

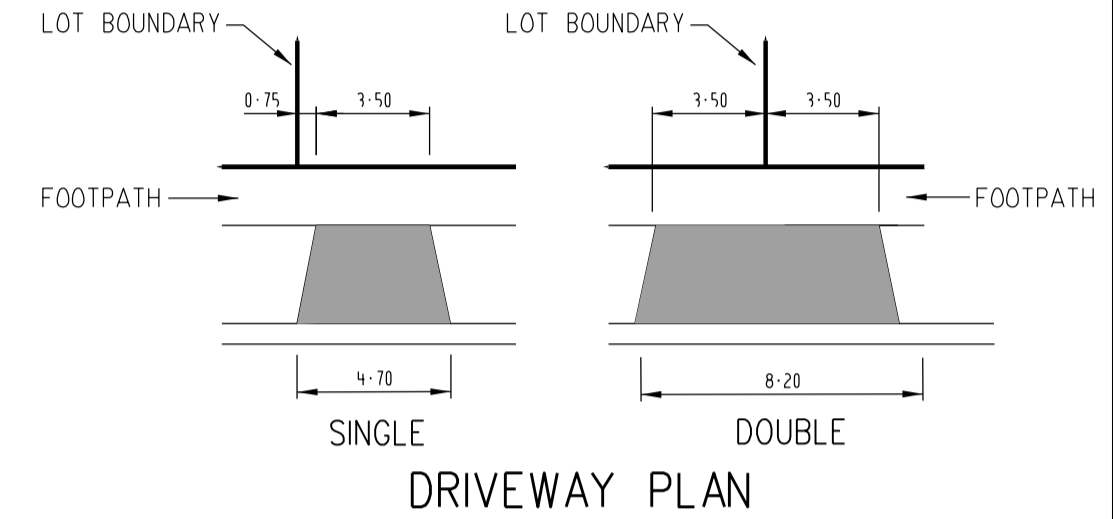
SYMBOL LEGEND

| | | | |
|------------------|------|-------|-----------------------------|
| Drains <300 | Prop | Exist | Ex/Natural/FS Level -28.57 |
| Sever >300 | S | S | FS @ Building Line 1028.57 |
| Water | W | W | Top/Toe of Batter 1028.57 |
| House Drain | H | H | Top Ret. Wall Level 1028.57 |
| Property Inlet | PI | PI | 100yr Flood Level 1028.57 |
| Street Sign | + | + | Fill Prop/Ex |
| Retaining Wall | Ret | Ret | Fill Prop/Ex >500mm |
| Conduits 50mm | C50 | C50 | Tree to be removed |
| Conduits 100mm | C100 | C100 | Tree to be retained |
| Ex Gas/Elect/Tel | G | E | TPZ |

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.

TREE TO BE REMOVED

TREE TO BE RETAINED. TREE PROTECTION ZONE (TPZ) TO BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. PROVIDE A TEMPORARY FENCE 1m OUTSIDE OF THE TPZ



NOTE:
ALL SEWERAGE & DRAINAGE WORKS TO BE CONDUCTED FROM WESTERN SIDE

Remove existing concrete edge strip and match new work neatly with existing construction

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Remove existing concrete edge strip and match new work neatly with existing construction

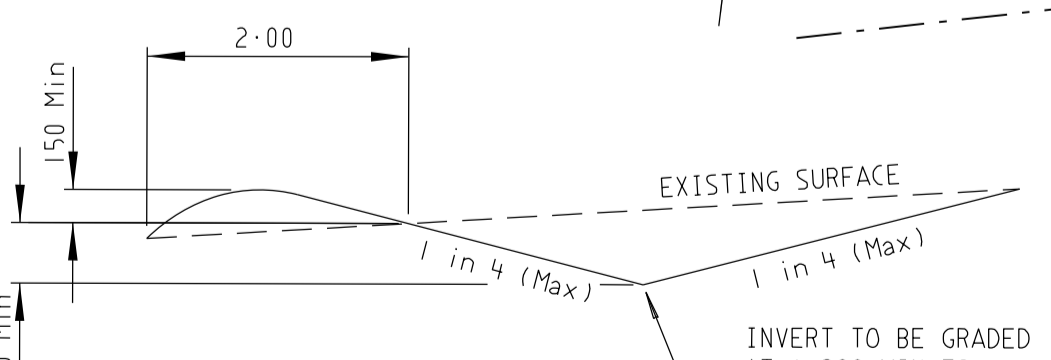
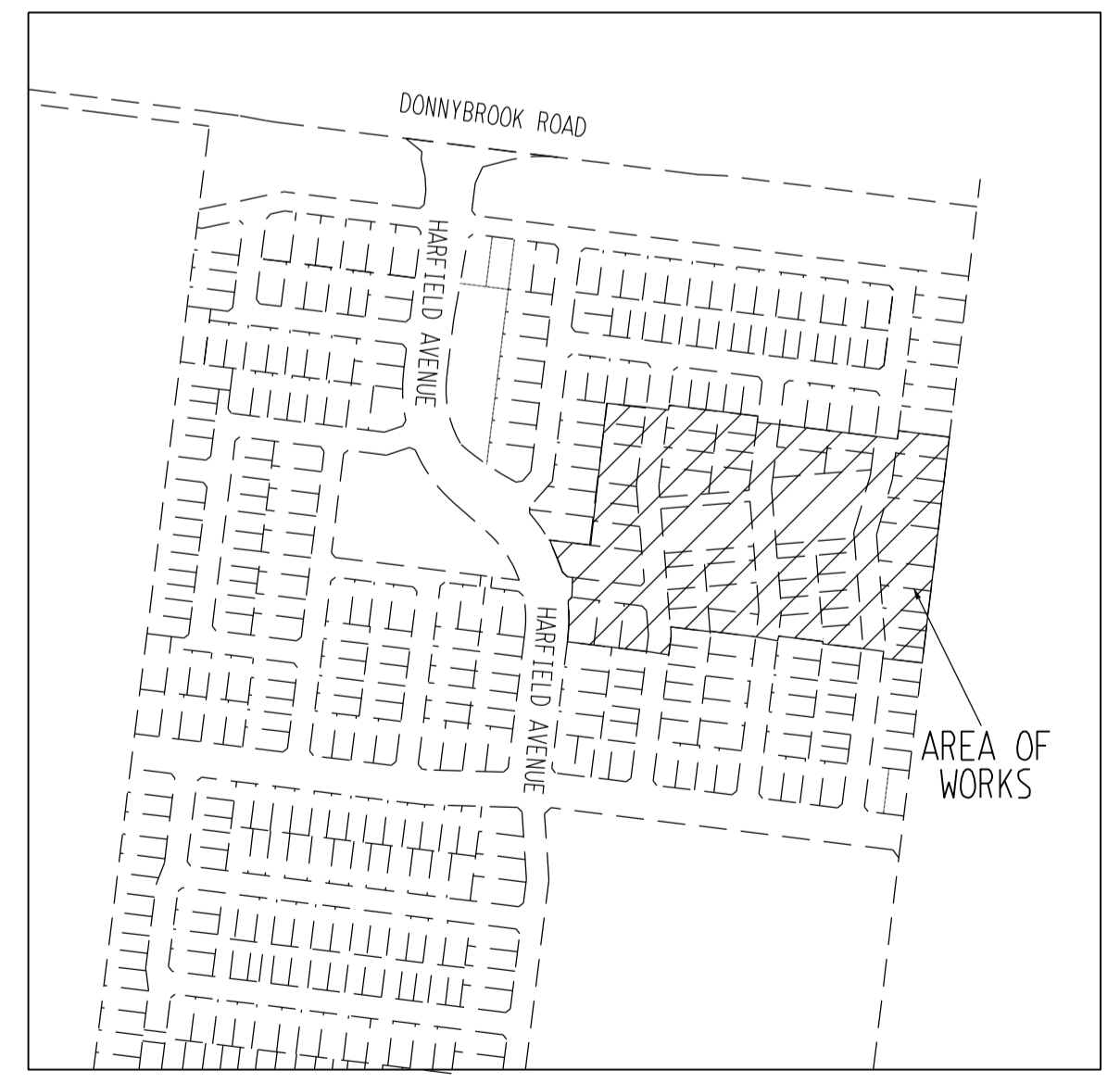
Remove existing concrete edge strip and match new work neatly with existing construction

PLAN-1
SCALE 1:500
SERVICES OFFSETS AND LOCATIONS

| STREET/LOT NAME | Rd. RESERVE | WATER | | GAS | ELECTRICITY | | TELECOMMUNICATIONS | | Bk. of KRRB | JOINT TRENCHING |
|------------------|-------------|--------|--------|--------|-------------|----------|--------------------|--------|-------------|------------------|
| | | DW | NDW | | CABLES | POLES | CABLES | PITS | | |
| THORNABY DRIVE | 16-00 | 3-20 W | 2-70 W | 2-25 W | 2-50 E | 1-00 BOK | 1-85 E | 1-85 W | 3-90 E | G DW NDW & E NBN |
| LATTERIDGE WAY | 16-00 | 3-20 W | 2-70 W | 2-25 W | 2-50 E | 1-00 BOK | 1-85 E | 1-85 W | 3-90 E | G DW NDW & E NBN |
| WHITELEAF DRIVE | 16-00 | 2-75 W | 2-30 W | 1-85 W | 2-50 E | 1-00 BOK | 1-85 E | 1-85 W | 3-90 E | G DW NDW & E NBN |
| AILSWORTH WAY | 14-00 | 3-20 S | 2-70 S | 2-25 S | 0-90 N | 1-00 BOK | 0-40 N | 1-85 S | 4-20 S | G DW NDW & E NBN |
| WINGRAVE LANE | 8-00 | - | - | - | 0-50 N | 0-50 BOY | - | - | 4-20 S | G DW NDW & E NBN |
| WARAGREEN WALK # | 4-00 | 2-50 S | 2-10 S | 1-70 S | 3-50 S | - | 3-00 S | - | - | G DW NDW & E NBN |

ALL SERVICES OFFSETS FROM THE NORTHERN TITLE BOUNDARY (LOTS 347-356)

AS CONSTRUCTED



ATTENTION TO CONTRACTOR

- IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM COORDINATES SHOWN.
- Where concrete works about a sewer access chamber surround or similar structure, an expansion joint of approved material shall be provided between the two faces.

| AMENDMENTS | DATE | REMARKS |
|------------|----------|---|
| G | 21-06-17 | TELECOMM CABLE LOCATION AMENDED IN AILSWORTH WAY |
| F | 23-05-17 | SHARED PATH ALONG RESERVE LOT 313 & 322 AND LOT 328 & 333 AMENDED |
| E | 31-01-17 | DRIVEWAY FOR LOT 344 AMENDED |
| D | 16-12-16 | GAS & WATER CONDUITS UPDATED |
| C | 28-10-16 | PALING FENCE ADDED TO LOTS 313, 322, 328 & 333 |
| B | 26-10-16 | FOOTPATH ADDED IN WARAGREEN WALK. INDEX UPDATED |
| A | 21-10-16 | ISSUED FOR CONSTRUCTION |

breese pitt dixon pty. ltd.
land surveyors civil engineers

1/19 coto street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

WARATAH ESTATE
STAGE 3

MELWAY REF. 366-E-6

SURVEY BJ

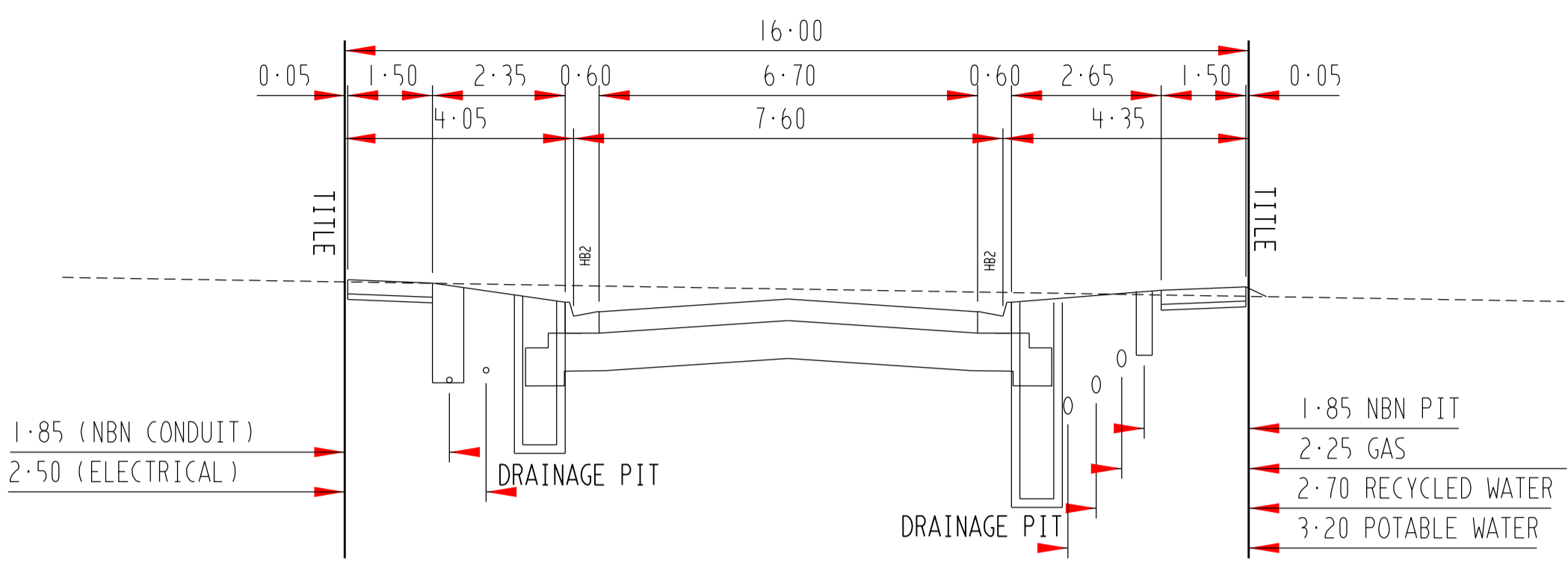
DESIGN SBS

DRAWN SBS

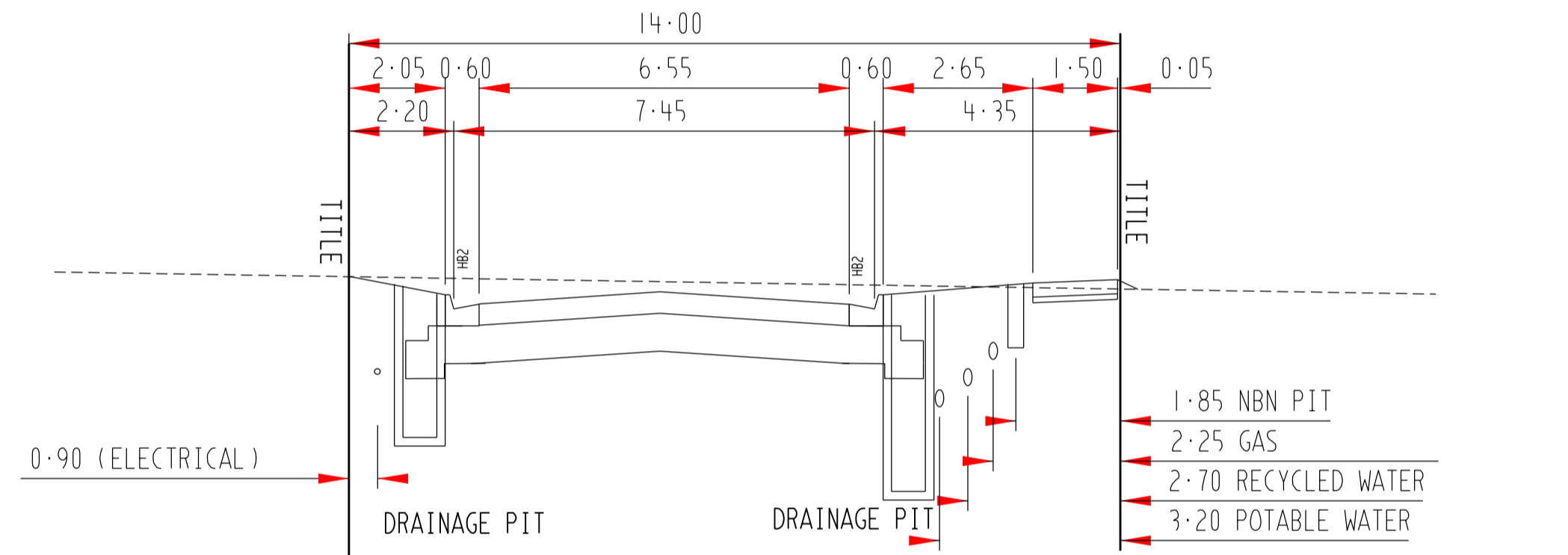
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SCALE AS SHOWN DATUM AHD DATE APR '16 SHEET 1 OF 18

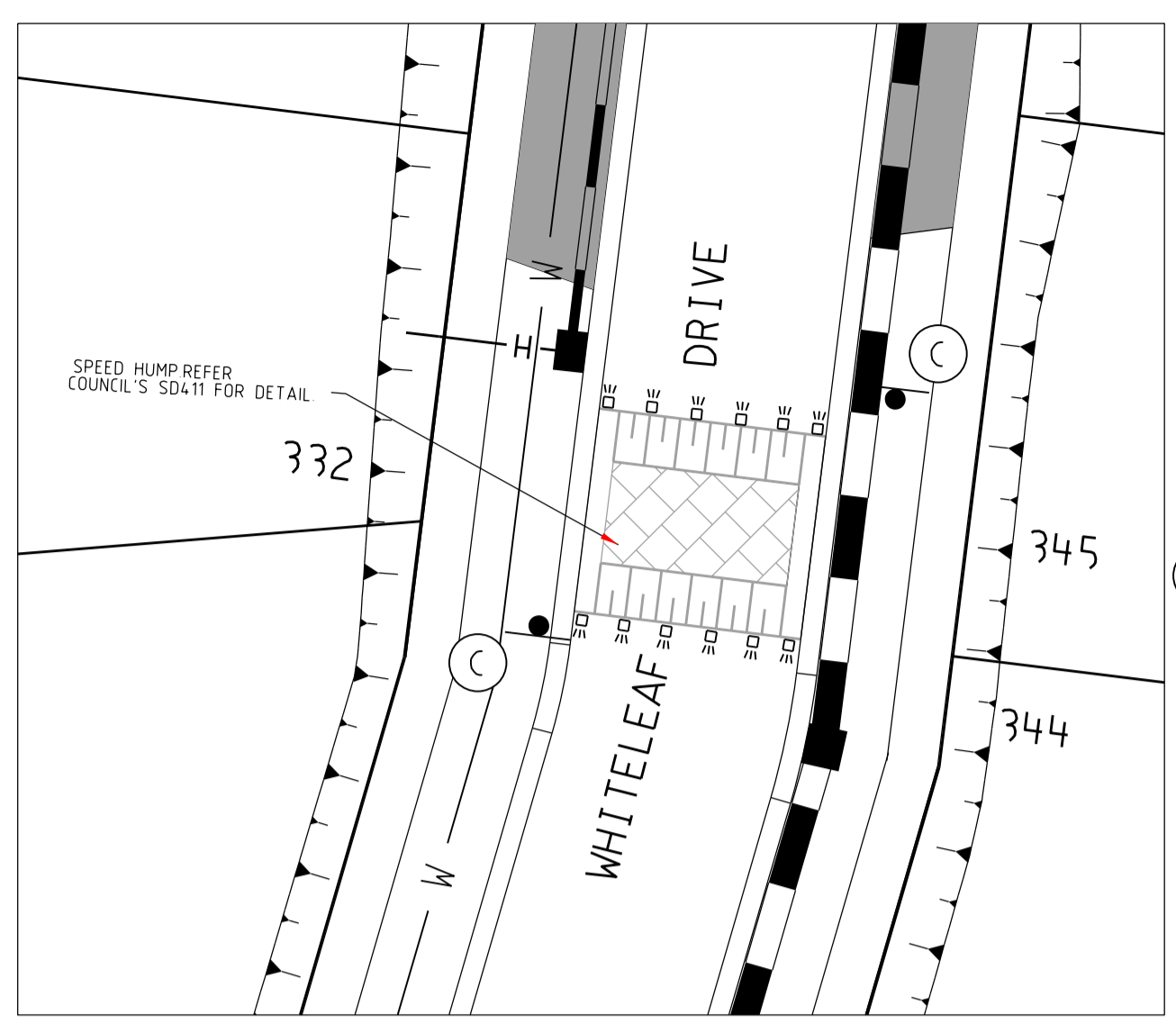
MUNICIPALITY HUME REFERENCE 8711 E/3



THORNABY DRIVE, LATTERIDGE WAY, WHITELEAF DRIVE



AILSWORTH WAY



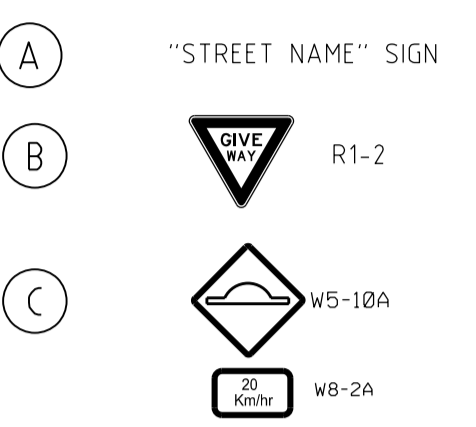
SPEED HUMP DETAIL

SCALE 1:200

| Point no | Easting | Northing | RL |
|----------|------------|-------------|---------|
| B 1 | 315081.668 | 5843266.704 | 247.605 |
| B 2 | 315076.150 | 5843274.945 | 247.663 |
| B 3 | 315071.278 | 5843275.186 | 247.697 |
| B 4 | 315082.866 | 5843269.697 | 247.620 |
| B 5 | 315081.104 | 5843271.961 | 247.633 |
| B 6 | 315079.107 | 5843273.617 | 247.647 |

| Curve no | Radius | Chord | Mid Ord | Qtr Ord | Mid Ord RL | |
|----------|--------|--------|---------|---------|------------|---------|
| B 1 | 2 | -8.600 | 10.862 | 1.932 | 1.932 | 247.633 |

SIGN SCHEDULE



NOTES

- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH MPA & HUME CITY COUNCIL STANDARD DRAWINGS, SPECIFICATIONS, APPROVED PLANS AND TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- COUNCIL TO BE NOTIFIED SEVEN (7) CLEAR WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORKS WITH A PRECOMMENCEMENT MEETING BEING HELD BETWEEN HUME CITY COUNCIL, THE CONSULTANT AND THE CONTRACTOR BEFORE WORKS COMMENCE. A SITE MANAGEMENT PLAN IS TO BE SUBMITTED PRIOR TO COMMENCEMENT OF WORKS AND PRIOR TO AN ONSITE PRECOMMENCEMENT MEETING.
- PRIOR TO COMMENCEMENT OF THE WORKS, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION:
 - SOURCE OF QUARRY MATERIAL
 - N.A.T.A. APPROVED TEST RESULTS FOR THE F.C.R. THAT IS TO BE USED
 - IF THE SOURCE OF THE QUARRY MATERIAL IS CHANGED DURING THE COURSE OF THE WORKS, THEN NEW TEST RESULTS SHALL BE PROVIDED.
- PRIOR TO COMMENCEMENT OF WORKS ON SITE, THE CONTRACTOR MUST ENSURE THAT ALL MATTERS RELATING TO THE OCCUPATIONAL HEALTH AND SAFETY ACT 2004 AND OHS REGULATIONS 2007 HAVE BEEN AND WILL BE COMPLIED WITH.
- PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR MUST SUBMIT A SMP TO THE CONSULTANT FOR APPROVAL. THE CONTRACTOR MUST COMPLY WITH THE RECOMMENDATIONS OF THE ENVIRONMENT PROTECTION AUTHORITY PUBLICATION NO.275 "CONSTRUCTION TECHNIQUES FOR SEDIMENT POLLUTION CONTROL". APPROPRIATE SILTATION CONTROL IS TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PERIOD OF THE WORKS.
- THE DISPOSAL SITE FOR SPOIL REMOVAL FROM SITE AND TRUCK ROUTE IS TO BE SUBMITTED TO AND APPROVED BY THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE IN WRITING PRIOR TO THE COMMENCEMENT OF ANY WORKS.
- WHERE WORKS ARE IN THE VICINITY OF EXISTING SERVICES, THESE SERVICES ARE TO BE LOCATED AND EXPOSED PRIOR TO COMMENCEMENT OF WORKS, AND THE RELEVANT AUTHORITIES NOTIFIED SEVEN (7) CLEAR DAYS PRIOR TO THE COMMENCEMENT OF THE WORKS.
- ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM AHD.
- ALL CO-ORDINATES ARE TO MAP GRID OF AUSTRALIA (MGA).
- THE CONTRACTOR MUST ARRANGE THE REQUISITE INSPECTIONS OF THE WORKS WITH THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE AS PER THE HOLD POINTS IN THE MPA MANUAL AND HUME CITY COUNCIL SPECIFICATIONS.
- FILL AREAS TO BE STRIPPED OF TOPSOIL, FILLED AND TOPSOIL REPLACED TO OBTAIN FINAL FILL LEVELS AS SHOWN ON PLAN. FILLING IS TO BE CLEAN CLAY COMPACTED TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE STANDARD COMPACTION TEST IN ACCORDANCE WITH A.S. 1289.5.1.1-2003.
- FILLING TO COMPLY WITH A.S. 1798-2007, LEVEL 1 UNLESS SPECIFIED OTHERWISE.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL IMPORTED FILL MATERIAL, INCLUDING TOPSOIL, SATISFIES THE DESCRIPTION FOR CLEAN FILL MATERIAL IN EPA BULLETIN PUBLICATION NO.448 SEPT '96, AND SUBSEQUENT REVISIONS. THE CONTRACTOR SHALL IF REQUIRED PROVIDE VERIFICATION INCLUDING TEST CERTIFICATES TO THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- WHERE, AS A CONDITION OF THE PLANNING PERMIT OR AS A RESULT OF THE PRE-CONSTRUCTION MEETING, FENCING OF AREAS CONTAINING TREES, NATIVE GRASSES AND SHRUBS IS REQUIRED, A THREE STRAND STAR PICKET AND WIRE FENCE SHALL BE CONSTRUCTED.
- NO TREE OR NATIVE VEGETATION IS TO BE DISTURBED OR REMOVED WITHOUT PRIOR APPROVAL FROM COUNCIL'S SUSTAINABLE ENVIRONMENT DEPARTMENT. ANY TREES REMOVED, VEGETATION OR OTHER MATERIALS ARE NOT TO BE BURNT ON SITE.
- BEFORE COMMENCING WORK ON TRENCHES IN EXCESS OF 1.5M DEEP, NOTICE OF SUCH PROPOSAL IS TO BE FORWARDED BY THE CONTRACTOR TO WORKSAFE VICTORIA.
- THE CONTRACTOR IS TO OBTAIN A BUILDING PERMIT FOR ANY STRUCTURES/FENCES AND FOR ANY RETAINING WALLS OVER 1.0M IN HEIGHT.
- ANY INFRASTRUCTURE DAMAGE DURING THE DEFECTS LIABILITY PERIOD IS THE RESPONSIBILITY OF THE DEVELOPER OR HIS REPRESENTATIVE AND IS TO BE REINSTATED TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER OR HIS REPRESENTATIVE.
- ALL DISTURBED AREAS, i.e. NATURE STRIPS, BATTERS, ALLOTMENTS & RESERVES, ARE TO BE REINSTATED TO A CLEAN, TIDY CONDITION, TOP DRESSED (100mm LOAMY TOP SOIL FREE OF CLUMPS, SODS AND CLAY LUMPS) AND SOWN WITH GRASS SEED. SEED IS TO BE A DROUGHT TOLERANT COUCH/FESCUE MIX UNLESS OTHERWISE DETAILED. BLEND IS GENERALLY AS FOLLOWS:

