	BY
H	AMENDED RE: VIC ROADS COMMENTS 27.05	31.05.19	RDH
G	REVISED AS PER VIC ROADS COMMENTS 21.05, MISC.	23.05.19	RDH
F	REVIEWED, ISSUED FOR CONSTRUCTION	14.05.19	RDH
E	ISSUED FOR CONSTRUCTION	10.04.19	RDH
D	ISSUED FOR TENDER	18.02.19	RDH

LEGEND

	RAIN, PROPERTY INLET & PIT		RECYCLED WATER
	HOUSE DRAIN		ELECTRICAL U.G. SERVICES
	SEWER AND MAINTENANCE HOLE		ELECTRICAL U.G. SERVICES
	EX SEWER AND MAINTENANCE HOLE		ELECTRICAL SERVICE & PIT
	WATER MAIN		EX WATER MAIN, VALVE & HYDRANT
	GAS MAIN		EX ELECTRICAL ASSETS
	EX GAS MAIN, VALVE		EX ELECTRICAL OVERHEADS
	TELSTRA SERVICES & PITS		GAS & WATER CONDUITS
	EX TELSTRA SERVICES & PITS		TOP OF BATTER
	EX WALL OR BUILDING		STREET SIGN
	TEMP. BENCH MARK (REFER SHEET 1 FOR DATA)		COUNTRY STR. DIRECTORY
	FINISHED SURFACE AFTER CUTTING OR FILLING		DRAINAGE PIT No.
	TOP OF PROPOSED BATTER		TBM
	PROPOSED PAVEMENT OR FOOTPATH SURFACE		
	EXISTING OR PROPOSED INVERT LEVEL OF PIPE OR OPEN DRAIN		
	TANGENT POINT		
	CHAINAGE		
	PSM		

