



4.0 EXAMINATION OF ALTERNATIVES

4.1 Introduction

This chapter of the *Environmental Impact Assessment Report* has been prepared by Tom Phillips + Associates and details the rationale underpinning the proposed development and an examination of alternatives.

As per the provisions of the amended EIA Directive, it is noted that Annex IV (2) requires the following:

“A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.”

4.2 Rationale for the Proposed Development

The rationale for the subject project is to provide a high-density residential development with ancillary facilities in a landscaped setting in the Sandyford Business District. The proposal is predicated on the zoning of the site for residential development in the DLRCC *Development Plan* (See Appendix 15- *Sandyford Urban Framework Plan*.) In addition to the zoning designation, the site is also the subject to several site-specific policy objectives, such as plot ratio and density, as outlined in the enclosed *“Planning Statement of Consistency”*, prepared by Tom Phillips + Associates. It is within this statutory planning policy context that all alternatives have been considered.

4.3 Main Alternatives Studied

The main alternatives studied during the development of the Project comprises alternative design solutions and layouts for a largely residential development at the subject site.

4.3.1 *Alternative Locations*

Given the zoning of the subject site in the Sandyford Urban Framework Plan, and having regard to the project’s objectives, no reasonable alternative locations were considered. The Development Plan facilitates high-density development on the site, which accords with national policy. This form of development is considered appropriate for the site and its location.



4.3.2 “Do Nothing” Alternative

In the event of the ‘do-nothing’ scenario, the current use of the site is likely to continue, whereby the lands would remain in a state of part-completion and abandonment, with continued deterioration likely. Public access to the site would continue to be restricted. Health and safety issues at the site would relate to the existing security and maintenance of a partially constructed basement car park, which would remain unchanged.

The subject site has been zoned to fulfil a specific housing need by 2023 (which has been informed by Regional Planning Guidelines). As such, a do-nothing scenario would mean that this objective of the Development Plan would not be met, and some 428 no. households would remain uncatered for.

If the development did not proceed, there would be a neutral impact on commuting patterns in the area as the proposed development does not provide any additional transport infrastructure services. There may be a slight negative impact on some pedestrian commuters in the “Do Nothing Scenario,” as the site will provide additional permeability and access for pedestrian commuters to the Luas stop to the north of the site who will otherwise have to walk around the block.

4.3.3 Alternative Processes

Given the zonings of the subject site, the rationale for the project, and the nature of the proposed development, no reasonable alternative processes were studied.

4.3.4 Alternative Designs/Layout

The iterative process of design development of the scheme is outlined in detail in the *Design Statement*, prepared by TOT Architects, as well as existing residential developments that have influenced the design development process.

HKR Scheme

The proposed layout of the development follows the original masterplan initiated by HKR Architects (DLRCC Reg. Ref. D05A/1159 and ABP Ref. PL 06D.215205), which has been effectively adopted in the Sandyford Urban Framework Plan for this part of the Sandyford Business District. Within the originally permitted masterplan scheme, the subject site contained extensive retail at ground floor level with residential accommodation and communal open space at first floor podium level. The resulting configuration formed a pedestrian street by way of intersecting north / South and East/ West Boulevards.