90% DROUGHT TOLERANT PERENNIAL RYE
10% KIKURU
- NOTE: GRASS IS TO BE ESTABLISHED PRIOR TO THE END OF THE MAINTENANCE PERIOD OR UNLESS OTHERWISE AGREED.
- FOOTPATHS ARE TO BE 500mm OFFSET FROM TITLE BOUNDARIES UNLESS NOTED OTHERWISE. VEHICLE CROSSING ALIGNMENTS ARE GENERALLY TO BE PARALLEL TO THE SIDE BOUNDARY.
- ALL NEW CONCRETE WORKS SHALL BE JOINED INTO ABUTTING EXISTING CONCRETE WITH 450mm LONG V20 DOWEL BARS @ 600 CENTRES, UNLESS OTHERWISE SPECIFIED.
- ANY EXPOSED AGGREGATE CONCRETE WORKS TO BE ACHIEVED BY SAND-BLASTING ONLY. WASHING AGGREGATE OFF WITH WATER IS NOT PERMITTED.
- SERVICE CONDUITS TRENCHES UNDER DRIVEWAYS AND FOOTPATHS ARE TO BE 50mm P.V.C. LAYED 50mm DEEP AND EXTENDING 250mm EACH SIDE OF DRIVEWAYS/FOOTPATHS. ALL SERVICE CONDUITS TRENCHES UNDER ROAD PAVEMENTS ARE TO BE BACKFILLED WITH 20mm 3% CEMENT TREATED CLASS 3 CRUSHED ROCK COMPACTED TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE MODIFIED COMPACTION TEST IN ACCORDANCE WITH A.S. 1289.5.2.1-2003. ALL SERVICE CONDUITS TRENCHES UNDER FOOTPATH, VEHICULAR CROSSINGS, PARKING BAYS AND WITHIN 750MM OF PARKING BAYS TO BE BACKFILLED WITH CLASS 3 CRUSHED ROCK.
- ALL STORMWATER DRAINS TO BE CLASS 2 R.C. OR RIGID F.R.C. WITH ADCOL FLEXIBLE COLLARS UNLESS OTHERWISE ALL PIPES UP TO & INCLUDING 750mm DIA. ARE TO BE TO BE RUBBER RING JOINTED INTERLOCKING/FLUSH JOINTS WITH EXTERNAL BANDS CAN ONLY BE USED ON PIPES OVER 750mm DIA.
- WHERE NEW ASPHALT, CONCRETE K & C, PATHS AND DRIVEWAYS MATCH INTO EXISTING, THE EXISTING SURFACE IS TO BE SAW CUT AND MATCHED NEATLY.
- ALL REDUNDANT ASSETS ARE TO BE REMOVED AND DISPOSED OFF SITE.
- ALL TREES AND SHRUBS ARE TO BE RETAINED UNLESS OTHERWISE SHOWN OR DIRECTED BY THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- AT THE COMPLETION OF ALL WORKS, ALL RUBBISH, DEBRIS AND SURPLUS SPOIL SHALL BE REMOVED AND THE SITE SHALL BE CLEARED TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- ALL DRAINS BEHIND KERB AND CHANNEL SHALL BE BACKFILLED TO MATCH PAVEMENT SUBGRADE LEVEL WITH 20mm CLASS 3 F.C.R. COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE MODIFIED COMPACTION TEST IN ACCORDANCE WITH A.S. 1289.5.2.1-2003. ALL DRAINS, SEWERS, GAS & WATER MAINS LAID THROUGH THE ROAD PAVEMENT (EXCEPT CONDUITS) ARE TO BE BACKFILLED WITH 20mm CLASS 2 F.C.R. COMPACTED TO 98% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE MODIFIED COMPACTION TEST IN ACCORDANCE WITH A.S. 1289.5.2.1-2003.
- PAVEMENT DEPTH SPECIFIED IS A MINIMUM DEPTH AND MAY BE VARIED BY THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE. SOFT SPOTS SHALL BE EXCAVATED TO A PROOF ROLLED BASE AND BACKFILLED WITH APPROVED MATERIAL, COMPACTED IN 150mm LAYERS TO ACHIEVE TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE STANDARD COMPACTION TEST IN ACCORDANCE WITH AS 1289.5.1.1-2003.
- ALL EXISTING ASSETS AFFECTED BY THE WORKS, SIGNS, VEHICLE CROSSINGS, FOOTPATHS, KERB AND LINEMARKING SHALL BE REINSTATED BY THE CONTRACTOR PRIOR TO THE COMPLETION OF THE WORKS TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- ALL FIRE HYDRANTS ARE TO BE MARKED IN ACCORDANCE WITH "IDENTIFICATION OF STREET HYDRANTS FOR FIRE FIGHTING PURPOSES" PUBLICATION DEVELOPED BY C.F.A., M.F.E.S.B. & N.R.E., MARKINGS TO BE VIA BLUE PAVEMENT MARKER AND A RED TOPPED WHITE POST.
- AGRICULTURAL DRAINS ARE TO BE PLACED BEHIND ALL KERB AND CHANNEL. KERB ONLY AND EDGE STRIPS IN ACCORDANCE WITH COUNCIL STANDARD DRAWING S0282.
- ALL TABLE DRAINS AND VERGES ARE TO BE REINSTATED UPON COMPLETION OF WORKS TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.

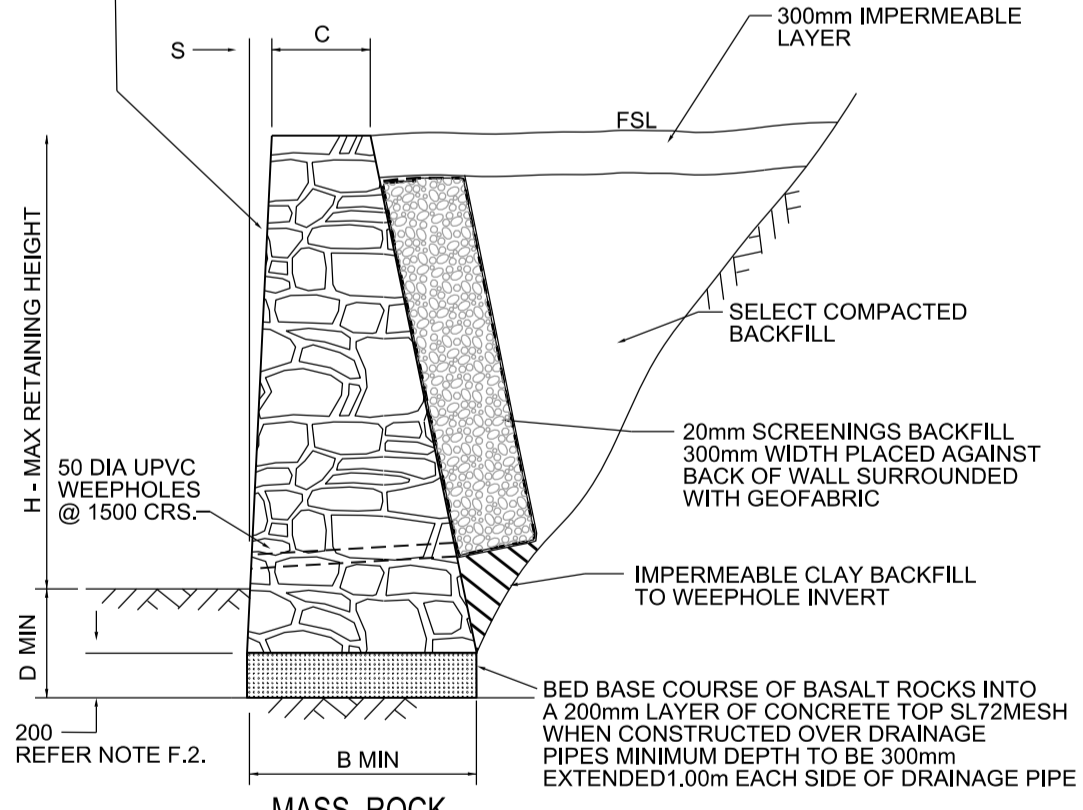
- ALL TRAFFIC CONTROL MEASURES, SIGNS AND LINEMARKING SHALL BE IN ACCORDANCE WITH A.S. 1742-1, 2 & 3. STREET NAME SIGNS ARE TO BE IN ACCORDANCE WITH STANDARD DRAWING S040B.
- ALL LINEMARKING PAINT SHALL BE LONG LIFE TYPE IN ACCORDANCE WITH SECTION 95C OF THE HUME CITY COUNCIL SPECIFICATIONS. LATERAL WORKS AND ARROWS BEING COLD APPLIED PLASTIC THREADED INTO PLACE. MATERIAL DEGRADABLE PASTELINE AND LONGITUDINAL LINES BEING EXTRUDED THERMOPLASTIC MATERIAL.
- ALL SIGNS TO BE CLASS 1 HIGH INTENSITY TYPE AND TO COMPLY WITH THE REQUIREMENTS OF A.S. 1743-2001.
- HOUSE DRAIN CONNECTIONS TO 150mm DIAMETER PIPES TO BE VIA A MANUFACTURED JOINTION PIECE. 150mm DIAMETER STORMWATER PIPES ARE TO BE HEAVY DUTY SEWER GRADE. PVC PIPES SHALL BE BACKFILLED WITH 15mm MINUS F.C.R. TO 150mm ABOVE TOP OF PIPE IN ALL LOCATIONS.
- LOTS DENOTED THUS 344 ARE TO BE PROVIDED WITH A 100mm HOUSE DRAIN CONNECTION TO BE LAID AT AN OFFSET OF 50mm FROM THE LOW SIDE TITLE BOUNDARY AND PROPERTY INLETS 1.0M FROM THE LOW CORNER OF THE LOT UNLESS OTHERWISE SHOWN.
- DRAINAGE AND PITS TO BE SET OUT FROM OFFSETS SHOWN RATHER THAN FROM CENTRELINE PIPE CHAINAGES. CENTRELINE OF PITS AT KERB T.P.'S TO BE 1.20m OFF T.P.
- BATTERS SHALL BE 1 IN 5 FOR FILL AND 1 IN 3 FOR CUT UNLESS OTHERWISE SHOWN.
- LOTS TO BE GRADED AND LEFT CLEAN TO THE SATISFACTION OF THE ENGINEER. ALL LOTS TO BE 1 IN 150 MINIMUM SLOPE.
- THE WATER CONDUIT OFF SET FROM THE LOT BOUNDARY IS GIVEN ON THE WATER RETICULATION PLAN. THE CONTRACTOR MUST CONSTRUCT CONDUITS TO ACCORD WITH THE GIVEN OFFSET AND ENSURE THAT THE CONCRETE MARKS THE KERB AND FOOTPATH EXACTLY ABOVE THE CONDUIT.
- TELSTRA/NBN CO TO BE NOTIFIED SEVEN (7) DAYS PRIOR TO CONCRETE WORKS BEING PLACED.
- LOCATION OF GAS, WATER AND TELSTRA/NBN CO CONDUITS ARE TO BE APPROPRIATELY MARKED ON THE FACE OF THE KERB AND CHANNEL WITH G, W, T AND O RESPECTIVELY. ALL CONDUIT ENDS SHALL BE SECURELY PLUGGED. TELSTRA, GAS & WATER CONDUITS TO BE 50mm CLASS 12 UPVC.
- ALL DRIVEWAYS ARE TO BE CONSTRUCTED AS PER MPA EDM 501 AND EDM 502 UNLESS OTHERWISE SHOWN.
- ALL DRIVEWAY RAMPS INTO PROPERTIES ARE TO BE CUT IN AT A MAXIMUM GRADE OF 1 IN 4 TO THE SATISFACTION OF THE ENGINEER.
- CONTRACTOR SHALL ERECT AND MAINTAIN ALL NECESSARY SHORING, PLANKING, STRUTTING AND DOWELING DEVICES, BARRICADES, SIGNS, LIGHTS, ETC. NECESSARY TO KEEP THE WORKS IN A SAFE AND STABLE CONDITION AND PROTECT THE PUBLIC FROM THE WORKS.
- ALL CONCRETE TO BE 25MPa UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR MUST COMPLETE A LEVEL CHECK BETWEEN ALL TBM'S TO VERIFY LEVEL VALUES BEFORE COMMENCEMENT OF WORKS. ALL TBM'S AND CONTROL POINTS ARE TO BE MAINTAINED AND PROTECTED AT ALL TIMES DURING CONSTRUCTION. SHOULD ANY MARKS BE DISTURBED, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE CONSULTANT TO ARRANGE RE-INSTANTMENT AT THE CONTRACTORS EXPENSE.
- KERB TYPES TO BE USED AS SHOWN.
- STANDARD FOOTPATH AS MPA EDM 501
- EXISTING DAM OR WATERCOURSES TO BE EXCAVATED TO A FIRM BASE AND BACKFILLED AS SPECIFIED. CONSULTING ENGINEER TO BE NOTIFIED WHEN THE DAM OR WATERCOURSES ARE EXCAVATED TO A FIRM BASE. NO FILLING IS TO BE PLACED PRIOR TO DAMS BEING INSPECTED AND LEVELS TAKEN. BACKFILLING IS TO BE CARRIED OUT TO THE SATISFACTION OF THE COUNCIL SUPERVISING ENGINEER.
- PROVIDE 1.8m HIGH PALING FENCE ALONG ANY COMMON BOUNDARY BETWEEN A LOT AND MUNICIPAL RESERVE. PALINGS TO BE ON THE RESERVE SIDE AND STAINED IN A DARK GREEN COLOUR ON THE SIDE FACING THE RESERVE TO THE SATISFACTION OF COUNCIL.
- ALL SEENERS LAID THROUGH FOOTPATH SHALL BE BACKFILLED WITH 20mm CLASS 4 F.C.R. COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY.

RETAINING WALL NOTE R.1
a. WHERE FOOTPATH ABUTS RETAINING WALL CONTINUE CONCRETE UP TO BASE OF RETAINING WALL

FOOTING NOTE F.2
a. TOE OF WALL SHALL PENETRATE THROUGH ANY FILL MATERIAL & THE NATURAL SILT SOILS TO BE FOUNDED AT LEAST 100mm INTO THIS UNDERLYING NATURAL STIFF CLAY OR WEATHERED ROCK.

- ALL EXCAVATIONS SHALL HAVE FOUNDING DEPTHS AND BEARING CAPACITY APPROVED BY THE ENGINEER OR BUILDING SURVEYOR BEFORE CONCRETE IS PLACED. FOOTING EXCAVATIONS WHICH ARE DEEPEENED TO PENETRATE THROUGH UNSUITABLE SOILS SHALL BE BACKFILLED UP TO UNDERSIDE OF FOOTINGS WITH 15 MPa BLINDING CONCRETE.
- ALL EXCAVATION FOUNDING SURFACES SHALL BE LEVEL (NOT INCLINED) CLEAN CUT & FREE OF MUD OR WATER.
- ALL SEEPAGE INFLOW SHALL BE REMOVED BEFORE PLACEMENT OF CONCRETE.
- FOOTINGS SHALL BE FOUNDED IN STIFF NATURAL CLAY HAVING A SAFE BEARING CAPACITY OF 100kPa.

SELECTED BASALT ROCKS SET IN MORTAR MIX 1 CEMENT : 6 SAND ALL VOIDS FILLED
ROCK SIZE NOMINALLY 300-900
MORTAR JOINTS ON EXPOSED FACE OF WALL TO BE RECESSED TO GIVE A FREESTONE WALL APPEARANCE.

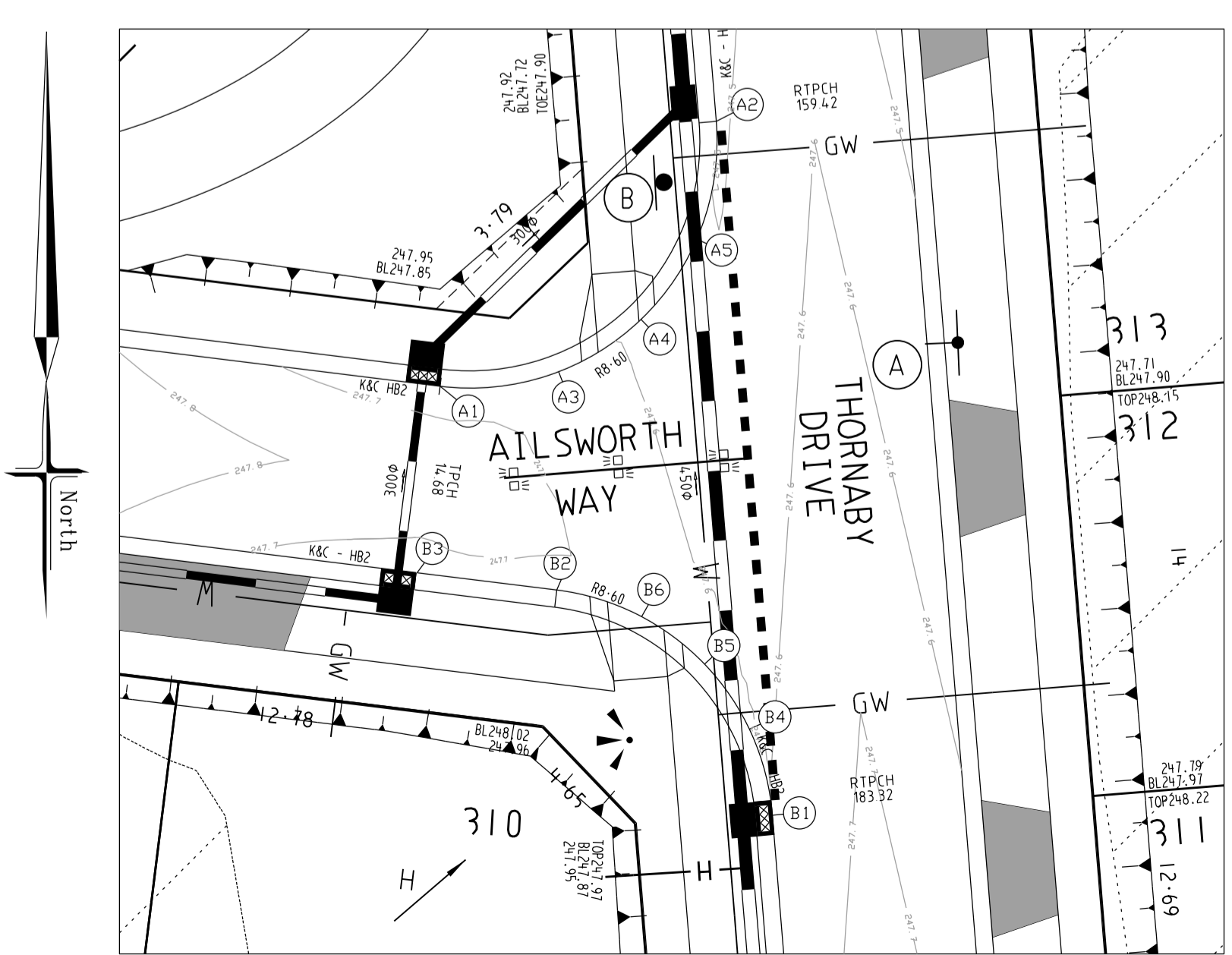


MASS ROCK RETAINING WALL DETAIL

MASS ROCK RETAINING WALL SCHEDULE

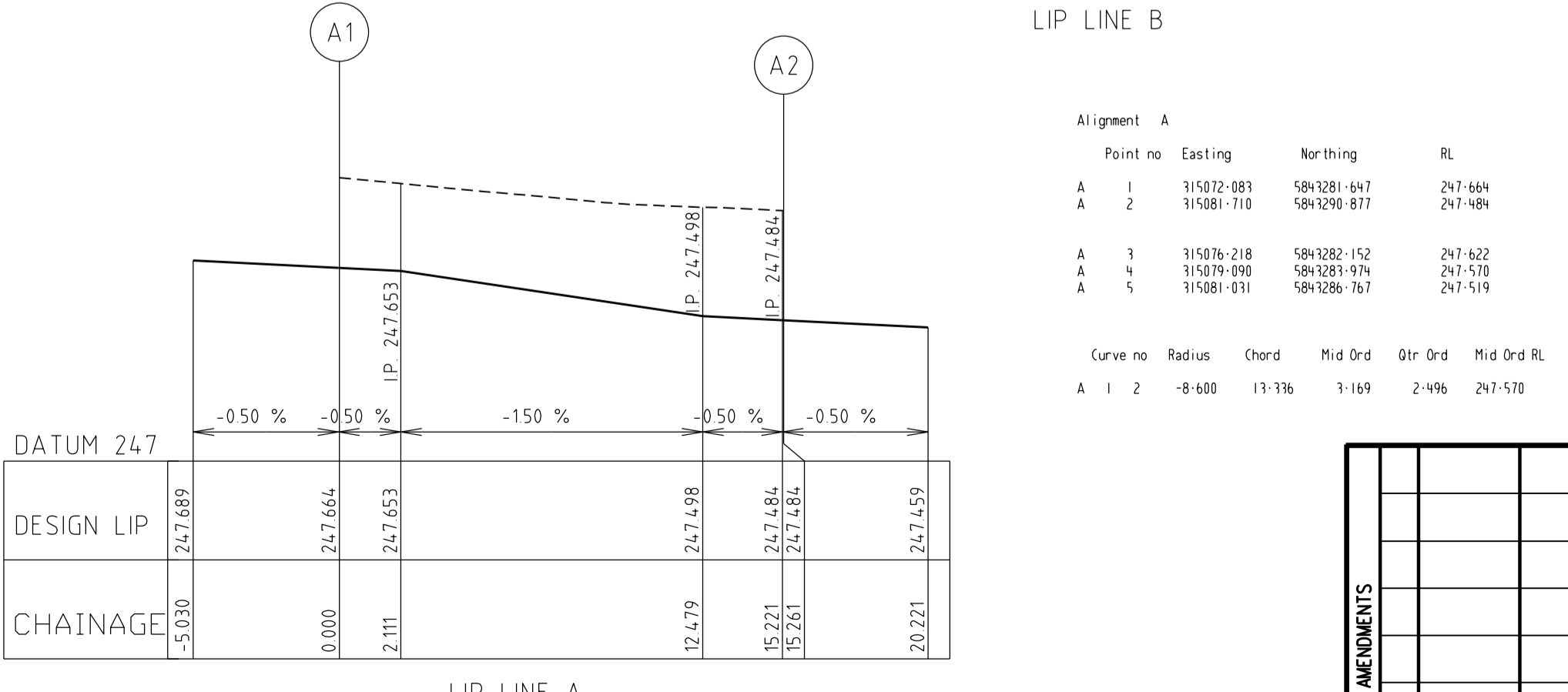
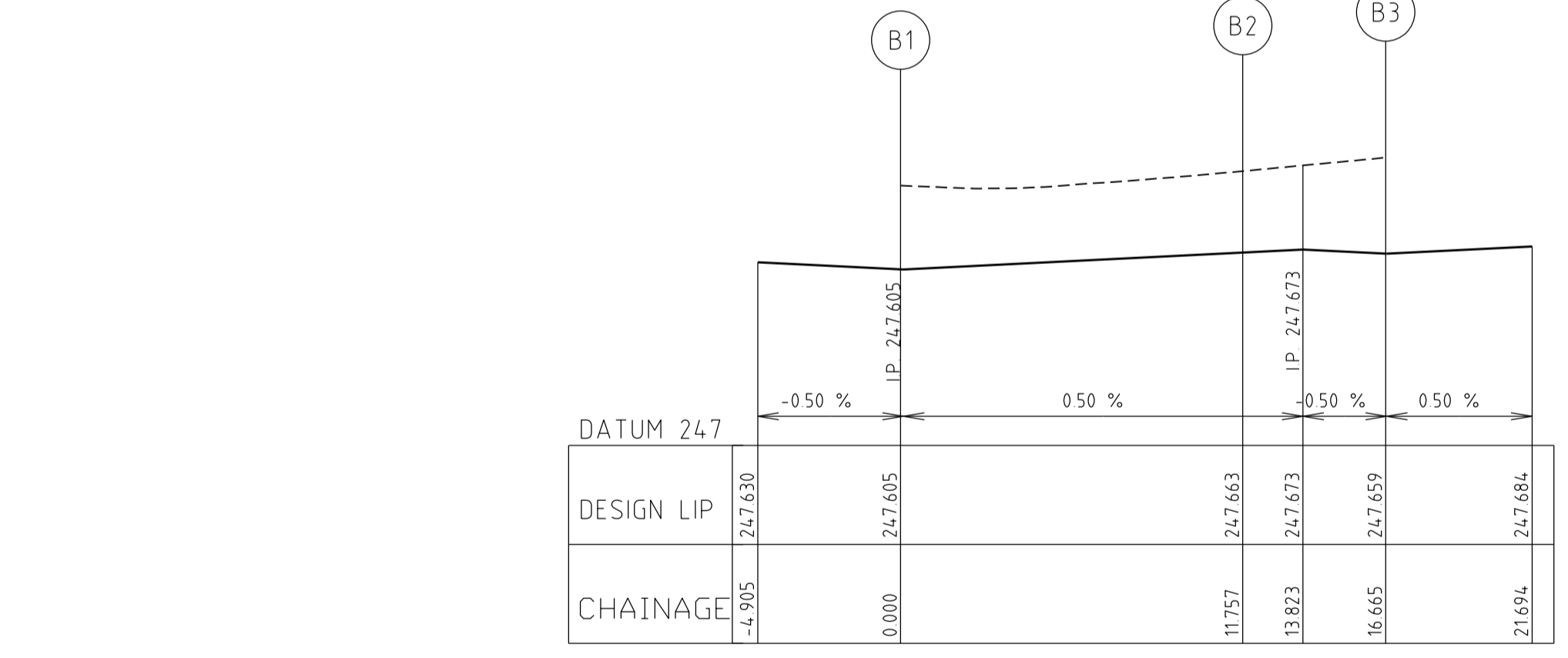
| MAX WALL HEIGHT - H (mm) | FOUNDING DEPTH - D (mm) | BASE WIDTH - B (mm) | FRONT FACE SETBACK - S (mm) | CREST WIDTH - C (mm) |
|--------------------------|-------------------------|---------------------|-----------------------------|----------------------|
| 400 | 300 | 450 | 15 | 300 |
| 500 | 300 | 500 | 15 | 300 |
| 600 | 300 | 500 | 30 | 300 |
| 800 | 300 | 550 | 30 | 300 |
| 1000 | 300 | 600 | 30 | 300 |

