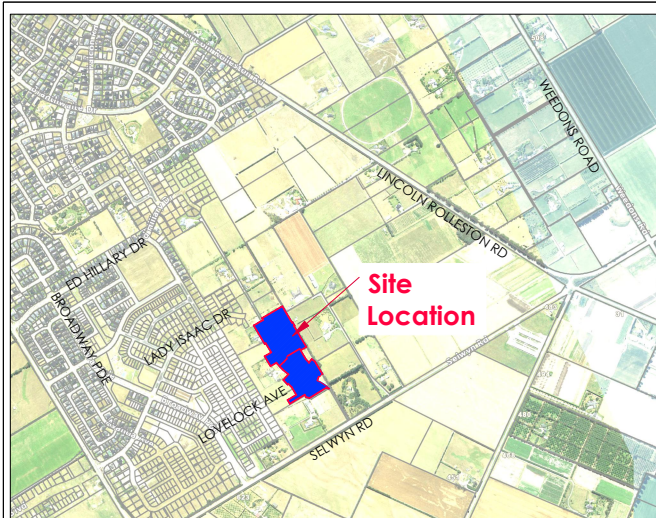
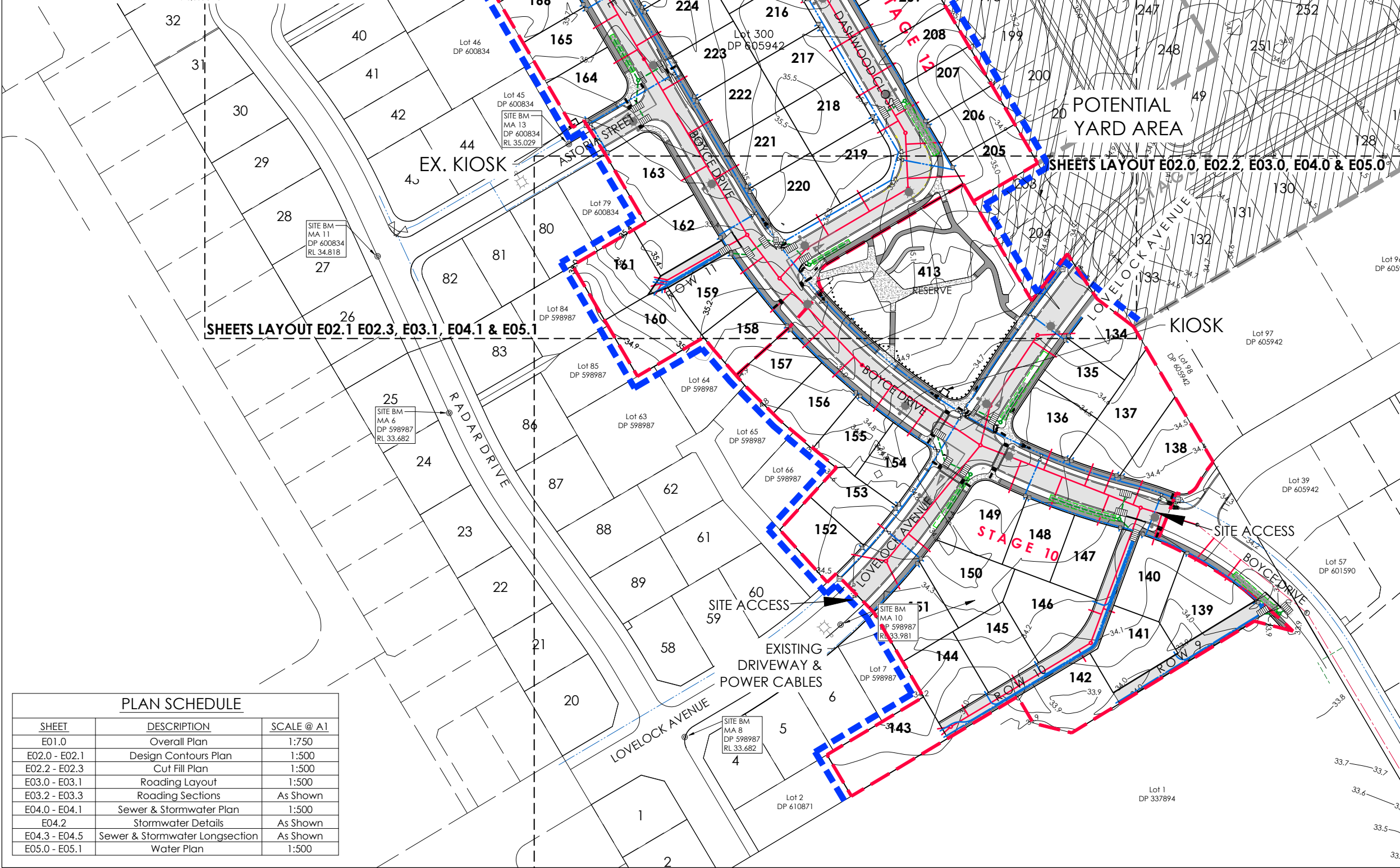




### LOCATION PLAN

Scale: 1:10,000@A1  
1:20,000@A3



| AMENDMENTS: |          |                                       |
|-------------|----------|---------------------------------------|
| AMENDMENT   | DATE     | DESCRIPTION                           |
| R1          | 15/01/26 | SEWER & WATER ALIGNMENT UPDATED       |
| R2          | 5/03/26  | FOOTPATH CROSSINGS AMEND FOR SW SUMPS |

- NOTES:
- ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
  - ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
  - ELECTRICITY & TELECOM SERVICES NOT SHOWN. REFER TO ELECTRICAL & COMMUNICATION PLANS FOR DUCT LOCATIONS.
  - TRENCHING AND INSTALLATION OF POWER AND TELECOM SERVICES TO BE PROVIDED IN ACCORDANCE WITH SERVICE PROVIDERS PLANS AND SPECIFICATIONS.
  - EXISTING SERVICES HAVE BEEN DIGITISED FROM SERVICE AUTHORITY PLANS; COMPLETENESS AND ACCURACY ARE NOT GUARANTEED. ALL SERVICES TO BE FULLY SEARCHED AND PILOTTED PRIOR TO TRENCHING.
  - CONTOUR INTERVAL: 0.1m MINOR. 1.0m MAJOR.
  - ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJ8W (CC 370 NO 2)  
RL 58.154m
  - CONTROL OF SW, SEDIMENT AND DUST ON SITE IS THE RESPONSIBILITY OF THE CONTRACTOR.
  - ALL ROW AND DRIVEWAYS ARE TO HAVE 50mm DUCTS INSTALLED FOR COMMUNICATIONS AND POWER SUPPLY.
  - ALL TREES, VEGETATION AND WIRE FENCES TO BE REMOVED CLEAR OF THE EXTENT OF WORKS, MAINTAIN RESIDENTIAL PALING FENCES.

| LEGEND:           |                                |
|-------------------|--------------------------------|
|                   | STAGE BOUNDARY                 |
|                   | EXTENT OF WORKS                |
|                   | STREET LIGHT                   |
|                   | PROPOSED TREE                  |
|                   | NEW ASPHALT PAVEMENT           |
|                   | NEW CHIP SEAL PAVEMENT         |
|                   | NEW EXPOSED AGGREGATE CONCRETE |
|                   | COMPLETED STAGES               |
|                   | NEW FOOTPATH                   |
|                   | FUTURE STAGES                  |
| EXISTING SERVICES |                                |
|                   | SANITARY SEWER STD. MH         |
|                   | SANITARY SEWER VENTED MH       |
|                   | STORMWATER MH                  |
|                   | WATER FH VALVE METER           |
|                   | KERB CUT DOWN                  |
| PROPOSED SERVICES |                                |
|                   | SANITARY SEWER STD. MH         |
|                   | SANITARY SEWER VENTED MH       |
|                   | STORMWATER MH                  |
|                   | WATER FH VALVE METER           |
|                   | KERB CUT DOWN                  |

| NAME                    | SIGNED     | DATE |
|-------------------------|------------|------|
| DESIGNED BY: JALAY SHAH | JALAY SHAH |      |
| CHECKED BY: BEN FOX     | BEN FOX    |      |



116 Wrights Road P O Box 679 Christchurch 8140. New Zealand  
Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

**Broadfield Grange  
Stages 10 & 12**

SHEET TITLE:

**Overall Plan  
RC245458**

DRAWING STATUS:

**For Engineering Approval**

SCALE: 1:750@A1  
1:1500@A3

DATE: January 2026

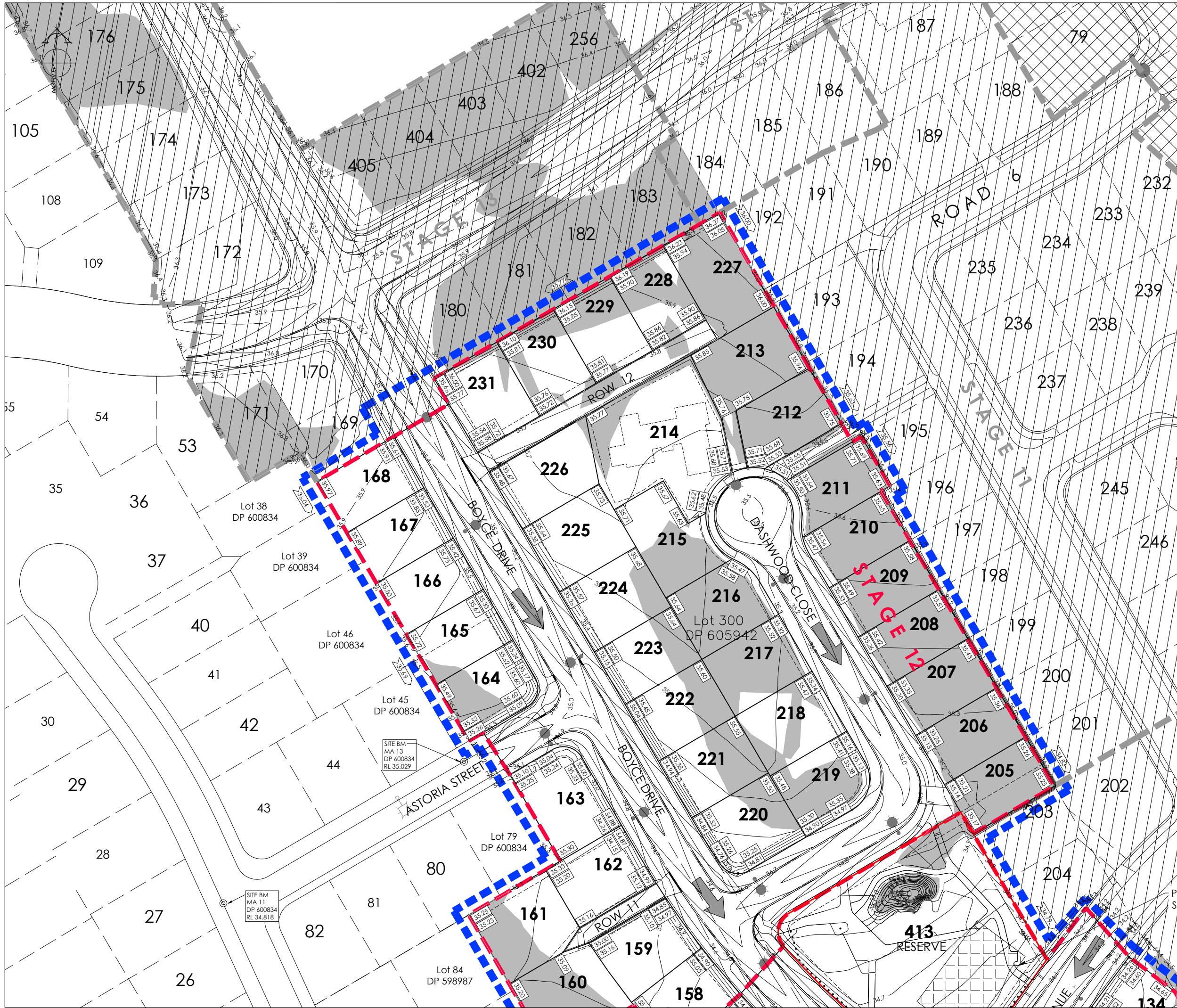
CAD FILE: J:\21489\Eng\Drawings\STAGES 10 & 12\21489\_E01.0 Stages 10 & 12.dwg

DRAWING No: SHEET No: DRAWN: JS

**E.21489** **E01.0** **R1**

| PLAN SCHEDULE |                                |            |
|---------------|--------------------------------|------------|
| SHEET         | DESCRIPTION                    | SCALE @ A1 |
| E01.0         | Overall Plan                   | 1:750      |
| E02.0 - E02.1 | Design Contours Plan           | 1:500      |
| E02.2 - E02.3 | Cut Fill Plan                  | 1:500      |
| E03.0 - E03.1 | Roading Layout                 | 1:500      |
| E03.2 - E03.3 | Roading Sections               | As Shown   |
| E04.0 - E04.1 | Sewer & Stormwater Plan        | 1:500      |
| E04.2         | Stormwater Details             | As Shown   |
| E04.3 - E04.5 | Sewer & Stormwater Longsection | As Shown   |
| E05.0 - E05.1 | Water Plan                     | 1:500      |





| AMENDMENTS: |          |                                        |
|-------------|----------|----------------------------------------|
| AMENDMENT   | DATE     | DESCRIPTION                            |
| R1          | 15/01/26 | NO CHANGES THIS SHEET                  |
| R2          | 11/05/26 | ROW 9 WIDTH AMEND, RESERVE MOUND ADDED |

NOTES:

- ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
- ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJ8W (CC 370 NO 2)  
RL 58.154m
- METAL DEPTHS TO BE CONFIRMED OR INCREASED BY ENGINEER FOLLOWING CHECKING OF SUBGRADE CBR STRENGTH ONCE EXCAVATED.
- ALL BERMS TO BE COVER WITH A MINIMUM OF 150mm SCREENED TOPSOIL GRASSED WITH CCC BERM MIX.
- EXISTING SERVICES HAVE BEEN DIGITISED FROM SERVICE AUTHORITY PLANS; COMPLETENESS AND ACCURACY ARE NOT GUARANTEED. ALL SERVICES TO BE FULLY SEARCHED & PILOTTED PRIOR TO TRENCHING.
- ALL TREES, VEGETATION AND WIRE FENCES TO BE REMOVED CLEAR OF THE EXTENT OF WORKS, MAINTAIN RESIDENTIAL PALING FENCES.
- DESIGN CONTOUR INTERVAL: MAJOR 1m MINOR 0.1m.
- ALL EARTHFILL WORKS TO COMPLY WITH NZS 4431:1989 RELEVANT CERTIFICATION REQUIRED AS PROOF.
- IF PEAT OR OTHER UNSUITABLE MATERIAL IS LOCATED IN THE SUBGRADE THE ENGINEER IS TO BE CONTACTED FOR INSTRUCTION.
- ESCMP TO BE IN PLACE PRIOR TO ANY EARTHWORKS.
- CONTRACTOR MUST READ ALL DISCHARGE CONSENTS PRIOR TO ANY EARTHWORKS.
- DRAWINGS TO BE DISTRIBUTED AND READ AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

LEGEND:

- STAGE BOUNDARY (dashed red line)
- EXTENT OF WORKS (dashed blue line)
- COMPLETED STAGES (hatched pattern)
- FUTURE STAGES (diagonal line pattern)
- LEVELS
  - PROPOSED LOT LEVELS (e.g., 20.31)
  - EXISTING LOT LEVELS (e.g., 25.35)
  - DIRECTION OF FLOW (arrow)
- EXISTING SERVICES (KERB)
- PROPOSED SERVICES (CUT DOWN)

| NAME                    | SIGNED     | DATE |
|-------------------------|------------|------|
| DESIGNED BY: JALAY SHAH | JALAY SHAH |      |
| CHECKED BY: BEN FOX     | BEN FOX    |      |

**DAVE LOVELL-SMITH**  
PLANNING SURVEYING ENGINEERING

116 Wrights Road P O Box 679 Christchurch 8140. New Zealand  
Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:  
**Broadfield Grange Stages 10 & 12**

SHEET TITLE:  
**Design Contours RC245458**

DRAWING STATUS:  
**For Engineering Approval**

SCALE: 1:500@A1  
1:1000@A3 DATE: May 2026

CAD FILE: J:\2148P\Eng\Drawings\STAGES 10 & 12\E2148P\_E02.0 STGs 10 & 12\_R2.dwg

DRAWING No: **E.21489** SHEET No: **E02.1** REVISION: **R1**





| AMENDMENTS: |          |                                        |
|-------------|----------|----------------------------------------|
| AMENDMENT   | DATE     | DESCRIPTION                            |
| R1          | 15/01/26 | NO CHANGES THIS SHEET                  |
| R2          | 11/05/26 | ROW 9 WIDTH AMEND, RESERVE MOUND ADDED |

NOTES:

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RL 55.908m  
CHK EJ8W (CC 370 NO 2)  
RL 58.154m
- METAL DEPTHS TO BE CONFIRMED OR INCREASED BY ENGINEER FOLLOWING CHECKING OF SUBGRADE CBR STRENGTH ONCE EXCAVATED.
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- ALL TREES, VEGETATION AND WIRE FENCES TO BE REMOVED CLEAR OF THE EXTENT OF WORKS, MAINTAIN RESIDENTIAL PALING FENCES.
- CUT FILL CONTOUR INTERVAL: MAJOR 1m MINOR 0.1m.
- ALL EARTHFILL WORKS TO COMPLY WITH NZS 4431:1989 RELEVANT CERTIFICATION REQUIRED AS PROOF.
- IF PEAT OR OTHER UNSUITABLE MATERIAL IS LOCATED IN THE SUBGRADE THE ENGINEER IS TO BE CONTACTED FOR INSTRUCTION.
- ESCMP TO BE IN PLACE PRIOR TO ANY EARTHWORKS.
- CONTRACTOR MUST READ ALL DISCHARGE CONSENTS PRIOR TO ANY EARTHWORKS.
- DRAWINGS TO BE DISTRIBUTED AND READ AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

LEGEND:

- STAGE BOUNDARY
- EXTENT OF WORKS
- COMPLETED STAGES
- FUTURE STAGES
- LEVELS
- PROPOSED LOT LEVELS
- EXISTING LOT LEVELS
- DIRECTION OF FLOW
- ENGINEERING FILL
- CUT

EXISTING SERVICES      PROPOSED SERVICES

KERB      KERB      CUT DOWN

| NAME                    | SIGNED     | DATE |
|-------------------------|------------|------|
| DESIGNED BY: JALAY SHAH | JALAY SHAH |      |
| CHECKED BY: BEN FOX     | BEN FOX    |      |

**DAVE LOVELL-SMITH**  
PLANNING SURVEYING ENGINEERING

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Telephone: 03 379-0793      Website: www.dls.co.nz      E-mail: office@dls.co.nz

JOB TITLE:

**Broadfield Grange  
Stages 10 & 12**

SHEET TITLE:

**Cut Fill Plan  
RC245458**

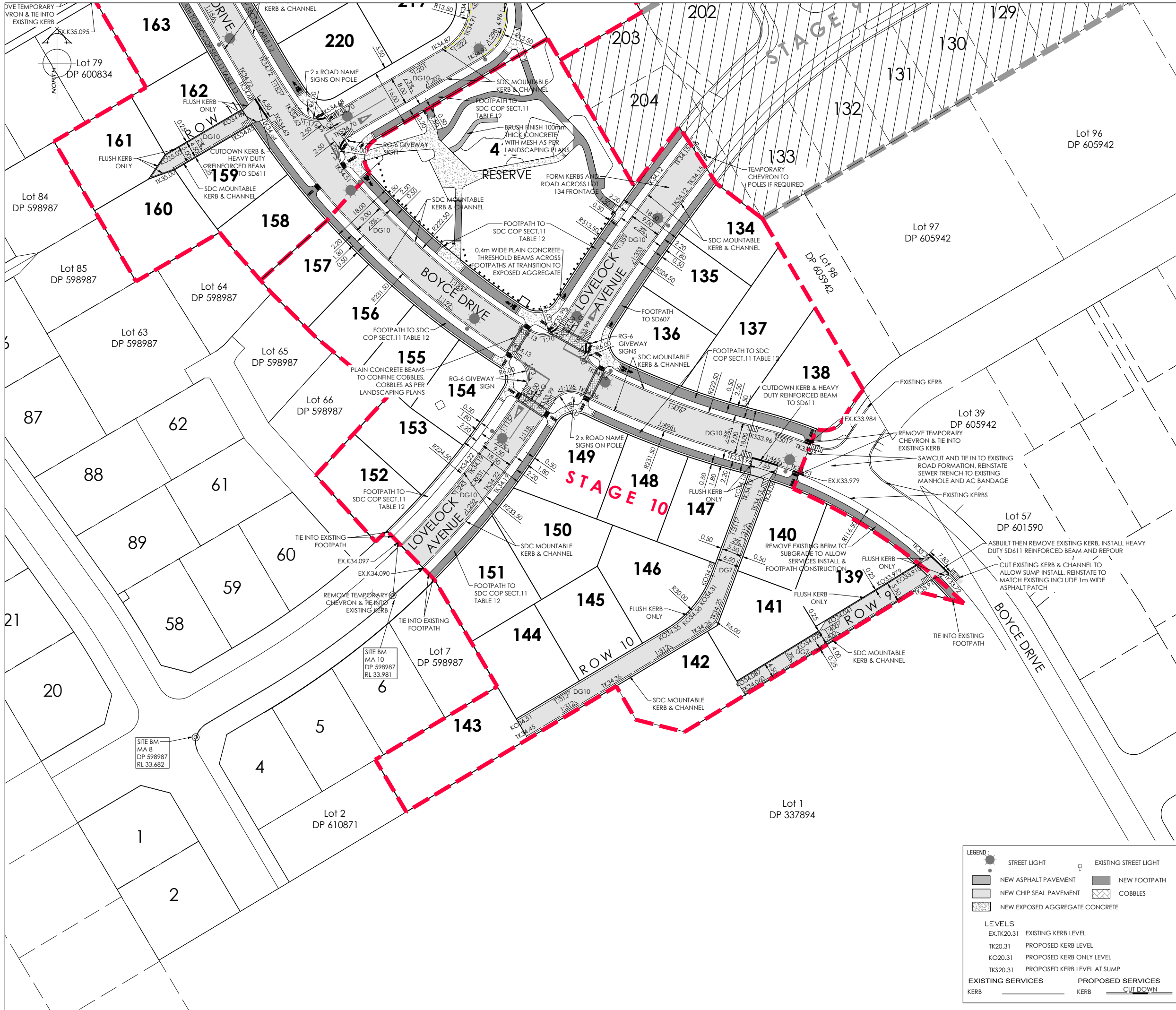
DRAWING STATUS

**For Engineering Approval**

SCALE: 1:500@A1  
1:1000@A3      DATE: May 2026

CAD FILE: J:\21489\Eng\Drawings\STAGES 10 & 12\21489\_E02.0310 & 12.R2.dwg      DRAWN: JS

DRAWING No: **E.21489**      SHEET No: **E02.3**      REVISION: **R1**



AMENDMENTS:

| AMENDMENT | DATE     | DESCRIPTION                      |
|-----------|----------|----------------------------------|
| R1        | 15/01/26 | NO CHANGES THIS SHEET            |
| R2        | 11/05/26 | ROW 9 AMEND, RESERVE PATHS ADDED |

NOTES:

1.

ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.

2.

ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

3.

CARRIAGEWAY AND FOOTPATH ACCEPTANCE TESTING IN ACCORDANCE WITH CCC CSS PART 6 AND CCC IDS.

4.

ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJBW [CC 370 NO 2]  
RL 58.154m

5.

FOOTPATH BASECOURSE TESTING - MINIMUM CLEGG HAMMER VALUE OF 25 REQUIRED FOR FOOTPATHS & RESIDENTIAL CROSSINGS.

6.

- MINIMUM CLEGG HAMMER VALUE OF 35 REQUIRED FOR COMMERCIAL CROSSINGS.

7.

KERB & CHANNEL BASECOURSE TESTING - MINIMUM DRY DENSITY OF 2100kg/m<sup>3</sup> WITH 75% EQUAL OR EXCEEDING 2150kg/m<sup>3</sup>.

8.

CUTDOWNS AT RESIDENTIAL PARKING AREAS TO HAVE 280mm OF CONCRETE AS PER SD611 AND CUT DOWN IN COMMERCIAL PARKING AREAS TO HAVE 280mm OF CONCRETE WITH REINFORCEMENT AS PER SD611.

9.

ALL BERMS TO BE AND COVERED WITH A MINIMUM OF 150mm GRADE 1 TOPSOIL AND GRASSED WITH CCC BERM MIX.

10.

ELECTRICITY & TELECOM SERVICES NOT SHOWN. REFER TO ELECTRICAL & COMMUNICATION PLANS FOR DUCT LOCATIONS.

11.

ALL ROAD AND FOOTPATH AREAS TO BE SURFACED USING ASPHALTIC CONCRETE. FOOTPATHS TO BE CONSTRUCTED IN ACCORDANCE WITH SDC REQUIREMENTS WITH 25mm DEPTH AC, WHILE ROAD PAVEMENTS TO BE 35mm DEPTH.

12.

METAL DEPTHS TO BE CONFIRMED OR INCREASED PRIOR TO COMMENCEMENT OF WORK FOLLOWING THE CHECKING OF SUBGRADE CBR ON SITE.

13.

KERBS AT INTERSECTIONS HAVE A RADIUS OF 6.0m UNLESS SHOWN OTHERWISE.

14.

ALL PAVEMENT CROSSFALLS ARE TO BE CONSTRUCTED IN ACCORDANCE SD623.

15.

TACTILE PAVERS ARE TO BE INSTALLED AS PER SD623 AND RTS14 GUIDELINES FOR FACILITIES FOR THE BLIND AND VISION-IMPAIRED PEDESTRIANS.

16.

ROAD BASECOURSE TESTING - MAXIMUM BENKELMAN BEAM DEFLECTION OF 2.00mm WITH 95% BELOW 1.6mm FOR ROADS AND A MAXIMUM DEFLECTION OF 2.5mm WITH 95% BELOW 2.00mm FOR ROWS.

17.

ALL ROW AND DRIVEWAYS ARE TO HAVE 50mm DUCTS INSTALLED FOR COMMUNICATIONS AND POWER SUPPLY.