DRAWN BY	P.BRACOLIUS	DESIGNED BY	R.HALFORD
CHECKED BY	REEDS / COUNCIL	DATE	5/6/19
AUTHORISED BY	S.RAVIDA		

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CITY OF BALLARAT
ALLUVIUM ESTATE
STAGE 1
LAYOUT PLAN - 2

DRAWING No.	1R3	VERSION	H
REFERENCE	22558e_1		
SHEET	3 OF 27		



Appendix B – Laboratory Test Results

Material Test Report

Report Number: AGT60012-1
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 178
Date Sampled: 04/02/2020
Dates Tested: 05/02/2020 - 05/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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 Email: PaulF@ausgeotest.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Paul Francis
 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	60012-1	60012-2	60012-3
Date Tested	04/02/2020	04/02/2020	04/02/2020
Time Tested	**	**	**
Test Request #/Location	Alluvium Estate - Level One Reserve No 1	Alluvium Estate - Level One Reserve No 1	Alluvium Estate - Level One Reserve No 2
Latitude	-37.568612	-37.568568	-37.568470
Longitude	143.795966	143.795585	143.795233
Layer / Reduced Level	Fill - 600 below FSL	Fill - 600 below FSL	Fill - 600 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	1.99	2.02	2.04
Field Moisture Content %	17.0	18.3	16.5
Field Dry Density t/m ³	1.70	1.70	1.75
Maximum Dry Density t/m ³	1.74	1.75	1.77
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	18.0	20.0	17.5
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	1.0	1.5	1.0
Moisture Ratio %	94.0	92.5	93.0
Density Ratio %	97.5	97.5	99.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-2
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 179
Date Sampled: 05/02/2020
Dates Tested: 05/02/2020 - 06/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	60012-4	60012-5	60012-6
Date Tested	05/02/2020	05/02/2020	05/02/2020
Time Tested	**	**	**
Test Request #/Location	Alluvium Estate - Level One Reserve No 1	Alluvium Estate - Level One Reserve No 1	Alluvium Estate - Level One Reserve No 2
Latitude	-37.56881	-37.56873	-37.56862
Longitude	143.795586	143.79525	143.79462
Layer / Reduced Level	Fill - 600 Below FSL	Fill - 600 Below FSL	Fill - 600 Below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	2.12	2.02	2.07
Field Moisture Content %	18.9	22.3	19.0
Field Dry Density t/m ³	1.78	1.65	1.74
Maximum Dry Density t/m ³	1.80	1.74	1.72
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	19.0	20.0	21.5
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	0.0	-2.5	2.5
Moisture Ratio %	99.0	112.0	87.5
Density Ratio %	98.5	95.0	101.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-3
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 182
Date Sampled: 06/02/2020
Dates Tested: 06/02/2020 - 08/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1				
Sample Number	60012-7	60012-8	60012-9	60012-10
Date Tested	06/02/2020	06/02/2020	06/02/2020	06/02/2020
Time Tested	**	**	**	**
Test Request #/Location	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 1	Alluvium Estate - Level One Reserve No 1
Latitude	-37.56890	-37.56887	-37.56879	-37.56875
Longitude	143.79592	143.79547	143.79490	143.79458
Layer / Reduced Level	Fill - 450 below FSL	Fill - 450 below FSL	Fill - 450 below FSL	Fill - 450 below FSL
Thickness of Layer (mm)	150	150	150	150
Soil Description	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0
Oversize (dry basis) %	0	0	0	0
Field Wet Density t/m ³	2.06	2.02	2.02	2.02
Field Moisture Content %	18.2	17.9	19.1	18.5
Field Dry Density t/m ³	1.75	1.72	1.70	1.70
Maximum Dry Density t/m ³	1.74	1.73	1.73	1.75
Adjusted Maximum Dry Density t/m ³	**	**	**	**
Optimum Moisture Content %	20.5	20.5	21.0	20.5
Adjusted Optimum Moisture Content %	**	**	**	**
Moisture Variation %	2.5	2.5	2.0	2.0
Moisture Ratio %	89.0	88.0	91.5	90.0
Density Ratio %	100.0	99.0	98.0	97.5
Compaction Method	Standard	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-4
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 186
Date Sampled: 07/02/2020
Dates Tested: 08/02/2020 - 08/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1				
Sample Number	60012-11	60012-12	60012-13	60012-14
Date Tested	07/02/2020	07/02/2020	07/02/2020	07/02/2020
Time Tested	**	**	**	**
Test Request #/Location	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2
Latitude	-37.56908	-37.56903	-37.56900	-37.56895
Longitude	143.79504	143.79476	143.79456	143.79436
Layer / Reduced Level	Fill - 300 below FSL	Fill - 300 below FSL	Fill - 300 below FSL	Fill - 300 below FSL
Thickness of Layer (mm)	150	150	150	150
Soil Description	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0
Oversize (dry basis) %	0	0	0	0
Field Wet Density t/m ³	2.06	2.11	2.06	2.09
Field Moisture Content %	18.9	18.3	17.3	17.9
Field Dry Density t/m ³	1.73	1.78	1.75	1.77
Maximum Dry Density t/m ³	1.76	1.72	1.71	1.73
Adjusted Maximum Dry Density t/m ³	**	**	**	**
Optimum Moisture Content %	21.0	21.0	20.0	20.5
Adjusted Optimum Moisture Content %	**	**	**	**
Moisture Variation %	2.0	2.5	2.5	2.5
Moisture Ratio %	90.0	88.0	86.5	88.0
Density Ratio %	98.5	103.5	102.5	102.0
Compaction Method	Standard	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-5
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 192
Date Sampled: 10/02/2020
Dates Tested: 10/02/2020 - 16/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	60012-15	60012-16	60012-17
Date Tested	10/02/2020	10/02/2020	10/02/2020
Time Tested	**	**	**
Test Request #/Location	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 1
Latitude	-37.569226	-37.569221	-37.569218
Longitude	143.785398	146.794420	143.795010
Layer / Reduced Level	Fill - 300 below FSL	Fill - 300 below FSL	Fill - 300 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	2.12	2.10	2.14
Field Moisture Content %	14.3	14.1	13.5
Field Dry Density t/m ³	1.86	1.84	1.88
Maximum Dry Density t/m ³	1.77	1.74	1.80
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	19.0	17.5	18.0
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	4.5	3.5	4.5
Moisture Ratio %	76.0	79.5	74.0
Density Ratio %	105.0	106.0	105.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-10
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 207
Date Sampled: 17/02/2020
Dates Tested: 18/02/2020 - 18/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1						
Sample Number	60012-30	60012-31	60012-32	60012-33	60012-34	60012-35
Date Tested	17/02/2020	17/02/2020	17/02/2020	17/02/2020	17/02/2020	17/02/2020
Time Tested	**	**	**	**	**	**
Test Request #/Location	Alluvium Estate - Level One Block Fill - Lot 101	Alluvium Estate - Level One Block Fill - Lot 103	Alluvium Estate - Level One Block Fill - Lot 106	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2
Latitude	-37.568741	-37.569004	-37.569624	-37.569648	-37.569393	-37.569085
Longitude	143.796376	143.796371	143.796179	143.794262	143.794243	143.794308
Layer / Reduced Level	Fill - 600 below FSL	Fill - 600 below FSL	Fill - 600 below FSL	Fill - FSL	Fill - FSL	Fill - FSL
Thickness of Layer (mm)	150	150	150	150	150	150
Soil Description	Fine Silty Clay - Site	Fine Silty Clay - Site	Fine Silty Clay - Site	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0	0
Field Wet Density t/m ³	1.88	1.94	1.90	2.07	2.08	2.10
Field Moisture Content %	27.9	22.5	28.1	21.2	21.5	19.2
Field Dry Density t/m ³	1.47	1.58	1.49	1.70	1.72	1.76
Maximum Dry Density t/m ³	1.49	1.60	1.56	1.71	1.72	1.72
Adjusted Maximum Dry Density t/m ³	**	**	**	**	**	**
Optimum Moisture Content %	27.0	23.0	22.5	19.5	19.0	18.5
Adjusted Optimum Moisture Content %	**	**	**	**	**	**
Moisture Variation %	-1.0	0.5	-6.0	-1.5	-2.5	-0.5
Moisture Ratio %	103.5	97.0	126.0	108.5	114.0	104.0
Density Ratio %	98.5	99.0	95.0	100.0	100.0	102.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-6
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 194
Date Sampled: 11/02/2020
Dates Tested: 11/02/2020 - 16/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	60012-18	60012-19	60012-20
Date Tested	11/02/2020	11/02/2020	11/02/2020
Time Tested	**	**	**
Test Request #/Location	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2
Latitude	-37.569208	-37.569484	-37.569658
Longitude	143.794511	143.794309	143.794309
Layer / Reduced Level	Fill - 150 below FSL	Fill - 150 below FSL	Fill - 150 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	2.05	2.04	2.03
Field Moisture Content %	21.8	21.2	20.8
Field Dry Density t/m ³	1.68	1.68	1.68
Maximum Dry Density t/m ³	1.72	1.74	1.74
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	21.5	20.5	20.5
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	-0.5	-1.0	-0.5
Moisture Ratio %	102.5	104.0	102.0
Density Ratio %	98.0	97.0	96.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-7
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 199
Dates Tested: 12/02/2020 - 16/02/2020
Location: Alluvium Estate - Level One



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 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1

	60012-21	60012-22	60012-23
Sample Number	60012-21	60012-22	60012-23
Date Tested	12/02/2020	12/02/2020	12/02/2020
Time Tested	**	**	**
Test Request #/Location	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2
Latitude	-37.569826	-37.569691	-37.69877
Longitude	143.794746	143.794336	143.794284
Layer / Reduced Level	Fill - 150 below FSL	Fill - 150 below FSL	Fill - 150 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - Clay	Silty Clay - Clay	Silty Clay - Clay
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	2.07	2.08	2.10
Field Moisture Content %	24.2	23.4	23.5
Field Dry Density t/m ³	1.66	1.68	1.70
Maximum Dry Density t/m ³	1.63	1.70	1.65
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	24.5	25.5	21.5
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	0.0	2.0	-2.0
Moisture Ratio %	99.0	92.0	109.5
Density Ratio %	102.5	99.0	103.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-8
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 203
Date Sampled: 13/02/2020
Dates Tested: 14/02/2020 - 16/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1

	60012-24	60012-25	60012-26
Sample Number	60012-24	60012-25	60012-26
Date Tested	13/02/2020	13/02/2020	13/02/2020
Time Tested	**	**	**
Test Request #/Location	Alluvium Estate - Level One Block Fill - Lot 108	Alluvium Estate - Level One Block Fill - Lot 101	Alluvium Estate - Level One Block Fill - Lot 104
Latitude	-37.569568	-37.568622	-37.569072
Longitude	143.795081	143.795183	143.796238
Layer / Reduced Level	Fill - 900 below	Fill - 900 below	Fill - 900 below
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	2.04	2.05	2.14
Field Moisture Content %	15.3	18.6	17.1
Field Dry Density t/m ³	1.77	1.73	1.82
Maximum Dry Density t/m ³	1.84	1.74	1.76
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	17.0	18.0	14.5
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	1.5	-0.5	-2.5
Moisture Ratio %	91.0	104.0	117.0
Density Ratio %	96.0	99.5	103.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-9
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 205
Date Sampled: 14/02/2020
Dates Tested: 14/02/2020 - 16/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1

