



Fair Green  
Oldcastle  
Co. Meath

# OUTLINE CONSTRUCTION & ENVIRONMENTAL MANAGEMENT PLAN

Part 8 Planning Application  
July 2023

## DOCUMENT CONTROL

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Prepared by:

**Barrett Mahony Consulting Engineers Ltd.**

52-54 Lower Sandwith Street

Dublin 2

D02WR26

Prepared for:

**Meath County Council**



comhairle chontae na mí  
meath county council



BARRETT MAHONY  
CONSULTING ENGINEERS  
CIVIL & STRUCTURAL  
www.bmce.ie



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## 1. INTRODUCTION

### 1.1 BACKGROUND

Barrett Mahony Consulting Engineers Ltd. have been appointed by Meath County Council as Civil & Structural Consultant Engineers for a new public play park development at Fair Green, Oldcastle, Co. Meath. Refer to Figure 1.1 below for map showing location of the subject site.

This Outline Construction Environmental Management Plan (CEMP) is submitted to demonstrate that the proposed development can be carried out in a planned and structured manner, with appropriate environmental safeguards. The plan, which is a live document during the course of the project, will be subject to change, arising from:

- Detailed compliance requirements agreed with Meath County Council
- Requirements by other state bodies
- Concerns raised by residents affected by the works
- Final Traffic Management Plans (TMPs) prepared prior to commencement
- Any specific requirements of the appointed main contractor.

This CEMP prepared for the development will be subject to periodic review as part of the management of the construction process. This CEMP should be read together with all other reports submitted with the planning application for the proposed development.

### 1.2 SCOPE OF WORK

The proposed development will consist of:

- creating and implementing a design for an existing brown-field area to repurpose the area as a new public play park.
  - diversions of existing services such as foul sewers and electricity lines, along with the installation of new surface water drainage and public lighting utilities.
  - demolition of the existing asphalt surfacing on site, partial demolition of some existing boundary walls on the site, demolition of the existing playground area to the south eastern corner of the site, and general site clearance works to facilitate the construction of the new public play park.
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Figure 1.1: Location of subject site

## **2. CONSTRUCTION MANAGEMENT**

### **2.1 STATUTORY REQUIREMENTS & STANDARDS**

The relevant statutory requirements are listed below:

- The Building Regulations
- The Planning Conditions
- The Protection of the Environment Act 2003
- Air Quality Standards Regulations 2011
- Waste Management Act 1996 & Associated Regulations
- Traffic Signs Manual Chapter 8 Requirements (2019)

The Contractor and all Subcontractors will have a working knowledge of all relevant Acts, Regulations and Standards and so be able to promote, stimulate and encourage a high standard of health and safety during the construction stage, such as (non-exhaustive):

- Safety & Health at Work Act 2005
- Construction Regulations 2013
- General Application Regulations 2007-2016
- BS6187:2011 CoP Full & Partial Demolition

### **2.2 PRE-START SURVEY**

A pre-start condition survey of the works area will be carried out prior to the works commencing. This will consist of a report on the existing site environmental conditions, including existing underground and overhead services, boundary walls, footpaths, roads, access points, etc. and shall be accompanied by photographic records. The findings of the survey will be documented and stored by the Contractor.

It is noted that a topographical survey and an underground utility survey have been undertaken by Apex Surveys in advance of preparing the Part 8 planning application.

### **2.3 PROGRAMME & PHASING**

The project will be completed in one phase. The commencement date will be outlined following the completion of the Part 8 planning process and will be agreed with the main contractor. It is expected the construction programme duration will be approximately 4-6months.

### **2.4 WORKING HOURS**

Except where otherwise agreed with Meath County Council (MCC), working hours will be limited to 08:00-19:00 Monday to Friday and 08:00-14:00 Saturdays. The site will be closed on Sundays & Bank Holidays.

### **2.5 HOARDING & SITE SECURITY**

The new works will be hoarded off or fenced off from the public at all times. It will be the responsibility of the Contractor to secure the site appropriately. It is proposed the site will be secured by steel palisade gates and heras fencing which will be adjusted as necessary throughout the construction stage of the project. The hoarding alignment and specification are to be confirmed by the Contractor prior to commencement.

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Controlled access points to the site, in the form of steel palisade gates will be kept locked for any time that these areas are not monitored (e.g. outside working hours).

During working hours, a gateman will control traffic movements and deliveries at any active site access to ensure safe access and egress to & from site onto the public roads. All personnel working on site must have a valid Safe Pass card and be inducted by the Main Contractor with regard to site specific information.

## **2.6 SITE ACCOMMODATION, PARKING, WELFARE & STORAGE**

The site offices, including storage areas and welfare facilities for operatives shall be established within the site boundary. The Contractor shall be responsible for obtaining all necessary temporary connection permits from the relevant stakeholders for power, water and wastewater connections.

Parking is currently available at the public car park to the south west of the site. It is noted that this area shall remain as a public car park and will not form part of the construction site area unless otherwise agreed with Meath County Council.

## **2.7 TRAFFIC MANAGEMENT**

### **2.7.1 General**

The works associated with the development will result in additional traffic on the road network due to the export of earthworks and demolition material, and the delivery of new materials for construction – aggregates, concrete, surfacing materials, prefabricated components, etc.

Construction traffic access to the site will be via the existing entrance at Railway Yard, to the western side of the site. It is proposed that all unloading for deliveries is provided for within the site confines so as not to impede vehicular or pedestrian traffic on the public street/footpaths. Appropriately demarcated storage zones will be used to separate and segregate materials on site. All deliveries to site will be scheduled to ensure their timely arrival, and avoid the need for storing large quantities of materials on site. Deliveries and site traffic to and from the site should avoid, when possible, peak traffic times in mornings and evenings.

### **2.7.2 Contractor's Traffic Management Plan**

A Traffic Management Plan will be prepared by the Contractor and agreed with Meath County Council's Transportation Department & An Garda Síochána, to mitigate any impact of construction on the surrounding road network. The Traffic Management Plan will provide for the following where required:

- The contractor shall be responsible for and make good any damage to existing roads or footpaths caused by his own contractor's or suppliers transport to and from the site.
  - The contractor shall at all times keep all public and private roads, footpaths entirely free of excavated materials, debris, rubbish, provide vehicle wheel wash and thoroughly clean all wheels and arches of all vehicles as they leave the site.
  - The contractor shall confine his activities to the area of the site occupied by the works and the builders' compound, as far as practicably possible, during any particular phase of the development.
  - Haul routes to and from the site will be defined and agreed with the Local Authority.
  - Properly designed and designated entrance and egress points to the construction site for construction traffic will be used to minimize impact on external traffic.
  - Flagmen shall be used to control the exit of construction vehicles from the site onto the public road, if required.
  - Existing fire hydrants are to remain accessible as required.
-



Suggested headings for the Contractor's Traffic Management Plan (not exhaustive)

- Construction Traffic Management – General Requirements
- Traffic Safety and Control
- Temporary Traffic Diversions & one-way systems
- Emergency Contact Numbers and Personnel
- Emergency Plan
- Access Arrangements
- Compound and Staff Parking

### 2.7.3 Public Traffic

For safety & convenience, the management of public traffic, both pedestrian & vehicular, shall be a key part of the construction management process.

### 2.7.4 Construction Vehicles

The expected vehicles associated with the construction activities are as follows: -

- Excavators
- Dump trucks
- Concrete delivery trucks
- Delivery trucks – flatbed & containers
- Mobile cranes
- Mobile hoists

### 2.7.5 Measures to Minimise Construction Vehicle Movements

Construction vehicle movements will be minimised through:

- Consolidation of delivery loads to/from the site and scheduling of large deliveries to site to occur outside of peak periods;
- Use of precast/prefabricated materials where possible;
- 'Cut' material generated by the construction works will be re-used on site where possible, through various accommodation works.
- Adequate storage space on site will be provided;
- Construction staff vehicle movements will also be minimised by promoting the use of car sharing among the construction staff.

## 2.8 COVID-19

The Contractor is to follow the latest CIF safety protocols for COVID-19 in relations to all activities on site, in relation to travel to & from home to site for all staff, in relation to site visitors and in relation to any other relevant activities connected with the construction of the development.

## 2.9 WATER SUPPLY

A water supply will be required for various activities on site. The main contractor will require a water source for the duration of the works. Water will be required for:

- Main contractor's welfare facilities.
  - Wheel wash and vehicle wash-down (use recycled water where feasible).
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- Dust suppression (as applicable).
- General construction cleaning materials/equipment etc.

There is existing public water mains infrastructure in the footpath on Railway Yard via which a temporary connection may be facilitated by Irish Water during construction.

### **2.10 GROUNDWATER CONTROL/DE-WATERING**

It is not anticipated that there will be any significant de-watering required on site.

### **2.11 PUBLIC RELATIONS/COMMUNITY LIAISON**

The site is located in an urban area in Oldcastle, Co. Meath. The Main Contractor will be required to ensure that all agents, sub-contractors and suppliers act in a manner to minimise disruption to the locality. Construction staff will be encouraged to remove all Personal Protective Equipment (PPE) and use wash-down facilities before leaving the site.

A senior site staff member should be appointed as a Liaison Manager and should be responsible for the following:

- Participation and distribution of a local information leaflet on site activities.
- Briefing as necessary with neighbours on progress and issues.
- Liaison with Meath County Council and emergency services as appropriate.
- Liaison with An Garda Síochána, particularly in relation to traffic movements and permits.
- Preparation of reports for the site meetings on neighbourhood issues if they arise.

Efficient signage, maintenance and cleanliness of services and temporary facilities will be given high priority. Due to the nature of construction works, it is essential to operate Good Neighbour Policies wherever possible. The key aspects of the Projects Team's good neighbour policy include:

- Early implementation
- Good client, staff and neighbourhood liaison.
- Reduction of nuisance factors.
- Clear access for neighbouring premises.
- Clear and concise information.
- Designated liaison officer.
- Strict adherence to the prescribed working hours

It is essential that the Good Neighbour Policy and any necessary procedures be in place before any works are commenced on site.

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### 3. ENVIRONMENTAL CONSIDERATIONS

The main contractor will be required to mitigate the impact of the construction works on the environment. Proposed measures in relation to a number of items are set out below.

#### 3.1 NOISE

Some impact of noise is likely to occur as a result of the construction activity. Construction work is of a temporary nature and the resulting noise levels are usually acceptable, subject to typical management and time control procedures which are common to most development projects.

Construction plant used on site will comply with the relevant Irish regulations in relation to noise and vibration requirements.

Noise will be minimized as far as possible, by limiting the use of compressors and other plant to stated hours and by fitting and use of silencing devices wherever practicable. Attention should be paid to the recommendations given the latest version of BS 5228. 'Noise Control on construction & Open Sites' & BS 6187 Code of Practice for Demolition.

##### 3.1.1 Noise Mitigation Measures

The following noise management measures shall be implemented at the site from the outset of site activities to control and manage noise levels during the construction phase of the proposed development:

- The nominated contractor shall appoint a designated person to manage all environmental complaints including noise and vibration.
- A noise complaint procedure shall be implemented in which the details of any noise related complaint are logged, investigated and where required, measures are taken to ameliorate the source of the noise complaint.
- Appropriate signage shall be erected on all access roads in the vicinity of the site to inform HGV drivers that engines shall not be left idling for prolonged periods and that the use of horns shall be banned at all times.
- HGV's queuing on any local or public road shall not be permitted and it shall be the responsibility of site management to ensure this policy is enforced.
- All onsite generator units (if required) used to supply electricity to the site shall be silenced models or enclosed and located away from any receptor.
- The site compound shall be located at a point on site furthest away from any existing residential development.
- Mains power shall be used to supply electricity to all site offices and site lighting at the earliest instance.
- The use of generators during the night-time shall be avoided.