18.

APPLY SEALANT TO EXPOSED AGGREGATE CONCRETE THRESHOLDS.

|             | NAME       | SIGNED     | DATE |
|-------------|------------|------------|------|
| DESIGNED BY | JALAY SHAH | JALAY SHAH |      |
| CHECKED BY  | BEN FOX    | BEN FOX    |      |

DAVIE LOVELL-SMITH

PLANNING SURVEYING ENGINEERING

116 Wrights Road P O Box 679 Christchurch 8140. New Zealand

Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

Broadfield Grange

Stages 10 & 12

SHEET TITLE:

Roading Layout

RC245458

DRAWING STATUS

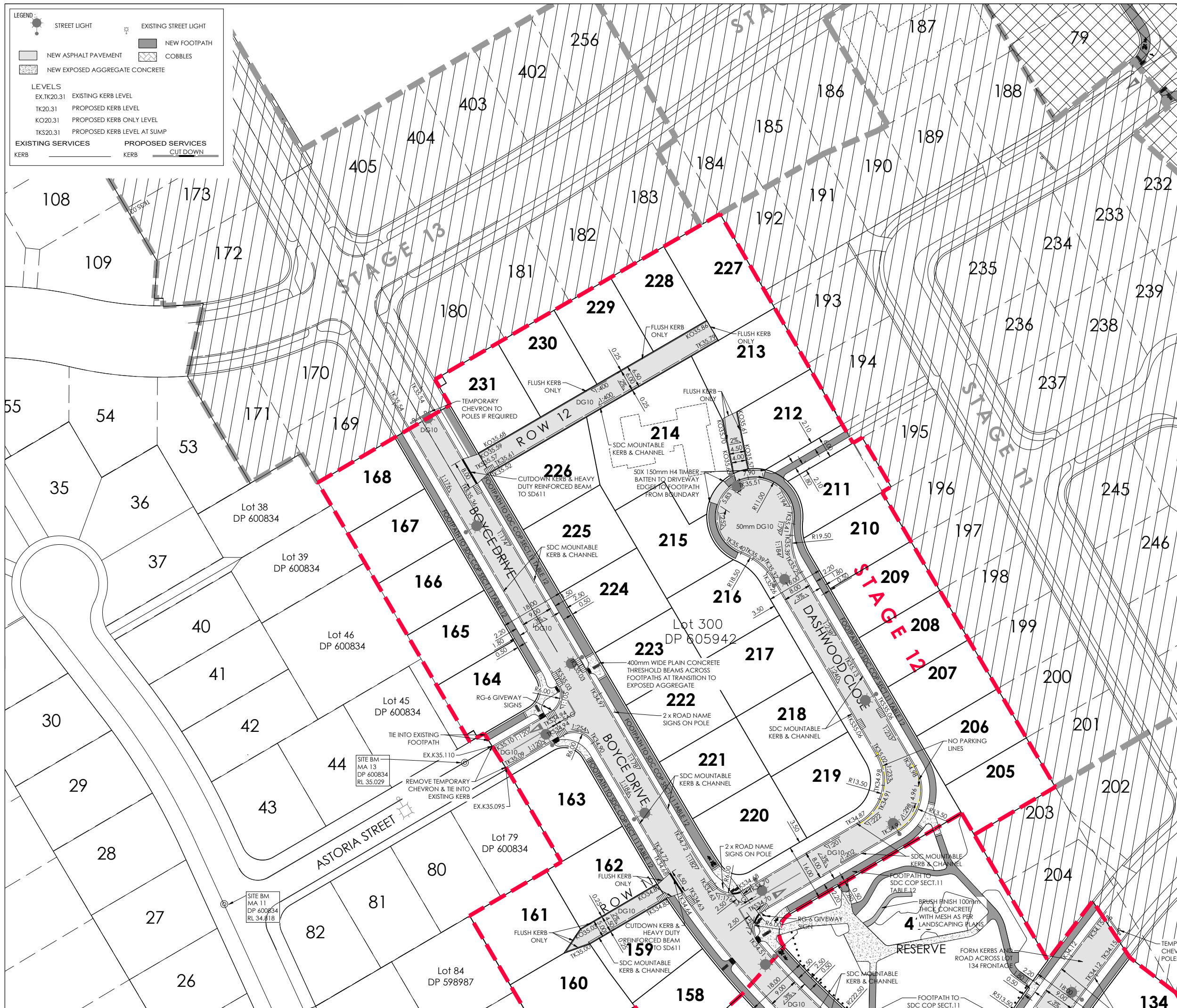
For Engineering Approval

SCALE: 1:500@A1 1:1000@A3

DATE: May 2026

CAD FILE: J:\2148P\Eng\Drawings\STAGES 10 & 12\2148P\_2010\_10\_12\_32.dwg

DRAWING No: E.21489 SHEET No: E03.0 REVISION: R2



**LEGEND :**

STREET LIGHT      EXISTING STREET LIGHT

NEW ASPHALT PAVEMENT      NEW FOOTPATH

NEW EXPOSED AGGREGATE CONCRETE      COBBLES

**LEVELS**

EX.TK20.31      EXISTING KERB LEVEL

TK20.31      PROPOSED KERB LEVEL

KO20.31      PROPOSED KERB ONLY LEVEL

TKS20.31      PROPOSED KERB LEVEL AT SUMP

**EXISTING SERVICES**      **PROPOSED SERVICES**

KERB      KERB      CUT DOWN

**AMENDMENTS :**

| AMENDMENT | DATE     | DESCRIPTION           |
|-----------|----------|-----------------------|
| R1        | 15/01/26 | NO CHANGES THIS SHEET |
| R2        | 11/05/26 | RESERVE PATHS ADDED   |

**NOTES :**

- ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
- ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
- CARRIAGEWAY AND FOOTPATH ACCEPTANCE TESTING IN ACCORDANCE WITH CCC CSS PART 6 AND CCC IDS.
- ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJBW (CC 370 NO 2)  
RL 58.154m
- FOOTPATH BASECOURSE TESTING - MINIMUM CLEGG HAMMER VALUE OF 25 REQUIRED FOR FOOTPATHS & 35 REQUIRED FOR RESIDENTIAL CROSSINGS.
- KERB & CHANNEL BASECOURSE TESTING - MINIMUM DRY DENSITY OF 2100kg/m<sup>3</sup> WITH 75% EQUAL OR EXCEEDING 2150kg/m<sup>3</sup>.
- CUTDOWNS AT RESIDENTIAL PARKING AREAS TO HAVE 280mm OF CONCRETE AS PER SD611 AND CUT DOWN IN COMMERCIAL PARKING AREAS TO HAVE 280mm OF CONCRETE WITH REINFORCEMENT AS PER SD611.
- ALL BERMS TO BE AND COVERED WITH A MINIMUM OF 150mm GRADE 1 TOPSOIL AND GRASSED WITH CCC BERM MIX.
- ELECTRICITY & TELECOM SERVICES NOT SHOWN. REFER TO ELECTRICAL & COMMUNICATION PLANS FOR DUCT LOCATIONS.
- ALL ROAD AND FOOTPATH AREAS TO BE SURFACED USING ASPHALTIC CONCRETE. FOOTPATHS TO BE CONSTRUCTED IN ACCORDANCE WITH SDC REQUIREMENTS WITH 25mm DEPTH AC, WHILE ROAD PAVEMENTS TO BE 35mm DEPTH.
- METAL DEPTHS TO BE CONFIRMED OR INCREASED PRIOR TO COMMENCEMENT OF WORK FOLLOWING THE CHECKING OF SUBGRADE CBR ON SITE.
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- ALL PAVEMENT CROSSFALLS ARE TO BE CONSTRUCTED IN ACCORDANCE SD623.
- TACTILE PAVERS ARE TO BE INSTALLED AS PER SD623 AND RTS14 GUIDELINES FOR FACILITIES FOR THE BLIND AND VISION-IMPAIRED PEDESTRIANS.
- ROAD BASECOURSE TESTING - MAXIMUM BENKELMAN BEAM DEFLECTION OF 2.00mm WITH 95% BELOW 1.6mm FOR ROADS AND A MAXIMUM DEFLECTION OF 2.5mm WITH 95% BELOW 2.00mm FOR ROW.
- ALL ROW AND DRIVEWAYS ARE TO HAVE 50mm DUCTS INSTALLED FOR COMMUNICATIONS AND POWER SUPPLY.
- APPLY SEALANT TO EXPOSED AGGREGATE CONCRETE THRESHOLDS.

| NAME                    | SIGNED     | DATE |
|-------------------------|------------|------|
| DESIGNED BY: JALAY SHAH | JALAY SHAH |      |
| CHECKED BY: BEN FOX     | BEN FOX    |      |

**DAVE LOVELL-SMITH**  
PLANNING SURVEYING ENGINEERING

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Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

**JOB TITLE:**  
**Broadfield Grange Stages 10 & 12**

**SHEET TITLE:**  
**Roading Layout RC245458**

**DRAWING STATUS**  
**For Engineering Approval**

**SCALE:** 1:500@A1  
1:1000@A3

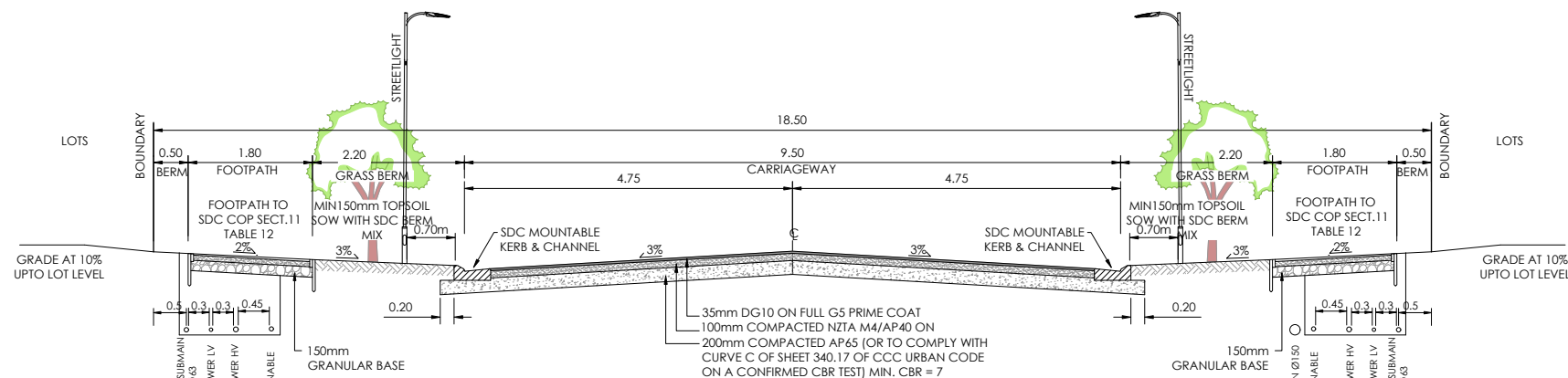
**DATE:** January 2026

**CAD FILE:** J:\21489\Eng\Drawings\STAGES 10 & 12\21489\_E03.1.DWG

**DRAWING No:** E.21489

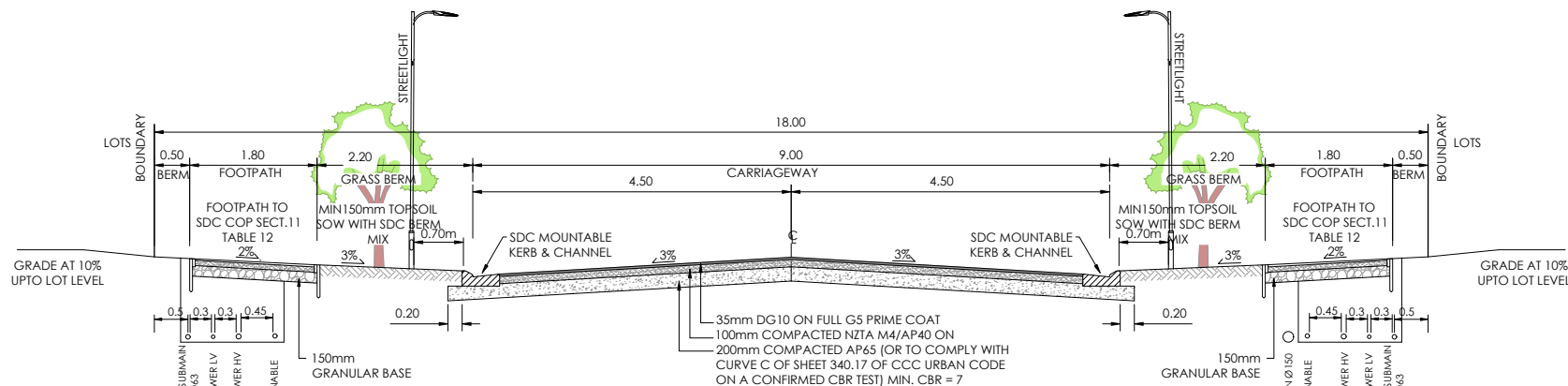
**SHEET No:** E03.1

**REVISION:** R1



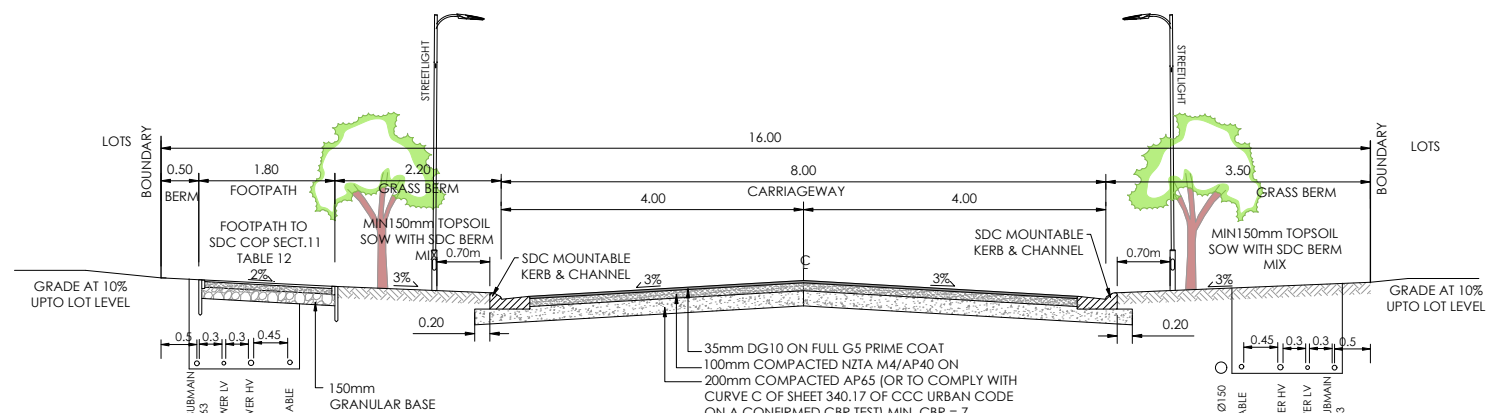
TYPICAL CROSS SECTION 18.5m LOVELOCK AVENUE ( SOUTH WEST)

SCALE 1:50@A1  
1:100@A3



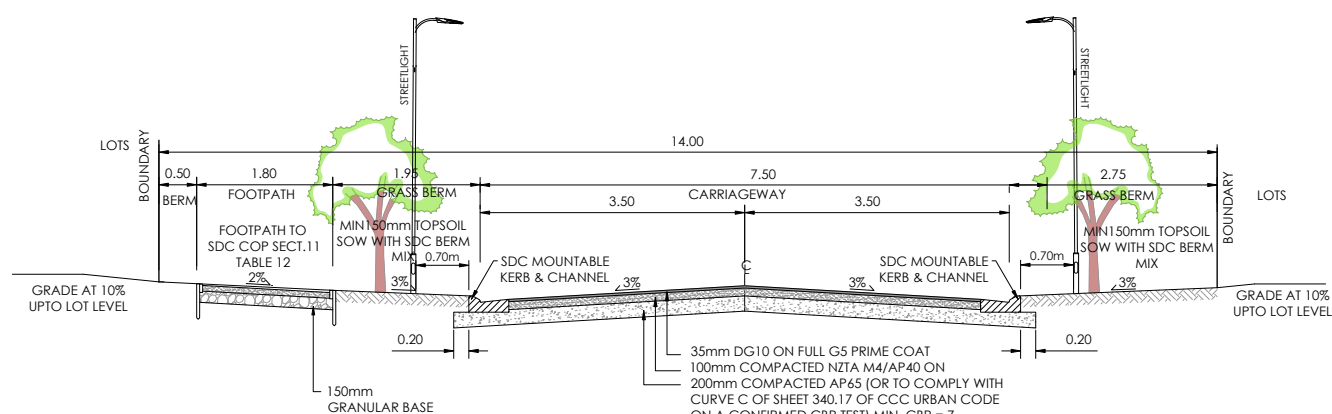
TYPICAL CROSS SECTION 18m BOYCE DRIVE & LOVELOCK AVENUE (NORTH-EAST)

SCALE 1:50@A1  
1:100@A3



TYPICAL CROSS SECTION 16m DASHWOOD CLOSE

SCALE 1:50@A1  
1:100@A3



TYPICAL CROSS SECTION 14m ASTORIA STREET

SCALE 1:50@A1  
1:100@A3

| AMENDMENTS: |          |                       |
|-------------|----------|-----------------------|
| AMENDMENT   | DATE     | DESCRIPTION           |
| R1          | 15/01/26 | NO CHANGES THIS SHEET |
| R2          | 11/05/26 | NO CHANGES THIS SHEET |

NOTES:

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- CARRIAGEWAY AND FOOTPATH ACCEPTANCE TESTING IN ACCORDANCE WITH CCC CSS PART 6 AND CCC IDS.
- ORIGIN OF LEVELS  
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- APPLY SEALANT TO EXPOSED AGGREGATE CONCRETE THRESHOLDS.

|             | NAME       | SIGNED     | DATE |
|-------------|------------|------------|------|
| DESIGNED BY | JALAY SHAH | JALAY SHAH |      |
| CHECKED BY  | BEN FOX    | BEN FOX    |      |



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Stages 10 & 12**

SHEET TITLE:

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RC245458**

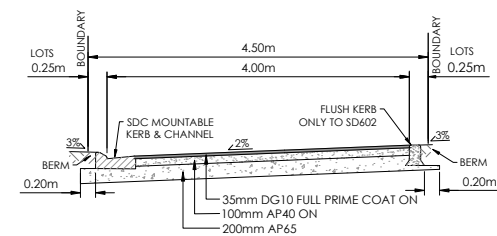
DRAWING STATUS

**For Engineering Approval**

SCALE: As Shown DATE: January 2026

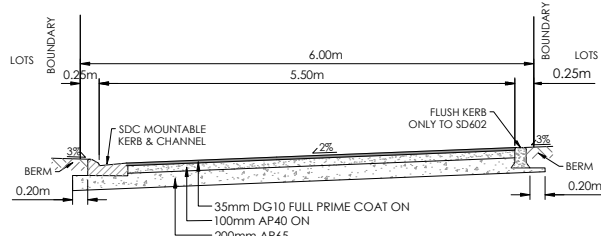
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DRAWING No: E.21489 SHEET No: E03.2 REVISION: R1



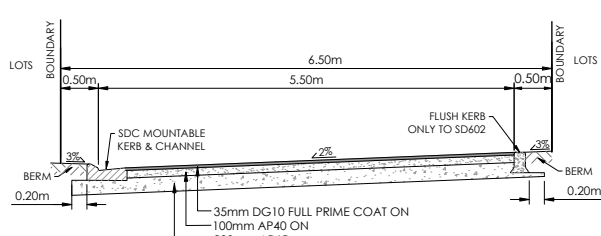
TYPICAL CROSS SECTION 4.5m ROW 9

SCALES 1:50@A1  
1:100@A3



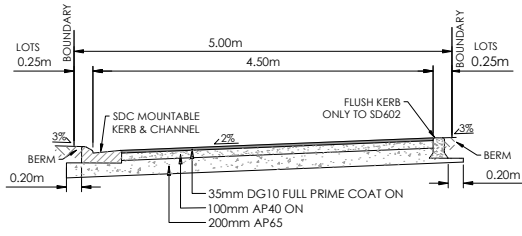
TYPICAL CROSS SECTION 6.0m ROW 9

SCALES 1:50@A1  
1:100@A3



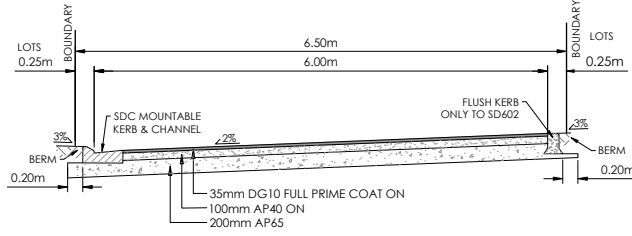
TYPICAL CROSS SECTION 6.5m ROW 10

SCALES 1:50@A1  
1:100@A3



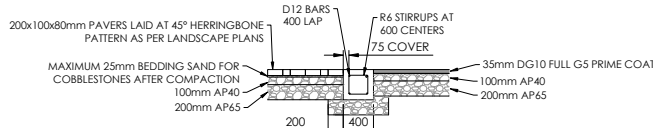
TYPICAL CROSS SECTION 5.0m ROW 11

SCALES 1:50@A1  
1:100@A3



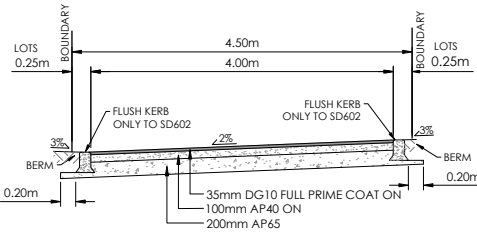
TYPICAL CROSS SECTION 6.0m ROW 12

SCALES 1:50@A1  
1:100@A3



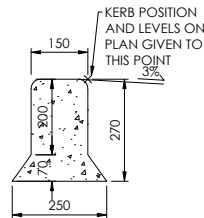
PLAIN CONCRETE BEAM DETAIL

SCALES 1:50@A1  
1:100@A3



TYPICAL CROSS SECTION 4.5m LOT 213

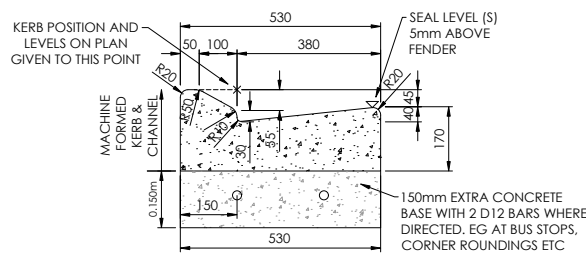
SCALES 1:50@A1  
1:100@A3



KERB ONLY TO CCC SD602

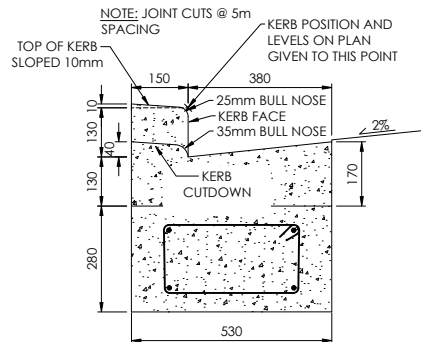
VARIES AS SPECIFIED ON DESIGN PLANS

SCALES 1:10@A1  
1:20@A3



SDC MOUNTABLE KERB & CHANNEL

SCALE 1:10@A1  
1:20@A3



STANDARD KERB & FLAT CHANNEL TO CCC  
CSS SD601 AND REINFORCED BEAM TO SD611

SCALE 1:10@A1  
1:20@A3

| AMENDMENTS : |          |                                 |
|--------------|----------|---------------------------------|
| AMENDMENT    | DATE     | DESCRIPTION                     |
| R1           | 15/01/26 | NO CHANGES THIS SHEET           |
| R2           | 11/05/26 | ROW 9 ADDED WIDER CROSS SECTION |

NOTES :

- ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
- ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
- CARRIAGEWAY AND FOOTPATH ACCEPTANCE TESTING IN ACCORDANCE WITH CCC CSS PART 6 AND CCC IDS.
- ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJBW (CC 370 NO 2)  
RL 58.154m
- FOOTPATH BASECOURSE TESTING - MINIMUM CLEGG HAMMER VALUE OF 25 REQUIRED FOR FOOTPATHS & RESIDENTIAL CROSSINGS.
- MINIMUM CLEGG HAMMER VALUE OF 35 REQUIRED FOR COMMERCIAL CROSSINGS.
- KERB & CHANNEL BASECOURSE TESTING - MINIMUM DRY DENSITY OF 2100kg/m<sup>3</sup> WITH 75% EQUAL OR EXCEEDING 2150kg/m<sup>3</sup>.
- CUTDOWNS AT RESIDENTIAL PARKING AREAS TO HAVE 280mm OF CONCRETE AS PER SD611 AND CUT DOWN IN COMMERCIAL PARKING AREAS TO HAVE 280mm OF CONCRETE WITH REINFORCEMENT AS PER SD611.
- ALL BERMS TO BE AND COVERED WITH A MINIMUM OF 150mm GRADE 1 TOPSOIL AND GRASSED WITH CCC BERM MIX.
- ELECTRICITY & TELECOM SERVICES NOT SHOWN. REFER TO ELECTRICAL & COMMUNICATION PLANS FOR DUCT LOCATIONS.
- ALL ROAD AND FOOTPATH AREAS TO BE SURFACED USING ASPHALTIC CONCRETE. FOOTPATHS TO BE CONSTRUCTED IN ACCORDANCE WITH SDC REQUIREMENTS WITH 25mm DEPTH AC, WHILE ROAD PAVEMENTS TO BE 35mm DEPTH.
- METAL DEPTHS TO BE CONFIRMED OR INCREASED PRIOR TO COMMENCEMENT OF WORK FOLLOWING THE CHECKING OF SUBGRADE CBR ON SITE.
- KERBS AT INTERSECTIONS HAVE A RADIUS OF 6.0m UNLESS SHOWN OTHERWISE.
- ALL PAVEMENT CROSSFALLS ARE TO BE CONSTRUCTED IN ACCORDANCE SD623.
- TACTILE PAVERS ARE TO BE INSTALLED AS PER SD623 AND RTS14 GUIDELINES FOR FACILITIES FOR THE BLIND AND VISION -IMPAIRED PEDESTRIANS.
- ROAD BASECOURSE TESTING - MAXIMUM BENKELMAN BEAM DEFLECTION OF 2.00mm WITH 95% BELOW 1.6mm FOR ROADS AND A MAXIMUM DEFLECTION OF 2.5mm WITH 95% BELOW 2.00mm FOR ROW.
- ALL ROW AND DRIVEWAYS ARE TO HAVE 50mm DUCTS INSTALLED FOR COMMUNICATIONS AND POWER SUPPLY.
- APPLY SEALANT TO EXPOSED AGGREGATE CONCRETE THRESHOLDS.