	60012-27	60012-28	60012-29
Sample Number	60012-27	60012-28	60012-29
Date Tested	14/02/2020	14/02/2020	14/02/2020
Time Tested	**	**	**
Test Request #/Location	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Block Fill - Lot 105	Alluvium Estate - Level One Block Fill - Lot 107
Latitude	-37.570516	-37.520410	-37.570215
Longitude	143.790516	143.795919	143.795818
Layer / Reduced Level	Fill - 750 below FSL	Fill - 750 below FSL	Fill - 750 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	2.05	2.08	2.06
Field Moisture Content %	15.9	17.1	17.1
Field Dry Density t/m ³	1.77	1.78	1.76
Maximum Dry Density t/m ³	1.78	1.76	1.75
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	14.0	18.0	17.5
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	-2.0	0.5	0.5
Moisture Ratio %	115.0	96.0	97.5
Density Ratio %	99.5	101.0	100.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-11
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 208
Date Sampled: 18/02/2020
Dates Tested: 19/02/2020 - 20/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1

	60012-36	60012-37	60012-38
Sample Number	60012-36	60012-37	60012-38
Date Tested	18/02/2020	18/02/2020	18/02/2020
Time Tested	**	**	**
Test Request #/Location	Alluvium Estate -Level One Block Fill - Lot 103	Alluvium Estate -Level One Block Fill - Lot 104	Alluvium Estate -Level One Block Fill - Lot 105
Latitude	-37.568650	-37.568775	-37.568983
Longitude	143.796262	143.796200	143.796080
Layer / Reduced Level	Fill - 450 below FSL	Fill - 450 below FSL	Fill - 450 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Fine Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	1.91	2.06	2.06
Field Moisture Content %	25.2	20.0	17.7
Field Dry Density t/m ³	1.52	1.72	1.75
Maximum Dry Density t/m ³	1.55	1.69	1.71
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	23.0	21.5	20.5
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	-2.5	1.5	3.0
Moisture Ratio %	110.5	92.0	85.5
Density Ratio %	98.5	101.5	102.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-12
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 212
Date Sampled: 19/02/2020
Dates Tested: 20/02/2020 - 22/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1

	60012-39	60012-40	60012-41
Sample Number	60012-39	60012-40	60012-41
Date Tested	19/02/2020	19/02/2020	19/02/2020
Time Tested	**	**	**
Test Request #/Location	Alluvium Estate - Level One Block Fill - Lot 106	Alluvium Estate - Level One Block Fill - Lot 107	Alluvium Estate - Level One Block Fill - Lot 108
Latitude	-37.569276	-37.569651	-37.569481
Longitude	143.796141	143.796080	143.795967
Layer / Reduced Level	Fill - 300 below FSL	Fill - 300 below FSL	Fill - 300 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	2.04	2.01	2.05
Field Moisture Content %	24.4	18.9	22.6
Field Dry Density t/m ³	1.64	1.69	1.68
Maximum Dry Density t/m ³	1.71	1.71	1.74
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	21.5	21.5	20.5
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	-3.0	3.0	-2.5
Moisture Ratio %	113.0	87.0	111.5
Density Ratio %	95.5	99.0	96.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-13
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 214
Date Sampled: 20/02/2020
Dates Tested: 20/02/2020 - 22/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	60012-42	60012-43	60012-44
Date Tested	20/02/2020	20/02/2020	20/02/2020
Time Tested	**	**	**
Test Request #/Location	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2
Latitude	-37.56992	-37.56961	-37.56703
Longitude	143.79473	143.79482	143.79490
Layer / Reduced Level	Fill - FSL	Fill - FSL	Fill - FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	2.08	2.06	2.04
Field Moisture Content %	21.7	23.0	14.8
Field Dry Density t/m ³	1.71	1.68	1.78
Maximum Dry Density t/m ³	1.74	1.75	1.72
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	21.0	19.5	23.5
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	-0.5	-3.5	8.5
Moisture Ratio %	102.5	118.0	63.5
Density Ratio %	98.0	96.0	103.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-14
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 216
Date Sampled: 21/02/2020
Dates Tested: 22/02/2020 - 22/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	60012-45	60012-46	60012-47
Date Tested	21/02/2020	21/02/2020	21/02/2020
Time Tested	**	**	**
Test Request #/Location	Alluvium Estate - Level One Block Fill - Lot 109	Alluvium Estate - Level One Block Fill - Lot 110	Alluvium Estate - Level One Reserve No 1
Latitude	-37.570256	-37.570222	-37.570203
Longitude	143.795712	143.795587	143.795242
Layer / Reduced Level	Fill - 150 below FSL	Fill - 150 below FSL	Fill - 150 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	2.06	2.07	2.05
Field Moisture Content %	21.6	21.6	22.1
Field Dry Density t/m ³	1.69	1.70	1.68
Maximum Dry Density t/m ³	1.78	1.77	1.75
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	20.5	19.5	21.5
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	-1.5	-2.0	-0.5
Moisture Ratio %	106.5	110.0	103.0
Density Ratio %	95.0	96.5	96.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-15
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 227
Date Sampled: 24/02/2020
Dates Tested: 25/02/2020 - 26/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	60012-48	60012-49	60012-50
Date Tested	24/02/2020	24/02/2020	24/02/2020
Time Tested	**	**	**
Test Request #/Location	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2	Alluvium Estate - Level One Reserve No 2
Latitude	-37.57008	-37.57008	-37.56999
Longitude	143.79406	143.79419	143.79434
Layer / Reduced Level	Fill - 300 below FSL	Fill - 300 below FSL	Fill - 300 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - Site	Silty Clay - Site	Silty Clay - Site
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	2.03	2.02	2.02
Field Moisture Content %	26.3	23.7	24.0
Field Dry Density t/m ³	1.61	1.64	1.63
Maximum Dry Density t/m ³	1.68	1.70	1.69
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	23.0	20.0	19.5
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	-3.5	-3.5	-4.5
Moisture Ratio %	115.5	117.5	122.5
Density Ratio %	95.5	96.5	96.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-16
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 228
Date Sampled: 25/02/2020
Dates Tested: 25/02/2020 - 27/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Remarks: Backfill of area at southern end of project rejected during proof roll. Fill supervised and rechecked. Ok to proceed.
Specification: 95% Standard
Location: Alluvium Estate - Level One



