AIM Housing

A REVOLUTION IN PROPERTY DIGITISATION MANAGEMENT

www.aimhousing.co.uk

Housing providers obligations are continuing to grow exponentially, with property data collected but rarely centralised, making it very challenging for these obligations to be met.

The AIM housing platform has been designed and developed for the management of housing stock by allowing data collection, visualisation & interaction. All data is captured, processed and presented in a centralised platform, driving efficiency and supporting housing providers to meet their ever growing legal responsibilities.

LEVEL OF SURVEY DETAIL

AIM Housing adapts its survey approach according to the client's requirements. AIM Housing offers a wide range of outputs, starting with a digital model hosted on our custom online platform to further include a whole house survey with an energy performance certificate, retrofit assessment and multiple technical surveys, which can include compliant room by room heat loss calculations.

DIGITISATION SURVEY

(15min survey time)

Our specialist surveyors utilise state of the art mobile laser scanning reality capture devices, combined with drone technology, to create “Digital Twins” of your properties.

DIGITISATION SURVEY + 3D MODEL & AUTOCAD DRAWINGS

(30min survey time)

In addition to the digitisation survey, our surveyors collect key construction information along with relevant data to be displayed on the drawings, we then produce a 3D model and floorplans.

WHOLE HOUSE SURVEY APPROACH

(60min survey time)

Taking the digitisation survey further, our surveyors collect additional data on the property such as construction and contentious items for potential install measures. This enhanced data set is integrated with the 3D model to offer a wide range of outputs, to include:

·3D Model & Floor plans
·Energy performance certificate
·Retrofit assessment
·Heat loss calculations
·Technical surveys - Multiple energy effeciency measures

STEP 1: DIGITAL CAPTURE

SCAN ME

What to expect from an
AIM Housing Digital Survey

All AIM Housing surveyors are competent, experienced, and qualified Domestic Energy Assessors (DEA's), Retrofit Assessors (RFA), GVC Licenced Drone Pilots and have received extensive training in the use of mobile laser scanners.

Initial property digitisation is made up of two stages:

STAGE 1 - MOBILE LASER SCAN

Utilising survey grade mobile laser scanning technology combined with 360° panoramic imagery, scanning properties internally and externally. All data is processed in the cloud for an efficient workflow. GDPR compliant automated face and body blurring protects occupant's privacy.

STAGE 2 – AERIAL DATA CAPTURE

AIM Housing utilises the latest drone technology to carry out mapping, surveying, and inspection. When combined with RTK, it enables models to be geolocated within centimetre-level accuracy to real-world co-ordinates.

STEP 2:
DATA APP INPUT

On-site data collection, floorplan sketch and photography - dependent on the survey approach and detail requirement.

DIGITISING THE PROPERTY + 3D MODEL & AUTOCAD DRAWINGS

Information is collected for drawings to be produced to a set standard, including detail such as construction. AIM Housing drawings are designed to ensure they meet the required standards for retrofit assessment, driving efficiencies through the following stages.

Construction Analysis and Classification of the buildings:

- Age
- Extensions
- External Wall Construction
- Roof construction
- Floor construction
- Windows and doors

Room by Room Survey:

- Heat emitters & controls
- Room types
- Lighting
- Fuse board
- Meter locations

WHOLE HOUSE SURVEY APPROACH

Construction Analysis and Classification of the buildings:

- Age
- Extensions
- External Wall Construction
- Roof construction
- Floor construction
- Windows and doors

Room by Room Survey:

- Ventilation
- Condition
- Heating
- Occupancy information
- Existing energy efficiency measures
- Contentious items for technical surveys

Elevation by Elevation:

- Contentious items for technical surveys
- Condition

STEP 3: MODEL CREATION

DIGITAL TWIN

The AIM Housing software has been developed to extract key dimensional information from the models, driving efficiencies and improving accuracy. The dimensional data is utilised in the production of technical surveys such as external wall insulation and room by room heat loss calculations. Key dimensional information can help housing providers with design, analysis and project planning, including tender support.

3D MODEL & AUTOCAD DRAWINGS

AIM Housing's 3D Models and 2D Floor Plans can visualise a wide variety of detail.

- Actual measurements of all aspects of the property
- Dimensions and areas of – rooms, windows, doors, wall thicknesses, ceiling heights, roof dimensions and property height, length and depth
- Property breakdown of construction
- Construction types for walls, roofs and floors
- Property fittings located on floor plan – heating emitter, boiler, heating controls, programmer, hot water cylinder, glazing type, gas meter, electric meter, Wi-Fi, lighting etc.