|             | NAME       | SIGNED     | DATE |
|-------------|------------|------------|------|
| DESIGNED BY | JALAY SHAH | JALAY SHAH |      |
| CHECKED BY  | BEN FOX    | BEN FOX    |      |



116 Wrights Road P O Box 679 Christchurch 8140, New Zealand  
Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

**Broadfield Grange  
Stages 10 & 12**

SHEET TITLE:

**Roading Sections  
RC245458**

DRAWING STATUS

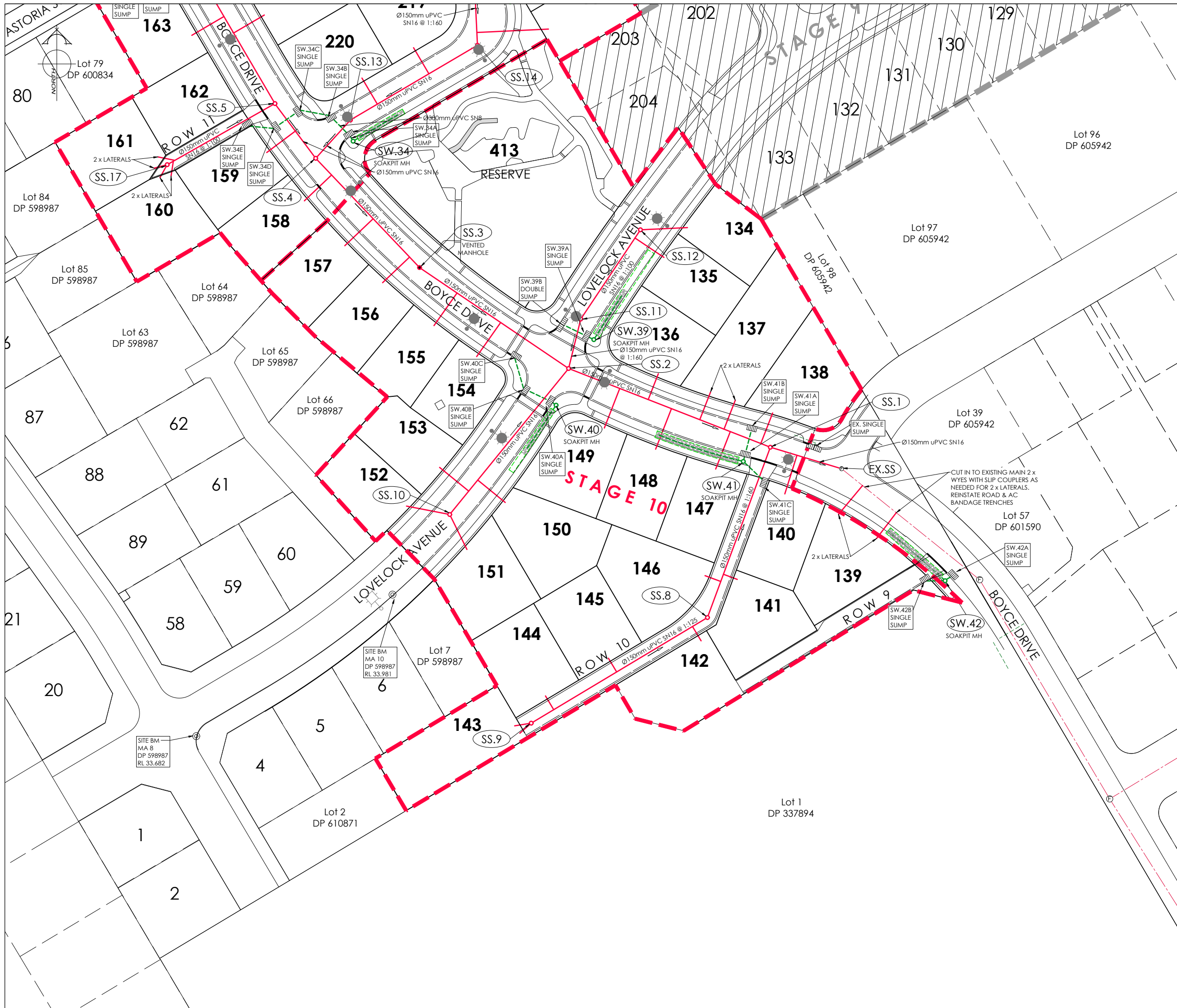
**For Engineering Approval**

SCALE : As Shown DATE : January 2026

CAD FILE : J:\21489\Eng\Drawings\STAGES 10 & 12\21489\_E01.D STGs 10 & 12.dwg DRAWN : JS

DRAWING No : SHEET No : REVISION :

**E.21489 E03.3 R1**



AMENDMENTS:

| AMENDMENT | DATE     | DESCRIPTION                                   |
|-----------|----------|-----------------------------------------------|
| R1        | 15/01/26 | NO CHANGES THIS SHEET                         |
| R2        | 11/03/26 | FOOTPATH CROSSINGS AND SUMP LOCATIONS AMENDED |

NOTES:

1.

ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.

2.

ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

3.

ALL SERVICES TO BE FULLY SEARCHED AND PILOTTED PRIOR TO TRENCHING.

4.

ALL UPVC PIPES (WHETHER SEWER OR STORMWATER) SHALL CONFORM TO AS NZS 1260:1999 AND SHALL HAVE THE FOLLOWING STIFFNESS NUMBERS AS SET OUT IN THE STANDARD: DN 100 AND 150...SN16; DN225 AND LARGER ... SN8.

5.

ALL SERVICES UP DRIVEWAYS & ROWs TO BE INSTALLED BY A REGISTERED DRAIN LAYER AND IN TERMS OF THE BUILDING CONSENT.

6.

REFER TO LONGSECTIONS FOR ALL SEWER & STORMWATER LEVELS.

7.

ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJBW (CC 370 NO 2)  
RL 58.154m

8.

ALL SEWER AND STORMWATER LATERALS TO BE LAID AT 1:60, MINIMUM GRADE AND LAID TO 1.0m WITHIN LOTS.

9.

NOMINATED PIPE SIZES ARE INTERNAL DIAMETER UNLESS NOTED OTHERWISE.

10.

ALL RESIDENTIAL STORMWATER LATERALS TO BE 100mm DIAMETER AND INDUSTRIAL LATERALS TO BE A MINIMUM OF 150mm.

11.

RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.

12.

BEDDING TO BE AS PER SD344 UNLESS OTHERWISE SPECIFIED.

13.

ALL STORMWATER PIPES 225mm DIAMETER UPVC SN8 UNLESS NOTED OTHERWISE. REFER TO LONGSECTIONS FOR DETAILS.

LEGEND:

STREET LIGHT

EXISTING STREET LIGHT

STORMWATER SOAKPIT

EXISTING SERVICES

SANITARY SEWER STD. MH

SANITARY SEWER VENTED MH

STORMWATER MH

KERB

PROPOSED SERVICES

SANITARY SEWER STD. MH

SANITARY SEWER VENTED MH

STORMWATER MH

KERB

| NAME                   | SIGNED     | DATE |
|------------------------|------------|------|
| DESIGNED BY JALAY SHAH | JALAY SHAH |      |
| CHECKED BY BEN FOX     | BEN FOX    |      |

DAVIE LOVELL-SMITH

PLANNING SURVEYING ENGINEERING

116 Wrights Road P O Box 679 Christchurch 8140, New Zealand

Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

Broadfield Grange

Stages 10 & 12

SHEET TITLE:

Sewer & Stormwater Plan

RC245458

DRAWING STATUS

For Engineering Approval

SCALE: 1:500@A1  
1:1000@A3

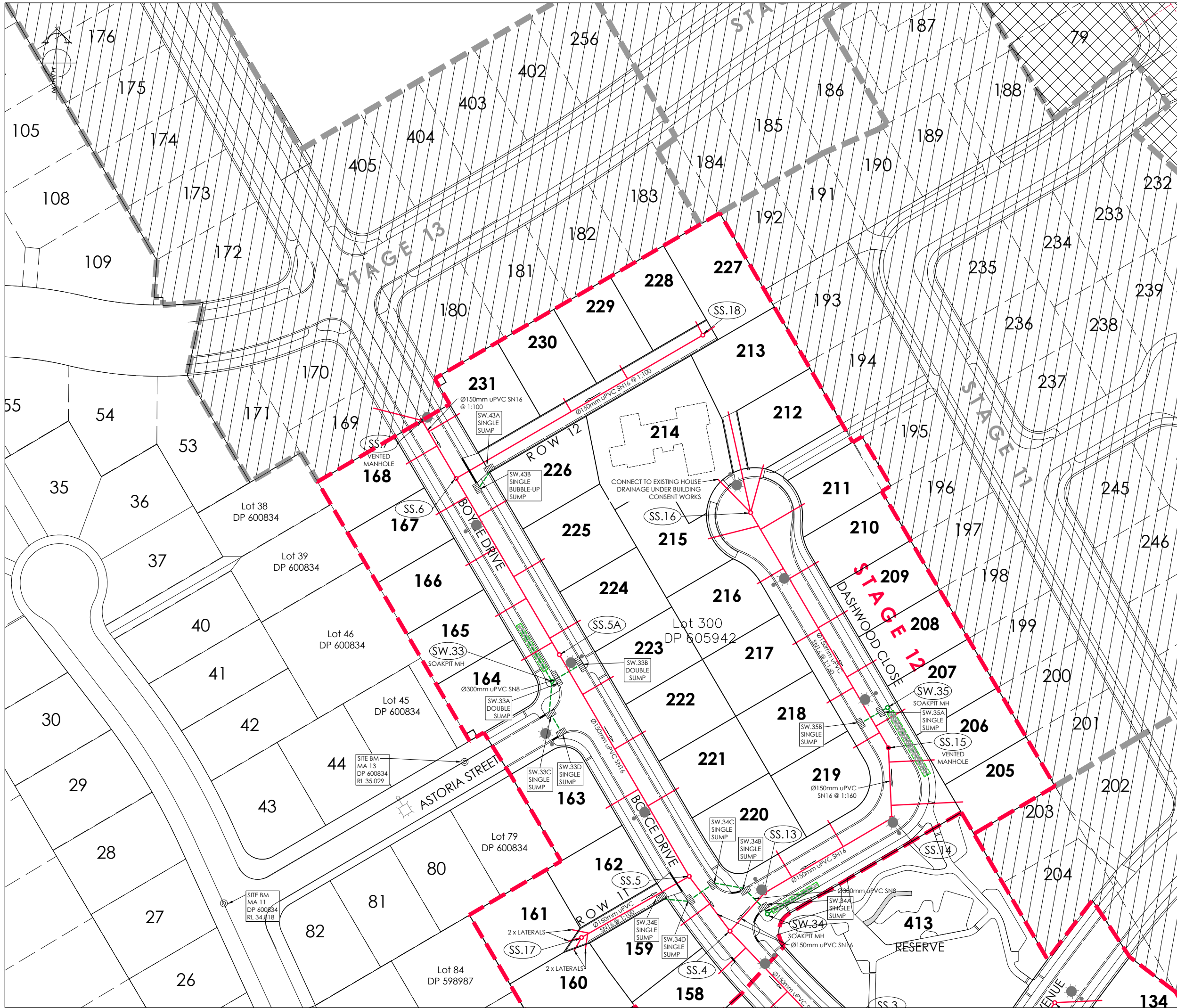
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DRAWING No: E.21489

SHEET No: E04.0

REVISION: R2



AMENDMENTS:

| AMENDMENT | DATE     | DESCRIPTION                                   |
|-----------|----------|-----------------------------------------------|
| R1        | 15/01/26 | MANHOLE SS.5A ADDED                           |
| R2        | 11/03/26 | FOOTPATH CROSSINGS AND SUMP LOCATIONS AMENDED |

NOTES:

1.

ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.

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ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

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5.

ALL SERVICES UP DRIVEWAYS & ROWs TO BE INSTALLED BY A REGISTERED DRAIN LAYER AND IN TERMS OF THE BUILDING CONSENT.

6.

REFER TO LONGSECTIONS FOR ALL SEWER & STORMWATER LEVELS.

7.

ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJBW (CC 370 NO 2)  
RL 58.154m

8.

ALL SEWER AND STORMWATER LATERALS TO BE LAID AT 1:60, MINIMUM GRADE AND LAID TO 1.0m WITHIN LOTS.

9.

NOMINATED PIPE SIZES ARE INTERNAL DIAMETER UNLESS NOTED OTHERWISE.

10.

ALL RESIDENTIAL STORMWATER LATERALS TO BE 100mm DIAMETER AND INDUSTRIAL LATERALS TO BE A MINIMUM OF 150mm.

11.

RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.

12.

BEDDING TO BE AS PER SD344 UNLESS OTHERWISE SPECIFIED.

13.

ALL STORMWATER PIPES 225mm DIAMETER uPVC SN8 UNLESS NOTED OTHERWISE. REFER TO LONGSECTIONS FOR DETAILS.

LEGEND:

STREET LIGHT

EXISTING STREET LIGHT

STORMWATER SOAKPIT

EXISTING SERVICES

PROPOSED SERVICES

STD. MH

STD. MH

VENTED MH

VENTED MH

MH

MH

KERB

KERB

| NAME                    | SIGNED     | DATE |
|-------------------------|------------|------|
| DESIGNED BY: JALAY SHAH | JALAY SHAH |      |
| CHECKED BY: BEN FOX     | BEN FOX    |      |

DAVIE LOVELL-SMITH

PLANNING SURVEYING ENGINEERING

116 Wrights Road

P O Box 679 Christchurch 8140, New Zealand

Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

Broadfield Grange  
Stages 10 & 12

SHEET TITLE:

Sewer & Stormwater Plan  
RC245458

DRAWING STATUS

For Engineering Approval

SCALE: 1:500@A1  
1:1000@A3

DATE: March 2026

CAD FILE: J:\21489\Eng\Drawings\STAGES 10 & 12\21489\_E01.0 STG 10 & 12.R2

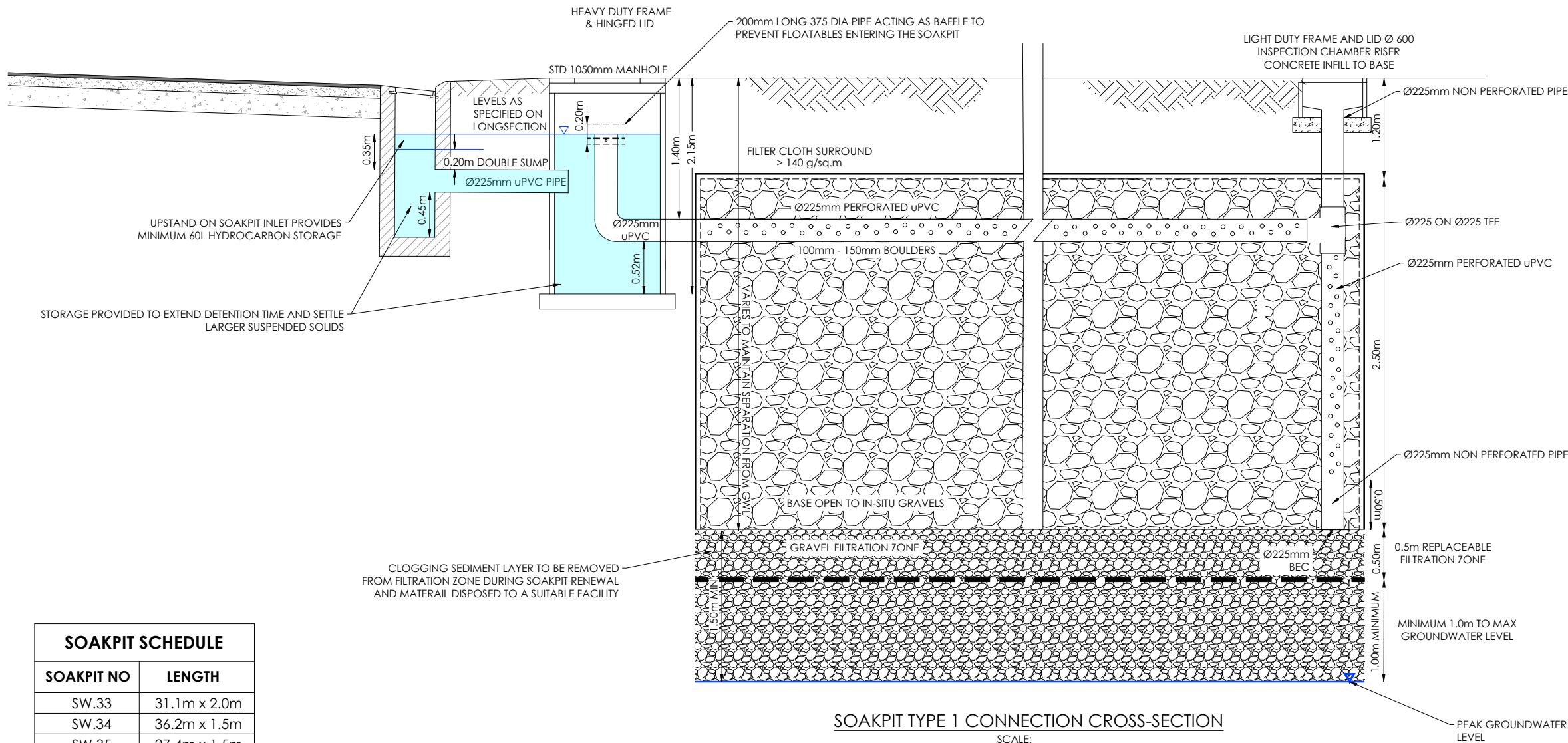
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DRAWING No: E.21489

SHEET No: E04.1

REVISION: R2

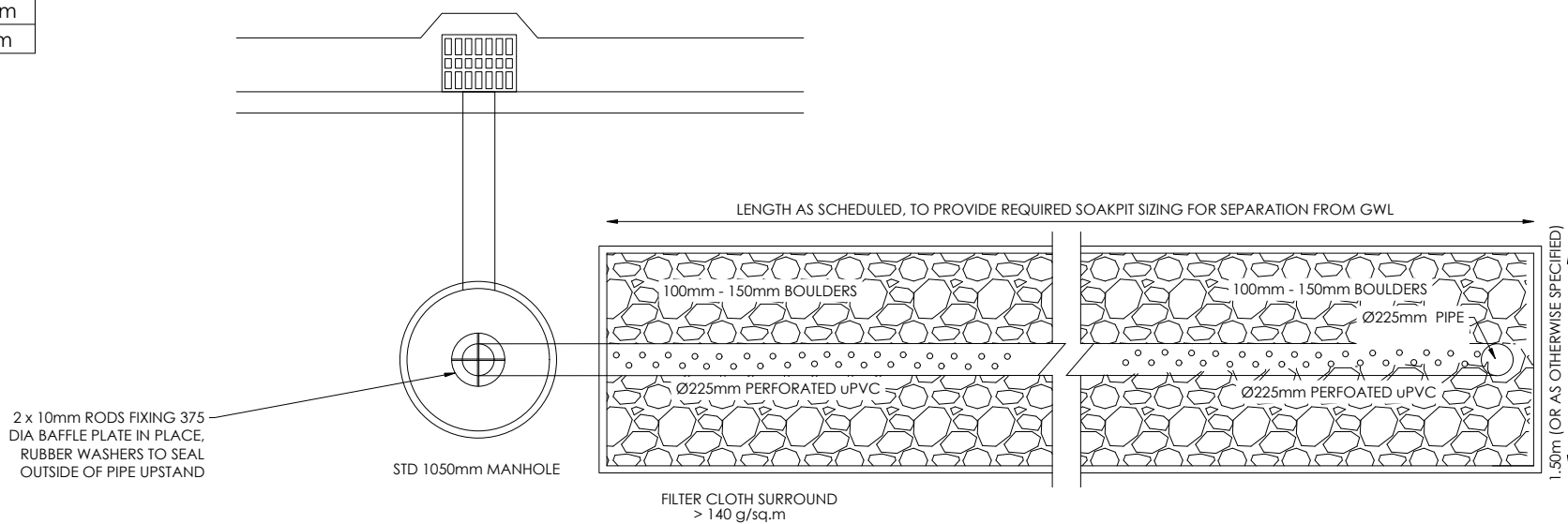
SOAKAGE RATE TO BE CONFIRMED ONSITE. REFER TO ENGINEER FOR SOAKPIT SIZING.



SOAKPIT TYPE 1 CONNECTION CROSS-SECTION

SCALE:  
1:25@A1  
1:50@A3

| SOAKPIT SCHEDULE |              |
|------------------|--------------|
| SOAKPIT NO       | LENGTH       |
| SW.33            | 31.1m x 2.0m |
| SW.34            | 36.2m x 1.5m |
| SW.35            | 27.4m x 1.5m |
| SW.39            | 30.4m x 2.0m |
| SW.40            | 15.9m x 2.0m |
| SW.41            | 18.9m x 2.0m |
| SW.42            | 9.7m x 2.0m  |



SUMP TO SOAKPIT TYPE 1 CONNECTION PLAN

SCALE:  
1:25@A1  
1:50@A3

| AMENDMENTS: |          |                       |
|-------------|----------|-----------------------|
| AMENDMENT   | DATE     | DESCRIPTION           |
| R1          | 15/01/26 | NO CHANGES THIS SHEET |
| R2          | 11/05/26 | NO CHANGES THIS SHEET |

NOTES:

- ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
- ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
- ALL SERVICES TO BE FULLY SEARCHED AND PILOTTED PRIOR TO TRENCHING.
- ALL UPVC PIPES (WHETHER SEWER OR STORMWATER) SHALL CONFORM TO AS NZS 1260:1999 AND SHALL HAVE THE FOLLOWING STIFFNESS NUMBERS AS SET OUT IN THE STANDARD: DN 100 AND 150...SN16; DN225 AND LARGER...SN8.
- ALL SERVICES UP DRIVEWAYS & ROWs TO BE INSTALLED BY A REGISTERED DRAIN LAYER AND IN TERMS OF THE BUILDING CONSENT.
- REFER TO LONGSECTIONS FOR ALL SEWER & STORMWATER LEVELS.
- ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJ8W (CC 370 NO 2)  
RL 58.154m
- ALL SEWER AND STORMWATER LATERALS TO BE LAID AT 1:60, MINIMUM GRADE AND LAID TO 1.0m WITHIN LOTS.
- NOMINATED PIPE SIZES ARE INTERNAL DIAMETER UNLESS NOTED OTHERWISE.
- ALL RESIDENTIAL STORMWATER LATERALS TO BE 100mm DIAMETER AND INDUSTRIAL LATERALS TO BE A MINIMUM OF 150mm.
- RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.
- BEDDING TO BE AS PER SD344 UNLESS OTHERWISE SPECIFIED.

|             | NAME       | SIGNED     | DATE |
|-------------|------------|------------|------|
| DESIGNED BY | JALAY SHAH | JALAY SHAH |      |
| CHECKED BY  | BEN FOX    | BEN FOX    |      |



116 Wrights Road P O Box 679 Christchurch 8140, New Zealand  
Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

**Broadfield Grange  
Stages 10 & 12**

SHEET TITLE:

**Stormwater Details  
RC245458**

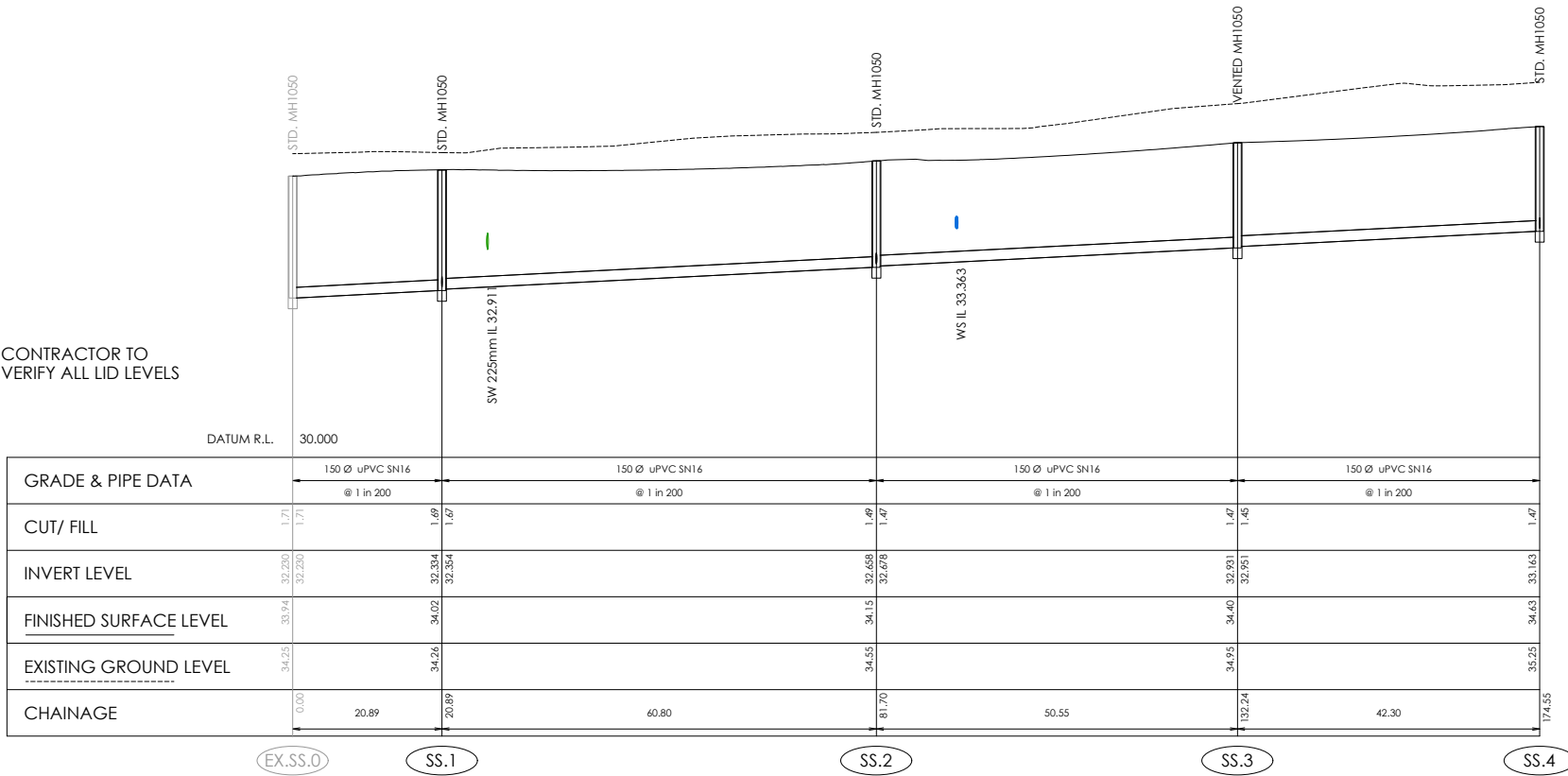
DRAWING STATUS

**For Engineering Approval**

SCALE: As Shown DATE: January 2026

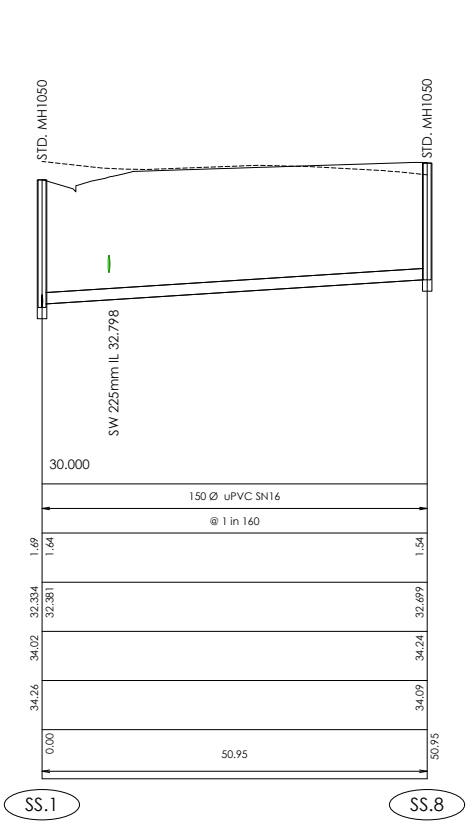
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| DRAWING No:    | SHEET No:    | REVISION: |
|----------------|--------------|-----------|
| <b>E.21489</b> | <b>E04.2</b> | <b>R1</b> |



SEWER LONGSECTION  
EX.SS.0 TO SS.4

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1:1000 Horiz @A3  
1:100 Vert @A3

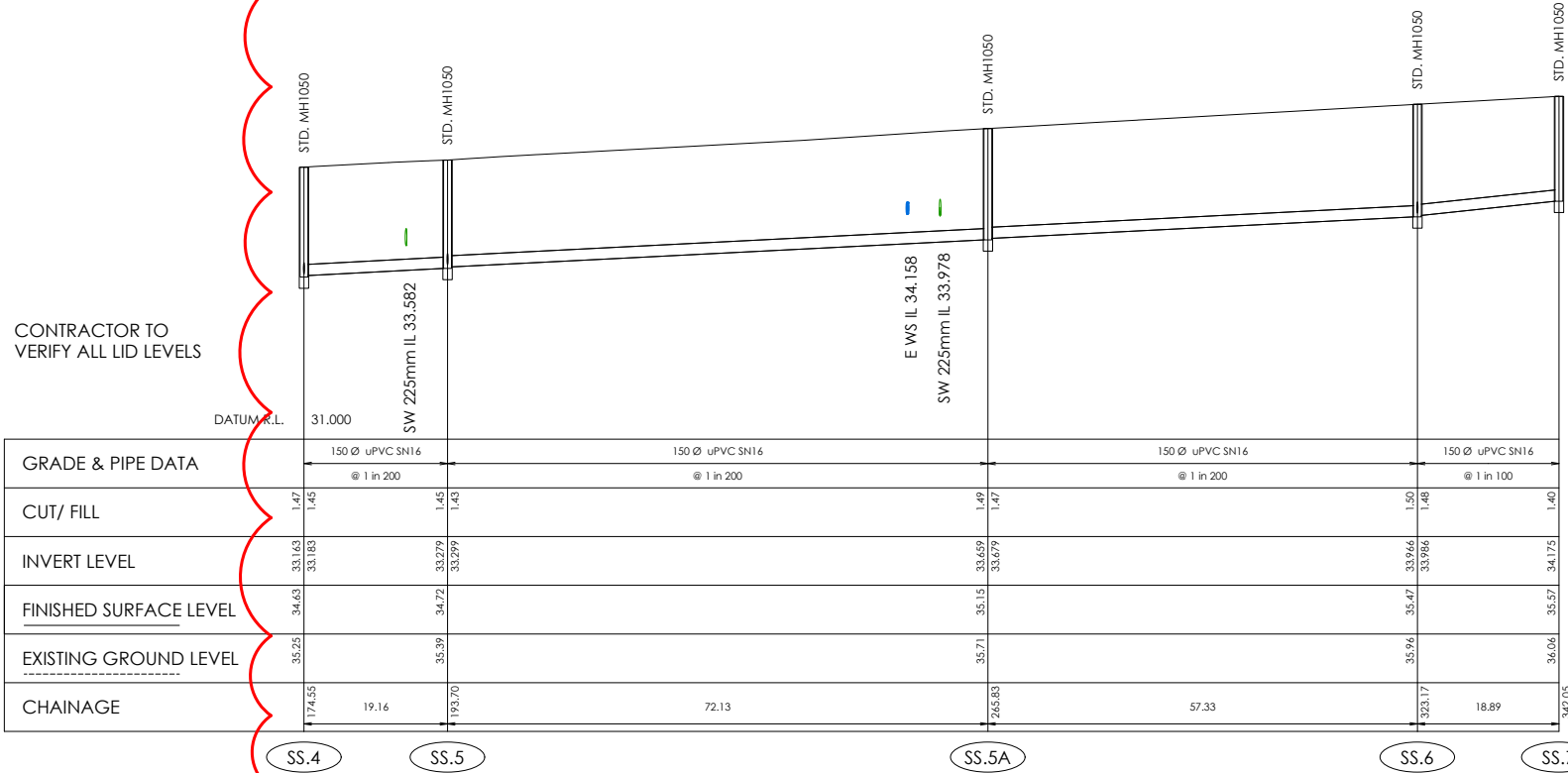


SEWER LONGSECTION  
SS.1 TO SS.8

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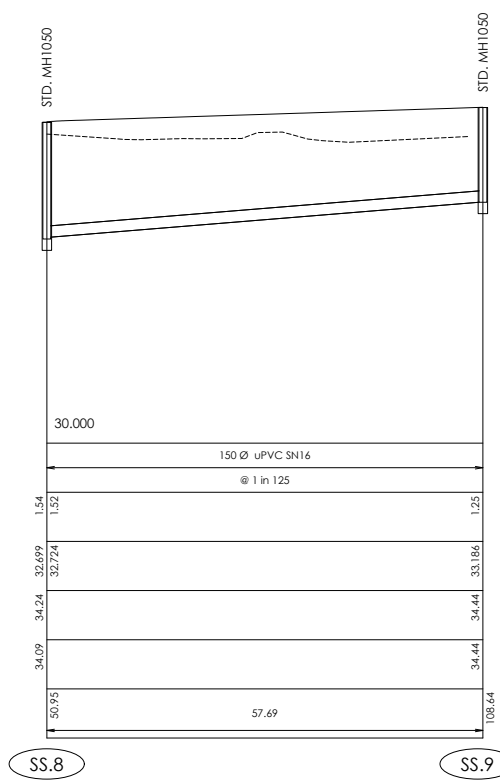
R1

CONTRACTOR TO VERIFY ALL LID LEVELS



SEWER LONGSECTION  
SS.4 TO SS.7

Scale 1:500 Horiz @A1  
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1:1000 Horiz @A3  
1:100 Vert @A3



SEWER LONGSECTION  
SS.8 TO SS.9

Scale 1:500 Horiz @A1  
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1:1000 Horiz @A3  
1:100 Vert @A3

| AMENDMENTS: |          |                                               |
|-------------|----------|-----------------------------------------------|
| AMENDMENT   | DATE     | DESCRIPTION                                   |
| R1          | 15/01/26 | R1 REVISION CLOUD - SEWER LONGSECTION UPDATED |
| R2          | 11/05/26 | NO CHANGES THIS SHEET                         |

- NOTES:
- ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
  - ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
  - ORIGIN OF LEVELS  
ORIGIN MARK B882 (UG 32)  
RL=55.908m  
CHK EJBW (CC 370 NO 2)  
RL=58.154m  
  
LEVELS ARE IN TERMS OF LYTELTON VERTICAL DATUM 1937.
  - EXISTING SERVICES HAVE BEEN DIGITISED FROM SERVICE AUTHORITY PLANS; COMPLETENESS AND ACCURACY ARE NOT GUARANTEED. ALL SERVICES TO BE FULLY SEARCHED AND PILOTTED PRIOR TO TRENCHING.
  - ELECTRICITY & TELECOM SERVICES NOT SHOWN. REFER TO ELECTRICAL & COMMUNICATION PLANS FOR DUCT LOCATIONS.
  - TRENCHING AND INSTALLATION OF POWER AND TELECOM SERVICES TO BE PROVIDED IN ACCORDANCE WITH SERVICE PROVIDERS PLANS AND SPECIFICATIONS.
  - REFER TO LONGSECTIONS FOR ALL SEWER & STORMWATER LEVELS.
  - NOMINATED PIPE SIZES ARE INTERNAL DIAMETER UNLESS NOTED OTHERWISE.
  - ALL UPVC PIPES (WHETHER SEWER OR STORMWATER) SHALL CONFORM TO AS NZS 1260:1999 AND SHALL HAVE THE FOLLOWING STIFFNESS NUMBERS AS SET OUT IN THE STANDARD: DN 100 AND 150...SN16; DN225 AND LARGER ... SN8.
  - ALL SERVICES UP DRIVEWAYS & ROWs TO BE INSTALLED BY A REGISTERED DRAIN LAYER AND IN TERMS OF THE BUILDING CONSENT.
  - ALL SEWER AND STORMWATER LATERALS TO BE LAID AT 1:60 MINIMUM GRADE AND LAID TO 1.0m WITHIN LOTS.
  - RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.
  - BEDDING TO BE AS PER SD344 UNLESS OTHERWISE SPECIFIED.
  - CONCRETE CAPPING TO SD342 WHERE LESS THAN 750MM COVER TO SEWER WITHIN ROAD CARRIAGEWAY.
  - MANHOLE CONNECTIONS SHALL BE STARTERS & SHORTS AND SHORTS & FINISHERS.
  - CORBELS TO BE CONSTRUCTED TO SDC STANDARD INCLUDING CHEMSET.
  - LADDERS ARE REQUIRED FOR SEWER MANHOLES DEEPER THAN 1.2m MEASURED FROM THE TOP OF BENCHING TO FINISHED LEVEL.
  - CONTRACTOR TO VERIFY ALL EXISTING INVERTS AND LID LEVELS ON SITE.

|             | NAME       | SIGNED     | DATE |
|-------------|------------|------------|------|
| DESIGNED BY | JALAY SHAH | JALAY SHAH |      |
| CHECKED BY  | BEN FOX    | BEN FOX    |      |

**DAVIE LOVELL-SMITH**  
PLANNING SURVEYING ENGINEERING

116 Wrights Road P O Box 679 Christchurch 8140 New Zealand  
Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

**Broadfield Grange  
Stages 10 & 12**

SHEET TITLE:

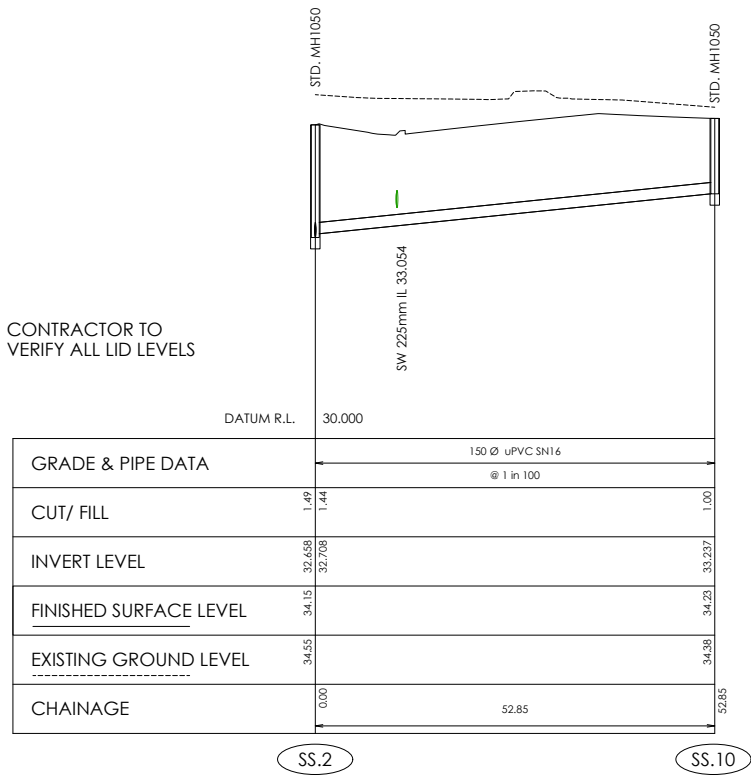
**Sewer Longsections  
RC245458**

DRAWING STATUS

**For Engineering Approval**

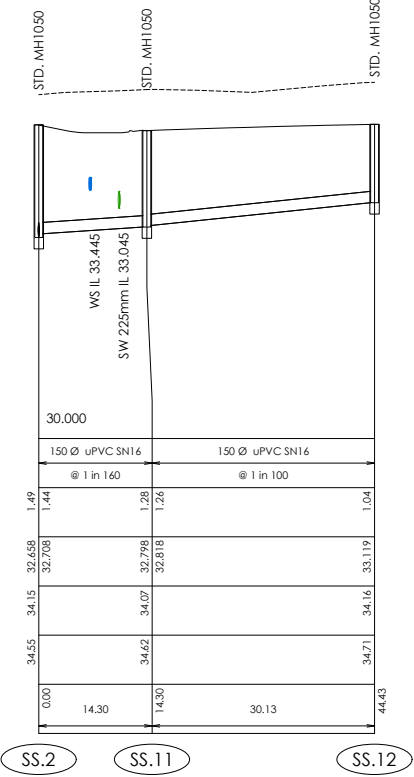
SCALE: As Shown DATE: May 2026

|                                                                                |                        |
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|                                                                                | REVISION : <b>R2</b>   |



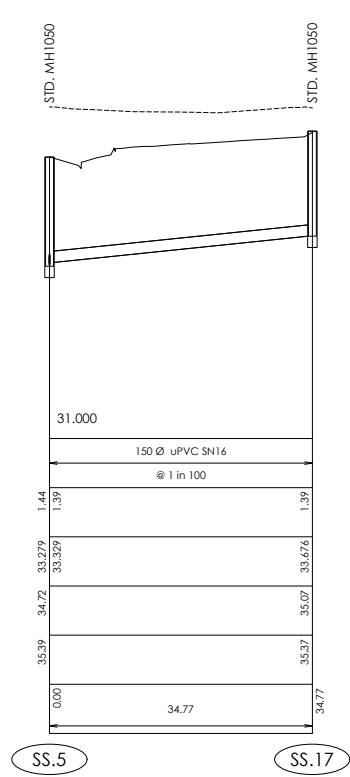
SEWER LONGSECTION  
SS.2 TO SS.10

Scale 1:500 Horiz @A1  
1:50 Vert @A1  
1:1000 Horiz @A3  
1:100 Vert @A3



SEWER LONGSECTION  
SS.2 TO SS.12

Scale 1:500 Horiz @A1  
1:50 Vert @A1  
1:1000 Horiz @A3  
1:100 Vert @A3



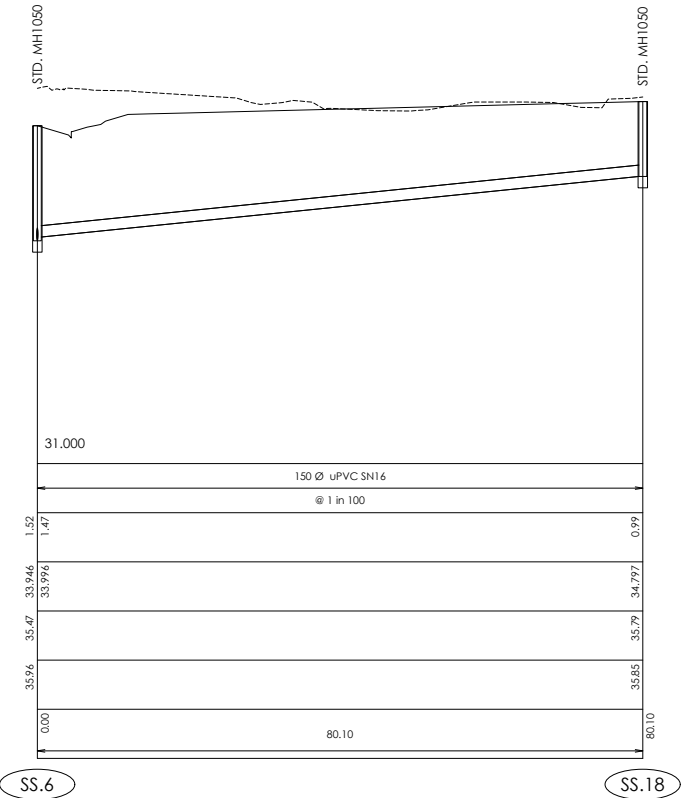
SEWER LONGSECTION  
SS.5 TO SS.17

Scale 1:500 Horiz @A1  
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1:1000 Horiz @A3  
1:100 Vert @A3



SEWER LONGSECTION  
SS.4 TO SS.16

Scale 1:500 Horiz @A1  
1:50 Vert @A1  
1:1000 Horiz @A3  
1:100 Vert @A3



SEWER LONGSECTION  
SS.6 TO SS.18

Scale 1:500 Horiz @A1  
1:50 Vert @A1  
1:1000 Horiz @A3  
1:100 Vert @A3

| AMENDMENTS: |          |                       |
|-------------|----------|-----------------------|
| AMENDMENT   | DATE     | DESCRIPTION           |
| R1          | 15/01/26 | NO CHANGES THIS SHEET |
| R2          | 11/05/26 | NO CHANGES THIS SHEET |

- NOTES:
- ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
  - ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
  - ORIGIN OF LEVELS**  
ORIGIN MARK B882 (UG 32)  
RL=55.908m  
CHK EJBW (CC 370 NO 2)  
RL=58.154m  
  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937.
  - EXISTING SERVICES HAVE BEEN DIGITISED FROM SERVICE AUTHORITY PLANS; COMPLETENESS AND ACCURACY ARE NOT GUARANTEED. ALL SERVICES TO BE FULLY SEARCHED AND PILOTED PRIOR TO TRENCHING.
  - ELECTRICITY & TELECOM SERVICES NOT SHOWN. REFER TO ELECTRICAL & COMMUNICATION PLANS FOR DUCT LOCATIONS.
  - TRENCHING AND INSTALLATION OF POWER AND TELECOM SERVICES TO BE PROVIDED IN ACCORDANCE WITH SERVICE PROVIDERS PLANS AND SPECIFICATIONS.
  - REFER TO LONGSECTIONS FOR ALL SEWER & STORMWATER LEVELS.
  - NOMINATED PIPE SIZES ARE INTERNAL DIAMETER UNLESS NOTED OTHERWISE.
  - ALL UPVC PIPES (WHETHER SEWER OR STORMWATER) SHALL CONFORM TO AS NZS 1260:1999 AND SHALL HAVE THE FOLLOWING STIFFNESS NUMBERS AS SET OUT IN THE STANDARD: DN 100 AND 150...SN16; DN225 AND LARGER ... SN8.
  - ALL SERVICES UP DRIVEWAYS & ROWs TO BE INSTALLED BY A REGISTERED DRAIN LAYER AND IN TERMS OF THE BUILDING CONSENT.
  - ALL SEWER AND STORMWATER LATERALS TO BE LAID AT 1:60, MINIMUM GRADE AND LAID TO 1.0m WITHIN LOTS.
  - RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.
  - BEDDING TO BE AS PER SD344 UNLESS OTHERWISE SPECIFIED.
  - CONCRETE CAPPING TO SD342 WHERE LESS THAN 750MM COVER TO SEWER WITHIN ROAD CARRIAGEWAY.
  - MANHOLE CONNECTIONS SHALL BE STARTERS & SHORTS AND SHORTS & FINISHERS.
  - CORBELS TO BE CONSTRUCTED TO SDC STANDARD INCLUDING CHEMSET.
  - LADDERS ARE REQUIRED FOR SEWER MANHOLES DEEPER THAN 1.2m MEASURED FROM THE TOP OF BENCHING TO FINISHED LEVEL.
  - CONTRACTOR TO VERIFY ALL EXISTING INVERTS AND LID LEVELS ON SITE.

|             | NAME       | SIGNED     | DATE |
|-------------|------------|------------|------|
| DESIGNED BY | JALAY SHAH | JALAY SHAH |      |
| CHECKED BY  | BEN FOX    | BEN FOX    |      |



