



**Clifton Scannell Emerson**  
Associates

# Lucan Village Public Realm Village Green - Engineering Planning Report



Comhairle Contae  
Átha Cliath Theas  
South Dublin County Council

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**Client: South Dublin County Council**

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Civil  
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Structural  
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## 1 Introduction and Background

### 1.1 Background

South Dublin County Council (SDCC) have appointed dhbArchitects (DHB) to provide Technical Consultancy Services as project coordinators and design team lead for the planning process for the proposed Lucan Village Public Realm Scheme. As part of the design team, Clifton Scannell Emerson Associates (CSEA) have been commissioned to provide engineering (Civil & Structural) consultancy services.

This report has been prepared by CSEA to detail preliminary engineering proposals, assess the flood risk, and assess the traffic and parking spaces for the Village Green project area, part of the Lucan Village Public Realm Scheme.

The leading planning report has been prepared by DHB and it details several different aspects of the existing site conditions and the proposed scheme. With the intention not to include redundant information, this report will focus on the engineering aspects of the proposed scheme.

### 1.2 The Proposed Scheme

Figure 1.2.1 below show location of the Village Green project area, part of the overall Lucan Village Public Realm Scheme.



**Figure 1.2.1 – Project Area Locations**

This report will detail preliminary engineering proposals and assess the flood risk for the Village Green project area.



The overall intention of the proposed scheme is to upgrade the existing areas and transform them into a more usable, amenable, and safe space for pedestrian, cyclists, and drivers. Figure 1.2.2 below displays the architects' proposed layout for the Village Green area. It comprises the Village Green Park area, bounded by an existing stone wall, and the Main Street area. The final proposed layouts can be reviewed on **Appendix A**.

The final proposed layout for each area has been defined by DHB and has taken into consideration engineering advice provided by CSEA.



Figure 1.2.2 – Village Green Proposed Layout.

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## 2 Preliminary Engineering Design

### 2.1 The Scheme – Village Green

The proposals, as detailed by dhbArchitects, for the Village Green Project area comprises of the following:

- The demolition and removal of the current street finishes consisting of Tarmacadam, concrete and pre-cast pavements, along with the concrete kerbing and sundry street furniture are to be removed. This will be done with great care where the finishes meet the buildings and walls etc., and around the existing trees along the Griffeen river wall.
- The removal of two trees on the western side, one outside the Bank of Ireland at the northern and the other outside AIB at the southern end.
- The overhead power lines are to be removed and rerouted through underground ducting and a new street drainage system is to be installed. New ducting will be provided for public lighting and utilities. Existing manhole covers and services chambers will be reset and levelled. Natural
- drainage will be installed along the existing tree line beside the Griffeen river where feasible, depending on root conditions and direction.
- Ducting will be provided to the new carparking spaces for their potential conversion to EV charging spaces if required.
- A concrete slab will be placed over the utilities layer and new finishes provided to the finished levels. These finishes will include asphalted areas, stone and paving and will be to 'shared surface' standards, i.e. generally without kerbs or changes in level.
- The reduction of parking spaces from 37 to 26 bays in the Main Street area, the addition of a bus stop.
- The addition of new lighting poles, of benches, bins, and fixed and removable bollards and bicycle parking stands at various locations as shown on the drawings.
- The removal of the stone infill between the piers of the former horses' watering point beside the weir and its replacement with a toughened glass screen. The removal of 7 no. existing trees (as shown in red on the drawing), the retention of 2 no. existing trees (one of which - the Christmas tree - is to be replanted) and the addition of 5 no. new trees along with approx. 45m of new flowering hedge along Dispensary Lane, and new planting throughout, including an area of wildflower meadow and an area of reinforced grass.
- The excavation to a maximum depth of approx. 1.8m of new amphitheatre steps and seating providing access to the Griffeen river.
- The excavation to approx. 1.2m of a new seating area beside the Griffeen river facing Vesey weir and bridge.
- The widening of the footpath at the southern end of the Green with new steps into the Park.
- The construction of a metal frame bandstand structure capable of taking a temporary roof covering.
- The rerouting of the footpath on Dispensary Lane through the Green by means of a ramped path running inside the planted boundary and connecting to the extended footpath on the southern end.
- The replacement of the metal guarding and handrail along the Griffeen River edge with a glass and metal guarding, including the protection of the amphitheatre seating ends.

- The removal of the rubble stone wall and capping forming the boundary to the southern end of the Green and its reconstruction in a changed configuration to form a new western boundary to the widened footpath under these proposals, as well as stone retaining walls to the new amphitheatre seating within the park.

## 2.2 Proposed Road Cross Section, Levels and Slopes.

For the area within the Village Green Park, the levels will be altered to accommodate the proposed layout for the park. Footpaths, steps, ramps, and landscape features are proposed for the Village Green Park which will alter the existing ground levels. The proposed surface finish levels will be defined at detail design stage. However, a preliminary civil 3D model was produced for the village green park area in order to assess the volume of materials that are proposed to be removed and/or introduced on the park area. It is envisaged that, within the park area, the scheme will result on volume being removed from the site.

The Main Street area is proposed to be reconfigured and resurfaced and the final surface levels will be design at detail design stage. The intended levels will aim to direct the rainfall runoff away from building line and into drainage features, such as drainage channels and/or road gullies. The proposed levels will aim to tie in with existing finish floor levels at door openings for all businesses along Main Street. It is also the intention of the proposed scheme to improve accessibility by altering the existing levels, if necessary, to create a better pedestrian environment.

Where possible, the existing levels and surface slopes will be retained as well as existing drainage elements, such as road gullies.

Figure 2.2.2.1 below is an extract from the architects' layouts and it shows the intended cross section for Main Street.

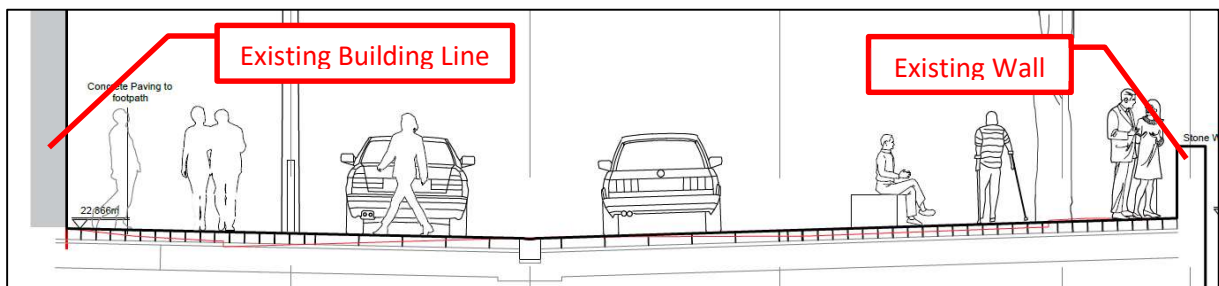


Figure 2.2.1 – Intended Road Cross Section.

## 2.3 Horizontal & Vertical Alignment for Main Street

It is envisaged that the existing vertical alignment will be altered on a small scale to cater for the raised/flushed area intended to be created.

The existing horizontal alignment of the road will be redesigned/rearranged based on the proposed layout of the scheme and considering the proposed 3.5 to 4.7m (kerb to kerb distance) wide carriageway.



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At detail design stage a civil 3D model will be generated to design the finish surface levels for the road, parking bays, bus stops and footpaths. Cross section with proposed and existing profiles (levels) will be generated at 2.0m centres.

The proposed horizontal alignment has been analysed regarding turning circles for different types of vehicles, including emergency vehicles, delivery vehicles, bin lorries, and busses. The results of this analysis have been incorporated into the design and kerb line radius have been adjusted accordingly to cater for such vehicles.

## **2.4 Surface Water Drainage**

It is the schemes' objective to introduce additional surface water drainage elements, such as drainage channels and road gullies to accommodate and cater for all runoff generated by the revised surface slopes and levels.