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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	60012-51		
Date Tested	25/02/2020		
Time Tested	**		
Test Request #/Location	Alluvium Estate - Level One Proof Roll - Failed area		
Latitude	-37.57069		
Longitude	143.79404		
Layer / Reduced Level	Backfill - Sub grade		
Thickness of Layer (mm)	150		
Soil Description	Dark dense Clay - site		
Test Depth (mm)	125		
Fraction Tested (mm)	19.0		
Oversize (wet basis) %	0		
Oversize (dry basis) %	0		
Field Wet Density t/m ³	2.01		
Field Moisture Content %	21.1		
Field Dry Density t/m ³	1.66		
Maximum Dry Density t/m ³	1.68		
Adjusted Maximum Dry Density t/m ³	**		
Optimum Moisture Content %	20.0		
Adjusted Optimum Moisture Content %	**		
Moisture Variation %	-1.0		
Moisture Ratio %	105.5		
Density Ratio %	99.0		
Compaction Method	Standard		

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-17
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 229
Date Sampled: 25/02/2020
Dates Tested: 26/02/2020 - 29/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1				
Sample Number	60012-52	60012-53	60012-54	60012-55
Date Tested	25/02/2020	25/02/2020	25/02/2020	25/02/2020
Time Tested	10:10	10:20	15:50	16:00
Test Request #/Location	Alluvium Estate - Level One Block Fill - Lot 124	Alluvium Estate - Level One Block Fill - Lot 121	Alluvium Estate - Level One Block Fill - Lot 118	Alluvium Estate - Level One Block Fill - Lot 115
Latitude	-37.57037	-37.57007	-37.57023	-37.57029
Longitude	143.79443	143.79462	143.79549	143.79590
Layer / Reduced Level	Fill - 600 below	Fill - 600 below	Fill - 600 below	Fill - 600 below
Thickness of Layer (mm)	150	150	150	150
Soil Description	Dense fine clay -site	Dense fine clay -site	Silty clay -site	Silty clay - site
Test Depth (mm)	125	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0
Oversize (dry basis) %	0	0	0	0
Field Wet Density t/m ³	1.87	1.88	2.02	2.02
Field Moisture Content %	23.6	23.7	22.9	27.6
Field Dry Density t/m ³	1.51	1.52	1.64	1.58
Maximum Dry Density t/m ³	1.67	1.67	1.71	1.64
Adjusted Maximum Dry Density t/m ³	**	**	**	**
Optimum Moisture Content %	20.0	21.0	22.0	24.0
Adjusted Optimum Moisture Content %	**	**	**	**
Moisture Variation %	-3.5	-3.0	-1.0	-4.0
Moisture Ratio %	118.0	113.5	103.5	116.0
Density Ratio %	90.5	90.5	96.0	96.5
Compaction Method	Standard	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-18
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 230
Date Sampled: 26/02/2020
Dates Tested: 26/02/2020 - 29/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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 Laboratory Manager

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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	60012-56	60012-57	60012-58
Date Tested	26/02/2020	26/02/2020	26/02/2020
Time Tested	15:30	15:40	15:50
Test Request #/Location	Alluvium Estate - Level One Road Reserve - Cumberland Bvd	Alluvium Estate - Level One lat: -37.57003 long: 143.79389	Alluvium Estate - Level One lat: -37.56981 long: 143.79395
Latitude	-37.57022	-37.57003	-37.56981
Longitude	143.79380	143.79389	143.79395
Layer / Reduced Level	Fill - 150 below FSL	Fill - 150 below FSL	Fill - 150 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - imported	Silty Clay - imported	Silty Clay - imported
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	2.02	2.01	2.03
Field Moisture Content %	21.7	21.9	17.7
Field Dry Density t/m ³	1.66	1.65	1.73
Maximum Dry Density t/m ³	1.65	1.64	1.75
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	23.0	23.5	19.0
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	1.5	2.0	1.5
Moisture Ratio %	93.5	92.5	92.0
Density Ratio %	100.5	100.5	98.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-19
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 233
Date Sampled: 27/02/2020
Dates Tested: 27/02/2020 - 29/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-59	60012-60	60012-61
Date Tested	27/02/2020	27/02/2020	27/02/2020
Time Tested	16:00	16:10	16:20
Test Request #/Location	Alluvium Estate - Level One Road Reserve - Cumberland Bvd	Alluvium Estate - Level One Road Reserve - Cumberland Bvd	Alluvium Estate - Level One Road Reserve - Cumberland Bvd
Latitude	-37.5698	-37.5700	-37.5704
Longitude	143.7940	143.7940	143.7938
Layer / Reduced Level	Fill - FSL	Fill - FSL	Fill - FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - site	Silty Clay - site	Silty Clay - site
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0.0	0.0	0.0
Field Wet Density (FWD) t/m ³	2.00	2.07	2.08
Field Moisture Content %	22.7	24.3	22.6
Field Dry Density (FDD) t/m ³	1.63	1.66	1.70
Peak Converted Wet Density t/m ³	2.04	2.08	2.10
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.5	0.5	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.5	99.0	99.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-20
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 236
Date Sampled: 28/02/2020
Dates Tested: 28/02/2020 - 29/02/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One
Material: Silty Clay- Brown
Material Source: Onsite



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-62	60012-63	60012-64
Date Tested	28/02/2020	28/02/2020	28/02/2020
Time Tested	15:30	15:40	15:50
Test Request #/Location	Alluvium Estate - Level One Block Fill - Lot 134	Alluvium Estate - Level One Block Fill - Lot 133	Alluvium Estate - Level One Block Fill - Lot 132
Latitude	-37.5801	-37.5707	-37.5708
Longitude	143.7942	143.7943	143.7947
Layer / Reduced Level	Fill - 150 below FSL	Fill - 150 below FSL	Fill - 150 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - site	Silty Clay - site	Silty Clay - site
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	2.01	2.01	2.04
Field Moisture Content %	24.0	23.3	24.6
Field Dry Density (FDD) t/m ³	1.62	1.63	1.63
Peak Converted Wet Density t/m ³	2.03	2.06	2.05
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.5	0.5	0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	99.0	97.5	99.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-21
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 237
Date Sampled: 02/03/2020
Dates Tested: 02/03/2020 - 04/03/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Aluvium Estate - Level One



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NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1

