

CONSTRUCTION METHOD STATEMENT
AND EXIT PLAN
Castleton Sidings



CONSTRUCTION METHOD STATEMENT

&

EXIT PLAN

Castleton Sidings, Heywood Rd, Rochdale

THE SITE



Castleton Sidings, Rochdale, OL11 3AU

The site comprises of a mix of two, three & four bedroom semi-detached, detached, town houses & 3 / 4 blocks

All properties are to be constructed from Timber Frame, using traditional masonry as the external finish.

SITE BOUNDARIES

The site is currently derelict and comprises disused former Railway Sidings and buildings.

The site is a roughly semi-circular shaped parcel of land to the south of Heywood Road In Rochdale and to the west of Castleton railway station. Live railway lines are present along the eastern site boundary and the site itself forms derelict railway sidings open to the adjacent active railway.

The southwestern quarter of the site falls within a designated area of greenbelt and the north eastern quarter falls within an area of network rail operated land. All former structures except for an active signal box have now been removed; however, track sidings, ballast, and relict hardstanding and concrete slabs remain.

Self-seeded vegetation and young trees have now grown across the site and along the periphery. A raised area of concrete hardstanding is present in the southern sector, with demolition rubble stockpiled creating a steep ramp. A void is evident beneath this raised area on the very southern boundary, which appears to be associated with a large, voided area just off the south-western boundary.

PROPOSED SEQUENCE OF WORKS

1. Trees within the site will be felled, logs and root balls removed from site.
2. Break out and grub up existing slabs and ground.
3. Mine Grouting if required
4. Management of onsite contaminants in phase 1/2 to be worked in with the cut and fill and placed at depth or removed. There is a significant amount of peat a depth on the site which is to be removed from Plot and road footprints, and replaced in further green areas of the site
5. Cut and fill to be undertaken to determine platform levels.
6. Prepare Ground with Piling Mats
7. Commence Piling
8. Commence groundworks, including pile capping and foundations
9. Commence flood zone structures
10. Commence underground drainage, services, and ground floor slabs
11. Commence Superstructures

Direction of Build as per Build Programme and the Direction of Build plan located in Appendix A.

The programme will be reviewed and kept up to date within the Construction Phase Plan by the Build Manager; copies will also be on display in the site offices. Kellen Homes will be the Principal Contractor on the project. All main duty holders are provided by internal personnel and departments:

1. Client – Kellen Homes – Dan Gallagher
2. Principal Designer – Kellen Homes – Steve Green
3. Designers – Ray Collins & Design Team
4. Principal Contractor – Tony Clayton & Construction Team

HANDOVER SEQUENCE

As per build program/forecast.

CONSTRUCTION METHODOLOGY

All site boundaries to be secured, (Heras with debris netting), and all tree protection measures to be installed before any works commence:

1. Demolition and Remediation including the specialist treatment, carry out existing sewer diversion during at depth excavations
2. Re – engineer site and re-grade including raising levels
3. Construct retaining walls where required at foundation phase
4. Commence road and sewer and take through to completion of base course including car parks.
5. Commence Foundations, driven pile to 100% of the site
6. Install all on site/off site mains
7. Superstructure commencement

Direction of Build as per Build Program and the Direction of Build plan located in Appendix A.

The program will be reviewed and kept up to date within the Construction Phase Plan by the Build Manager; copies will also be on display in the site offices.

The remediation contractor will act as Principle Contractor (PC) until Kellen Homes have a presence on site, there after Kellen Homes will be PC.

FOUNDATIONS

The foundations will consist of driven concrete piles and reinforced concrete ground beams to all plots

The driven piling method will use a piling rig which hammers a concrete pile into the ground until sufficient resistance or rockhead is encountered, the pile is then cropped to the design depth, a reinforced concrete ground beam is then constructed over and tied to the concrete pile, gas mitigation measures may be required on a proportion of site, extent and classification will be confirmed following post remediation gas monitoring. Jet floor system using a reinforced screed will be the most cost-effective solution.

ENGINEERING

During a phase of cut-and-fill enabling works to create a developable platform, all below-ground obstructions will require grubbing out to the base of the Made Ground to enable the construction of proposed plots.

Made Ground is not considered suitable in its current form for founding and as such an engineered foundation solution will be required in the majority of Ground improvement using driven concrete piles to support a reinforced strip foundation (Further assessment of the thickness of the Made Ground will be required in order to devise if full depth treatment will be possible). Pile foundations (CFA/bored), particularly in proximity of the adjacent railway to minimise effects of vibration and where peat is confirmed to be.