The new surface water drainage elements will be connected to existing surface water drainage system on the site.

During detail design stage the existing surface water system will be investigated to determine its accurate location and if it requires cleaning and/or unclogging. The existing discharging points into the Griffeen River will be investigated and if necessary, a petrol interceptor will be installed immediately upstream to discharging points within the existing surface water drainage system.

The Village Green Park areas will have the generated rainfall runoff directed to the Griffen River and into permeable areas, such as grassed areas, bed flower areas which will account for the SUDS within the area. The proposed additional impermeable area within the scheme is minimal therefore there will be no requirement for attenuation.

All the above will be designed in parallel and in accordance with the Greater Dublin Strategic Drainage Study (GSDSDS), the 2010 Building Regulation - Technical Guidance Document H, the SuDS Manual, the TII Design of 'earthworks drainage, network drainage, attenuation and pollution control' DN-DNG-03066 and all other relevant drainage standards and guidance documents available at the time of design.

## **2.5 Foul Water Drainage**

According to Irish Water (IW) existing service records, there is one underground foul water line that runs along Main Street. Its exact location and depth are unknown and will be investigated during detail design stage.

It is envisaged that existing chamber covers, and frame will be removed and reinstalled at new finished level. However, the proposed scheme will not affect the existing underground Foul Water Drainage System and will not require any upgrade works under the scheme's proposed scope of works.

## **2.6 Water Main**

According to Irish Water's (IW) existing service records, there is one underground watermain that runs along Main Street. Its exact location and depth are unknown and will be investigated during detail design stage.

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It is envisaged that existing chamber covers, and frame will be removed and reinstalled at new finished level. However, the scheme will not disturb the existing underground water main system and will not require the introduction of any new or additional watermain infrastructure.

## **2.7 Gas**

According to Gas Networks existing service records, there is an underground gas main that runs along Main Street. Its exact location and depth are unknown and will be investigated during detail design stage.

The scheme will not disturb the existing underground gas system and will not introduce any additional gas distribution mains under the scheme's proposed scope of works.



### 3 Flood Risk Assessment – Village Green

The Catchment-based Flood Risk Assessment and Management (CFRAM) program has been implemented by the Office of Public Works (OPW) as a competent authority in Ireland for the EU floods directive. Over 29 Flood Risk Management Plans (FRMPs) have been prepared in coordination with the implementation of the Water Framework Directive (WFD). The FRMPs involved undertaking detailed engineering assessments and producing flood protection measures. The assessments addressed the potential impact of the proposed measures on waterbodies, hydromorphology and quality status.

The purpose of The Planning System and Flood Risk Management Guidelines for Planning Authorities published by the OPW in 2009 (OPW Guidelines) is to introduce comprehensive mechanisms for the incorporation of flood risk identification, assessment, and management into the planning process.

For carrying out a Site-specific Flood Risk Assessment (SSFRA), the OPW Guidelines recommend using the Source-Path-Receptor concept model to identify where the flood originates from, the floodwaters path, and the areas in which assets and people might be affected by such flooding (section 2.18 of the OPW Guidelines, 2009). Figure 3.1 below displays a schematic representation of S-P-R model.

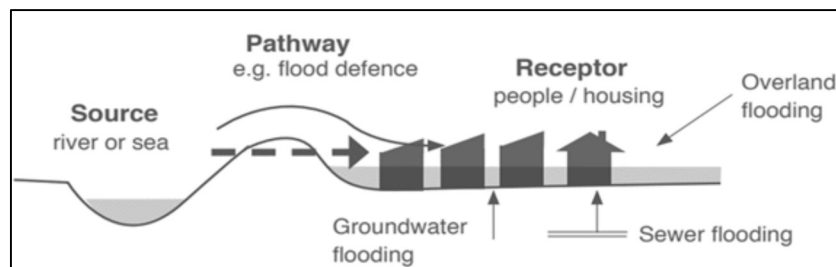


Figure 3.1 – Source-Path-Receptor Model

The other key concept in flood management is the “Flood Risk”, which is “the combination of the likelihood of flooding and the potential consequences arising”. Consideration of flood risk must be addressed in terms of:

- The likelihood of flooding, expressed as percentage probability or exceedance each year;
- The consequences of flooding as the associated hazard e.g. flood depth and velocity.

Flood risk is then expressed with the relationship:

$$\text{Flood Risk} = \text{Likelihood of flooding} \times \text{Consequences of flooding.}$$

#### 3.1 Flood Zones

The Flood Zone is the spatial inundation area that falls within a range of likelihood of flooding. The OPW Guidelines specify three levels of flood zones:

- Flood Zone A – where the probability of flooding from rivers and the sea is highest (greater than 1% Annual Exceedance Probability (AEP) for river flooding and 0.5% AEP for coastal flooding);
- Flood Zone B – where the probability of flooding from rivers and the sea is moderate (between 0.1% and 1% AEP for river flooding and between 0.1% and 0.5% AEP for coastal flooding);
- Flood Zone C – where the probability of flooding from rivers and the sea is low (less than 0.1% AEP for both river and coastal flooding). Flood Zone C covers all areas of the plan which are not in Zones A or B.

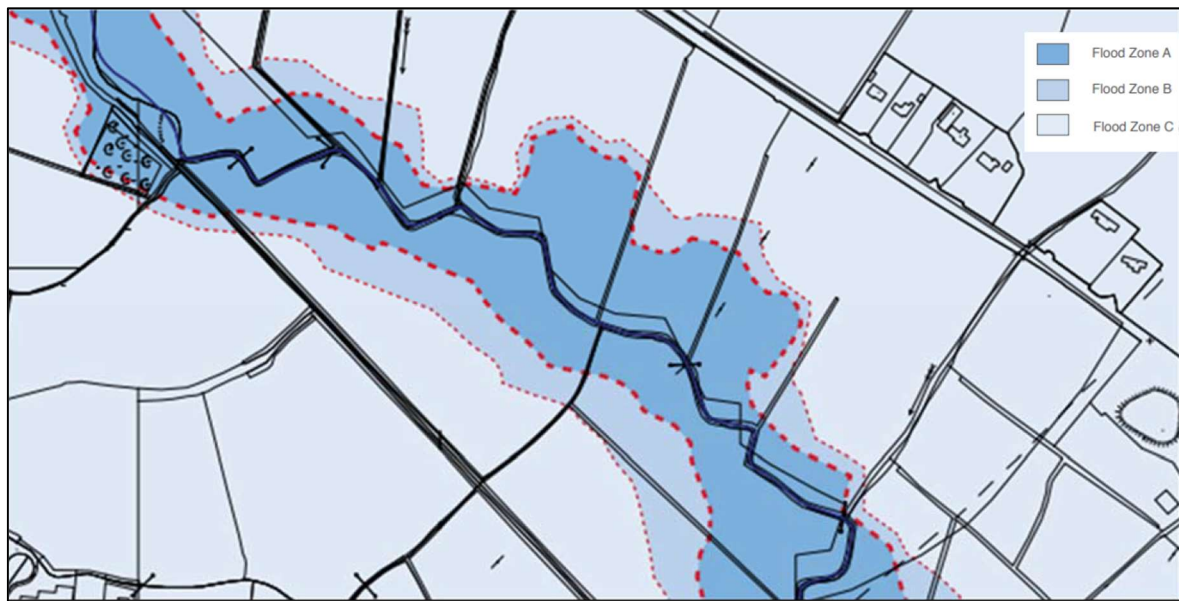


Figure 3.1.1 – Example of the three flood risk zones along typical water body.

### 3.2 Stage 1 - Flood Risk Identification

A stage 1 flood risk identifications was undertaken to determine if a flood risk exists for the three project areas, and if so to determine the extent of the risk.

The following documents and sources were reviewed in order to identify the flood risk for the three project areas:

- Environmental Protection Agency (EPA) Maps
- OPW Flood Risk Maps
- Historical Flood Records

#### 3.2.1 Environmental Protection Agency (EPA) Maps

EPA maps are available at '<https://gis.epa.ie/EPAMaps/>' and show existing water features such as rivers, streams through the subject site which would contribute to flooding. The maps also identify the flow network and the direction of flow of the water features. Figure 3 below is an extract from the webmap available at the EPA website for the Village Green area.