	60012-65	60012-66	60012-67
Sample Number	60012-65	60012-66	60012-67
Date Tested	02/03/2020	02/03/2020	02/03/2020
Time Tested	16:15	16:20	16:25
Test Request #/Location	Alluvium Estate - Level One Road Reserve - Cumberland Bvd	Alluvium Estate - Level One Road Reserve - Cumberland Bvd	Alluvium Estate - Level One Road Reserve - Cumberland Bvd
Latitude	-37.56912	-37.56886	-37.56866
Longitude	143.79406	143.79411	143.79419
Layer / Reduced Level	Fill - FSL	Fill - FSL	Fill - FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Dense Fine Clay	Dense Fine Clay	Dense Fine Clay
Test Depth (mm)	125	125	125
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m ³	1.88	1.87	1.88
Field Moisture Content %	27.8	27.5	31.8
Field Dry Density t/m ³	1.47	1.47	1.43
Maximum Dry Density t/m ³	1.53	1.53	1.48
Adjusted Maximum Dry Density t/m ³	**	**	**
Optimum Moisture Content %	27.0	22.5	28.0
Adjusted Optimum Moisture Content %	**	**	**
Moisture Variation %	-1.0	-5.0	-3.5
Moisture Ratio %	103.0	123.5	113.0
Density Ratio %	96.0	95.5	96.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-22
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 240
Date Sampled: 03/03/2020
Dates Tested: 03/03/2020 - 04/03/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Remarks: Retest AGT60012-17. Wet material relaced with drier more suitable material and reworked by loader and pad-foot roller.
Specification: 95% Standard
Site Selection: Selected by Client
Location: Alluvium Estate - Level One
Material: Brown Silty Clay
Material Source: Onsite



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-68	60012-69	
Date Tested	03/03/2020	03/03/2020	
Time Tested	10:05	10:15	
Test Request #/Location	Alluvium Estate - Level One, retest #52 Block Fill - Lot 124	Alluvium Estate - Level One, retest #53 Block Fill - Lot 121	
Latitude	-37.57057	-37.57007	
Longitude	143.79443	143.79462	
Layer / Reduced Level	Fill - 600 below	Fill - 600 below	
Thickness of Layer (mm)	150	150	
Soil Description	Fine dense Clay - site	Fine dense Clay - site	
Test Depth (mm)	125	125	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	**	**	
Field Wet Density (FWD) t/m ³	2.06	2.03	
Field Moisture Content %	17.7	17.9	
Field Dry Density (FDD) t/m ³	1.75	1.72	
Peak Converted Wet Density t/m ³	2.02	2.01	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	2.5	1.5	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	102.0	101.0	
Compaction Method	Standard	Standard	

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-23
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 241
Dates Tested: 03/03/2020 - 04/03/2020
Location: Alluvium Estate - Level One



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-70	60012-71	60012-72
Date Tested	03/03/2020	03/03/2020	03/03/2020
Time Tested	13:15	13:20	13:25
Test Request #/Location	Alluvium Estate - Level One Road Reserve - Sugarloaf Crt	Alluvium Estate - Level One Road Reserve - Sugarloaf Crt	Alluvium Estate - Level One Road Reserve - Sugarloaf Crt
Latitude	-37.57061	-37.56831	-37.57051
Longitude	143.79460	143.7739	143.79413
Layer / Reduced Level	Fill - 150 below	Fill - 150 below	Fill - 150 below
Thickness of Layer (mm)	150	150	150
Soil Description	Fine Dense Clay - site	Fine Dense Clay - site	Fine Dense Clay - site
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.88	1.87	1.90
Field Moisture Content %	31.5	31.5	29.4
Field Dry Density (FDD) t/m ³	1.43	1.42	1.46
Peak Converted Wet Density t/m ³	1.94	1.95	1.96
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-3.0	-3.0	-3.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	97.0	96.0	97.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-24
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 244
Date Sampled: 04/03/2020
Dates Tested: 04/03/2020 - 07/03/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One
Material: Silty Clay - site
Material Source: Onsite



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 NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-73	60012-74	60012-75
Date Tested	04/03/2020	04/03/2020	04/03/2020
Time Tested	13:00	13:10	13:20
Test Request #/Location	Alluvium Estate - Level One Block Fill - Lot 136	Alluvium Estate - Level One Block Fill - Lot 138	Alluvium Estate - Level One Block Fill - Lot 140
Latitude	-37.570636	-37.570409	-37.570233
Longitude	143.793679	143.793684	143.793744
Layer / Reduced Level	Fill - 600 below	Fill - 600 below	Fill - 600 below
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay -site	Silty Clay -site	Silty Clay -site
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	2.11	2.10	2.09
Field Moisture Content %	26.2	23.4	23.3
Field Dry Density (FDD) t/m ³	1.67	1.70	1.69
Peak Converted Wet Density t/m ³	2.05	2.09	2.09
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-1.0	-3.0	-3.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	103.0	100.5	100.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-25
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 245
Date Sampled: 04/03/2020
Dates Tested: 04/03/2020 - 07/03/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One
Material: Fine dense clay
Material Source: Insitu



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-76	60012-77	60012-78
Date Tested	04/03/2020	04/03/2020	04/03/2020
Time Tested	10:10	10:20	10:30
Test Request #/Location	Alluvium Estate - Level One Road Reserve - Cumberland Bvd	Alluvium Estate - Level One Road Reserve - Cumberland Bvd	Alluvium Estate - Level One Road Reserve - Cumberland Bvd
Latitude	-37.570817	-37.570643	-37.570429
Longitude	143.793786	143.793781	143.793943
Layer / Reduced Level	Fill - 150 below	Fill - 150 below	Fill - 150 below
Thickness of Layer (mm)	150	150	150
Soil Description	Fine dense clay	Fine dense clay	Fine dense clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.90	1.92	1.93
Field Moisture Content %	33.9	30.0	30.0
Field Dry Density (FDD) t/m ³	1.42	1.48	1.48
Peak Converted Wet Density t/m ³	1.95	1.96	1.95
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-4.0	-4.5	-4.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	97.5	98.0	99.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-26
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 248
Date Sampled: 05/03/2020
Dates Tested: 05/03/2020 - 07/03/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One
Material: Dense Clay - Wet
Material Source: Insitu



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NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-79	60012-80	60012-81
Date Tested	05/03/2020	05/03/2020	05/03/2020
Time Tested	13:00	13:10	13:20
Test Request #/Location	Alluvium Estate - Level One Road Reserve - Cumberland Bvd	Alluvium Estate - Level One Road Reserve - Cumberland Bvd	Alluvium Estate - Level One Road Reserve - Cumberland Bvd
Latitude	-37.569989	-37.569893	-37.569854
Longitude	143.793724	143.793961	143.94036
Layer / Reduced Level	Fill - FSL	Fill - FSL	Fill - FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Fine dense clay - site	Fine dense clay - site	Fine dense clay - site
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.85	1.84	1.85
Field Moisture Content %	33.8	**	36.5
Field Dry Density (FDD) t/m ³	1.38	**	1.35
Peak Converted Wet Density t/m ³	1.92	1.92	1.91
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-4.5	-3.0	-3.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	96.5	96.0	97.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-27
Issue Number: 3 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 250
Date Sampled: 10/03/2020
Dates Tested: 11/03/2020 - 11/03/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium Estate - Level One
Material: Silty Clay
Material Source: Onsite