SCAFFOLDING

Loading bay positions and construction of the haul roads to be costed and agreed and included in both the scaffold and the groundwork's package:

- x1 loading bay required on a block of two houses, and x2 loading bays on a block of four houses and apartments. Also x1 skip bay per block.
- Suitable hop ups must be installed for roofers to access the roofers. These must be included on both reveals in one bay and must ensure the step down/up distance is reduced to no more than 300-500mm where applicable
- Suitable hop ups must be installed for roofers to access the roofs. These must be included on both reveals in one bay and must ensure the step down/up distance is reduced to no more than 300-500mm where applicable.

The scaffolding contractor will design/or work to product specification on all scaffolding works including loading bays. No scaffolding works will be started on site before the designs have been approved by our Safety Director Colin Murray. Completion certificates are to be held on site, copies to be sent to commercial. Ground workers to ensure scaffolding base/loading bay base is provided (to be included in procurement).

Forklift drivers and machines will be employed to load materials delivered by the wagons onto the scaffold loading bays provided.

Debris netting to be allowed if any plots overlooking occupied houses or interface with members of public.

All requirement for internal access scaffold to be included by relevant sub-contractor in their Risk Assessment/Method Statements.

Fall prevention is always to be chosen over fall protection, where the guard rails are removed for access or not installed due to risk assessment, then operatives must be clipped on using a harness for fall protection (the operative must be trained in the use of harnesses).

The gap between the inner board and the façade must be set out to achieve the smallest gap possible, however where the gap is greater than 225mm additional control measures must be implemented, fall prevention is always to be chosen over fall protection, therefore internal

guardrails will be fitted, where the guard rails are removed for access then operatives must be clipped on using a harness.

For fall protection (the operative must be trained in the use of harnesses). Access to internal hop ups will be achieved by an additional internal gate opening through guard rails controlled by scaffolders. Internal gated ladder systems controlled by the scaffolders.

Gable ends must be protected using an up and over system to prevent falls from height which is designed.

Debris netting must conform to LPS 1215 standard or similar.

Where escape routes are greater than 30 meters off a working platform an additional access and egress route must be provided.

WINDOWS/DOORS

The window supplier must ensure the windows and frames are fully protected from accidental damage.

The windows will be fitted by the window suppliers on site. Method Statements to be provided by the appointed contractor.

Access to all floors must be by internal staircase only.

All site-specific issues to be covered at the site induction.

SUPERSTRUCTURES

The site is to be constructed by timber Frame Construction using traditional masonry as the external façade, this will be carried out in a number of brick types on specific elevations and house types

ROOF

The timber frame contractor is to include craneage requirements within their package.

All roof installations will require a method statement for fall protection provided and installed by the sub-contract labour (see WAH).

The roofing system on this site will be a traditional concrete tiled roof, constructed on roof trusses. The site is located in a severe wind area and roof tiles need to be fixed to manufacturers guidelines for said rating.

CRITICAL HEALTH & SAFETY ISSUES

- Edge Protection in place
 - Erection of timber frame
 - No smoking policy enforced on site – smoking in designated areas only
 - Additional escape routes required, no more than 30 metres apart
 - Hot Works permits issued and areas checked 2 hours after completing works
 - Fire Extinguishers available in timber frame plot / audible fire alarm / FRA / wireless
 - Temporary handrails and crash decks in place until stairs installed
 - Window openings protected until windows & patio doors fitted
 - Traffic Management Plan
 - Environmental Management Plan
 - Security to be full time (outside working hours)
 - Waste Management Plans to be completed and maintained
-
- Waste Management – Transfer notes to be correctly coded
 - Fall prevention in and around stairwell to be fixed by joiner using new prestige stairwell protection system
 - Sub-contractor to provide suitable access equipment for task access, as per work at height regulations
 - PC to provide collective measures for main scaffold
 - LPG cylinders to be stored in a lockable cage
 - Worker engagement meeting to be carried out as required
 - Timber frame erectors must confirm their slinger / banks men are either covered by the Contractors liability insurance or their specific liability insurance specific to their role
 - Work at height Risk Assessment required to be issued to relevant Contractors.
 - Fall arrest to be provided by timber frame erector for edges, floor cassettes and roof work
 - Site to use 16 steps to fire safety guide to timber frame buildings.
 - Dry cutting to roof tiles guidance sheet can be found in Annex 11
 - To ease manual handling of plasterboards for operatives and to also negate the need to remove stairwell edge protection, envelopes are to be introduced at the earliest stage of timber frame
 - The use of defibrillator is available within the site office at all times.