##### 3.1.2 Construction Phase Noise Control & Mitigation

The following shall be implemented to mitigate construction noise impacts in order to ensure that the construction phase of the development does not have an unacceptable impact on sensitive receptors:

- A strictly enforced noise management programme shall be implemented at the site from the outset of construction activities.
-

- The principal of controlling noise at source shall be implemented at the site. Best practice mitigation techniques as specified in *BS 5228:2009+A1 2014 – Noise and Vibration Control on Construction and Open Sites* shall be implemented during the construction phase and are detailed in this Section.
  - Noisy stationary equipment shall be sited away from sensitive site boundaries as far as practicable.
  - Where reasonable, practicable, noisy plant or activities shall be replaced by less noisy alternatives if noise breaches and/or complaints occur.
  - Proper use of plant with respect to minimising noise emissions and regular maintenance will be required.
  - All vehicles and mechanical plant will be fitted with effective exhaust silencers and will be maintained in good efficient order
  - Where noisy plant is required to operate in work areas next to residential houses low noise plant options will be used wherever practicable.
  - Dumpers and any plant used for moving materials around the site will have high performance exhaust silencers.
  - Selected use of rubber-tyred equipment over steel track equipment where practicable.
  - The use of inherently quiet plant is required where appropriate – all compressors and generators will be “sound reduced” or “super silent” models fitted with properly lined and sealed acoustic covers, which will be kept closed whenever the machines are in use, and all ancillary pneumatic percussive tools will be fitted with mufflers or silencers of the type recommended by the manufacturers.
  - All compressors, generators and pumps shall be silenced models fitted with properly lined and sealed acoustic covers or enclosures, which will be kept closed whenever the machines are in use.
  - All pneumatic percussive tools such as pneumatic hammers shall be fitted with dampers, mufflers or silencers of the type recommended by the manufacturer.
  - Fixed items of plant shall be electrically powered in preference to being diesel or petrol driven.
  - Vehicles and mechanical plant utilised on site for any activity associated with the works shall be fitted with effective exhaust silencers and shall be maintained in good working order and operated in a manner such that noise emissions are controlled and limited as far as reasonably practicable.
  - Any plant, equipment or items fitted with noise control equipment found to be defective in shall not be operated until repaired / replaced.
  - Machines in intermittent use shall be shut down in the intervening periods between works or throttled down to a minimum during periods when not in use.
  - Static noise emitting equipment operating continuously shall be housed within suitable acoustic enclosure, where appropriate.
  - All excavator mounted pneumatic breakers used for demolition and ground breaking activities shall be fitted with effective dampeners and /or enclosed within a noise adsorbing blanket structure to minimise noise emissions.
  - Site activities shall be staggered when working in proximity to any receptor, that is concrete cutting and rock breaking should where possible. This proposed method of working will provide effective noise management of site activities to ensure that any receptor is not exposed to unacceptably high levels of noise over extended periods.
  - Excessive revving of all vehicles shall be avoided.
  - Unnecessary dropping of heavy items onto ground surfaces shall be banned.
  - The use of an excavator bucket to break up slabs of concrete or tarmac shall not be permitted.
-

- The dragging of materials such as steel covers, plant or excavated materials along ground surfaces shall not be permitted.
- The use of acoustic screens to attenuate noise at source shall be implemented as deemed necessary.
- A nominated person from the Project Management team will be appointed to liaise with local residents and businesses regarding noise nuisance events.
- In the event of the requirement for out of hours work to occur which will involve the generation of noise levels that are predicted to exceed out of hours noise limit criteria, Meath County Council shall be immediately notified prior to the works commencing.
- A nominated person from the Project Management team will be appointed to liaise with and inform local residents and Meath County Council regarding out of hours works.

### 3.1.3 Construction Phase Vibration Control & Mitigation

The following specific vibration mitigation and control measures shall be implemented during the construction phase:

- Breaking out concrete elements using low vibration tools
- Choosing alternative, lower-impact equipment or methods wherever possible
- Scheduling the use of vibration-causing equipment, such as jackhammers, at the least sensitive time of day
- Routing, operating or locating high vibration sources as far away from sensitive areas as possible
- Sequencing operations so that vibration causing activities do not occur simultaneously
- Isolating the equipment causing the vibration on resilient mounts
- Keeping equipment well maintained.
- Confining vibration-generating operations to the least vibration-sensitive part of the day which could be when the background disturbance is highest
- A nominated person from the Project Management team will be appointed to liaise with local residents and businesses regarding vibrational nuisance events.

## 1.1 DUST & AIR QUALITY

The Contractor's proposals are to include dust control measures in accordance with best practice and with reference to the following:

- Air Pollution Act 1987
- BS 6187: Code of Practice for Demolition

In order to ensure that adverse air quality impacts are minimised during the construction phase and that the potential for soiling of property and amenity and local public roads is minimised, the following mitigation measures shall be implemented during the course of all construction activities:

- Avoid unnecessary vehicle movements and manoeuvring, and limit speeds on site so as to minimise the generation of airborne dust.
  - During dry periods, dust emissions from heavily trafficked locations (on and off site) will be controlled by spraying surfaces with water and wetting agents.
  - Hard surface roads will be swept to remove mud and aggregate materials from their surface
  - Re-suspension in the air of spillages material from trucks entering or leaving the site will be prevented by limiting the speed of vehicles within the site to 10kmh and by use of a mechanical road sweeper.
  - The overloading of tipper trucks exiting the site shall not be permitted.
-

- Where the likelihood of windblown fugitive dust emissions is high and during dry weather conditions, dusty site surfaces will be sprayed by a mobile tanker bowser.
- Wetting agents shall be utilised to provide a more effective surface wetting procedure.
- Exhaust emissions from vehicles operating within the construction site, including trucks, excavators, diesel generators or other plant equipment, will be controlled by the contractor by ensuring that emissions from vehicles are minimised by routine servicing of vehicles and plant, rather than just following breakdowns; the positioning of exhausts at a height to ensure adequate local dispersal of emissions, the avoidance of engines running unnecessarily and the use of low emission fuels.
- All plant not in operation shall be turned off and idling engines shall not be permitted for excessive periods.
- Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods.
- Material stockpiles containing fine or dusty elements including top soils shall be covered with tarpaulins.
- Where drilling or pavement cutting, grinding or similar types of stone finishing operations are taking place, measures to control dust emissions will be used to prevent unnecessary dust emissions by the erection of wind breaks or barriers. All concrete cutting equipment shall be fitted with a water dampening system.
- A complaints log shall be maintained by the construction site manager and in the event of a complaint relating to dust nuisance, an investigation shall be initiated.

A dust minimisation plan will be formulated for the construction phase of the project. The Contactor will put in place a regime for monitoring dust levels in the vicinity of the site during the works using the Bergerhoff Method. Then minimum criteria to be maintained shall be the limit specified by the Environmental Protection Agency (EPA) for licensed facilities in Ireland which is 350mg/m<sup>2</sup>/day as a 30-day average.

## **1.2 PROTECTION TO WILDLIFE**

In order to reduce the levels of disturbance to wildlife during the construction phase of the project, from noise, vibration, dust, air quality and traffic effects, the following mitigation measures should be implemented:

- Noise screens should be used during construction,
- Turn off machinery when not in use,
- Ensure staff are aware of parking area,
- Provide staff with alternative transport such as bicycles and to ensure deliveries are not queuing outside the site,
- Avoid unnecessary vehicle movements and manoeuvring, and limit speeds on site so as to minimise the generation of airborne dust,
- Use of rubble chutes and receptor skips during construction activities,
- During dry periods, dust emissions from heavily trafficked locations (on and off site) will be controlled by spraying surfaces with water and wetting agents

## **1.3 POLLUTION CONTROL**

Prior to the commencement of construction, the appointed contractor will be required to obtain formal agreement from the Local Authority on pollution prevention measures as well as the overall approach and emergency procedures for all construction stages.

Contractors will have regard to the following best practice guidelines to ensure that water bodies are adequately protected from construction work:

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- Construction Industry Research and Information Association (CIRIA) C649: *Control of water pollution from linear construction projects: Technical guidance* (Murnane et al. 2006)
- *CIRIA C649: Control of water pollution from linear construction projects: Site guide* (Murnane et al. 2006)

This plan will provide precise details on methods to prevent sediment or pollutants from leaving the construction site in line with the notes below:

#### 3.1.4 General

- Construction methods used should be tailored to reduce, as much as possible, dust and noise pollution.
- In order to prevent the accidental release of hazardous materials (fuels, paints, cleaning agents, etc.) during site activity, all hazardous materials should be stored within secondary containment designed to retain at least 110% of the storage contents. Temporary bunds for oil/diesel storage tanks should be used on the site during the construction phase of the project. Safe materials handling of all potentially hazardous materials should be emphasised to all construction personnel employed during this phase of the project.
- Prior to the commencement of demolition and construction, details will be provided for locations and safe-guards for refuelling of machinery, machine servicing, concrete-mixing, etc.
- Comprehensive traffic management procedures, including the provision of access to all roads, and access/egress points should be prepared and agreed with the Local Authority. These traffic management measures should be implemented at times when traffic disruption may be experienced.
- Road sweeping and/or wheel wash facilities should be provided, as required.
- All oils/diesel stored on site for construction equipment are to be located in appropriately bunded areas.
- The location and size of stockpile areas for sands and gravel will be specified and identified on the maps.
- Sediment runoff will be minimised by standard engineering measures including sediment skirts around soil stockpiles, sediment retention barriers in surface water drains and the use of adequate construction roads.

#### 3.1.5 Surface Water Management & Ground Water Control

The construction management of the site will take account of the recommendations of the CIRIA guides *Control of Water Pollution from Construction Sites* (2001) and *Control of Water Pollution from Linear Construction Projects* (2006) and Inland Fisheries Ireland's (IFI's) *Requirements for the Protection of Fisheries Habitat during Construction and Development Works*.

- Chemical, fuel and oil stores will be sited on impervious bases and within a secured bund of 110% of the storage capacity, within the lay down area;
  - As fuels and oils are classed as hazardous materials, any on-site storage of fuel/oil, all storage tanks and all draw-off points will be bunded (or stored in double-skinned tanks) and located in the dedicated site compound. Provided that these requirements are adhered to and site crew are trained in the appropriate refuelling techniques, it is not expected that there will be any fuel/oil wastage at the site.
  - Oil and fuel stored on site for construction should be stored in designated areas. These areas shall be bunded and should be located away from surface water drainage and features.
  - The integrity and water tightness of all the bunding structures and their resistance to penetration by water or other materials stored therein shall also be tested and demonstrated.
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- All fuel oil fill areas will have an appropriate spill apron.
- Vehicles and refuelling – standing machinery will have drip trays placed underneath to prevent oil and fuel leaks causing pollution. Where practicable, refuelling of vehicles and machinery will be carried out on an impermeable surface in designated areas, well away from any surface watercourse and surface water drains;
- Maintenance – maintenance to construction plant will not be permitted on site, unless vehicles have broken down necessitating maintenance at the point of breakdown. All necessary pollution prevention measures will be put in place prior to commencement of maintenance in this instance;
- Concrete - Wet concrete operations shall not be carried out within watercourses or adjacent to watercourses or surface drains.
- Weather conditions and seasonal weather variations will also be taken account of when planning excavations, with an objective of minimizing soil erosion.
- Concrete batching will take place off site or in a designed area with an impermeable surface.
- Concrete wash down and wash out of concrete trucks will take place off site or in an appropriate facility.
- A designated impermeable cement washout area will be provided.
- All new infrastructure is to be installed and constructed to the relevant codes of practice and guidelines.
- All surface water infrastructure is to be pressure tested by an approved method during the construction phase and prior to connection to the proposed soakaway, all in accordance with Local Authority Requirements.
- All new drainage networks, for both foul and surface water drainage, are to be inspected by CCTV survey prior to project completion; to identify any possible physical defects for rectification prior to operational phase.

#### 3.1.6 Soil

- If un-contaminated, any existing topsoil will be retained on site to be used for the proposed development. Topsoil should be stored in an appropriate manner on site for the duration of the construction works and protected for re-use on completion of the main site works.
- During the demolition and construction phase, all excavations and exposed sub-soils in open cuts will be blinded and protected with clean broken stone as soon as possible after exposing the subsoil in order to prevent erosion.

#### 3.1.7 Harmful Materials

- Harmful materials shall be stored on site for use in connection with the construction works only. These materials shall be stored in a controlled manner. Where on site fuelling facilities are used there shall be bunded filling area using a double bunded steel tank at a minimum.

### 3.2 REINSTATEMENT / ROAD CLEANING

#### 3.2.1 Construction Stage

Prior to the works commencing, detailed photographic surveys (condition schedules) of adjoining walls, roads, footpaths, fences etc. is to be prepared. Copies of the relevant parts are to be made available to adjoining owners and Meath County Council. This record will form the basis of assessing repairs to adjoining areas in the future should a dispute arise as to their cause. Roadways are to be kept clean of muck and other debris. A road sweeping truck is to be provided if necessary to ensure that this is so.