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 NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-82	60012-83	60012-84
Date Tested	10/03/2020	10/03/2020	10/03/2020
Time Tested	13:10	13:20	13:30
Test Request #/Location	Alluvium Estate - Level One Block Fill - Future Stage 12	Alluvium Estate - Level One Block Fill - Future Stage 12	Alluvium Estate - Level One Block Fill - Future Stage 12
Latitude	-37.570034	-37.569982	-37.569808
Longitude	143.793560	143.793507	143.793507
Layer / Reduced Level	Fill - 450 below	Fill - 450 below	Fill - 450 below
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay - site	Silty Clay - site	Silty Clay - site
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	2.18	2.05	2.12
Field Moisture Content %	17.0	18.5	16.2
Field Dry Density (FDD) t/m ³	1.87	1.73	1.82
Peak Converted Wet Density t/m ³	2.12	2.13	2.12
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	1.5	1.0	1.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	103.0	96.0	100.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-28
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Final RL Added
Date Issued: 21/04/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate Stage 1
Project Location: Alfredton
Work Request: 404
Date Sampled: 16/10/2020
Dates Tested: 18/10/2020 - 20/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Location: Alluvium - Estate Level One
Material Source: Onsite



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 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-85	60012-86	60012-87
Date Tested	16/10/2020	16/10/2020	16/10/2020
Time Tested	16:00	16:10	16:20
Test Request #/Location	Alluvium Estate - Level One Block backfill	Alluvium Estate - Level One Block backfill	Alluvium Estate - Level One Block backfill
Chainage (m)	Lot 126	Lot 125	Lot 123
Location Offset (m)	Centre of block	Centre of block	Centre of block
Layer / Reduced Level	1200mm Below	1200mm Below	1200mm Below
Thickness of Layer (mm)	150mm	150mm	150mm
Soil Description	Brown Silty Clay	Brown Silty Clay	Brown Silty Clay
Test Depth (mm)	125mm	125mm	125mm
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	2.00	2.01	1.96
Field Moisture Content %	25.8	28.9	26.4
Field Dry Density (FDD) t/m ³	1.59	1.56	1.55
Peak Converted Wet Density t/m ³	2.02	2.03	2.01
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-1.5	-1.5	-1.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	99.0	99.0	97.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-29
Issue Number: 1
Date Issued: 23/10/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 406
Date Sampled: 20/10/2020
Dates Tested: 20/10/2020 - 22/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Material: Brown Silty Clay
Material Source: Onsite



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 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-88	60012-89	60012-90
Date Tested	20/10/2020	20/10/2020	20/10/2020
Time Tested	13:05	13:15	13:25
Test Request #/Location	Block backfill	Block backfill	Block backfill
Chainage (m)	Lot 122	Lot 129	Lot 127
Location Offset (m)	Centre of block	N/E cnr	Eastern edge
Layer / Reduced Level	900 below FSL	900 below FSL	900 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Brown Silty Clay	Brown Silty Clay	Brown Silty Clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	2.05	2.07	2.01
Field Moisture Content %	-0.2	20.1	21.7
Field Dry Density (FDD) t/m ³	2.05	1.72	1.65
Peak Converted Wet Density t/m ³	2.05	2.10	40.32
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-0.5	-0.5	0.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	100.0	98.5	5.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-30
Issue Number: 1
Date Issued: 23/10/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 407
Date Sampled: 21/10/2020
Dates Tested: 21/10/2020 - 22/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Material: White Silty Clay
Material Source: Import



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NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-91	60012-92	60012-93
Date Tested	21/10/2020	21/10/2020	21/10/2020
Time Tested	13:05	13:15	13:25
Test Request #/Location	Block backfill	Block backfill	Block backfill
Chainage (m)	Lot 128	Lot 130	Lot 131
Location Offset (m)	N/W cnr	Centre of lock	S/E Edge
Layer / Reduced Level	750 Below FSL	750 Below FSL	750 Below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	White Silty Clay	White Silty Clay	White Silty Clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	2.04	1.98	1.98
Field Moisture Content %	19.3	22.4	22.4
Field Dry Density (FDD) t/m ³	1.71	1.62	1.62
Peak Converted Wet Density t/m ³	2.10	2.02	2.04
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-0.5	-0.5	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	97.0	98.0	97.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-31
Issue Number: 1
Date Issued: 23/10/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 409
Date Sampled: 22/10/2020
Dates Tested: 22/10/2020 - 22/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Material: White Silty Clay
Material Source: Import



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-94	60012-95	60012-96
Date Tested	22/10/2020	22/10/2020	22/10/2020
Time Tested	13:10	13:20	13:30
Test Request #/Location	Block backfill	Block backfill	Block backfill
Chainage (m)	Lot 123	Lot 122	Lot 121
Location Offset (m)	Centre of block	Western Edge	Centre of block
Layer / Reduced Level	750 Below FSL	750 Below FSL	750 Below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	White Silty Clay	White Silty Clay	White Silty Clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.91	1.99	1.93
Field Moisture Content %	24.7	23.2	24.4
Field Dry Density (FDD) t/m ³	1.53	1.62	1.55
Peak Converted Wet Density t/m ³	2.01	2.03	2.02
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.0	-0.5	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	95.0	98.0	95.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-32
Issue Number: 1
Date Issued: 03/11/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 410
Date Sampled: 26/10/2020
Dates Tested: 26/10/2020 - 02/11/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Material: Brown Silty Clay
Material Source: Onsite



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-97	60012-98	60012-99
Date Tested	26/10/2020	26/10/2020	26/10/2020
Time Tested	16:20	16:30	16:40
Test Request #/Location	Block backfill	Block backfill	Block backfill
Chainage (m)	Lot 129	Lot 130	Lot 131
Location Offset (m)	Centre of block	Centre of block	Centre of block
Layer / Reduced Level	600mm below FSL	600mm below FSL	600mm below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Brown Silty Clay	Brown Silty Clay	Brown Silty Clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	2.02	1.94	1.97
Field Moisture Content %	21.7	22.3	21.3
Field Dry Density (FDD) t/m ³	1.66	1.59	1.62
Peak Converted Wet Density t/m ³	2.03	2.03	2.05
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-0.5	-0.5	0.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	99.5	96.0	96.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-33
Issue Number: 1
Date Issued: 03/11/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 412
Date Sampled: 27/10/2020
Dates Tested: 27/10/2020 - 02/11/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Material: Silty Clay
Material Source: Onsite