116 Wrights Road P O Box 679 Christchurch 8140, New Zealand  
Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

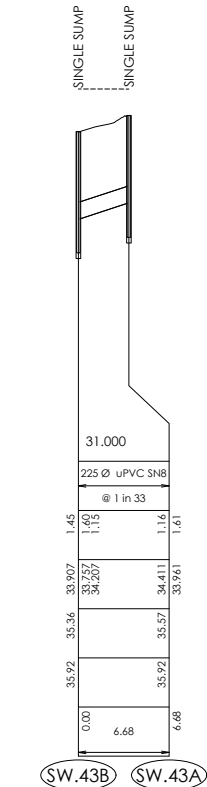
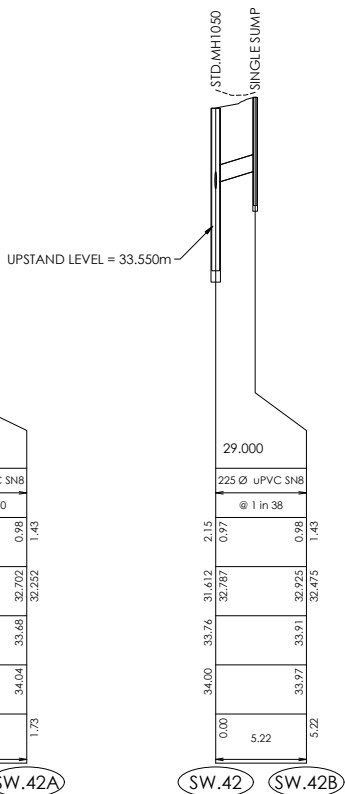
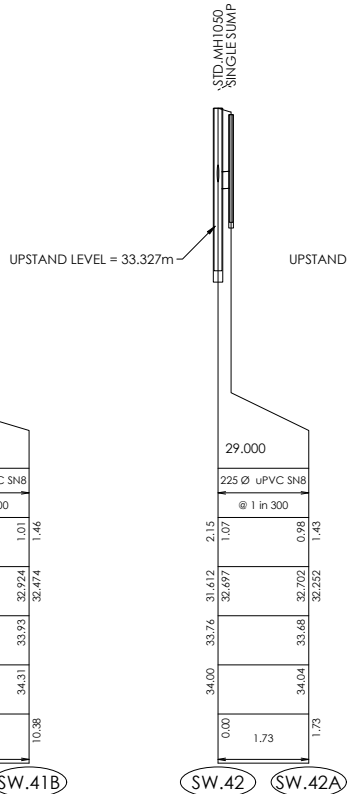
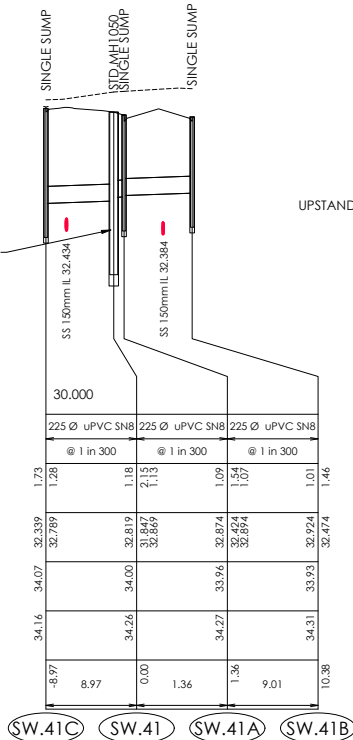
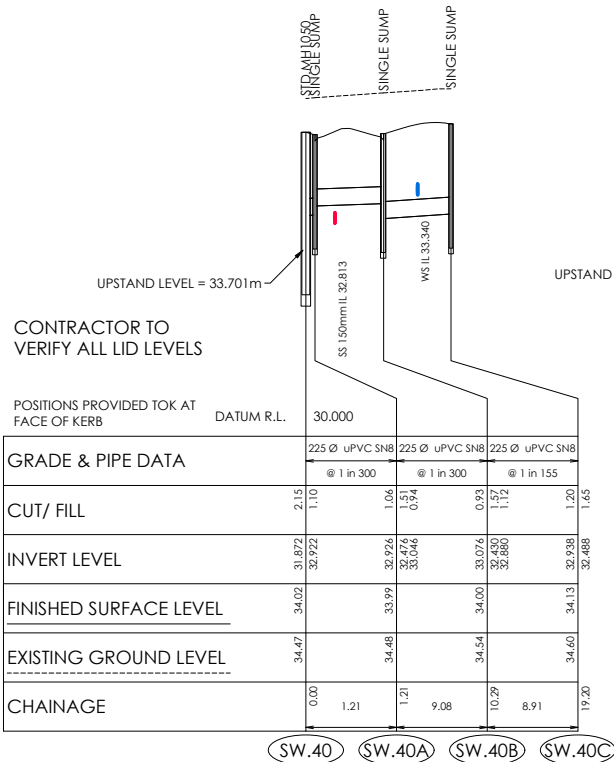
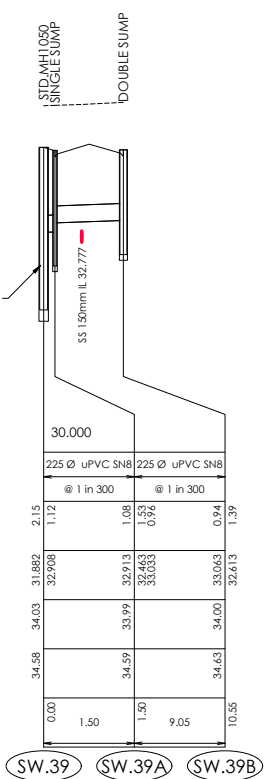
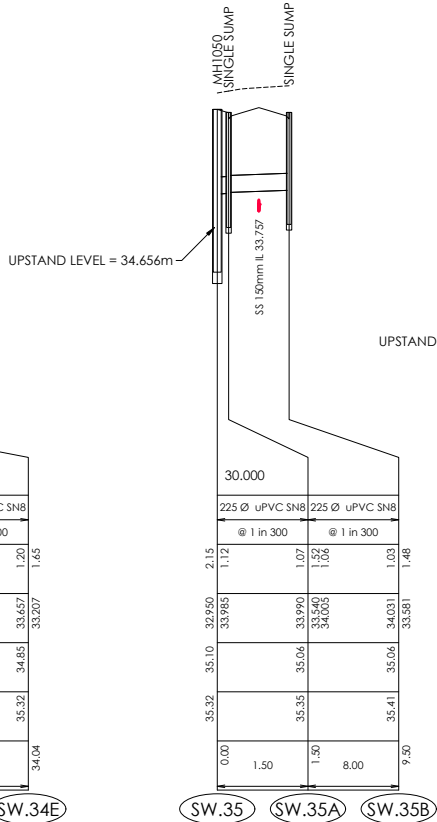
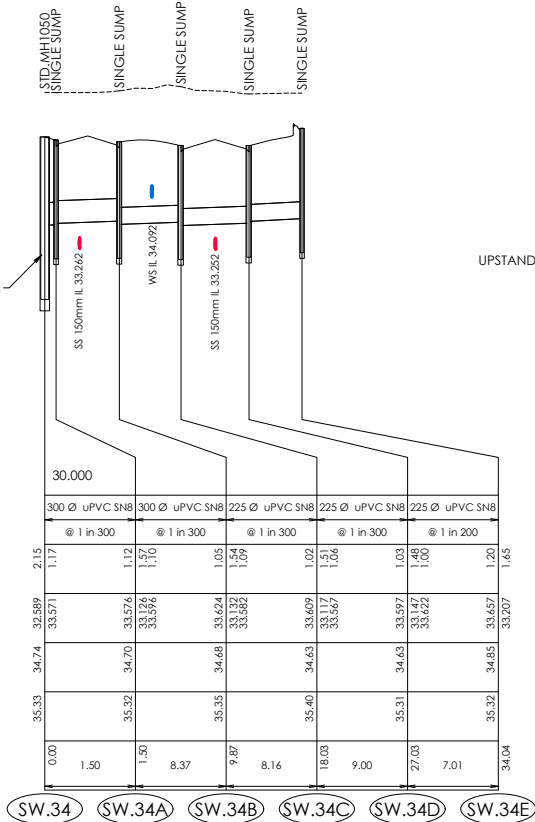
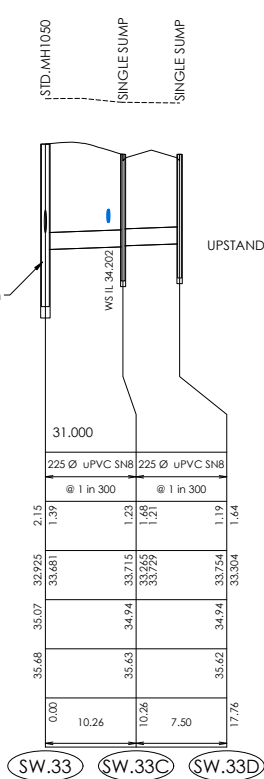
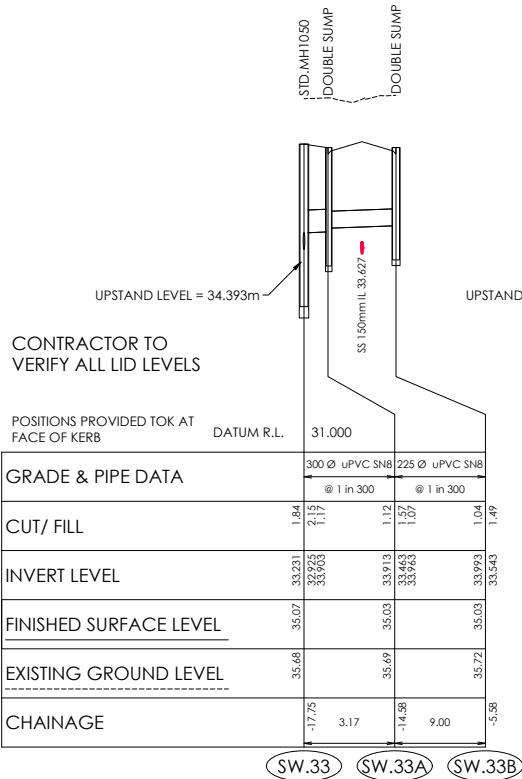
JOB TITLE:  
**Broadfield Grange  
Stages 10 & 12**

SHEET TITLE:  
**Sewer Longsections  
RC245458**

DRAWING STATUS  
**For Engineering Approval**

SCALE: As Shown DATE: May 2026

|                                                                               |             |              |           |
|-------------------------------------------------------------------------------|-------------|--------------|-----------|
| CAD FILE: J:\2148P\Eng\Drawings\STAGES 10 & 12\2148P_E04.3 STG 10 & 12_R2.dwg | DRAWING No: | SHEET No:    | DRAWN: JS |
| <b>E.21489</b>                                                                |             | <b>E04.4</b> | <b>R2</b> |



| AMENDMENTS: |          |                       |
|-------------|----------|-----------------------|
| AMENDMENT   | DATE     | DESCRIPTION           |
| R1          | 15/01/26 | NO CHANGES THIS SHEET |
| R2          | 11/05/26 | NO CHANGES THIS SHEET |

- NOTES:
- ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
  - ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
  - ORIGIN OF LEVELS**  
ORIGIN MARK B882 (UG 32)  
RL=55.908m  
CHK EJBW (CC 370 NO 2)  
RL=58.154m  
  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937.
  - EXISTING SERVICES HAVE BEEN DIGITISED FROM SERVICE AUTHORITY PLANS; COMPLETENESS AND ACCURACY ARE NOT GUARANTEED. ALL SERVICES TO BE FULLY SEARCHED AND PILOTTED PRIOR TO TRENCHING.
  - ELECTRICITY & TELECOM SERVICES NOT SHOWN. REFER TO ELECTRICAL & COMMUNICATION PLANS FOR DUCT LOCATIONS.
  - TRENCHING AND INSTALLATION OF POWER AND TELECOM SERVICES TO BE PROVIDED IN ACCORDANCE WITH SERVICE PROVIDERS PLANS AND SPECIFICATIONS.
  - REFER TO LONGSECTIONS FOR ALL SEWER & STORMWATER LEVELS.
  - NOMINATED PIPE SIZES ARE INTERNAL DIAMETER UNLESS NOTED OTHERWISE.
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  - RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.
  - BEDDING TO BE AS PER SD344 UNLESS OTHERWISE SPECIFIED.
  - CONCRETE CAPPING TO SD342 WHERE LESS THAN 750MM COVER TO SEWER WITHIN ROAD CARRIAGEWAY.
  - MANHOLE CONNECTIONS SHALL BE STARTERS & SHORTS AND SHORTS & FINISHERS.
  - CORBELS TO BE CONSTRUCTED TO SDC STANDARD INCLUDING CHEMSET.
  - LADDERS ARE REQUIRED FOR SEWER MANHOLES DEEPER THAN 1.2m MEASURED FROM THE TOP OF BENCHING TO FINISHED LEVEL.
  - CONTRACTOR TO VERIFY ALL EXISTING INVERTS AND LID LEVELS ON SITE.

|             | NAME       | SIGNED     | DATE |
|-------------|------------|------------|------|
| DESIGNED BY | JALAY SHAH | JALAY SHAH |      |
| CHECKED BY  | BEN FOX    | BEN FOX    |      |



116 Wrights Road P O Box 679 Christchurch 8140, New Zealand  
Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

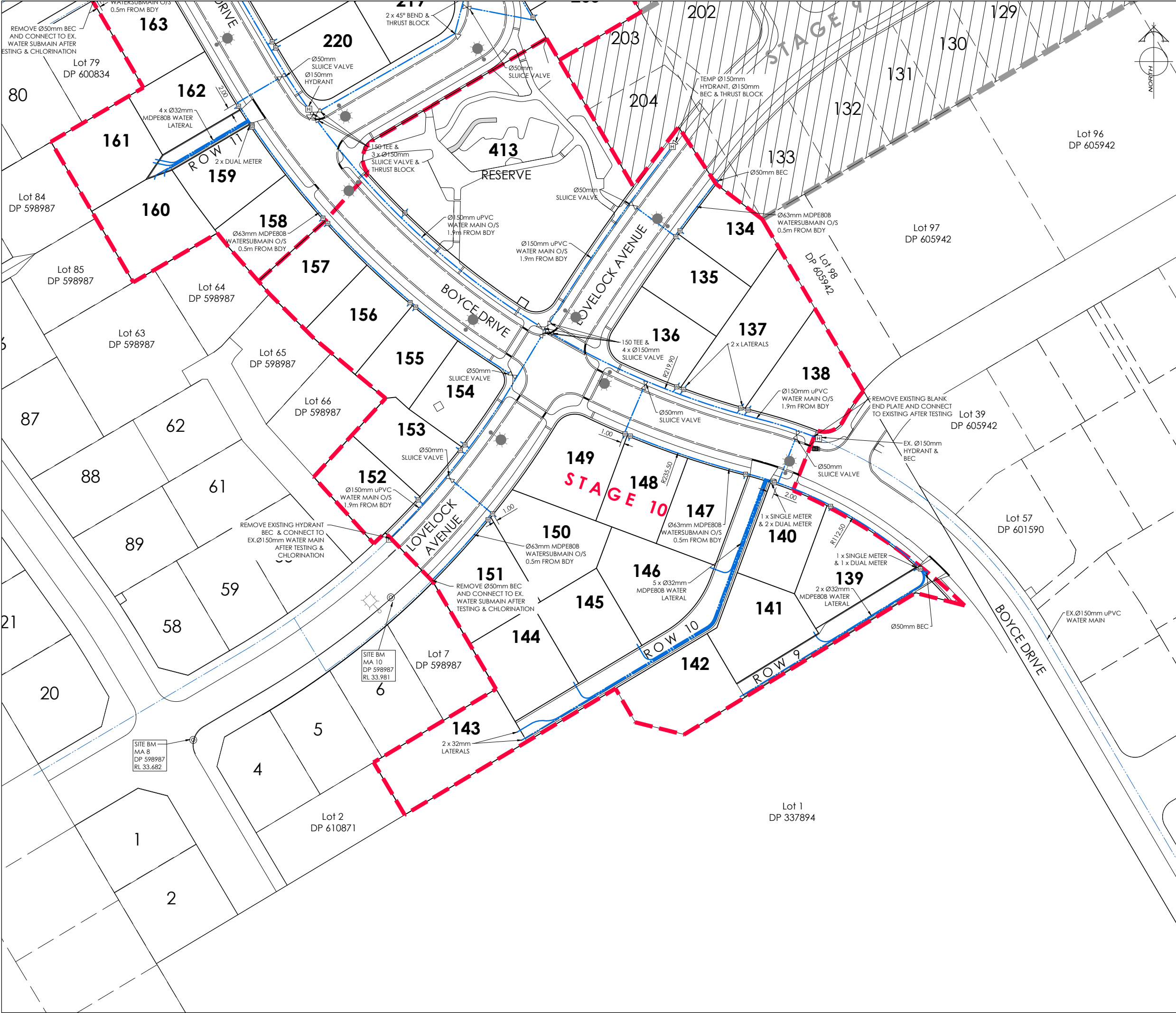
JOB TITLE:  
**Broadfield Grange  
Stages 10 & 12**

SHEET TITLE:  
**Stormwater Longsections  
RC245458**

DRAWING STATUS:  
**For Engineering Approval**

SCALE: As Shown DATE: May 2026

|                                                                                 |                                |                            |                         |
|---------------------------------------------------------------------------------|--------------------------------|----------------------------|-------------------------|
| CAD FILE : J:\21489\Eng\Drawings\STAGES 10 & 12\21489_E04.3 STGs 10 & 12_R2.dwg | DRAWING No :<br><b>E.21489</b> | SHEET No :<br><b>E04.5</b> | REVISION :<br><b>R2</b> |
|---------------------------------------------------------------------------------|--------------------------------|----------------------------|-------------------------|



AMENDMENTS:

| AMENDMENT | DATE     | DESCRIPTION                            |
|-----------|----------|----------------------------------------|
| R1        | 15/01/26 | WATER ALIGNMENT UPDATED ON BOYCE DRIVE |
| R2        | 11/05/26 | WATER CONNECTION TO RESERVE ADDED      |

NOTES:

1.

ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.

2.

ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

3.

TRENCHING AND INSTALLATION OF POWER AND TELECOM SERVICES TO BE PROVIDED IN ACCORDANCE WITH SERVICE PROVIDERS PLANS AND SPECIFICATIONS.

4.

ALL SERVICES TO BE FULLY SEARCHED AND PILOTTED PRIOR TO TRENCHING.

5.

ALL WATER PIPES TO BE PE PN12.5 AND ALL FITTINGS TO BE PN16.

6.

WATERMANS AND SUBMANS TO BE INSTALLED AT THE OFFSET STATED ON THE PLAN AND AGREED WITH ENGINEER.

7.

WATERMANS TO HAVE A MINIMUM COVER OF 0.75M.

8.

CONTRACTORS ATTENTION IS DRAWN TO THE COUNCILS REQUIREMENTS FOR PE WELD TESTING.

9.

REGISTERED CRAFTSMAN PLUMBER TO INSTALL ALL REAR LOT LATERALS. REFER TO THE BUILDING CODE.

10.

CONTRACTOR TO INSTALL WATER MAIN TO ENSURE NO CLASHES WITH OTHER SERVICES, TO BE INSTALLED IN ACCORDANCE WITH THE IDS 7.9.5.

11.

THRUST BLOCK AS PER WSD-004, 1m<sup>2</sup> DN300 TEE, 05m<sup>2</sup> DN200 TEE.

12.

ALL SUBMAIN CONNECTIONS TO MAIN PIPES TO BE BY TAPPING BAND OR HYDRANT CROSSOVER

LEGEND:

EXISTING SERVICES

WATER

FH VALVE

KERB

PROPOSED SERVICES

WATER

FH VALVE

METER

CUT DOWN

DAVIE LOVELL-SMITH

PLANNING SURVEYING ENGINEERING

116 Wrights Road

P O Box 679 Christchurch 8140, New Zealand

Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

Broadfield Grange

Stages 10 & 12

SHEET TITLE:

Water Plan

RC245458

DRAWING STATUS

For Engineering Approval

SCALE:

1:500@A1

1:1000@A3

DATE:

January 2026

CAD FILE:

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DRAWN: JS

DRAWING No:

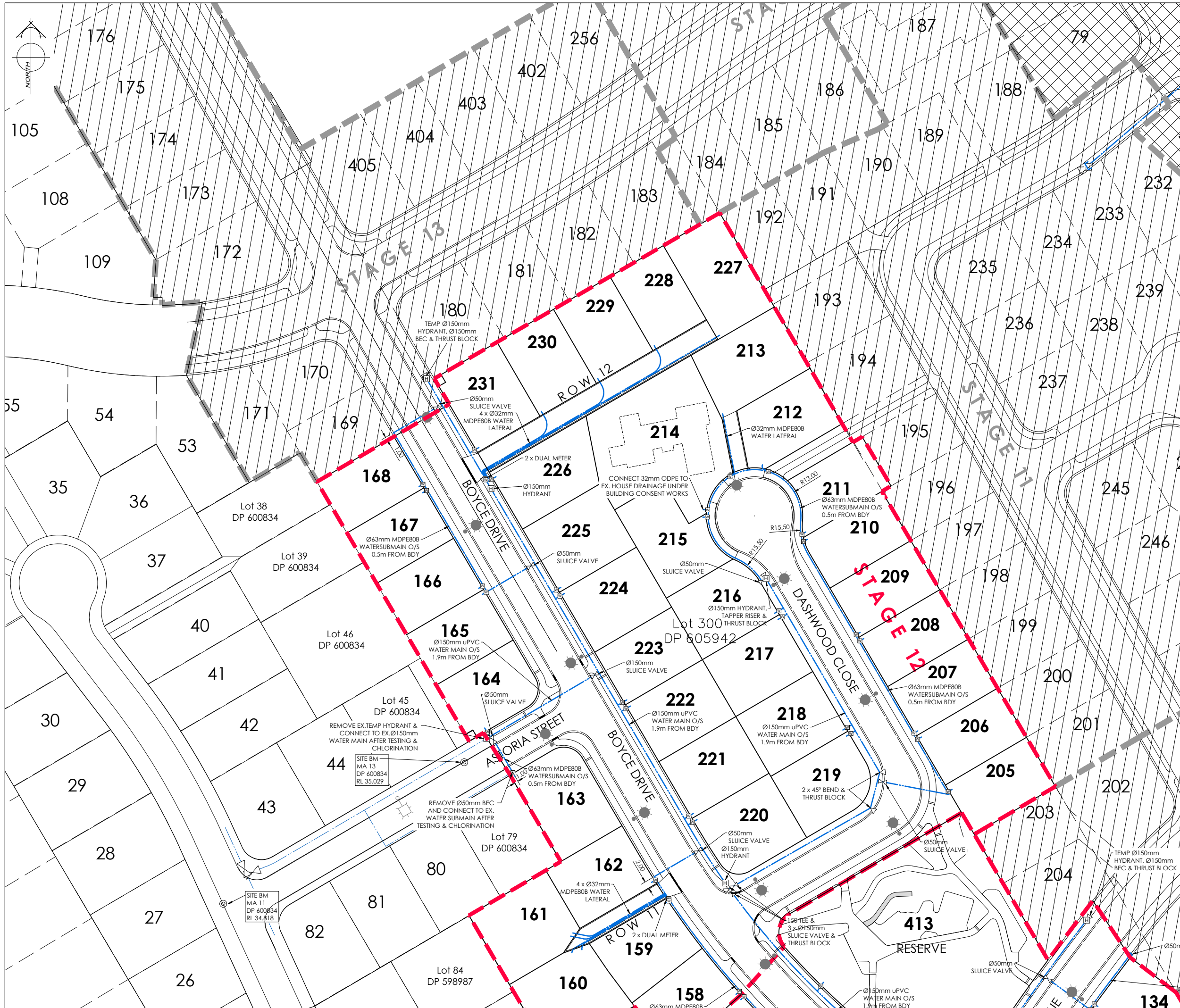
E.21489

SHEET No:

E05.0

REVISION:

R1



AMENDMENTS:

| AMENDMENT | DATE     | DESCRIPTION                               |
|-----------|----------|-------------------------------------------|
| R1        | 15/01/26 | WATER ALIGNMENT UPDATED ON DASHWOOD CLOSE |
| R2        | 11/05/26 | WATER CONNECTION TO RESERVE ADDED         |

NOTES:

1.

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3.

TRENCHING AND INSTALLATION OF POWER AND TELECOM SERVICES TO BE PROVIDED IN ACCORDANCE WITH SERVICE PROVIDERS PLANS AND SPECIFICATIONS.

4.

ALL SERVICES TO BE FULLY SEARCHED AND PILOTTED PRIOR TO TRENCHING.

5.

ALL WATER PIPES TO BE PE PN12.5 AND ALL FITTINGS TO BE PN16.

6.

WATERMANS AND SUBMANS TO BE INSTALLED AT THE OFFSET STATED ON THE PLAN AND AGREED WITH ENGINEER.

7.

WATERMANS TO HAVE A MINIMUM COVER OF 0.75M.

8.

CONTRACTORS ATTENTION IS DRAWN TO THE COUNCILS REQUIREMENTS FOR PE WELD TESTING.

9.

REGISTERED CRAFTSMAN PLUMBER TO INSTALL ALL REAR LOT LATERALS, REFER TO THE BUILDING CODE.

10.

CONTRACTOR TO INSTALL WATER MAIN TO ENSURE NO CLASHES WITH OTHER SERVICES, TO BE INSTALLED IN ACCORDANCE WITH THE IDS 7.9.5.

11.

THRUST BLOCK AS PER WSD-004, 1m<sup>2</sup> DN300 TEE, 0.5m<sup>2</sup> DN200 TEE.

12.

ALL SUBMAIN CONNECTIONS TO MAIN PIPES TO BE BY TAPPING BAND OR HYDRANT CROSSOVER

LEGEND:

EXISTING SERVICES

WATER

FH VALVE

KERB

PROPOSED SERVICES

WATER

FH VALVE

METER

CUT DOWN

DAVIE LOVELL-SMITH

PLANNING SURVEYING ENGINEERING

116 Wrights Road

P O Box 679

Christchurch 8140, New Zealand

Telephone: 03 379-0793

Website: www.dls.co.nz

E-mail: office@dls.co.nz

JOB TITLE:

Broadfield Grange

Stages 10 & 12

SHEET TITLE:

Water Plan

RC245458

DRAWING STATUS

For Engineering Approval

SCALE:

1:500@A1

1:1000@A3

DATE:

January 2026

CAD FILE:

J:\21489\Eng\Drawings\STAGES 10 & 12\21489\_E01.0 STG 10 & 12\_R2.dwg

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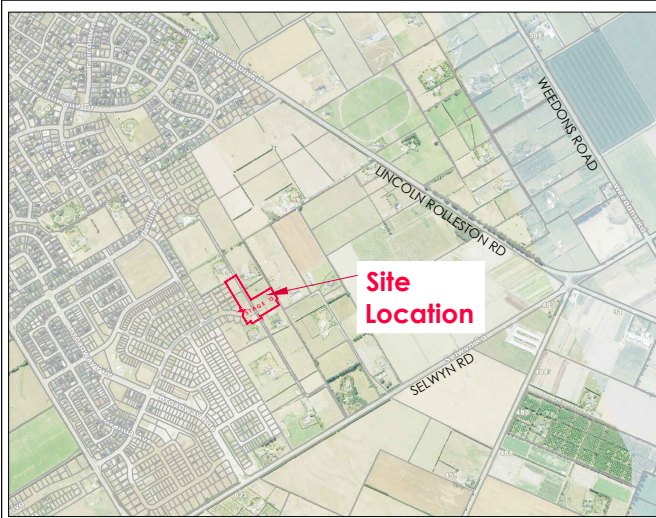
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SHEET No:

E05.1

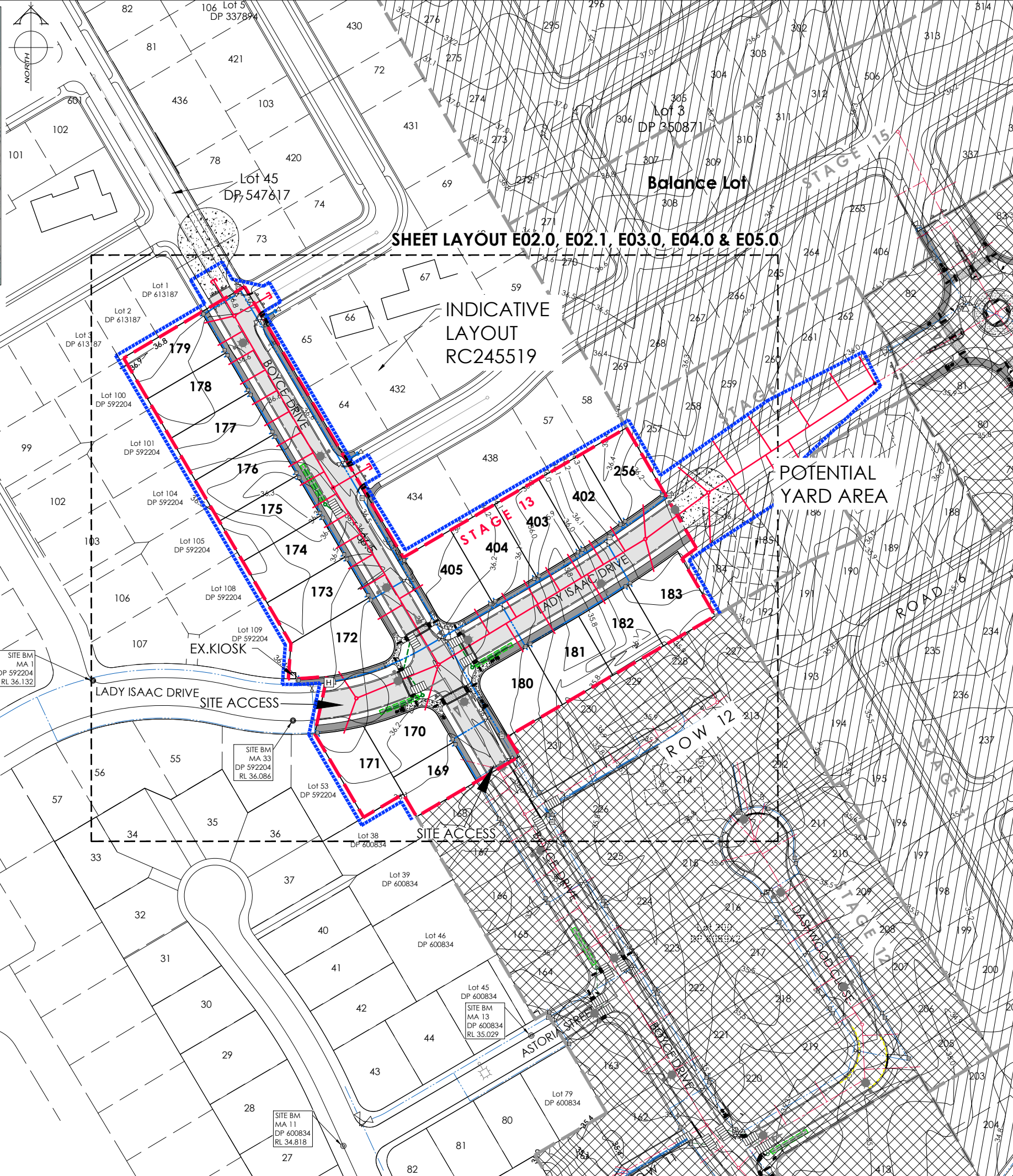
REVISION:

R1



### LOCATION PLAN

Scale: 1:10,000@A1  
1:20,000@A3



| AMENDMENTS: |          |
|-------------|----------|
| AMENDMENT   | DATE     |
| R1          | 14/01/26 |

| DESCRIPTION            |  |
|------------------------|--|
| SEWER LATERALS UPDATED |  |

NOTES:

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- EXISTING SERVICES HAVE BEEN DIGITISED FROM SERVICE AUTHORITY PLANS; COMPLETENESS AND ACCURACY ARE NOT GUARANTEED. ALL SERVICES TO BE FULLY SEARCHED AND PILOTTED PRIOR TO TRENCHING.
- CONTOUR INTERVAL: 0.1m MINOR, 1.0m MAJOR.
- ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJBW (CC 370 NO 2)  
RL 58.154m
- CONTROL OF SW, SEDIMENT AND DUST ON SITE IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL ROW AND DRIVEWAYS ARE TO HAVE 50mm DUCTS INSTALLED FOR COMMUNICATIONS AND POWER SUPPLY.
- ALL TREES, VEGETATION AND WIRE FENCES TO BE REMOVED CLEAR OF THE EXTENT OF WORKS. MAINTAIN RESIDENTIAL PALING & FENCES.

