



this is
Redcar & Cleveland



Cowbar Lane Realignment Phase 1 – Detail Design

Public Meeting – 15/07/2026

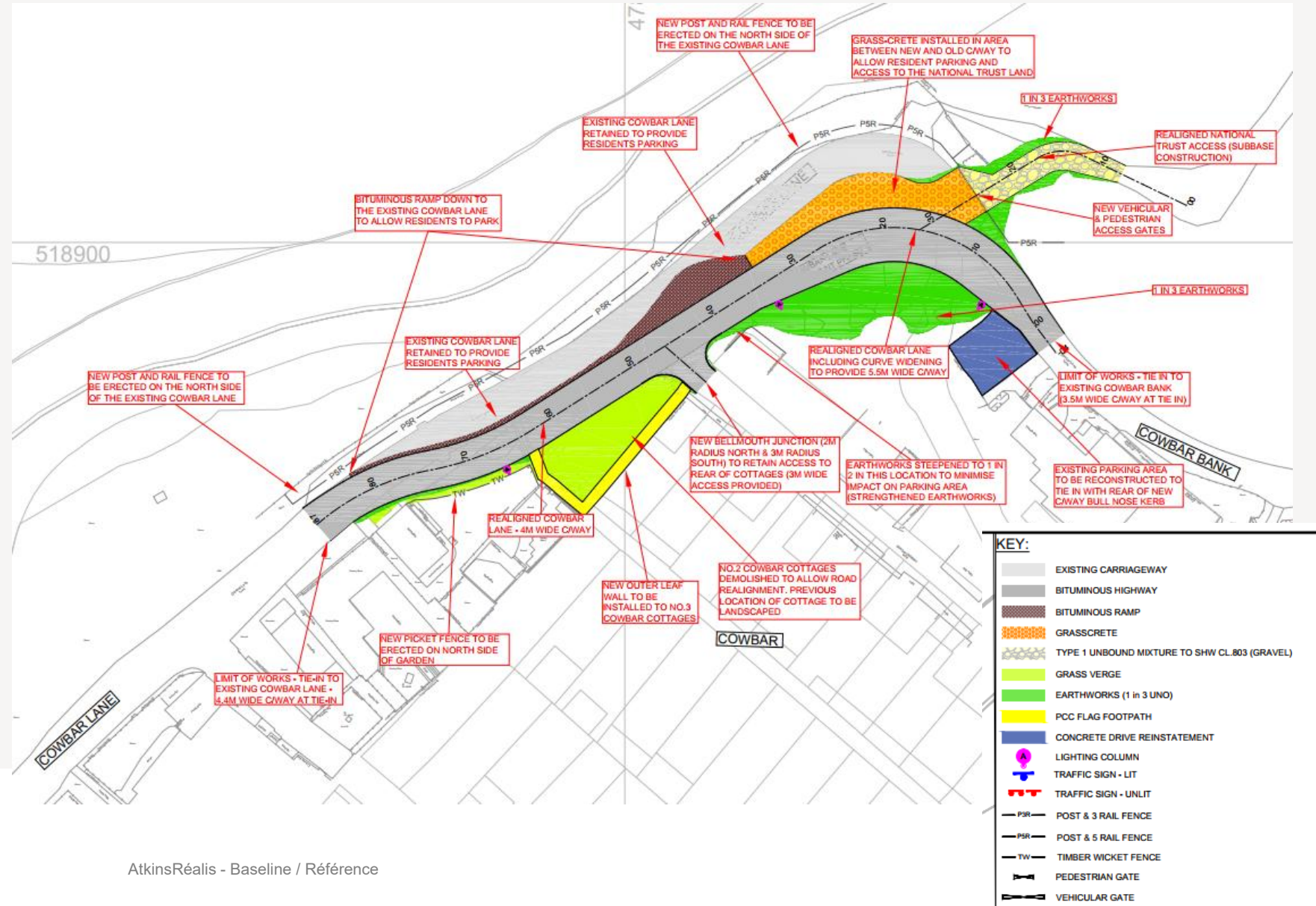
Introduction

- AtkinsRéalis appointed Design Consultant by RCBC in August 2025
 - › AtkinsRéalis are an international multi disciplinary Design Consultant
 - › Various offices in the North East including Stockton & Newcastle
- Design Lead - David Shea
 - › Chartered Civil Engineer with over 25 years experience in the construction industry
 - › Undertaken the role of design lead on various highway schemes for both National Highways and Local Authorities. Most recently being involved with a number of new highway projects on Teesworks
 - › Supported by specialist design leads in drainage, geotechnics, pavement, building & street lighting.



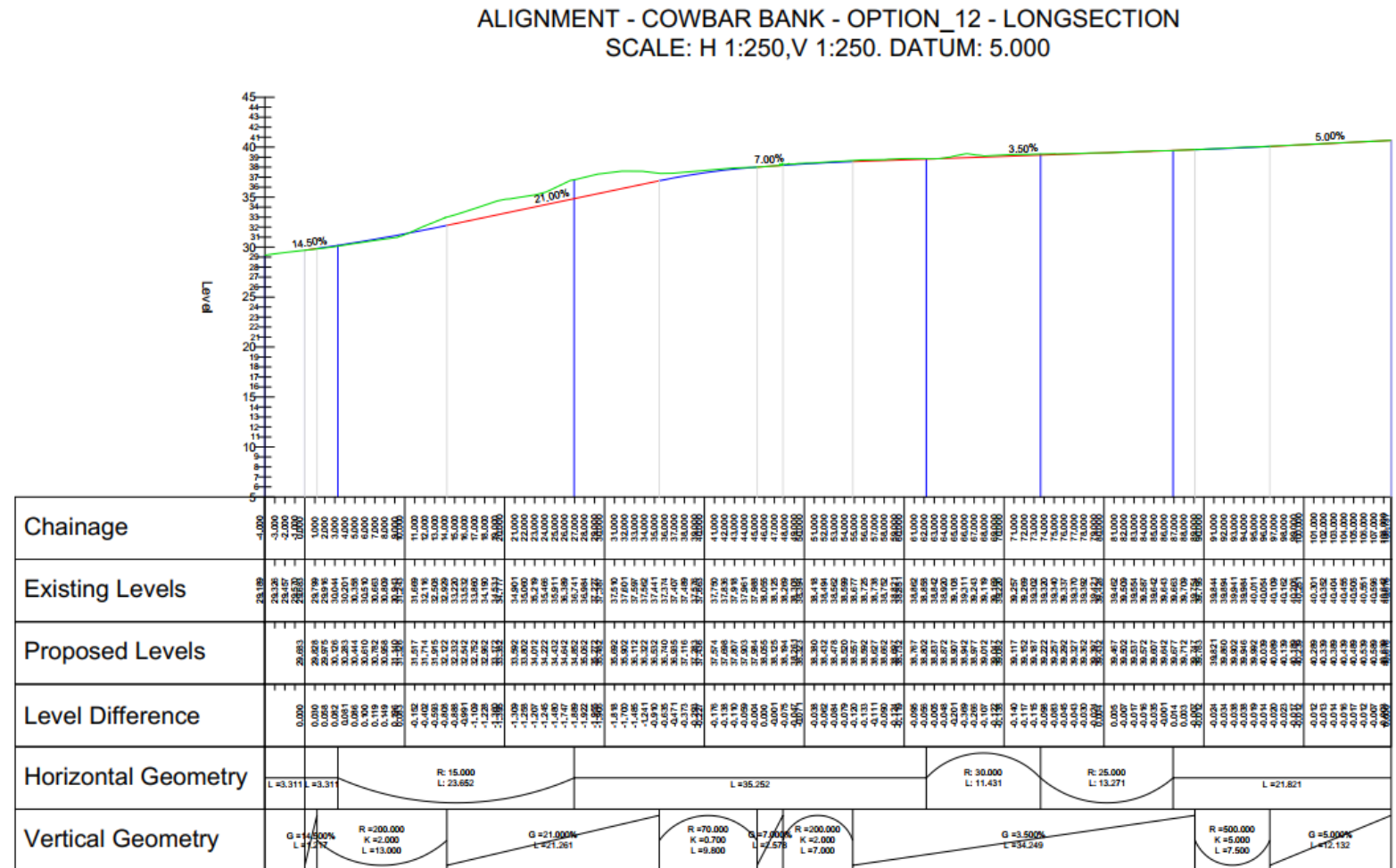
Detail Design – General Arrangement

- › Phase 1 road realignment is approx. 90m in length
- › Requires demolition of No.2 Cowbar Cottages
- › Realigns the National Trust Access to Cowbar Nab
- › Will include new c/way construction, new highway drainage, street lighting etc
- › 4m wide c/way adopted generally similar to the existing road
- › However, c/way widened to 5.5m on Cowbar Bank to improve visibility and allow vehicles to pass