AS CONSTRUCTED



INTERSECTION DETAILS

SCALE 1:200

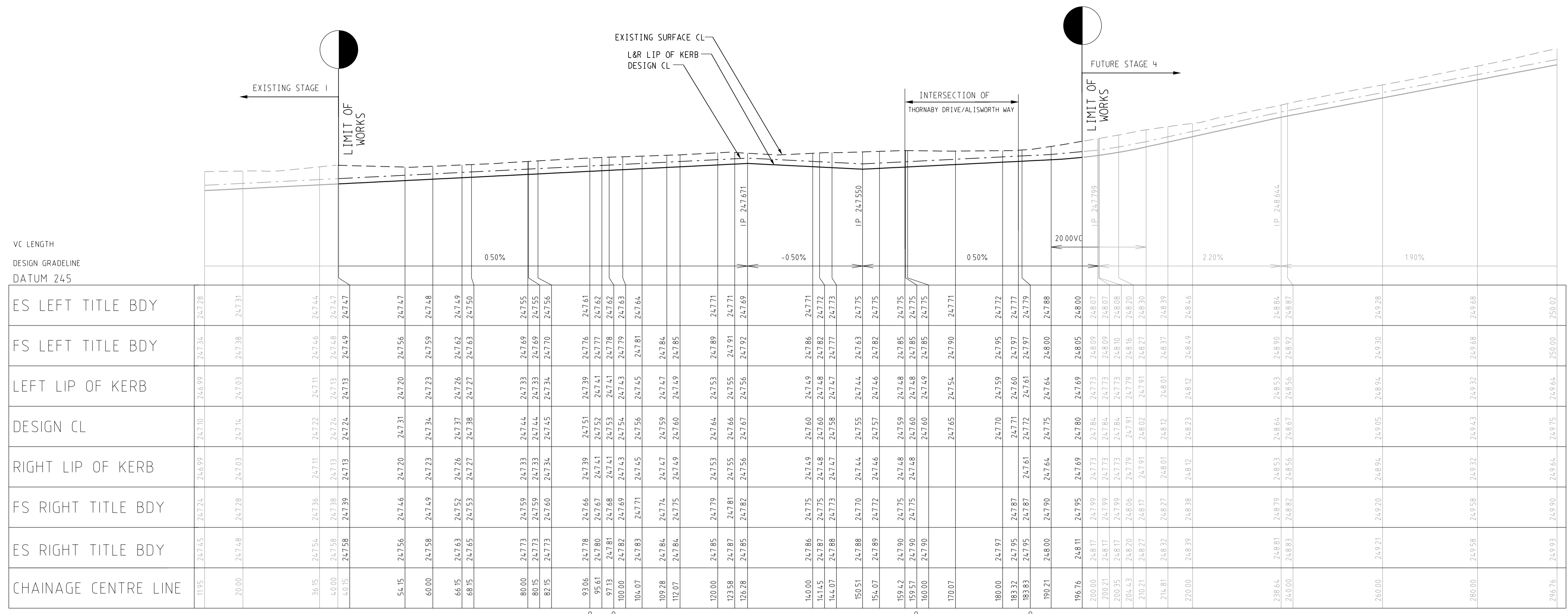


LIP LINE A

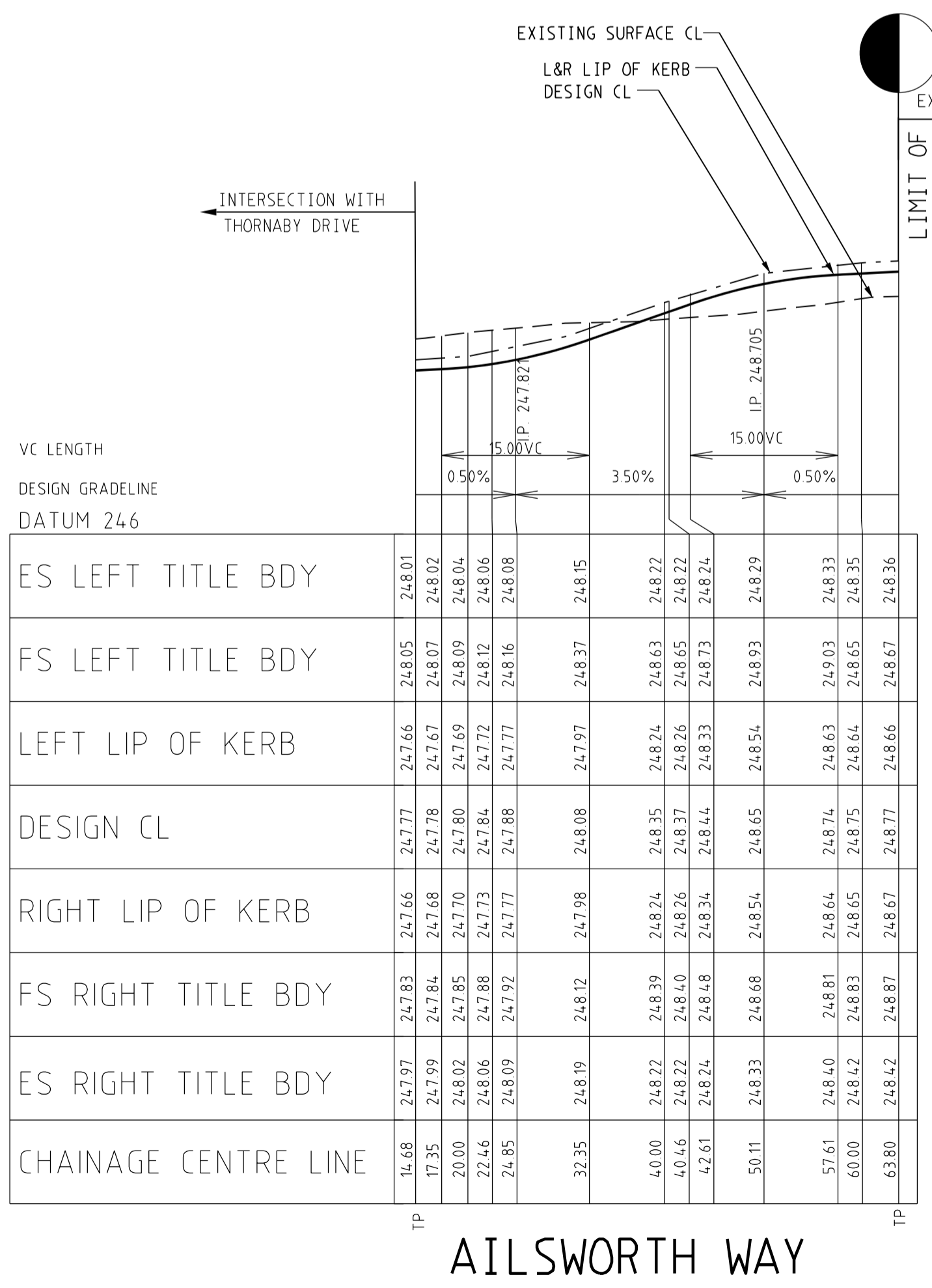
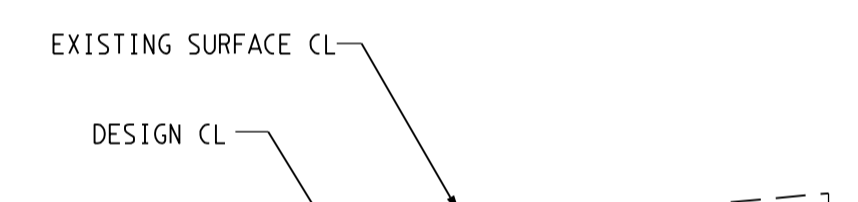
LIP OF KERB PROFILES

SCALE: HORIZONTAL 1:200
VERTICAL 1:20

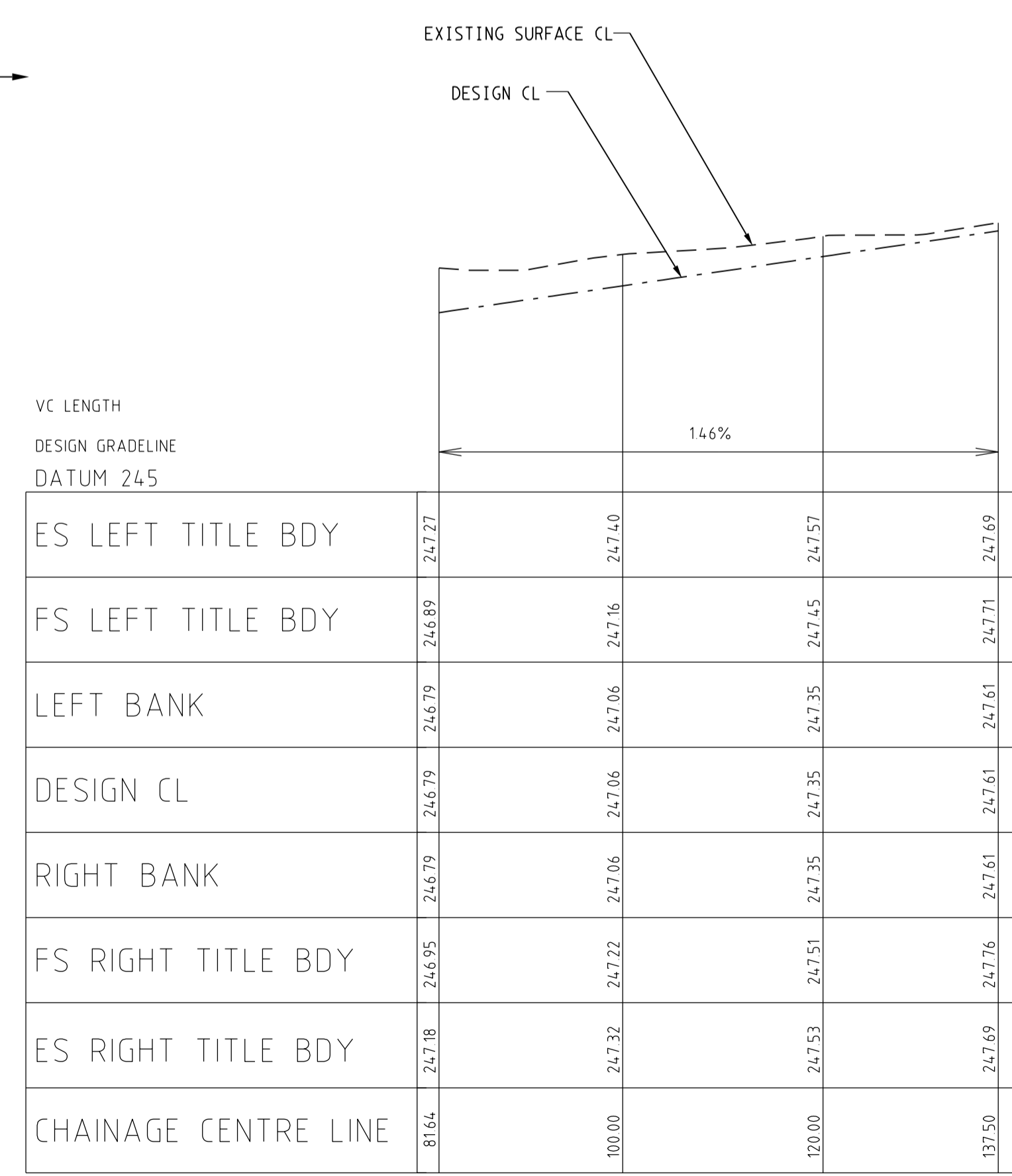
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|------------|-------------|-------------------------|--|---|-----|--------|---------|--------------|----------|
| AMENDMENTS | MELWAY REF. | 366-E-6 | breese pitt dixon pty. ltd. land surveyors civil engineers | 1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310 | | | | | |
| | SURVEY | BJ | | | | | | | |
| | DESIGN | SBS | | | | | | | |
| | DRAWN | SBS | | | | | | | |
| VER. | DATE | REMARKS | SCALE | DATUM | AHD | DATE | SHEET | MUNICIPALITY | |
| A | 21-10-16 | ISSUED FOR CONSTRUCTION | AS SHOWN | | | APR'16 | 2 OF 18 | HUME | |
| | | | | | | | | REFERENCE | 8711 E/3 |



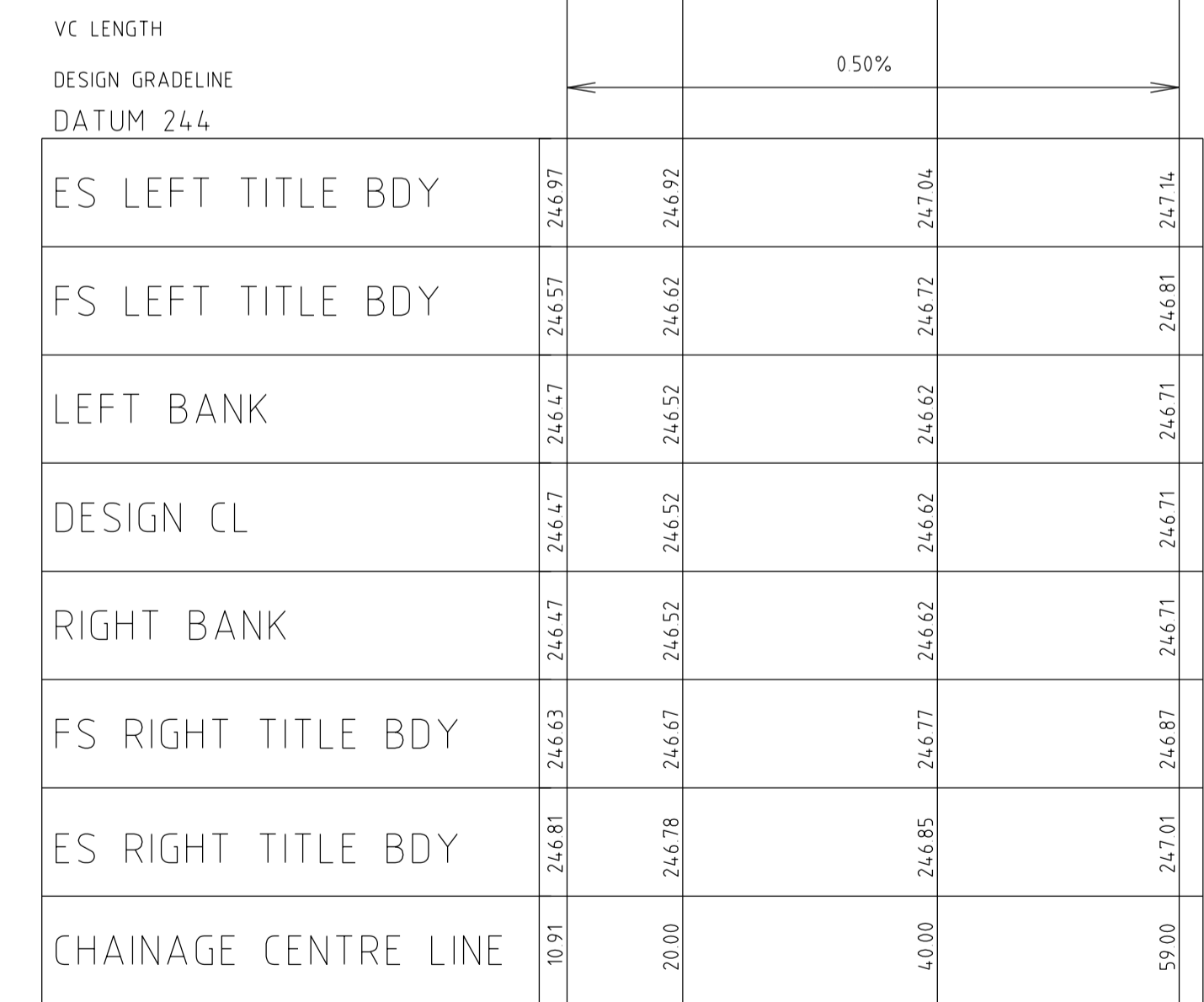
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RESERVE (LOT 313 & 322)

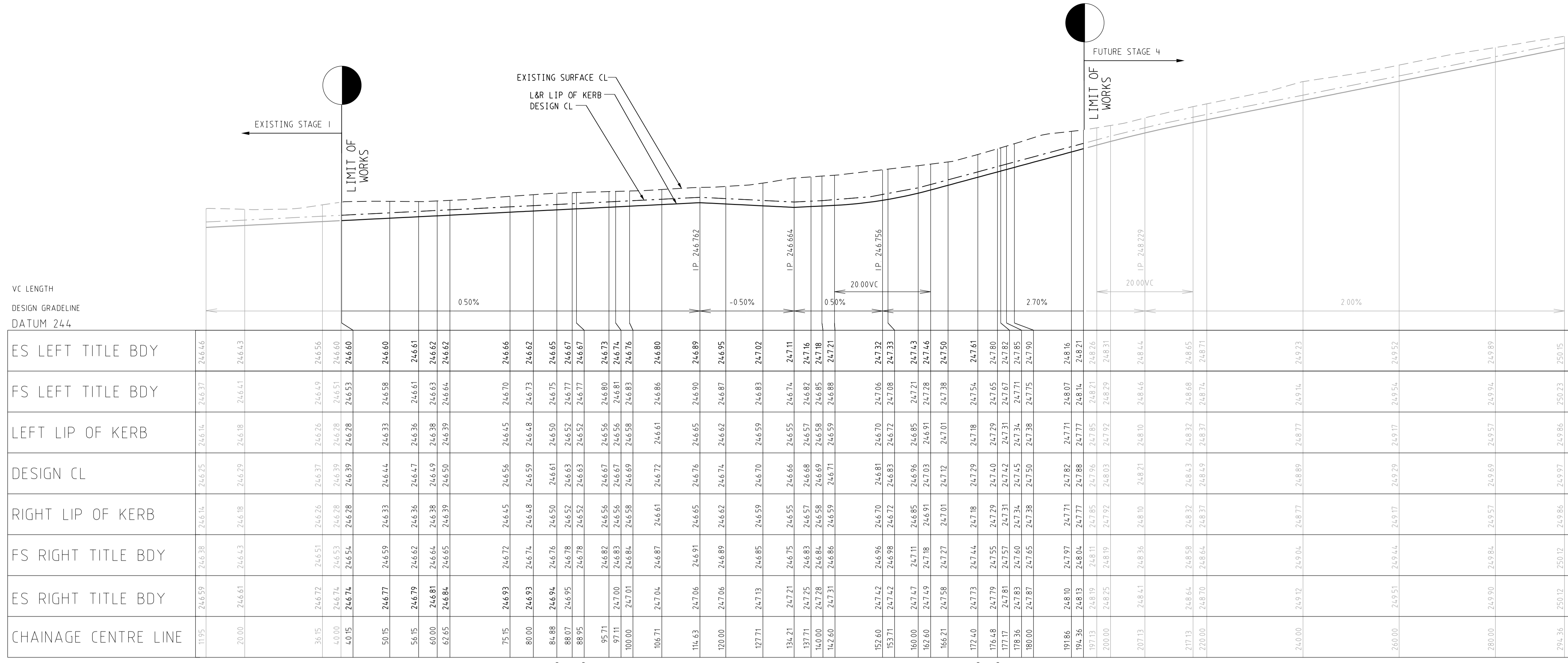


RESERVE (LOT 328 & 333)

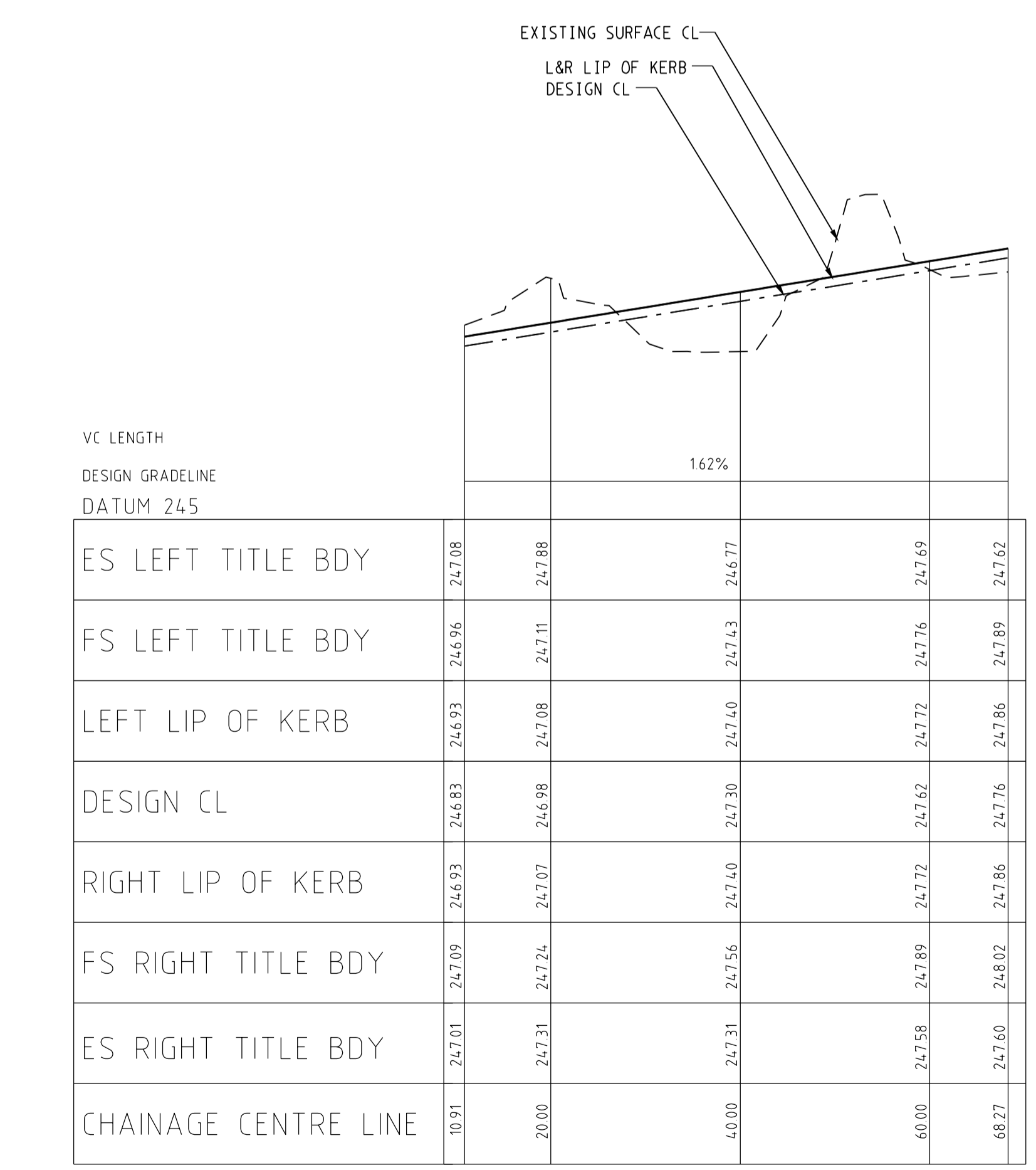
AS CONSTRUCTED

LONGITUDINAL SECTION
SCALE HORIZONTAL 1:500
VERTICAL 1:50

| | | | | | |
|------------------------------------|-------------|----------------|---|---|---------------|
| AMENDMENTS | MELWAY REF. | 366-E-6 | breese pitt dixon Pty. Ltd. land surveyors | 1/19 coto street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310 | |
| | SURVEY | BJ | | | |
| A 21-10-16 ISSUED FOR CONSTRUCTION | DESIGN | SBS | WARATAH ESTATE STAGE 3 | MUNICIPALITY | HUME |
| | VER | DATE | | REMARKS | REFERENCE |
| | CHECKED | SCALE AS SHOWN | DATUM AHD | DATE APR '16 | SHEET 3 OF 18 |



LATTERIDGE WAY

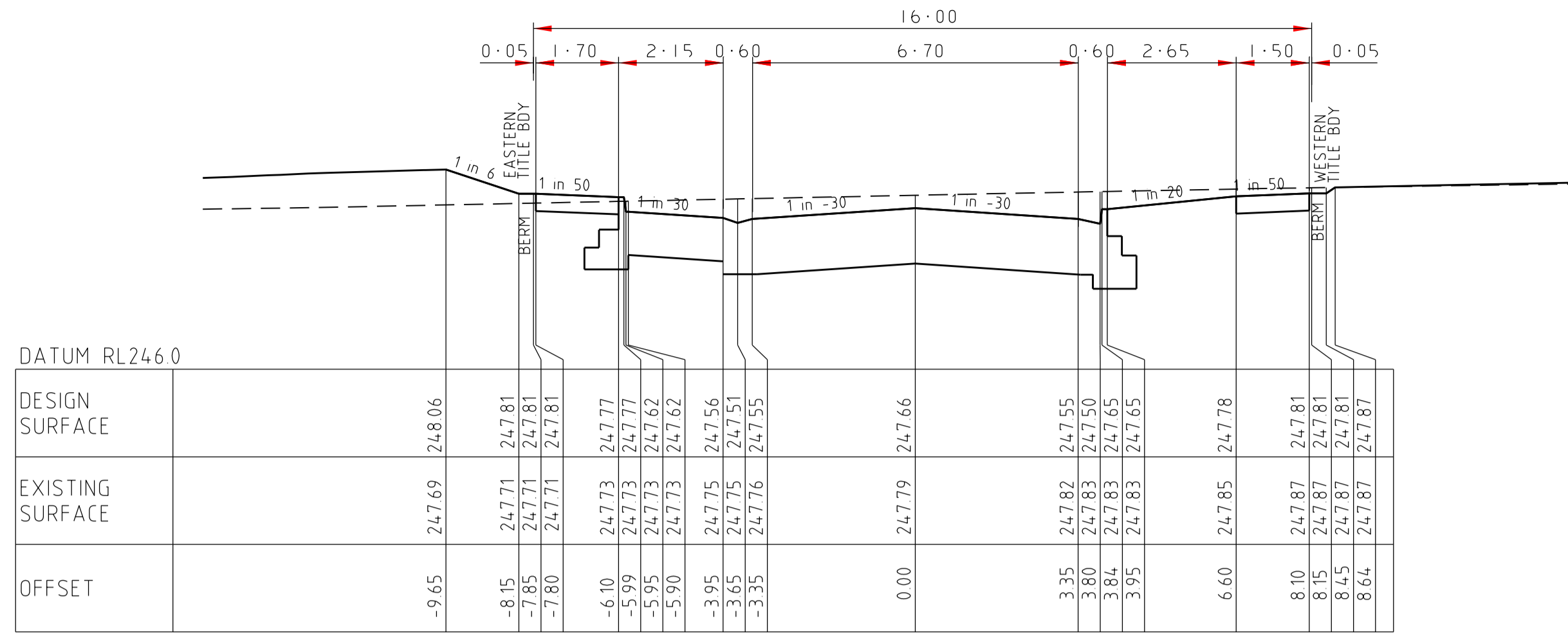


WINGRAVE LANE

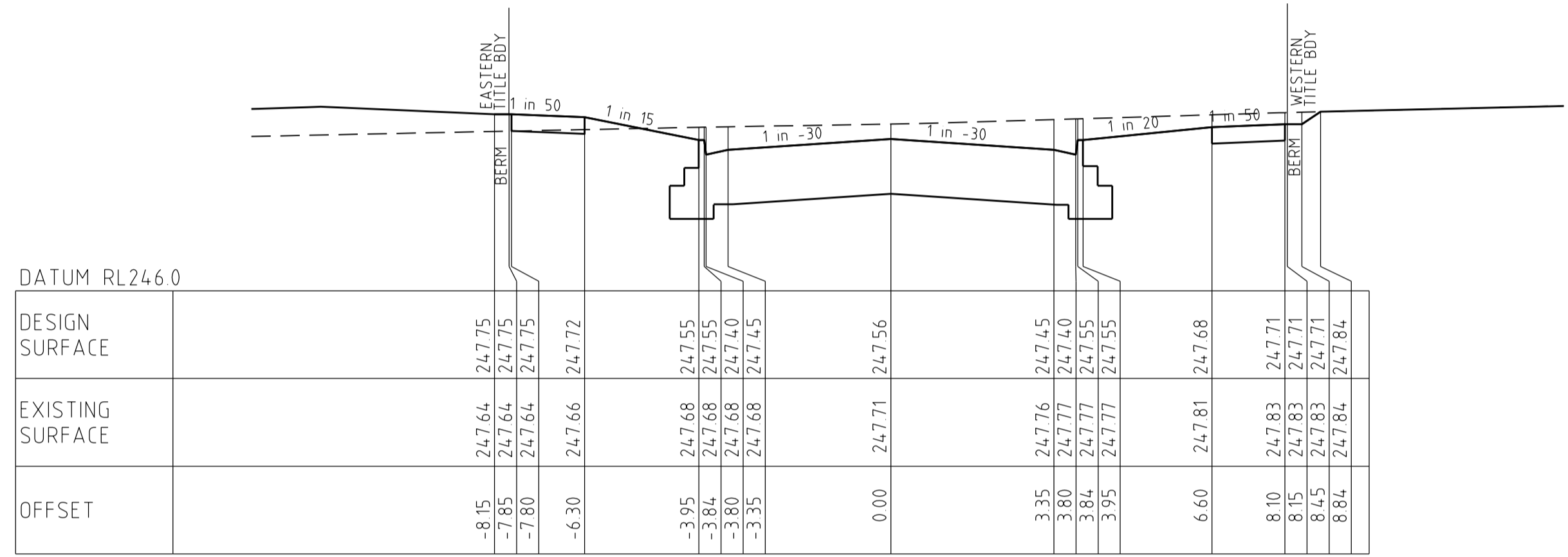
LONGITUDINAL SECTION
SCALE HORIZONTAL 1:500
VERTICAL 1:50

