

- GENERAL NOTES:**
- DO NOT USE THIS DRAWING IN ISOLATION. THIS DRAWING HAS BEEN PREPARED AS PART OF A SET AND MUST THEREFORE BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER PRIOR TO COMMENCING WORKS.
  - THIRD PARTY INFORMATION IS USED TO PREPARE THE ENGINEERING DESIGN (INCLUDING ARCHITECTURAL LAYOUT, GROUND INVESTIGATION, EXISTING UTILITIES RECORDS AND SPECIALIST DESIGN ITEMS). THE ENGINEERING DESIGN MUST THEREFORE BE READ IN CONJUNCTION WITH ALL THIRD PARTY INFORMATION PRIOR TO COMMENCING WORKS. QUEENSBERRY DESIGN LTD ARE NOT RESPONSIBLE FOR ANY THIRD PARTY INFORMATION OR DETAILS.
  - DRAWING STATUS WILL REMAIN PRELIMINARY UNTIL FULL TECHNICAL APPROVAL IS RECEIVED FROM LOCAL AUTHORITY AND SEWERAGE UNDERTAKER. WORKS COMMENCED PRIOR TO TECHNICAL APPROVAL ARE DONE AT RISK AND MAY BE SUBJECT TO CHANGE.
  - THE CONTRACTOR IS EXPECTED TO PREPARE APPROPRIATE CONSTRUCTION METHOD STATEMENTS FOR ALL ASPECTS OF APPOINTED WORK. THIS SHOULD INCLUDE ANY TEMPORARY PROTECTION WORKS.
  - LAND DRAINAGE IS NOT PERMITTED TO DISCHARGE INTO THE PUBLIC SEWER NETWORK. ANY NEED FOR LAND DRAINAGE SHOULD BE ASSESSED BY THE GROUND WORKER AND LANDSCAPER DURING CONSTRUCTION AND PLACEMENT OF CURBS IN AN INDIVIDUAL PLOT BASIS. IF LAND DRAINAGE DESIGNS ARE REQUIRED, THEY SHOULD BE APPOINTED PRIOR TO PLOT COMPLETION.
  - THE CONTRACTOR IS EXPECTED TO CROSS CHECK ALL DRAINAGE INVERTS PRIOR TO COMMENCING WORK. THIS MAY INVOLVE COMPLETION OF TRIAL HOLES IF INVERT LEVELS HAVE BEEN INTERPOLATED. THE POSITION, LINE AND DIAMETER OF ALL EXISTING DRAINAGE APPARATUS SHOULD BE CONFIRMED ON SITE PRIOR TO THE COMMENCEMENT OF THE WORKS. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER IMMEDIATELY.
  - THE CONTRACTOR MUST MONITOR THE "AS BUILT" PROGRESS OF EACH CONSTRUCTION STAGE (ROADS/SEWER/LOT WORKS ETC.) TO ENABLE THE NEXT STAGES OF CONSTRUCTION TO BE CHECKED BEFORE INSTALLATION.
  - ALL WORKS TO BE UNDERTAKEN IN COMPLIANCE WITH BS 800 WORKMANSHIP ON BUILDING SITES.

- HIGHWAYS**
- ALL HIGHWAY WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT LOCAL AUTHORITY DESIGN GUIDE AND SPECIFICATIONS.
  - ALL EXCAVATIONS BELOW PROPOSED AND EXISTING HIGHWAYS TO BE BACK FILLED WITH GRANULAR TYPE 3 SUB BASE AND WELL COMPACTED TO EXCEEDING 150MM, UNLESS OTHERWISE AGREED.
  - HIGHWAY AUTHORITY TO BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS.