Figure 3.2.1.1 – Water features from EPA Maps – Village Green area.

### 3.2.2 OPW Flood Risk Maps

The images presented below are extracts from the final flood risk maps published by the Office of Public Works (OPW) and can also be found at ‘www.floodinfo.ie’. The maps identify the estimated extent of a flood event and the areas that are at risk. The maps identify the areas that are prone to flood, and it indicates the percentage probability of occurring in any one year.

Figure 3.2.2.1 identify that the Griffen River that transverse the proposed are of the scheme poses a flood risk for the site.

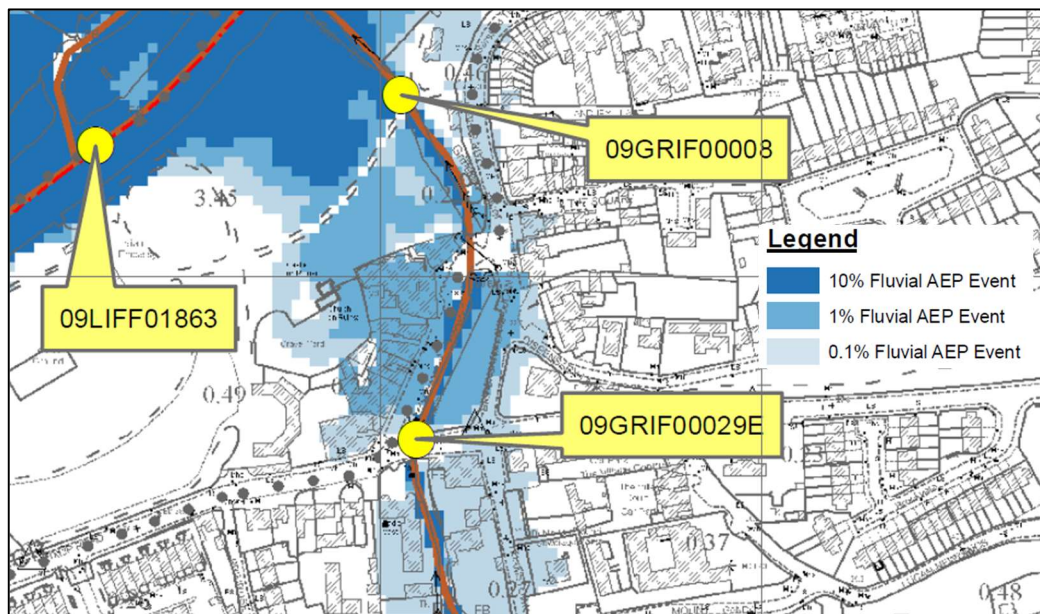


Figure 3.2.2.1 – Village Green Flood Risk Mapping

### 3.2.3 Historical Flood Records



Past flood event records can also be found at the OPW's flood information website ([www.floodinfo.ie](http://www.floodinfo.ie)). The records show that subject areas have a history of flooding. The images below are extracts from the records and reports produced by the website and show the past flood events and the past flood extent.

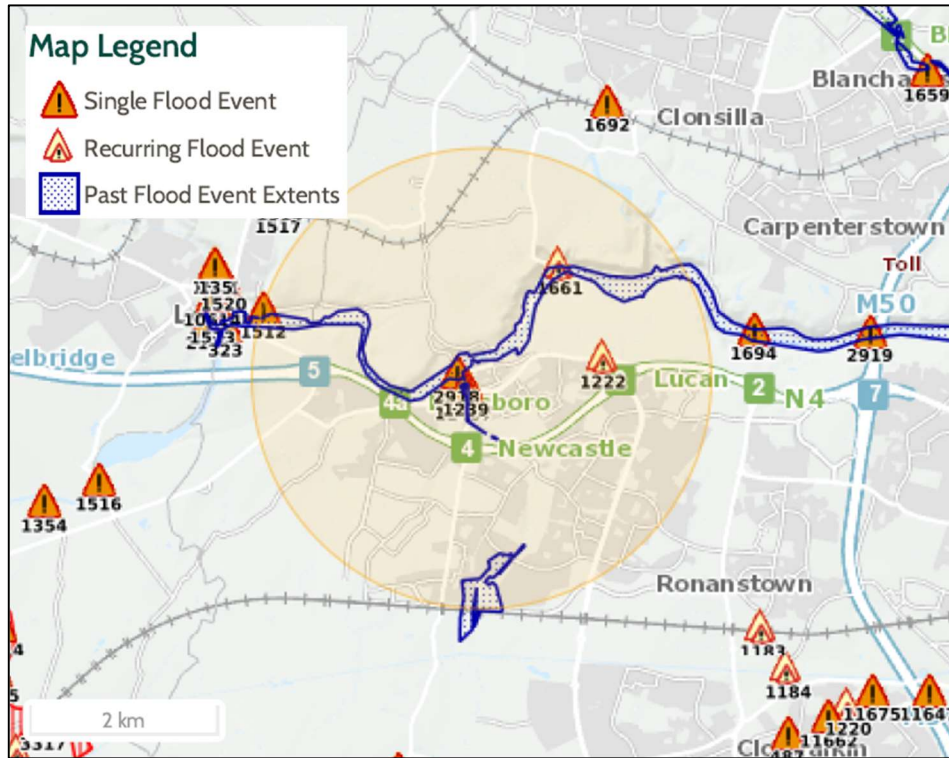


Figure 3.2.3.1 – Past Flood Events Overall Map for Lucan Area



Figure 3.2.3.2 – Village Green Flood Event from 12/06/1993



Figure 3.2.3.3 – Village Green Flood Event from 05/11/2000

### 3.2.4 Past Flood risk Management Measures

Data and studies were collected from the “Flood Risk Management Plan - 2018” (FRMP) published by The Office of Public Works (OPW), The “Catchment Flood Risk Assessment and Management Study” (CFRAMS) carried out in 2015 by the Water, Environment and Climate Change Department within South Dublin County Council (SDCC) and the ‘Strategic Flood Risk Assessment (SFRA) for South Dublin County Council Development Plan 2016-2022’.

The three documents mentioned above summarises the existing flood risk management measures that were carried out on the Griffeen River corridor (Village Green area), which includes the following:

- The lowering of the river’s bedrock in Lucan Village,
- the repointing and raising height of masonry pillars and wall in Main Street in Lucan,
- the installation of gabion protection along the river bank at Lucan Pitch and Putt Club,
- the construction of 2 no. offline storm water retention ponds in Griffeen Park.
- The lowering of the horseshoe weir at Vesey Bridge,
- New culverts under Hayden’s Lane, the railway and Griffeen Avenue.

It should be noted that all flood risk management measures described above were carried out considering the 1% Annual Exceedance Probability (AEP) flood event.

### Source-Path-Receptor Model

A Source-Pathway-Receptor (SPR) model, as detailed on table 1 below, has been produced to assess the possible sources of floodwater, the pathways by which flood water reaches receptors, and the receptors that could be affected by potential flooding.

The SPR below assess all three areas at one.



Flooding Type	Source	Path	Receptor	Likelihood	Impact	Risk
Tidal	Dublin Bay	Liffey River	People and Property, infrastructure	Possible	High	Very Low
Fluvial	Liffey River / Griffeen River	Roads / Footpaths	People and Property, infrastructure.	Possible	High	High
Pluvial / Surface Water	Flooding from surcharge of existing surface water drainage system	Roads / Footpaths	People and Property, infrastructure.	Possible	Moderate	Moderate
Ground Water	Rising GWL on the site. TBC	Buildings/ Open space	People and Property.	Possible	Low	Very Low

Table 3.2.4.1 – SPR Model

### 3.2.5 Preliminary Flood Risk Assessment

Section 7 of the FRMP - 2018 sets out the strategy for the sustainable, long-term management of flood risk. The strategy comprises of potential measures that could be brought forward and proposed as part of the project. For the subject area, the plan indicates, under section 7.4.8, a series of hard defences (flood embankments and walls) as being the preferred flood risk management measures to be further developed. However, the FRMP also identify the potential negative ecological and environmental impacts associated with the proposed measures and it indicate that future assessments should be carried out.