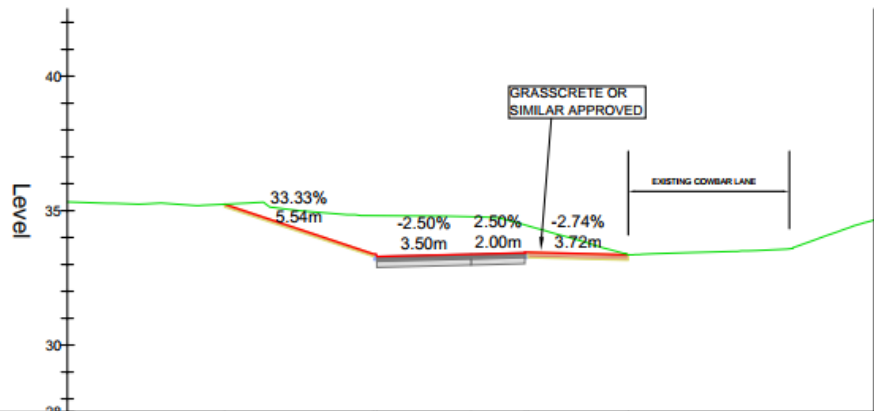
Detail Design – Highway Alignment

- › Gradient on Cowbar Bank is 21% (similar to existing)
- › Given the site constraints, very little could be done to reduce or improve this



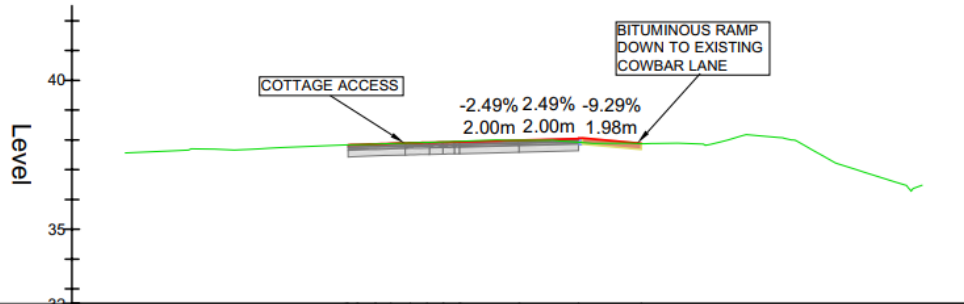
Detail Design – Highway Alignment

- › C/way provided with constant 2.5% crossfall to southern kerbline
- › 1 in 3 earthworks generally



Proposed Levels		35.240		33.394		33.382		33.354
Offsets		-9.164		-3.625		0.000		-5.844
Existing Levels		35.240		34.814		34.777		33.354
Level Difference		0.000		-1.420		-1.042		-0.982

Chainage 20.000



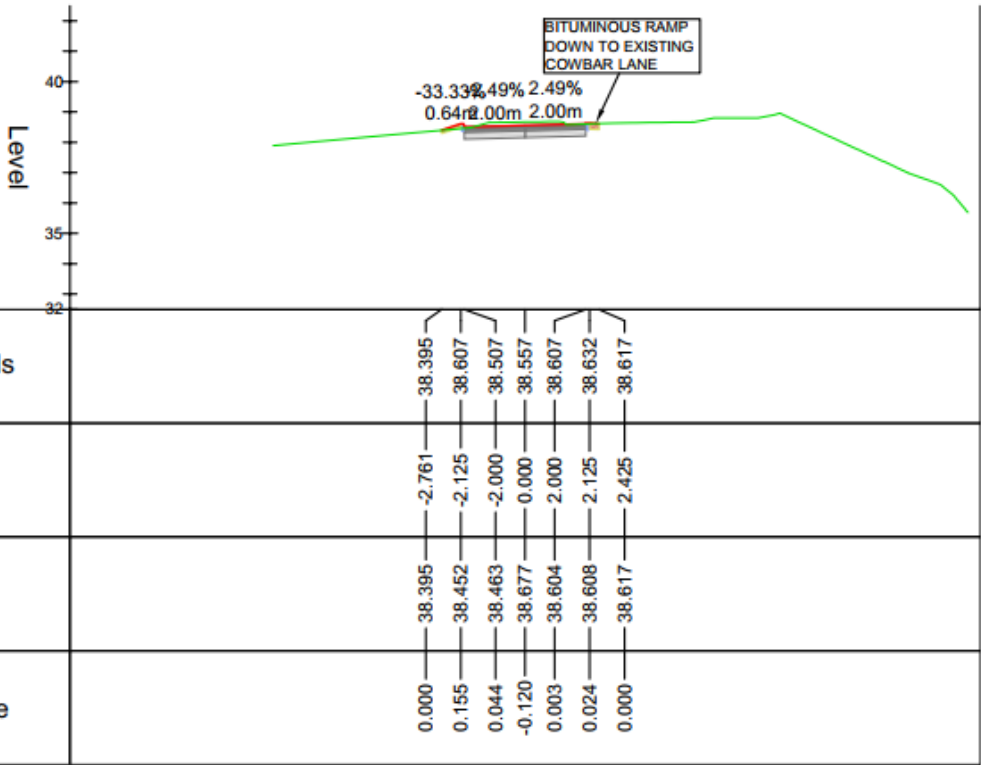
Proposed Levels		37.826		37.838		37.862		37.880		37.896		37.909		37.921		37.934		37.984		38.034		37.875
Offsets		-5.735		-5.394		-4.798		-4.291		-3.651		-3.082		-2.549		-2.000		0.000		2.000		4.103
Existing Levels		37.829		37.840		37.859		37.875		37.895		37.913		37.930		37.952		37.988		37.921		37.875
Level Difference		-0.002		-0.002		0.003		0.005		0.001		-0.004		-0.010		-0.018		-0.004		0.113		0.000

Chainage 45.000

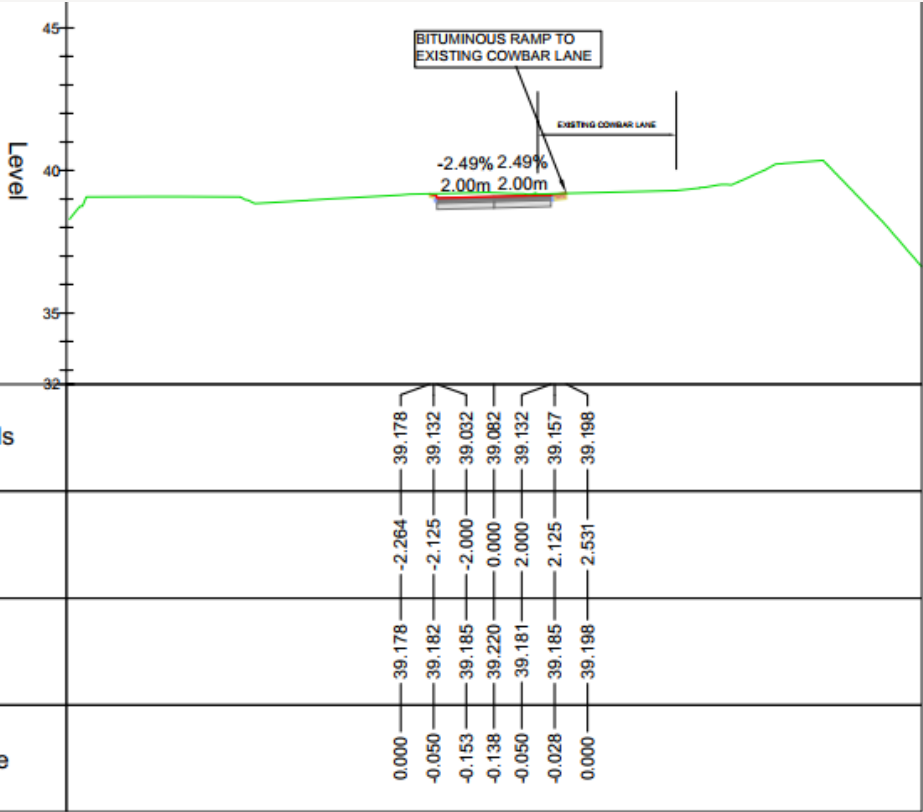


Detail Design – Highway Alignment

- › Parking on old carriageway possible via 25mm upstand BN kerb on north side of new road & a surfaced ramp