- ADOPTABLE DRAINAGE**
- ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH SEWERAGE SECTOR GUIDANCE DESIGN AND CONSTRUCTION GUIDANCE (DOCS FOR ADOPTION) THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATERS STANDARDS/REQUIREMENTS LOCAL SPECIFICATIONS FOR THE ADOPTION OF SMALL SUBMERSIBLE FOLLS AND SURFACE WATER PUMPING STATIONS AND KITEMARKED.
  - MANHOLE COVERS SHALL HAVE A CLEAR OPENING OF 600MM AND SHALL BE CLASS D400 TO BS EN 124 WITH 150MM DEEP FRAMES IN HIGHWAYS.
  - FILLED GULLIES MUST BE FILLED AND COVERED TO THE SATISFACTION AND TO THE SATISFACTION OF YORKSHIRE WATERS BEFORE ANY SEWER WORKS ARE CARRIED OUT.
  - YORKSHIRE WATERS IS NOT OBLIGED TO ACCEPT FILTER DRAIN / LAND DRAINAGE RUNOFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM DIRECTLY OR INDIRECTLY. AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUNOFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIAISE WITH THE LOCAL AUTHORITY LAND DRAINAGE SECTION WITH REGARDS TO THE DISPOSAL OF THE FILTER DRAIN / LAND DRAINAGE RUNOFF.
  - COVER SLABS MUST CARRY THE BS KITEMARK OR WILL BE REJECTED BY YORKSHIRE WATER INSPECTOR. WHERE THE CLEAR OPENING OF THE INTERMEDIATE PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOADING BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO 600MM/600MM FOR THE YORKSHIRE WATER SPECIFIED COVER SIZE. SLABS REFER TO CONCRETE PIPE CRYSTALLINE POLYMER (CPVC) TECHNICAL BULLETIN ISSUED AUTUMN 2004 FOR KITEMARKED COVER SLAB OPENING SIZES. 600 X 600MM ACCESS COVER SLABS ARE NOW AVAILABLE WHICH MUST BE KITEMARKED FOR USE ON YORKSHIRE WATERS NETWORK.
  - SUBPANS RESISTANT CHEMICALS AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
  - SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES OR THE WIDTH OF THE LAMPYARD MARKING HEIGHT.
  - SEWERS MUST HAVE 3 METRES CLEARANCE FROM TREES AND HEDGES. REFER TO SFA FIGURE 2 FOR FURTHER RESTRICTIONS ON TREE PLANTING ADJACENT TO SEWERS.
  - SEWERS LAD IN CLASS 7 BEYOND 150MM GRANULAR BED AND SURROUND. WHERE DEPTH OF COVER TO TOP OF SEWER IS LESS THAN 1.2M IN HIGHWAY AND VERGES OR LESS THAN 900MM IN NON VEHICLE ACCESS AREAS THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.
  - BEHIND AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 48-02 (TABLE A2).
  - ALL ADOPTABLE SEWERS TO BE BS KITEMARK (CERTIFIED TO BS 5951).
  - ADOPTABLE SEWER PIPES TO BE LAD IN MAXIMUM 3M LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. 12 BEHIND AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 48-02 (TABLE A2).
  - PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD PREFER CLAYWARE CHANNEL IN MANHOLES. WE HAVE FOUND THAT PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE BECAUSE THEY FLOAT AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON THE BEHINDING.
  - THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED IN ACCORDANCE TO ACCOMMODATE THE CONNECTIONS AND BEHINDING.
  - YORKSHIRE WATER POLICY IS NOT TO ACCEPT TYPE 'C' BRICK MANHOLES AND 1000MM DIA MANHOLE RINGS. INSTEAD IT IS PREFERRED THAT YOU USE TYPE 'B' MANHOLE WITH 1000MM DIA OR 1000MM BEHINDING WITH THE OPENING SIZED OVER THE CHAMBER. WHERE DEPTH OF COVER TO PIPE IS 1-1.5M.
  - CONCRETE PIPES SHOULD BE CLASS D20 TO EN 1916 / BS 8911-1:2002.
  - THE POSITION, LINE AND DIAMETER OF ALL EXISTING DRAINAGE APPARATUS SHOULD BE CONFIRMED ON SITE PRIOR TO THE COMMENCEMENT OF THE WORKS. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER IMMEDIATELY.
  - THE CONNECTION OF FOLLS AND SURFACE WATER DRAINAGE TO THE EXISTING PUBLIC SEWER SYSTEM SHALL BE SUBJECT TO THE APPROVAL OF THE LOCAL SEWERAGE UNDERTAKER. THE CONTRACTOR IS EXPECTED TO APPLY FOR RELEVANT PERMITS PRIOR TO COMMENCING THE WORKS.
  - 1500mm CHAMBER RINGS ARE ALLOWED ON THE ADOPTABLE NETWORK AND ARE TO BE KITEMARKED.
  - THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED IN ACCORDANCE TO ACCOMMODATE THE CONNECTIONS AND BEHINDING.
  - ADOPTABLE PLASTIC SEWER PIPES TO BE BS KITEMARKED (CERTIFIED TO BS 4301) AND SUBSIDIARILY ADOPTABLE PLASTIC SEWER PIPES TO BE IN MAXIMUM 3M LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD PREFER CLAYWARE CHANNEL IN MANHOLES. WE HAVE FOUND THAT PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE BECAUSE THEY FLOAT AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON THE BEHINDING.
  - WHERE A BS COVER AND FRAME HAS BEEN APPROVED, THIS MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING KEYS SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.
  - THE POSITION, LINE AND DIAMETER OF ALL EXISTING DRAINAGE APPARATUS SHOULD BE CONFIRMED ON SITE PRIOR TO THE COMMENCEMENT OF THE WORKS. ANY DISCREPANCIES MUST BE REPORTED TO THE ENGINEER IMMEDIATELY.
  - THE CONNECTION OF FOLLS AND SURFACE WATER DRAINAGE TO THE EXISTING PUBLIC SEWER SYSTEM SHALL BE SUBJECT TO THE APPROVAL OF THE LOCAL SEWERAGE UNDERTAKER. THE CONTRACTOR IS EXPECTED TO APPLY FOR RELEVANT PERMITS PRIOR TO COMMENCING THE WORKS.
  - THEIR MUST BE ENOUGH CLEARANCE AT CROSSOVERS TO ACCOMMODATE BEHINDING TO BOTH PIPES. APPROX. 300MM IF CROSSOVER IS NEAR THE ROCKER THEN THE CLEARANCE NEEDED MAY BE INCREASED.
  - THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 1000MM DIA 40NMM / 150MM DIA 40NMM / 250MM DIA 30NMM AND 300MM DIA 27NMM. THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE: CLASS D20 TO EN 1916/BS8911-1:2002. PLASTIC PIPES SHOULD CONFORM TO WS 4-05-01 AND BS EN 14731.