AUTOMATED MEASUREMENT EXTRACTION

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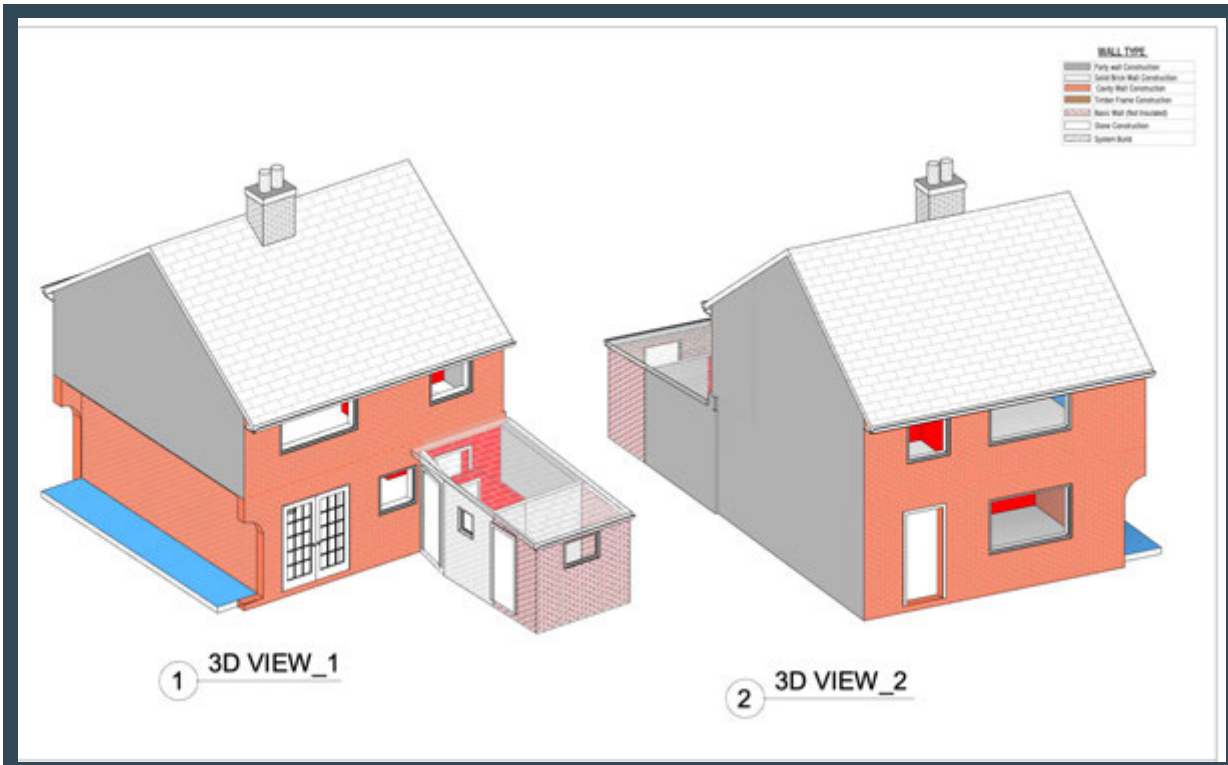

WALL TYPE

- Party wall Construction
- Solid Brick Wall Construction
- Cavity Wall Construction
- Timber Frame Construction
- Basic Wall (Not Insulated)
- Stone Construction
- System Build