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### 3.2.2 On Completion

Reinstatement at completion of the works will involve:

- Testing and cleaning of all new drainage installations within the development to the requirements of the IW / MCC prior to commissioning/connecting.
  - Repair of any damage to any adjacent public roadways, kerbs, grass verges, boundary walls etc. in accordance with MCC requirements.
  - Reinstatement of all excavations to the requirements of MCC.
  - Leaving the area in a neat and clean condition, removing all deleterious materials that may have been deposited during construction works.
-

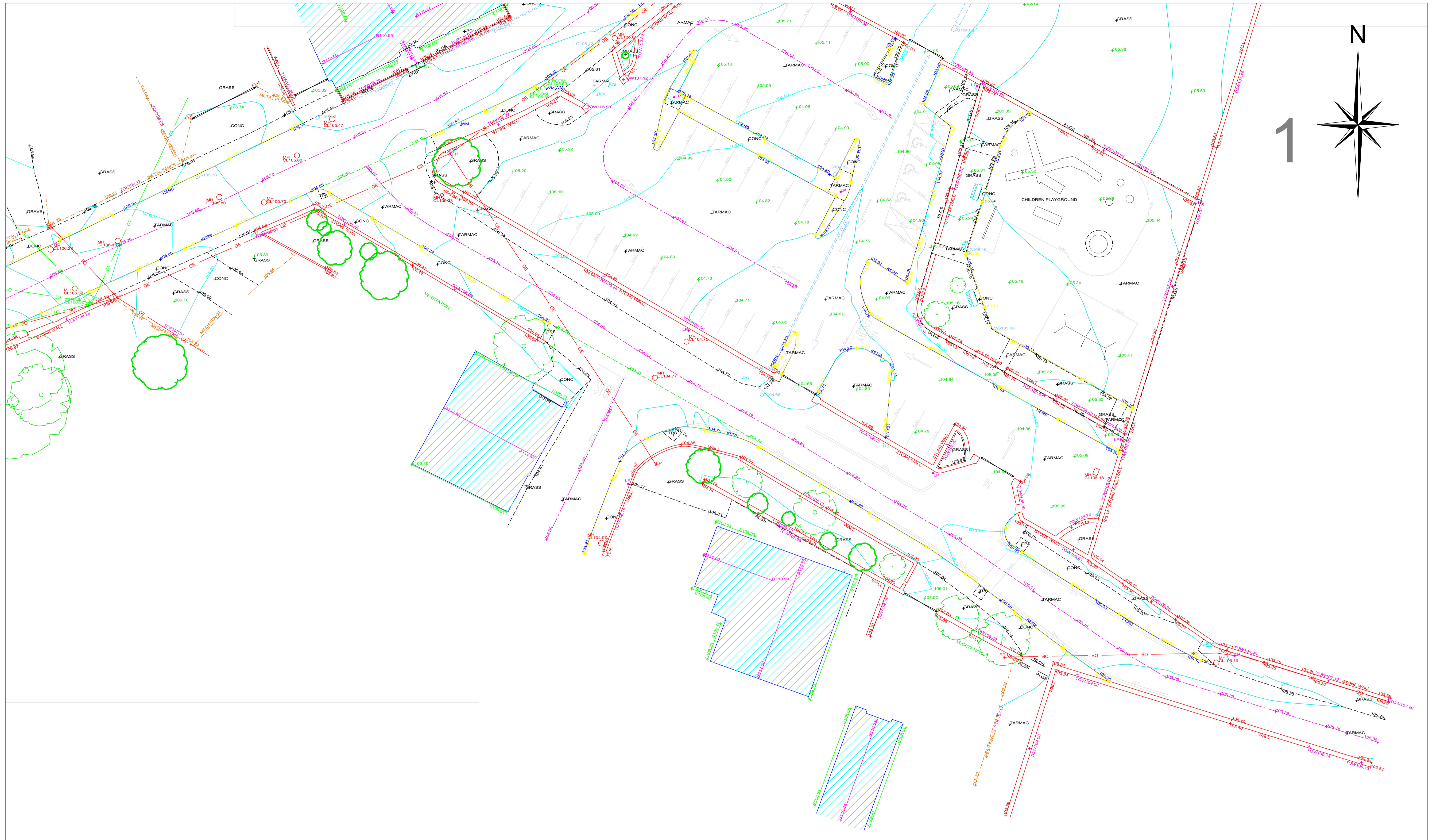
# APPENDIX I

Site Plan Layout



# APPENDIX II

Existing Site Topographical Survey



**APEX SURVEYS**

www.apexsurveys.ie  
info@apexsurveys.ie  
00353 1 691 0156

**RURAL/NATURAL FEATURES :**

BUSH	
SAPLING	
TREE	
HEDGE	
TROUGH	
CATTLE GRID	
LINEWORK:	
EMBANKMENT TOP	+101.50
DRAIN	+101.50
BREAKLINE	+101.50
BUILDING	+101.50
KERB BOTTOM	+101.50
WALL	+101.50
PATHCHANGE SURFACE	+101.50
OHEAD ELECTRICITY	
OHEAD TELECOM	

**STREET FURNITURE :**

BOLLARDS	
BORE HOLE	
BUS STOP	
CRASH BARRIER	
ELECTRICITY POLE	
EARTHING ROD	
GATE	
GROUND LIGHT	
ILLUMINATED BOLLARD	
LAMP POST	
MARKER POST	
POST	
POST BOX	
ROADSIGN	
SIGN POST	
TELEPHONE BOX	
TELEPHONE POLE	
TRAFFIC LIGHT	
TRIAL PIT	

**SERVICES :**

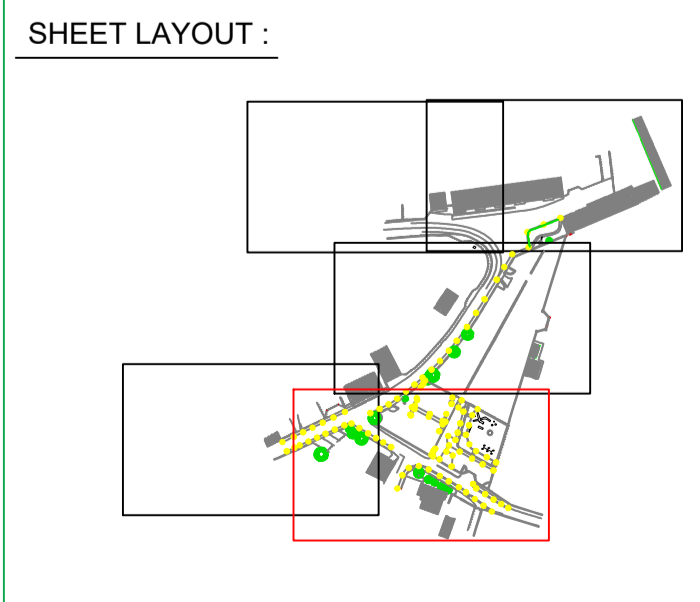
AIR VALVE	
ARMSTRONG JUNCTION	
CABLE TV IC	
COVER LEVEL	
EIRCOM COVER	
EIRCOM JUNCTION BOX	
ELECTRICAL CABLE PIT	
ESAT COVER	
ESB COVER	
ESB JUNCTION BOX	
FIRE HYDRANT	
GAS VALVE	
GULLY	
INSPECTION COVER	
MANHOLE	
SEPTIC TANK	
SLUICE VALVE	
STOPCOCK	

**SERVICES :**

SERVICE BOX ( UNKNOWN )	
TRAFFIC COVER	
VENT	
WATER METER	
UNABLE TO LIFT	

**LEVELS :**

BED LEVEL	+BED101.50
EAVE LEVEL	+E101.50
FLOOR LEVEL	+FL101.50
INVERT LEVEL	+I101.50
ROAD LEVEL	+101.50
RIDGE LEVEL	+R101.50
SOFFIT LEVEL	+SL101.50
SPOT LEVEL	+101.50
TOP OF FENCE LEVEL	+TOP101.50
TOP OF WALL LEVEL	+TOW101.50
WATER LEVEL	+WL101.50
SURVEY CONTROL STATION	



PLAN PRODUCED BY:

**APEX SURVEYS**

CONTACT INFORMATION:

Apex Surveys  
Unit 78 Dunboyne Business Park  
Dunboyne, Co. Meath, Ireland  
www.apexsurveys.ie  
info@apexsurveys.ie  
00353 1 691 0156

CLIENT:

**Park Hood**

GRID SYSTEM: Irish Transverse Mercator  
DATUM: Main Head (OSGM15)  
NOTES: Drawing Contains Scale Factor

REVISIONS:

No.	Date	Description
001	N/A	Original Drawing
002	07/04/23	Top Kerb Levels and Top of Wall Levels Added
003	29/05/23	Gaps in Boundary Wall Added

PROJECT:

**Fair Green, Oldcastle**

SCALE : 1/200 A1

DATE : 07/04/2023

DRG No: 5588

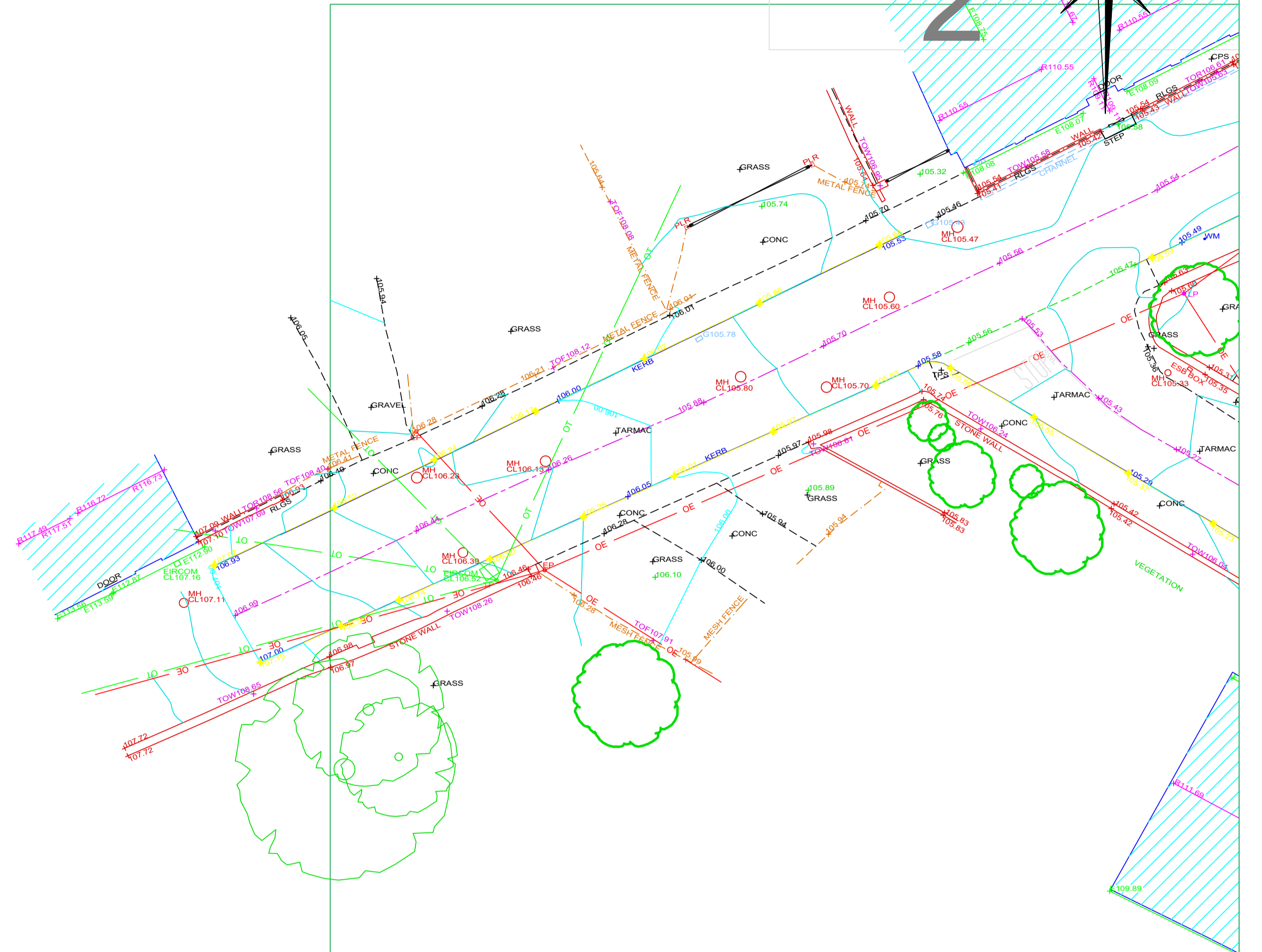
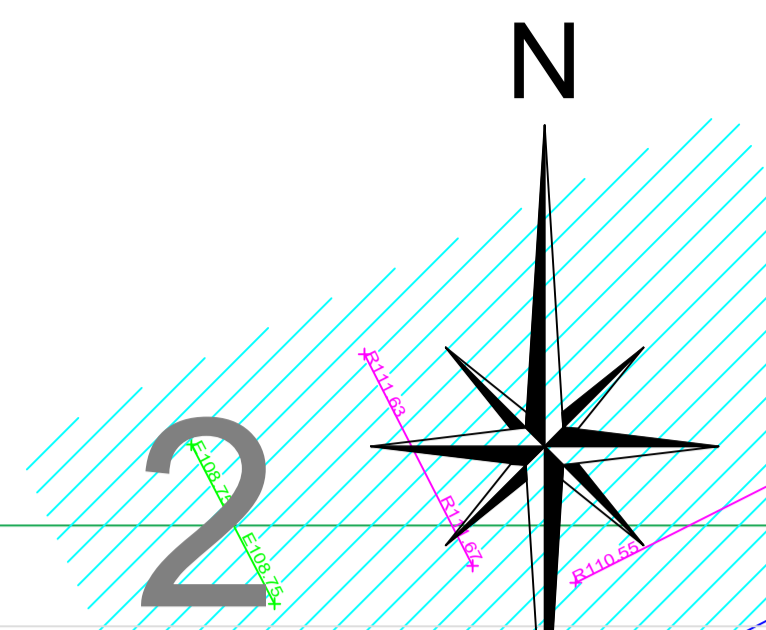
SHEET: 1 of 5