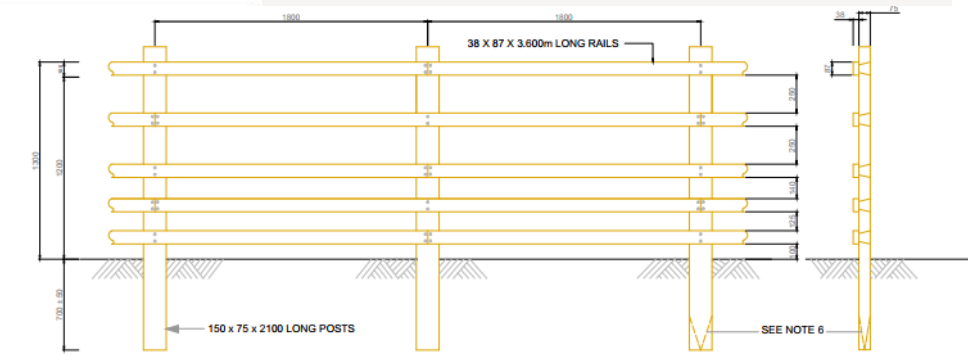
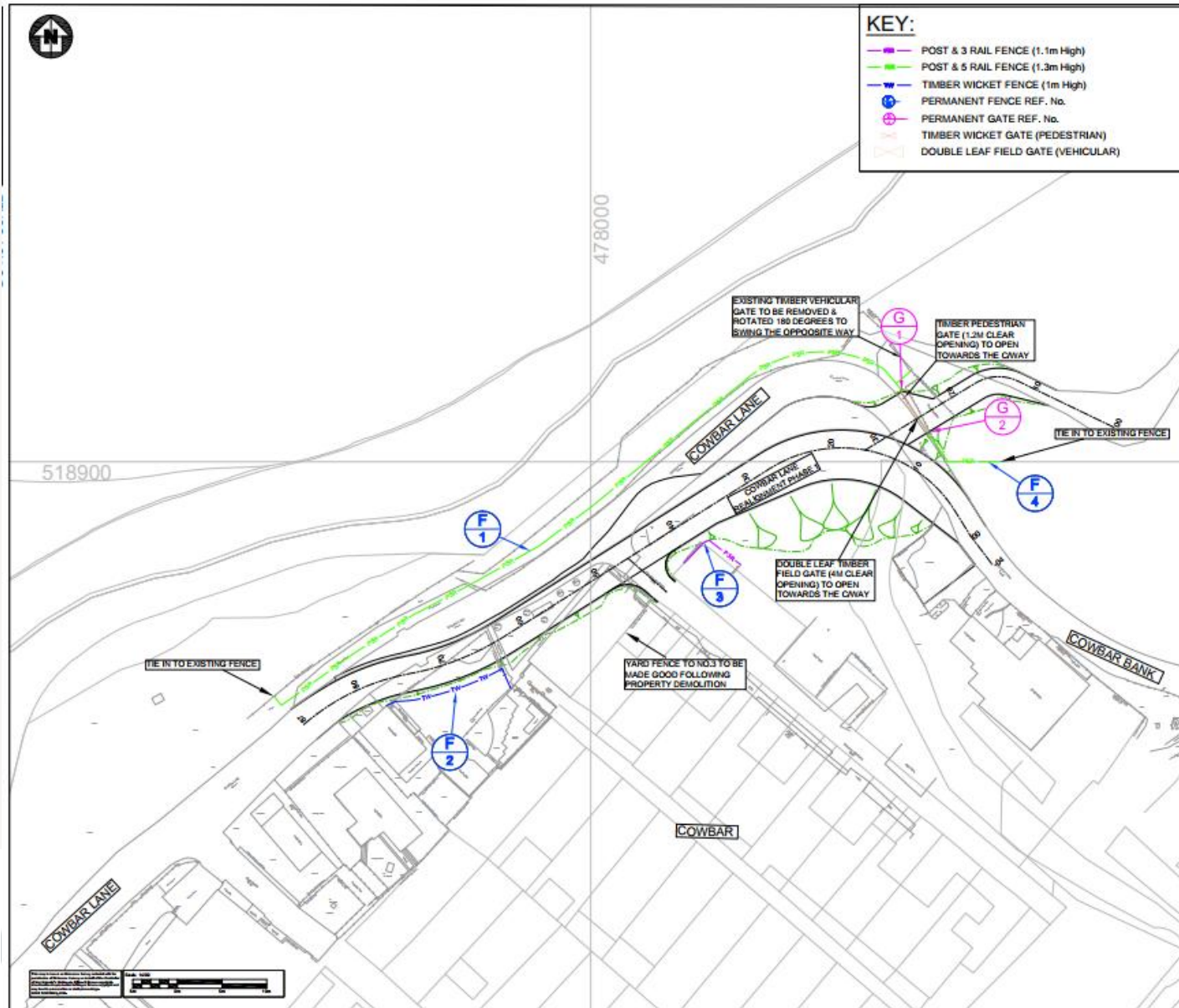
Chainage 55.000



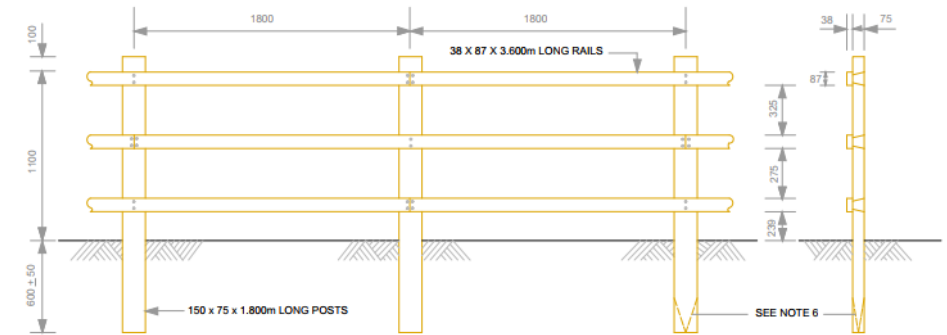
Chainage 70.000



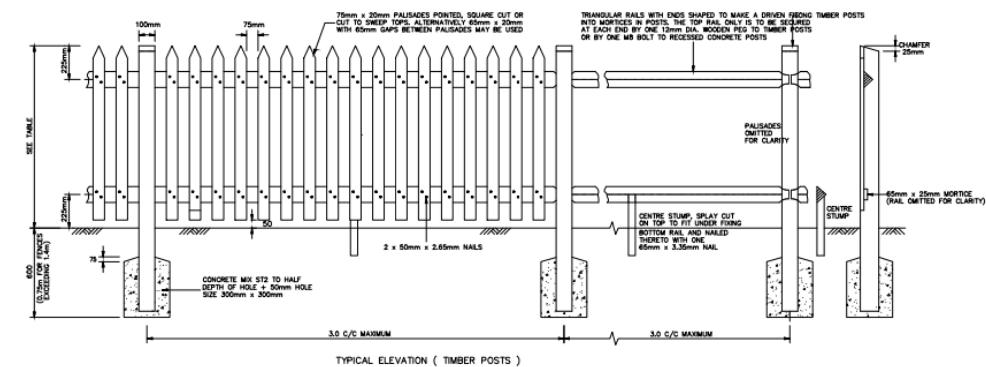
Detail Design - Fencing



TIMBER POST & 5-RAIL FENCE (HCD H3)