1 FRONT ELEVATION
1 : 75

2 REAR ELEVATION
1 : 75

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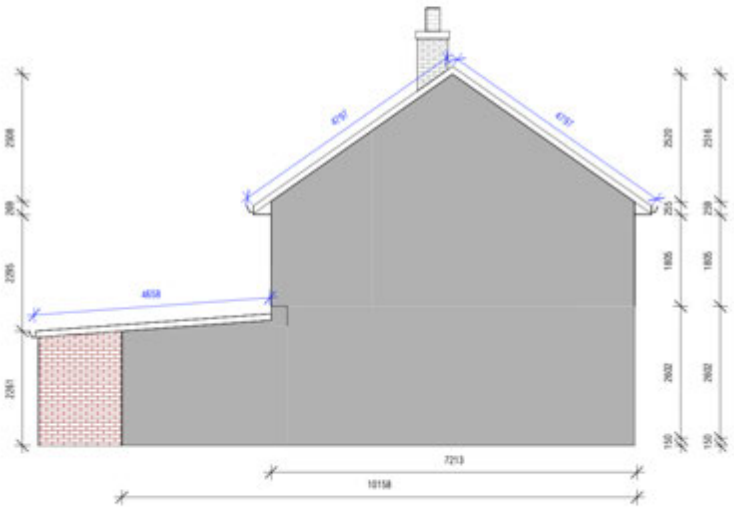
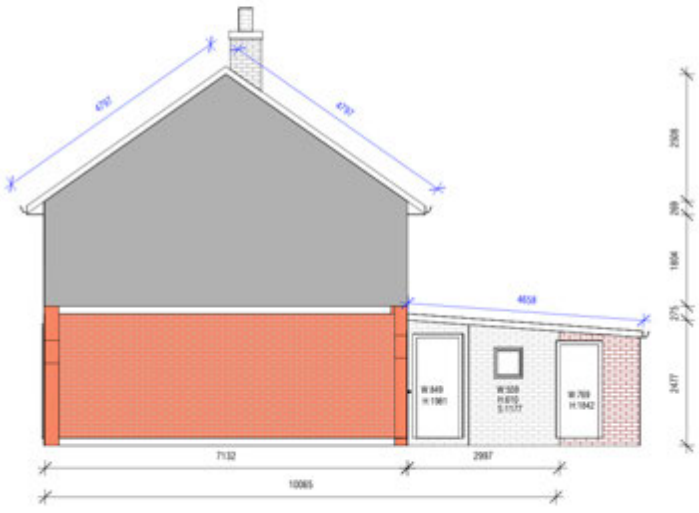
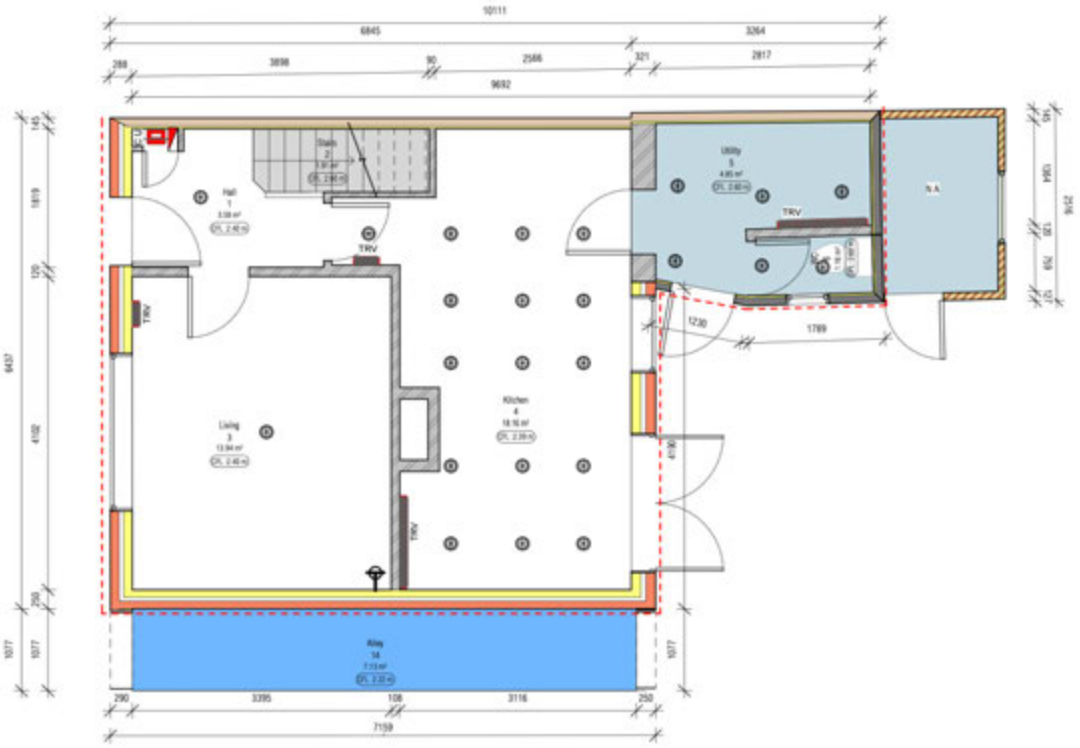