DESCRIPTION : 2D Topographical

SURVEYED BY : R.D. & S.E.

PROCESSED BY : Apex Surveys

CHECKED BY : Alan Brady



**RURAL/NATURAL FEATURES :**

BUSH	
SAPLING	
TREE	
HEDGE	
TROUGH	
CATTLE GRID	
TR	
GRID	

**LINEWORK:**

EMBANKMENT TOP	+101.50
DRAIN	+101.50
BREAKLINE	+101.50
BUILDING	+101.50
KERB BOTTOM	+101.50
WALL	+101.50
PATHCHANGE SURFACE	+101.50
OHEAD ELECTRICITY	+101.50
OHEAD TELECOM	+101.50

**STREET FURNITURE :**

BOLLARDS	BD*
BORE HOLE	BH*
BUS STOP	BS*
CRASH BARRIER	CB
ELECTRICITY POLE	EP*
EARTHING ROD	ER*
GATE	LT*
GROUND LIGHT	BOL □
ILLUMINATED BOLLARD	IP*
LAMP POST	MKR
MARKER POST	POST*
POST	POST BOX +
POST BOX	RS - RS →
ROADSIGN	SIGN POST
SIGN POST	TELEPHONE BOX
TELEPHONE BOX	TP *
TRAFFIC LIGHT	TL*
TRIAL PIT	TPIT +

**SERVICES :**

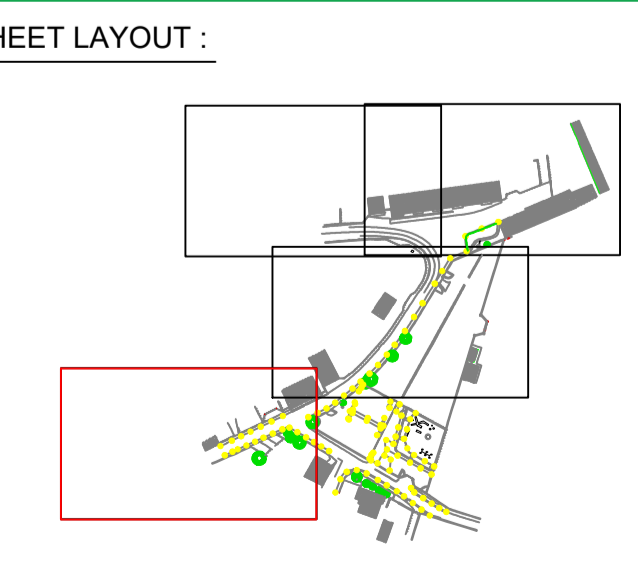
AIR VALVE	AV*
ARMSTRONG JUNCTION	AJ
CABLE TV IC	CATV □
COVER LEVEL	CL
EIRCOM COVER	EIRCOM □
EIRCOM JUNCTION BOX	EIRCOM BOX □
ELECTRICAL CABLE PIT	ECP □
ESAT COVER	ESAT □
ESB COVER	ESB □
ESB JUNCTION BOX	ESB BOX □
FIRE HYDRANT	FH*
GAS VALVE	GV □
GULLY	G
INSPECTION COVER	IC □
MANHOLE	MH
SEPTIC TANK	SEPTIC □
SLUICE VALVE	SV *
STOPCOCK	ST *

**SERVICES :**

SERVICE BOX ( UNKNOWN )	BOX □
TRAFFIC COVER	TLIC □
VENT	VENT*
WATER METER	WM*
UNABLE TO LIFT	UTO

**LEVELS :**

BED LEVEL	+BED101.50
EAVE LEVEL	+E101.50
FLOOR LEVEL	+FL101.50
INVERT LEVEL	+IL101.50
ROAD LEVEL	+101.50
RIDGE LEVEL	+R101.50
SOFFIT LEVEL	+SL101.50
SPOT LEVEL	+101.50
TOP OF FENCE LEVEL	+TOP101.50
TOP OF WALL LEVEL	+TOW101.50
WATER LEVEL	+WL101.50
SURVEY CONTROL STATION	⊗



PLAN PRODUCED BY:

# APEX SURVEYS

CONTACT INFORMATION:

Apex Surveys  
Unit 78 Dunboyne Business Park  
Dunboyne, Co. Meath, Ireland  
www.apexsurveys.ie  
info@apexsurveys.ie  
00353 1 691 0156

CLIENT:

**Park Hood**

GRID SYSTEM: Irish Transverse Mercator  
DATUM: Main Head (OSGM15)  
NOTES: Drawing Contains Scale Factor

REVISIONS:

No.	Date	Description
001	N/A	Original Drawing
002	07/04/23	Top Kerb Levels and Top of Wall Levels Added
003	29/05/23	Gaps in Boundary Wall Added

PROJECT:

**Fair Green, Oldcastle**

SCALE : 1/200 A1

DATE : 07/04/2023

DRG No: 5588

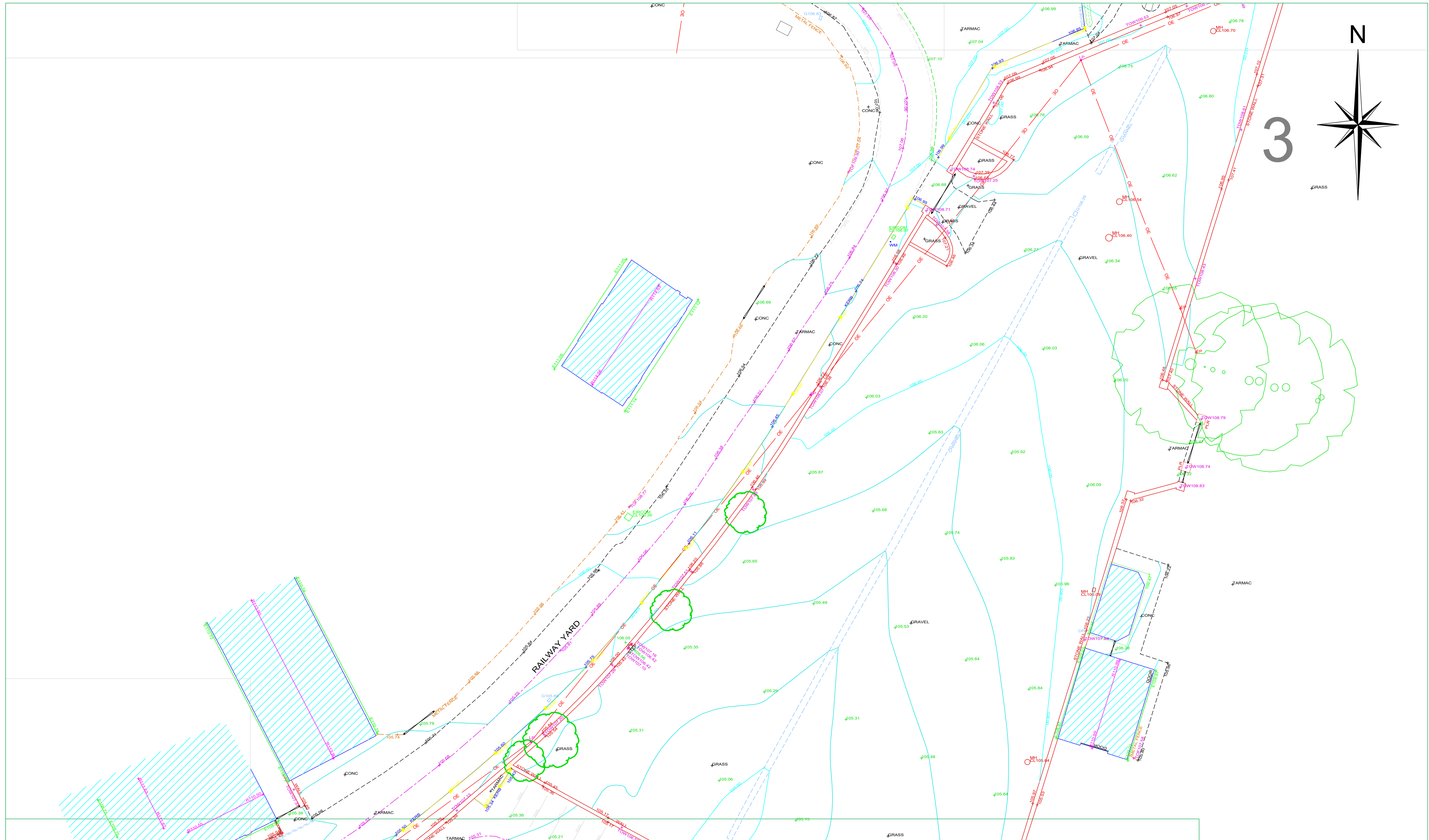
SHEET: 1 of 5

DESCRIPTION : 2D Topographical

SURVEYED BY : R.D. & S.E.

PROCESSED BY : Apex Surveys

CHECKED BY : Alan Brady



# APEX SURVEYS

www.apexsurveys.ie  
info@apexsurveys.ie  
00353 1 691 0156

**RURAL/NATURAL FEATURES :**

BUSH	
SAPLING	
TREE	
HEDGE	
TROUGH	
CATTLE GRID	
GRID	

**LINEWORK:**

EMBANKMENT TOP	+101.50
DRAIN	+101.50
BREAKLINE	+101.50
BUILDING	+101.50
KERB BOTTOM	+101.50
WALL	+101.50
PATH/CHANGE SURFACE	+101.50
OHEAD ELECTRICITY	+101.50
OHEAD TELECOM	+101.50

**STREET FURNITURE :**

BOLLARDS	BD •
BORE HOLE	BH+ •
BUS STOP	BS •
CRASH BARRIER	CB •
ELECTRICITY POLE	EP •
EARTHING ROD	ER+ •
GATE	LT- •
GROUND LIGHT	BOL □
ILLUMINATED BOLLARD	IP •
LAMP POST	MKR •
MARKER POST	POST •
POST	POST BOX+ •
POST BOX	RS- RS- •
ROADSIGN	SIGN- •
SIGN POST	TB •
TELEPHONE BOX	TP •
TELEPHONE POLE	TL+ •
TRAFFIC LIGHT	TRIT+ •
TRIAL PIT	TRIPIT+ •