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 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-100	60012-101	60012-102
Date Tested	27/10/2020	27/10/2020	27/10/2020
Time Tested	13:05	13:15	13:25
Test Request #/Location	Block backfill	Block backfill	Block backfill
Chainage (m)	Lit 135	Lot 134	Lot 133
Location Offset (m)	Nth cnr	S/E cnr	Centre of block
Layer / Reduced Level	600 below FSL	600 below FS	600 below FS
Thickness of Layer (mm)	150	150	150
Soil Description	Brown Silty Clay	Brown Silty Clay	Brown Silty Clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	2.00	1.98	2.01
Field Moisture Content %	20.6	21.4	21.8
Field Dry Density (FDD) t/m ³	1.66	1.63	1.65
Peak Converted Wet Density t/m ³	2.04	2.04	2.04
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-0.5	0.0	0.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	97.5	97.0	98.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-34
Issue Number: 1
Date Issued: 03/11/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 413
Date Sampled: 28/10/2020
Dates Tested: 28/10/2020 - 28/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Material: White (Chalky) Silty Clay
Material Source: Import



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Approved Signatory: Paul Francis
 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-103	60012-104	60012-105
Date Tested	28/10/2020	28/10/2020	28/10/2020
Time Tested	13:05	13:15	13:25
Test Request #/Location	Block Backfill	Block Backfill	Block Backfill
Chainage (m)	Lot 132	Lot 124	Lot 123
Location Offset (m)	S?W cnr	Centre of block	Easter edge
Layer / Reduced Level	450 below FSL	450 below FSL	450 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	White (chalky) silty clay	White (chalky) silty clay	White (chalky) silty clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	2.00	1.99	1.99
Field Moisture Content %	20.1	21.3	20.9
Field Dry Density (FDD) t/m ³	1.66	1.64	1.65
Peak Converted Wet Density t/m ³	2.07	2.06	2.08
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-0.5	-0.5	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	96.5	96.5	95.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-35
Issue Number: 1
Date Issued: 03/11/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 415
Dates Tested: 30/10/2020 - 02/11/2020



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-106	60012-107	60012-108
Date Tested	30/10/2020	30/10/2020	30/10/2020
Time Tested	16:00	16:10	16:20
Test Request #/Location	Block backfill	Block backfill	Block backfill
Chainage (m)	Lot 126	Lot 125	Lot 127
Location Offset (m)	N/W cnr	Southern edge	Centre of block
Layer / Reduced Level	300 below FSL	300 below FSL	300 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	White (chalky) silty clay	White (chalky) silty clay	White (chalky) silty clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.92	1.95	1.95
Field Moisture Content %	19.4	18.7	17.5
Field Dry Density (FDD) t/m ³	1.60	1.64	1.66
Peak Converted Wet Density t/m ³	2.00	2.02	2.05
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.0	0.0	0.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	96.0	96.5	95.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-36
Issue Number: 1
Date Issued: 06/11/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 416
Date Sampled: 02/11/2020
Dates Tested: 02/11/2020 - 03/11/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Material: Brown Silty Clay
Material Source: Onsite



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Approved Signatory: Paul Francis
 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-109	60012-110	60012-111
Date Tested	02/11/2020	02/11/2020	02/11/2020
Time Tested	13:05	13:15	13:25
Test Request #/Location	Block backfill	Block backfill	Block backfill
Chainage (m)	Lot 124	Lot 129	Lot 130
Location Offset (m)	S/W cnr	Centre of block	Centre of block
Layer / Reduced Level	150 below FSL	150 below FSL	150 below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Brown Silty Clay	Brown Silty Clay	Brown Silty Clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.91	1.90	1.94
Field Moisture Content %	27.1	28.4	27.3
Field Dry Density (FDD) t/m ³	1.51	1.48	1.52
Peak Converted Wet Density t/m ³	1.97	2.01	1.99
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.0	-2.5	0.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	97.5	94.5	97.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-37
Issue Number: 1
Date Issued: 10/11/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 417
Date Sampled: 04/11/2020
Dates Tested: 04/11/2020 - 10/11/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Material: Brown Silty Clay
Material Source: Onsite



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Approved Signatory: Paul Francis
 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-112	60012-113	60012-114
Date Tested	04/11/2020	04/11/2020	04/11/2020
Time Tested	13:05	13:15	13:25
Test Request #/Location	Block backfill	Block backfill	Block backfill
Chainage (m)	Lot 131	Lot 121	Lot 120
Location Offset (m)	S/W cnr	Centre of block	N/W cnr
Layer / Reduced Level	150mm below FSL	150mm below FSL	150mm below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Brown Silty Clay	Brown Silty Clay	Brown Silty Clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.92	1.96	1.97
Field Moisture Content %	24.3	23.2	21.0
Field Dry Density (FDD) t/m ³	1.54	1.59	1.63
Peak Converted Wet Density t/m ³	2.02	2.03	2.03
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.0	-0.5	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	95.5	96.5	97.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-38
Issue Number: 1
Date Issued: 10/11/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 418
Date Sampled: 09/11/2020
Dates Tested: 09/11/2020 - 10/11/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Modified
Material: Brown Silty Clay
Material Source: Onsite



Australian Geotechnical Testing
 Ballarat Laboratory
 2/55 Heinz Road Delacombe VIC 3356
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Approved Signatory: Paul Francis
 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-115	60012-116	60012-117
Date Tested	09/11/2020	09/11/2020	09/11/2020
Time Tested	15:40	15:50	16:00
Test Request #/Location	Block backfill	Block backfill	Block backfill
Chainage (m)	Lot 129 - Retest #110	Lot 130	Lot 131
Location Offset (m)	Centre of block	S/E cnr	Centre of block
Layer / Reduced Level	150mm below FSL	150mm below FSL	150mm below FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Brown Silty Clay	Brown Silty Clay	Brown Silty Clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.98	1.98	1.97
Field Moisture Content %	26.3	25.2	28.8
Field Dry Density (FDD) t/m ³	1.56	1.58	1.53
Peak Converted Wet Density t/m ³	2.01	2.03	2.03
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-0.5	-0.5	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.0	97.0	97.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-39
Issue Number: 1
Date Issued: 12/11/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 420
Date Sampled: 10/11/2020
Dates Tested: 10/11/2020 - 12/11/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Modified
Material: Brown Mottled Silty Clay
Material Source: Import