1 RIGHT ELEVATION
1 : 75

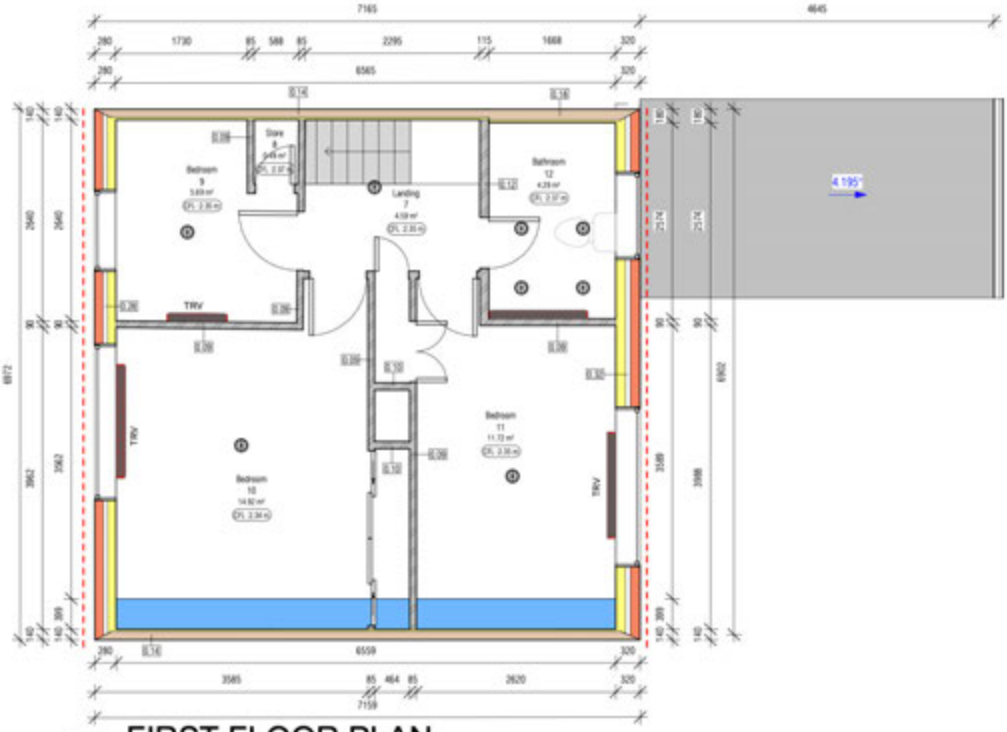


2 LEFT ELEVATION
1 : 75



GROUND FLOOR PLAN

1 : 50

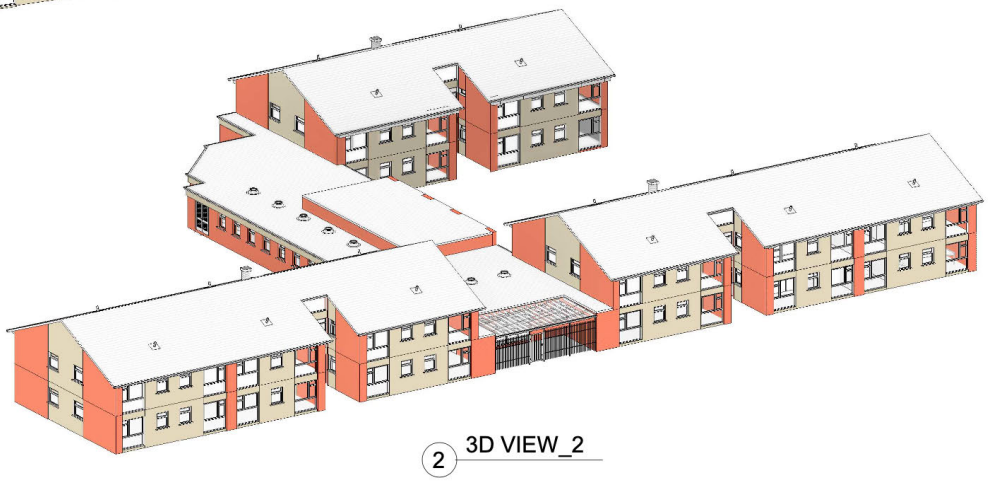


FIRST FLOOR PLAN

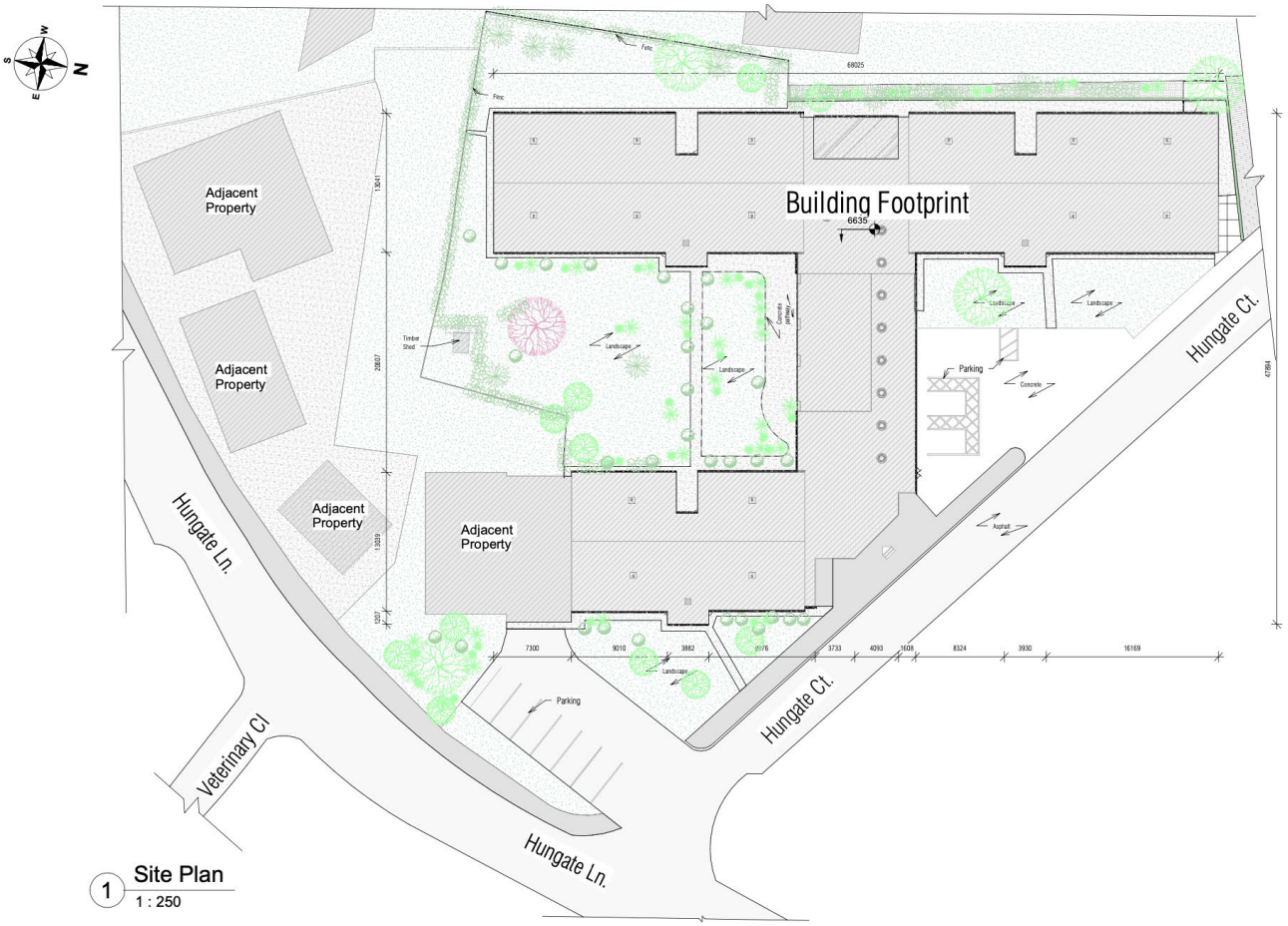
1 : 50

e North Symbol

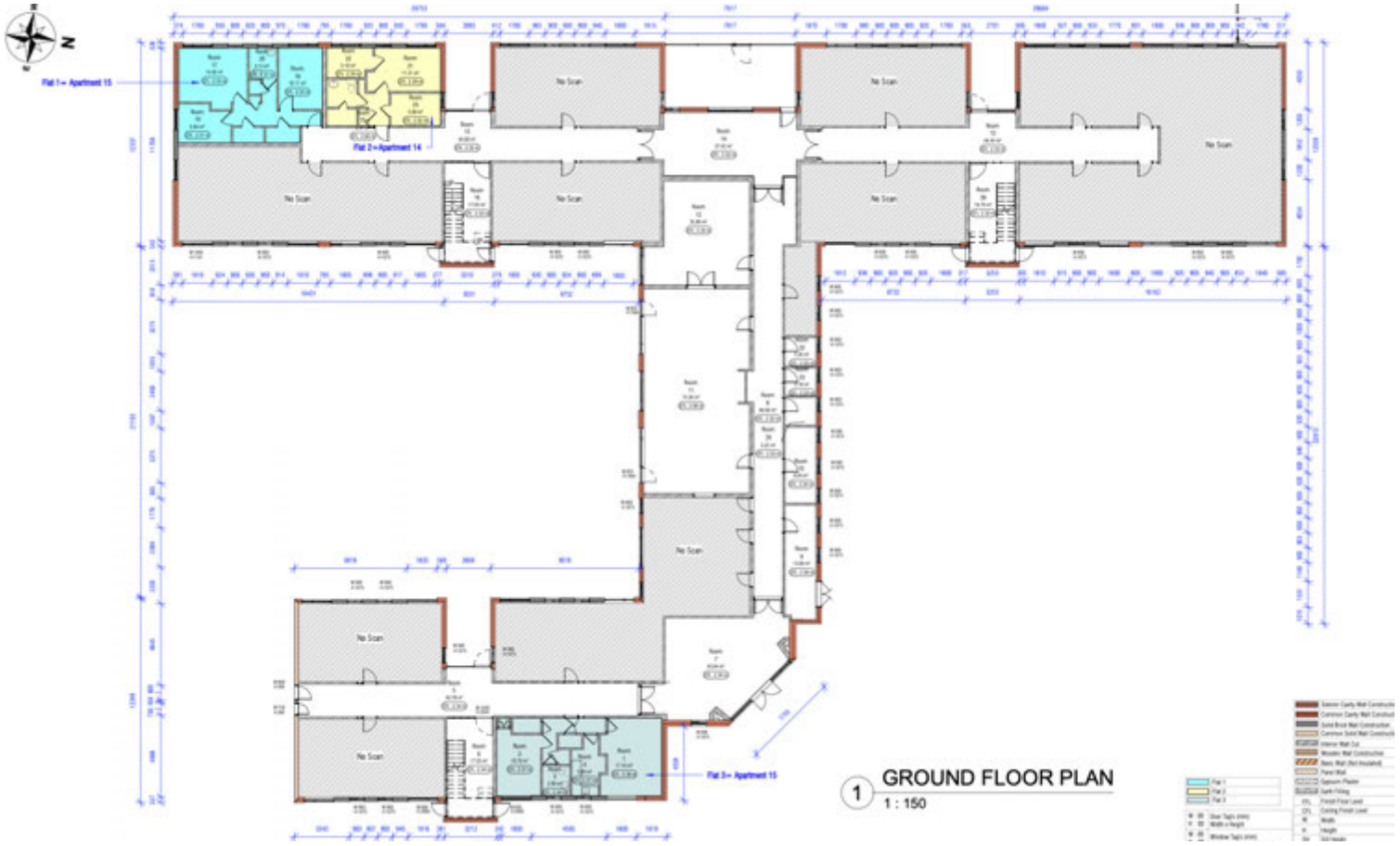
1 3D VIEW_1



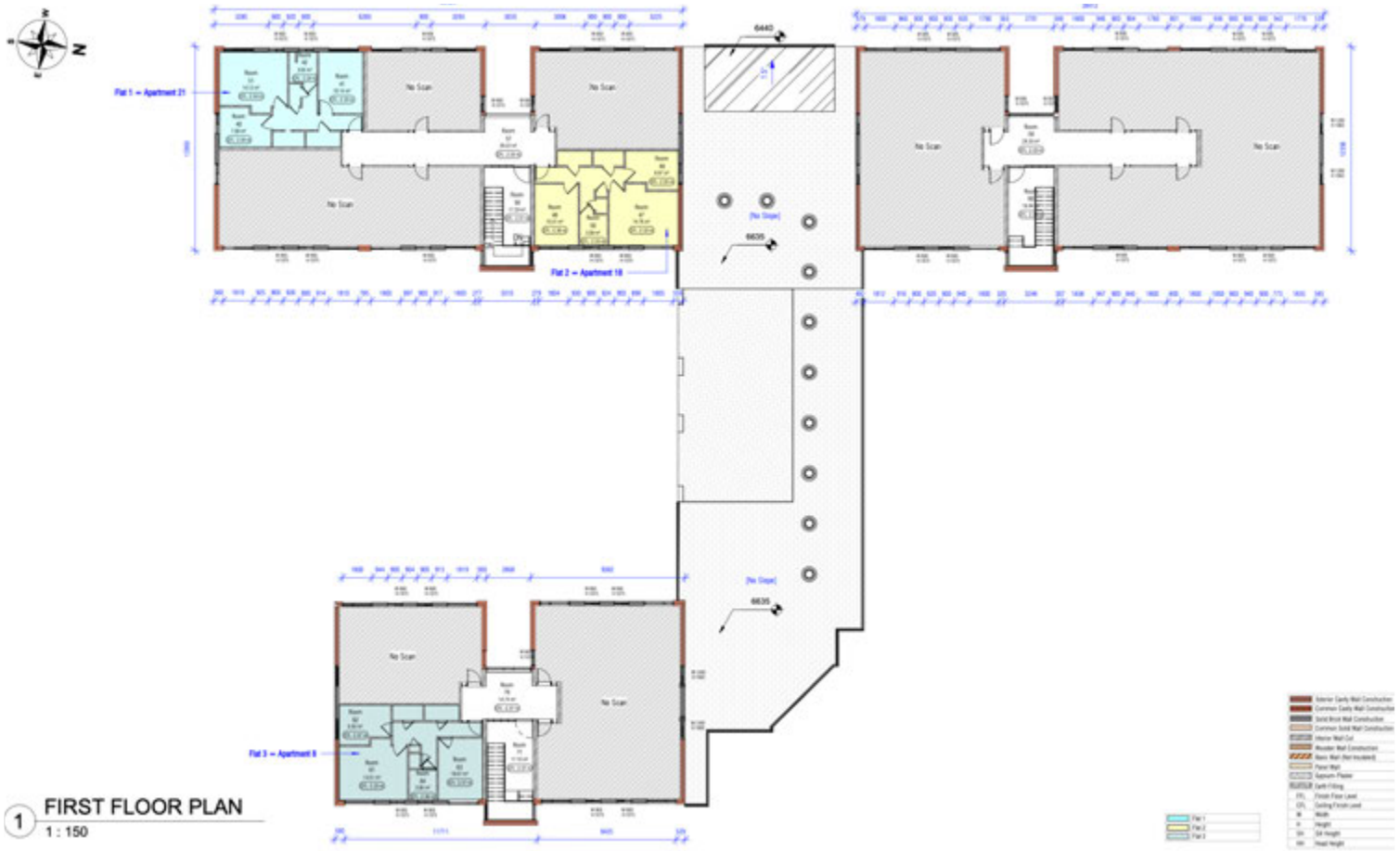
2 3D VIEW_2



1 Site Plan
1 : 250



1 GROUND FLOOR PLAN
1 : 150



1 FIRST FLOOR PLAN
1 : 150

STEP 4: ONLINE PLATFORM

PLATFORM

The AIM Housing platform is a centralised, secure web-based intelligent space with a digital property model at its core. The digital property models provide a complete 360° view enabling visualisation and interaction, closing the gap between the physical and the digital world.

DIGITAL MODEL

A lifelike interactive model combining survey accurate point cloud data, panoramic imagery, placing users at the property digitally. The AIM Housing platform also offers users an entirely new way to use and interact with floorplans with automatically generated AI-based maps to give an overview of the entire property site.

ANNOTATE & MEASURE

360° panoramic digital images with pixels enriched by laser scanning making it possible to interact with scanned spaces as if the user is on-site. Conveniently capture and share point-to-point measurements.