SITE STAFF AND VISITOR/SUB CONTRACTOR CAR PARKING

There will very limited car parking on site in the early construction stages.

Sub-contractor parking will not be permitted within any other area or the areas under construction, car parking will be available on site once compound set up.

PROTECTED PEDESTRIAN WALKWAYS

A clear, secure walkway and pedestrian crossing will take operatives and visitors from the compound into the area of construction. This will be fully detailed in the site Health and Safety induction which will be highlighted on the Traffic Management Plan; provided on site commencement. Operatives and visitors must sign in at the site office before entering and leaving the site. No materials are to be stored along any pedestrian walkways greater than 2 pallets high to prevent materials falling onto pedestrians.

All public rights of way will be maintained as directed by local authority with temporary stopping up orders and diversions. Public rights of way will be segregated from construction traffic by fencing. Private Vehicle rights of way will be maintained via diversions agreed by public rights of way officer. In areas where construction activity coincide with public rights of way, this will be managed by gatemen and temporary diversions in access routes.

LONG LEAD IN DELIVERY ITEMS

The ordering and delivery of key items such as timber frame brick, block, roof tiles, stairs, windows, internal doors, patio doors and kitchens will be monitored by the senior management team.

SITE SIGNAGE

Appropriate signage will be erected where required and all employees will be inducted and reminded about the hazards associated within the construction area.

All signage will be indicative of the Traffic Management Plan.

ACCESS FOR MATERIAL DELIVERIES TO SITE

Site access is from Don Street for phases 1 & 2 and off Oldham Road for Phase 3. Materials will be delivered and stored in the storage areas and secure containers as highlighted on the build route drawing.

All lifting operations will be carried out under the supervision of certified Slinger/Banks man (CITB Construction Skills CPCS). They must be provided by the appointed sub-contractor. Abnormal loads and deliveries should be made in advance with the site Management.

Site Management is to continually review traffic management on site. For deliveries and unloading the supplier/sub-contractors to ensure suitable controls are in place for safe deliveries and ensure they are in line with Reg 6.3 Working at Heights – preventing falls from height.

GROUND WORKS AND INFRASTRUCTURE

For any crane requirements on site Kellen Homes will obtain CBR recordings and any other information required by AP, to plan lifts. All crane lifts will be supervised by a qualified crane lift supervisor.

DIRECTION OF BUILD

Please refer to latest Build Programme in Appendix A. Amendments will be made to the programme as the development progresses.

MANAGEMENT

Regular monthly site meetings will take place to review progress and any issues relating to build quality, presentation, Health and Safety and Customer Service. In addition, daily Black Hat meetings will be held.

It is proposed to use the following site management team: The site is to be split into 3 tenures over 3 phases, Site Management team no 1 will manage the construction activity on Phase 1 and 3 for Sigma and First Choice Homes and will consist of

x1 Site Manager, x2 Assistant Site Managers,, x2 Forklift and Driver and x3 Labourer and 2 gatemen

Phase 2 is Houses for sale (OM) and Sigma, and will consist of;
x1 Senior Site Manager, x2 forklift drivers, 1 labourer and 1 gateman

HEALTH AND SAFETY

The Health and Safety Site plan and F10 Notification will be in place prior to commencement on site. Regular visits by Kellen Homes Health and Safety Director and Management will take place.

Sub-contractors must adequately supervise their own works, this includes safe systems, safe areas, inspect areas prior to start of shifts to ensure safe and clear to work in a safe environment, ensuring operatives clean as they go and fully resource their works and that all equipment used is fit for purpose. Suitable levels of competent trained supervisors SSSTS are required.

Supervision to include SMSTS & SSSTS where the risk or number of operatives is greater.

FIRE PRECAUTIONS

Removal of rubbish from the area of work is to be undertaken daily, via mini skips, transported by forklift trucks to larger skips on site.

No rubbish is to be burned on site.

Fire extinguishers are to be provided immediately within the Site Office - including two 9ltr water extinguishers and two 3kg powder extinguishers as a minimum. The same will be required to the site canteen.

Linked Fire Alarm Howler points are to be located in agreed positions within the construction area, with the main interface panel located within the Site Office.