**SERVICES :**

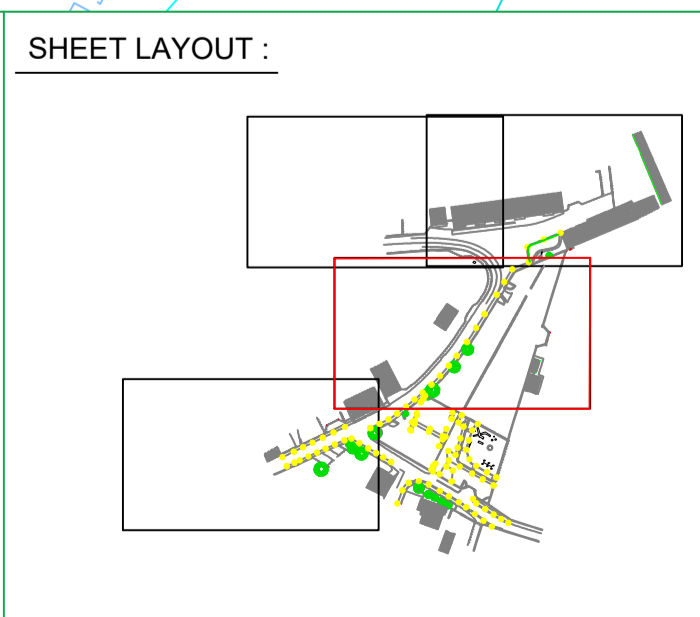
AIR VALVE	AV+ •
ARMSTRONG JUNCTION	AJ •
CABLE TV IC	CATV □
COVER LEVEL	CL □
EIRCOM COVER	EIRCOM □
EIRCOM JUNCTION BOX	EIRCOM BOX □
ELECTRICAL CABLE PIT	ECP □
ESAT COVER	ESAT □
ESB COVER	ESB □
ESB JUNCTION BOX	ESB BOX □
FIRE HYDRANT	FH+ •
GAS VALVE	GV □
GULLY	G □
INSPECTION COVER	IC □
MANHOLE	MH □
SEPTIC TANK	SEPTIC □
SLUICE VALVE	SV •
STOPCOCK	ST •

**SERVICES :**

SERVICE BOX ( UNKNOWN )	BOX □
TRAFFIC COVER	TLIC □
VENT	VENT+ •
WATER METER	WM+ •
UNABLE TO LIFT	UTO

**LEVELS :**

BED LEVEL	+BED101.50
EAVE LEVEL	+E101.50
FLOOR LEVEL	+FL101.50
INVERT LEVEL	+IL101.50
ROAD LEVEL	+R101.50
RIDGE LEVEL	+R101.50
SOFFIT LEVEL	+SL101.50
SPOT LEVEL	+101.50
TOP OF FENCE LEVEL	+TOP101.50
TOP OF WALL LEVEL	+TOW101.50
WATER LEVEL	+WL101.50
SURVEY CONTROL STATION	SCS



PLAN PRODUCED BY:

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CLIENT:

Park Hood

GRID SYSTEM: Irish Transverse Mercator  
DATUM: Main Head (OSGM15)  
NOTES: Drawing Contains Scale Factor

REVISIONS:

No.	Date	Description
001	N/A	Original Drawing
002	07/04/23	Top Kerb Levels and Top of Wall Levels Added
003	29/05/23	Gaps in Boundary Wall Added

PROJECT:

Fair Green, Oldcastle

SCALE : 1/200 A1

DATE : 07/04/2023

DRG No: 5588

SHEET: 1 of 5

DESCRIPTION : 2D Topographical

SURVEYED BY : R.D. & S.E.

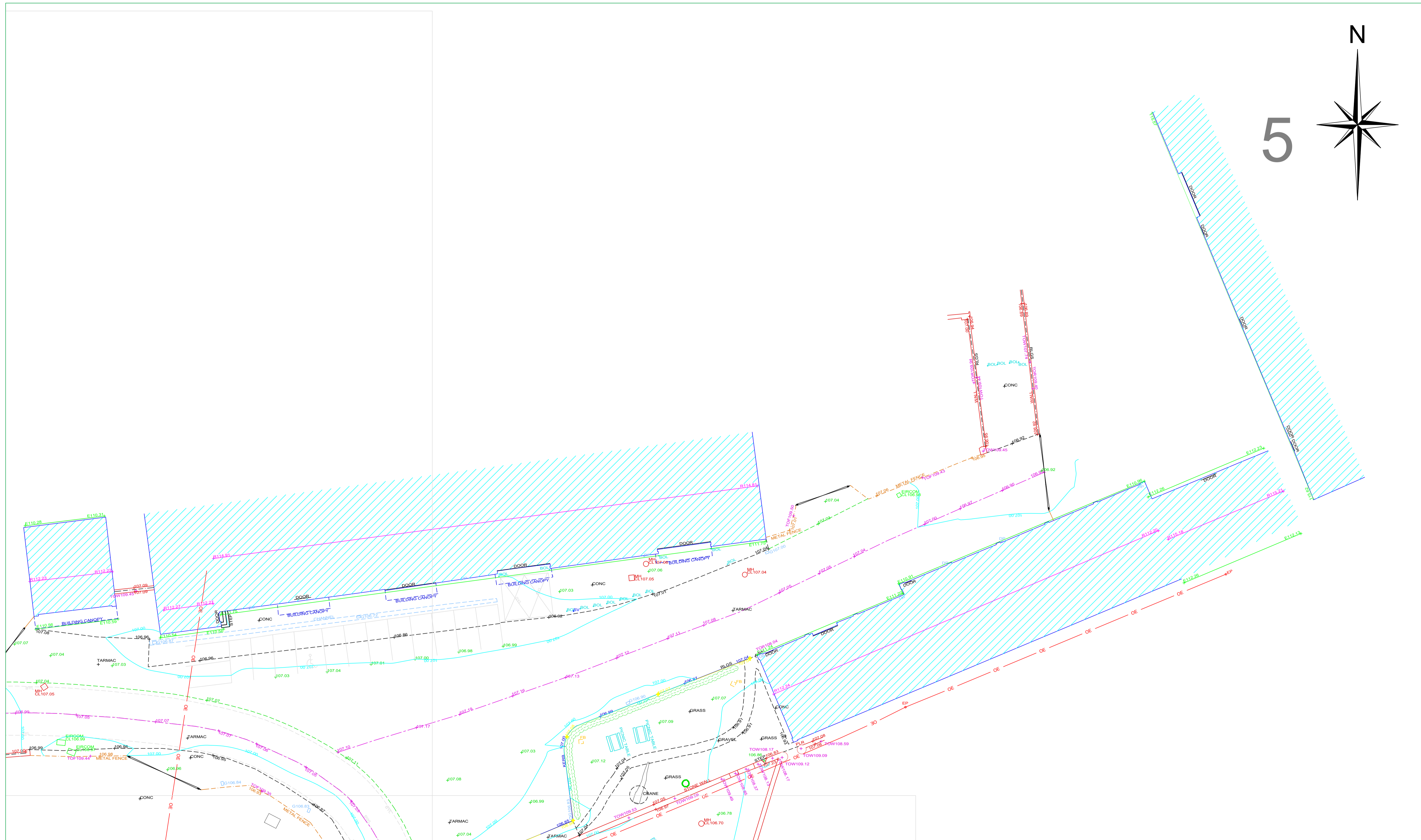
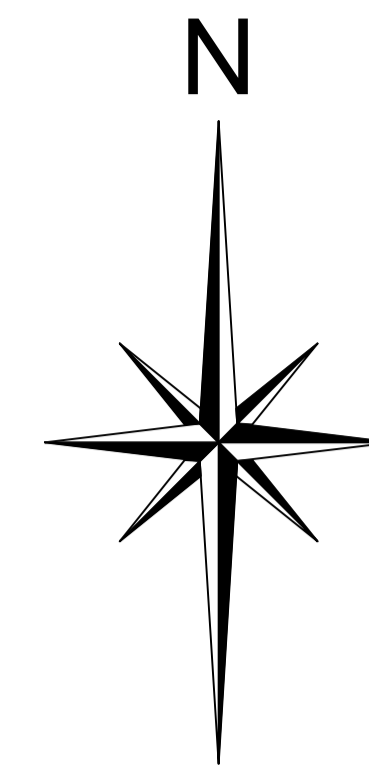
PROCESSED BY : Apex Surveys

CHECKED BY : Alan Brady





5



www.apexsurveys.ie  
info@apexsurveys.ie  
00353 1 691 0156

**RURAL/NATURAL FEATURES :**

BUSH	
SAPLING	
TREE	
HEDGE	
TROUGH	
CATTLE GRID	
GRID	

**LINEWORK:**

EMBANKMENT TOP	+101.50
DRAIN	+101.50
BREAKLINE	+101.50
BUILDING	+101.50
KERB BOTTOM	+101.50
WALL	+101.50
PATHCHANGE SURFACE	+101.50
OHEAD ELECTRICITY	OE
OHEAD TELECOM	OT

**STREET FURNITURE :**

BOLLARDS	BD
BORE HOLE	BH
BUS STOP	BS
CRASH BARRIER	CB
ELECTRICITY POLE	EP
EARTHING ROD	ER
GATE	GT
GROUND LIGHT	GL
ILLUMINATED BOLLARD	IB
LAMP POST	LP
MARKER POST	MP
POST	PT
POST BOX	PB
ROADSIGN	RS
SIGN POST	SP
TELEPHONE BOX	TB
TELEPHONE POLE	TP
TRAFFIC LIGHT	TL
TRIAL PIT	TPIT

**SERVICES :**

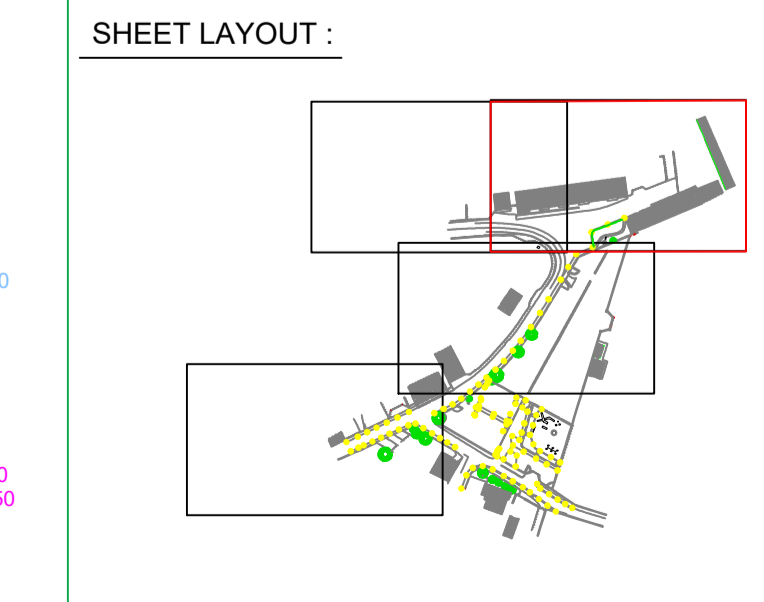
AIR VALVE	AV
ARMSTRONG JUNCTION	AJ
CABLE TV IC	CL
COVER LEVEL	CL
EIRCOM COVER	EIRCOM
EIRCOM JUNCTION BOX	EIRCOM BOX
ELECTRICAL CABLE PIT	ECP
ESAT COVER	ESAT
ESB COVER	ESB
FIRE HYDRANT	FH
GAS VALVE	GV
GULLY	G
INSPECTION COVER	IC
MANHOLE	MH
SEPTIC TANK	ST
SLUICE VALVE	SV
STOPCOCK	ST

**SERVICES :**

SERVICE BOX ( UNKNOWN )	BOX
TRAFFIC COVER	TLIC
VENT	VENT
WATER METER	WM
UNABLE TO LIFT	UTO

**LEVELS :**

BED LEVEL	+BED101.50
EAVE LEVEL	+E101.50
FLOOR LEVEL	+FL101.50
INVERT LEVEL	+IL101.50
ROAD LEVEL	+R101.50
RIDGE LEVEL	+R101.50
SOFFIT LEVEL	+SL101.50
SPOT LEVEL	+S101.50
TOP OF FENCE LEVEL	+TOP101.50
TOP OF WALL LEVEL	+TOW101.50
SURVEY CONTROL STATION	+



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CLIENT:

Park Hood

GRID SYSTEM: Irish Transverse Mercator  
DATUM: Main Head (OSGM15)  
NOTES: Drawing Contains Scale Factor

REVISIONS:

No.	Date	Description
001	N/A	Original Drawing
002	07/04/23	Top Kerb Levels and Top of Wall Levels Added
003	29/05/23	Gaps in Boundary Wall Added

PROJECT:

Fair Green, Oldcastle

SCALE : 1/200 A1

DATE : 07/04/2023

DRG No: 5588

SHEET: 1 of 5

DESCRIPTION : 2D Topographical

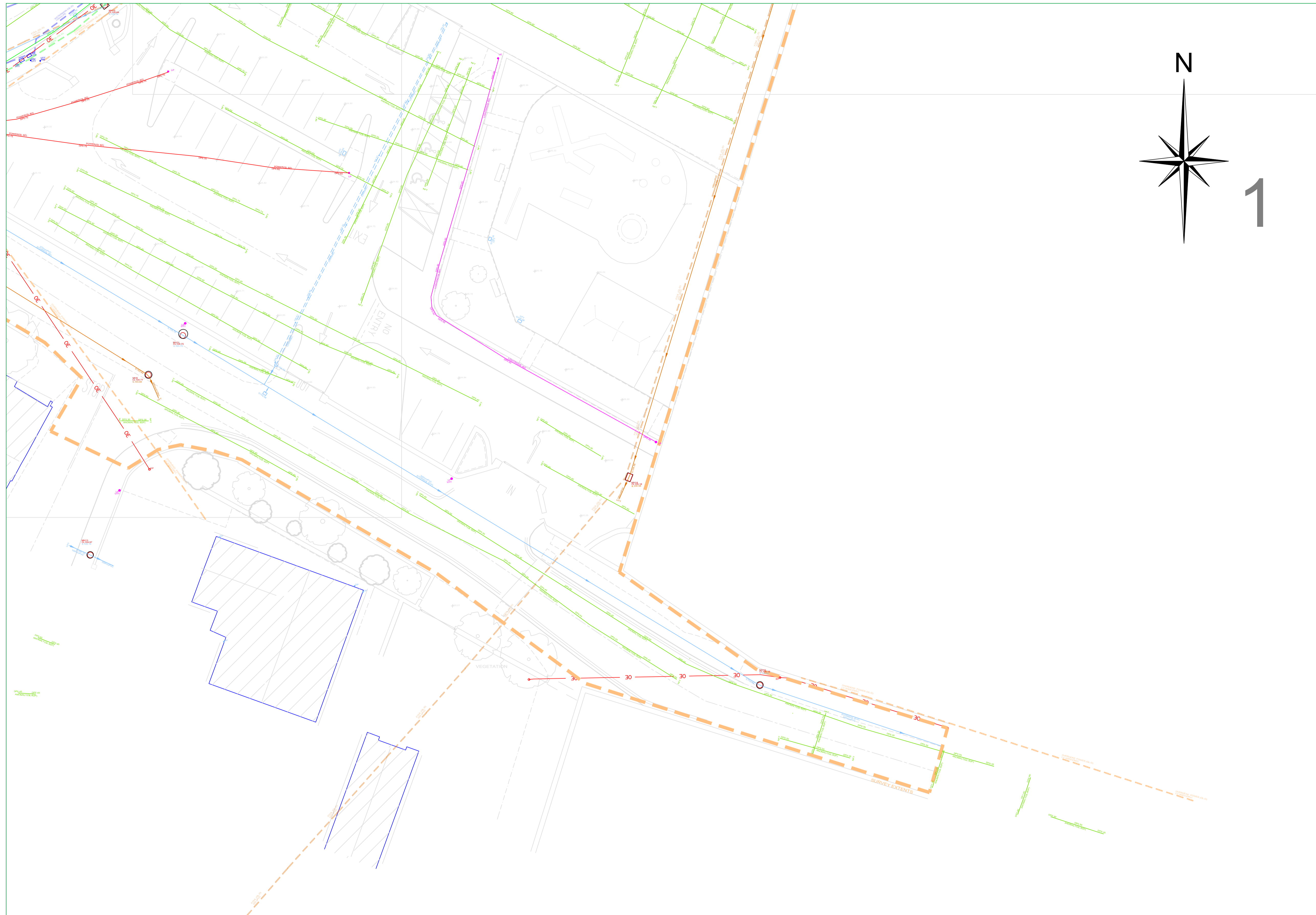
SURVEYED BY : R.D. & S.E.

PROCESSED BY : Apex Surveys

CHECKED BY : Alan Brady

# APPENDIX III

Existing Site Underground Utility Survey



**PAS 128: 2014 (Quality of Survey Level Outputs):**

DESKTOP UTILITY RECORDS SEARCH QL-D Drafted from utility records	
SITE RECONNAISSANCE QL-C Location Demonstrated by visual reference to street furniture or evidence of previous streetworks, ie - reinstatement scars	
DETECTION	
QL-B4	A segment of utility suspected to exist but has not been detected by a geophysical technique
QL-B3	Horizontal location only of the utility detected by one of the geophysical techniques used
QL-B2	Horizontal and vertical location of the utility detected by one of the geophysical techniques used
QL-B1	Horizontal and vertical location of the utility detected by multiple geophysical techniques
VERIFICATION QL-A	Horizontal and vertical location of the top and/or bottom of the utility

**Apex Surveys Ltd. Disclaimer - Utility Survey**

The interpretative nature and the non-intrusive, indirect and non-destructive survey methods must be taken into account when considering the results of the surveys. Therefore Apex Surveys, while using appropriate practice to execute, interpret and present the data, gives no guarantees that all underground utilities and underground structures will be located and mapped. Furthermore, Apex Surveys cannot guarantee the accuracy of the utility depths annotated on the survey drawings. Apex Survey shall not be liable for any omissions or inaccuracies in the survey which arise due to the limitations of the service. No liability shall attach to Apex Surveys, in any circumstances, howsoever arising, in respect of any consequential loss or damages suffered by the Client.

- The following is a non-exhaustive list of the limitations of utility surveys:
- The Survey aims to map existing utilities subsurface utilities and provide information with respect to pipe size, material type and drainage connectivity. However utility surveying is limited by the following guidelines and it may not be possible to accurately survey, define and locate all services and sub-surface features.**
  - Depth of Utility:** The depth and size of a utility affect the signal response and the degree with which a utility can be located. Due to attenuation of the radar signal with depth, resolution is restricted, hence making identification of utilities more difficult with increasing depth.
  - Size of Utility:** The smaller the diameter of a utility the more difficult it is to locate. This difficulty increases with depth.
  - Ground Conditions:** The depth penetration and quality of the data depends on the ground conditions of the site. GPR Surveying works best within high resistivity material. Clay overburden can impair GPR Surveying. Poor data may be a result of areas with high conductivity.
  - Utility Congestion:** Where different utilities converge together into a service corridor or cross paths it becomes difficult to isolate a specific utility and to map its route. The reflected signal will display a single response to multiple utilities. Therefore multiple utilities may appear to be a single utility. Where similar services run on close proximity, separation may be impossible.
  - Signal Jumping:** Signal from surrounding services may 'jump' to a highly conductive line masking its true identity.
  - Shadowing:** (of deeper utilities by shallower objects) Shallow utilities will mask the existence of deeper utilities where they are in close proximity. Also, high reflective materials close to the surface i.e rebar may hide deeper anomalies.
  - Surface Obstructions:** The GPR system relies on a relatively flat and even surface on which to perform radar passes. If ground obstructions such as vehicles, organic material (long grass, scrub) or undulating ground surface are present then the acquired data will be of lower resolution and in some cases not viable.
  - Loss of signal:** It is not always possible to trace the entire length of each underground service.
  - Connections between manholes:** Connections between manhole chambers are assumed to be straight.
  - Non-metallic objects:** Nonmetallic objects are amongst the most difficult to trace therefore successful tracing of non-metallic pipes/ utilities may be limited.
  - Fiber Optic Cables:** Fiber optic cables may not be possible to locate except where laid with a built in tracer wire or similar conductor system.
  - Defective / flooded manholes or pipework:** It may not be possible to establish connections between flooded or defective manholes or pipework.
  - Acute bends in pipework:** It may not be possible to trace a pipe past an acute bend.
- Accuracy estimates:**
- Locational accuracy is determined by referring to the manufacturers guidelines for the detector used.
  - In ideal conditions the spatial accuracies for the underground utilities may be +/- 5% for Radiodetection and +/- 10% of depth for the GPR to 2.5m deep. However variations within the subsurface, depth below the ground, close proximity of other services and local magnetic, atmospheric or ground conditions, bends, lateral service connections and any of the other limitations listed in this disclaimer may alter this estimated accuracy.
  - Plan accuracies of + or - 150mm may be achieved but this figure will depend on the depth of services below ground level. However variations within the subsurface, depth below the ground, close proximity of other services and local magnetic, atmospheric or ground conditions, bends, lateral service connections and any of the other limitations listed in this disclaimer may alter this estimated accuracy.
  - DP represents distance from the surface level to the top of the service/ target
  - Where technically possible, depth indications will be given. These along with plan positions should be used for guidance only and wherever critical accuracy is required these should be confirmed by the client by undertaking trial excavations or similar.

**Record Drawing Information**

- Services which have been untraceable are shown from records where possible or available. These lines are annotated as "Taken From Records" or "From Records".
- Existing record information showing underground services is often incomplete and with unknown accuracies therefore it should be regarded as indicative only.
- Where Apex Surveys issue a utility drawing, this should be read in conjunction with all available public or private utility records.
- Apex Surveys endeavor to add relevant Public Utility record information onto the final drawing. However, we would recommend that direct contact is made with the asset owner or statutory undertaker.
- We shall not be held responsible for the accuracy, or otherwise, of the location of a service, as issued by the utility provider and therefore shown as "Taken From Records" on the drawing.

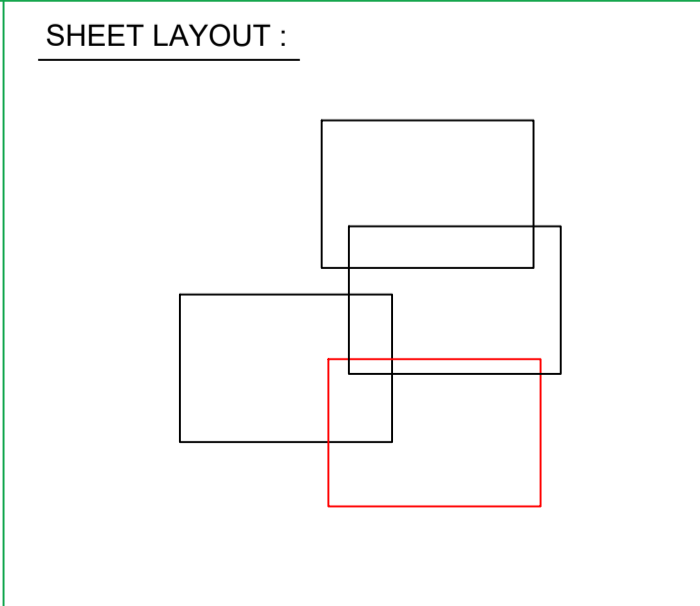
- The following have been excluded from the survey:
- Location of individual service feeds to properties or buildings as access would be required into each property to apply direct connections to inlet points and this would significantly increase the scope of works, survey cost and also cause possible disruption to occupants.
  - Pot ended or disconnected cables or terminated short lengths of pipe.
  - Internal building services.
  - Small diameter cables less than 20mm diameter or pipes less than 40mm diameter.
  - Above ground services unless specifically requested.
  - Lifting manholes which require longer than 10 minutes effort using standard heavy duty apparatus.