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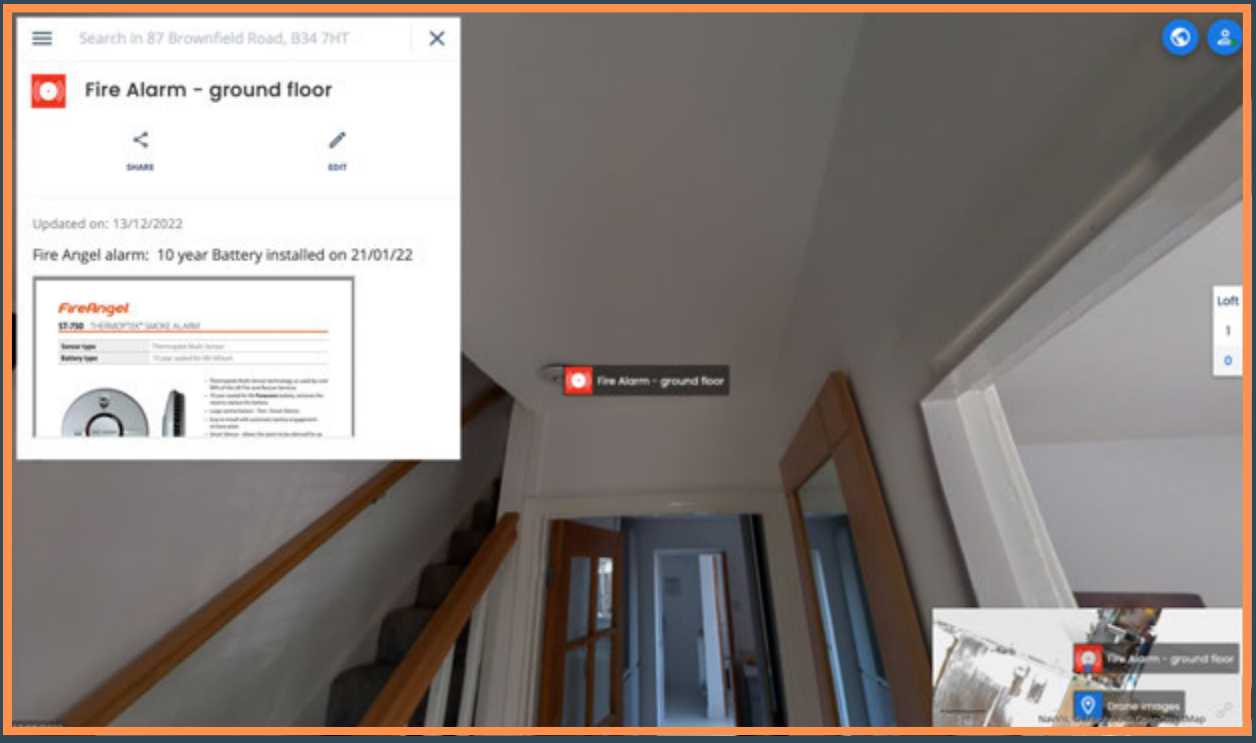
POINTS OF INTEREST

The AIM Housing platform features an easy to use, scalable content management system for adding geo-tagged information and media to digital property models. Users can right-click anywhere on the screen to add and view this information as Points of Interest. The powerful search function makes it easy for users to find the information they need. Points of Interests are automatically referenced to the relevant category tab, where they can be updated, archived or deleted.



DATA OWNERSHIP & SECURITY

AIM Housing prioritises the security of data and follows a strict data protection protocol for capture, management, storage and disposal. We believe that our clients should ultimately own their own data and have the final say in how it's managed.

AIM Housing offers three data management service propositions:

1. LIVE: 360° digital property model's are actively available on our platform, offering the full suite of features, instantly.
2. ARCHIVED: 360° digital property model's are no longer visible on platform, but the associated property data remains accessible, instantly. 360° digital property model's can be re-loaded into AIM Housing at client's instruction.
3. DELETED: All data is moved from AIM Housing platform to client's server. Property bundle can be re-loaded into AIM Housing at client's instruction.

AIM Housing empowers, effectively enabling clients to access, manage and protect their own property data.

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PERSON BLURRING

AIM Housing's automated blurring feature utilises advanced computer vision algorithms to detect faces and bodies within the captured panoramas and point clouds. These algorithms analyse the visual data to identify regions that correspond to human features. Once the faces and bodies are detected, the blurring functionality automatically applies a blur effect to these regions. The blur effect is designed to obscure the details of people's faces and bodies while maintaining the integrity and overall context of the surrounding environment. The blurring feature is especially crucial for compliance with GDPR.

The AIM Housing platform provides multiple sections adapted for property management.

Health, Safety & Environmental

- Fire safety
- Electrical safety
- Gas safety
- Water safety
- Asbestos
- General compliance
  - Conservation
  - Listing building
  - Protected Species
  - Tree Protection Order

Condition

- Damp & mould
- Defects
- Inventory

Carbon Reduction

- Saved site visits to conduct checks and surveys, lowers carbon footprint.
- When sites are surveyed, multiple aspects can be checked at one time and updated on

Energy Efficiency

- Energy performance certificate
- Retrofit assessment.
- Measure suitability for Install, based on survey content of property.
- Detailed floor plans and uploaded 3D/Plans to be able to view in PDF or CAD.
- Technical surveys

Maintenance

- Issue raised
- Planned
- Pending
- Completed

Photos

- External photos – all elevations and roof.
- Internal photos - condition, ventilation, construction, insulations, heating, heating controls, utility meters

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