AS CONSTRUCTED

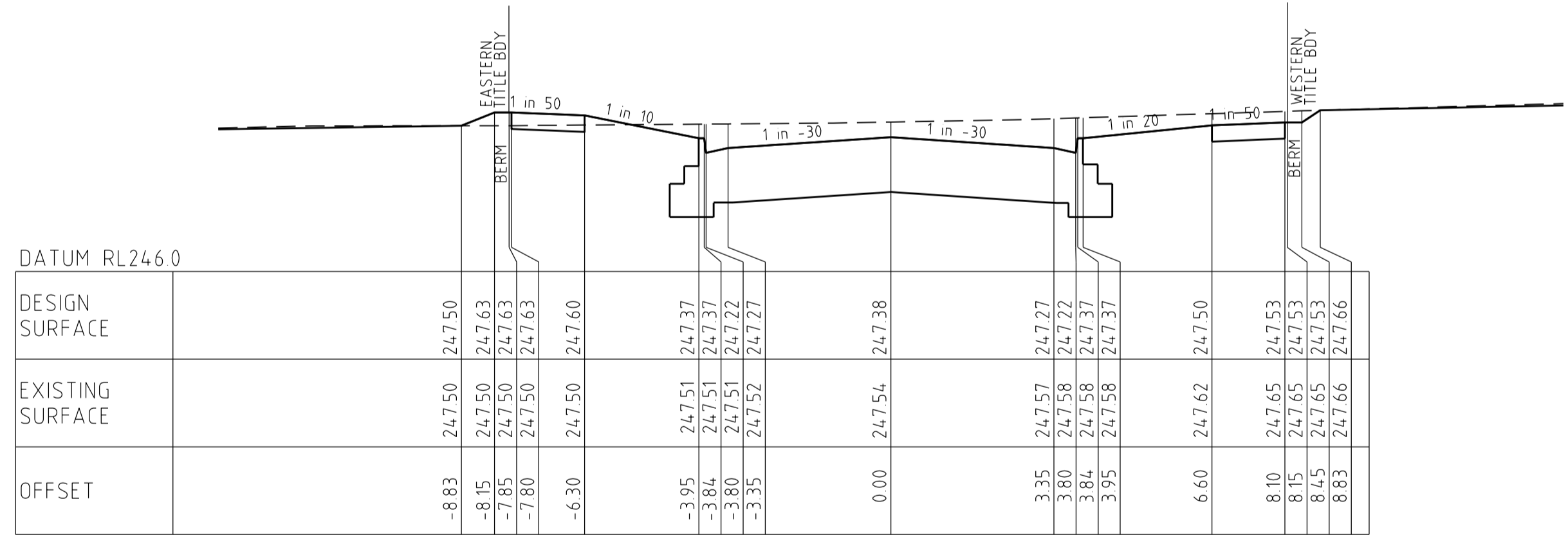
| | | | | | |
|---|--|---|--|---|--|
| | | breese pitt dixon pty. ltd. land surveyors civil engineers | | 1/19 coto street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310 | |
| MELWAY REF. 366-E-6 SURVEY BJ DESIGN SBS DRAWN SBS | | WARATAH ESTATE STAGE 3 | | MUNICIPALITY HUME REFERENCE 8711 E/3 | |
| A 21-10-16 ISSUED FOR CONSTRUCTION | | SCALE AS SHOWN DATUM AHD DATE APR '16 | | SHEET 4 OF 18 | |



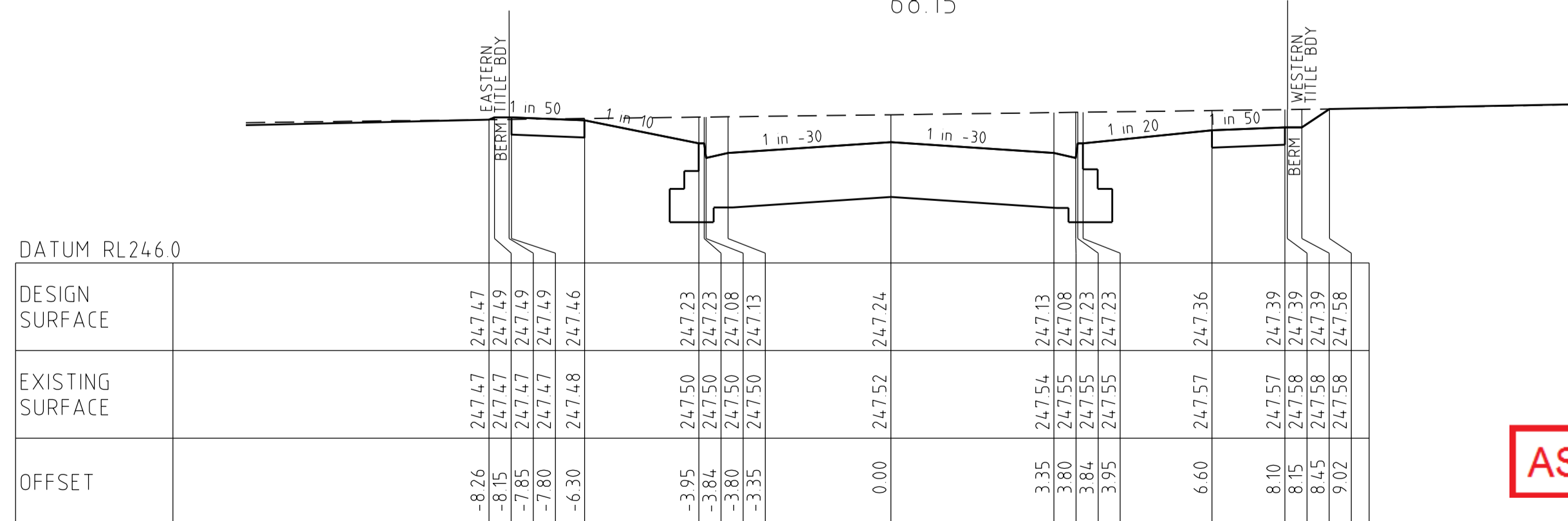
123.58



104.07



68.15

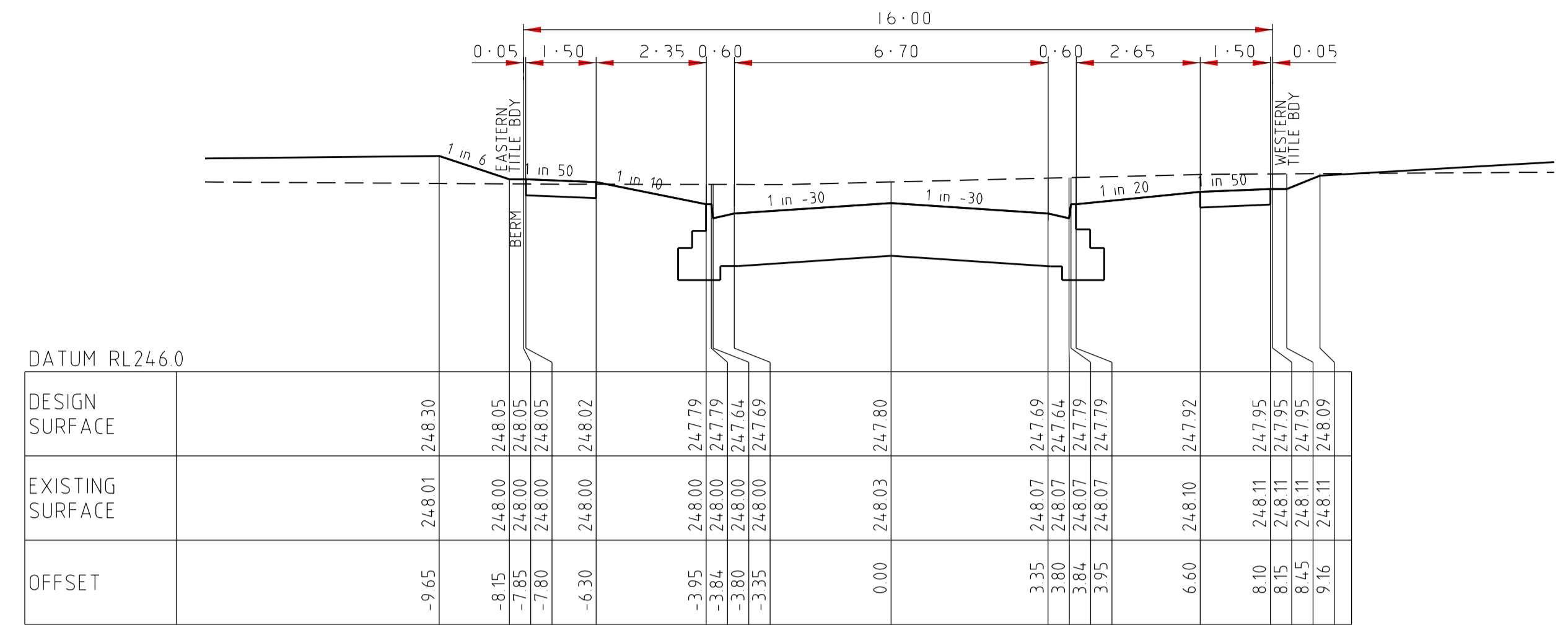


40.15

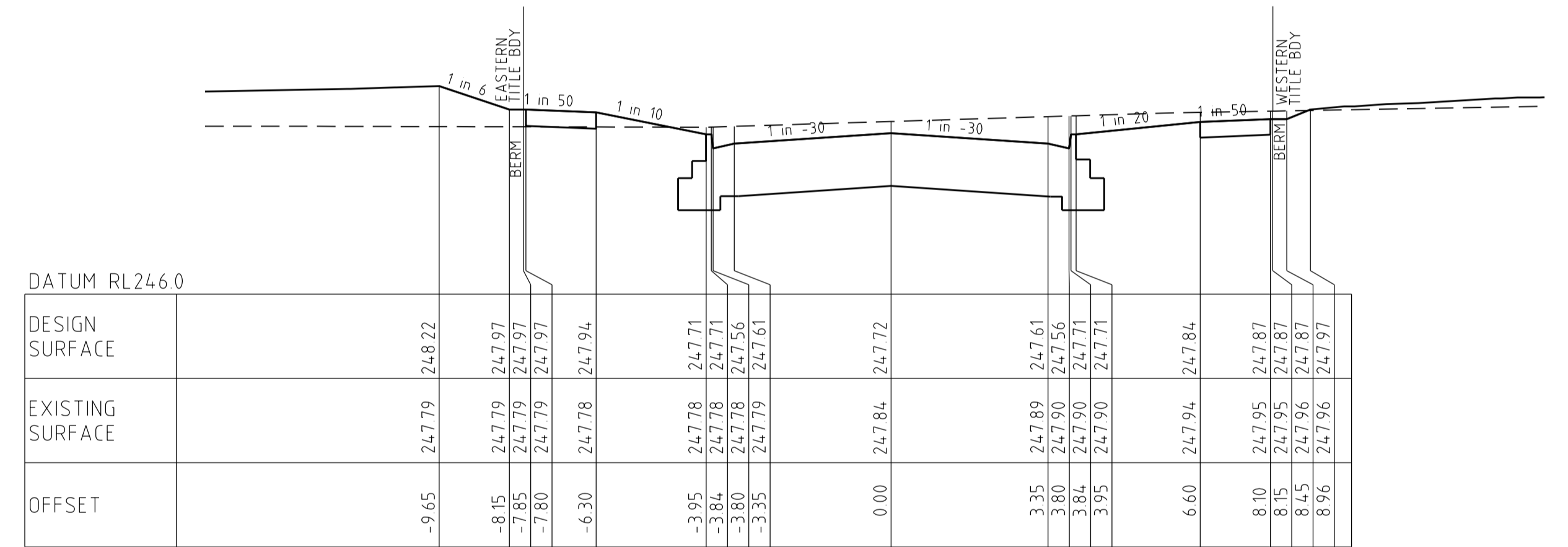
THORNABY DRIVE

AS CONSTRUCTED

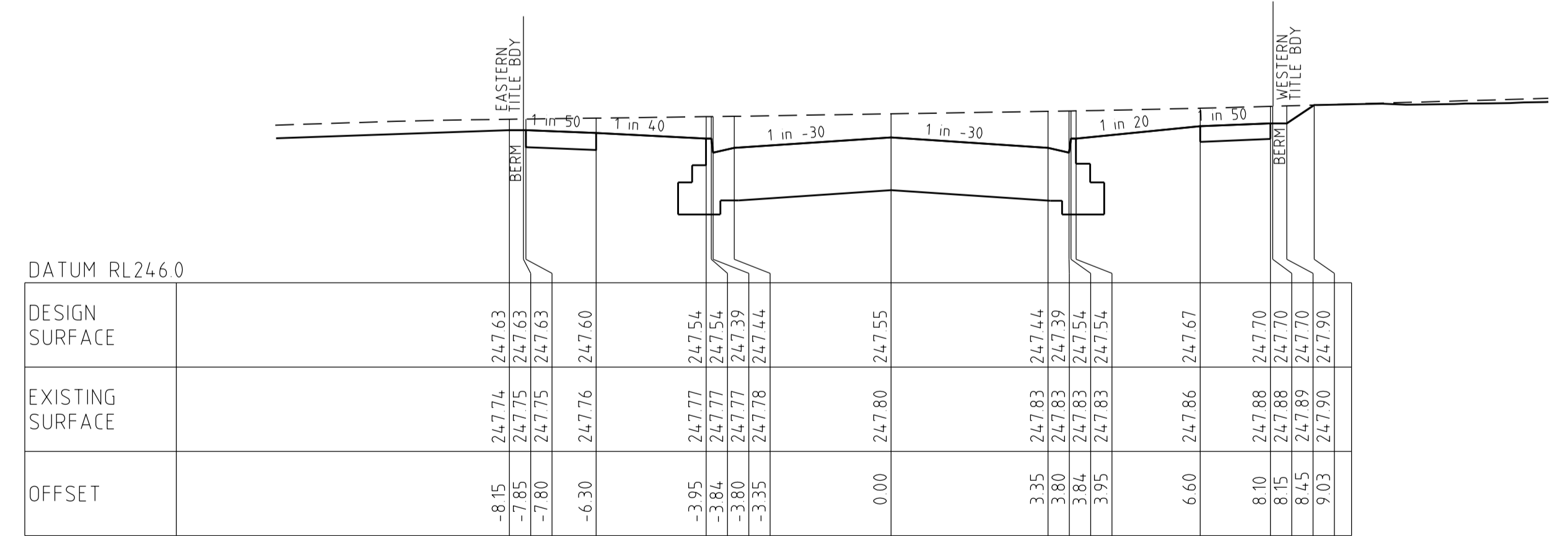
CROSS SECTIONS
SCALE HORIZONTAL 1:100
VERTICAL 1:50



196.76

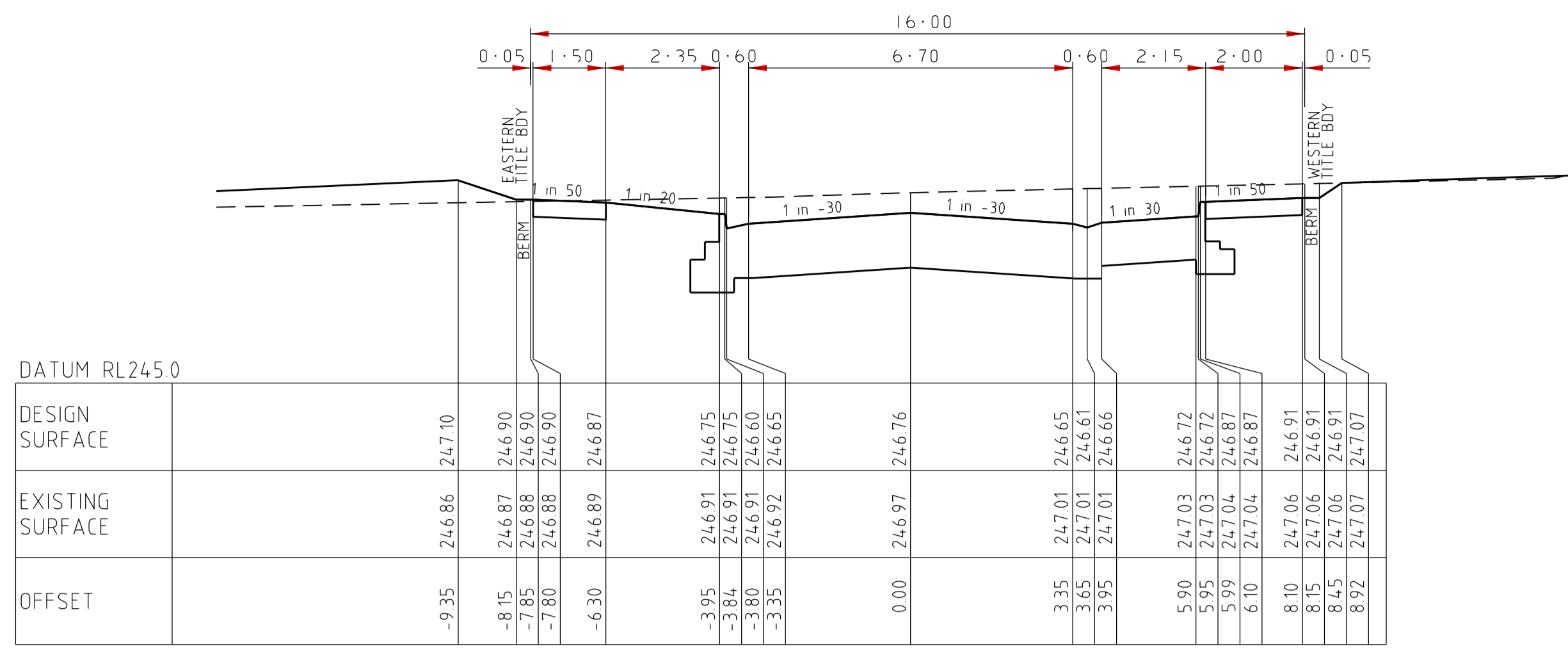


184.07

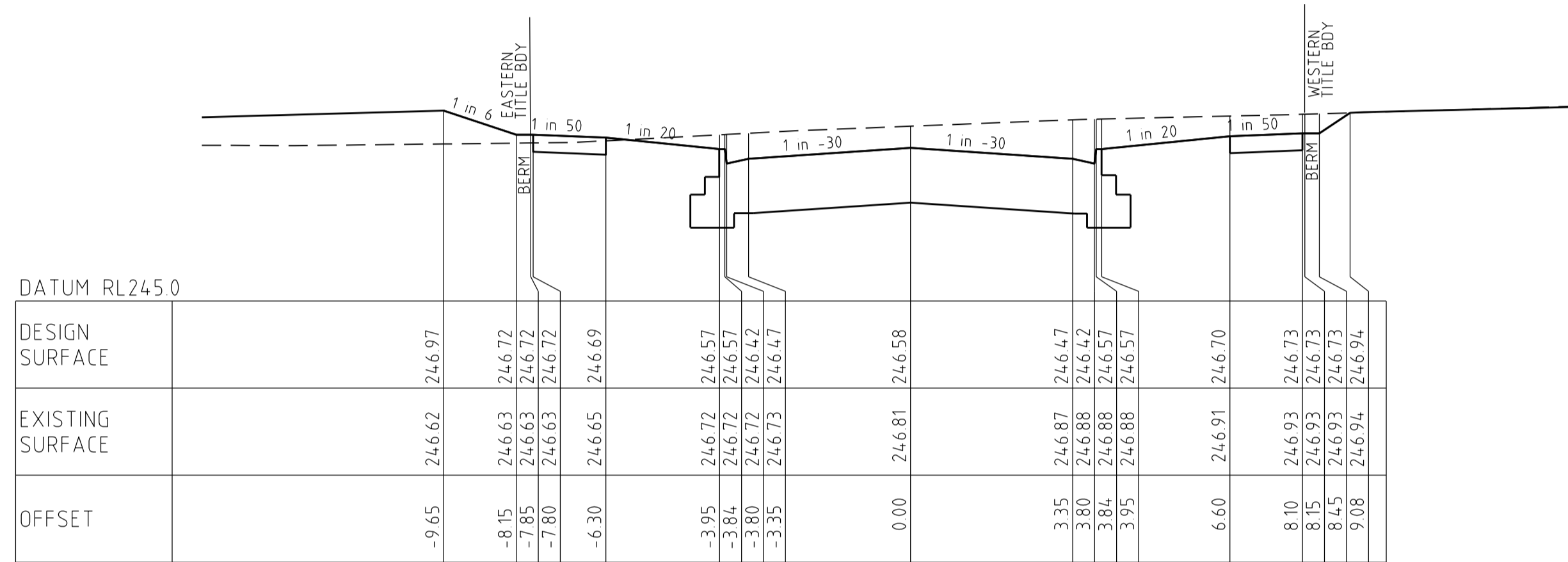


150.57

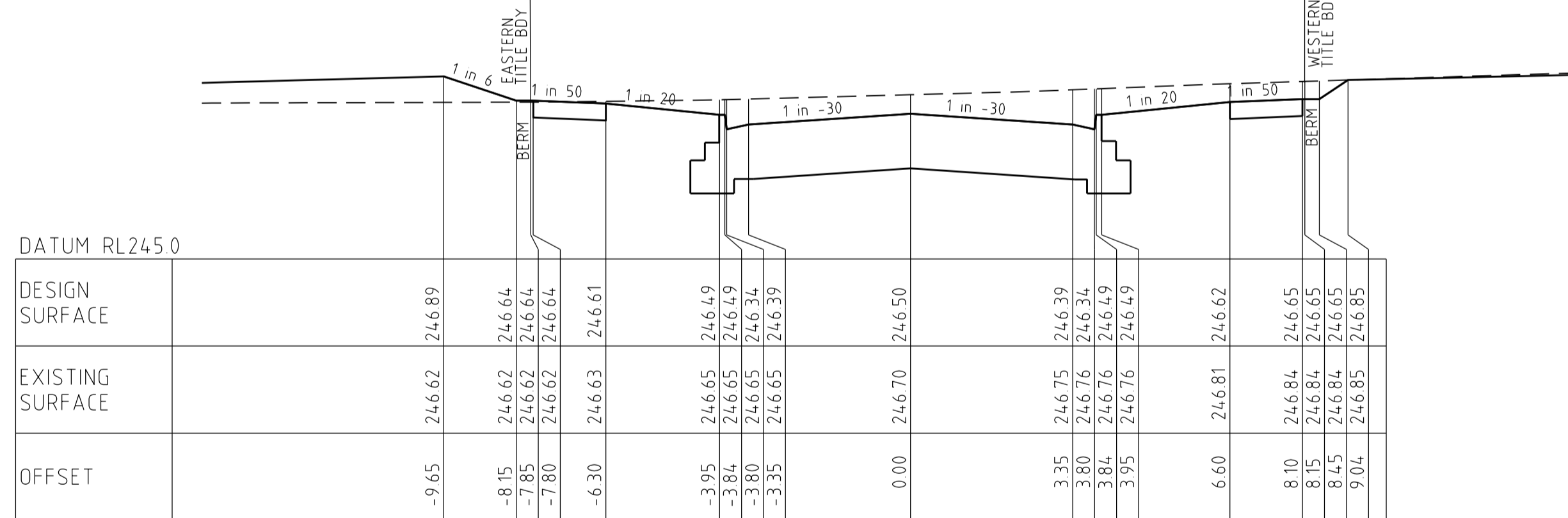
| | | | | | | | |
|------------------------------------|--|---------------------|--|---|--|---|--|
| AMENDMENTS | | MELWAY REF. 366-E-6 | | breese pitt dixon Pty. Ltd. land surveyors | | 1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310 | |
| | | SURVEY BJ | | WARATAH ESTATE STAGE 3 | | MUNICIPALITY HUME | |
| | | DESIGN SBS | | REFERENCE 8711 E/3 | | SHEET 6 OF 18 | |
| | | DRAWN SBS | | SCALE AS SHOWN | | DATE APR '16 | |
| A 21-10-16 ISSUED FOR CONSTRUCTION | | CHECKED | | DATUM AHD | | MUNICIPALITY | |
| VER DATE REMARKS | | SCALE AS SHOWN | | DATE | | SHEET 6 OF 18 | |