All works carried out by Apex Surveys conforms to the guidelines set out by The Survey Association (TSA) and PAS:128 Standard for utility mapping

**APEX SURVEYS**

www.apexsurveys.ie  
info@apexsurveys.ie  
00353 1 691 0156

<p><b>STREET FURNITURE :</b></p> <p>BOLLARDS BUS STOP CRASH BARRIER GATE ELECTRICITY POLE TELEPHONE POLE EARTHING ROD LAMP POST MARKER POST SIGN POST TRAFFIC LIGHT TELEPHONE BOX POST POST BOX ROADSIGN BORE HOLE TRIAL PIT</p> <p>BOC CI CONC DIA</p>	<p><b>SERVICES :</b></p> <p>AIR VALVE ARMSTRONG JUNCTION CABLE TV IC COVER LEVEL EIRCOM COVER EIRCOM JUNCTION BOX ELECTRICAL CABLE PIT ESAT COVER ESB COVER ESB JUNCTION BOX FIRE HYDRANT GAS VALVE GULLY INSPECTION COVER MANHOLE SEPTIC TANK SLUICE VALVE</p> <p>AV AJ CATV QL EIRCOM EIRCOM BOX ECP ESAT ESB G IC MH SEPTIC SV</p> <p>STOPCOCK SERVICE BOX ( UNKNOWN ) TRAFFIC COVER VENT WATER METER</p> <p>LEVELS :</p> <p>BED LEVEL FLOOR LEVEL INVERT LEVEL ROAD LEVEL SOFFIT LEVEL SPOT LEVEL TOP OF WALL LEVEL WATER LEVEL SURVEY CONTROL STATION</p> <p>ST BOX TLIC VENT WM</p> <p>+BED101.50 +FL101.50 +L101.50 +101.50 +SL101.50 +101.50 +TOW101.50 +WL101.50</p> <p>DP E/W NFT O/S</p> <p>START OF RUN UNABLE TO OPEN UNABLE TO TRACE</p> <p>SOR UTO UTT</p>	<p><b>UNDERGROUND LEGEND :</b></p> <p>WATER MAIN GAS MAIN STORM DRAIN FOUL SEWER COMBINED SEWER ELECTRIC CABLE ELECTRIC LIGHTING EIRCOM FIBRE OPTIC CABLE BROADBAND CABLE TV TRAFFIC AND SIGNAL CABLE CCTV IRRIGATION PIPE EMPTY DUCT GPR ANOMALY UNKNOWN CABLE O'HEAD ELECTRICITY O'HEAD TELECOM</p> <p>WATER GAS STORM FOUL COMB POWER LIGHTING EIRCOM F.OPTIC BROADBAND TV TRAFFIC CCTV IRRIGATION EMPTY ANOMALY CABLE OK 01</p>
---	---	---



PLAN PRODUCED BY:

**APEX SURVEYS**

CONTACT INFORMATION:

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Dunboyne, Co. Meath, Ireland  
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00353 1 691 0156

CLIENT:

**Park Hood**

GRID SYSTEM: Irish Transverse Mercator  
DATUM: Malin Head (OSGM15)  
NOTES: Drawing Contains Scale Factor

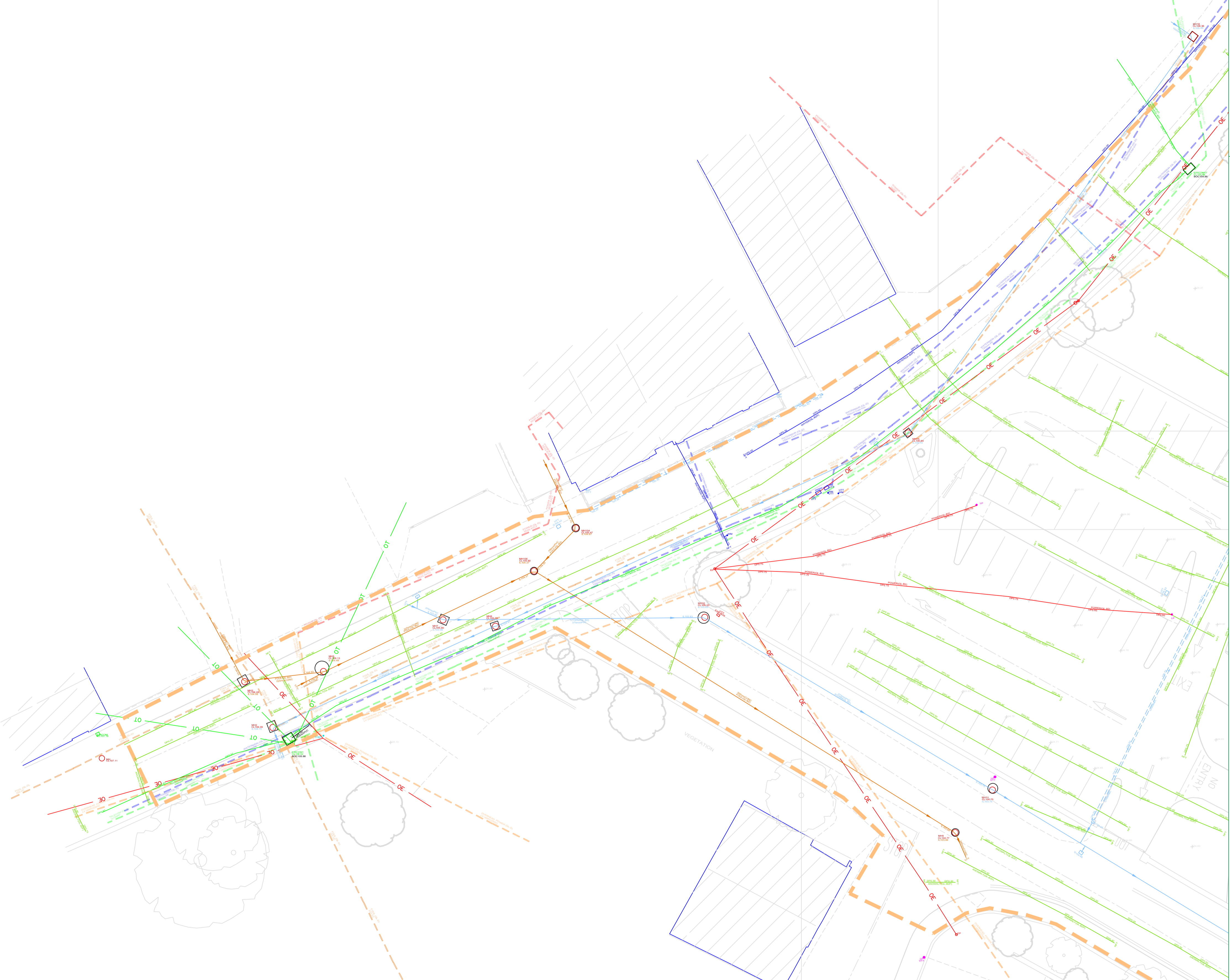
REVISIONS:

No.	Date	Description
001	N/A	Original Drawing
002	06/2023	MH24/MH25 Amended

PROJECT:

**Fair Green Oldcastle**

SCALE :	1/200 A1	DATE :	04/04/2022
DRG No:	5588	DESCRIPTION :	2D Utilities
SHEET:	1 of 4	SURVEYED BY :	W.S.
		PROCESSED BY :	T.G.
		CHECKED BY :	Alan Brady



**PAS 128: 2014 (Quality of Survey Level Outputs):**

DESKTOP UTILITY RECORDS SEARCH QL-D Drafted from utility records
SITE RECONNAISSANCE QL-C Location Demonstrated by visual reference to street furniture or evidence of previous streetworks, ie - reinstatement scars
DETECTION
QL-B4 A segment of utility suspected to exist but has not been detected by a geophysical technique
QL-B3 Horizontal location only of the utility detected by one of the geophysical techniques used
QL-B2 Horizontal and vertical location of the utility detected by one of the geophysical techniques used
QL-B1 Horizontal and vertical location of the utility detected by multiple geophysical techniques
VERIFICATION
QL-A Horizontal and vertical location of the top and/or bottom of the utility

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- Signal Jumping:** Signal from surrounding services may 'jump' to a highly conductive line masking its true identity.
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www.apexsurveys.ie  
info@apexsurveys.ie  
00353 1 691 0156

<b>STREET FURNITURE :</b>	<b>SERVICES :</b>	<b>UNDERGROUND LEGEND :</b>
BOLLARDS BUS STOP CRASH BARRIER GATE ELECTRICITY POLE TELEPHONE POLE EARTHING ROD LAMP POST MARKER POST SIGN POST TRAFFIC LIGHT TELEPHONE BOX POST POST BOX ROADSIGN BORE HOLE TRIAL PIT	AIR VALVE ARMSTRONG JUNCTION CABLE TV IC COVER LEVEL EIRCOM COVER EIRCOM JUNCTION BOX ELECTRICAL CABLE PIT ESAT COVER ESB COVER ESB JUNCTION BOX FIRE HYDRANT GAS VALVE GULLY INSPECTION COVER MANHOLE SEPTIC TANK SLUICE VALVE	WATER MAIN GAS MAIN STORM DRAIN FOUL SEWER COMBINED SEWER ELECTRIC CABLE ELECTRIC LIGHTING EIRCOM FIBRE OPTIC CABLE BROADBAND CABLE TV TRAFFIC AND SIGNAL CABLE CCTV IRRIGATION PIPE EMPTY DUCT GPR ANOMALY UNKNOWN CABLE O'HEAD ELECTRICITY O'HEAD TELECOM

<b>STREET FURNITURE :</b>	<b>SERVICES :</b>	<b>UNDERGROUND LEGEND :</b>	<b>SHEET LAYOUT :</b>
BOLLARDS BUS STOP CRASH BARRIER GATE ELECTRICITY POLE TELEPHONE POLE EARTHING ROD LAMP POST MARKER POST SIGN POST TRAFFIC LIGHT TELEPHONE BOX POST POST BOX ROADSIGN BORE HOLE TRIAL PIT	AIR VALVE ARMSTRONG JUNCTION CABLE TV IC COVER LEVEL EIRCOM COVER EIRCOM JUNCTION BOX ELECTRICAL CABLE PIT ESAT COVER ESB COVER ESB JUNCTION BOX FIRE HYDRANT GAS VALVE GULLY INSPECTION COVER MANHOLE SEPTIC TANK SLUICE VALVE	WATER MAIN GAS MAIN STORM DRAIN FOUL SEWER COMBINED SEWER ELECTRIC CABLE ELECTRIC LIGHTING EIRCOM FIBRE OPTIC CABLE BROADBAND CABLE TV TRAFFIC AND SIGNAL CABLE CCTV IRRIGATION PIPE EMPTY DUCT GPR ANOMALY UNKNOWN CABLE O'HEAD ELECTRICITY O'HEAD TELECOM	

PLAN PRODUCED BY:

**APEX SURVEYS**

CONTACT INFORMATION:

Apex Surveys  
Unit 78 Dunboyne Business Park  
Dunboyne, Co. Meath, Ireland  
www.apexsurveys.ie  
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<b>CLIENT:</b>	<b>PROJECT:</b>									
Park Hood	Fair Green Oldcastle									
<b>GRID SYSTEM:</b> Irish Transverse Mercator <b>DATUM:</b> Main Head (OSGM15) <b>NOTES:</b> Drawing Contains Scale Factor	<b>SCALE :</b> 1/200 A1									
<b>REVISIONS:</b>	<b>DATE :</b> 04/04/2022									
<table border="1"> <tr> <th>No.</th> <th>Date</th> <th>Description</th> </tr> <tr> <td>001</td> <td>N/A</td> <td>Original Drawing</td> </tr> <tr> <td>002</td> <td>06/2023</td> <td>MH24/MH25 Amended</td> </tr> </table>	No.	Date	Description	001	N/A	Original Drawing	002	06/2023	MH24/MH25 Amended	<b>DRG No:</b> 5588
No.	Date	Description								
001	N/A	Original Drawing								
002	06/2023	MH24/MH25 Amended								
	<b>SHEET:</b> 2 of 4									

<b>DESCRIPTION :</b> 2D Utilities
<b>SURVEYED BY :</b> W.S.
<b>PROCESSED BY :</b> T.G.
<b>CHECKED BY :</b> Alan Brady



**PAS 128: 2014 (Quality of Survey Level Outputs):**

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VERIFICATION QL-A	Horizontal and vertical location of the top and/or bottom of the utility

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- The following is a non-exhaustive list of the limitations of utility surveys:
- The Survey aims to map existing utilities subsurface utilities and provide information with respect to pipe size, material type and drainage connectivity. However utility surveying is limited by the following guidelines and it may not be possible to accurately survey, define and locate all services and sub-surface features.
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www.apexsurveys.ie  
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**STREET FURNITURE :**

BOLLARDS	BD+
BUS STOP	BS+
CRASH BARRIER	CB
GATE	GA
ELECTRICITY POLE	EP+
TELEPHONE POLE	TP+
EARTHING ROD	ER+
LAMP POST	LP+
MARKER POST	MP+
SIGN POST	SP+
TRAFFIC LIGHT	TL+
TELEPHONE BOX	TB
POST	POST
POST BOX	POST BOX
CAST-IRON	RS-RS
BORE HOLE	BH+
TRIAL PIT	TPIT+
BOTTOM OF CHAMBER	BOC
CONCRETE	CONC
DIAMETER	DIA