The Principal Contractor is to appoint a Fire Marshall (Site Manager).

The Principal Contractor is to comply at all times with the Project Fire Plan which is compiled from the FRA (Fire Risk Assessment)

Sub-contractors must adequately supervise their own works, this includes safe systems, safe areas, inspect areas prior to start of shifts to ensure safe and clear to work in a safe environment, ensuring operatives clean as they go and fully resource their works and that all equipment used is fit for purpose. Supervisor's daily checklists are to be completed by the individual sub-contract supervisor, on a daily basis. Supervisors must hold minimum SSSTS Qualifications.

Sub-contractors must ensure their supervisors are trained to inspect and monitor their own areas of responsibility on a daily basis, and they have an H&S inspection recorded as per our arrangements.

PRESENTATION

Tidiness in and around roads, scaffolding and within part and fully constructed units is of utmost importance. An exceptionally high standard of presentation around the main access route is essential.

The site management team will ensure that all the areas and roads adjacent to the site are free from waste, debris and rubbish.

Herras fencing or hoarding will be erected around the compound area and will segregate the interface between construction and customers with Herras fencing. This will be adapted as required.

All site estate roads and all private/public roads that service the development, will be as far as reasonably practical, and kept clean throughout the construction works. This will be done via the use of a road sweeper and if required a jet wash to clean the wheels of vehicles leaving site.

SECURITY

It is proposed that x1 (potentially x2) security guard will be required to cover all out of hours.

Hoarding forms part of the temporary works and must be erected as per the company specification, of using screws as opposed to nails. This specification has been passed to all QS staff and must be adhered to, in order to prevent damage or collapse of hoarding.

SITE PROCEDURES

ACCESS

Construction traffic will access the site from Don Street Phase 1&2 and Oldham Road Phase 3.

DELIVERIES

Prior arrangements should be made with Site Management for all abnormal deliveries.

Hazardous materials must be identified and stored in accordance with the PC's Health and Safety Plan.

Working hours are:

Monday – Friday	07.00 – 18.00
Saturday	08.00 – 16.00

WHEEL WASHING

All vehicles leaving site will have a visual inspection prior to leaving site.

Any vehicles which are found to be holding excessive dirt will have their wheels cleaned and the dirt removed using a jet wash, prior to leaving site. A road sweeper will also be utilized as and when required and in full time attendance when any “muck shift” activities are taking place.

STORAGE OF PLANT AND MATERIALS

Materials used in the construction process such as oil, chemicals, cement, lime, cleaning materials and paint have the potential to cause serious pollution; therefore, the EA Pollution Guidance will be followed.

A bunded storage area will be located on the sites main compound and will be provided for the duration of the construction period for the storage of oils, fuels, chemical and other hazardous construction materials.

The base and bund walls will be impermeable to the material stored and be of adequate capacity. For those materials stored outside the bunded area spill palettes will be used.

Appropriate spill kits will be located storage areas along with clear written procedures on how to address a spillage if it occurs.

Leaking or empty oil drums will be removed from the site immediately and disposal of to an appropriately licensed disposal site via a licensed waste disposal contractor.

Plant and equipment will be stored in areas which are less susceptible to possible pollution incidents, or on dedicated hard standings. Liaison with the EA will be undertaken to establish suitable areas and gain approval.

Plant will be refuelled in designated areas on an impermeable surface approved by site management. Refuelling will occur in designated areas on an impermeable surface away from any drains or watercourses. A spill kit will be available in the event of an accident and will be kept in the refuelling area. If refuelling areas are unavoidable near a watercourse or drain's, then an enhanced spill kit will be required.

Best practice methods will be used for storing fuel and refuelling in compliance with Oil Storage Regulations to ensure that no ground or water contamination will occur. Storage containers will be clearly marked on tanks and a notice displayed requiring that valves and trigger guns be locked when not in use.

Storage areas and containers will be protected against vandalism and unauthorised inference and all containers will be securely locked when not in use. All top-soil and subsoil will be handled and stored carefully in accordance with standards to minimize the potential for damage to the soil structure. A detailed method statement will be produced by the SM clearly identifying correct stripping, soil handling, storage, and placement and programming requirements to avoid compaction and moving the material in unsuitable weather conditions.

When required a road sweeper will operate in and around the site during daytimes. Extra care will be taken to damp roads down during dry spells.