**EXISTING SERVICES**

PRIOR TO THE COMMENCEMENT OF ANY WORKS UNDER GROUND MAPPING SURVEYS AND CONSTRAINTS PLANS IS TO BE REFERRED TO ANY DISCREPANCIES ARE TO BE REPORTED TO ENGINEER.

ANY EXISTING SERVICES WHICH MAY BE AFFECTED BY THE PROPOSED WORKS SHOULD BE LOCATED BY MEANS OF A HAND DIG IN CLOSE LIAISON WITH THE STATUTORY SERVICE AUTHORITIES. THE CONTRACTOR SHALL INFORM THE DEVELOPER OF ANY SERVICES THAT MAY AFFECT THE PROPOSED DESIGN. CONTRACTOR TO NOTIFY STATUTORY SERVICE AUTHORITIES PRIOR TO COMMENCEMENT OF WORK. AS CONSTRUCTED INFORMATION IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE THE FOLLOWING AS CONSTRUCTED DRAWINGS TO THE DEVELOPER UPON THE COMPLETION OF THE WORKS COVERED BY THE CONTRACT:

- POSITIONS/COORDINATES OF ALL ADOPTABLE MANHOLES.
- INVERT AND COVER LEVELS OF ALL ADOPTABLE MANHOLES.
- NEW GULLY POSITIONS AND CONNECTIONS.
- POSITION AND DEPTH OF SERVICE DUCTS FOR WATER, GAS, ELECTRIC, BT, CABLE AND STREET LIGHTING, STATING SIZE AND NUMBER OF DUCTS.

Rev	Date	Revision Details	Drawn	Checked
R01	24.09.24	FIRST ISSUE	JR	ND

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Client: **STRATA/THIRTEEN**

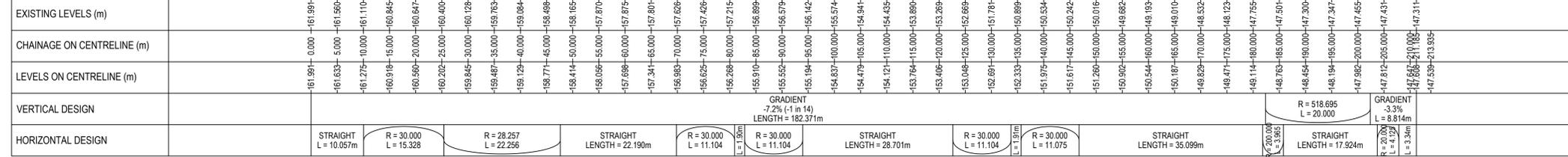
Project: **MAIN AVENUE COWERSLEY**

Title: **PROPOSED LONGSECTIONS**

Drawn	JR	Checked	ND	Date	24.09.2024
Drawing Number	2153-QD-XX-HR-DR-C-00-02				
Drawing Status	FEASIBILITY				
Scale	1:500/500 - A1				
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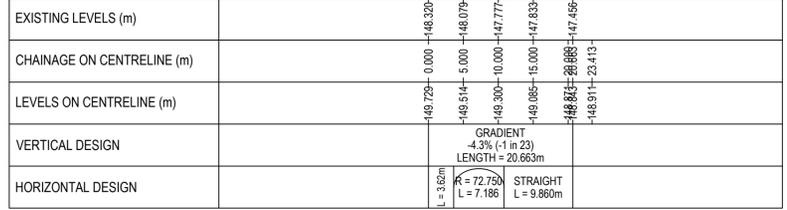
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# Road 2

Vertical Exaggeration: 5  
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# Road 3

Vertical Exaggeration: 5  
Datum: 140.000M AOD