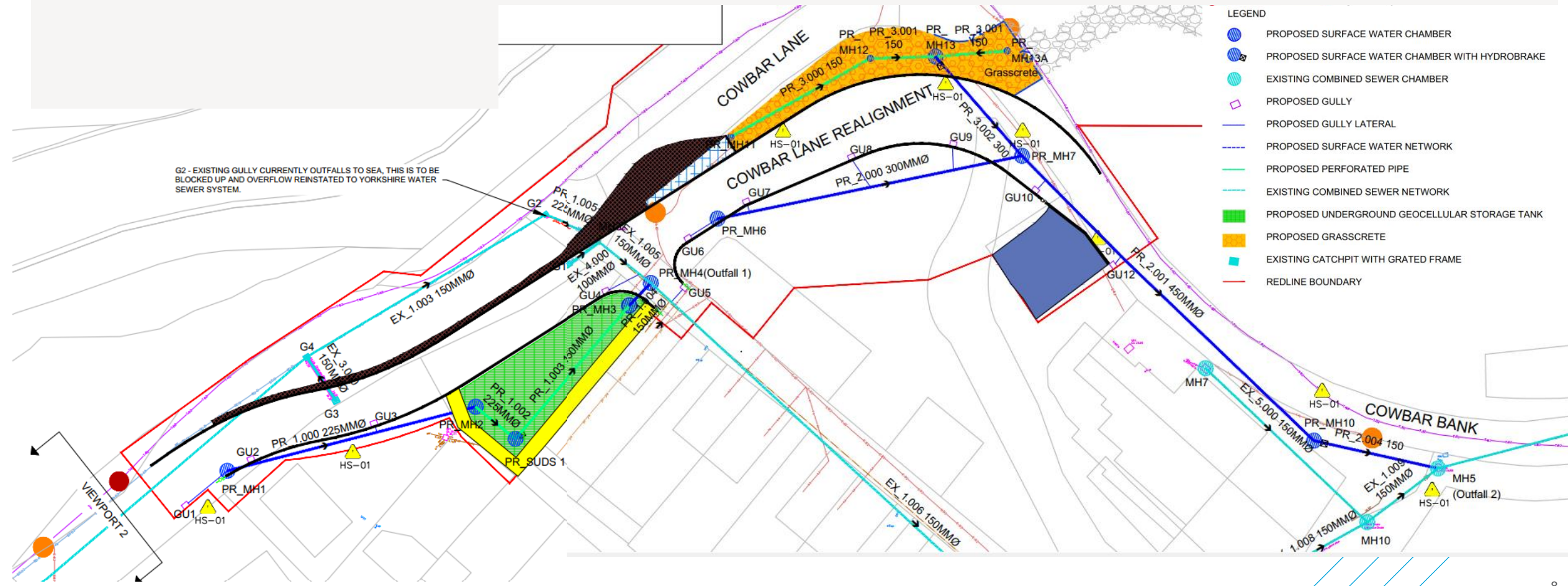
TIMBER POST & 3-RAIL FENCE (HCD H15)



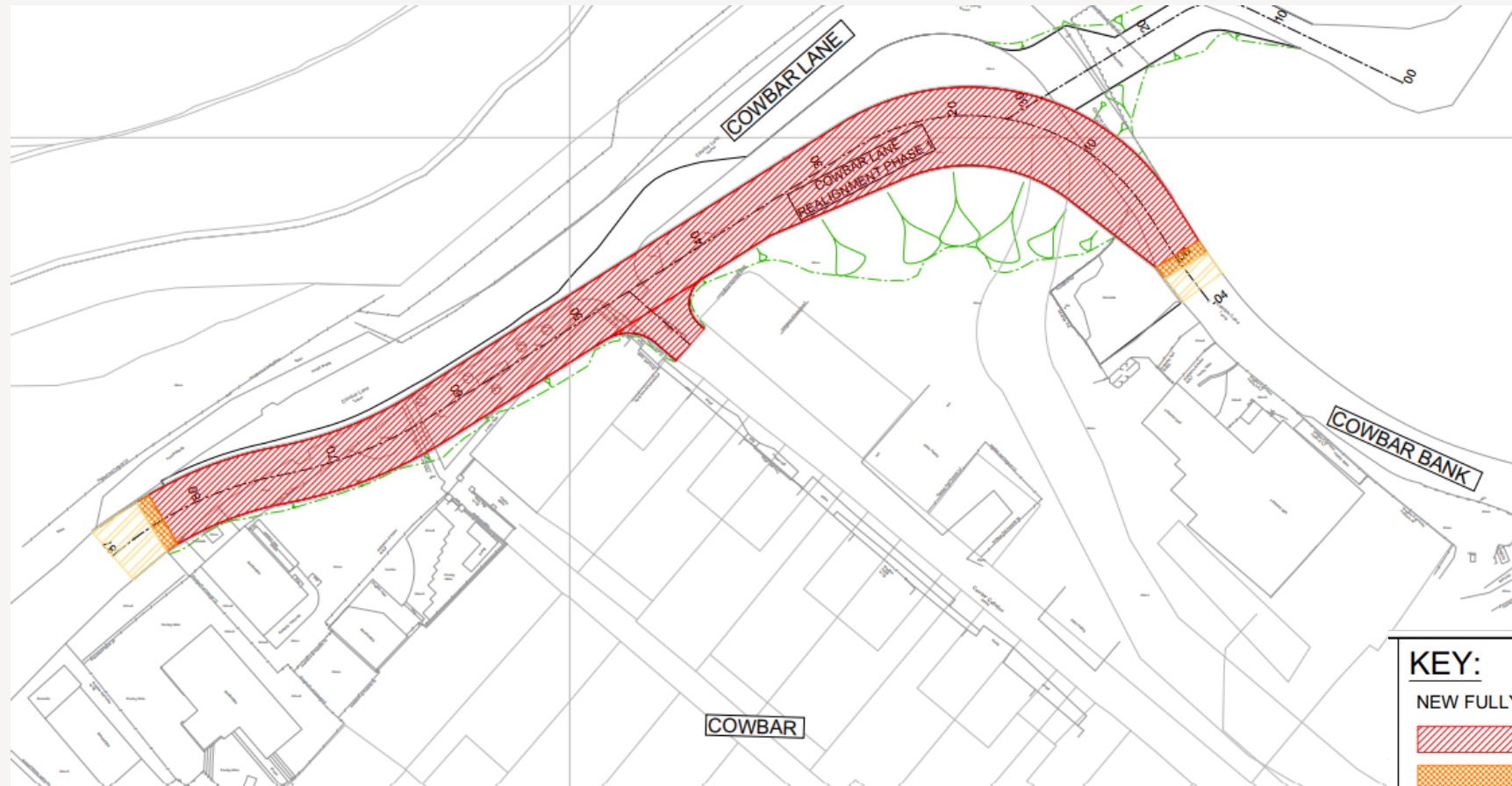
Detail Design - Drainage

- › New positive surface water drainage system proposed (kerbs & gullies)
- › Various new lengths of carrier drain & MH's proposed
- › 11No. New road gullies

- › 2No. Outfalls proposed to YW Combined Sewer
- › 2No. SUDS/storage areas for water attenuation
- › Existing outfall to the sea to be stopped up and overflow reinstated to YW sewer system



Detail Design - Pavement



KEY:

NEW FULLY FLEXIBLE CARRIAGEWAY PAVEMENT CONSTRUCTION (MAIN):

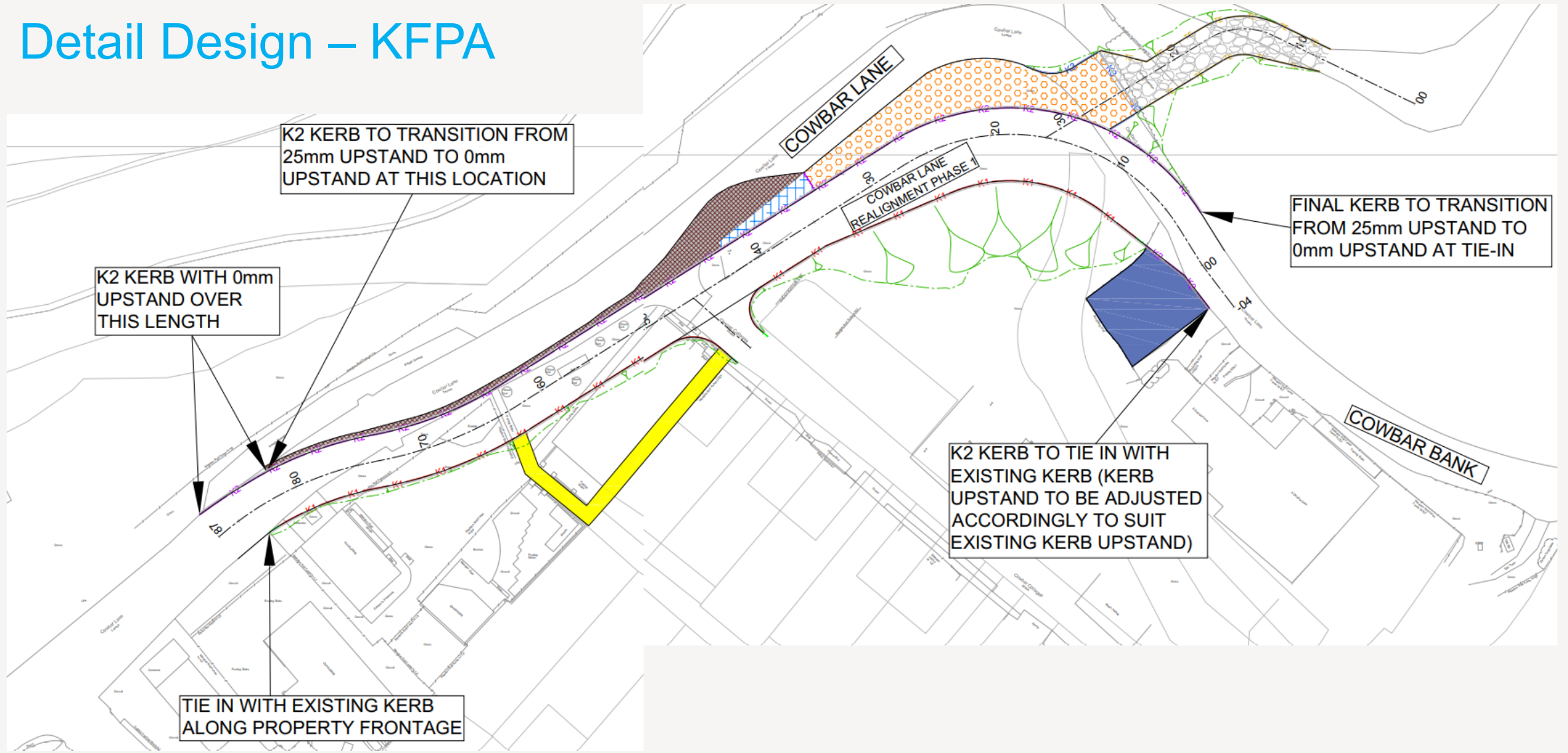
-  PAVEMENT OPTION FF1 - FULL DEPTH CONSTRUCTION
-  PAVEMENT OPTION FF1 - SURFACE & BINDER COURSES ONLY
-  PAVEMENT OPTION FF1 - SURFACE COURSE ONLY