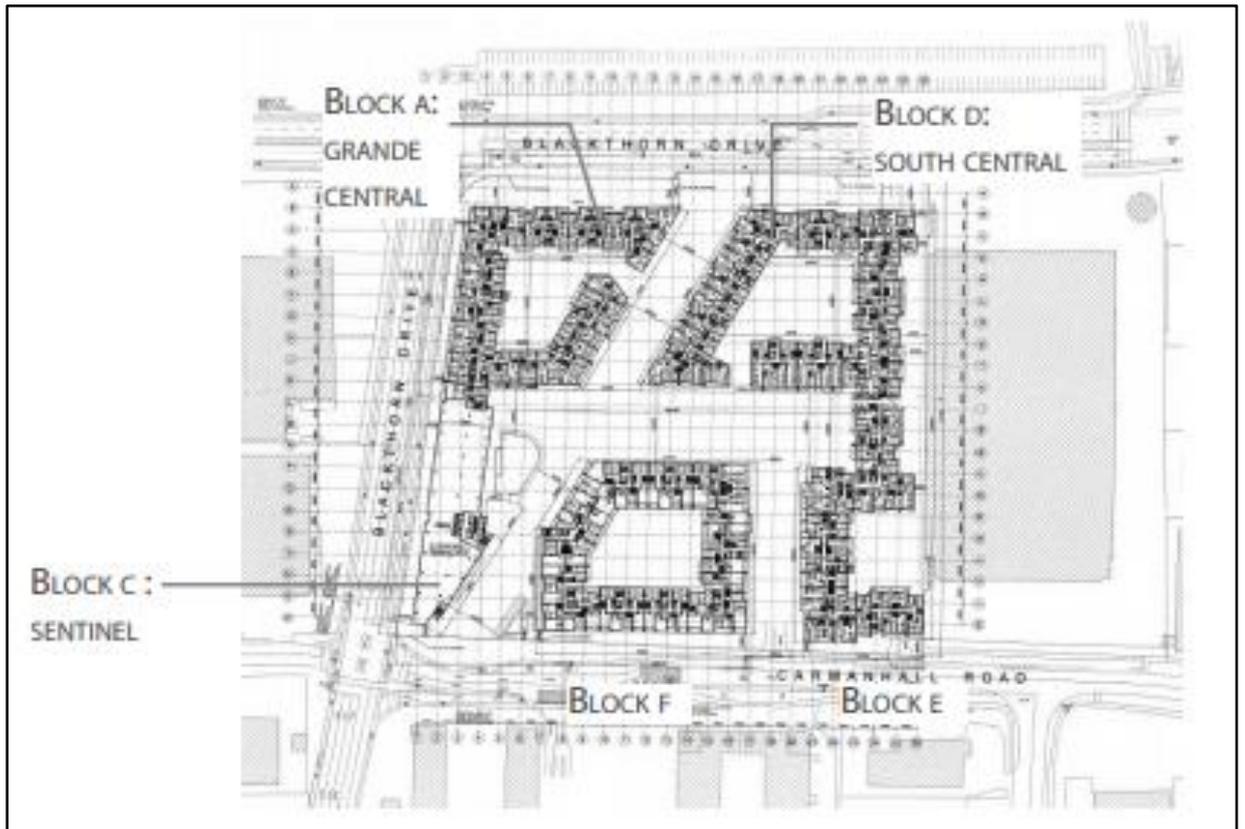


Figure 4.1- Extract of Original HKR Scheme Masterplan, extracted from the Design Statement, prepared by TOT Architects.

TOT Architects were cognisant of the Boulevards serving as an important site and public realm feature when developing the proposed design of the scheme. This feature is retained and enhanced within the proposal which further promotes:

- The primacy of the Boulevards;
- Creation of a vibrant urban street environment;
- Creation of an urban plaza at the Boulevard intersection;
- Strong active frontage with varying access points and uses and
- Street level permeability throughout the site and courtyards.

Studio Anyo Scheme

Permission was refused the Board for 492 no. apartments in 3 no. fourteen storey blocks, including a retail unit, a café, and a crèche in Block 1 with modifications and completion of three basement levels and revised ramp access arrangements, landscaping and all ancillary works on 28th September, 2017 for 3 no. reasons.

The original scheme sought permission for 492 no. units, which was refused permission by Dun Laoghaire-Rathdown County Council (DLRCC). This decision was appealed by the Applicant whereby the scheme was reduced to 456 no. units for the Board's consideration.

The previous scheme was considered 'monolithic' and comprised three large single 14 storey parallel blocks of development. The material differences with the proposed new design proposal are explicitly described and outlined in the accompanying Design Statement prepared by TOT Architects and Chapter 2 of this EIAR. In summary, however, a modulated proposal comprising two perimeter blocks ranging in height from 5-14 storeys arranged around courtyards ensures that the subject development cannot be considered 'monolithic'. The scale, bulk, massing and lack of permeability of the previous proposal was also deemed to be unacceptable.



Figure 4.2- Extract of the Refused Studio Anyo Scheme, from the Design Statement, prepared by TOT Architects.

Having assessed the above scheme and its planning history, TOT Architects considered this design approach to be inappropriate for the subject lands and concentrated on a perimeter block model as a basis for the current development. The evolution of design, and the alternatives considered in this context are described below.