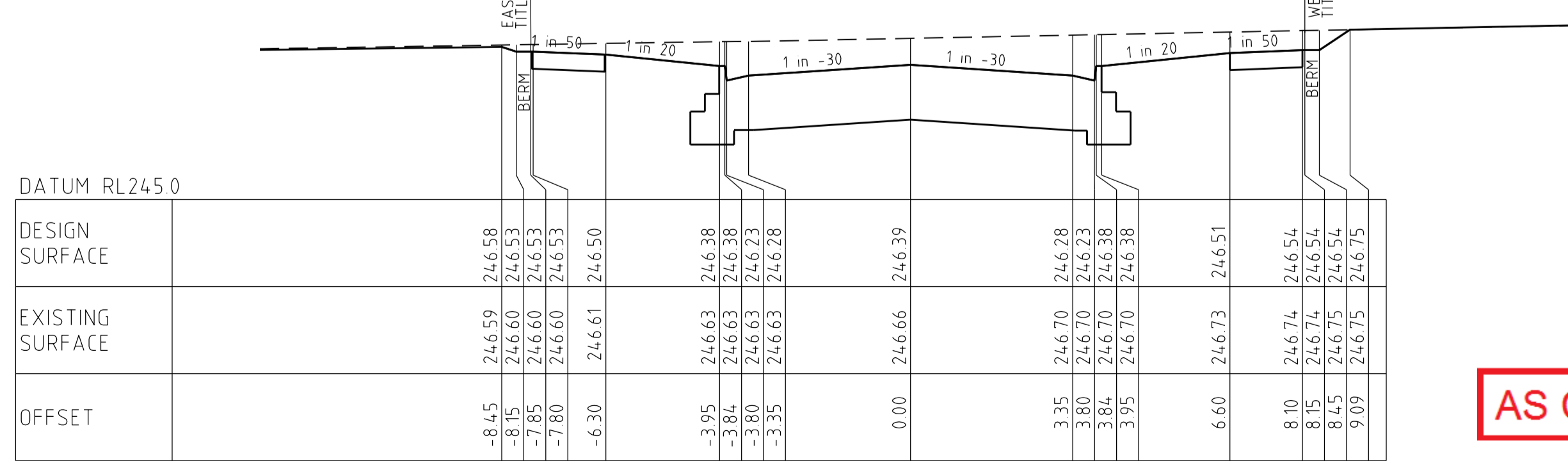
DATUM RL245.0
114.00



DATUM RL245.0
78.36



DATUM RL245.0
62.65

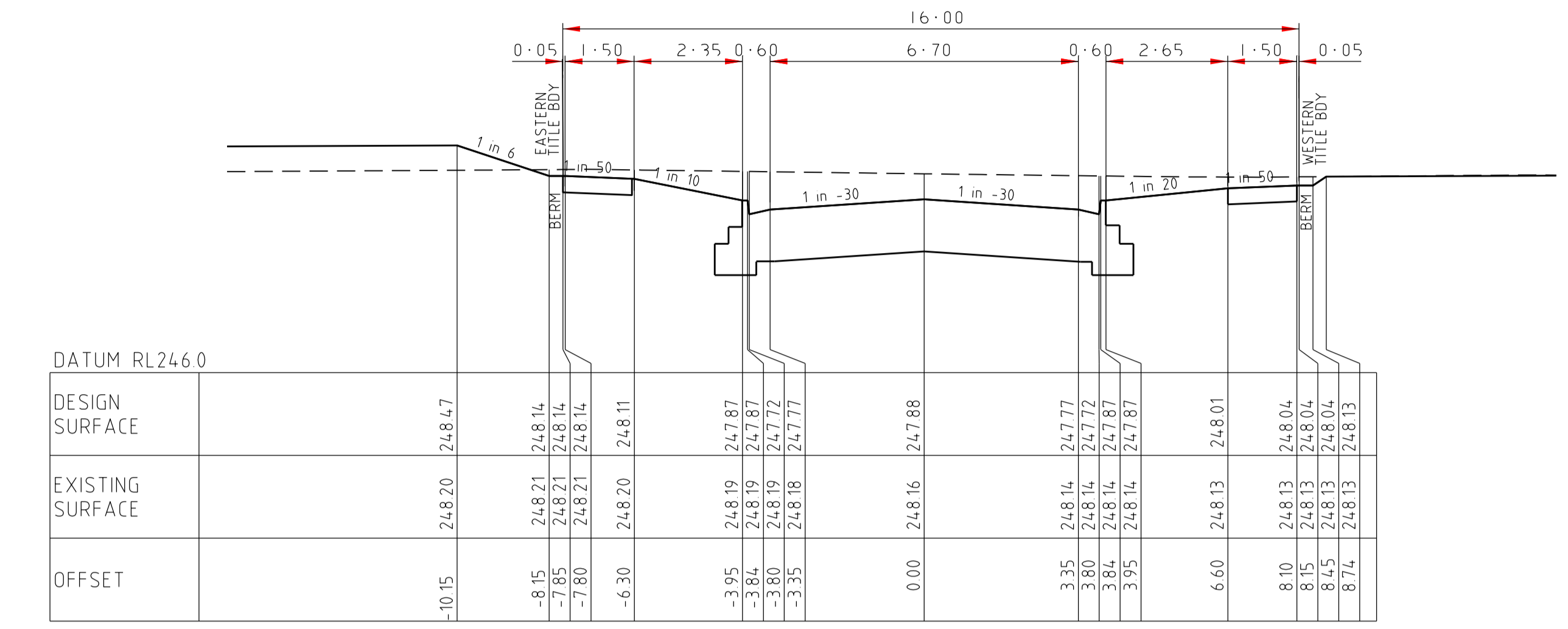


DATUM RL245.0
40.15

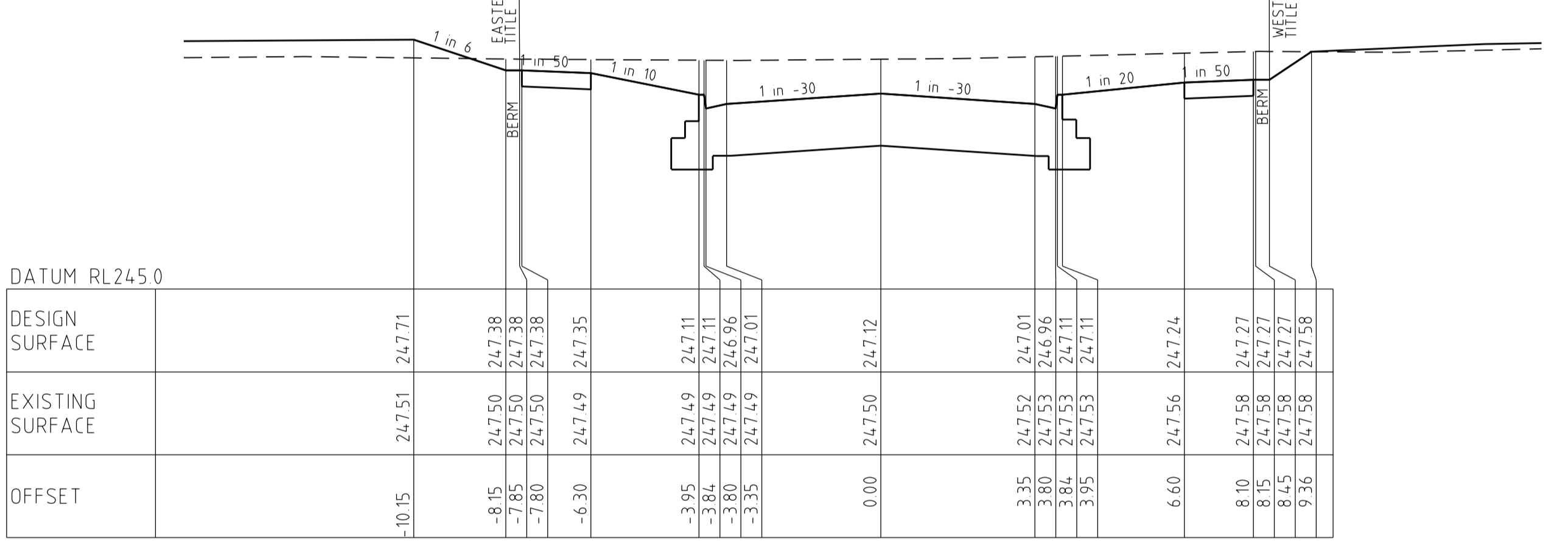
LATTERIDGE WAY

AS CONSTRUCTED

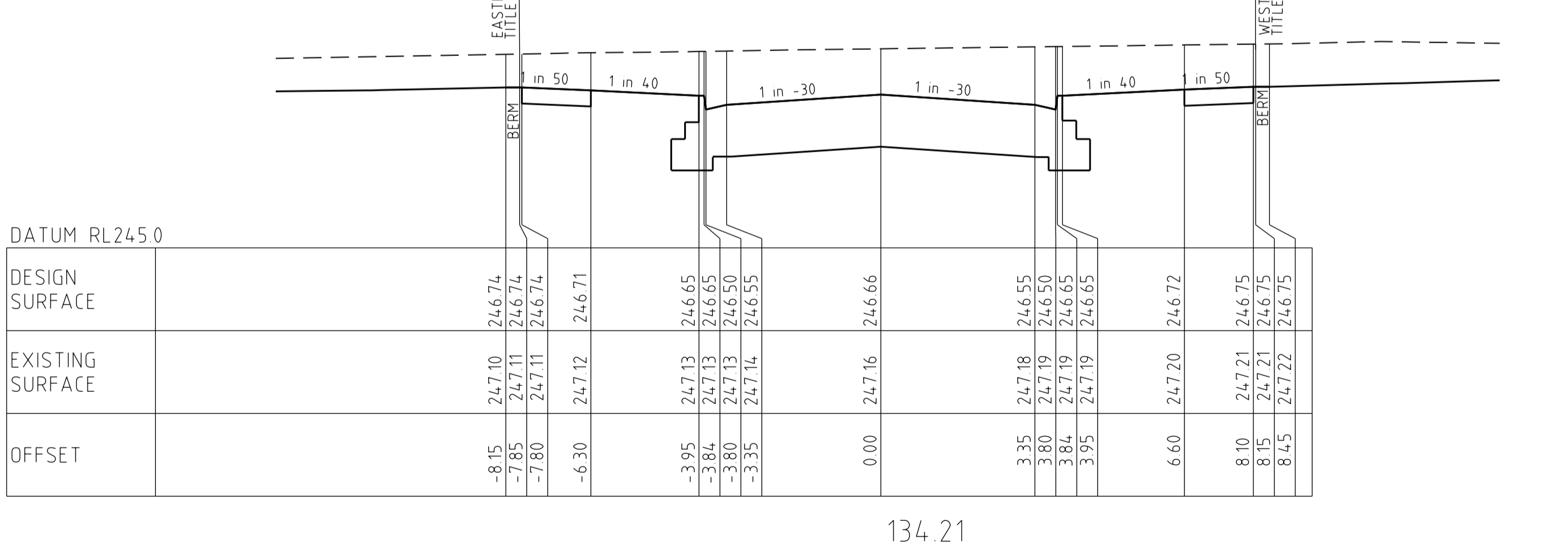
CROSS SECTIONS
SCALE HORIZONTAL 1:100
VERTICAL 1:50



DATUM RL246.0
194.36

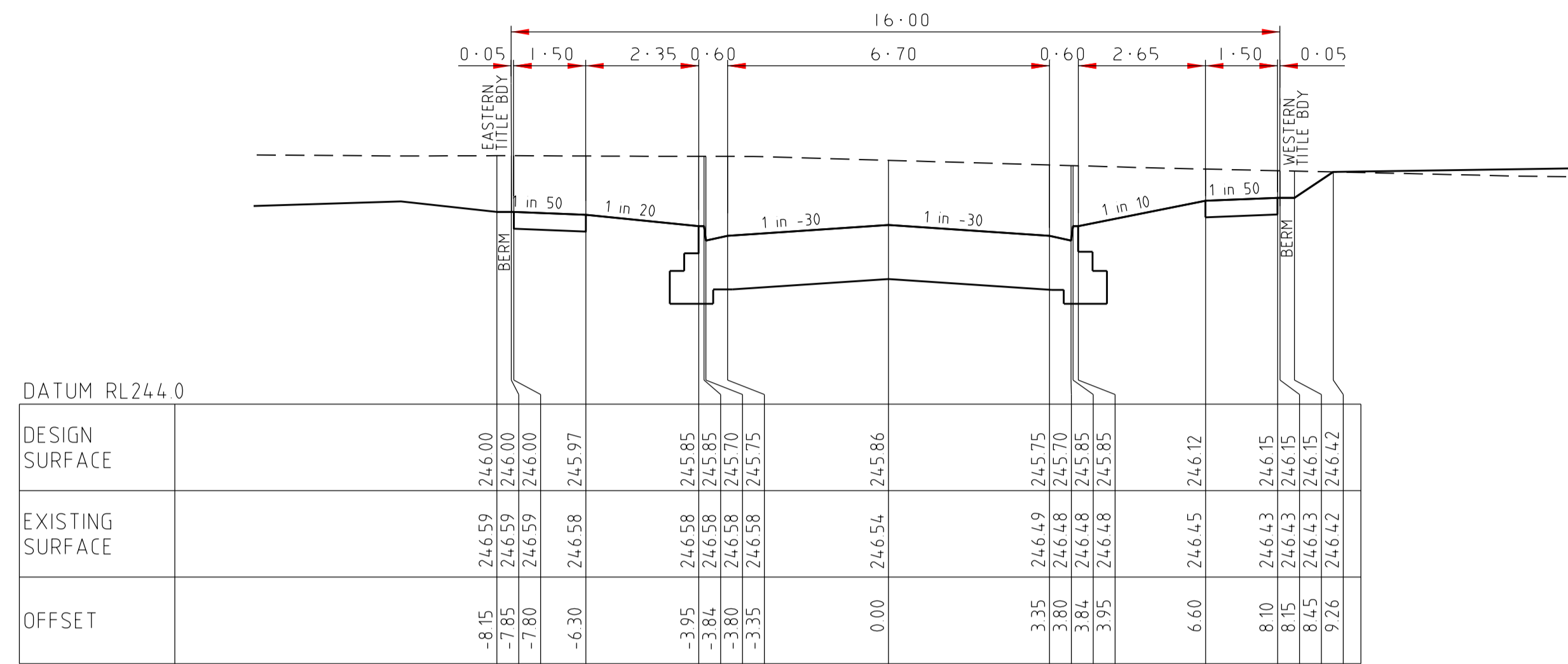


DATUM RL245.0
166.21



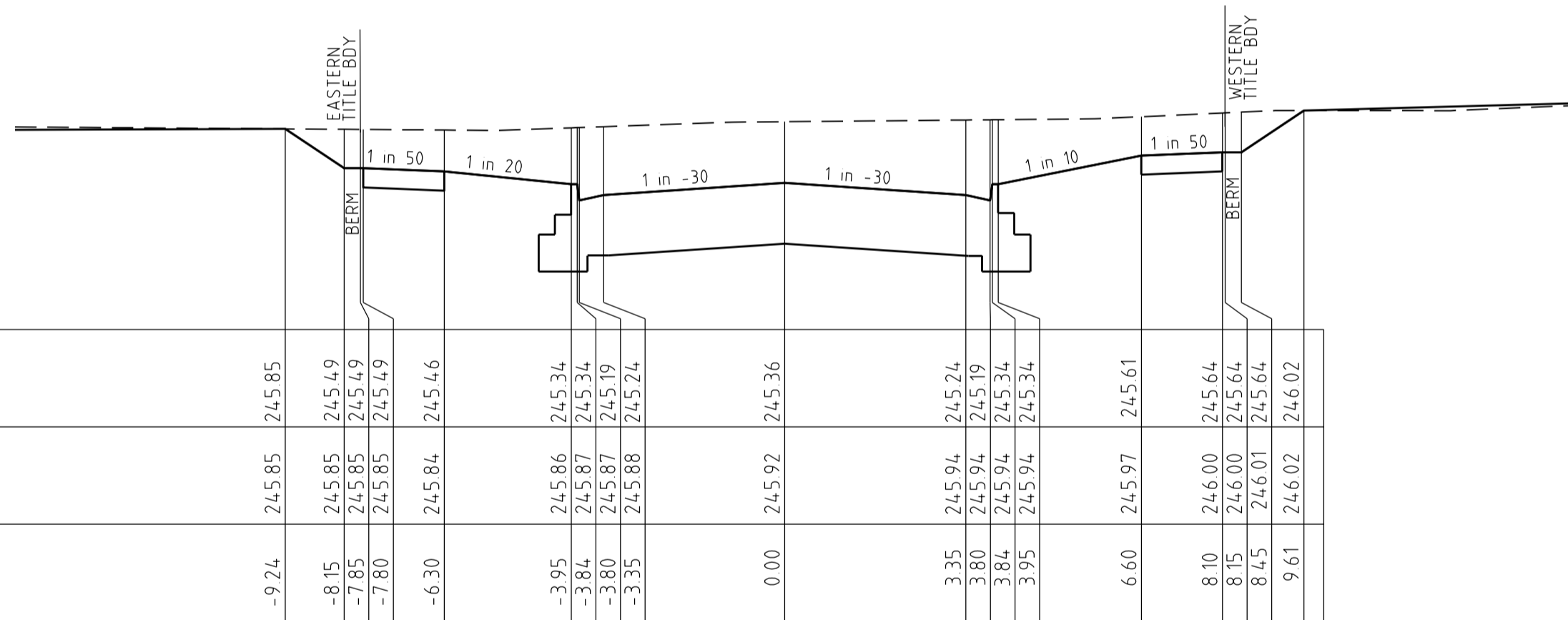
DATUM RL245.0
134.21

| | | | | | |
|------------------------------------|------|---|----------------|---|-------------|
| | | breese pitt dixon pty. ltd. land surveyors civil engineers | | 1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310 | |
| AMENDMENTS | | MELWAY REF. 366-E-6 | | WARATAH ESTATE STAGE 3 | |
| SURVEY BJ | | DESIGN SBS | | MUNICIPALITY HUME | |
| DRAWN SBS | | CHECKED | | REFERENCE 8711 E/3 | |
| VER. | DATE | REMARKS | SCALE AS SHOWN | DATUM AHD | DATE APR'16 |
| A 21-10-16 ISSUED FOR CONSTRUCTION | | | SHEET 7 OF 18 | A | |



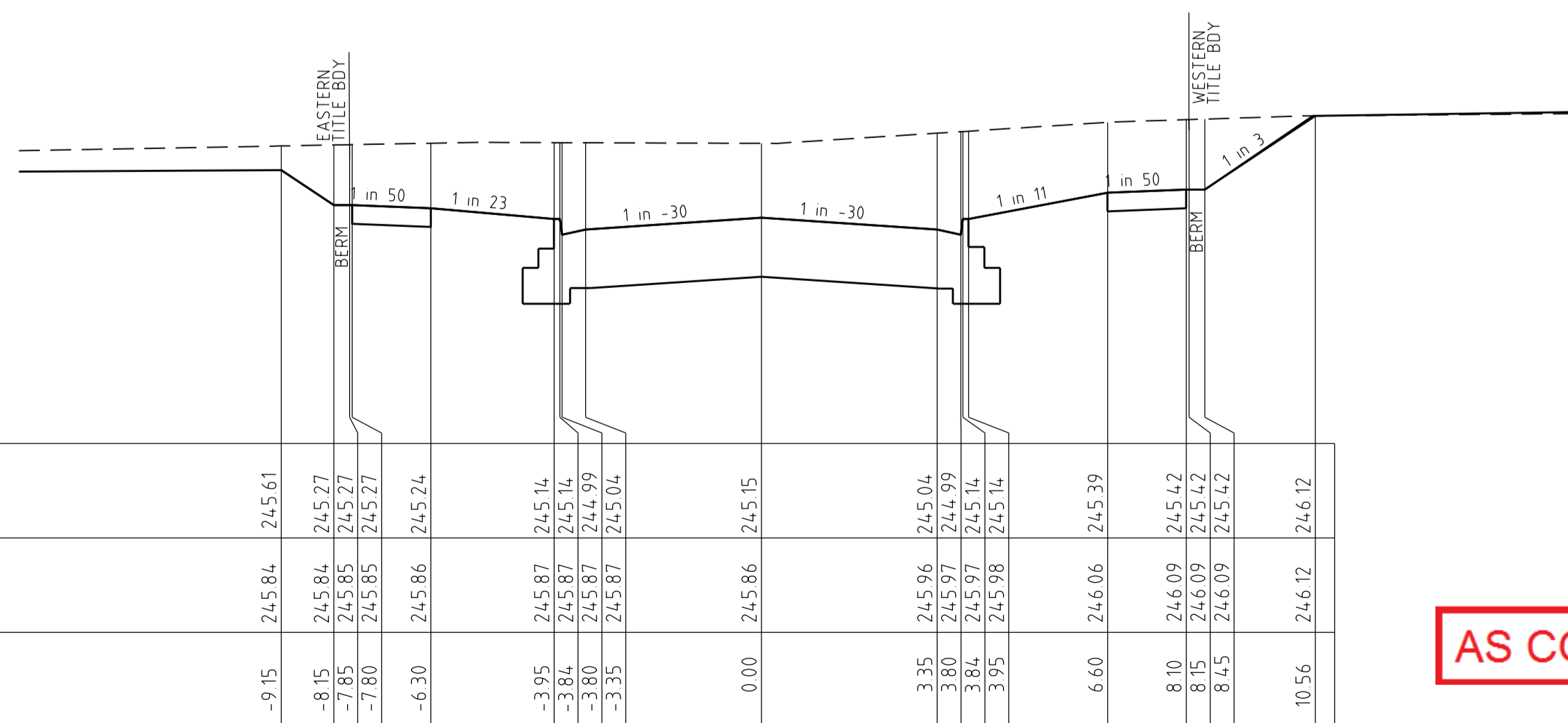
| DATUM RL244.0 | |
|------------------|--------|
| DESIGN SURFACE | 246.00 |
| EXISTING SURFACE | 246.00 |
| OFFSET | -8.15 |
| | -7.85 |
| | -7.80 |
| | -6.30 |
| | -3.95 |
| | -3.84 |
| | -3.80 |
| | -3.35 |
| | 0.00 |
| | 3.35 |
| | 3.80 |
| | 3.84 |
| | 3.95 |
| | 6.60 |
| | 8.10 |
| | 8.15 |
| | 8.45 |
| | 9.76 |

503.33



| DATUM RL244.0 | |
|------------------|--------|
| DESIGN SURFACE | 245.85 |
| EXISTING SURFACE | 245.85 |
| OFFSET | -9.24 |
| | -8.15 |
| | -7.85 |
| | -7.80 |
| | -6.30 |
| | -3.95 |
| | -3.84 |
| | -3.80 |
| | -3.35 |
| | 0.00 |
| | 3.35 |
| | 3.80 |
| | 3.84 |
| | 3.95 |
| | 6.60 |
| | 8.10 |
| | 8.15 |
| | 8.45 |
| | 9.61 |

470.20



| DATUM RL243.0 | |
|------------------|--------|
| DESIGN SURFACE | 245.61 |
| EXISTING SURFACE | 245.61 |
| OFFSET | -9.15 |
| | -8.15 |
| | -7.85 |
| | -7.80 |
| | -6.30 |
| | -3.95 |
| | -3.84 |
| | -3.80 |
| | -3.35 |
| | 0.00 |
| | 3.35 |
| | 3.80 |
| | 3.84 |
| | 3.95 |
| | 6.60 |
| | 8.10 |
| | 8.15 |
| | 8.45 |
| | 10.56 |

WHITELEAF DRIVE

444.20

AS CONSTRUCTED

CROSS SECTIONS
SCALE HORIZONTAL 1:100
VERTICAL 1:50

| DATUM RL246.0 | |
|------------------|--------|
| DESIGN SURFACE | 248.72 |
| EXISTING SURFACE | 248.72 |
| OFFSET | -9.84 |
| | -8.15 |
| | -7.85 |
| | -7.80 |
| | -6.30 |
| | -3.95 |
| | -3.84 |
| | -3.80 |
| | -3.35 |
| | 0.00 |
| | 3.35 |
| | 3.80 |
| | 3.84 |
| | 3.95 |
| | 6.60 |
| | 8.10 |
| | 8.15 |
| | 8.45 |
| | 8.75 |

602.71

| DATUM RL246.0 | |
|------------------|--------|
| DESIGN SURFACE | 247.91 |
| EXISTING SURFACE | 247.91 |
| OFFSET | -9.61 |
| | -8.15 |
| | -7.85 |
| | -7.80 |
| | -6.30 |
| | -3.95 |
| | -3.84 |
| | -3.80 |
| | -3.35 |
| | 0.00 |
| | 3.35 |
| | 3.80 |
| | 3.84 |
| | 3.95 |
| | 6.60 |
| | 8.10 |
| | 8.15 |
| | 8.45 |
| | 9.24 |

568.14

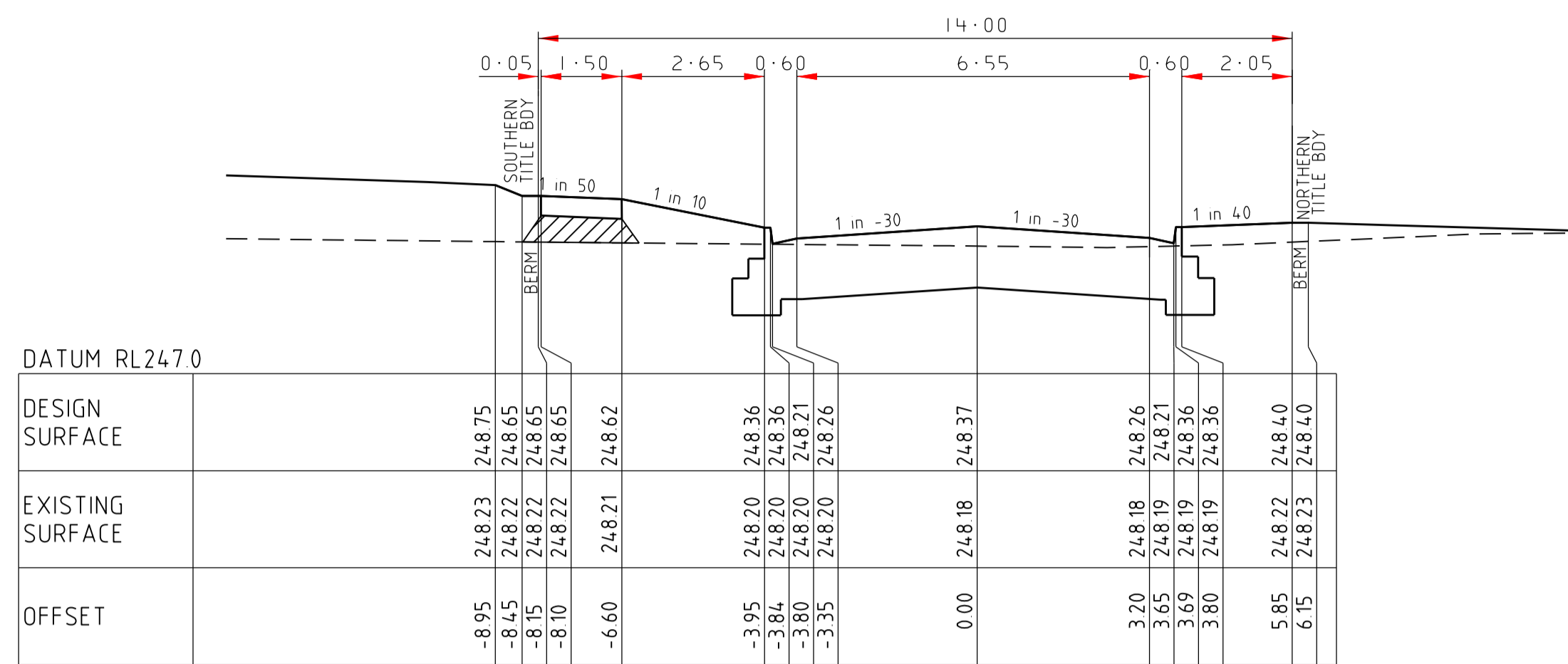
| DATUM RL245.0 | |
|------------------|--------|
| DESIGN SURFACE | 247.26 |
| EXISTING SURFACE | 247.26 |
| OFFSET | -9.44 |
| | -8.15 |
| | -7.85 |
| | -7.80 |
| | -6.30 |
| | -3.95 |
| | -3.84 |
| | -3.80 |
| | -3.35 |
| | 0.00 |
| | 3.35 |
| | 3.80 |
| | 3.84 |
| | 3.95 |
| | 6.60 |
| | 8.10 |
| | 8.15 |
| | 8.45 |
| | 9.02 |

540.86

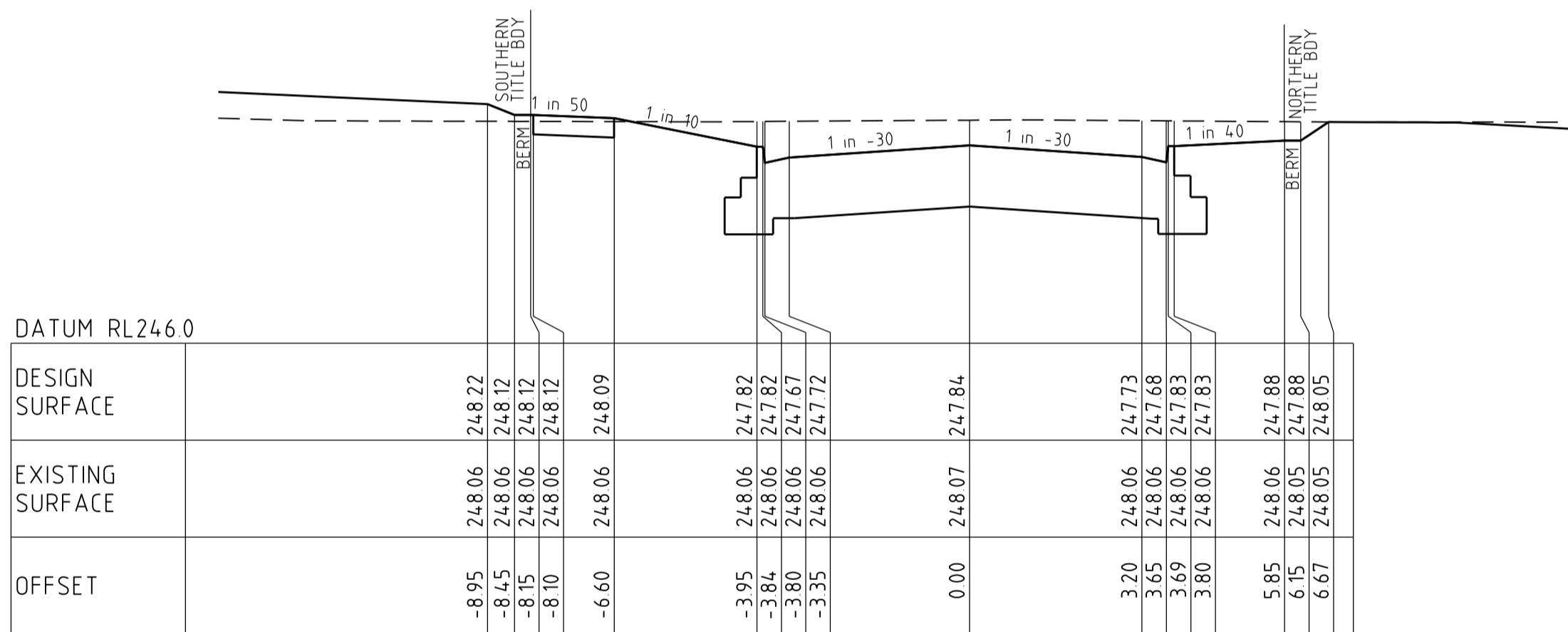
| DATUM RL244.0 | |
|------------------|--------|
| DESIGN SURFACE | 246.09 |
| EXISTING SURFACE | 246.09 |
| OFFSET | -7.85 |
| | -7.67 |
| | -4.76 |
| | -3.95 |
| | -3.84 |
| | -3.80 |
| | -3.35 |
| | 0.00 |
| | 3.35 |
| | 3.80 |
| | 3.84 |
| | 3.95 |
| | 6.60 |
| | 8.10 |
| | 8.15 |
| | 8.45 |
| | 9.34 |