The SDCC’s internal CFRAM Study describes a series of recommendations based on the previous Part 8 proposal. These recommendations have been interpreted, summarised and amended to suit the current conditions and intentions (subject to alteration) of the project and they are as follow:

- Any proposed footbridge over canalised section of the Griffeen River within the Lucan Village Park to be raised in level to the top level of the existing flood defence masonry wall to avoid compromising the existing flood defence wall.
- Any permanent partial removal of the existing defence wall should be avoided. Therefore, any proposed railed viewing panel must be replaced by a non-hollow material and could be comprise of a structural glazed unit incorporated into the existing masonry flood defence wall.

Upon reviewing of the current flood risk maps, studies, and past flood events, the Village Green area presents flood risks.

In the following sections of this report the proposed are of the scheme were further reviewed and assessed considering the recommendations from the OPW’s FRMP and parallel studies, such as the

Eastern CFRAMS by OPW. In addition, consultations with OPW and SDCC were arranged to discuss the intended works related to the flood risk management plan and the proposed works for the overall Lucan Village Public Realm Scheme.

### 3.2.6 OPW Consultation

CSEA arranged a meeting with the Flood Relief and Risk Management Division within the Office of Public Works (OPW) to present and discuss how the proposed Lucan Village Public Realm scheme will manage the flood risk within the areas of the proposed project.

The meeting occurred online via Microsoft Teams on the 14<sup>th</sup> of September 2021. The proposed scheme was presented, and the design team noted to be cognizance of the outputs and recommendations of the OPW’s Flood Risk Management plans for the Lucan to Chapelizod corridor.

Were present at the meeting, from the OPW, Francis Kenna and Mark Hayes. The conclusions and recommendations from OPW were generic and indicated that further consultation with the OPW will be required once the project progresses to detail design stage. However, it was note by the OPW’s representatives that the proposals for the Village Green area should not reduce the current and informal attenuation volume created by the Village Green Park area during a flood event.

### 3.3 Stage 2 - Flood Risk Assessment

#### 3.3.1 Tidal Flood Risk

As noted on Table 3.2.4.1 the existing Tidal Flood Risk is considered to be very low. The existing nearest areas prone to Tidal Flood is located east of the Lucan Village at approximately 9.0km as show on Figure 3.3.1.1 below. Therefore, the Lucan Village area is considered to have very low or no Tidal Flood Risk.

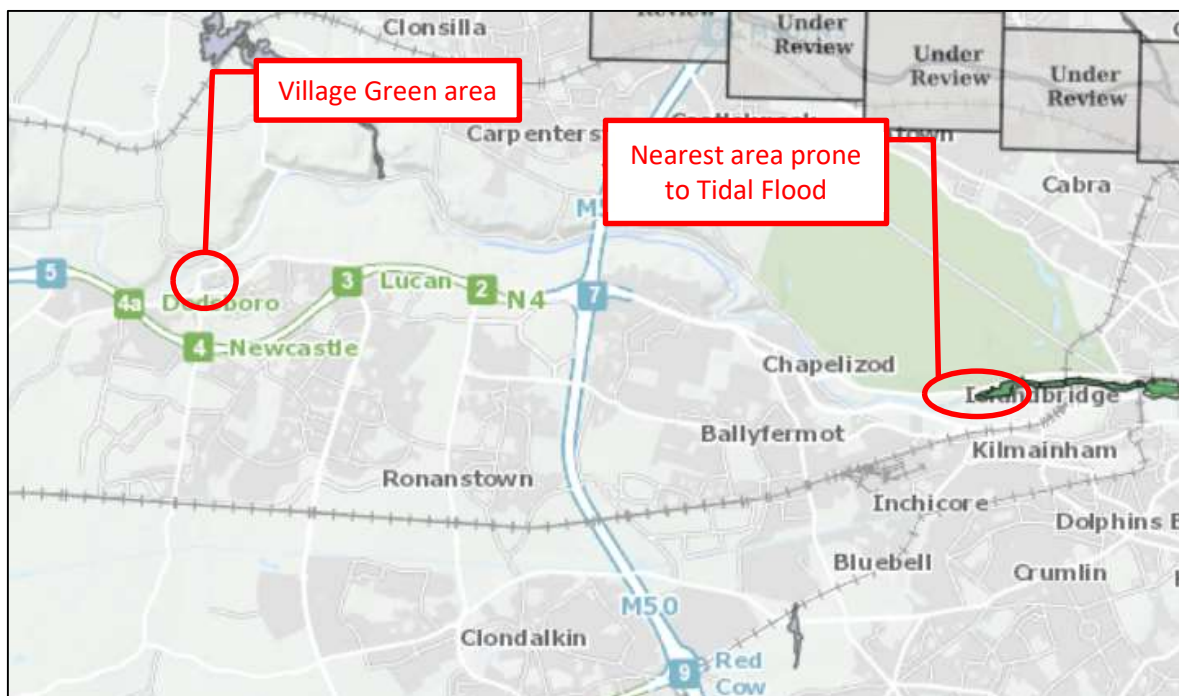


Figure 3.3.1.1 – Tidal Flood Risk

### 3.3.2 Fluvial Flood Risk

The Village Green area is included on Zone A of the Flood Risk Zones, which means it has the highest probability of flood.

The proposal for the area, includes the construction of a plaza area, with a set of steps and a ramp that will cater for disabled access. As the existing levels within the Village Green Park area are lower than the adjacent road, these proposals will have an impact on the volume of water stored within the park area during a flood event. In that sense, CSEA have produced a preliminary 3D model of the proposed layout and compared with a 3D model of the existing layout. The analysis of the overall cut and fill volumes for the site resulted on a net volume of approximately 120 cubic metres of cut. Figure 3.3.2.1 below illustrates the proposed model and the existing model. The figure on the left-hand side shows only the proposed 3D model, from a north-side point of view. The one on the right-hand side show the proposed 3D model when inserted on the existing 3D surface. The cyan colour on the right-hand side figure represents the fill volume and what is not visible, as it is underneath the existing surface, represents the cut volume.

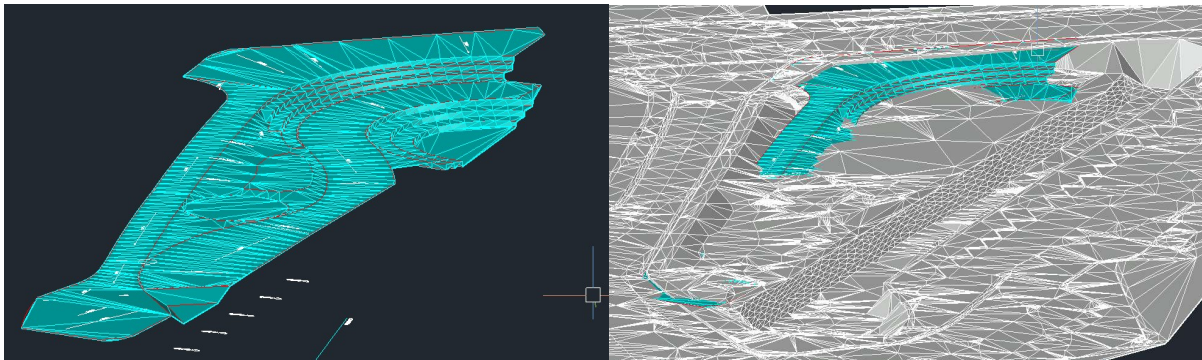


Figure 3.3.2.1 – Civil 3D Model of the Village Green Park Area.