PAVEMENT OPTIONS:

FF1 - NEW FULLY FLEXIBLE CARRIAGEWAY PAVEMENT CONSTRUCTION (MAIN)

- 30mm AC 10 close surf 70/10 (SHW Cl.912)
- 60mm AC 20 HDM BIN 40/60 "W" DES (SHW Cl.929)
- 120mm AC 32 HDM BASE 40/60 "W" DES (SHW Cl.929)
- 250mm Type 1 Subbase (SHW Cl. 803)
- 275mm Capping (based on >2%-5% CBR)

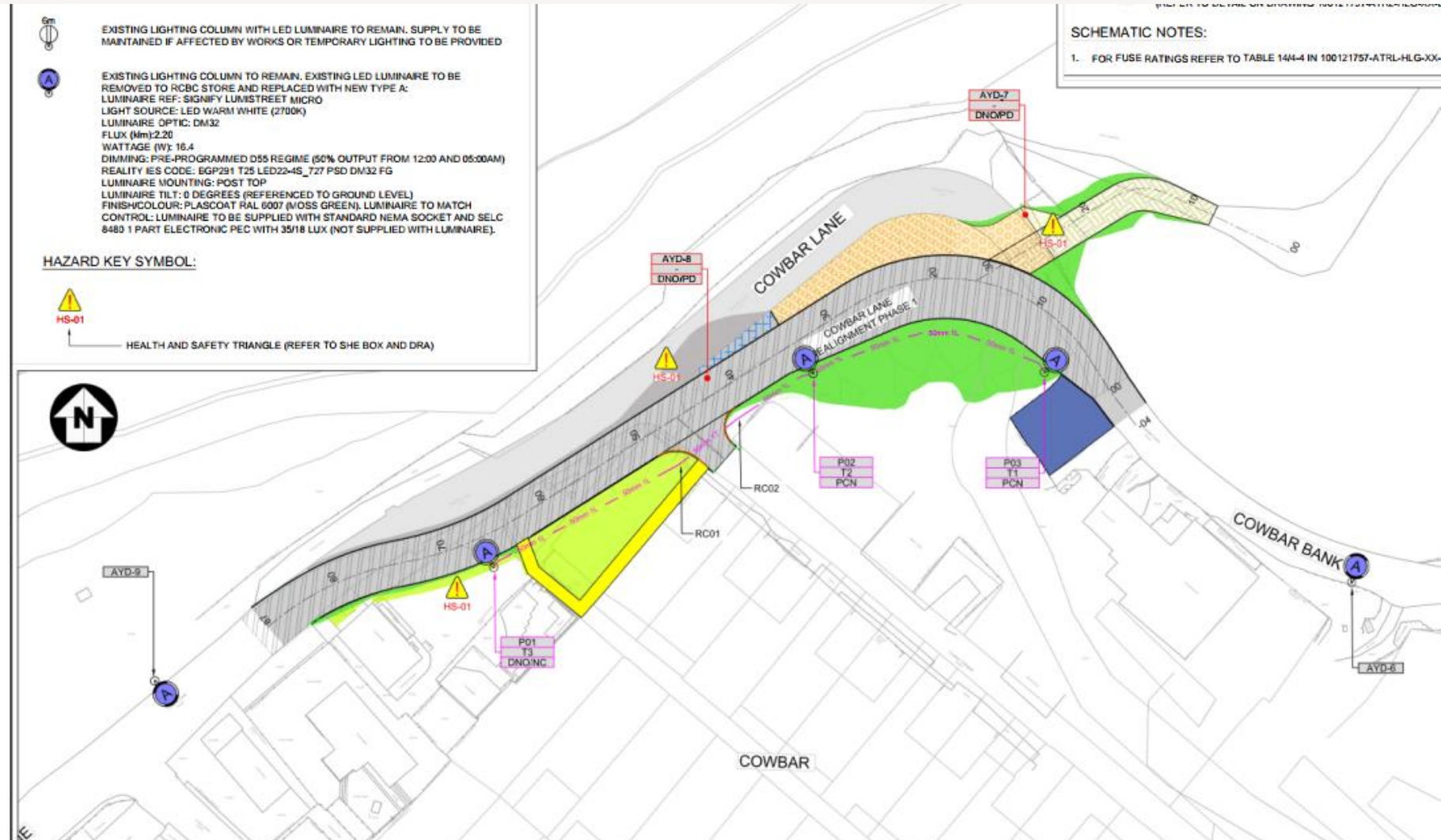
Detail Design – KFPA



Detail Design – Street Lighting

- Lighting Design developed in accordance with the North York Moors National Park Dark Skies Approach:

- › Maintain continuity & provide a consistent Level of Illumination
- › Proposed columns will match existing in colour & height
- › Lighting Design to Lighting Class P4 (residential cul-de-sac)
- › luminaires utilise a warm white colour temperature
- › reduce output to 50% between 00:00 and 05:00 when activity levels are lowest
- › proposed luminaires achieve a G4 glare rating and provide zero upward light



Detail Design – Traffic Signs & Road Markings

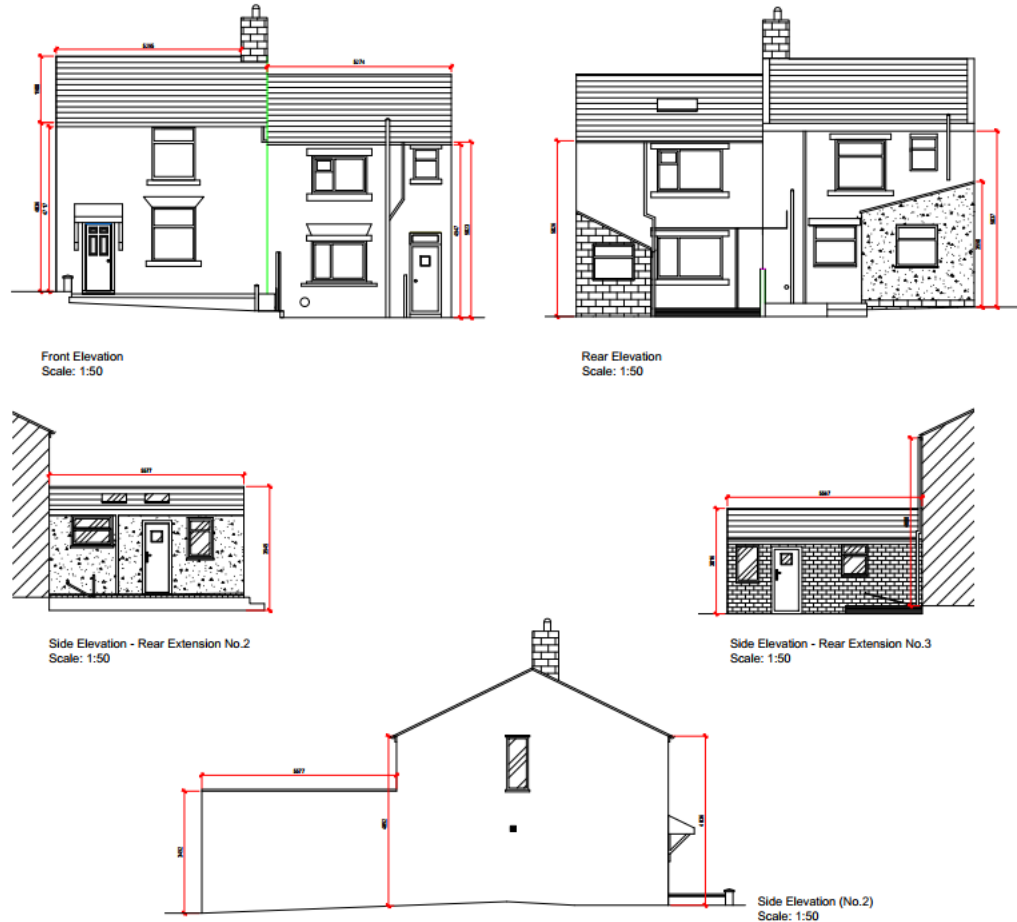
- New Lining & Signing will be minimal, however, the following measures are to be introduced:

- › New 20mph speed limit to be introduced at the car park entrance
- › Current 3tons weight limit that is in place to be signed at the car park entrance
- › Advance warning of the 3tons weight limit will also be placed at the junction with the A174
- › Existing signage will also be reviewed and removed as necessary to align with the new proposed signage and reduce street clutter

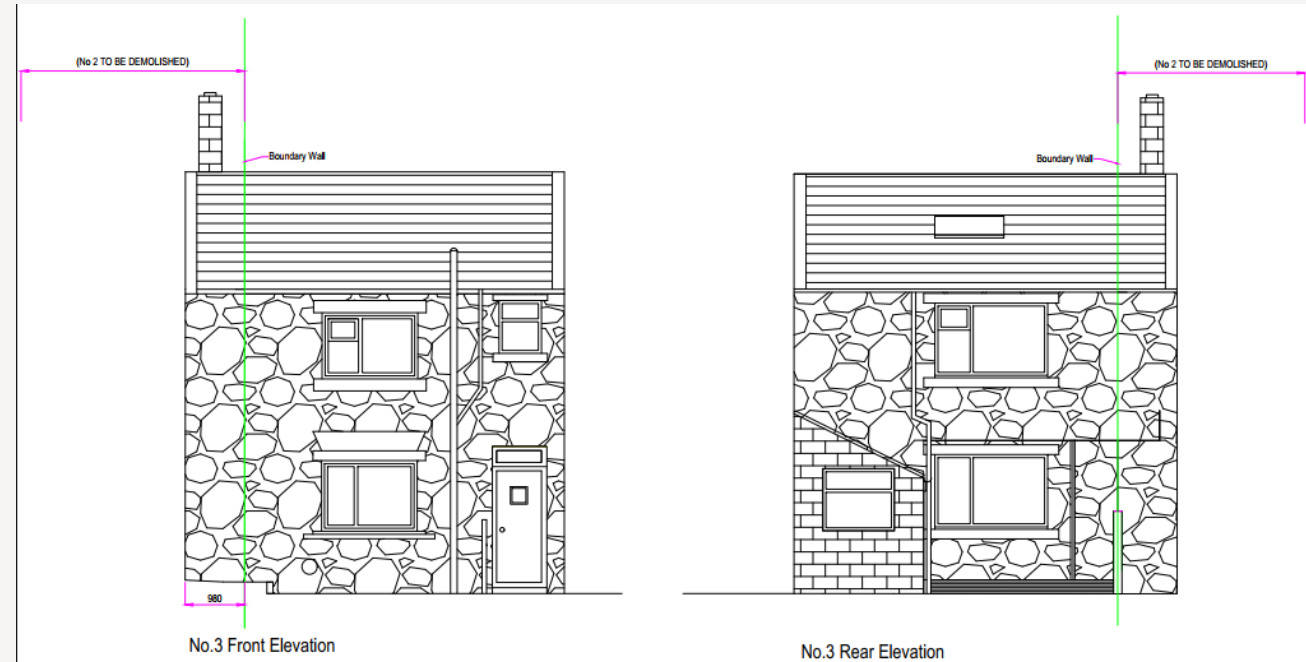


Detail Design – Buildings

Existing Elevations:

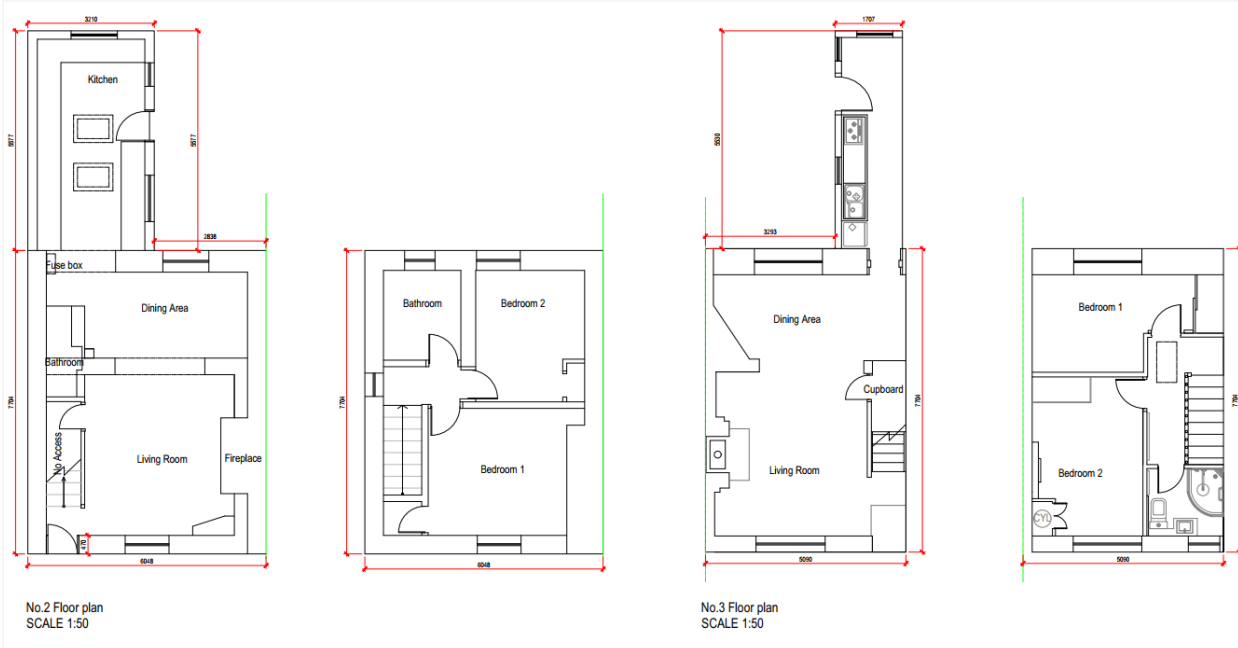


Proposed Elevations (No.2 Demolished):