510.76

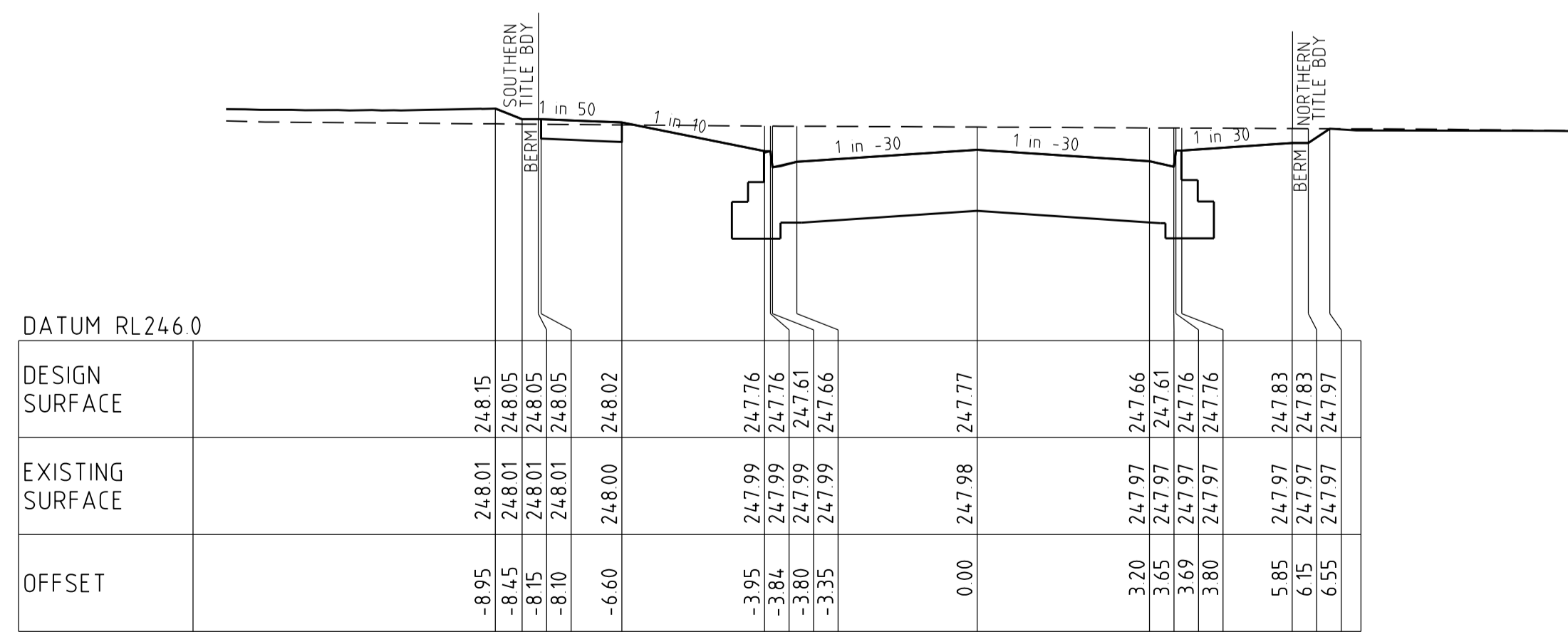
| | | | | | |
|--|--|---|--|---|--|
| | | breese pitt dixon pty. ltd. land surveyors civil engineers | | 1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310 | |
| AMENDMENTS A 21-10-16 ISSUED FOR CONSTRUCTION | | MELWAY REF. 366-E-6 SURVEY BJ DESIGN SBS DRAWN SBS | | WARATAH ESTATE STAGE 3 | |
| VER DATE REMARKS | | CHECKED | | MUNICIPALITY HUME REFERENCE 8711 E/3 | |
| SCALE AS SHOWN | | DATUM AHD | | DATE APR '16 | |
| SHEET 8 OF 18 | | SHEET 8 OF 18 | | A | |



40 46



22 46



14 71

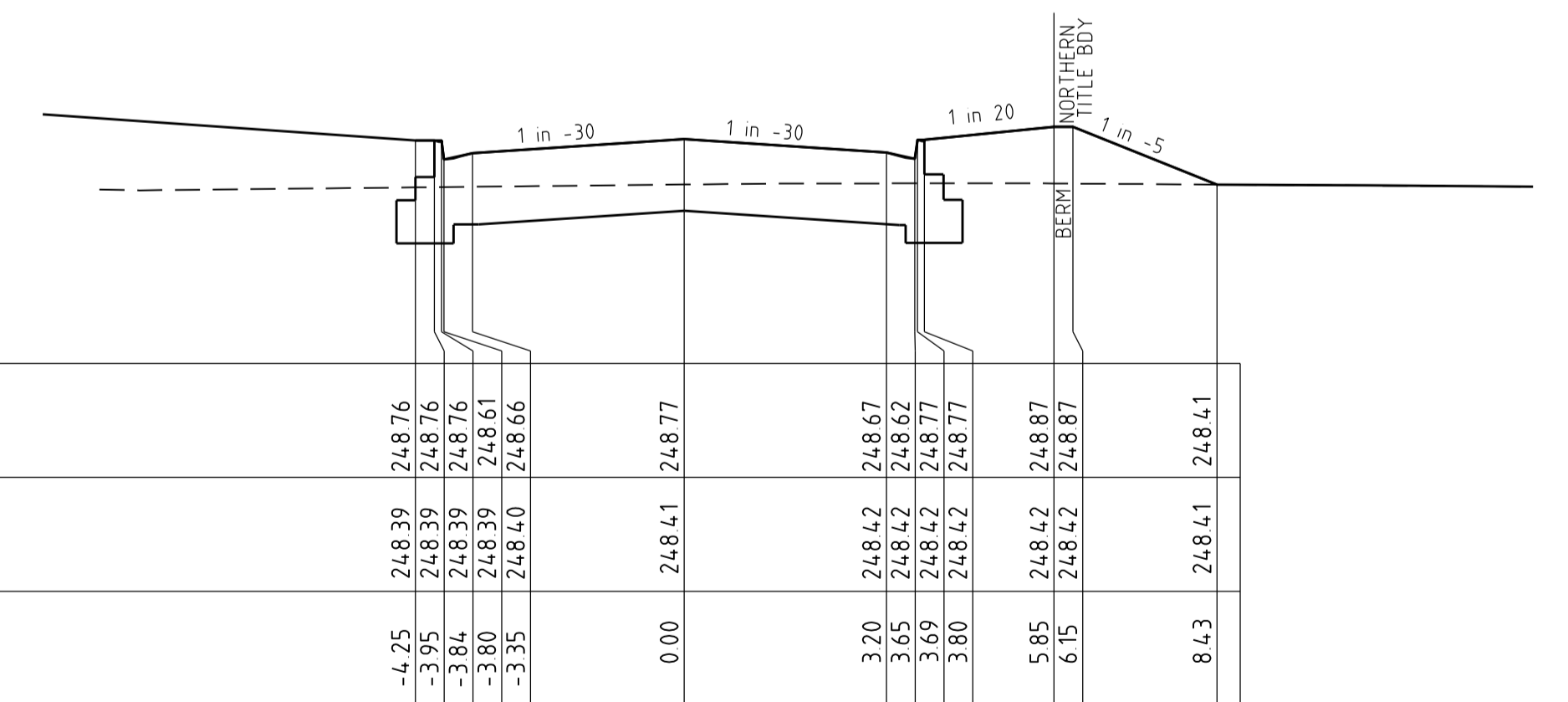
AILS WORTH WAY

AS CONSTRUCTED

CROSS SECTIONS

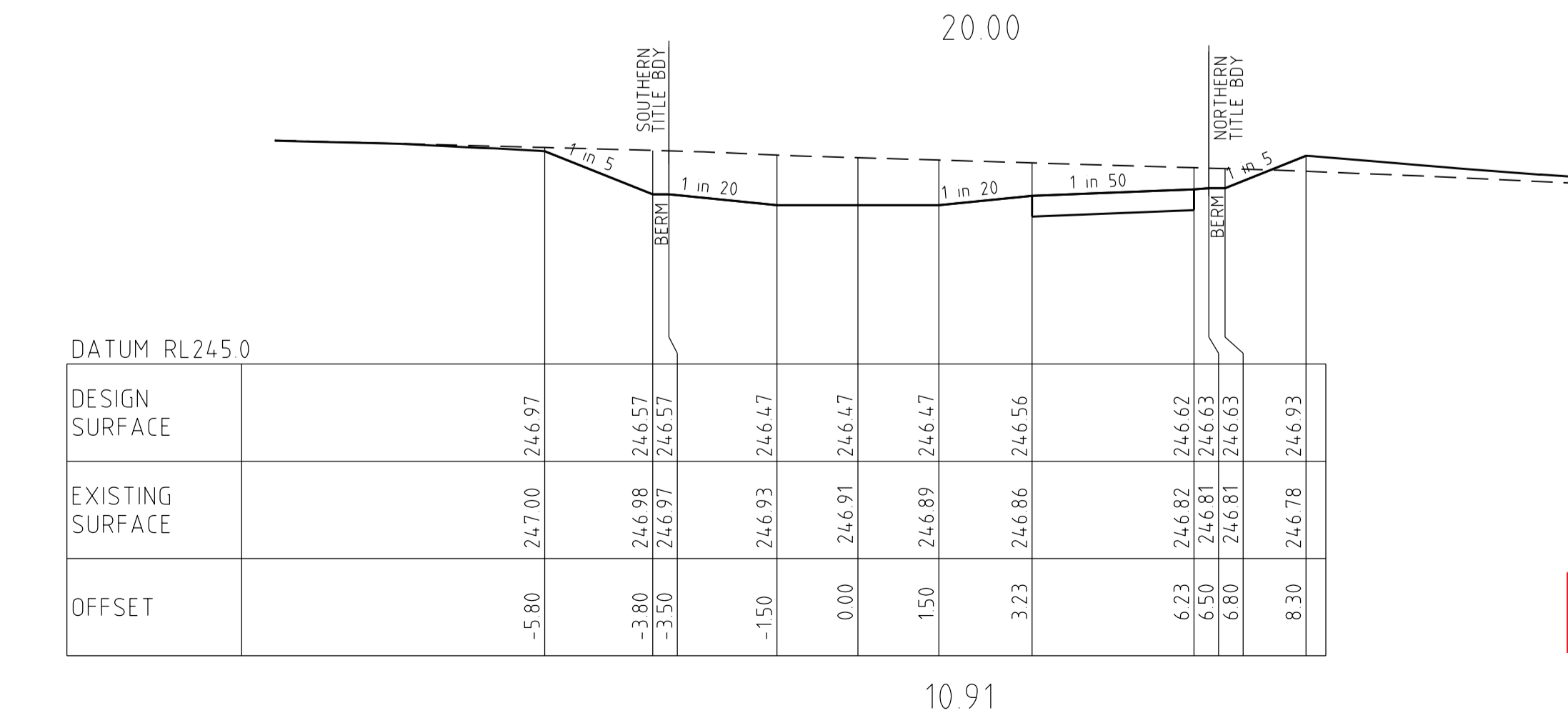
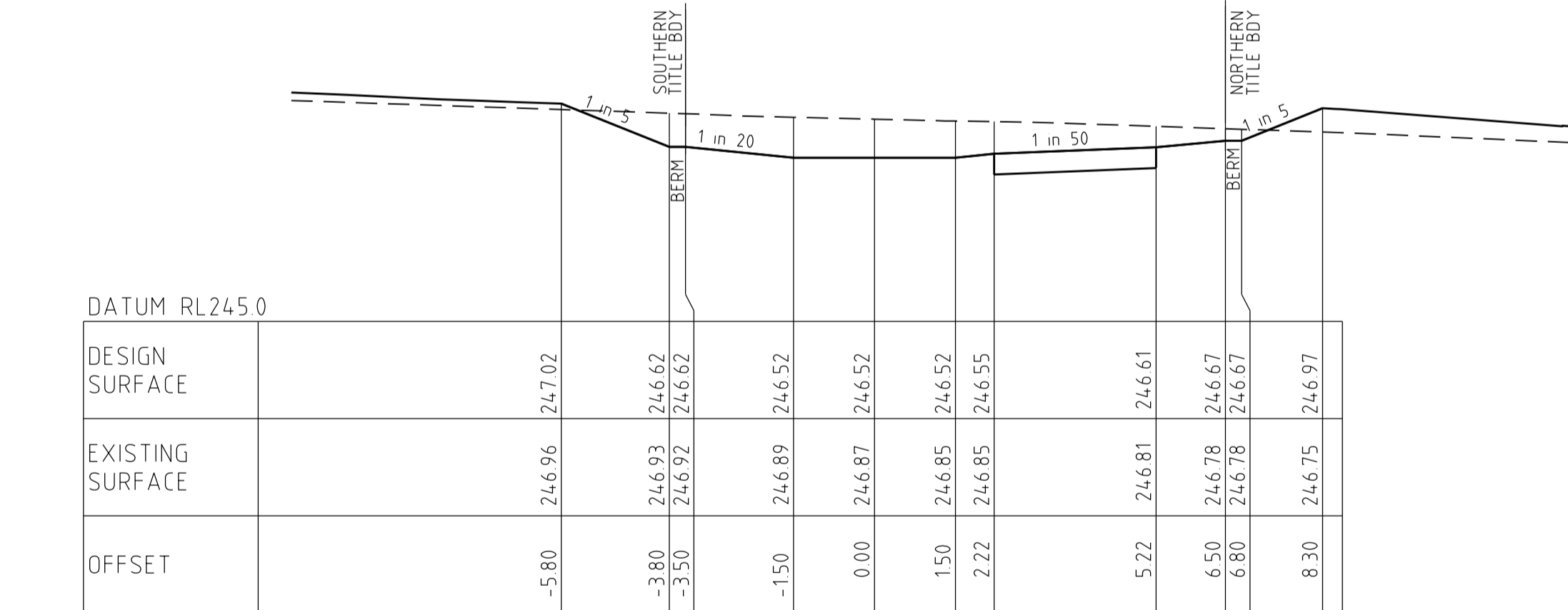
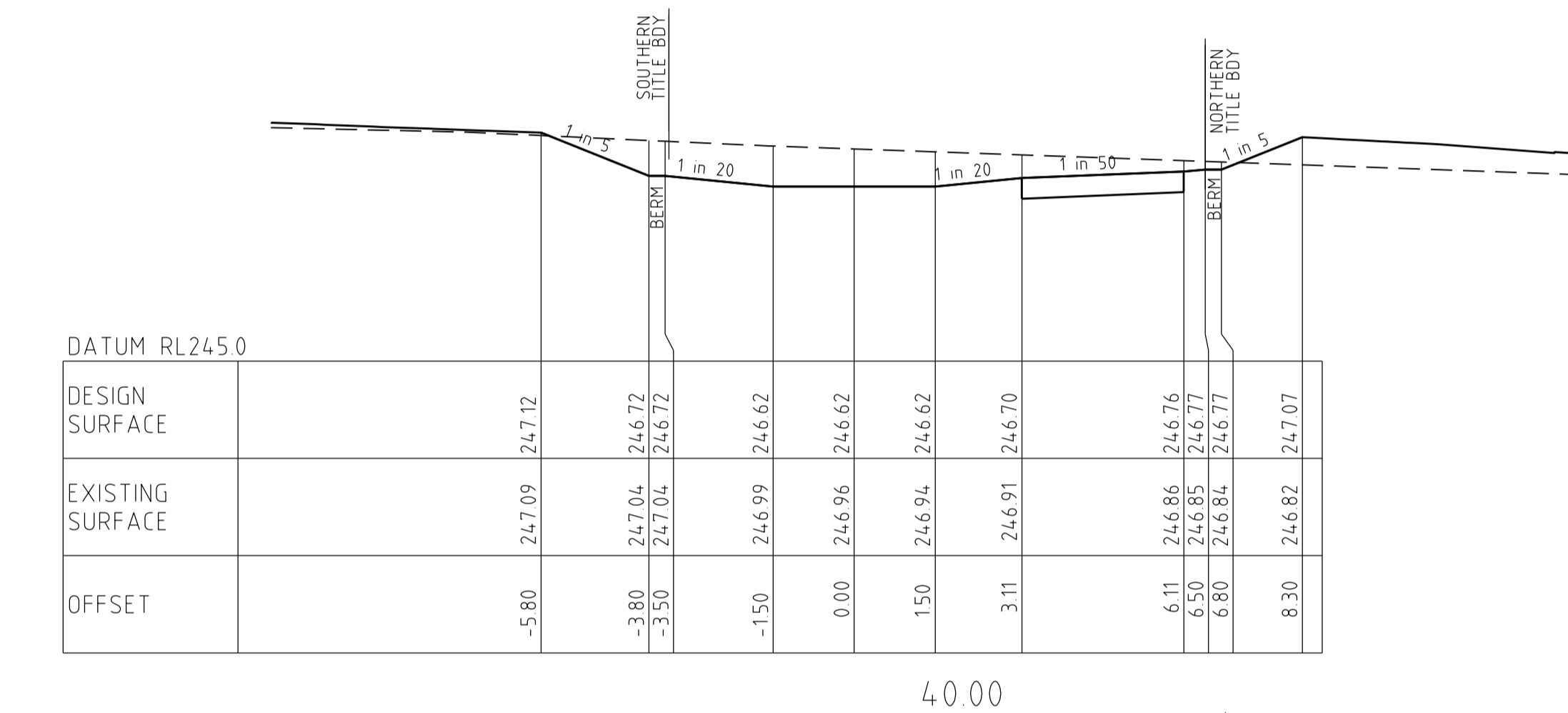
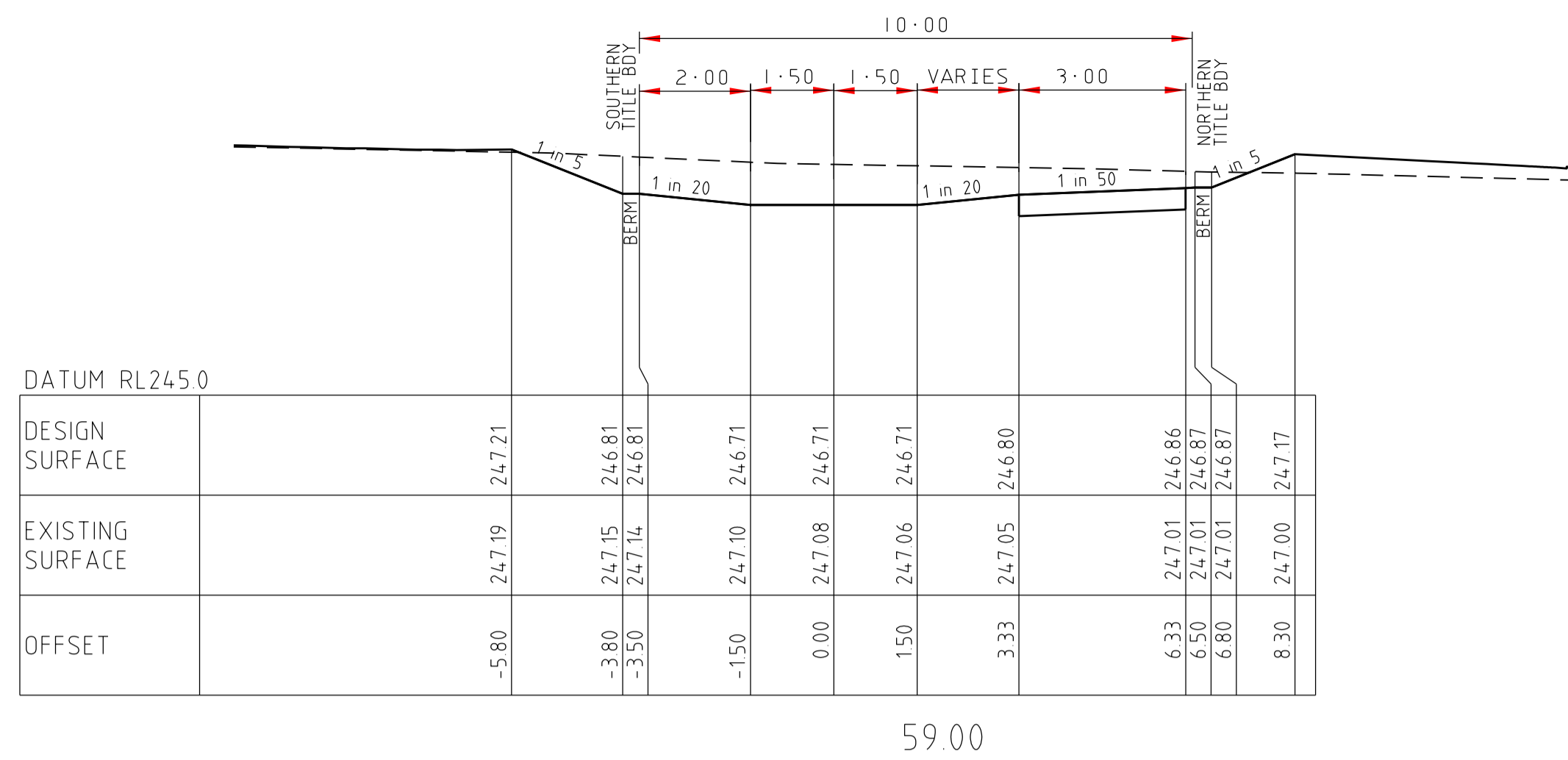
SCALE HORIZONTAL 1:100
VERTICAL 1:50