LEGEND:

|  |                                |
|--|--------------------------------|
|  | STAGE BOUNDARY                 |
|  | EXTENT OF WORKS                |
|  | STREET LIGHT                   |
|  | PROPOSED TREE                  |
|  | COMPLETED STAGES               |
|  | NEW ASPHALT PAVEMENT           |
|  | NEW CHIP SEAL PAVEMENT         |
|  | NEW EXPOSED AGGREGATE CONCRETE |
|  | NEW FOOTPATH                   |
|  | FUTURE STAGES                  |

| EXISTING SERVICES |           | PROPOSED SERVICES |                |
|-------------------|-----------|-------------------|----------------|
| SANITARY SEWER    | STD. MH   | SANITARY SEWER    | STD. MH        |
| SANITARY SEWER    | VENTED MH | SANITARY SEWER    | VENTED MH      |
| STORMWATER        | MH        | STORMWATER        | MH             |
| WATER             | FH VALVE  | WATER             | FH VALVE METER |
| KERB              |           | KERB              | CUT DOWN       |

| NAME                   | SIGNED     | DATE |
|------------------------|------------|------|
| DESIGNED BY JALAY SHAH | JALAY SHAH |      |
| CHECKED BY BEN FOX     | BEN FOX    |      |

**DAVIE LOVELL-SMITH**  
PLANNING SURVEYING ENGINEERING

116 Wrights Road P O Box 679 Christchurch 8140. New Zealand  
Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

**Broadfield Grange Stage 13**

SHEET TITLE:

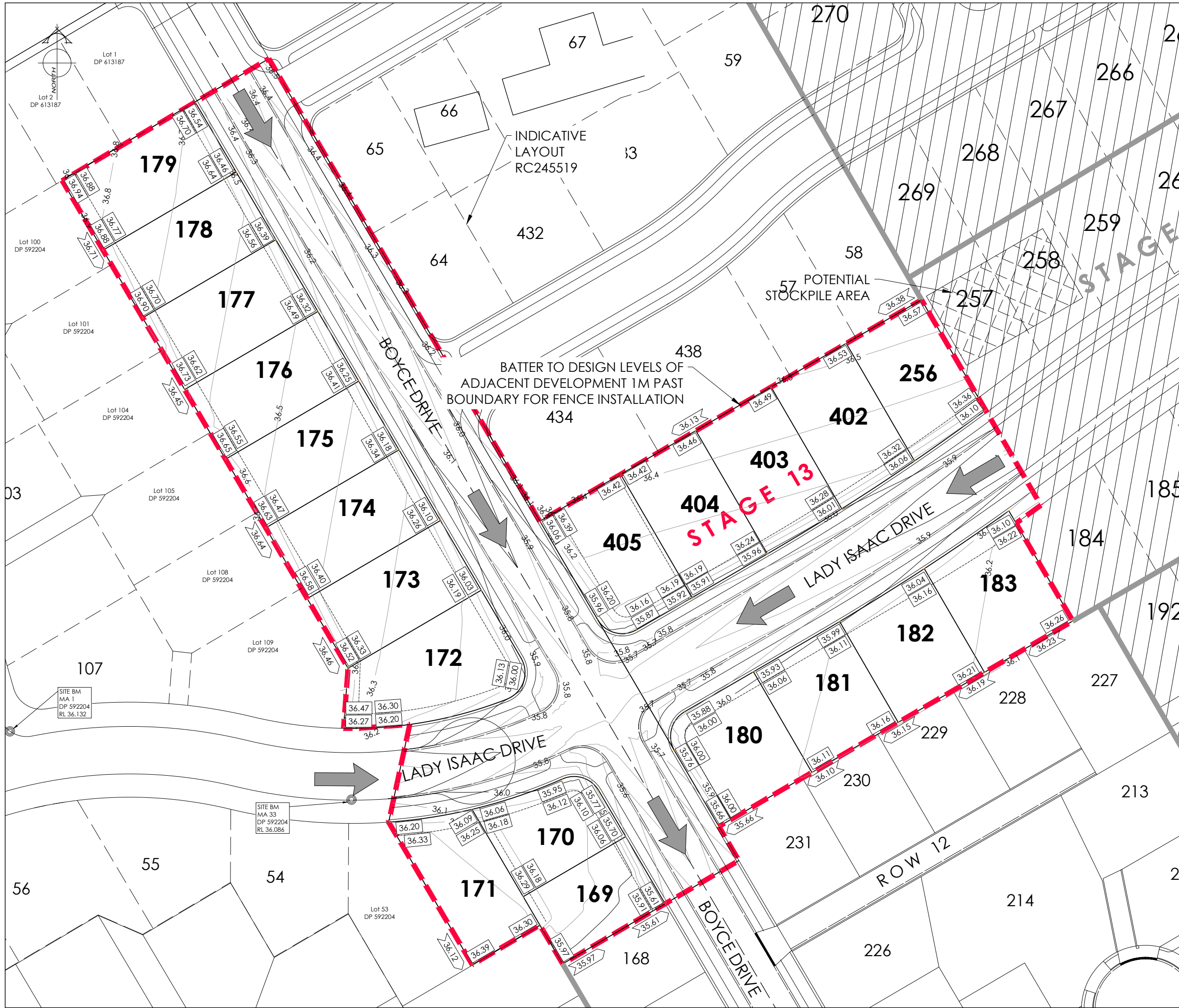
**Overall Plan RC245458**

DRAWING STATUS:

**For Engineering Approval**

| SCALE:                | DATE:        |
|-----------------------|--------------|
| 1:750@A1<br>1:1500@A3 | January 2026 |

| CAD FILE:                                                | SHEET No:    | REVISION: |
|----------------------------------------------------------|--------------|-----------|
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| <b>E.21489</b>                                           | <b>E01.0</b> | <b>R1</b> |



AMENDMENTS:

| AMENDMENT | DATE     | DESCRIPTION           |
|-----------|----------|-----------------------|
| R1        | 14/01/26 | NO CHANGES THIS SHEET |

NOTES:

1.

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2.

ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJ8W (CC 370 NO 2)  
RL 58.154m

3.

METAL DEPTHS TO BE CONFIRMED OR INCREASED BY ENGINEER FOLLOWING CHECKING OF SUBGRADE CBR STRENGTH ONCE EXCAVATED.

4.

ALL BERMS TO BE COVER WITH A MINIMUM OF 150mm SCREENED TOPSOIL GRASSED WITH CCC BERM MIX.

5.

EXISTING SERVICES HAVE BEEN DIGITISED FROM SERVICE AUTHORITY PLANS; COMPLETENESS AND ACCURACY ARE NOT GUARANTEED. ALL SERVICES TO BE FULLY SEARCHED & PILOTTED PRIOR TO TRENCHING.

6.

ALL TREES, VEGETATION AND FENCES TO BE REMOVED CLEAR OF THE EXTENT OF WORKS. MAINTAIN RESIDENTIAL PALING & FENCES.

7.

DESIGN CONTOUR INTERVAL: MAJOR 1m MINOR 0.1m.

8.

ALL EARTHFILL WORKS TO COMPLY WITH NZS 4431:1989 RELEVANT CERTIFICATION REQUIRED AS PROOF.

9.

IF PEAT OR OTHER UNSUITABLE MATERIAL IS LOCATED IN THE SUBGRADE THE ENGINEER IS TO BE CONTACTED FOR INSTRUCTION.

10.

ESCMP TO BE IN PLACE PRIOR TO ANY EARTHWORKS.

11.

CONTRACTOR MUST READ ALL DISCHARGE CONSENTS PRIOR TO ANY EARTHWORKS.

12.

DRAWINGS TO BE DISTRIBUTED AND READ AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

LEGEND:

-----

STAGE BOUNDARY

LEVELS

20.31

PROPOSED LOT LEVELS

25.35

EXISTING LOT LEVELS

SEC FLOW

DIRECTION OF FLOW

EXISTING SERVICES

PROPOSED SERVICES

KERB

CUT DOWN

| NAME                    | SIGNED     | DATE |
|-------------------------|------------|------|
| DESIGNED BY: JALAY SHAH | JALAY SHAH |      |
| CHECKED BY: BEN FOX     | BEN FOX    |      |

DAVE LOVELL-SMITH

PLANNING SURVEYING ENGINEERING

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Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

Broadfield Grange  
Stage 13

SHEET TITLE:

Design Contours  
RC245458

DRAWING STATUS

For Engineering Approval

SCALE: 1:375@A1  
1:750@A3

DATE: January 2026

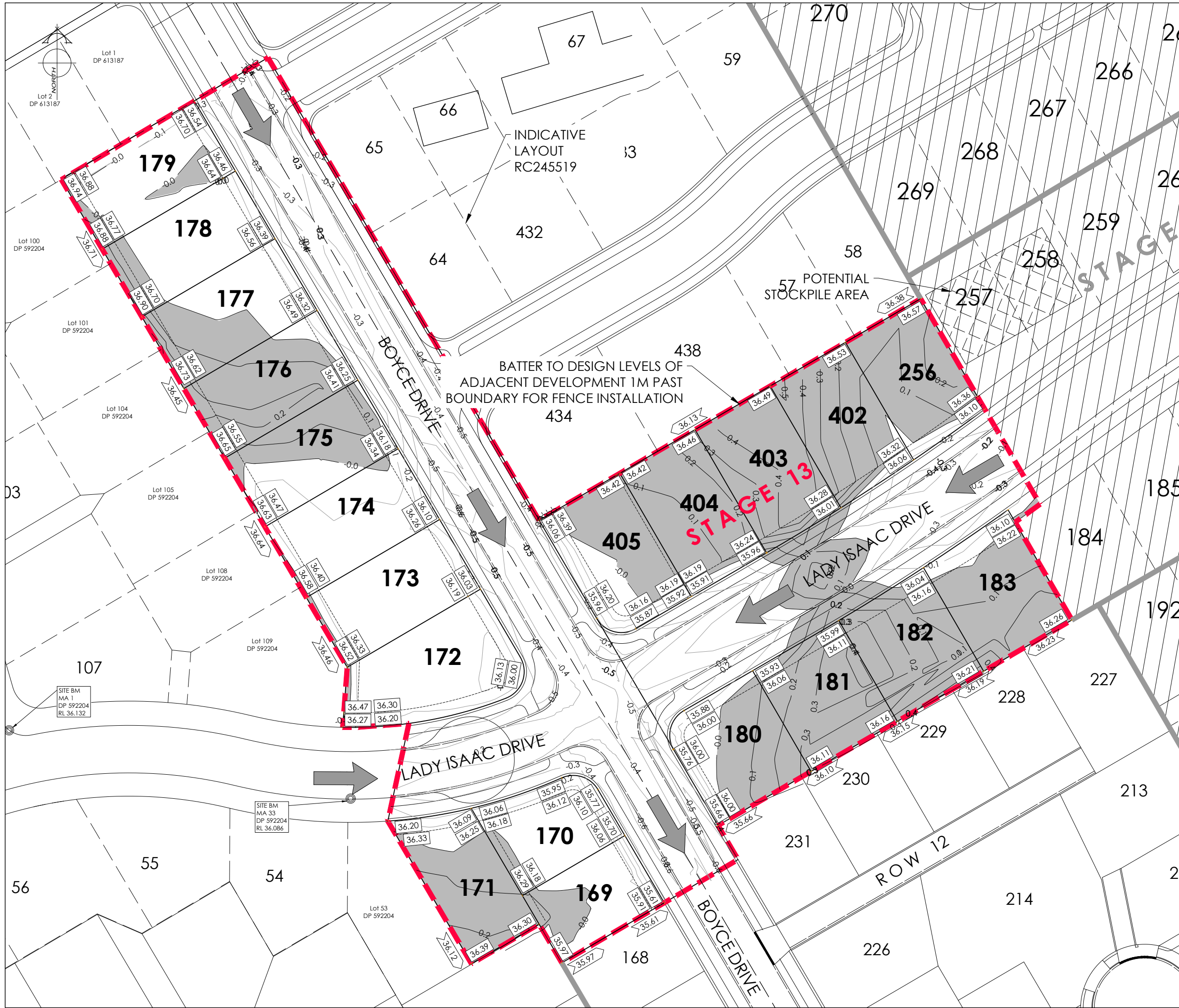
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DRAWING No: E.21489

SHEET No: E02.0

REVISION: R1

DRAWN: JS



AMENDMENTS:

| AMENDMENT | DATE     | DESCRIPTION           |
|-----------|----------|-----------------------|
| R1        | 14/01/26 | NO CHANGES THIS SHEET |

NOTES:

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- ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJBW (CC 370 NO 2)  
RL 58.154m
- METAL DEPTHS TO BE CONFIRMED OR INCREASED BY ENGINEER FOLLOWING CHECKING OF SUBGRADE CBR STRENGTH ONCE EXCAVATED.
- ALL BERMS TO BE COVER WITH A MINIMUM OF 150mm SCREENED TOPSOIL GRASSED WITH CCC BERM MIX.
- EXISTING SERVICES HAVE BEEN DIGITISED FROM SERVICE AUTHORITY PLANS; COMPLETENESS AND ACCURACY ARE NOT GUARANTEED. ALL SERVICES TO BE FULLY SEARCHED & PILOTTED PRIOR TO TRENCHING.
- ALL TREES, VEGETATION AND FENCES TO BE REMOVED CLEAR OF THE EXTENT OF WORKS. MAINTAIN RESIDENTIAL PALING & FENCES.
- CUT-FILL CONTOUR INTERVAL: MAJOR 1m MINOR 0.1m.
- ALL EARTHFILL WORKS TO COMPLY WITH NZS 4431:1989 RELEVANT CERTIFICATION REQUIRED AS PROOF.
- IF PEAT OR OTHER UNSUITABLE MATERIAL IS LOCATED IN THE SUBGRADE THE ENGINEER IS TO BE CONTACTED FOR INSTRUCTION.
- ESCMP TO BE IN PLACE PRIOR TO ANY EARTHWORKS.
- CONTRACTOR MUST READ ALL DISCHARGE CONSENTS PRIOR TO ANY EARTHWORKS.
- DRAWINGS TO BE DISTRIBUTED AND READ AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

LEGEND:

STAGE BOUNDARY

LEVELS

PROPOSED LOT LEVELS

EXISTING LOT LEVELS

DIRECTION OF FLOW

ENGINEERING FILL

CUT

EXISTING SERVICES

PROPOSED SERVICES

KERB

KERB CUT DOWN

| NAME                    | SIGNED     | DATE |
|-------------------------|------------|------|
| DESIGNED BY: JALAY SHAH | JALAY SHAH |      |
| CHECKED BY: BEN FOX     | BEN FOX    |      |

DAVE LOVELL-SMITH

PLANNING SURVEYING ENGINEERING

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Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

Broadfield Grange  
Stage 13

SHEET TITLE:

Cut Fill Plan  
RC245458

DRAWING STATUS

For Engineering Approval

SCALE: 1:375@A1  
1:750@A3

DATE: January 2026

CAD FILE: J:\21489\Eng\Drawings\STAGE 13\21489\_E02.0 STG 13\_R1.dwg

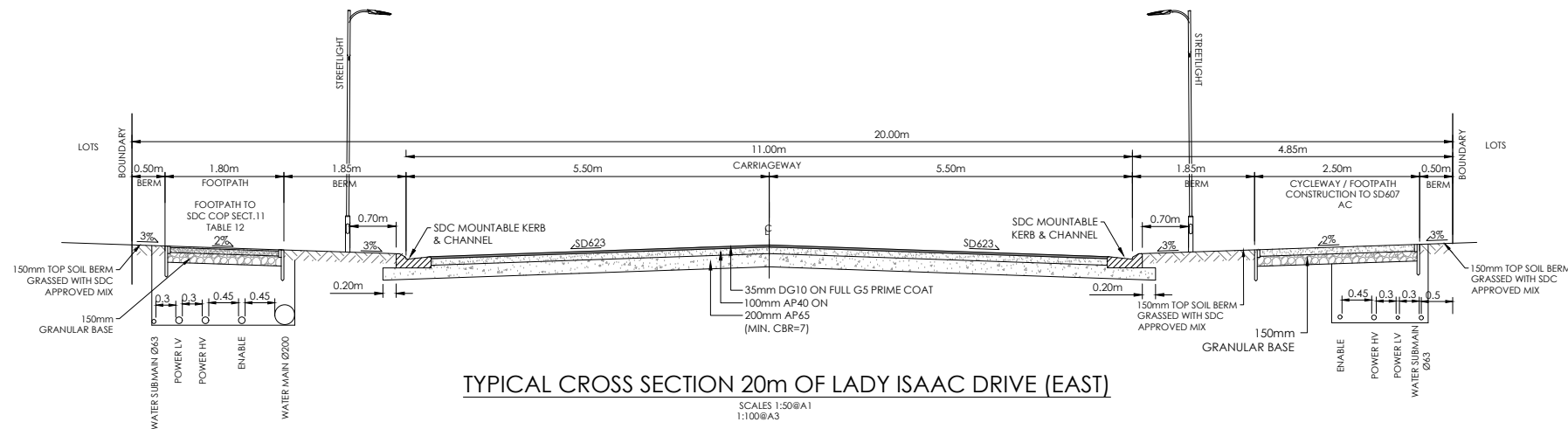
DRAWING No: E.21489

SHEET No: E02.1

REVISION: R1

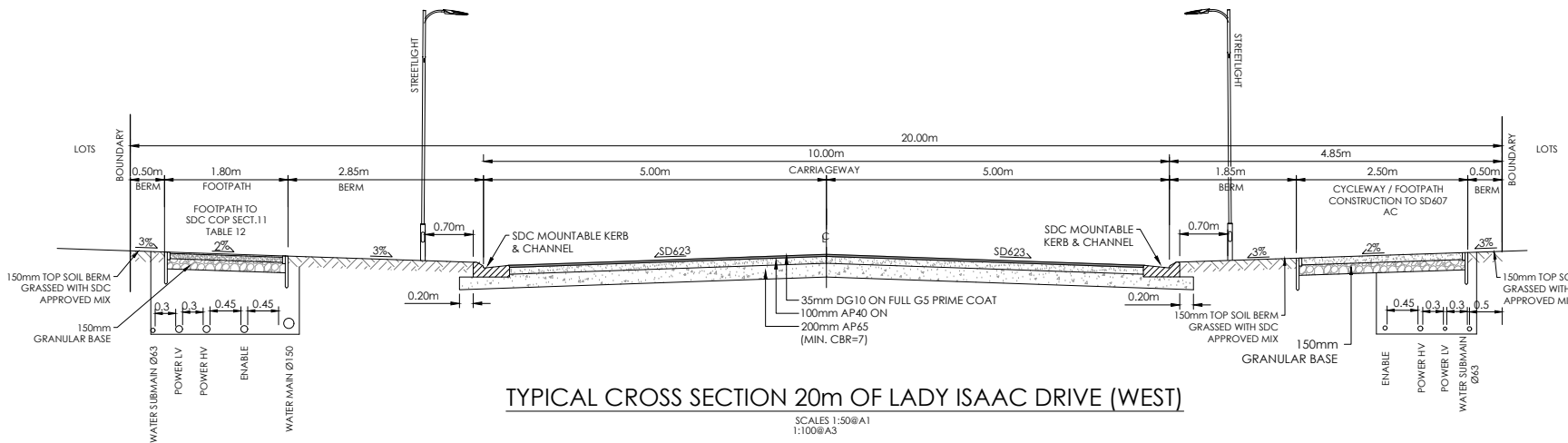
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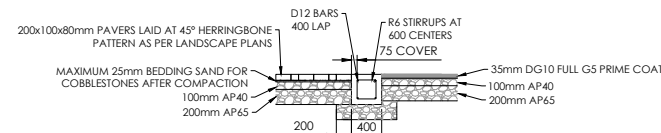
TYPICAL CROSS SECTION 20m OF LADY ISAAC DRIVE (EAST)

SCALES 1:50@A1  
1:100@A3



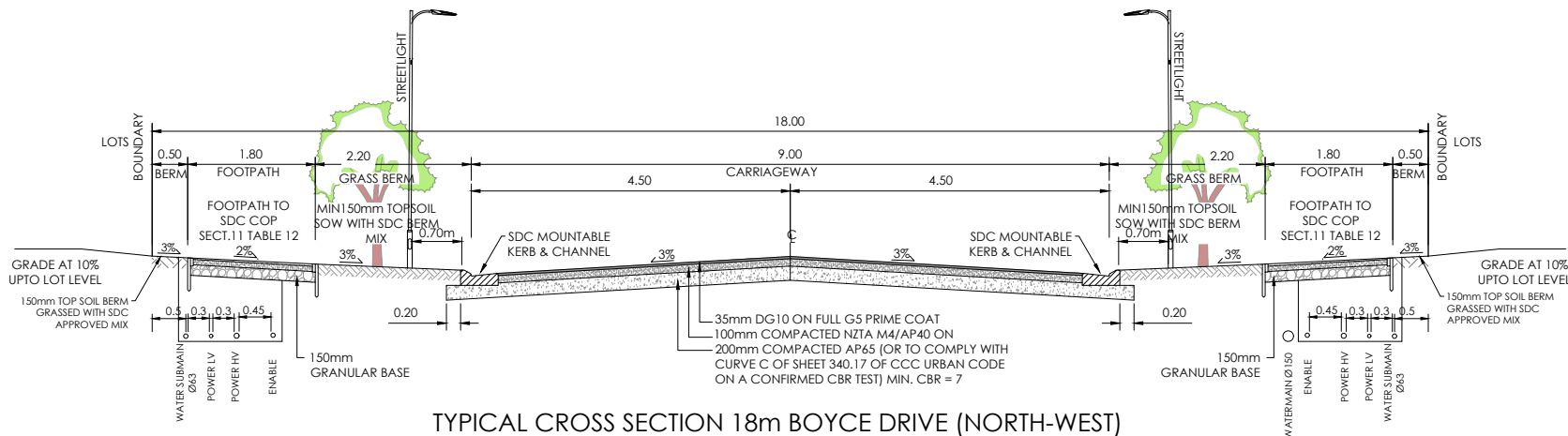
TYPICAL CROSS SECTION 20m OF LADY ISAAC DRIVE (WEST)

SCALES 1:50@A1  
1:100@A3



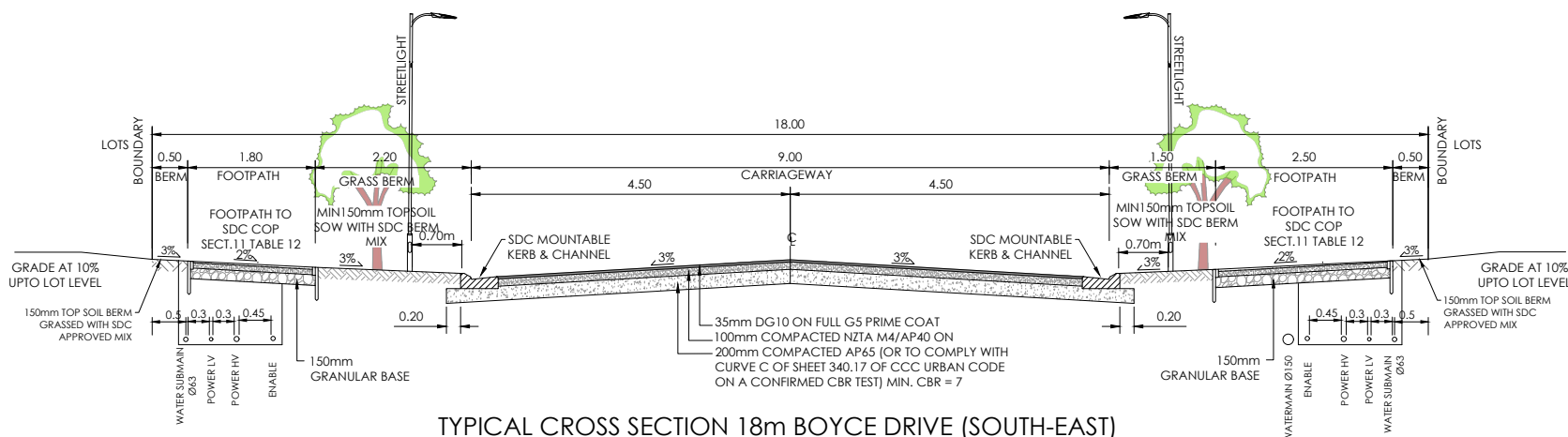
PLAIN CONCRETE BEAM DETAIL

SCALES 1:50@A1  
1:100@A3



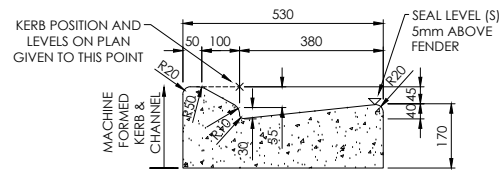
TYPICAL CROSS SECTION 18m BOYCE DRIVE (NORTH-WEST)