**SERVICES :**

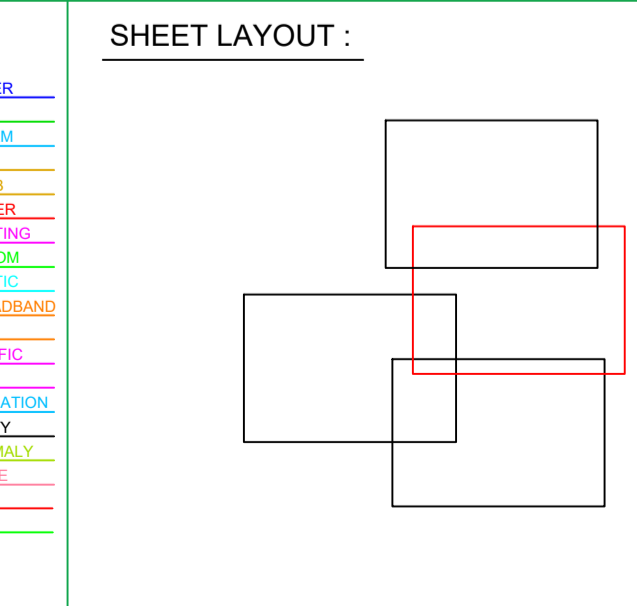
AIR VALVE	AV
ARMSTRONG JUNCTION	AJ
CABLE TV IC	CATV
COVER LEVEL	CL
EIRCOM COVER	EIRCOM
EIRCOM JUNCTION BOX	EIRCOM BOX
ELECTRICAL CABLE PIT	ECP
ESAT COVER	ESAT
ESB COVER	ESB
ESB JUNCTION BOX	ESB BOX
FIRE HYDRANT	FH
GAS VALVE	GV
GULLY	G
INSPECTION COVER	IC
MANHOLE	MH
SEPTIC TANK	SEPTIC
SLUICE VALVE	SV
DOWNPIPE	DP
EARTHENWARE	EW
NO FURTHER TRACE	NFT
OFFSITE	O/S

**LEVELS :**

BED LEVEL	+BED101.50
FLOOR LEVEL	+FL101.50
INVERT LEVEL	+IL101.50
ROAD LEVEL	+101.50
SOFFIT LEVEL	+SL101.50
SPT LEVEL	+101.50
TOP OF WALL LEVEL	+TOW101.50
WATER LEVEL	+WL101.50
SURVEY CONTROL STATION	SCS
START OF RUN	SOR
UNABLE TO OPEN	UTO
UNABLE TO TRACE	UTT

**UNDERGROUND LEGEND :**

WATER MAIN	WATER
GAS MAIN	GAS
STORM DRAIN	STORM
FOUL SEWER	FOUL
COMBINED SEWER	COMB
ELECTRIC CABLE	ELECTRIC
ELECTRIC LIGHTING	ELECTRIC LIGHTING
EIRCOM	EIRCOM
FIBRE OPTIC CABLE	FIBRE OPTIC CABLE
BROADBAND	BROADBAND
CABLE TV	CABLE TV
TRAFFIC AND SIGNAL CABLE	TRAFFIC AND SIGNAL CABLE
CCTV	CCTV
IRRIGATION PIPE	IRRIGATION PIPE
EMPTY DUCT	EMPTY DUCT
GPR ANOMALY	GPR ANOMALY
UNKNOWN CABLE	UNKNOWN CABLE
O/H/EAD ELECTRICITY	O/H/EAD ELECTRICITY
O/H/EAD TELECOM	O/H/EAD TELECOM



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CLIENT: Park Hood

GRID SYSTEM: Irish Transverse Mercator  
DATUM: Malin Head (OSGM15)  
NOTES: Drawing Contains Scale Factor

REVISIONS:

No.	Date	Description
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002	06/2023	MH24/MH25 Amended

PROJECT: Fair Green Oldcastle

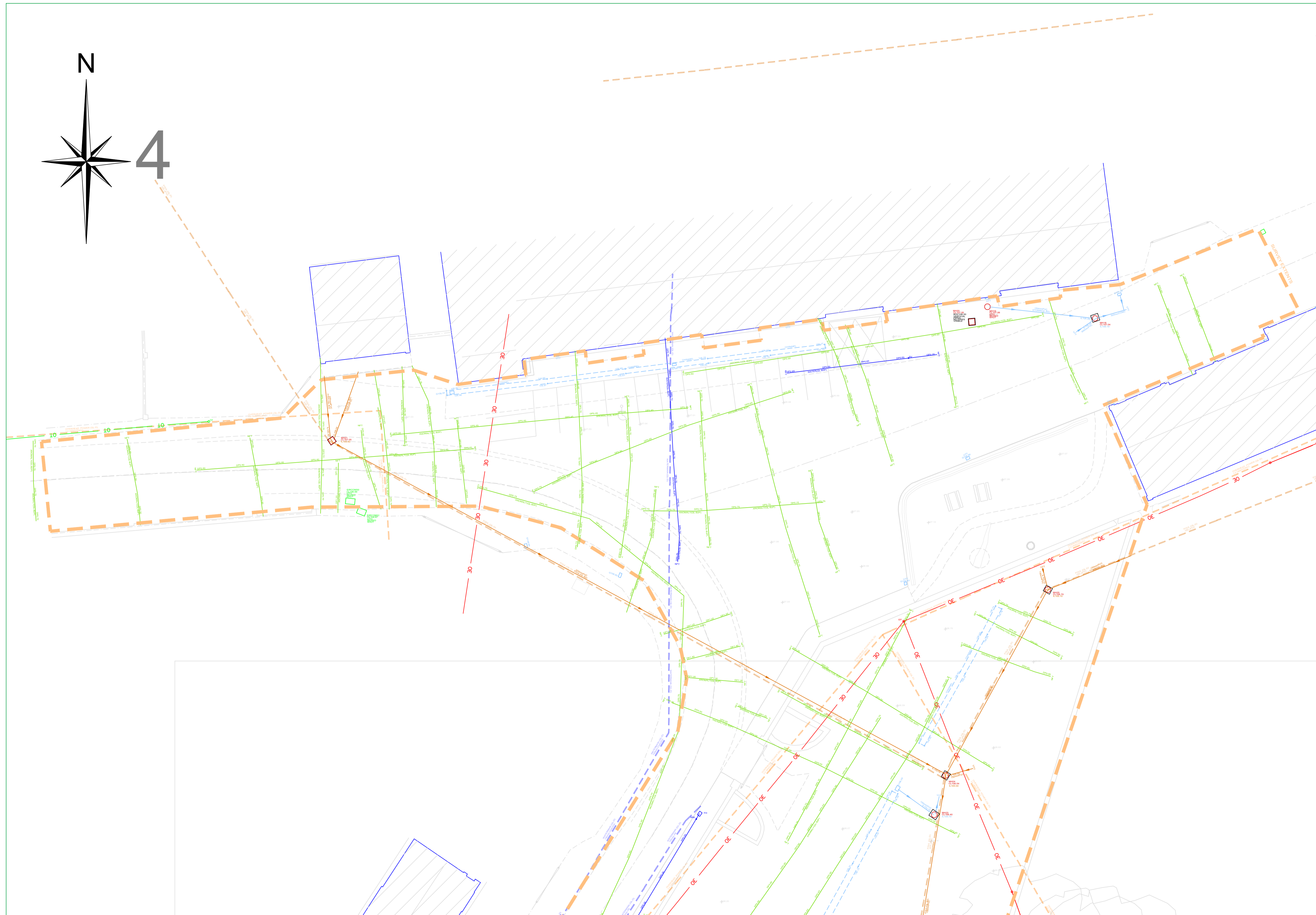
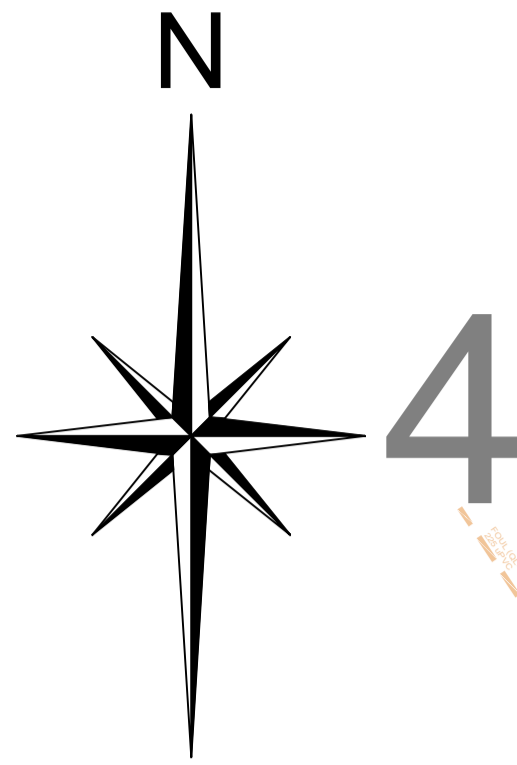
SCALE: 1/200 A1

DATE: 04/04/2022

DRG No: 5588

SHEET: 3 of 4

DESCRIPTION:	2D Utilities
SURVEYED BY:	W.S.
PROCESSED BY:	T.G.
CHECKED BY:	Alan Brady



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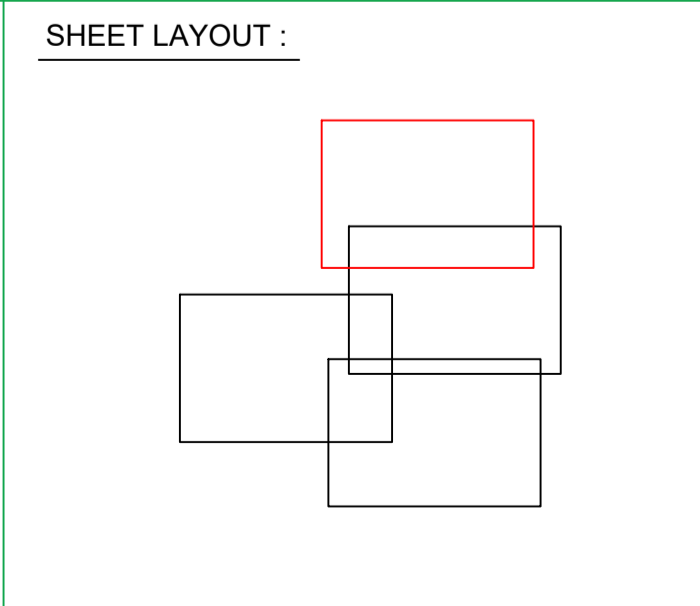
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BOTTOM OF CHAMBER CAST-IRON CONCRETE DIAMETER	BOC CI CONC DIA	DOWNPIPE EARTHENWARE NO FURTHER TRACE OFFSITE	DN EW NFT O/S	START OF RUN UNABLE TO OPEN UNABLE TO TRACE	SOR UTO UTT

<b>UNDERGROUND LEGEND :</b>	WATER MAIN GAS MAIN STORM DRAIN FOUL SEWER COMBINED SEWER ELECTRIC CABLE ELECTRIC LIGHTING EIRCOM FIBRE OPTIC CABLE BROADBAND CABLE TV TRAFFIC AND SIGNAL CABLE CCTV IRRIGATION PIPE EMPTY DUCT GPR ANOMALY UNKNOWN CABLE O/H/EAD ELECTRICITY O/H/EAD TELECOM	WATER GAS STORM FOUL COMB POWER LIGHTING EIRCOM F.OPTIC BROADBAND TV TRAFFIC CCTV IRRIGATION EMPTY ANOMALY CABLE OK 01
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No.	Date	Description
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002	06/2023	MH24/MH25 Amended

<b>PROJECT:</b>	Fair Green Oldcastle
<b>SCALE :</b>	1/200 A1
<b>DATE :</b>	04/04/2022
<b>DRG No:</b>	5588
<b>DESCRIPTION :</b>	2D Utilities
<b>SURVEYED BY :</b>	W.S.
<b>PROCESSED BY :</b>	T.G.
<b>CHECKED BY :</b>	Alan Brady
<b>SHEET:</b>	4 of 4

**Barrett Mahony Consulting Engineers**

**Dublin:**

Sandwith House,  
52-54 Lower Sandwith Street,  
Dublin 2,  
D02 WR26, Ireland.  
Tel: +353 1 677 3200

**London:**

12 Mill Street,  
London, SE1 2AY,  
United Kingdom  
Tel: +44 203 750 3530.

**Sofia:**

19 Yakubitsa Street,  
Lozenets,  
Sofia 1164,  
Bulgaria  
Tel: +359 2 494 9772

**[WWW.BMCE.IE](http://WWW.BMCE.IE)**