Preliminary Site Appraisal

A preliminary massing and density study was undertaken in line with current design standards for new apartments and as subsequently updated, March 2018. Scheme 6 (see Figure 4.3.6 below) was viewed as being more in line with the brief requirements and developed further. Initial considerations included:

- Core locations within established structural grid at basement level;
- Comparative density to permitted HKR scheme;
- Comparative building heights to permitted HKR scheme;
- Comparative daylight and overshadowing to HKR scheme;
- Provision of more publicly accessible open space and
- Street frontage.

Scheme 1- 417 No. Residential Units

Scheme 1 comprised of 4 no. blocks and 417 no. units with 53% dual aspect achieved, as outlined in the Design Statement, prepared by TOT Architects. This scheme had limited street frontage, week perimeter and boundary treatment and included the formation of a new courtyard with the adjoining permitted Tivway scheme.

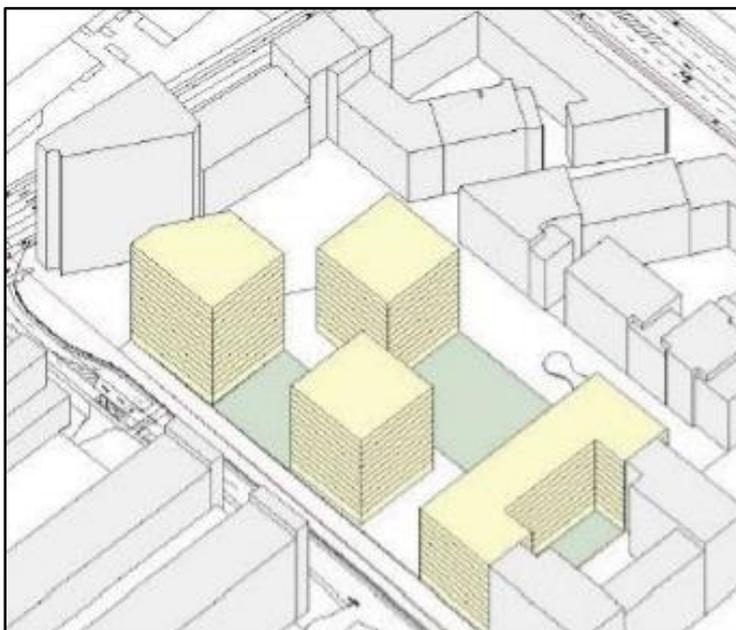


Figure 4.3.1- Extract of Scheme 1, prepared by TOT Architects.

Scheme 2- 397 No. Residential Units

Scheme 2 comprised of 397 no. residential units, with 65% dual aspect achieved, as outlined in the Design Statement, prepared by TOT Architects. In this version of the scheme, 5 no. blocks were linked together. The block interacting with the permitted Tivway scheme was removed. As the 'connecting' elements were floating, limited street frontage was achieved in this scheme. However, the dual aspect ratio was improved.



Figure 4.3.2- Extract of Scheme 2, prepared by TOT Architects.

Scheme 3- 412 No. Residential Units

Scheme 3 comprised of 412 no. units, with 65% dual aspect achieved, as outlined in the Design Statement, prepared by TOT Architects. The block which interacts with the proposed Tivway scheme was reintroduced to assist assimilation of the scheme with the wider block. In addition, street frontage was strengthened along the perimeter of the scheme. A taller block was introduced to react to The Sentinel building, adjoining the site to the west. This intervention strengthened the definition of the new corner of the subject site at this location, as well as assisting in the animation of the existing boulevard.