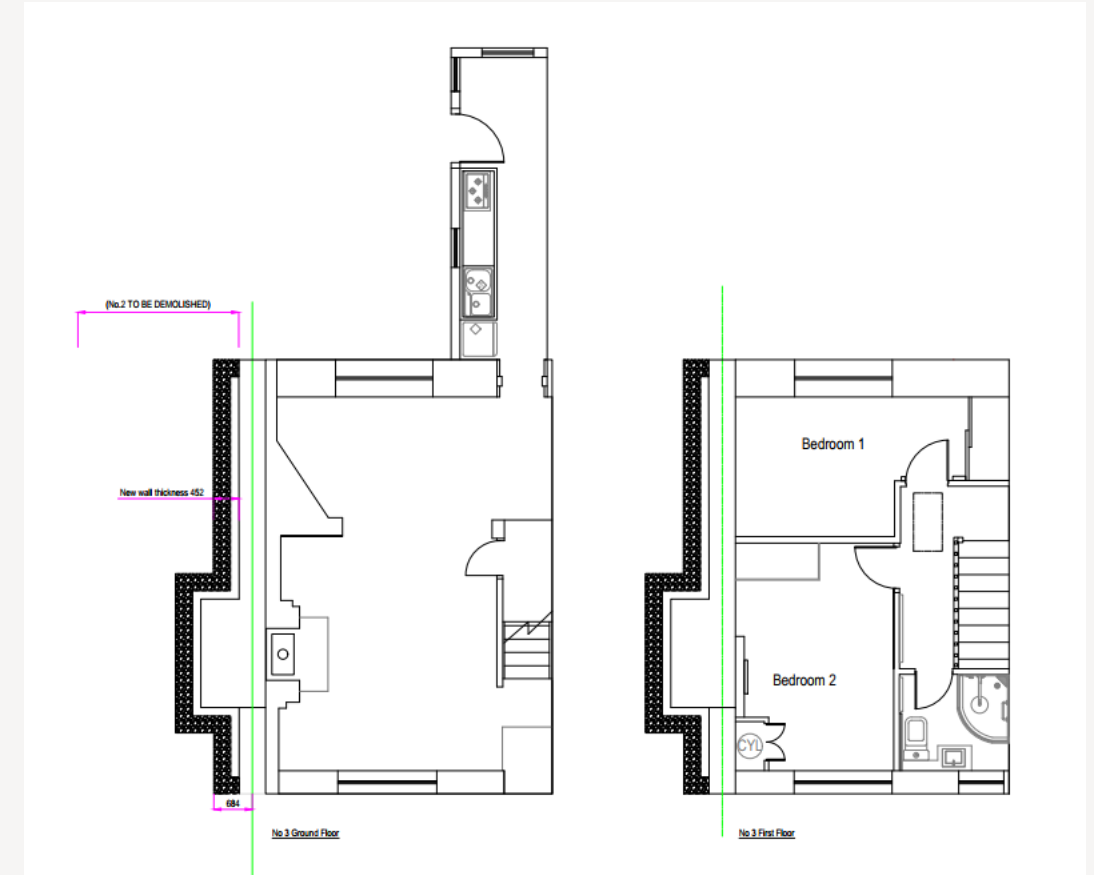


Detail Design – Buildings

Existing Floorplans:



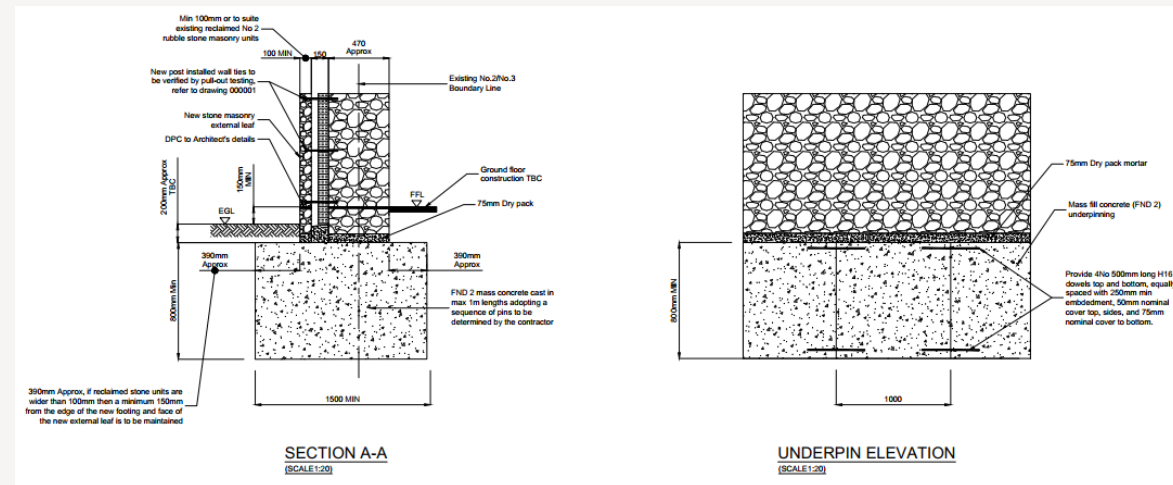
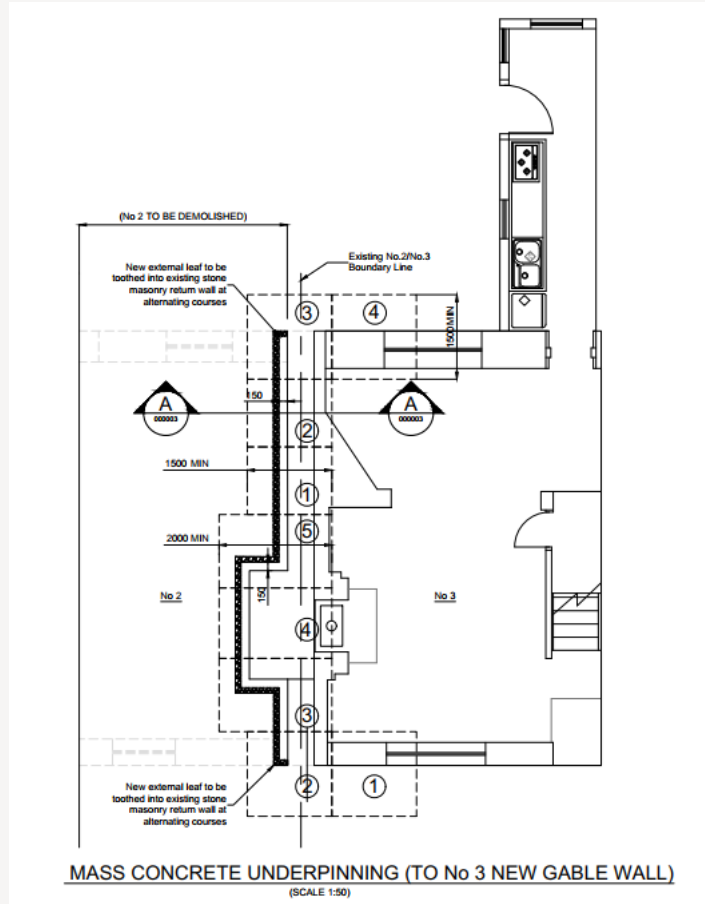
Proposed Floorplans (No.2 Demolished):



Detail Design – Buildings

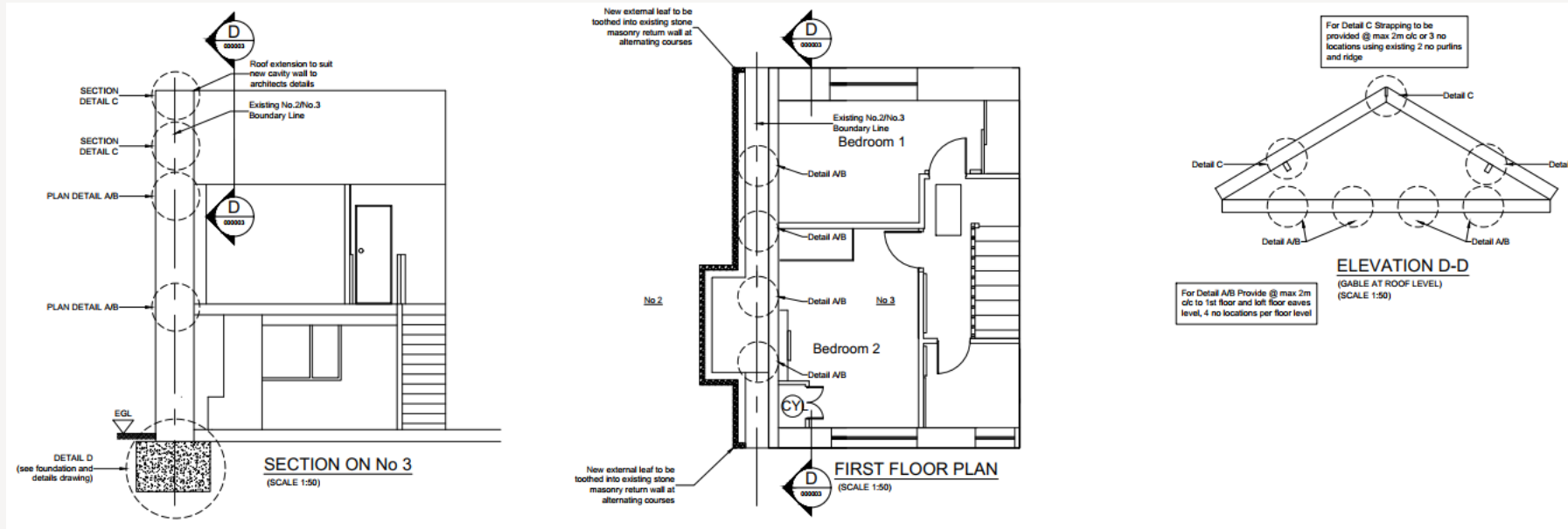
New Foundation Plan & Details:

- › A new external stone wall will be constructed using reclaimed stone from No.2 to form the new gable wall to No.3.
- › A new foundation will support both the existing building and the new stone wall.
- › An insulated cavity will be provided between the existing and new walls to improve thermal performance.
- › A new underpinning foundation will be constructed in carefully sequenced sections to maintain the stability of the building during the works. Typical underpin dimensions are expected to be 800mm deep and 1500mm wide, based on available ground investigation information. Final dimensions will be confirmed on site once the existing foundations and ground conditions have been exposed.