Procedures will be set in place before the commencement of works to respond to any emergency incidents which may occur on site. All appropriate staff will be trained and made

aware of the contingency plan set in place. In the event of an incident the EA will be notified immediately.

SCREENING OF COMPOUND AND WELFARE FACILITIES

The site will be hoarded off to demarcate and secure its perimeter. The site area and the contractor's compound will be enclosed with suitable hoardings or Herras fencing, Hoardings and Herras fencing will be maintained and kept clean for the duration of the build.

In line with the requirements of the Considerate Constructor Scheme, a high level of site welfare facilities should be maintained.

Toilets will be screened, and the site should be cleaned on a regular basis, especially around canteens and toilets.

The site will have occupiers and out of hours security. This will reduce any threat of crime and damage.

SERVICES CONNECTIONS

Compound supply will be on a generator until we can establish supply for electric. We will also source a new water connection for compound.

DRAINAGE

No discharge of material other than that for which the drainage system was designed is permitted.

WASTE MANAGEMENT

Sub-contractors are responsible for removal of their own waste from site, this is to be discussed at procurement/pre-start.

EXIT STRATEGY - Please See Build Route drawing

The exit strategy is to seek a small welfare area located off site and reduce the car parking and storage areas accordingly

WASTE DISPOSAL

WASTE DISPOSAL POLICY

All timber frame is to be placed in a timber only skip provided by Kellen Homes, the timber frame contractor will take back all crash decks.

All Plasterboard is to be placed in plaster only skip provided by Kellen Homes.

All Brick / Rubble etc. is to be stockpiled on site until a sufficient amount can be brought to a crusher to generate 6F2, or to be moved by wagon to an adjacent site that has a crusher, or as a last resort moved off site to tip in relevant vehicles.

A pallet collection scheme is operating, contact Scott Pallets on 07816 935884 or 01263 550660.

All metal will be collected by Prestige Metal Fabrication

Construction will assess the number of mini skips required to enable the above process to be carried out.

T. Clayton
Construction Director

Date: _____

C. Murray
Health & Safety Director

Date: _____

APPENDIX A

Direction of Build

Compound location

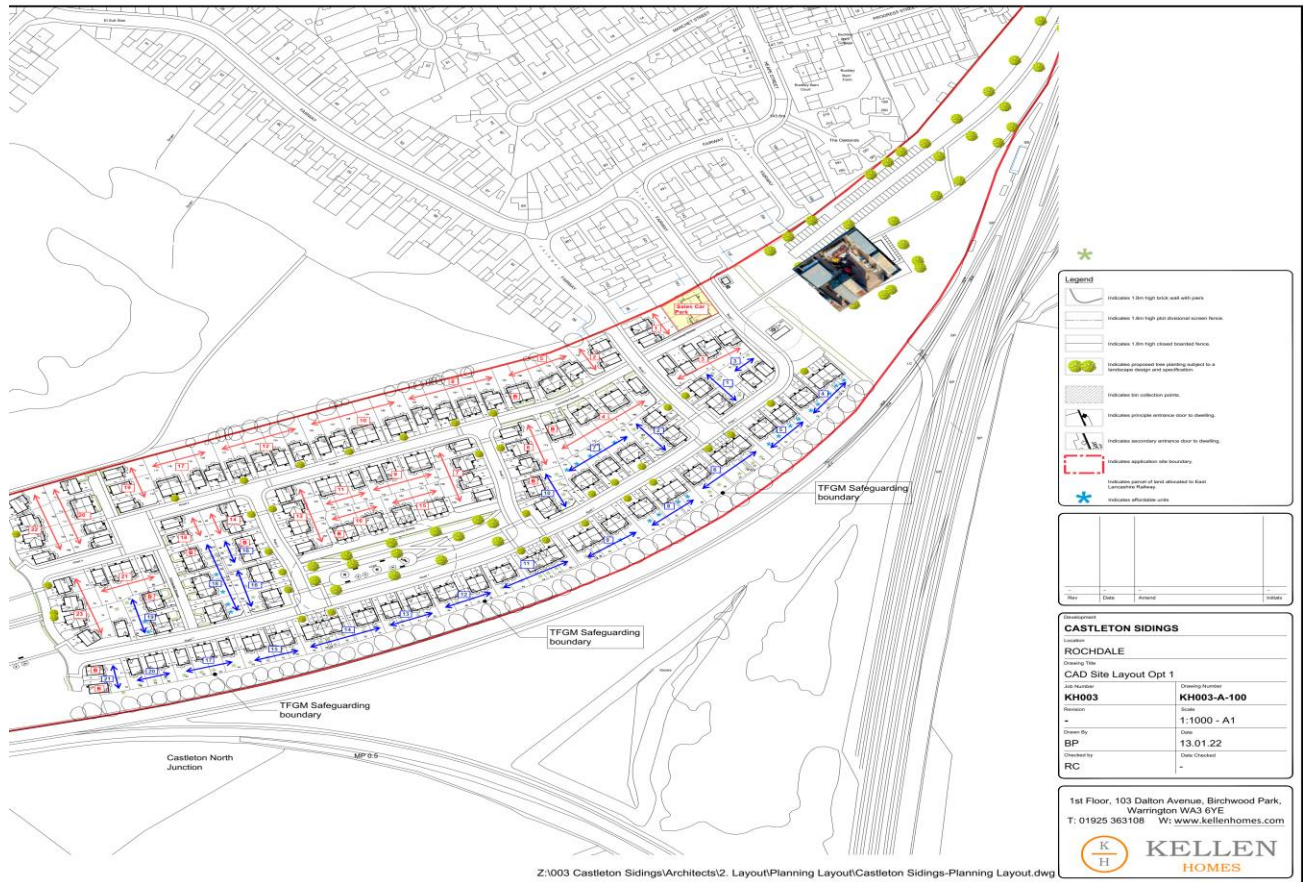
Build Program (Additional Document)