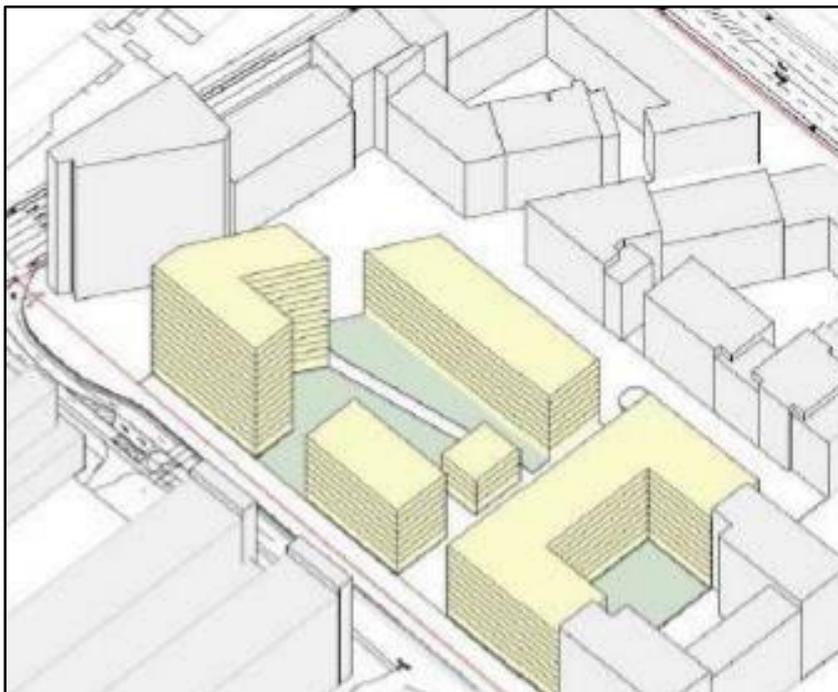


Figure 4.3.3- Extract of Scheme 3, prepared by TOT Architects.

Scheme 4- 420 No. Residential Units

Scheme 4 comprised of 420 no. units with 59% dual aspect achieved, as outlined in the Design Statement, prepared by TOT Architects. The perimeter block formation was extended around the western perimeter of the subject site, which increased active frontage onto the boulevard. The height of the block was tapered around the focal point of the scheme, the tallest block in the south-west corner. This scheme also included 1 no. large courtyard space.



Figure 4.3.4- Extract of Scheme 4, prepared by TOT Architects.

Scheme 5- 400 No. Residential Units

Scheme 5 comprised of 400 no. residential units with 65% dual aspect achieved, as outlined in the Design Statement, prepared by TOT Architects. Further tapering of block heights allowed for additional sunlight penetration into the now 2 no. courtyards. In addition, the perimeter block formation was strengthened which allowed for additional frontage. The blocks fronting the adjoining Tivway scheme were shifted in a westward direction to decrease shadow impact on the adjoining scheme to the east.



Figure 4.3.5- Extract of Scheme 5, prepared by TOT Architects.

Scheme 6- 447 No. Residential Units- The Selected Scheme

Extract of the selected scheme- Scheme 6, which comprised of 447 no. residential units. This scheme achieved with 65% dual aspect, as outlined in the Design Statement, prepared by TOT Architects. This scheme saw further tapering of block height to allow for increased sunlight penetration into individual units, as well as the 2 no. courtyards. This design allowed for increased active frontage, as well as the strengthening of the 14 no. storey corner element, corresponding to The Sentinel building, to the west of the site. The priority of the boulevard is also strengthened in this iteration.