Detail Design – Buildings

New Gable Wall Tie-in Details:



- › The new stone masonry external leaf is to be carefully connected into existing stone masonry returns at alternating courses to match the character and construction of the original building.
- › New stainless steel wall ties will be used to connected the existing stone masonry wall to the new external stone masonry leaf.
- › Additional structural ties will connect the wall to the existing floors and roof to provide stability and resistance to wind loading.



Detail Design – Statutory Undertakers

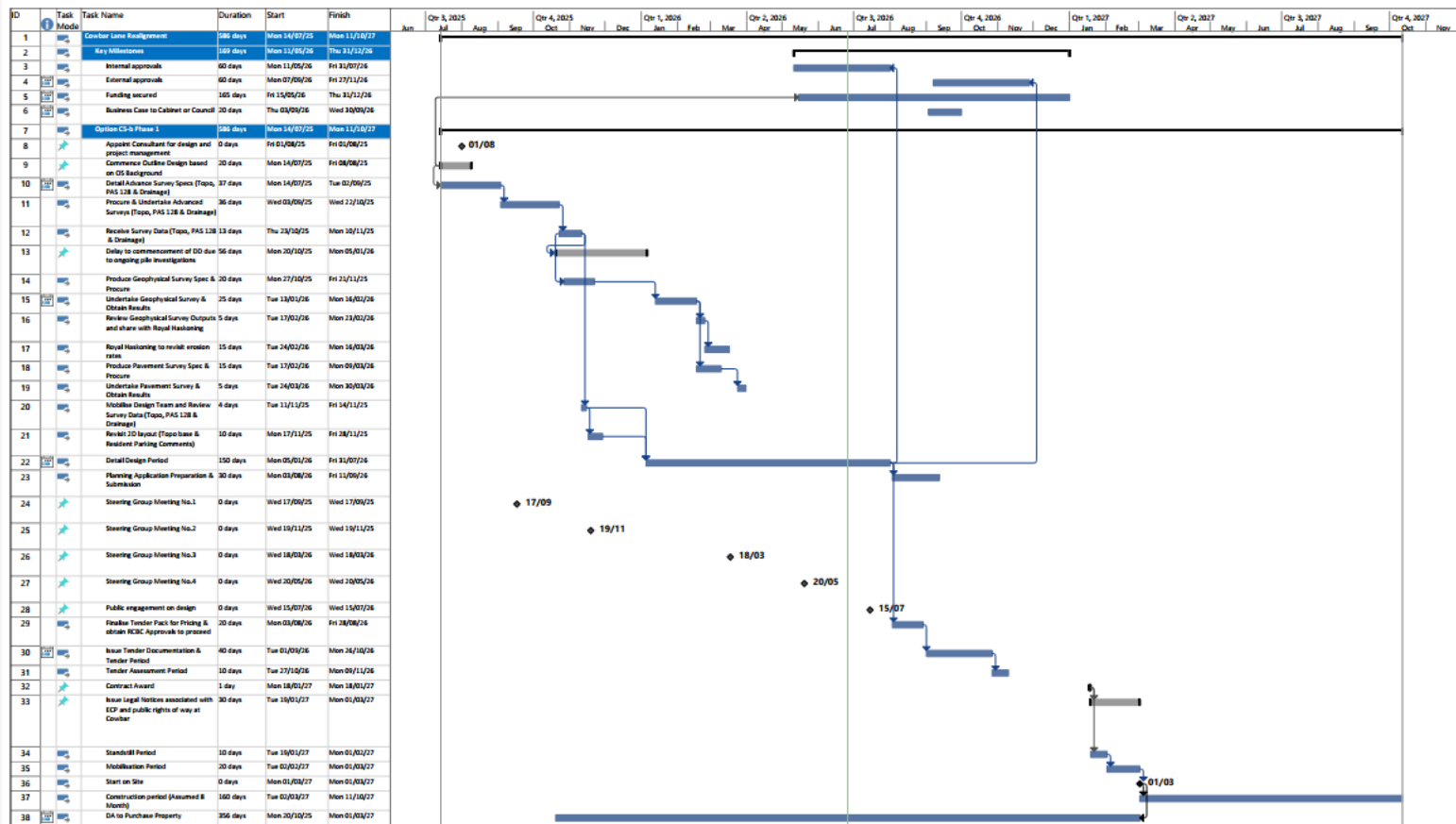
- C3 Enquiries have been issued
- Discussions with the various utility suppliers are ongoing
- Anticipated works:
 - › BT Openreach (confirmed)
 - › Northern Power Grid (consultation ongoing)
 - › Yorkshire Water (consultation ongoing)



Programme

- Key Dates

- › Complete Detail Design – end of July 2026
- › Finalise Tender Pack & Obtain RCBC Approvals to Proceed – end of Aug 2026
- › Submit for Planning – Sept 2026
- › Issue Tender Documentation – Sept 2026
- › Tender Return & Assessment - Commence Detail Design – October 2025
- › Contract Award – January 2027
- › Mobilisation Period – February 2027
- › Commence Construction – March 2027
- › Construction Period (estimate) – 8 months
- › Completion – October 2027



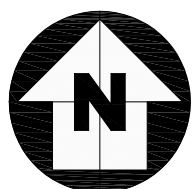
DO NOT SCALE

Millimetres

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KEY:

- EXISTING CARRIAGEWAY
- BITUMINOUS HIGHWAY
- BITUMINOUS RAMP
- GRASSCRETE
- TYPE 1 UNBOUND MIXTURE TO SHW CL.803 (GRAVEL)
- GRASS VERGE
- EARTHWORKS (1 in 3 UNO)
- PCC FLAG FOOTPATH
- CONCRETE DRIVE REINSTATEMENT
- LIGHTING COLUMN
- TRAFFIC SIGN - LIT
- TRAFFIC SIGN - UNLIT
- POST & 3 RAIL FENCE
- POST & 5 RAIL FENCE
- TIMBER WICKET FENCE
- PEDESTRIAN GATE
- VEHICULAR GATE

NOTES:

GENERAL:

- THE LAYOUT SHOWN IS BASED UPON THE C3D DETAILED DESIGN MODEL DATED 20/02/2026.
- ANY UTILITIES SHOWN ON THE DRAWINGS ARE FOR INFORMATION ONLY. PLEASE REFER TO UTILITIES PLANS FOR CURRENT UTILITIES LAYOUTS, BASED ON INFORMATION RECEIVED FROM UTILITY COMPANIES AND FROM RECENT SURVEY WORKS.

REFERENCE MATERIAL

- FOR DOCUMENTS (INCLUDING SPECIFICATIONS AND SCHEDULES) AND DRAWINGS RELEVANT TO EACH DISCIPLINE REFER AS FOLLOWS:

- GENERAL ARRANGEMENTS - REFER TO "HGN" SERIES
- GEOMETRY & HIGHWAY ALIGNMENT - REFER TO "HML" SERIES
- SITE CLEARANCE - REFER TO "HSC" SERIES
- FENCING - REFER TO "HFE" SERIES
- SURFACE WATER DRAINAGE - REFER TO "HDG" SERIES
- GEOTECHNICAL - REFER TO "HGT" SERIES
- PAVEMENT - REFER TO "HPV" SERIES
- KERBING & FOOTWAYS - REFER TO "HKF" SERIES
- ROAD MARKINGS - REFER TO "HMK" SERIES
- TRAFFIC SIGNS - REFER TO "HSN" SERIES
- STREET LIGHTING - REFER TO "HLG" SERIES
- UTILITIES - REFER TO "VUT" SERIES
- LANDSCAPING - REFER TO "ELS" SERIES

Description

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Description

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Description

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Description

SECOND ISSUE - 14/07/26

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Description

FIRST ISSUE - 16/03/26

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Status

S0

Drawing Suitability

WORK IN PROGRESS



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Client

REDCAR & CLEVELAND
BOROUGH COUNCIL

Project Title

COWBAR LANE REALIGNMENT
PHASE 1

Drawing Title

DETAILED DESIGN
COWBAR LANE REALIGNMENT
GENERAL ARRANGEMENT COLOUR

Drawing Number

Project

100121757
XX

Originator

-ATRL
-DR

Functional Breakdown

-HGN
-CH
-000001

Spatial Breakdown

Original Size:

A1

Scale:

1:250

Project Ref. No:

100121757

Sheet:

1 of 1

Rev:

P01.02

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Scale 1:250