Exit Plan

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Appendix A

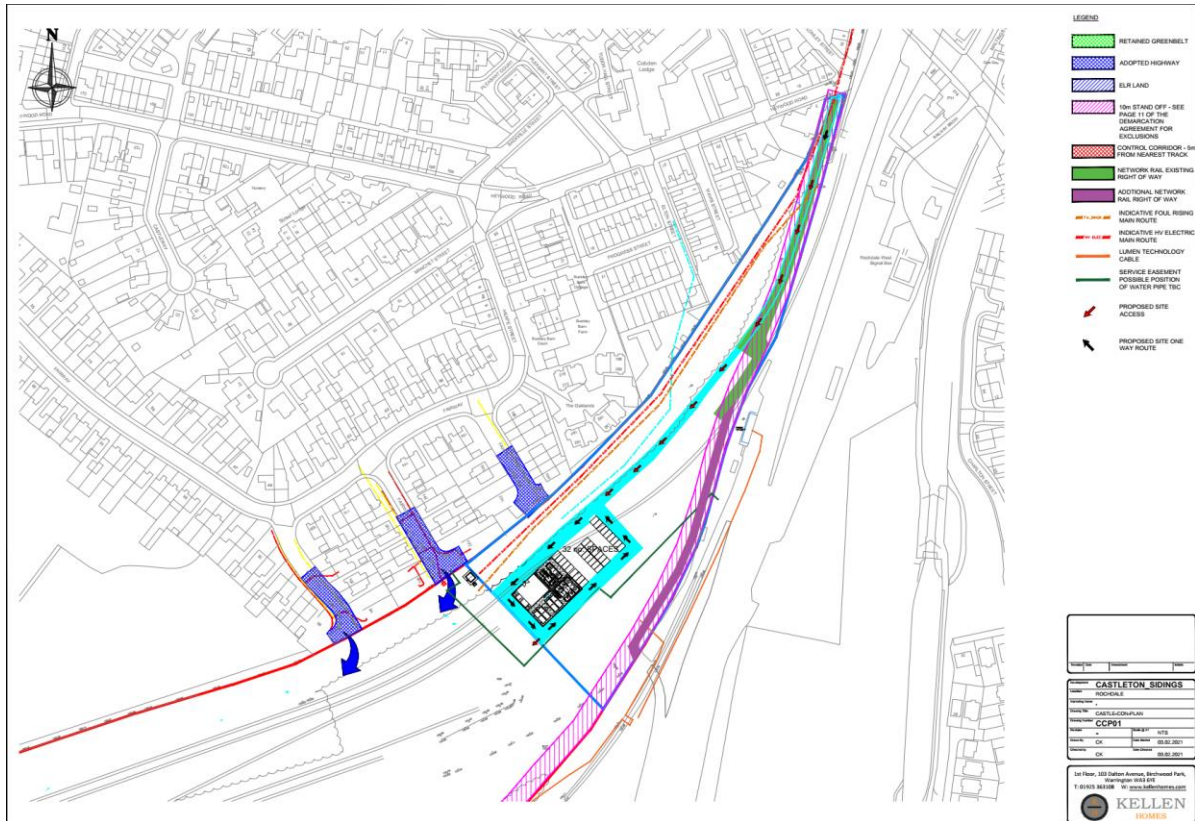
Direction of Build/Build Route



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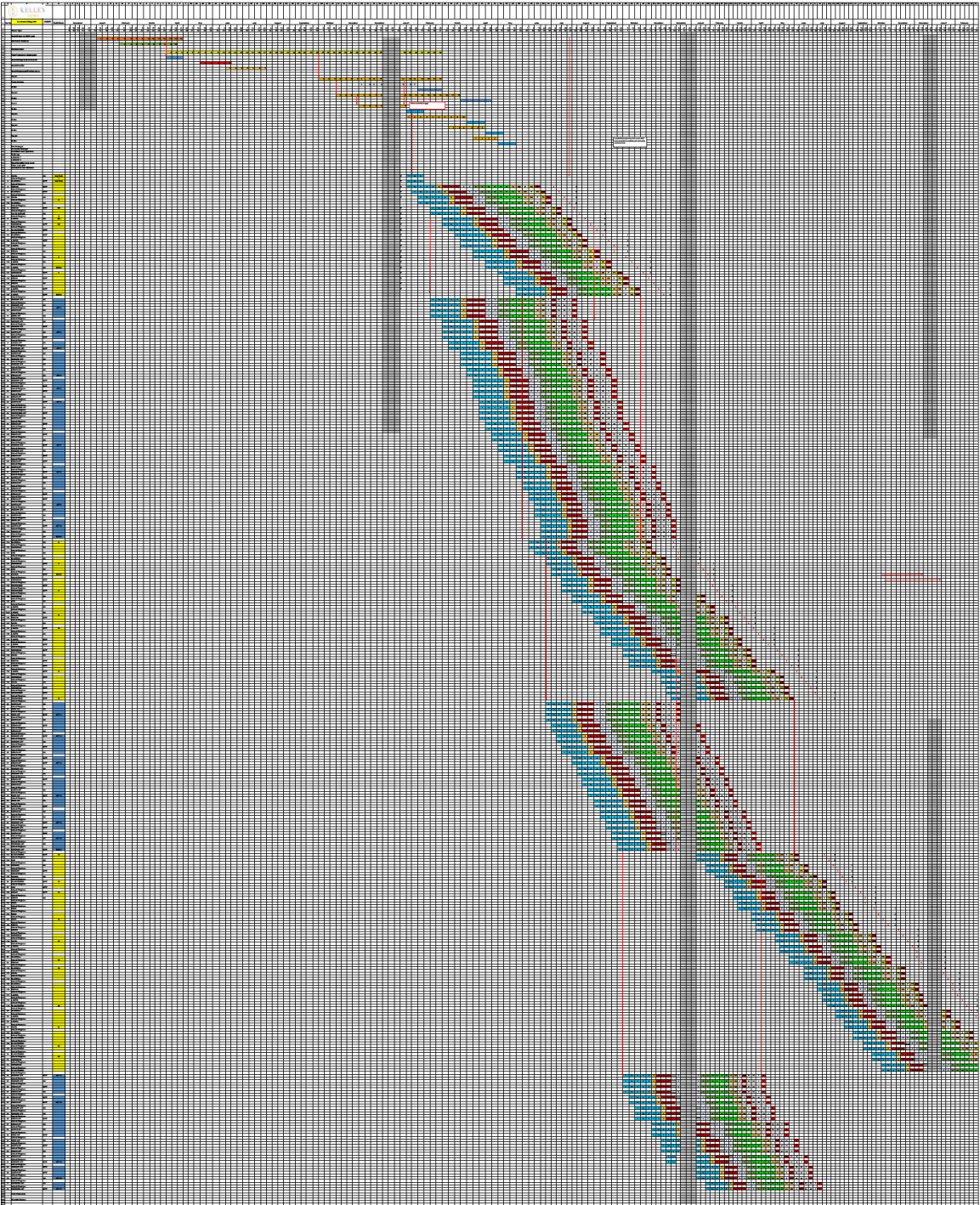
Appendix A

Compound Phase Location



Appendix A

Building Program



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Appendix A

Exit plan compound location, the existing compound can stay in place to the end of the project



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