INDICATES CRUSHED ROCK BACKFILL



63 80

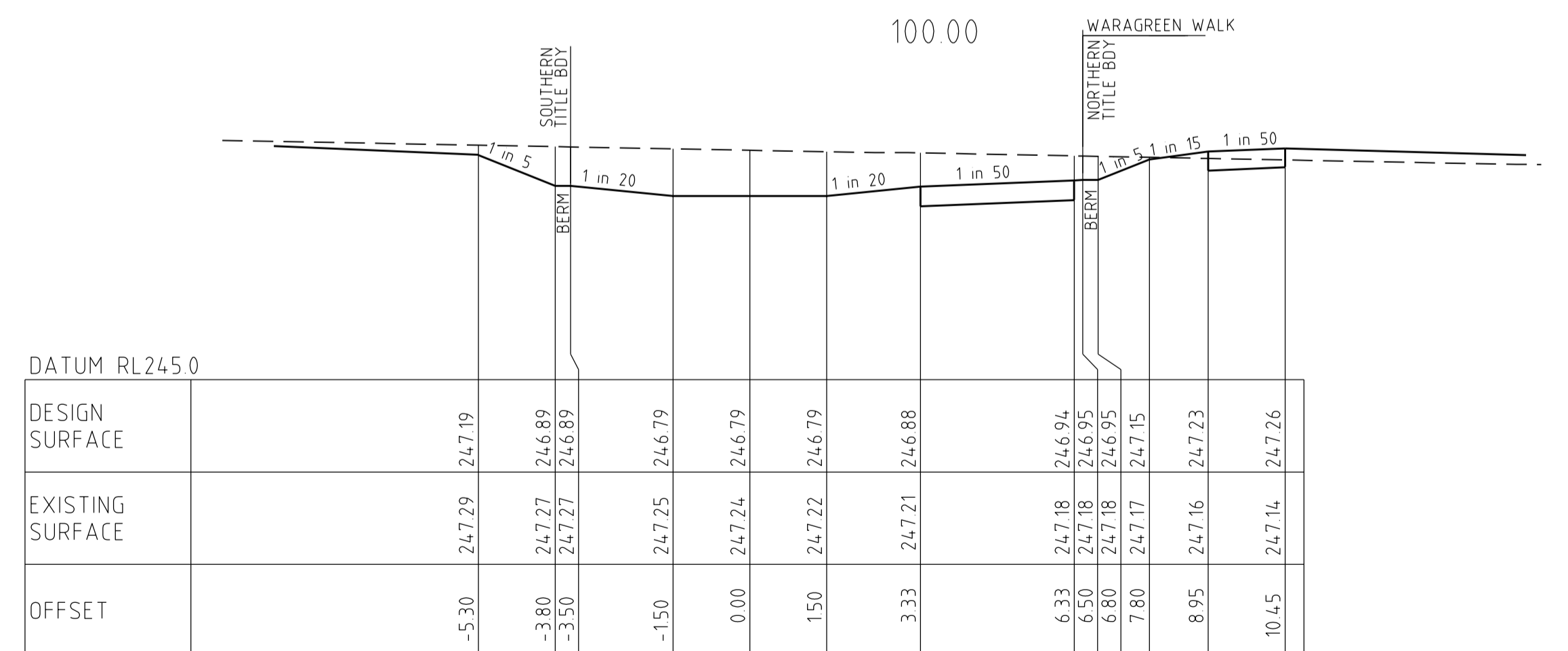
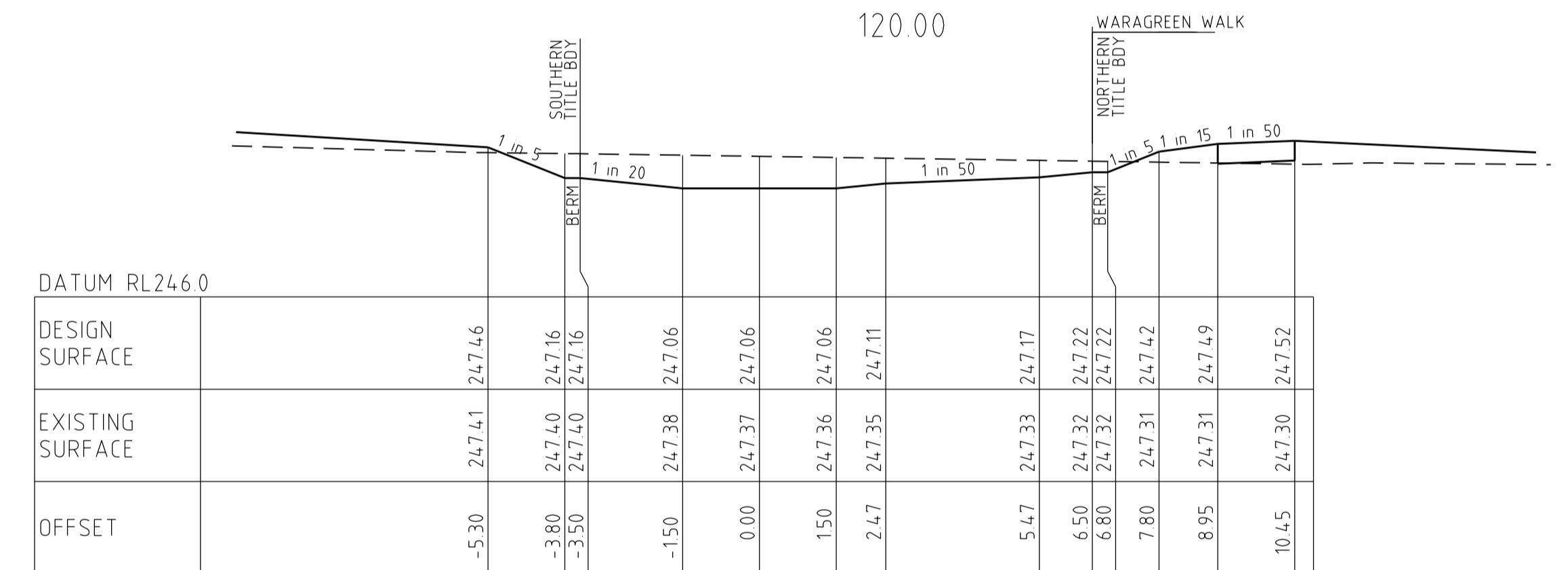
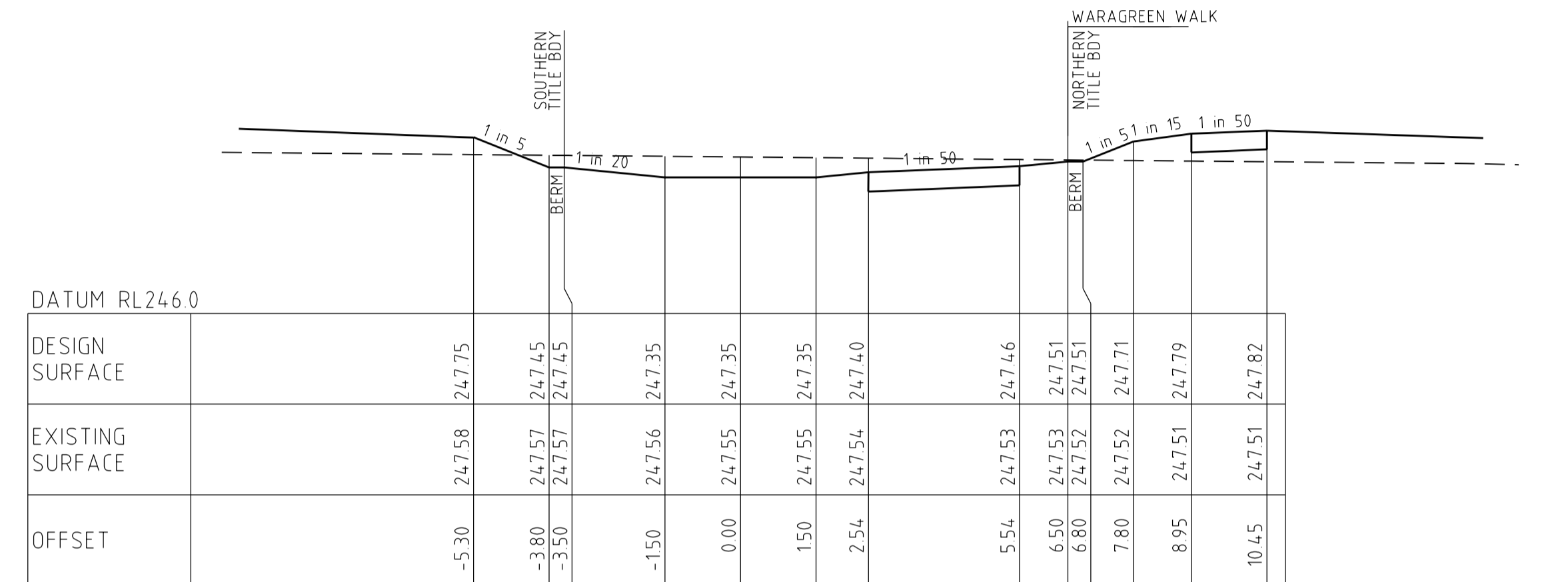
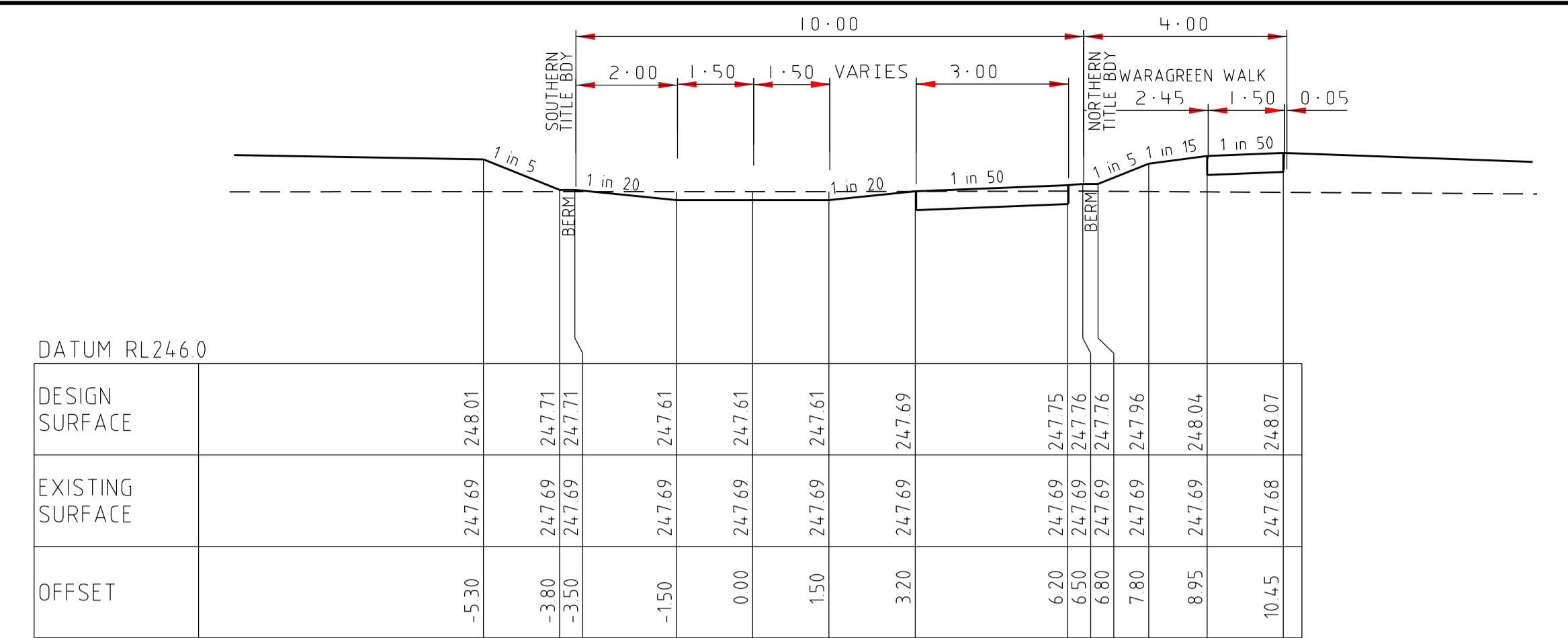
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|------------------------------------|--|---------------------------|--|---|--|--------------------|--|---|--|
| AMENDMENTS | | | | breese pitt dixon pty. ltd. land surveyors | | civil engineers | | 1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310 | |
| MELWAY REF. 366-E-6 | | SURVEY BJ | | DESIGN SBS | | DRAWN SBS | | MUNICIPALITY HUME | |
| A 21-10-16 ISSUED FOR CONSTRUCTION | | SCALE AS SHOWN | | DATUM AHD | | DATE APR '16 | | REFERENCE 8711 E/3 | |
| SHEET 9 OF 18 | | WARATAH ESTATE STAGE 3 | | MUNICIPALITY HUME | | REFERENCE 8711 E/3 | | SHEET 9 OF 18 | |



RESERVE (LOT 328 & 333)

AS CONSTRUCTED

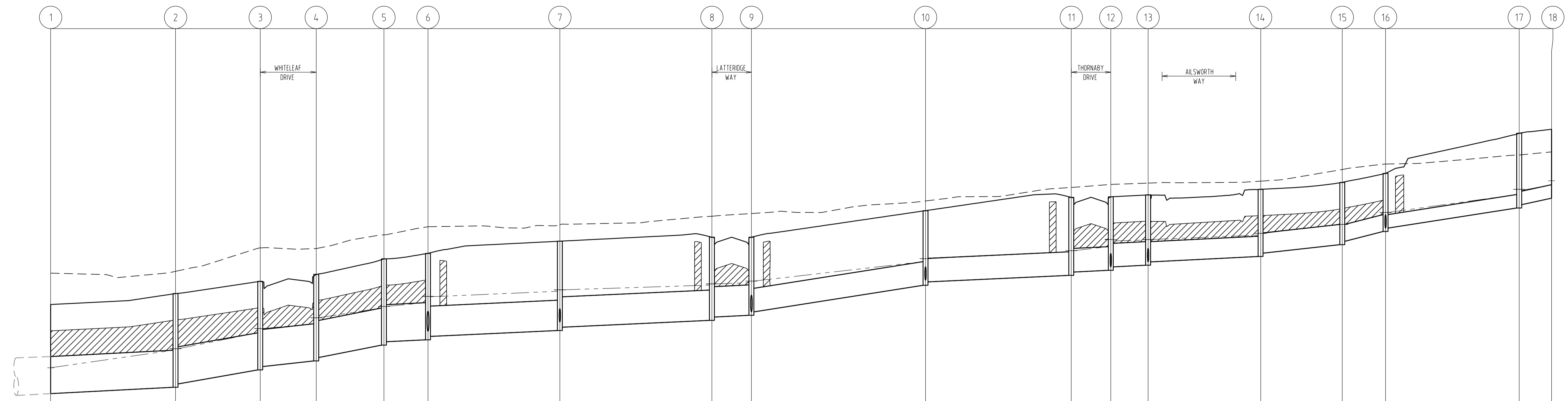
CROSS SECTIONS
SCALE HORIZONTAL 1:100
VERTICAL 1:50



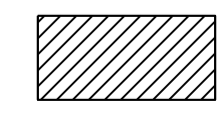
RESERVE (LOT 313 & 322)

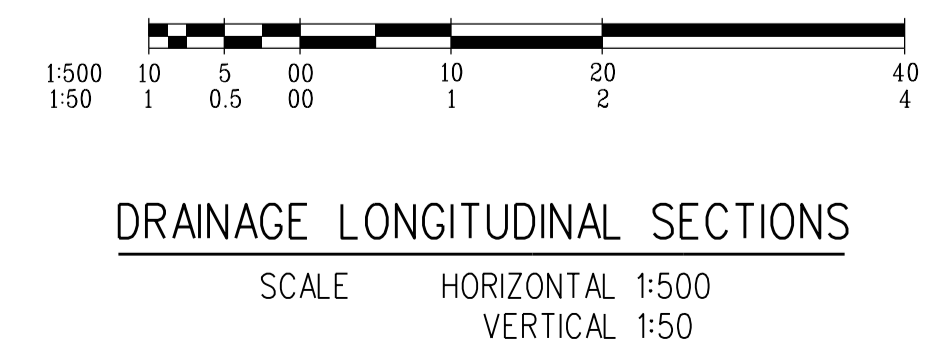
8164

| | | | | | | | |
|------------|------------|-------------------------|---------------------|---|---|--------------|----------------|
| AMENDMENTS | D 23-05-17 | CROSS SECTIONS UPDATED | MELWAY REF. 366-E-6 | breese pitt dixon pty. ltd. land surveyors civil engineers 1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310 | MUNICIPALITY HUME REFERENCE 8711 E/3 | | |
| | C 28-10-16 | CROSS SECTIONS UPDATED | SURVEY BJ | | | | |
| | B 26-10-16 | CROSS SECTIONS UPDATED | DESIGN SBS | | | | |
| | A 21-10-16 | ISSUED FOR CONSTRUCTION | DRAWN SBS | | | | |
| VER | DATE | REMARKS | CHECKED | SCALE AS SHOWN | DATUM AHD | DATE APR '16 | SHEET 11 OF 18 |

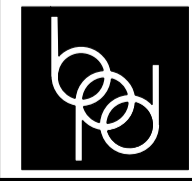


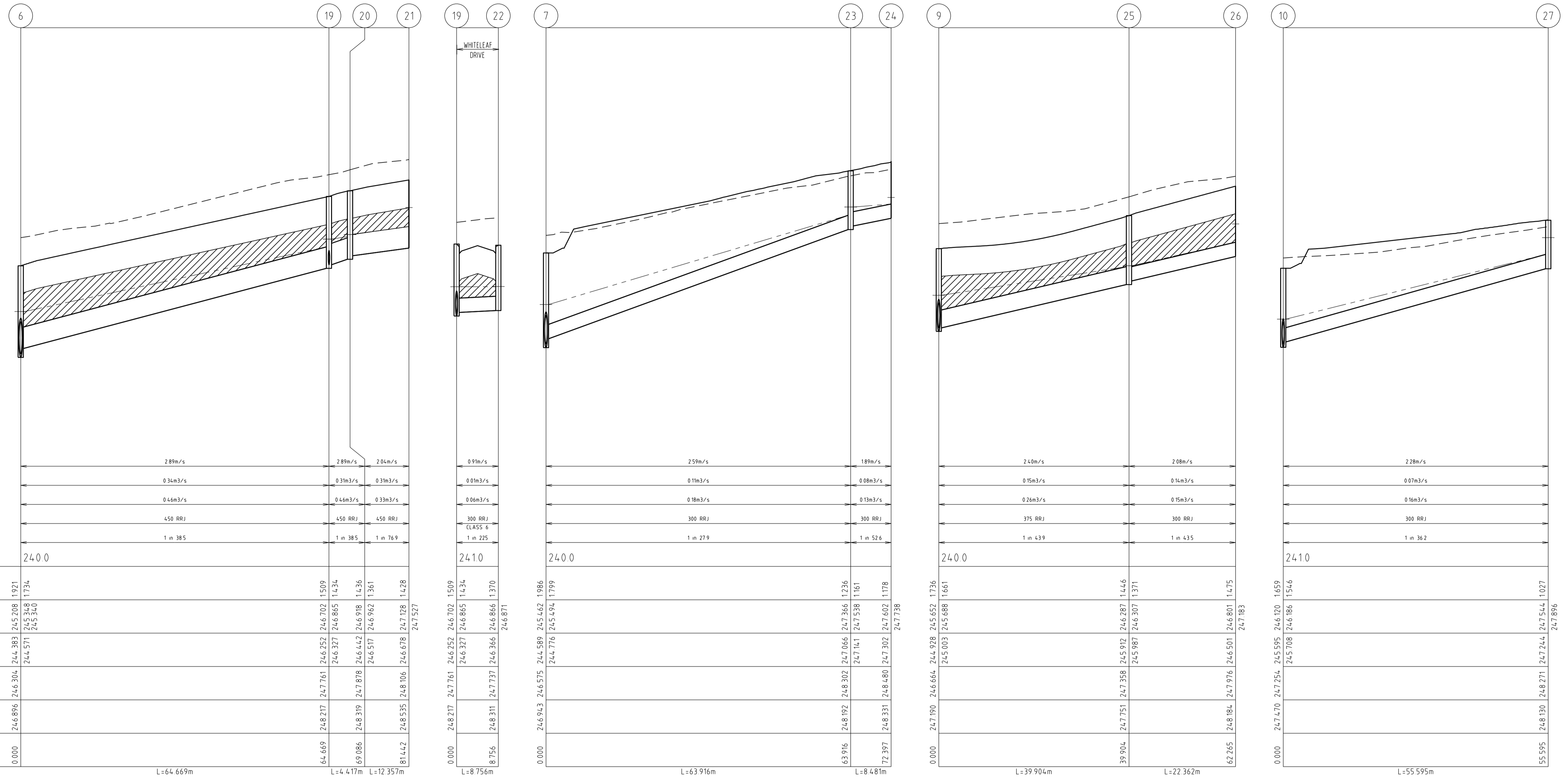
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | |
|------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|
| VELOCITY (m/sec) | 19m/s | 345m/s | 269m/s | 364m/s | 179m/s | 157m/s | 157m/s | 157m/s | 246m/s | 132m/s | 132m/s | 132m/s | 124m/s | 182m/s | 239m/s | 168m/s | 194m/s | | |
| DESIGN (m ³ /s) | 0.91m ³ /s | 0.91m ³ /s | 0.91m ³ /s | 0.87m ³ /s | 0.87m ³ /s | 0.54m ³ /s | 0.47m ³ /s | 0.44m ³ /s | 0.33m ³ /s | 0.24m ³ /s | 0.24m ³ /s | 0.21m ³ /s | 0.18m ³ /s | 0.17m ³ /s | 0.17m ³ /s | 0.07m ³ /s | 0.07m ³ /s | 0.07m ³ /s | |
| CAPACITY (m ³ /s) | 102m ³ /s | 185m ³ /s | 144m ³ /s | 194m ³ /s | 0.96m ³ /s | 0.56m ³ /s | 0.56m ³ /s | 0.56m ³ /s | 0.53m ³ /s | 0.29m ³ /s | 0.29m ³ /s | 0.29m ³ /s | 0.20m ³ /s | 0.29m ³ /s | 0.26m ³ /s | 0.12m ³ /s | 0.12m ³ /s | 0.12m ³ /s | |
| DIAMETER AND TYPE (CLASS 2) | 825 FLUSH JOINT | 825 FLUSH JOINT | 825 FLUSH JOINT | 825 FLUSH JOINT | 825 FLUSH JOINT | 675 RRJ | 675 RRJ | 675 RRJ (CLASS 4) | 525 RRJ | 525 RRJ | 525 RRJ | 525 RRJ | 450 RRJ (CLASS 6) | 450 RRJ | 375 RRJ | 300 RRJ | 300 RRJ | 300 RRJ | |
| GRADE | 1 in 197 | 1 in 605 | 1 in 997 | 1 in 54.6 | 1 in 225 | 1 in 225 | 1 in 225 | 1 in 225 | 1 in 655 | 1 in 225 | 1 in 225 | 1 in 225 | 1 in 211 | 1 in 96.6 | 1 in 44.1 | 1 in 66.7 | 1 in 50 | | |
| DATUM RL | 24.00 | | | | | | | | | | | | | | | | | | |
| DEPTH FS TO INVERT | 1.982 | 1.982 | | | | | | | | | | | | | | | | | |
| HGL LEVEL | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | |
| INVERT | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | 24.3186 | |
| FINISHED SURFACE | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | 24.5168 | |
| NATURAL SURFACE | 24.5865 | 24.5905 | 24.6426 | 24.6426 | 24.6426 | 24.6426 | 24.6426 | 24.6426 | 24.6426 | 24.6426 | 24.6426 | 24.6426 | 24.6426 | 24.6426 | 24.6426 | 24.6426 | 24.6426 | 24.6426 | |
| CHAINAGE | 0.000 | 27.807 | 66.662 | 59.127 | 74.198 | 84.008 | 113.358 | 147.208 | 156.008 | 194.758 | 227.208 | 236.008 | 244.310 | 249.350 | 287.539 | 297.171 | 326.921 | 334.121 | |
| | L=27.807m | L=18.855m | L=12.466m | L=15.070m | L=9.810m | L=29.350m | L=33.850m | L=8.800m | L=38.750m | L=32.450m | L=8.800m | L=8.302m | L=25.040m | L=18.189m | L=9.633m | L=29.750m | L=7.200m | | |

 INDICATES CRUSHED ROCK BACKFILL
 - - - - - INDICATES 5YR HGL



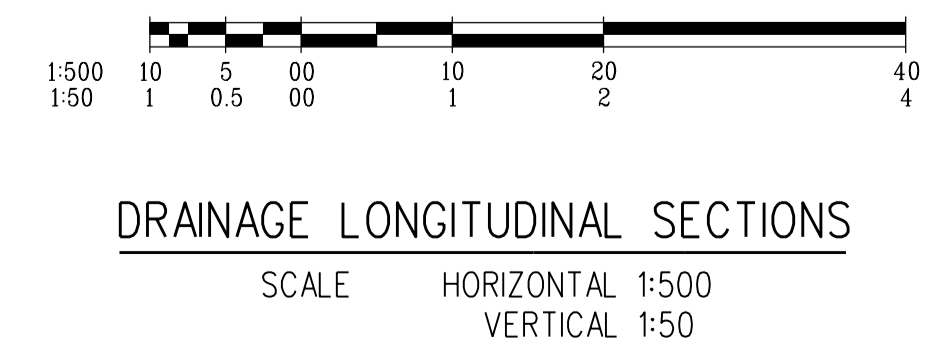
AS CONSTRUCTED

| | | | |
|---|---------------------------------------|--|--------------------------------|
|  breese pitt dixon Pty. Ltd. land surveyors civil engineers | | 1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310 | |
| MELWAY REF. 366-E-6 SURVEY BJ DESIGN SBS DRAWN SBS | | WARATAH ESTATE STAGE 3 MUNICIPALITY HUME REFERENCE 8711 E/3 | |
| AMENDMENTS B 31-01-17 COVER LEVEL OF PIT 2 AMENDED A 21-10-16 ISSUED FOR CONSTRUCTION | VER DATE REMARKS | CHECKED SCALE AS SHOWN DATUM AHD DATE APR'16 | SHEET 12 OF 18 B |



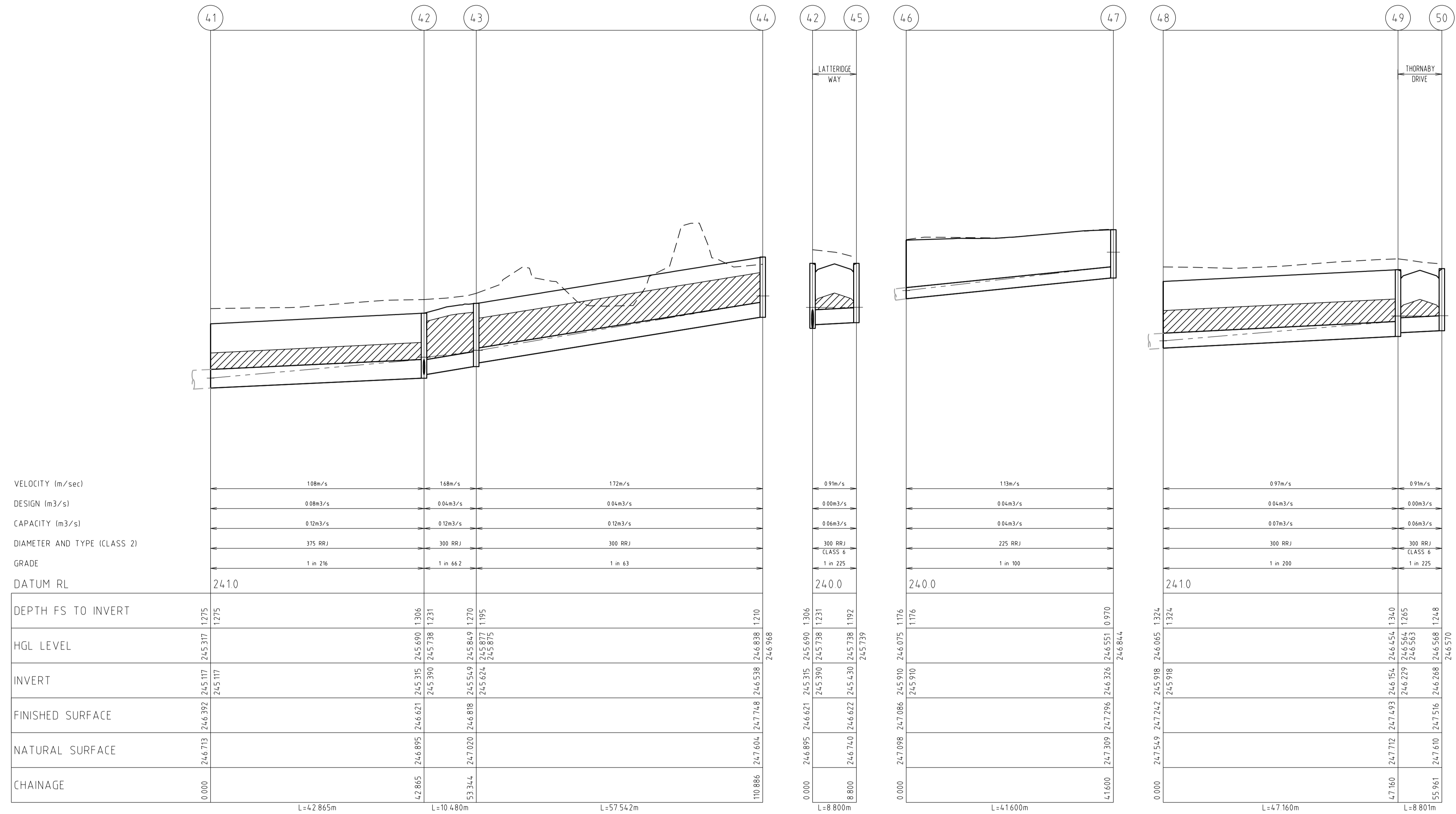
| VELOCITY (m/sec) | DESIGN (m ³ /s) | CAPACITY (m ³ /s) | DIAMETER AND TYPE (CLASS 2) | GRADE | DATUM RL | DEPTH FS TO INVERT | HGL LEVEL | INVERT | FINISHED SURFACE | NATURAL SURFACE | CHAINAGE |
|------------------|----------------------------|------------------------------|-----------------------------|----------|----------|--------------------|-----------|---------|------------------|-----------------|----------|
| 2.89m/s | 0.34m ³ /s | 0.46m ³ /s | 450 RRJ | 1 in 385 | 240.0 | 1921 | 245.208 | 244.571 | 246.304 | 246.896 | 0.000 |
| 2.89m/s | 0.31m ³ /s | 0.46m ³ /s | 450 RRJ | 1 in 385 | 240.0 | 1509 | 246.702 | 246.252 | 247.761 | 248.217 | 64.669 |
| 2.04m/s | 0.31m ³ /s | 0.33m ³ /s | 450 RRJ | 1 in 761 | 240.0 | 1370 | 246.865 | 246.517 | 247.878 | 248.319 | 69.086 |
| 0.91m/s | 0.01m ³ /s | 0.06m ³ /s | 300 RRJ CLASS 6 | 1 in 225 | 241.0 | 1370 | 246.865 | 246.366 | 247.737 | 248.106 | 81.442 |
| 2.59m/s | 0.11m ³ /s | 0.18m ³ /s | 300 RRJ | 1 in 279 | 240.0 | 1236 | 247.366 | 247.066 | 248.302 | 248.192 | 63.916 |
| 1.89m/s | 0.08m ³ /s | 0.13m ³ /s | 300 RRJ | 1 in 526 | 240.0 | 1161 | 247.538 | 247.141 | 248.480 | 248.331 | 72.397 |
| 2.40m/s | 0.15m ³ /s | 0.26m ³ /s | 375 RRJ | 1 in 439 | 240.0 | 1661 | 245.688 | 245.912 | 247.358 | 247.751 | 39.904 |
| 2.08m/s | 0.16m ³ /s | 0.15m ³ /s | 300 RRJ | 1 in 435 | 240.0 | 1371 | 246.307 | 245.987 | 247.976 | 248.184 | 62.265 |
| 2.28m/s | 0.07m ³ /s | 0.16m ³ /s | 300 RRJ | 1 in 362 | 241.0 | 1475 | 246.120 | 245.595 | 247.254 | 247.470 | 0.000 |

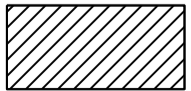
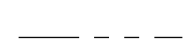
INDICATES CRUSHED ROCK BACKFILL
 - - - - - INDICATES 5YR HGL

