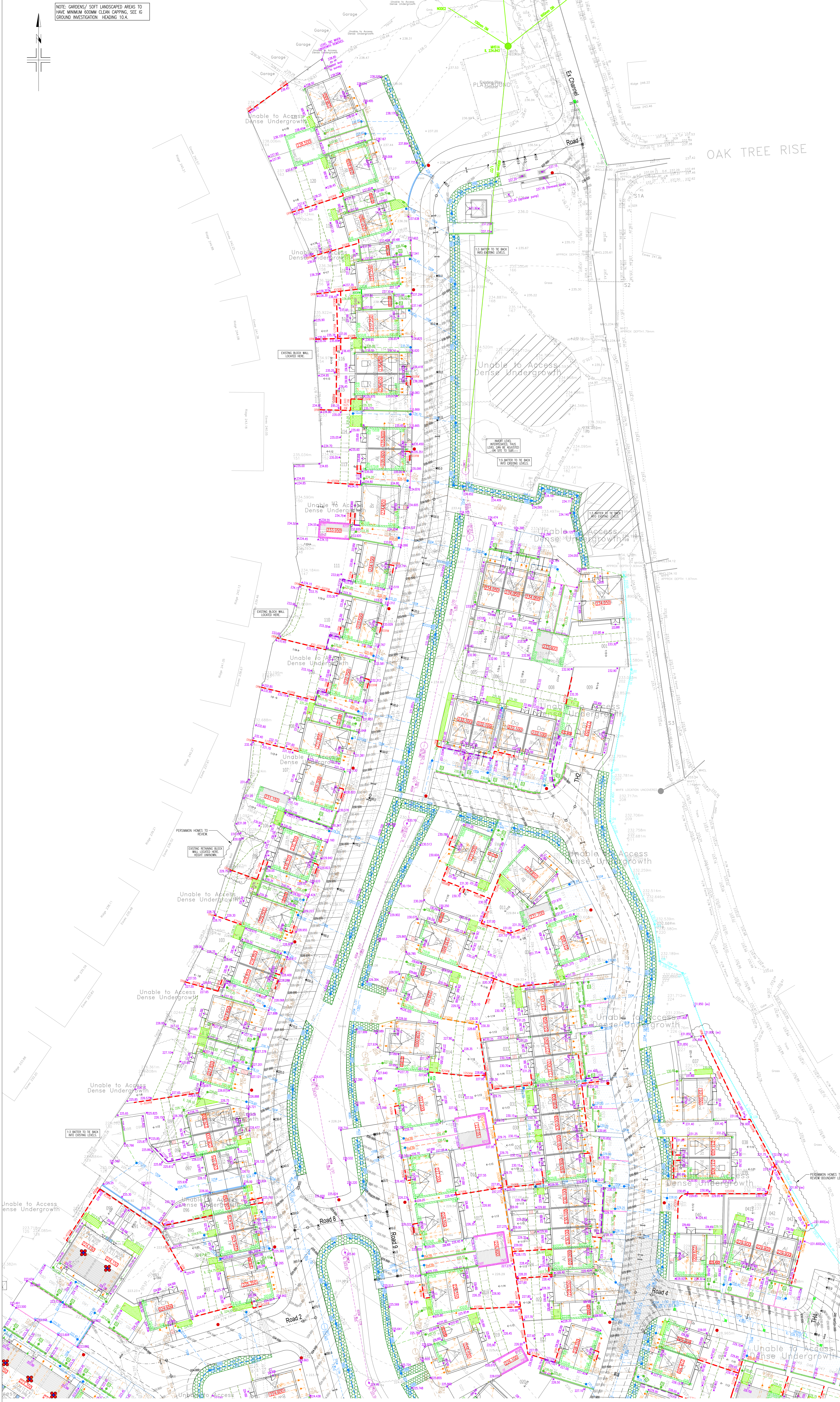
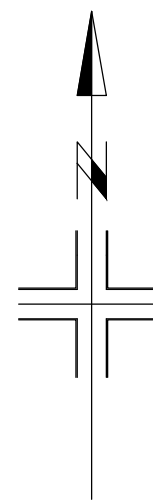


NOTE: GARDENS/ SOFT LANDSCAPED AREAS TO HAVE MINIMUM 600MM CLEAN CAPPING. SEE IG GROUND INVESTIGATION HEADING 10.4.