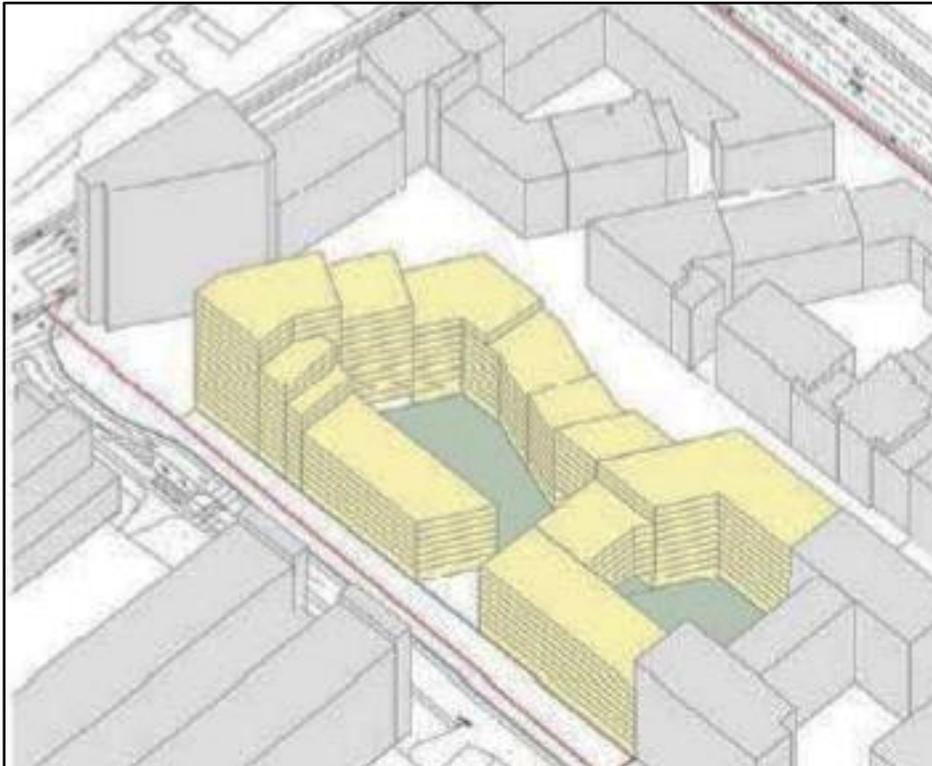


Figure 4.3.6- Extract of Scheme 6, prepared by TOT Architects.

Following the selection of Scheme 6 (Figure 4.3.6) as the optimum approach to design, the scheme was further amended following results of shadow and wind analysis. In addition, the receipt of feedback during the pre-planning consultation process with Dún Laoghaire-Rathdown County Council allowed for additional changes to the scheme.

The design was amended to minimise overshadowing, as well as to create multi-level terraces (May 2018- as demonstrated in Figure 4.4)

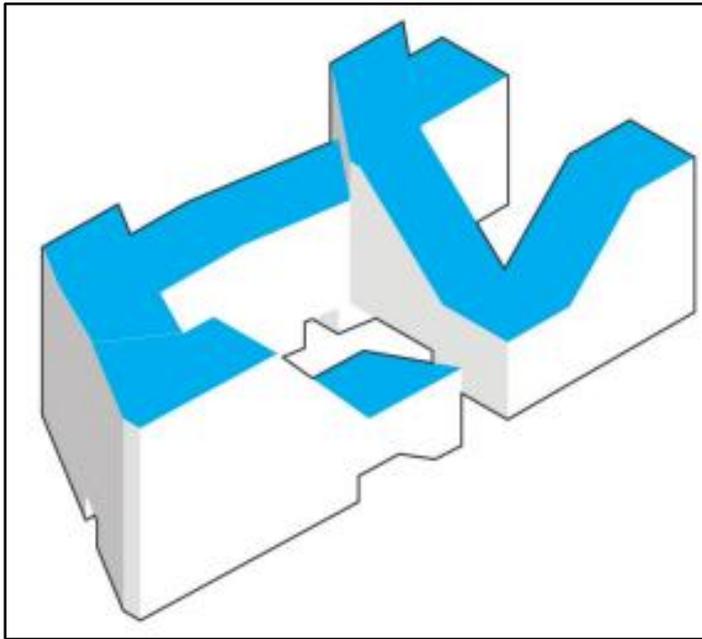


Figure 4.4- Extract of Revision 1 to Scheme 6, prepared by TOT Architects.

The height of the scheme was reduced to minimise overshadowing of the existing Rockbrook scheme and to improve sunlight penetration to the internal courtyards. In addition, the footprint itself was simplified to improve light penetration more generally. There was also a slight rotation to improve east-west orientation and the development was further sculpted to improve sunlight conditions and soften the mass of the development. (July 2018- As seen in Figure 4.5).