SCALE 1:50@A1  
1:100@A3



TYPICAL CROSS SECTION 18m BOYCE DRIVE (SOUTH-EAST)

SCALE 1:50@A1  
1:100@A3



SDC MOUNTABLE KERB & CHANNEL

SCALE 1:10@A1  
1:20@A3

| AMENDMENTS : |          |                       |
|--------------|----------|-----------------------|
| AMENDMENT    | DATE     | DESCRIPTION           |
| R1           | 14/01/26 | NO CHANGES THIS SHEET |

NOTES :

- ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
- ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
- CARRIAGEWAY AND FOOTPATH ACCEPTANCE TESTING IN ACCORDANCE WITH CCC CSS PART 6 AND CCC IDS.
- ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJBW (CC 370 NO 2)  
RL 58.154m
- FOOTPATH BASECOURSE TESTING - MINIMUM CLEGG HAMMER VALUE OF 25 REQUIRED FOR FOOTPATHS & 35 REQUIRED FOR RESIDENTIAL CROSSINGS.
- KERB & CHANNEL BASECOURSE TESTING - MINIMUM DRY DENSITY OF 2100kg/m<sup>3</sup> WITH 75% EQUAL OR EXCEEDING 2150kg/m<sup>3</sup>.
- ALL BERMS TO BE AND COVERED WITH A MINIMUM OF 150mm GRADE 1 TOPSOIL AND GRASSED WITH CCC BERM MIX.
- ELECTRICITY & TELECOM SERVICES NOT SHOWN. REFER TO ELECTRICAL & COMMUNICATION PLANS FOR DUCT LOCATIONS.
- ALL ROAD AND FOOTPATH AREAS TO BE SURFACED USING ASPHALTIC CONCRETE. FOOTPATHS TO BE CONSTRUCTED IN ACCORDANCE WITH SDC REQUIREMENTS WITH 25mm DEPTH AC, WHILE ROAD PAVEMENTS TO BE 35mm DEPTH.
- METAL DEPTHS TO BE CONFIRMED OR INCREASED PRIOR TO COMMENCEMENT OF WORK FOLLOWING THE CHECKING OF SUBGRADE CBR ON SITE.
- KERBS AT INTERSECTIONS HAVE A RADIUS OF 6.0m UNLESS SHOWN OTHERWISE.
- ALL PAVEMENT CROSSFALLS ARE TO BE CONSTRUCTED IN ACCORDANCE SD623.
- TACTILE PAVERS ARE TO BE INSTALLED AS PER SD623 AND RTS14 GUIDELINES FOR FACILITIES FOR THE BLIND AND VISION -IMPAIRED PEDESTRIANS.
- ROAD BASECOURSE TESTING - MAXIMUM BENKELMAN BEAM DEFLECTION OF 2.00mm WITH 95% BELOW 1.6mm FOR ROADS AND A MAXIMUM DEFLECTION OF 2.5mm WITH 95% BELOW 2.00mm FOR ROWS.
- ALL ROW AND DRIVEWAYS ARE TO HAVE 50mm DUCTS INSTALLED FOR COMMUNICATIONS AND POWER SUPPLY.

|             | NAME       | SIGNED     | DATE |
|-------------|------------|------------|------|
| DESIGNED BY | JALAY SHAH | JALAY SHAH |      |
| CHECKED BY  | BEN FOX    | BEN FOX    |      |



116 Wrights Road P O Box 679 Christchurch 8140. New Zealand  
Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

**Broadfield Grange  
Stage 13**

SHEET TITLE:

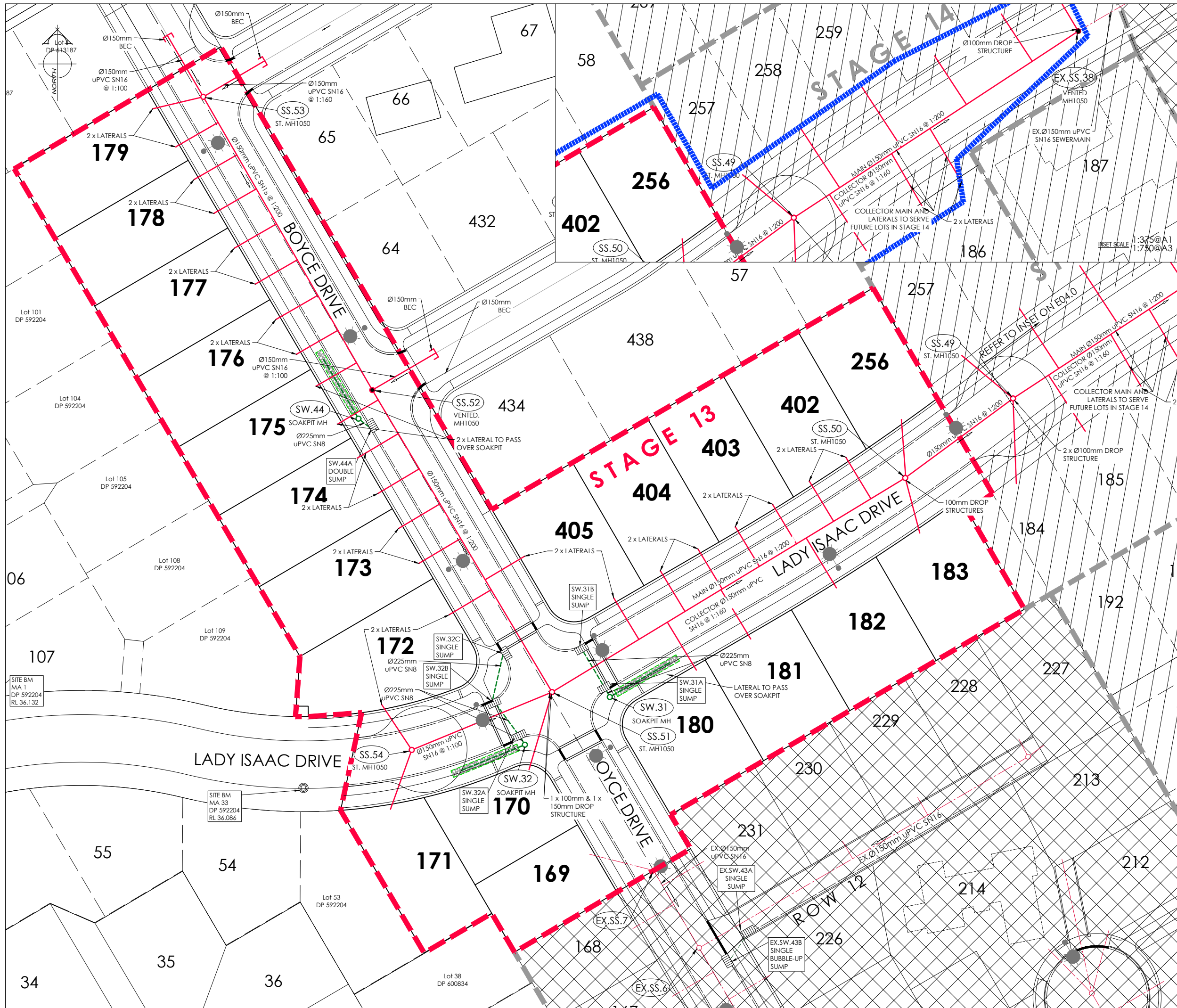
**Roading Sections  
RC245458**

DRAWING STATUS

**For Engineering Approval**

SCALE : As Shown DATE : January 2026

|                                                                      |                         |
|----------------------------------------------------------------------|-------------------------|
| CAD FILE : J:\21489\Eng\Drawings\STAGE 13\E21489_E01.0 STG 13_R1.dwg | DRAWN : JS              |
| DRAWING No : <b>E.21489</b>                                          | SHEET No : <b>E03.1</b> |
|                                                                      | REVISION : <b>R1</b>    |



| AMENDMENTS: |          |
|-------------|----------|
| AMENDMENT   | DATE     |
| R1          | 14/01/26 |

| DESCRIPTION                     |  |
|---------------------------------|--|
| SEWER LATERALS & GRADES UPDATED |  |

NOTES:

- ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS. IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
- ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
- ALL SERVICES TO BE FULLY SEARCHED AND PILOTTED PRIOR TO TRENCHING.
- ALL UPVC PIPES (WHETHER SEWER OR STORMWATER) SHALL CONFORM TO AS NZS 1260:1999 AND SHALL HAVE THE FOLLOWING STIFFNESS NUMBERS AS SET OUT IN THE STANDARD: DN 100 AND 150...SN16; DN225 AND LARGER ...SN8.
- REFER TO LONGSECTIONS FOR ALL SEWER & STORMWATER LEVELS.
- ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJBW (CC 370 NO 2)  
RL 58.154m
- ALL SEWER AND STORMWATER LATERALS TO BE LAID AT 1:60. MINIMUM GRADE AND LAID TO 1.0m WITHIN LOTS.
- NOMINATED PIPE SIZES ARE INTERNAL DIAMETER UNLESS NOTED OTHERWISE.
- ALL RESIDENTIAL STORMWATER LATERALS TO BE 100mm DIAMETER AND INDUSTRIAL LATERALS TO BE A MINIMUM OF 150mm.
- RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.
- BEDDING TO BE AS PER SD344 UNLESS OTHERWISE SPECIFIED.
- ALL STORMWATER PIPES 225mm DIAMETER UPVC SN8 UNLESS NOTED OTHERWISE. REFER TO LONGSECTIONS FOR DETAILS.

LEGEND:

| EXISTING SERVICES        | PROPOSED SERVICES        |
|--------------------------|--------------------------|
| SANITARY SEWER STD. MH   | SANITARY SEWER STD. MH   |
| SANITARY SEWER VENTED MH | SANITARY SEWER VENTED MH |
| STORMWATER MH            | STORMWATER MH            |
| KERB                     | KERB                     |

| NAME                    | SIGNED     | DATE |
|-------------------------|------------|------|
| DESIGNED BY: JALAY SHAH | JALAY SHAH |      |
| CHECKED BY: BEN FOX     | BEN FOX    |      |

**DAVE LOVELL-SMITH**  
PLANNING SURVEYING ENGINEERING

116 Wrights Road P O Box 679 Christchurch 8140. New Zealand  
Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:  
**Broadfield Grange Stage 13**

SHEET TITLE:  
**Sewer & Stormwater Plan RC245458**

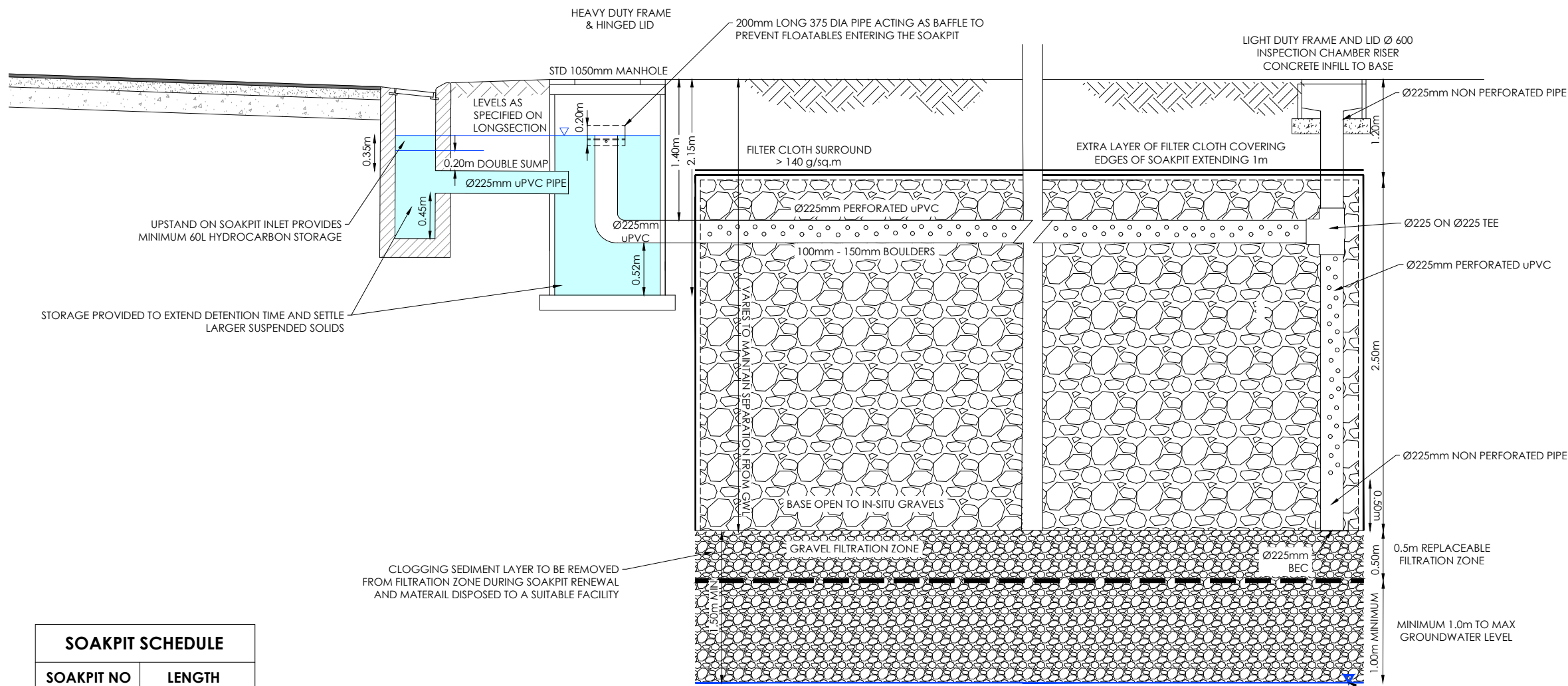
DRAWING STATUS:  
**For Engineering Approval**

| SCALE:               | DATE:        |
|----------------------|--------------|
| 1:375@A1<br>1:750@A3 | January 2026 |

| CAD FILE:                                                | DRAWN: |
|----------------------------------------------------------|--------|
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| DRAWING No:    | SHEET No:    | REVISION: |
|----------------|--------------|-----------|
| <b>E.21489</b> | <b>E04.0</b> | <b>R1</b> |

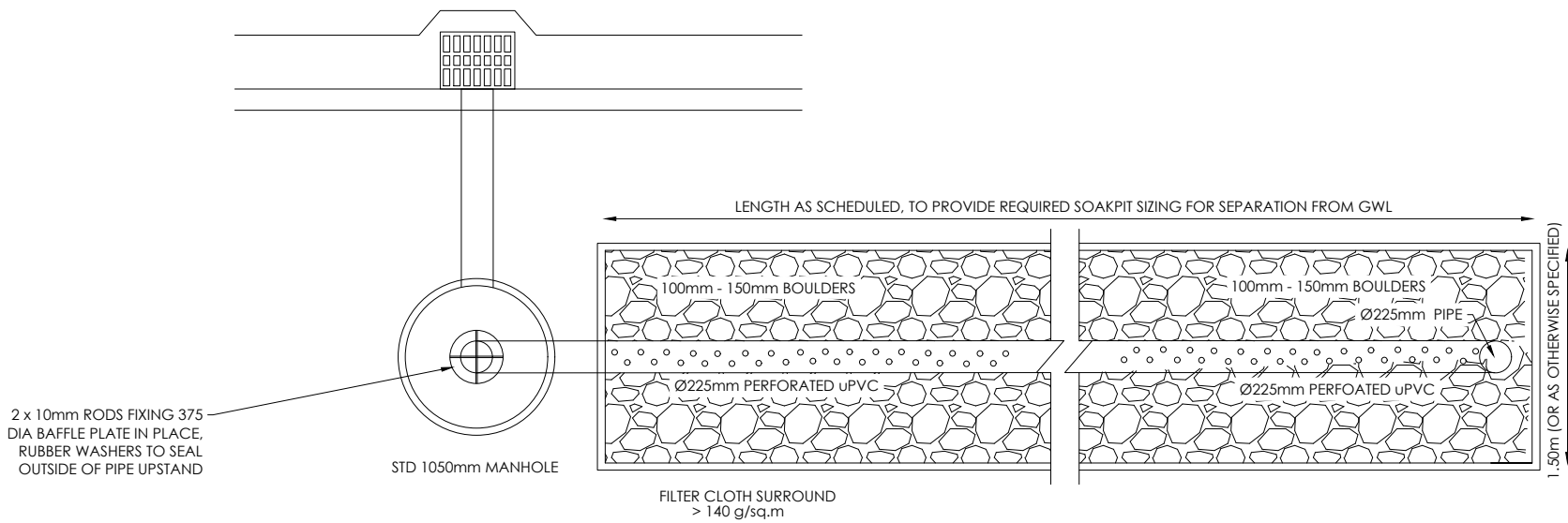
SOAKAGE RATE TO BE CONFIRMED ONSITE. REFER TO ENGINEER FOR SOAKPIT SIZING.



SOAKPIT TYPE 1 CONNECTION CROSS-SECTION

SCALE:  
1:25@A1  
1:50@A3

| SOAKPIT SCHEDULE |              |
|------------------|--------------|
| SOAKPIT NO       | LENGTH       |
| SW.31            | 23.5m x 2.0m |
| SW.32            | 13.2m x 2.0m |
| SW.44            | 10.4m x 2.0m |



SUMP TO SOAKPIT TYPE 1 CONNECTION PLAN

SCALE:  
1:25@A1  
1:50@A3

| AMENDMENTS : |          |                       |
|--------------|----------|-----------------------|
| AMENDMENT    | DATE     | DESCRIPTION           |
| R1           | 14/01/26 | NO CHANGES THIS SHEET |

NOTES :

- ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
- ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET, ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
- ALL SERVICES TO BE FULLY SEARCHED AND PILOTTED PRIOR TO TRENCHING.
- ALL UPVC PIPES (WHETHER SEWER OR STORMWATER) SHALL CONFORM TO AS NZS 1260:1999 AND SHALL HAVE THE FOLLOWING STIFFNESS NUMBERS AS SET OUT IN THE STANDARD: DN 100 AND 150...SN16; DN225 AND LARGER ... SN8.
- ALL SERVICES UP DRIVEWAYS & ROWs TO BE INSTALLED BY A REGISTERED DRAIN LAYER AND IN TERMS OF THE BUILDING CONSENT.
- REFER TO LONGSECTIONS FOR ALL SEWER & STORMWATER LEVELS.
- ORIGIN OF LEVELS  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937  
  
ORIGIN MARK B882 (UG 32)  
RL 55.908m  
CHK EJBW (CC 370 NO 2)  
RL 58.154m
- ALL SEWER AND STORMWATER LATERALS TO BE LAID AT 1:60, MINIMUM GRADE AND LAID TO 1.0m WITHIN LOTS.
- NOMINATED PIPE SIZES ARE INTERNAL DIAMETER UNLESS NOTED OTHERWISE.
- ALL RESIDENTIAL STORMWATER LATERALS TO BE 100mm DIAMETER AND INDUSTRIAL LATERALS TO BE A MINIMUM OF 150mm.
- RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.
- BEDDING TO BE AS PER SD344 UNLESS OTHERWISE SPECIFIED.

|             | NAME       | SIGNED     | DATE |
|-------------|------------|------------|------|
| DESIGNED BY | JALAY SHAH | JALAY SHAH |      |
| CHECKED BY  | BEN FOX    | BEN FOX    |      |



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Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

**Broadfield Grange  
Stage 13**

SHEET TITLE:

**Stormwater Details  
RC245458**

DRAWING STATUS

**For Engineering Approval**

SCALE : As Shown

DATE : January 2026

CAD FILE : J:\21489\Eng\Drawings\STAGE 13\21489\_E01.0 STG 13\_R1.dwg

DRAWING No :

**E.21489**

SHEET No :

**E04.1**

DRAWN : JS

REVISION :

**R1**

| AMENDMENTS: |          |                           |
|-------------|----------|---------------------------|
| AMENDMENT   | DATE     | DESCRIPTION               |
| R1          | 14/01/26 | SEWER LONGSECTION UPDATED |
|             |          |                           |

- NOTES:
- ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
  - ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
  - ORIGIN OF LEVELS**  
ORIGIN MARK 8882 (UG 32)  
RL=55.908m  
CHK EJBW (CC 370 NO 2)  
RL=58.154m  
  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937.
  - EXISTING SERVICES HAVE BEEN DIGITISED FROM SERVICE AUTHORITY PLANS; COMPLETENESS AND ACCURACY ARE NOT GUARANTEED. ALL SERVICES TO BE FULLY SEARCHED AND PILOTTED PRIOR TO TRENCHING.
  - ELECTRICITY & TELECOM SERVICES NOT SHOWN. REFER TO ELECTRICAL & COMMUNICATION PLANS FOR DUCT LOCATIONS.
  - TRENCHING AND INSTALLATION OF POWER AND TELECOM SERVICES TO BE PROVIDED IN ACCORDANCE WITH SERVICE PROVIDERS PLANS AND SPECIFICATIONS.
  - REFER TO LONGSECTIONS FOR ALL SEWER & STORMWATER LEVELS.
  - NOMINATED PIPE SIZES ARE INTERNAL DIAMETER UNLESS NOTED OTHERWISE.
  - ALL UPVC PIPES (WHETHER SEWER OR STORMWATER) SHALL CONFORM TO AS NZS 1260:1999 AND SHALL HAVE THE FOLLOWING STIFFNESS NUMBERS AS SET OUT IN THE STANDARD: DN 100 AND 150...SN16; DN225 AND LARGER ... SN8.
  - ALL SEWER AND STORMWATER LATERALS TO BE LAID AT 1:60 MINIMUM GRADE AND LAID TO 1.0m WITHIN LOTS.
  - RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.
  - BEDDING TO BE AS PER SD344 UNLESS OTHERWISE SPECIFIED.
  - CONCRETE CAPPING TO SD342 WHERE LESS THAN 750MM COVER TO SEWER WITHIN ROAD CARRIAGEWAY.
  - MANHOLE CONNECTIONS SHALL BE STARTERS & SHORTS AND SHORTS & FINISHERS.
  - CORBELS TO BE CONSTRUCTED TO SDC STANDARD INCLUDING CHEMSET.
  - LADDERS ARE REQUIRED FOR SEWER MANHOLES DEEPER THAN 1.2m MEASURED FROM THE TOP OF BENCHING TO FINISHED LEVEL.
  - CONTRACTOR TO VERIFY ALL EXISTING INVERTS AND LID LEVELS ON SITE.

|             | NAME       | SIGNED     | DATE |
|-------------|------------|------------|------|
| DESIGNED BY | JALAY SHAH | JALAY SHAH |      |
| CHECKED BY  | BEN FOX    | BEN FOX    |      |



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Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

**Broadfield Grange  
Stage 13**

SHEET TITLE:

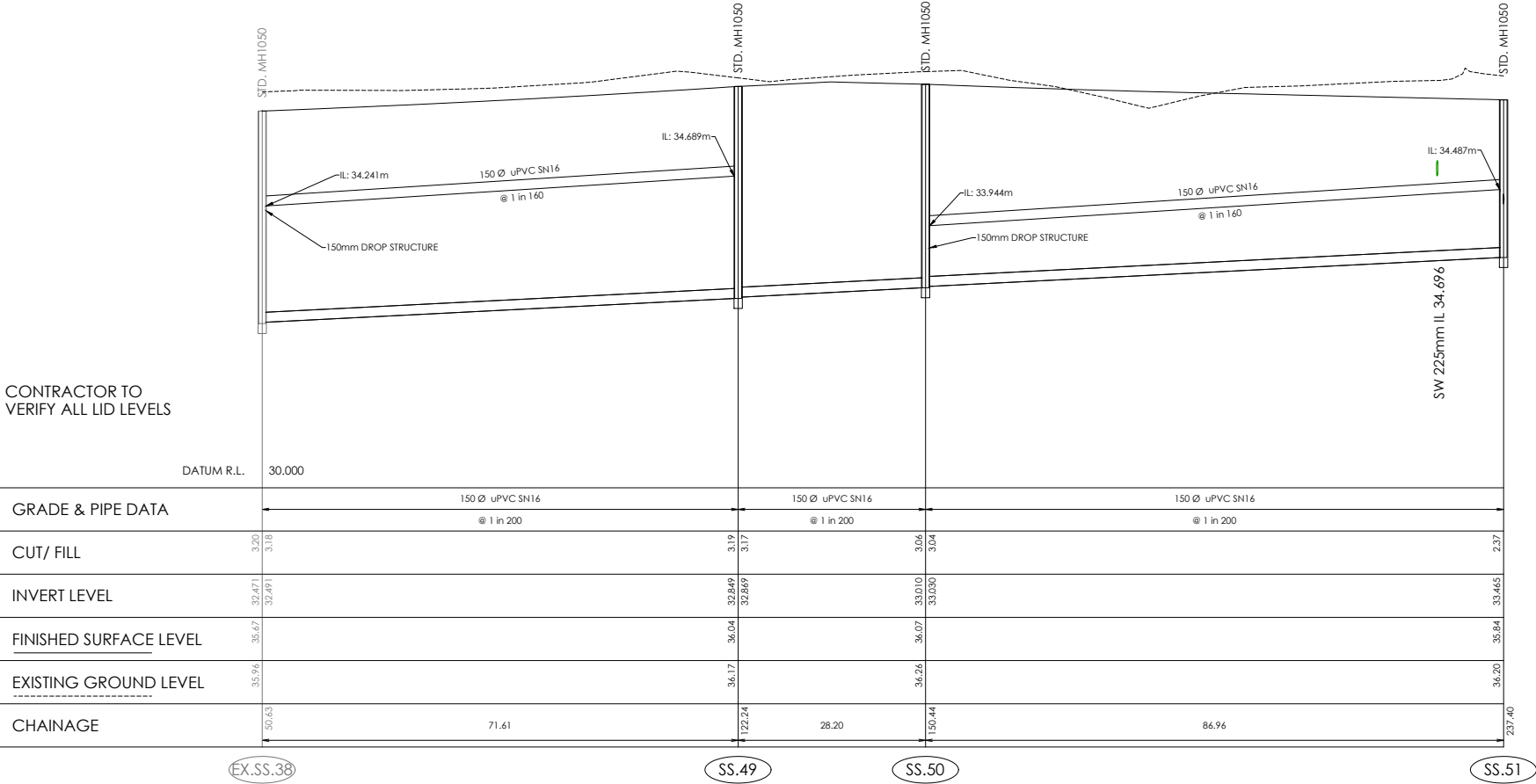
**Sewer Longsections  
RC245458**

DRAWING STATUS

**For Engineering Approval**

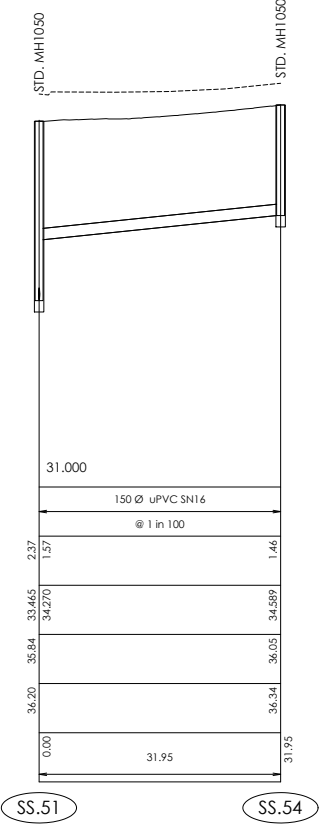
SCALE: As Shown DATE: January 2026

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|                                                                      | REVISION : <b>R1</b>   |