- GENERAL NOTES**
1. Do Not Scale
 2. The contractor is to check and verify all buildings and site dimensions and levels, including sewer invert levels, before works start on site. The contractor is to comply in all aspects with the current building legislation, British Standards, building regulations etc.
 3. Positions of existing services/utility undertakers apparatus adjacent to or crossing proposed excavations are to be checked by the contractor prior to starting work
 4. This drawing is to be read in conjunction with and checked against all other drawings, Engineering Details, Specification and any structural, geotechnical or other specialist document provided.
 5. Any anomaly or contradiction between any of the above is to be reported to Persimmon Homes.
 6. This drawing is schematic for clarity only, positions of pipe runs and manholes may vary on site due to site conditions
 7. All works for adoption under a Section 104 agreement shall be carried out to the National Water Council guide 'Sewers for Adoption' 7th edition and Dwr Cymru Welsh Water requirements.
 8. Plot levels are to be 150mm below FFL unless stated otherwise.
 9. Underbuild has been shown as starting 150mm below FFL.
 10. For garage slab details, see FHEW garage details drawings.

- GENERAL DRAINAGE NOTES**
1. All private drainage shall be in accordance with BS8301 and relevant sections of Approved Document H of the Building Regulations.
 2. The contractor is to check the level of existing sewers being used as outfalls or crossing proposed drainage runs PRIOR to laying any pipes. Any discrepancies are to be reported to the Engineer.
 3. Private house drainage will be flexible jointed plastic or clay pipework (Diameter 100mm unless shown otherwise).
 4. All connections for House Drainage shall be 100mm unless noted otherwise and must extend 500mm behind the back of footway/homezone road. All connections when laid shall be plugged, protected as necessary and marked with a stake for future use. All drainage laterals from the adoptable drainage system to be 150mm dia unless connecting to the head of a 100mm dia FWS.
 5. For private drains where cover to pipes is less than 900mm in vehicular areas or 600mm in other areas protection in the form of a 100mm thick concrete pad shall be provided over the pipe granular surround. Where pipes pass through screen walls, footings or retaining walls limits are to be provided over. Under buildings pipes shall be surrounded with 150mm thickness of granular material. Where drains pass within 1m of buildings the wall foundation shall be taken down below the invert of the pipe.
 7. Where drains do not exceed 600mm deep, plastic or clay access fittings minimum diameter 225mm shall be used. Elsewhere proprietary plastic or precast concrete inspection chambers shall be used. Unless shown otherwise 1W inspection chambers are to be 600mm below dpc level and SW chambers and rodding eyes to be 450mm below dpc.
 8. All gullies and rainwater downpipes connected directly to drains are to be roadable.
 9. Levels of drainage access points are inverts.
 10. Where possible, drainage runs should be laid at a minimum of 3.0m from the rear of properties where practical to allow for future extensions.
 11. All drainage shall be laid upstream and each run between manholes shall be laid complete prior to backfilling. Where this is not practical trial holes or other means of identifying the line and level of services shall be carried out prior to works commencing.
 12. All branch drains, or connections, are to discharge to the collectors obliquely, and in the direction of the main flow.
 13. All low spots on hardstanding areas to have yard gullies/AOQ.
 14. All manholes/ inspection chambers located within trafficked areas to have minimum of B123 covers. D400 in all highway areas.
 15. Backsloping to be used where pipe gradient exceeds 1:5 or lateral slashes with main sewer.
 16. Where gully is located with no level ground worker to create low spot for water to run off to, typically 25mm lower.
 17. Steps to be maximum of 150mm riser for Part M Access. up to 200mm elsewhere.
 18. Where groundwater is encountered within SAB features, the feature itself is to be wrapped in impermeable membrane.
 19. Gullies, cut channels and in drains may be placed on plan in 'offset location' to provide clarity. See standard details for construction profiles.
 20. All laterals are to be in accordance with NHBC Standards 2022, 5.3.3 drainage below ground.
 - 20.1 5.3.4 Foul and surface water disposal.