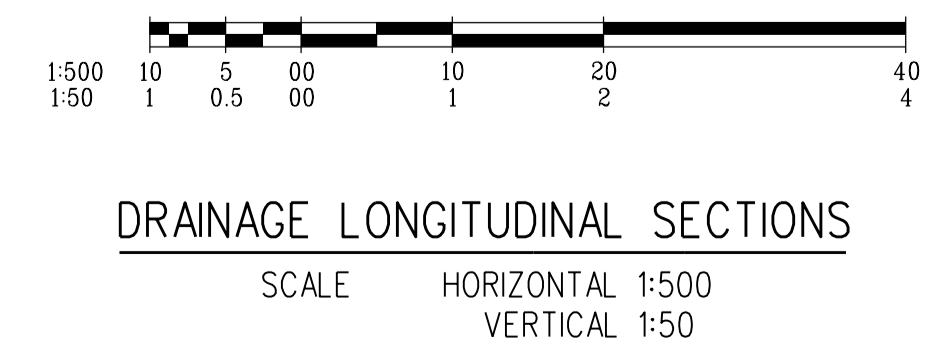


AS CONSTRUCTED

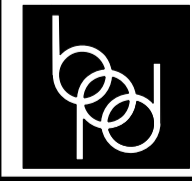
| | | | |
|---|------------------|---|---------------------------------------|
| breese pitt dixon Pty. Ltd. land surveyors civil engineers | | 1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310 | |
| MELWAY REF. 366-E-6 SURVEY BJ DESIGN SBS DRAWN SBS | | WARATAH ESTATE STAGE 3 | |
| MUNICIPALITY HUME REFERENCE 8711 E/3 | | SHEET 13 OF 18 | |
| AMENDMENTS A 21-10-16 ISSUED FOR CONSTRUCTION | VER DATE REMARKS | CHECKED | SCALE AS SHOWN DATUM AHD DATE APR '16 |



 INDICATES CRUSHED ROCK BACKFILL
 INDICATES 5YR HGL

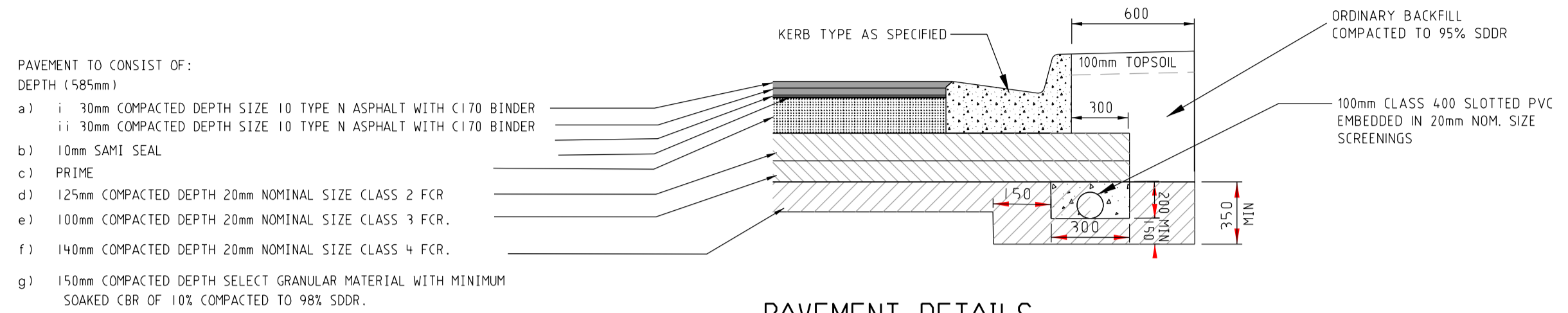


AS CONSTRUCTED

| | | |
|---|---------------------------------------|---|
|  breese pitt dixon pty. ltd. land surveyors civil engineers | | 1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310 |
| MELWAY REF. 366-E-6 SURVEY BJ DESIGN SBS DRAWN SBS | | MUNICIPALITY HUME REFERENCE 8711 E/3 |
| WARATAH ESTATE STAGE 3 | | SHEET 15 OF 18 |
| AMENDMENTS A 21-10-16 ISSUED FOR CONSTRUCTION | VER DATE REMARKS | CHECKED SCALE AS SHOWN DATUM AHD DATE APR '16 |

| Pit No. | TYPE | INTERNAL | | INLET | | OUTLET | | PIT | | SD DRAWINGS | REMARKS |
|---------|------------------------------|----------|-------|-------|---------|--------|---------|-----------|-------|-----------------------|---|
| | | WD | LEN | DIA | INV LEV | DIA | INV LEV | SETOUT RL | DEPTH | | |
| 1 | ENDPIPE | | | 825 | 243.186 | | | 245.168 | 1.982 | | CONNECT TO EX. ENDPIPE |
| 2 | JUNCTION PIT | 1050 | 900 | 825 | 243.402 | 825 | 243.327 | 245.311 | 1.984 | MPA EDCM STD DWG 607 | HAUNCHED PIT COVER TO 600X900 PROVIDE HEAVY DUTY COVER |
| 3 | GRATED ENTRY PIT(HB2) | 1050 | 900 | 825 | 243.789 | 825 | 243.714 | 245.683 | 1.97 | MPA EDCM STD DWG 601 | HAUNCHED PIT COVER TO 600X900 |
| 4 | GRATED ENTRY PIT(HB2) | 1050 | 900 | 825 | 243.989 | 825 | 243.914 | 245.838 | 1.925 | MPA EDCM STD DWG 601 | HAUNCHED PIT COVER TO 600X900 |
| 5 | JUNCTION PIT | 1050 | 900 | 825 | 244.34 | 825 | 244.265 | 246.182 | 1.917 | MPA EDCM STD DWG 607 | HAUNCHED PIT COVER TO 600X900 |
| 6 | JUNCTION PIT | 1050 | 900 | 675 | 244.458 | 825 | 244.383 | 246.304 | 1.921 | MPA EDCM STD DWG 607 | HAUNCHED PIT COVER TO 600X900 |
| | | | | 450 | 244.571 | | | | | | |
| 7 | GRATED PIT | | 600 | 675 | 244.664 | 675 | 244.589 | 246.575 | 1.986 | MPA EDCM STD DWG 605. | PROVIDE GRATED COVER |
| | | | | 300 | 244.776 | | | | | | |
| 8 | DOUBLE GRATED ENTRY PIT(HB2) | 2x600 | 2x900 | 675 | 244.889 | 675 | 244.814 | 246.664 | 1.85 | MPA EDCM STD DWG 602 | |
| 9 | DOUBLE GRATED ENTRY PIT(HB2) | 2x600 | 2x900 | 525 | 245.003 | 675 | 244.928 | 246.664 | 1.736 | MPA EDCM STD DWG 602 | |
| | | | | 375 | 245.003 | | | | | | |
| 10 | GRATED PIT | | 600 | 525 | 245.67 | 525 | 245.595 | 247.254 | 1.659 | MPA EDCM STD DWG 605. | PROVIDE GRATED COVER |
| | | | | 300 | 245.708 | | | | | | |
| 11 | DOUBLE GRATED ENTRY PIT(HB2) | 2x600 | 2x900 | 525 | 245.889 | 525 | 245.814 | 247.55 | 1.736 | MPA EDCM STD DWG 602 | |
| 12 | DOUBLE GRATED ENTRY PIT(HB2) | 2x900 | 2x900 | 525 | 246.003 | 525 | 245.928 | 247.561 | 1.633 | MPA EDCM STD DWG 602 | HAUNCHED PIT COVER TO 600X900 |
| | | | | 300 | 246.003 | | | | | | |
| 13 | JUNCTION PIT | 750 | 900 | 450 | 246.115 | 525 | 246.04 | 247.604 | 1.563 | MPA EDCM STD DWG 607 | HAUNCHED PIT COVER TO 600X900 |
| | | | | 300 | 246.115 | | | | | | |
| 14 | GRATED ENTRY PIT(HB2) | 750 | 900 | 450 | 246.309 | 450 | 246.234 | 247.728 | 1.494 | MPA EDCM STD DWG 601 | HAUNCHED PIT COVER TO 600X900 |
| 15 | JUNCTION PIT | 750 | 900 | 375 | 246.572 | 450 | 246.497 | 247.881 | 1.384 | MPA EDCM STD DWG 607 | HAUNCHED PIT COVER TO 600X900 |
| 16 | JUNCTION PIT | 600 | 900 | 300 | 246.866 | 375 | 246.791 | 248.082 | 1.292 | MPA EDCM STD DWG 605 | |
| | | | | 300 | 246.866 | | | | | | |
| 17 | JUNCTION PIT | 600 | 900 | 300 | 247.387 | 300 | 247.312 | 248.975 | 1.663 | MPA EDCM STD DWG 605 | |
| 18 | ENDPIPE | | | | | 300 | 247.531 | 249.016 | 1.485 | | CAP & SEAL |
| 19 | GRATED ENTRY PIT(HB2) | 600 | 900 | 450 | 246.327 | 450 | 246.252 | 247.761 | 1.509 | MPA EDCM STD DWG 601 | |
| | | | | 300 | 246.327 | | | | | | |
| 20 | JUNCTION PIT | 600 | 900 | 450 | 246.517 | 450 | 246.442 | 247.878 | 1.436 | MPA EDCM STD DWG 605 | |
| 21 | ENDPIPE | | | | | 450 | 246.678 | 248.106 | 1.428 | | CAP & SEAL |
| 22 | GRATED ENTRY PIT(HB2) | 600 | 900 | | | 300 | 246.366 | 247.737 | 1.37 | MPA EDCM STD DWG 601 | |
| 23 | JUNCTION PIT | 600 | 900 | 300 | 247.141 | 300 | 247.066 | 248.297 | 1.231 | MPA EDCM STD DWG 605 | |
| 24 | ENDPIPE | | | | | 300 | 247.302 | 248.493 | 1.191 | | CAP & SEAL |
| 25 | JUNCTION PIT | 600 | 900 | 300 | 245.987 | 375 | 245.912 | 247.358 | 1.446 | MPA EDCM STD DWG 605 | |
| 26 | ENDPIPE | | | | | 300 | 246.501 | 247.976 | 1.475 | | CAP & SEAL |
| 27 | JUNCTION PIT | 600 | 900 | | | 300 | 247.244 | 248.262 | 1.018 | MPA EDCM STD DWG 605 | PROVIDE 300mm BLOCKOUT IN SOUTH WALL @IL247.319 |
| 28 | JUNCTION PIT | 600 | 900 | | | 300 | 246.375 | 247.572 | 1.197 | MPA EDCM STD DWG 605 | |
| 29 | GRATED ENTRY PIT(HB2) | 600 | 900 | 300 | 246.269 | 300 | 246.194 | 247.78 | 1.586 | MPA EDCM STD DWG 601 | |
| 30 | GRATED ENTRY PIT(HB2) | 600 | 900 | 300 | 246.472 | 300 | 246.397 | 247.807 | 1.41 | MPA EDCM STD DWG 601 | |
| 31 | JUNCTION PIT | 600 | 900 | | | 300 | 247.245 | 248.597 | 1.352 | MPA EDCM STD DWG 605 | |
| 32 | ENDPIPE | | | | | 300 | 247.049 | 248.295 | 1.246 | | CAP & SEAL |
| 33 | ENDPIPE | | | 375 | 244.271 | | | 245.443 | 1.172 | | CONNECT TO EX. ENDPIPE |
| 34 | JUNCTION PIT | 600 | 900 | 300 | 245.268 | 375 | 245.193 | 246.307 | 1.113 | MPA EDCM STD DWG 605 | |
| 35 | JUNCTION PIT | 600 | 900 | 300 | 247.104 | 300 | 247.029 | 247.988 | 0.959 | MPA EDCM STD DWG 605 | |
| 36 | ENDPIPE | | | | | 300 | 247.402 | 248.375 | 0.973 | | SANDBAG ENDWALL |
| 37 | ENDPIPE | | | 225 | 245.359 | | | 246.331 | 0.972 | | CONNECT TO EX. ENDPIPE |
| 38 | JUNCTION PIT | 600 | 900 | | | 225 | 245.466 | 246.382 | 0.916 | MPA EDCM STD DWG 605 | |
| 39 | ENDPIPE | | | 300 | 243.975 | | | 245.19 | 1.215 | | CONNECT TO EX. ENDPIPE |
| 40 | JUNCTION PIT | 600 | 900 | | | 300 | 244.052 | 245.277 | 1.225 | MPA EDCM STD DWG 605 | |
| 41 | ENDPIPE | | | 375 | 245.117 | | | 246.407 | 1.29 | | CONNECT TO EX. ENDPIPE |
| 42 | GRATED ENTRY PIT(HB2) | 600 | 900 | 300 | 245.39 | 375 | 245.315 | 246.621 | 1.306 | MPA EDCM STD DWG 601 | |
| | | | | 300 | 245.39 | | | | | | |
| 43 | GRATED PIT | 600 | 900 | 300 | 245.624 | 300 | 245.549 | 246.818 | 1.27 | MPA EDCM STD DWG 605. | PROVIDE GRATED COVER. PROVIDE HEAVY DUTY COVER. |
| 44 | JUNCTION PIT | 600 | 900 | | | 300 | 246.538 | 247.748 | 1.21 | MPA EDCM STD DWG 605 | PROVIDE HEAVY DUTY COVER |
| 45 | GRATED ENTRY PIT(HB2) | 600 | 900 | | | 300 | 245.43 | 246.622 | 1.192 | MPA EDCM STD DWG 601 | |
| 46 | ENDPIPE | | | 225 | 245.91 | | | 247.086 | 1.176 | | CONNECT TO EX. ENDPIPE |
| 47 | JUNCTION PIT | 600 | 900 | | | 225 | 246.326 | 247.296 | 0.97 | MPA EDCM STD DWG 605 | |
| 48 | ENDPIPE | | | 300 | 245.918 | | | 247.257 | 1.339 | | CONNECT TO EX. ENDPIPE |
| 49 | GRATED ENTRY PIT(HB2) | 600 | 900 | 300 | 246.229 | 300 | 246.154 | 247.493 | 1.34 | MPA EDCM STD DWG 601 | |
| 50 | GRATED ENTRY PIT(HB2) | 600 | 900 | | | 300 | 246.268 | 247.516 | 1.248 | MPA EDCM STD DWG 601 | |

PIT SCHEDULE



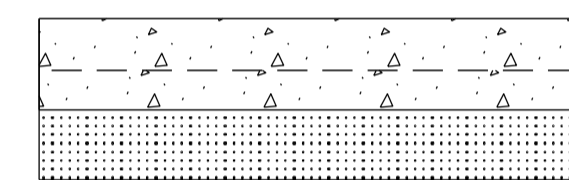
PAVEMENT DETAILS

THORNABY DRIVE, LATTERIDGE WAY
WHITELEAF DRIVE, AILSWORTH WAY

PAVEMENT TO CONSIST OF:
DEPTH (585mm)
a) 30mm COMPACTED DEPTH SIZE 10 TYPE N ASPHALT WITH C170 BINDER
i) 30mm COMPACTED DEPTH SIZE 10 TYPE N ASPHALT WITH C170 BINDER
b) 10mm SAMI SEAL
c) PRIME
d) 125mm COMPACTED DEPTH 20mm NOMINAL SIZE CLASS 2 FCR
e) 100mm COMPACTED DEPTH 20mm NOMINAL SIZE CLASS 3 FCR.
f) 140mm COMPACTED DEPTH 20mm NOMINAL SIZE CLASS 4 FCR.
g) 150mm COMPACTED DEPTH SELECT GRANULAR MATERIAL WITH MINIMUM SOAKED CBR OF 10% COMPACTED TO 98% SDDR.

SUBGRADE

SILTY CLAY COMPACTED TO AT LEAST 100% STD DRY DENSITY RATIO (SOAKED C.B.R > 2.5%) WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT.

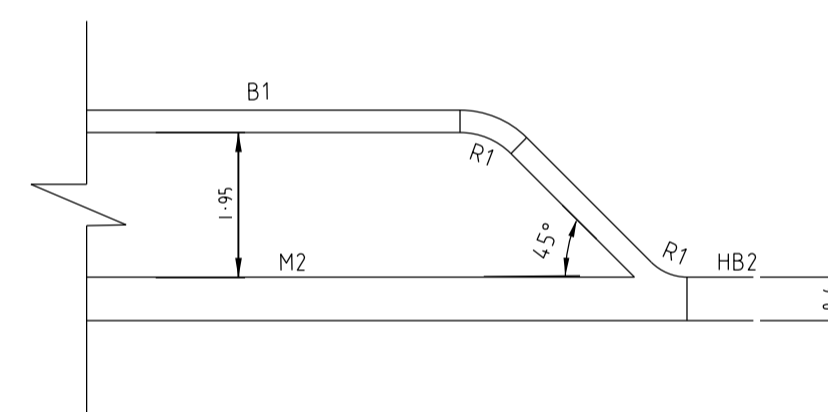


PAVEMENT DETAILS

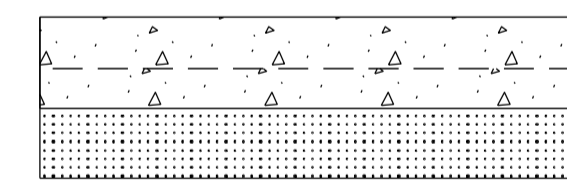
PARKING BAY

PAVEMENT TO CONSIST OF:
DEPTH (300mm)
a) 200mm DEPTH REINFORCED S182 MESH CENTRALLY PLACED BRICK RED COLOR OR EXPOSED AGGREGATE CONCRETE (32Mpa)
b) 100mm COMPACTED DEPTH CLASS 3 CRUSHED ROCK.

CONTACT SUPERVISING ENGINEER PRIOR TO COMMENCEMENT OF PATTERN PRESS STENCILING SUFFICIENT DEPTH OF SOFT GROUND MUST BE EXCAVATED & REPLACED WITH APPROVED CRAIGIEBURN SANDSTONE OR EQUIVALENT TO ACHIEVE SUBGRADE COMPACTION DENSITY OF 95% AS PER AS 1289.
ALL JOINTING TO BE AS PER C & C AA GUIDELINES.



OFFSTREET PARKING BAY DETAIL



PAVEMENT DETAILS

WINGRAVE LANE

PAVEMENT TO CONSIST OF:
DEPTH (300mm)
a) 200mm DEPTH REINFORCED S182 MESH CENTRALLY PLACED, PATTERN PRESSED COLOURED CONCRETE (32Mpa), BLACK COBBLESTONE PATTERN
b) 100mm COMPACTED DEPTH CLASS 2 CRUSHED ROCK, COLOUR AB10X BLACK 2.0% BY WEIGHT.

CONTACT SUPERVISING ENGINEER PRIOR TO COMMENCEMENT OF PATTERN PRESS STENCILING SUFFICIENT DEPTH OF SOFT GROUND MUST BE EXCAVATED & REPLACED WITH APPROVED CRAIGIEBURN SANDSTONE OR EQUIVALENT TO ACHIEVE SUBGRADE COMPACTION DENSITY OF 95% AS PER AS 1289.
ALL JOINTING TO BE AS PER C & C AA GUIDELINES.

SUBGRADE
MATERIAL AS FOUND (SILTY CLAY) COMPACTED TO A MINIMUM DENSITY OF RATIO 98% (STD) AS 1289, 5.1.1

AS CONSTRUCTED

| | | | | | | | |
|------------|----------|------------------------------|---------|---|---------------------------|---|----------------------|
| AMENDMENTS | | MELWAY REF. 766-E-6 | | breese pitt dixon Pty. Ltd. land surveyors | | 1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310 | |
| B | 31-01-17 | COVER LEVEL OF PIT 2 AMENDED | SURVEY | BJ | WARATAH ESTATE STAGE 3 | | MUNICIPALITY HUME |
| A | 21-10-16 | ISSUED FOR CONSTRUCTION | DESIGN | SBS | REFERENCE 8711 E/3 | | |
| VER | DATE | REMARKS | DRAWN | SBS | SCALE | AS SHOWN | DATUM |
| | | | CHECKED | | | | AHD |
| | | | | | DATE | APR '16 | |
| | | | | | SHEET | 16 OF 18 | B |



SIGN SCHEDULE

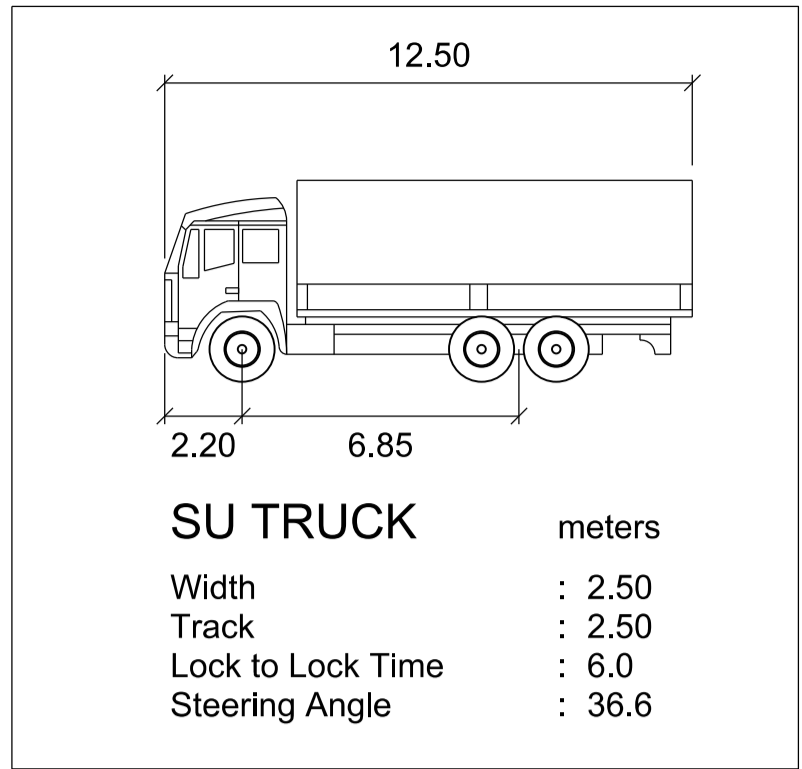
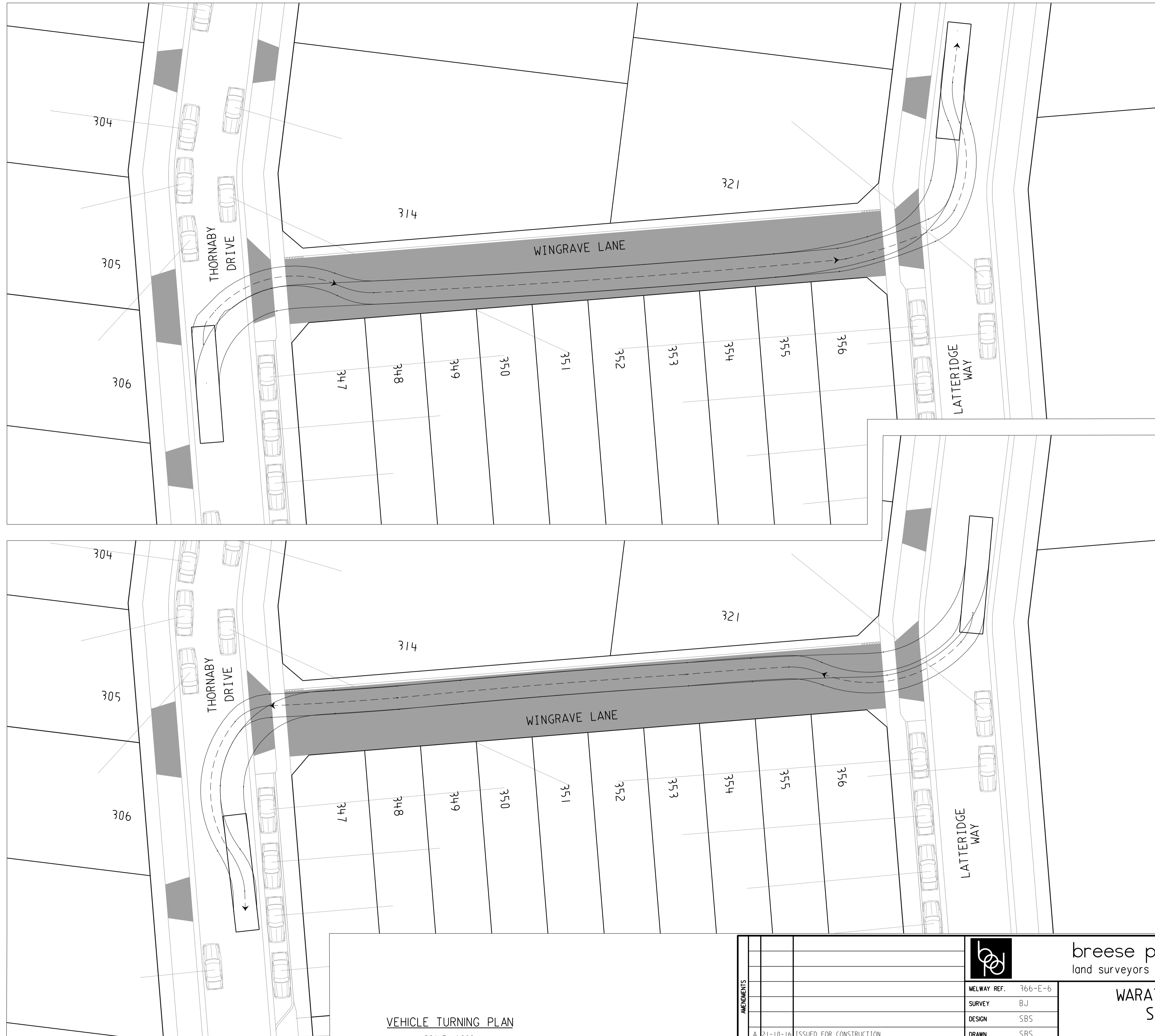
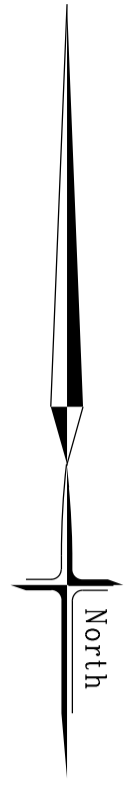
- (A) "STREET NAME" SIGN
- (B) R1-2
- (C) W5-10A
 W8-2A
- (D) R5-40L
- (E) R5-40R
- (F) "NO ROAD" SIGN

PARKING & SIGNAGE & LINEMARKING PLAN
SCALE 1:500

AS CONSTRUCTED

| | | | | | | | |
|---|--|----------------|---|-----------------|-----------------------------------|---|--|
| AMENDMENTS A 21-10-16 ISSUED FOR CONSTRUCTION | | | MELWAY REF. 366-E-6 SURVEY BJ DESIGN SBS DRAWN SBS | | WARATAH ESTATE STAGE 3 | MUNICIPALITY HUME REFERENCE 8711 E/3 | |
| | | | breese pitt dixon pty. ltd. land surveyors | civil engineers | | 1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310 | |
| VER DATE REMARKS | CHECKED SCALE AS SHOWN DATUM AHD DATE APR '16 | SHEET 17 OF 18 | A | | | | |

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AS CONSTRUCTED

VEHICLE TURNING PLAN
 SCALE 1:200

| AMENDMENTS | DATE | REMARKS |
|------------|----------|-------------------------|
| A | 21-10-16 | ISSUED FOR CONSTRUCTION |

| | |
|-------------|---------|
| MELWAY REF. | 366-E-6 |
| SURVEY | BJ |
| DESIGN | SBS |
| DRAWN | SBS |
| CHECKED | |

breese pitt dixon Pty. Ltd.
 land surveyors civil engineers

1/19 cato street
 hawthorn east, 3123
 telephone 8823 2300
 fax no. 8823 2310

**WARATAH ESTATE
 STAGE 3**

MUNICIPALITY
 HUME

REFERENCE
 8711 E/3

SCALE AS SHOWN DATUM AHD DATE APR '16 SHEET 18 OF 18