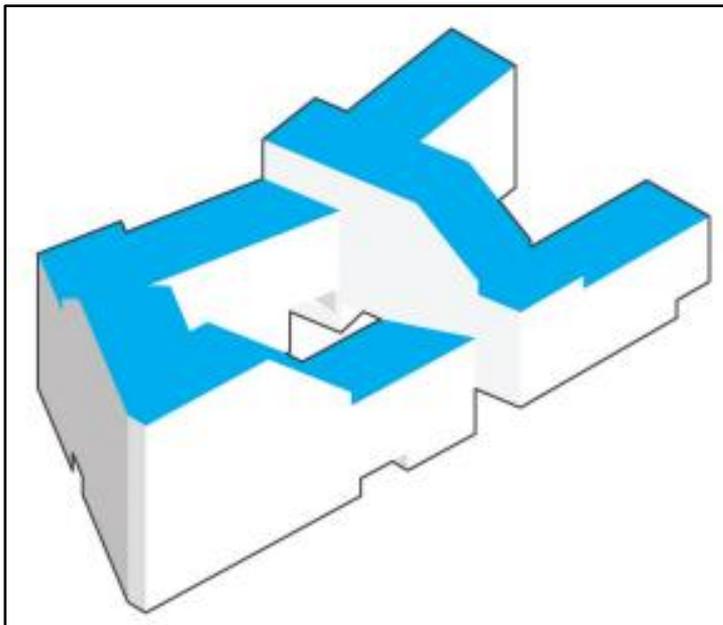


Figure 4.5- Extract of Revision 2 to Scheme 6, prepared by TOT Architects.

The creation of a break in the main elevation on Carmanhall Road was included to bring light into the courtyard and apartments. This improved the light penetration in this corner of the courtyard in particular. The tallest element of the scheme which faces the existing, partially constructed “The Sentinel” building was “pushed back” to reduce massing. This also reduced the overall density of the scheme. In addition, the unit numbers were reduced to 428 no. apartments (September 2018- As seen in Figure 4.6).

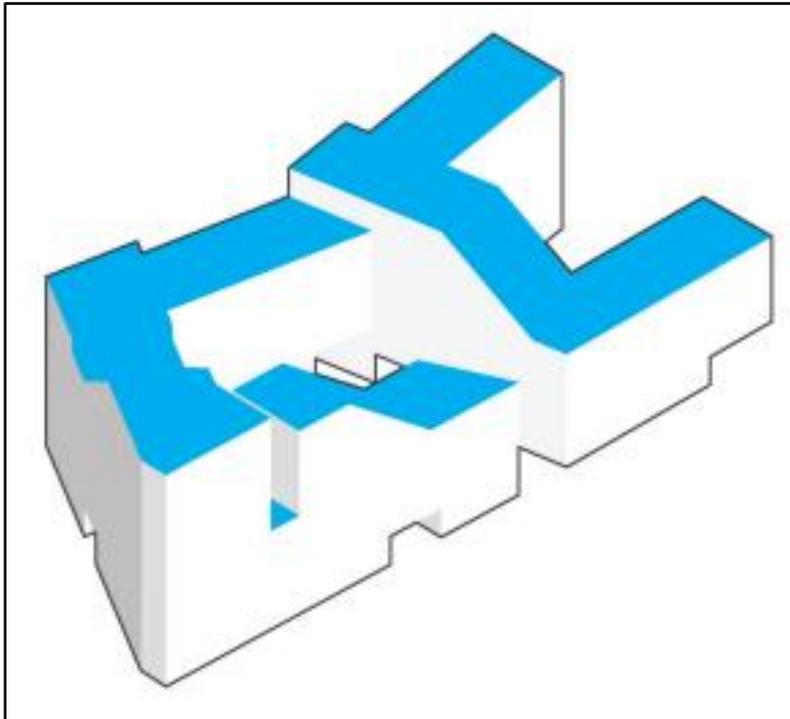


Figure 4.6- Extract of Revision 3 to Scheme 6, prepared by TOT Architects.

The evolution of the landscaping design strategy and the design response to the former Aldi Site, known as “Tivway” is outlined in greater detail in the Design Statement, prepared by TOT Architects, as well as the Landscape Design Report enclosed with the application, prepared by Murray Associates.

4.3.6 Alternative Mitigation Measures

The mitigation measures outlined in the various chapters are considered appropriate to the location, nature and extent of the project and its potential impacts. As such, no alternative mitigation measures were considered.



4.4 Conclusion

Having examined various reasonable alternative designs, it is considered that the proposed design is a preferable option in terms of the sustainable development of the subject site insofar as it achieves 428 no. units and a net residential density of 255 no. units per hectare. Further, the inclusion of the increased permeability within the scheme will facilitate sustainable transport modes, whilst also fostering strong connections between the new population on site and the wider community.

The current design achieves a strong mix of unit types, sizes, and designs and has resolved the difficulty of achieving a critical mass of a sustainable residential scheme in an existing high-density, urban location. This is achieved while providing adequate open space, a mix of residential, commercial and community uses and achieving a strong urban edge, as well as passive surveillance.