Therefore, it has been concluded that the proposed layout will not increase the existing flood risk but in fact will increase storage volume for the river during a flood event. The amount of additional volume for storage that will be created is considered to be negligible and therefore will result on zero impacts on the existing flood risk.

### 3.3.3 Pluvial Flooding from Surface Water Drainage

The Source-Pathway-Receptor model presented in Stage 1 of the flood risk assessment indicated the likelihood of Fluvial and Pluvial flooding types within all three project sites (including Village Green). The SPR model indicates that the likelihood of pluvial flooding from surface water is moderated because of the uncertainty of the conditions of the existing surface water drainage system within the three projects sites.

Based on the historical flood records for the three project areas, it is assumed that the existing surface water drainage system has capacity to cater for critical rainfalls. In order to confirm the conditions of the existing surface water drainage system, during detail design stage, the existing network will be investigated and if deemed necessary remedial and/or upgrade works will be proposed.

### 3.3.4 Ground Water Flooding

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Groundwater flooding occurs when storage in the underground aquifer is full and rainfall (recharge) cannot discharge quick enough, causing the water table to rise above the ground surface. According to the Geological Survey of Ireland (GSI), groundwater flooding in Ireland occurs mainly on the limestone lowlands to the west of the Shannon.

According to the OPW's flood risk maps, the Lucan Village area has no risk of Ground Water Flooding.

### **3.4 Conclusion and Recommendations**

This flood risk assessment identified Village Green area as being included within Zone A (Section 3.1) of the flood risk zones. Based on that, the preliminary design of the Village Green area has taken into consideration recommendations made by CSEA, the Flood Risk Management Plan (FRMP) and parallel studies, such as the Eastern CFRAMS by OPW, and has aimed to not increase the flood risk.

The proposed scheme is expected to have zero increase on the flood risk, as well as on the current flow of the existing drainage system. As the proposed scheme intends to reduce the impermeable area by introducing landscape and grassed areas and permeable surfaces, the post-development runoff volumes are envisaged to be lower than the current ones. Therefore, post-development runoff volume will not contribute to increasing flood risk downstream.

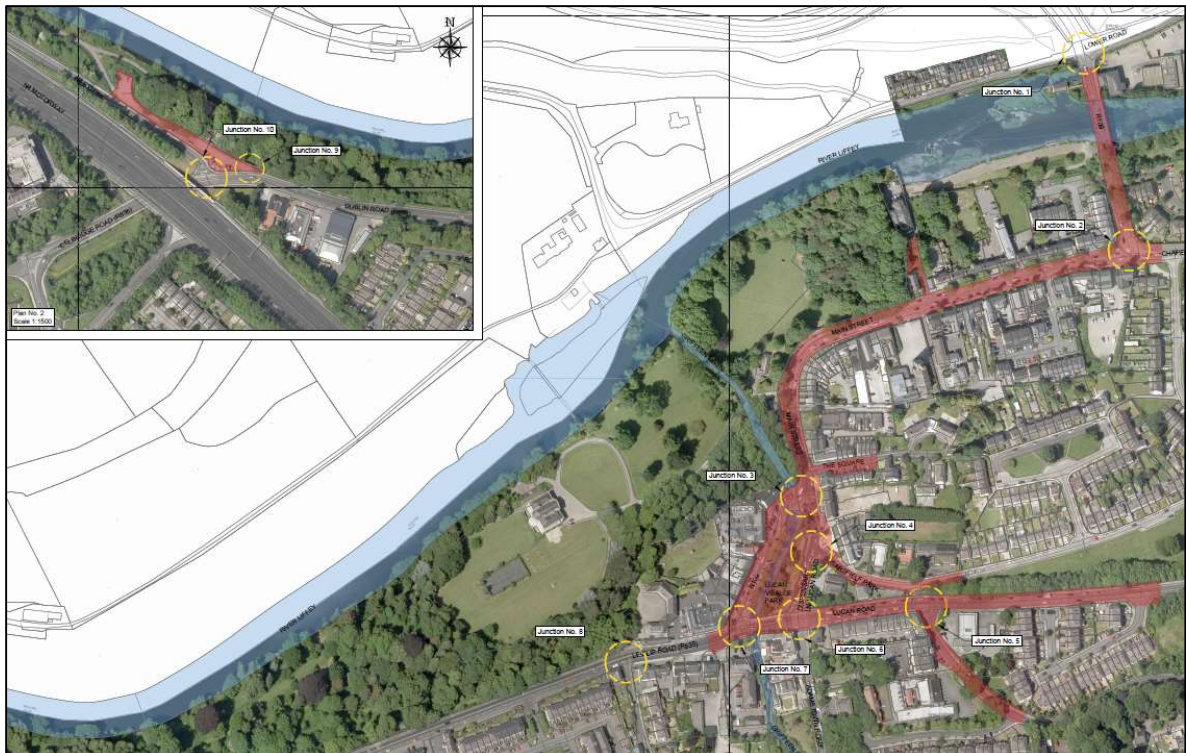
In conclusion, the existing flood risk for the Village Green area will not be negatively impacted by the proposed scheme.



## 4 Traffic and Parking

As part of the preliminary design of the Lucan Village Public Realm Scheme, a traffic and parking survey was carried out on the Lucan Village area. The parking survey was undertaken on Thursday, 20<sup>th</sup> of May 2021 and Saturday, 22<sup>nd</sup> of May 2021 between 00:00h and 24:00h on each survey day. The survey results were analysed and served as support for the proposals along the Main Street area.

Figure 4.1 below show the extent of the traffic and parking survey. The yellow circles represent the junction traffic counts and the red hatch represents the areas where the existing parking were surveyed.



### 4.1 Traffic Counts

The junction traffic counts were carried out on Thursday, 20<sup>th</sup> of May 2021 between 07:00h to 19:00h and the results from same are detailed on drawing 21\_005-CSE-GEN-XX-DR-C-1105 in **Appendix B**.

### 4.2 Parking Survey

As noted, the parking survey was undertaken on Thursday, 20<sup>th</sup> of May 2021 and Saturday, 22<sup>nd</sup> of May 2021 between 00:00h and 24:00h on each survey day. The survey results are summarized on drawing 21\_005-CSE-GEN-XX-DR-C-1103 in **Appendix C**.

### 4.3 Traffic and Parking assessment

As the proposed scheme does not intend to alter the existing traffic patterns, CSEA concluded that no further analysis of the traffic was necessary.



The scheme proposes to reduce the amount of vehicle parking within the main street area. As a result, it was expected that the public's first reaction to the proposal would be unfavourable to the scheme. However, the parking survey results show that, currently, the existing parking spaces are not being used at full capacity and that at peak use, there are still 54 spaces available within less than 5 minutes' walk (refer to Appendix C).

The existing 37 parking spaces on Main Street are to be reconfigured to provide for 16 parallel parking spaces including three accessible spaces. This number was increased from 12 originally proposed following consultation with councillors and businesses. The reduction in parking is necessary to allow for improved accessibility, pedestrian use, and to create a more inviting environment for residents and visitors.

To further compensate for the reduction in parking on Main Street, 8 additional parking spaces (4 no. at AIB Bank and 2 no. at Carroll's Pub) have been provided within a minute's walk of the centre of Main Street and a further 4 have been provided within 2 minutes' walk of same point (Roma Chipper). **Appendix D** details the car park spaces analysis for the Village Green area.

In summary the total number of parking changes from 37 to 26 spaces, resulting in a net loss of parking ,in the Village Green area, of 11 parking spaces.