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Approved Signatory: Paul Francis
 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-118	60012-119	60012-120
Date Tested	10/11/2020	10/11/2020	10/11/2020
Time Tested	13:05	13:15	13:25
Test Request #/Location	Block backfill	Block backfill	Block backfill
Chainage (m)	Lot 124	Lot 123	Lot 122
Location Offset (m)	Western edge	S/E cnr	N/E cnr
Layer / Reduced Level	FSL	FSL	FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Brown Mottled Silty Clay	Brown Mottled Silty Clay	Brown Mottled Silty Clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.87	1.85	1.83
Field Moisture Content %	28.7	27.3	29.5
Field Dry Density (FDD) t/m ³	1.46	1.46	1.42
Peak Converted Wet Density t/m ³	1.90	1.87	1.87
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	1.5	2.0	1.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.5	99.0	98.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-40
Issue Number: 2 - This version supersedes all previous issues
Reissue Reason: Specification Added
Date Issued: 12/11/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 422
Date Sampled: 11/11/2020
Dates Tested: 11/11/2020 - 12/11/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Material: Brown Silty Clay/ Gravel Mix
Material Source: Onsite



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 Laboratory Manager
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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-121	60012-122	60012-123
Date Tested	11/11/2020	11/11/2020	11/11/2020
Time Tested	13:10	13:15	13:20
Test Request #/Location	Block backfill	Block backfill	Block backfill
Chainage (m)	Lot 134	Lot 133	Lot 132
Location Offset (m)	N/W cnr	S/W cnr	Centre of block
Layer / Reduced Level	600mm below FSL	600mm below FSL	600mm below FSL
Thickness of Layer (mm)	150	15	150
Soil Description	Brown Silty Clay/ Gravel Mix	Brown Silty Clay/ Gravel Mix	Brown Silty Clay/ Gravel Mix
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	2.19	2.13	2.17
Field Moisture Content %	19.3	17.8	16.4
Field Dry Density (FDD) t/m ³	1.84	1.81	1.86
Peak Converted Wet Density t/m ³	2.07	2.07	2.08
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.5	2.0	2.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	105.5	103.0	104.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-41
Issue Number: 1
Date Issued: 12/12/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 454
Date Sampled: 03/12/2020
Dates Tested: 03/12/2020 - 10/12/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Material: Brown Silty Clay
Material Source: Onsite



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Approved Signatory: Paul Francis
 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-124	60012-125	60012-126
Date Tested	03/12/2020	03/12/2020	03/12/2020
Time Tested	12:30	12:40	12:50
Test Request #/Location	Block Back fill	Block Back fill	Block Back fill
Chainage (m)	Lot 115	Lot 117	Lot 119
Location Offset (m)	Centre of block	Nth East cnr	Sth East cnr
Layer / Reduced Level	1600mm Below	1600mm Below	1600mm Below
Thickness of Layer (mm)	150	150	150
Soil Description	Brown Silty Clay	Brown Silty Clay	Brown Silty Clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	2.06	2.06	2.02
Field Moisture Content %	19.2	16.9	19.0
Field Dry Density (FDD) t/m ³	1.73	1.76	1.70
Peak Converted Wet Density t/m ³	2.06	2.06	2.07
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	-0.5	-0.5	-0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	100.0	100.0	97.5
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-42
Issue Number: 1
Date Issued: 12/12/2020
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Contact: Dave Compston
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 460
Date Sampled: 04/12/2020
Dates Tested: 04/12/2020 - 10/12/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Material: Brown Silty Clay
Material Source: Onsite



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Approved Signatory: Paul Francis
 Laboratory Manager

NATA Accredited Laboratory Number: 20457

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	60012-127	60012-128	60012-129
Date Tested	04/12/2020	04/12/2020	04/12/2020
Time Tested	12:30	12:40	12:50
Test Request #/Location	Block Backfill	Block Backfill	Block Backfill
Chainage (m)	Lot 114	Lot 116	Lot 118
Location Offset (m)	Centre of block	Centre of block	Centre of block
Layer / Reduced Level	FSL	FSL	FSL
Thickness of Layer (mm)	150	150	150
Soil Description	Silty Clay	Silty Clay	Silty Clay
Test Depth (mm)	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**
Field Wet Density (FWD) t/m ³	1.96	1.98	1.99
Field Moisture Content %	14.0	19.5	16.2
Field Dry Density (FDD) t/m ³	1.72	1.65	1.71
Peak Converted Wet Density t/m ³	2.00	1.98	2.01
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	2.5	2.0	2.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.5	100.0	99.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

Material Test Report

Report Number: AGT60012-43
Issue Number: 1
Date Issued: 09/03/2021
Client: Wayne Horne Earthmoving
 3 Trewin Street, Wendouree VIC 3355
Project Number: AGT60012
Project Name: Alluvium Estate
Project Location: Alfredton
Work Request: 557
Date Sampled: 04/03/2021
Dates Tested: 05/03/2021 - 09/03/2021
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard
Site Selection: Selected by Client
Location: Alluvium Estate
Material: (CH) silty CLAY- Brown
Material Source: Onsite



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Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	60012-130	60012-131	60012-132	60012-133	60012-134	60012-135
Date Tested	04/03/2021	04/03/2021	04/03/2021	04/03/2021	04/03/2021	04/03/2021
Time Tested	08:30	08:40	08:50	09:00	09:10	09:20
Test Request #/Location	Block Backfill	Block Backfill	Block Backfill	Block Backfill	Block Backfill	Block Backfill
Chainage (m)	Lot 102	Lot 110	Lot 111	Lot 112	Lot 113	Lot 136
Location Offset (m)	Centre of block	Centre of block	Centre of block	N/W cnr	S/W cnr	Eastern edge
Layer / Reduced Level	FSL	FSL	FSL	FSL	FSL	FSL
Thickness of Layer (mm)	150	150	150	150	150	150
Soil Description	(CH) silty CLAY- Brown	(CH) silty CLAY- Brown	(CH) silty CLAY- Brown	(CH) silty CLAY- Brown	(CH) silty CLAY- Brown	(CH) silty CLAY- Brown
Test Depth (mm)	125	125	125	125	125	125
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	**	**	**	**	**
Field Wet Density (FWD) t/m ³	2.10	2.10	1.96	1.99	1.91	1.92
Field Moisture Content %	20.0	16.5	14.7	23.8	17.8	24.0
Field Dry Density (FDD) t/m ³	1.75	1.80	1.71	1.61	1.62	1.55
Peak Converted Wet Density t/m ³	2.00	1.99	1.97	1.88	1.83	1.84
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Moisture Variation (Wv) %	2.0	2.5	2.0	4.0	6.0	5.5
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	105.0	105.5	99.5	106.0	104.5	104.0
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC



Appendix C – Site Photos