- KEY**
- FOUL SEWER & MANHOLE (S104)
 - SURFACE WATER SEWER & MANHOLE (SAB)
 - BACK DROP (MAX 1.5m) - SEE NOTE 15
 - PERFORATED PIPE
 - PRIVATE STORM DRAIN (100# UNLESS SHOWN OTHERWISE)
 - 450/600mm PRIVATE FOUL DRAIN (100# UNLESS SHOWN OTHERWISE) 600mm DEEP UNLESS NOTED OTHERWISE
 - 600mm ADAPTABLE FOUL INSPECTION CHAMBER, 600mm DEEP UNLESS NOTED OTHERWISE
 - 450/600mm ADAPTABLE STORM INSPECTION CHAMBER, 600mm DEEP UNLESS NOTED OTHERWISE
 - 450/600mm PRIVATE STORM INSPECTION CHAMBER, 600mm DEEP UNLESS NOTED OTHERWISE
 - 450# IC 600mm DEEP (UNO), 300mm SUMP
 - INVERTED 600mm CULVERT
 - PROPOSED OVERFLOW GULLY
 - 150# LAND DRAIN - SEE FILTER DETAIL, CHAMBERS TO HAVE 300mm SUMP
 - ADAPTABLE BORETENTION VERGE
 - PRIVATE RAIN GARDEN
 - PRIVATE MACROPERVIOUS DRIVEWAY
 - PROPOSED WATER BREAK INLET
 - INFORMAL COBBLED DRAINAGE CHANNEL (ADOPTED)
 - FOOTPATH CROSSING WATER BREAK INLET
 - PRIVATE WATER BREAK INLET
 - RAIN WATER PIPE - TO DISCHARGE AT SURFACE LEVEL
 - DEEP FLOW GUTTER RAIN WATER PIPE
 - RAIN WATER PIPE - DISCHARGE BGL
 - 110# POWER SLOT-HS FULL DRAIN WITH 5mm SLOTS (PRIVATE)
 - 110#/160# POWER SLOT-HS FULL DRAIN WITH 5mm SLOTS (ADOPTABLE)
 - SEL DIFFUSER UNIT
 - PRIVATE DRAINAGE CHANNEL*
 - PROPOSED HEADWALL
 - PROPOSED SPOT LEVEL
 - FINISHED FLOOR LEVEL
 - PROPOSED RETAINING WALL
 - PROPOSED UNDERBUILD BELOW 225mm BAND COURSE
 - TANKING
 - ABC FILDRAIN TYPE 6/ SC FIN DRAIN (USA)
 - LINEAR DRAINAGE CHANNEL (B125 COVER)
 - DELINEATION KERB
 - PERFORATED DELINEATION KERB
 - RAIN WATER BUTT
 - PROPOSED STREET LIGHTING
- *DRAINAGE CHANNEL TO BE CONCRETE DISH CHANNEL (OSA) WHERE CROSSING IMPERMEABLE AREAS - PATHS, FOOTPATHS ETC. WHERE SHOWN IN LANDSCAPED AREAS, CHANNEL TO BE MORE INFORMAL - SEE DETAILS DRAWING.

CDM

CONSTRUCTION OF 3.5m + DEEP MANHOLES.
CONTRACTOR TO PRODUCE SUITABLE METHOD STATEMENT TO UNDERPIN DEEP EXCAVATION WORK.
CONSTRUCTION OF LARGE 1:2 BATTER SLOPES.
CONTRACTOR TO PRODUCE SUITABLE METHOD STATEMENT IN LINE WITH SPECIFICATION FOR HIGHWAY WORKS SERIES 800 AND SEEK GEOTECHNICAL ADVICE.

P 02.04.24 Minor amendments made to levels to suit latest layout

N 11.03.24 Minor amendments made to levels to suit latest layout

N 08.01.24 Amendments made to levels are latest substitution layout. Latest street lighting design added

M 30.10.23 UNO Adjusted to suit latest information. L 06.10.23 Fence line added back to drawing.

K 04.10.23 Amendments made to suit latest comments.

I 11.02.23 Amendments made to suit latest comments.

I 30.08.23 Amendments made to suit latest layout.

H 02.06.23 Amendments made to suit latest layout.

G 07.02.23 Site wide amendments following SAB comments

F 02.12.22 Engineering amended.

E 15.09.22 F20 invert amended

D 06.09.22 Additional levels added. Adoptable rigid perforated pipe line type amended

C 01.09.22 Foot drainage added

B 21.07.22 Diverted watercourse route updated, amendments to layout following planning

A 09.03.22 Minor amendments following client comments

Project: Twynrodren Merthyr

Client: PERSIMMON

Drawing: Engineering Layout Sheet 1

Scale: 1:200 @ A0 Date: March 2022 Drawn by: HL

Drawing No: 10247 - 100 - 01 Rev: P

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Doc Status: **FOR TENDER**