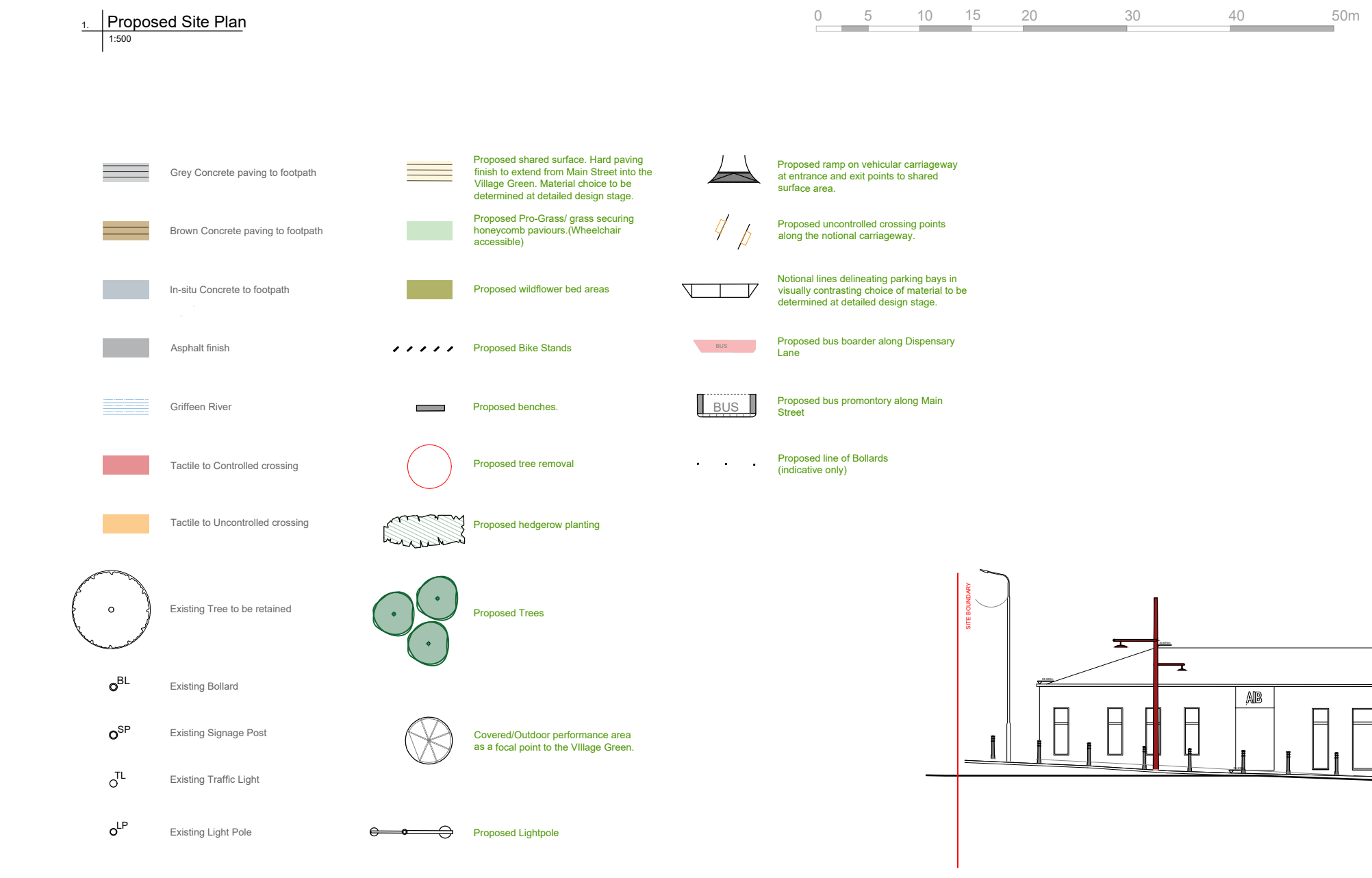
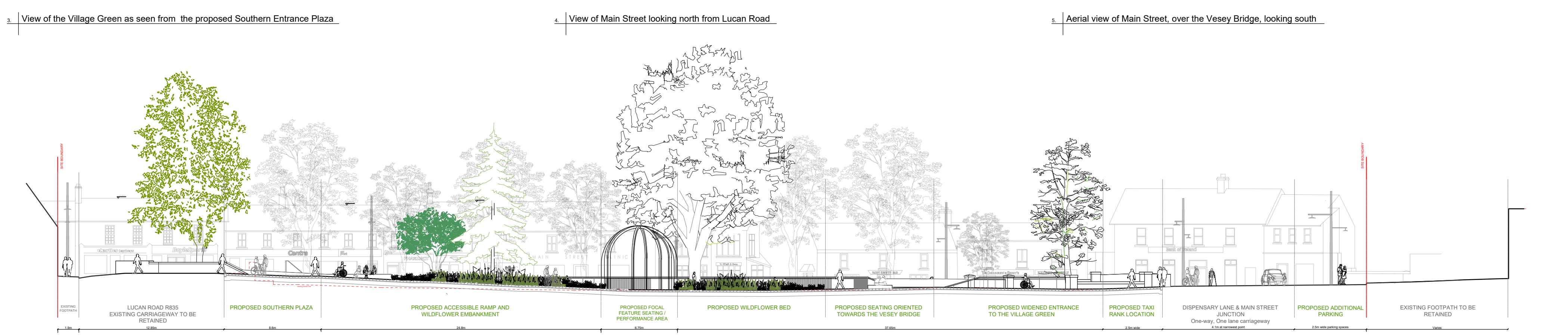
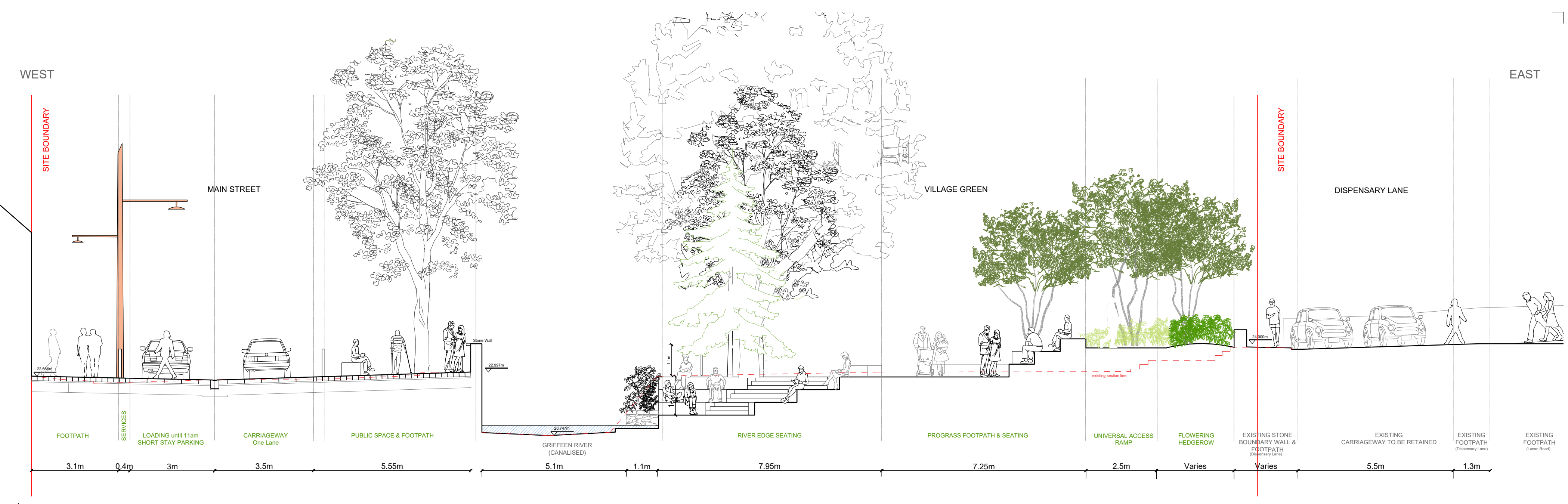
The current usage of the existing parking spaces is 73.76% at peak as show on the graph displayed on the drawing on **Appendix E** (for all surveyed areas except Survey Area I – refer to Appendix C). Once constructed, the scheme will have reduced the total number of parking spaces by 11, resulting on an expected usage of the parking spaces of 78.01%.