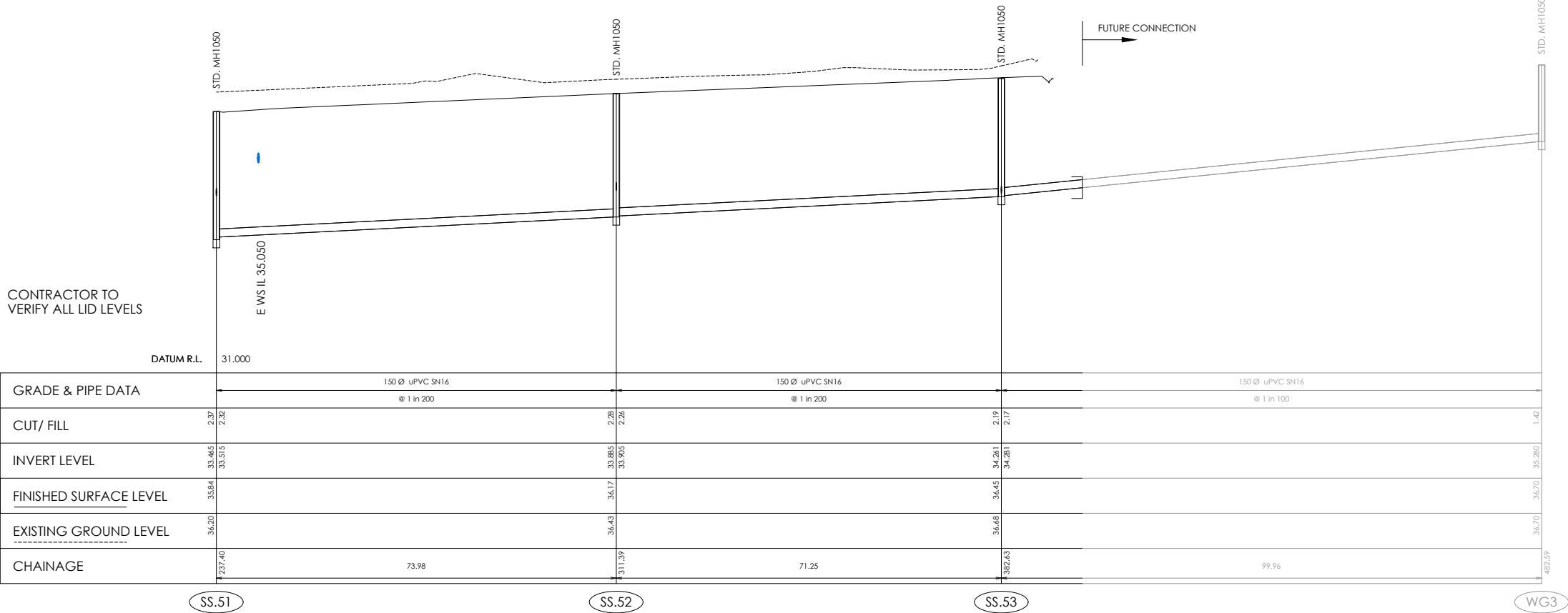
**SEWER LONGSECTION  
EX.SS.38 TO SS.51**

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1:1000 Horiz @A3  
1:100 Vert @A3



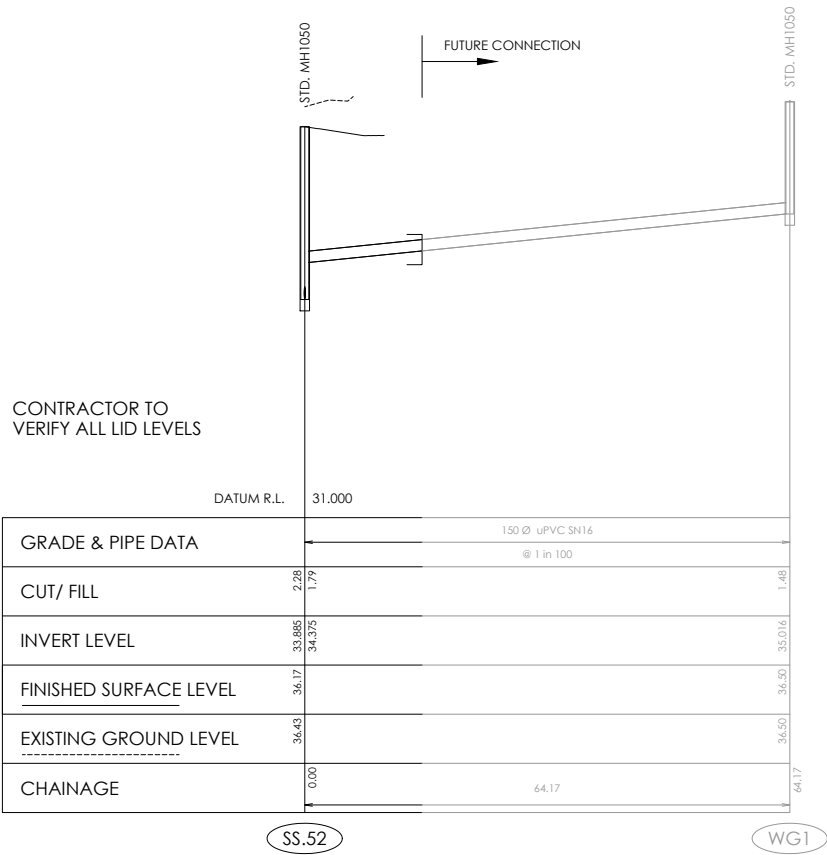
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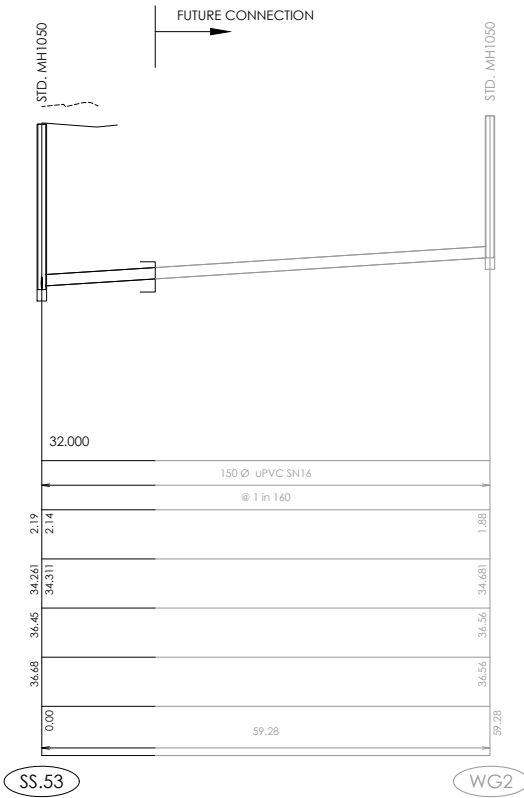
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1:100 Vert @A3



SEWER LONGSECTION  
SS.52 TO WG1

Scale 1:500 Horiz @A1  
1:50 Vert @A1  
1:1000 Horiz @A3  
1:100 Vert @A3



SEWER LONGSECTION  
SS.53 TO WG2

Scale 1:500 Horiz @A1  
1:50 Vert @A1  
1:1000 Horiz @A3  
1:100 Vert @A3

| AMENDMENTS : |          |                           |
|--------------|----------|---------------------------|
| AMENDMENT    | DATE     | DESCRIPTION               |
| R1           | 14/01/26 | SEWER LONGSECTION UPDATED |

- NOTES :
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  - ORIGIN OF LEVELS**  
ORIGIN MARK 8882 (UG 32)  
RL=55.908m  
CHK EJBW (CC 370 NO 2)  
RL=58.154m  
  
LEVELS ARE IN TERMS OF LYTTTELTON VERTICAL DATUM 1937.
  - EXISTING SERVICES HAVE BEEN DIGITISED FROM SERVICE AUTHORITY PLANS; COMPLETENESS AND ACCURACY ARE NOT GUARANTEED. ALL SERVICES TO BE FULLY SEARCHED AND PILOTED PRIOR TO TRENCHING.
  - ELECTRICITY & TELECOM SERVICES NOT SHOWN. REFER TO ELECTRICAL & COMMUNICATION PLANS FOR DUCT LOCATIONS.
  - TRENCHING AND INSTALLATION OF POWER AND TELECOM SERVICES TO BE PROVIDED IN ACCORDANCE WITH SERVICE PROVIDERS PLANS AND SPECIFICATIONS.
  - REFER TO LONGSECTIONS FOR ALL SEWER & STORMWATER LEVELS.
  - NOMINATED PIPE SIZES ARE INTERNAL DIAMETER UNLESS NOTED OTHERWISE.
  - ALL UPVC PIPES (WHETHER SEWER OR STORMWATER) SHALL CONFORM TO AS NZS 1260:1999 AND SHALL HAVE THE FOLLOWING STIFFNESS NUMBERS AS SET OUT IN THE STANDARD: DN 100 AND 150...SN16; DN225 AND LARGER ... SN8.
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  - RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.
  - BEDDING TO BE AS PER SD344 UNLESS OTHERWISE SPECIFIED.
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  - MANHOLE CONNECTIONS SHALL BE STARTERS & SHORTS AND SHORTS & FINISHERS.
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  - LADDERS ARE REQUIRED FOR SEWER MANHOLES DEEPER THAN 1.2m MEASURED FROM THE TOP OF BENCHING TO FINISHED LEVEL.
  - CONTRACTOR TO VERIFY ALL EXISTING INVERTS AND LID LEVELS ON SITE.

|             | NAME       | SIGNED     | DATE |
|-------------|------------|------------|------|
| DESIGNED BY | JALAY SHAH | JALAY SHAH |      |
| CHECKED BY  | BEN FOX    | BEN FOX    |      |



**DAVIE LOVELL-SMITH**  
PLANNING SURVEYING ENGINEERING

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Telephone: 03 379-0793 Website: www.dls.co.nz E-mail: office@dls.co.nz

JOB TITLE:

**Broadfield Grange  
Stage 13**

SHEET TITLE:

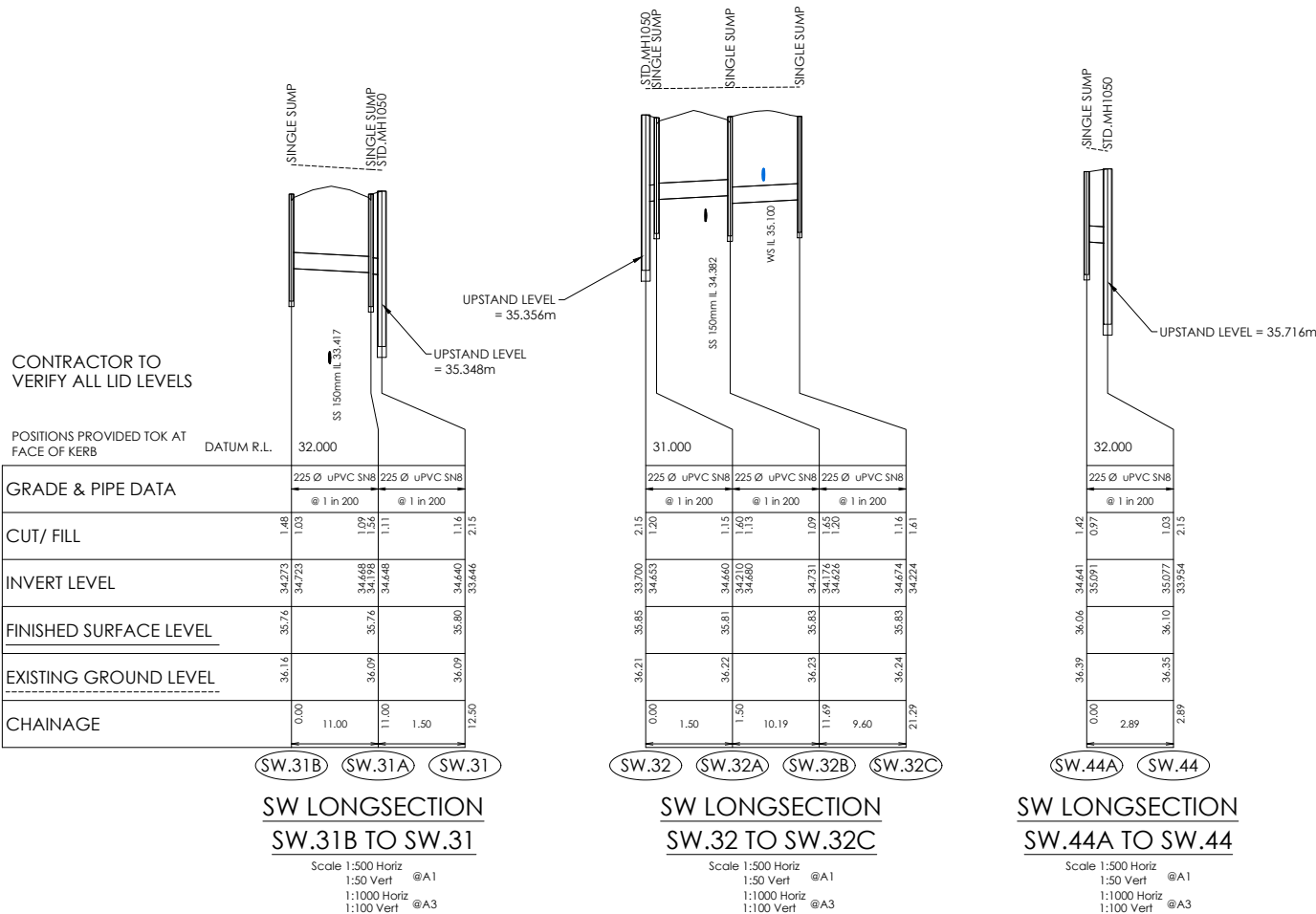
**Sewer Longsections  
RC245458**

DRAWING STATUS

**For Engineering Approval**

SCALE : As Shown DATE : January 2026

|                                                                      |                        |
|----------------------------------------------------------------------|------------------------|
| CAD FILE : P:\21489\Eng\Drawings\STAGE 13\E21489_E04.2 STG 13_R1.dwg | DRAWN : JS             |
| DRAWING No : <b>E.21489</b>                                          | SHEET No: <b>E04.3</b> |
|                                                                      | REVISION : <b>R1</b>   |



- AMENDMENTS:
- | AMENDMENT | DATE     | DESCRIPTION           |
|-----------|----------|-----------------------|
| R1        | 14/01/26 | NO CHANGES THIS SHEET |
- NOTES:
- ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.
  - ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
  - ORIGIN OF LEVELS**  
ORIGIN MARK 8882 (UG 32)  
RL=55.908m  
CHK EJBW (CC 370 NO 2)  
RL=58.154m  
  
LEVELS ARE IN TERMS OF LYTTELTON VERTICAL DATUM 1937.
  - EXISTING SERVICES HAVE BEEN DIGITISED FROM SERVICE AUTHORITY PLANS; COMPLETENESS AND ACCURACY ARE NOT GUARANTEED. ALL SERVICES TO BE FULLY SEARCHED AND PILOTED PRIOR TO TRENCHING.
  - ELECTRICITY & TELECOM SERVICES NOT SHOWN. REFER TO ELECTRICAL & COMMUNICATION PLANS FOR DUCT LOCATIONS.
  - TRENCHING AND INSTALLATION OF POWER AND TELECOM SERVICES TO BE PROVIDED IN ACCORDANCE WITH SERVICE PROVIDERS PLANS AND SPECIFICATIONS.
  - REFER TO LONGSECTIONS FOR ALL SEWER & STORMWATER LEVELS.
  - NOMINATED PIPE SIZES ARE INTERNAL DIAMETER UNLESS NOTED OTHERWISE.
  - ALL UPVC PIPES (WHETHER SEWER OR STORMWATER) SHALL CONFORM TO AS NZS 1260:1999 AND SHALL HAVE THE FOLLOWING STIFFNESS NUMBERS AS SET OUT IN THE STANDARD: DN 100 AND 150...SN16; DN225 AND LARGER ... SN8.
  - ALL SEWER AND STORMWATER LATERALS TO BE LAID AT 1:60 MINIMUM GRADE AND LAID TO 1.0m WITHIN LOTS.
  - RAMPED RISERS ARE TO BE USED FOR LATERALS TO ENSURE A MAXIMUM DEPTH OF 1.5m COVER AT THE LOT BOUNDARY.
  - BEDDING TO BE AS PER SD344 UNLESS OTHERWISE SPECIFIED.
  - CONCRETE CAPPING TO SD342 WHERE LESS THAN 750MM COVER TO SEWER WITHIN ROAD CARRIAGEWAY.
  - MANHOLE CONNECTIONS SHALL BE STARTERS & SHORTS AND SHORTS & FINISHERS.
  - CORBELS TO BE CONSTRUCTED TO SDC STANDARD INCLUDING CHEMSET.
  - LADDERS ARE REQUIRED FOR SEWER MANHOLES DEEPER THAN 1.2m MEASURED FROM THE TOP OF BENCHING TO FINISHED LEVEL.
  - CONTRACTOR TO VERIFY ALL EXISTING INVERTS AND LID LEVELS ON SITE.

|             |            |            |      |
|-------------|------------|------------|------|
|             | NAME       | SIGNED     | DATE |
| DESIGNED BY | JALAY SHAH | JALAY SHAH |      |
| CHECKED BY  | BEN FOX    | BEN FOX    |      |



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JOB TITLE:

**Broadfield Grange  
Stage 13**

SHEET TITLE:

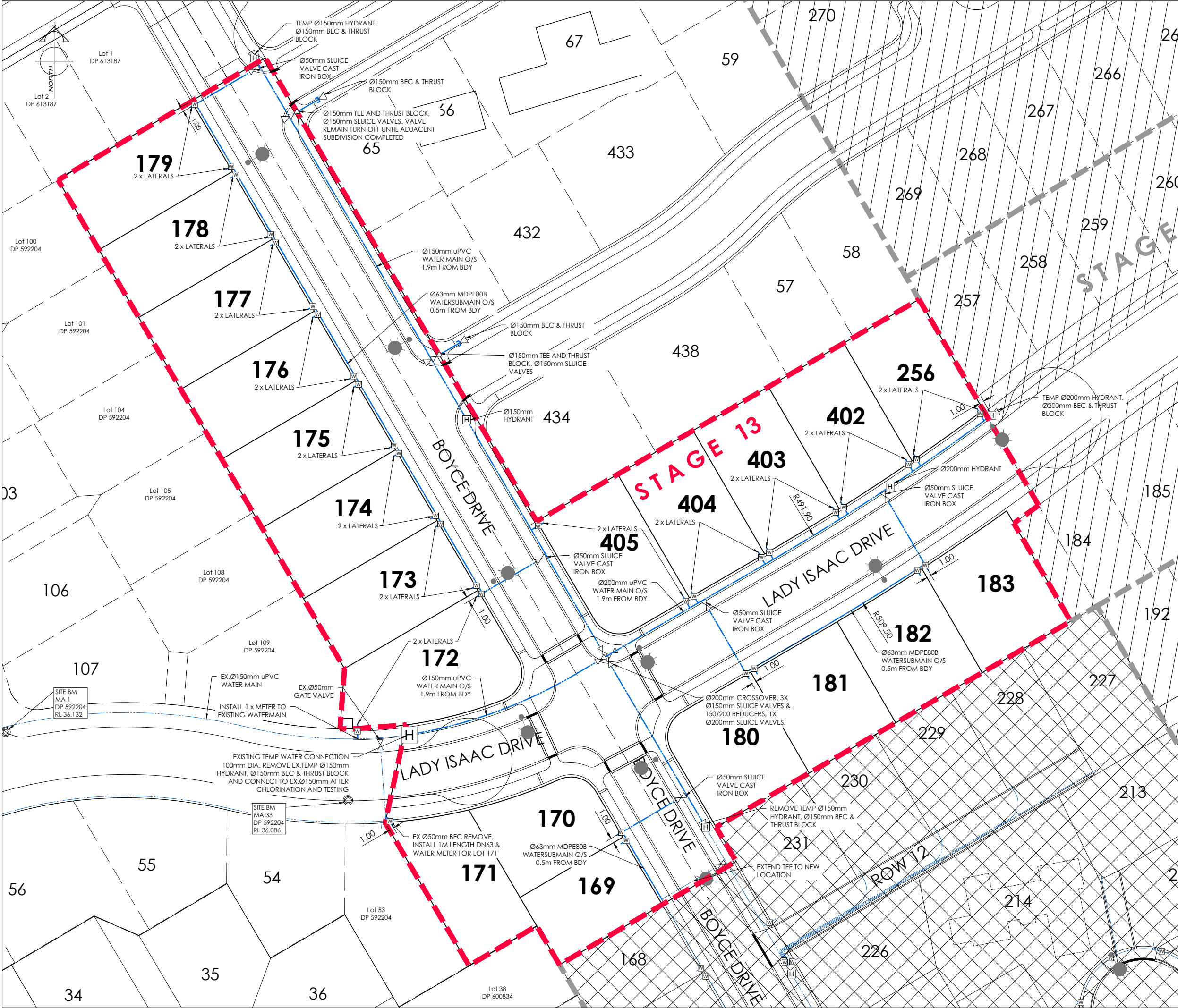
**Stormwater Longsections  
RC245458**

DRAWING STATUS

**For Engineering Approval**

SCALE : As Shown DATE : January 2026

|                                                                      |                        |
|----------------------------------------------------------------------|------------------------|
| CAD FILE : J:\21489\Eng\Drawings\STAGE 13\E21489_E04.2 STG 13_R1.dwg | DRAWN : JS             |
| DRAWING No : <b>E.21489</b>                                          | SHEET No: <b>E04.4</b> |
|                                                                      | REVISION : <b>R1</b>   |



AMENDMENTS:

| AMENDMENT | DATE     | DESCRIPTION           |
|-----------|----------|-----------------------|
| R1        | 14/01/26 | NO CHANGES THIS SHEET |

NOTES:

1.

ALL WORKS IN ACCORDANCE WITH SDC CODE OF PRACTICE PARTS 1-11 STANDARDS, IF STANDARDS ARE UNSPECIFIED REFER TO CCC CSS PARTS 1-7.

2.

ALL PLANS ARE TO BE READ AND DISTRIBUTED AS A COMPLETE SET. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.

3.

TRENCHING AND INSTALLATION OF POWER AND TELECOM SERVICES TO BE PROVIDED IN ACCORDANCE WITH SERVICE PROVIDERS PLANS AND SPECIFICATIONS.

4.

ALL SERVICES TO BE FULLY SEARCHED AND PILOTTED PRIOR TO TRENCHING.

5.

ALL WATER PIPES TO BE PE PN12.5 AND ALL FITTINGS TO BE PN16.

6.

WATERMANS AND SUBMANS TO BE INSTALLED AT THE OFFSET STATED ON THE PLAN AND AGREED WITH ENGINEER.

7.

WATERMANS TO HAVE A MINIMUM COVER OF 0.75m IN ROADS AND 0.6m IN BERM.

8.

CONTRACTOR TO INSTALL WATER MAIN TO ENSURE NO CLASHES WITH OTHER SERVICES. TO BE INSTALLED IN ACCORDANCE WITH THE IDS 7.9.5.

9.

THRUST BLOCK AS PER WSD-004, 1m² DN300 TEE, 0.5m² DN200 TEE & 0.25m² DN150 TEE.

10.

ALL SUBMAIN CONNECTIONS TO MAIN PIPES TO BE BY TAPPING BAND OR HYDRANT CROSSOVER

LEGEND:

EXISTING SERVICES

WATER

FH VALVE

KERB

CUT DOWN

PROPOSED SERVICES

WATER

FH VALVE METER

KERB

CUT DOWN

| NAME                    | SIGNED     | DATE |
|-------------------------|------------|------|
| DESIGNED BY: JALAY SHAH | JALAY SHAH |      |
| CHECKED BY: BEN FOX     | BEN FOX    |      |

DAVIE LOVELL-SMITH

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JOB TITLE:

Broadfield Grange Stage 13

SHEET TITLE:

Water Plan RC245458

DRAWING STATUS:

For Engineering Approval

SCALE: 1:375@A1 1:750@A3

DATE: January 2026

CAD FILE: J:\21489\Eng\Drawings\STAGE 13\21489\_E01.0 STG 13\_R1.dwg

DRAWING No: E.21489

SHEET No: E05.0

REVISION: R1

DRAWN: JS