As the proposed scheme is intended to transform the existing areas into a more inviting public realm space, it is expected that the amount of people using improved public transport services and people walking and cycling through the areas of the site will increase over time as other active travel projects are delivered.

Additionally, the scheme has the intention to encourage a modal shift to cycling and walking, in line with sustainable goals to be achieved by 2030 to reduce carbon footprint. Those two elements combined, and the fact that the existing parking environment is currently being used below capacity within Lucan Village, supports the proposal to remove a total of 11 spaces from the public realm.

## **Appendix A – Overall Architectural Layout**





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 +353 (0)51 858121  
 info@dhbarchitects.ie  
 www.dhbarchitects.ie

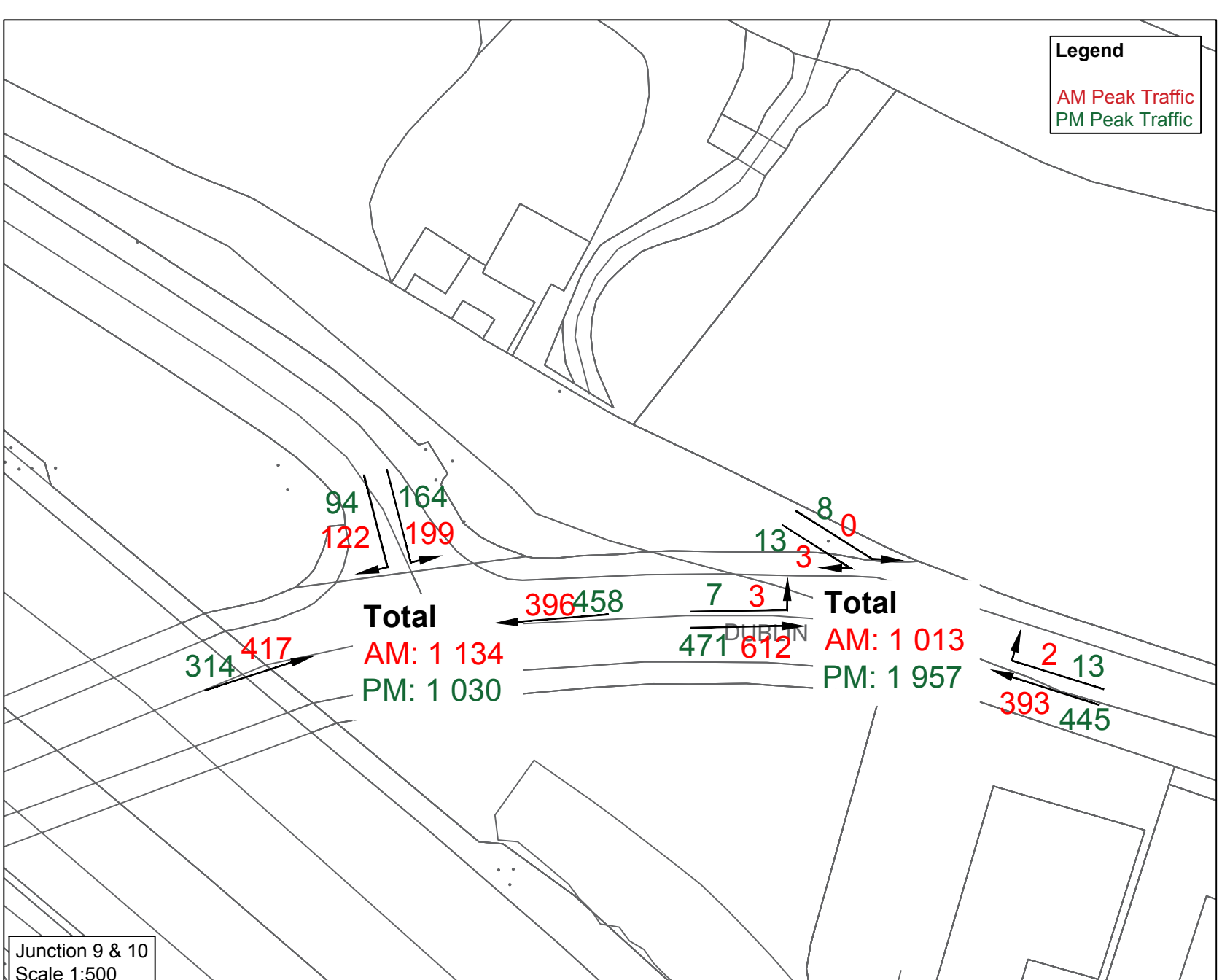
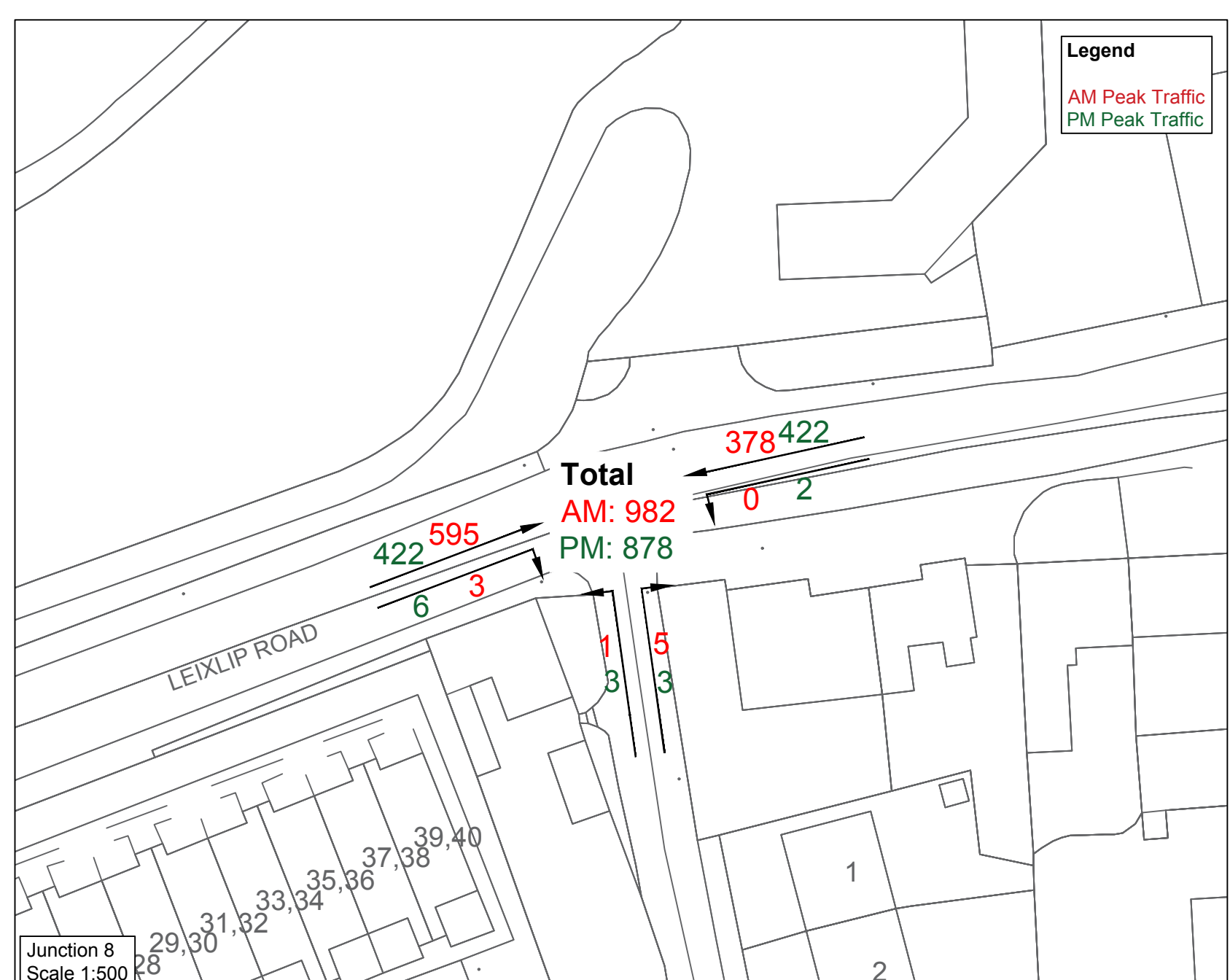
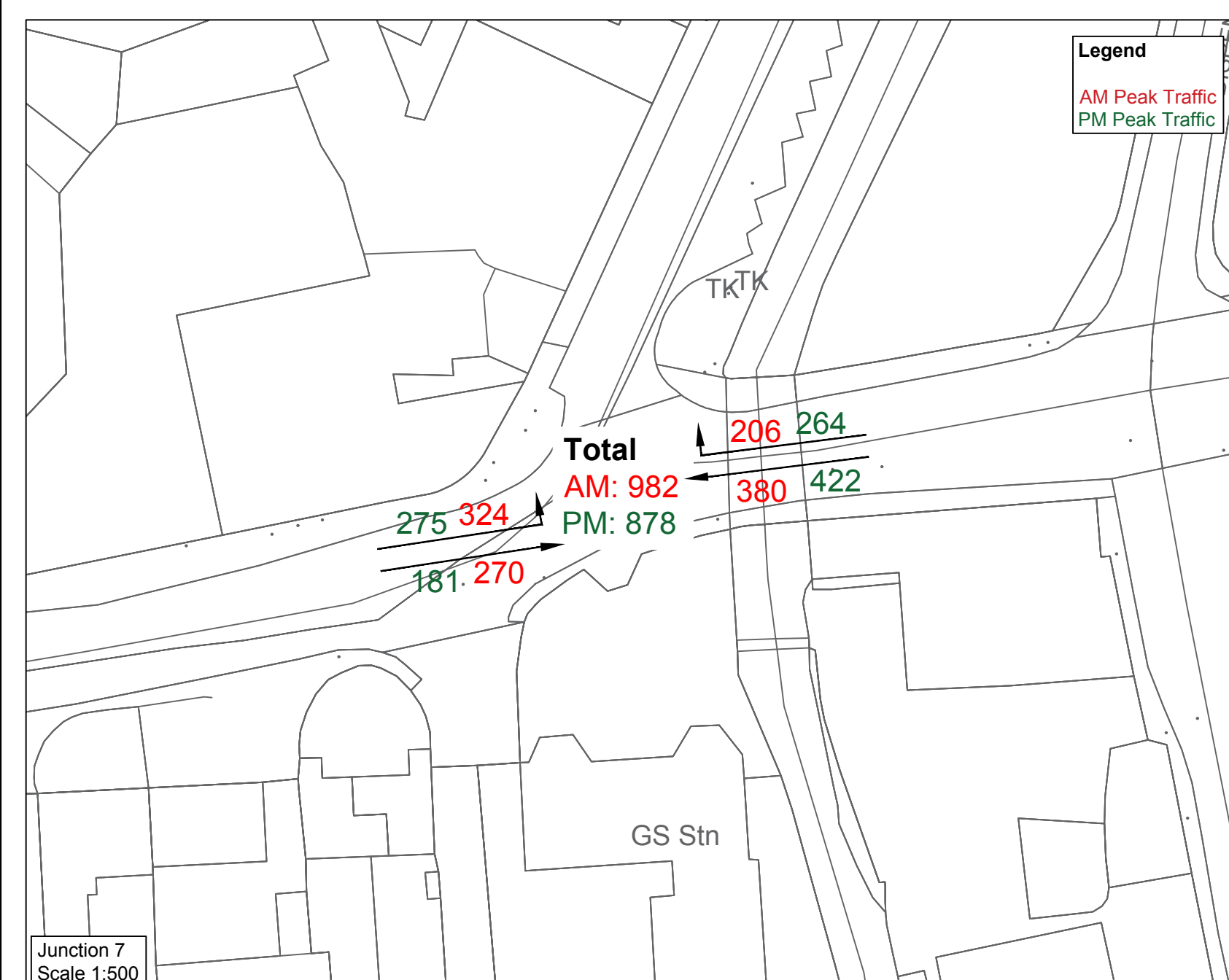
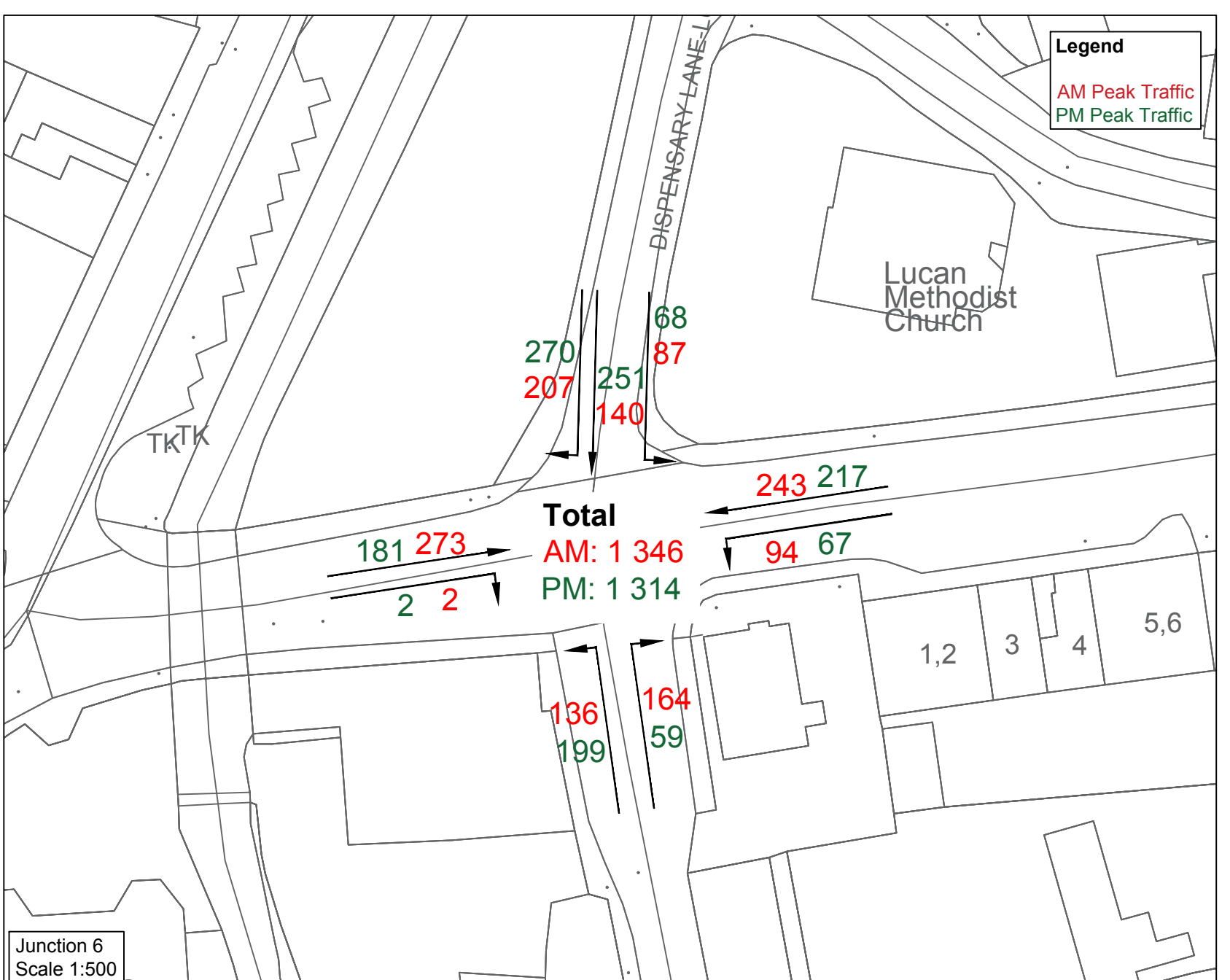
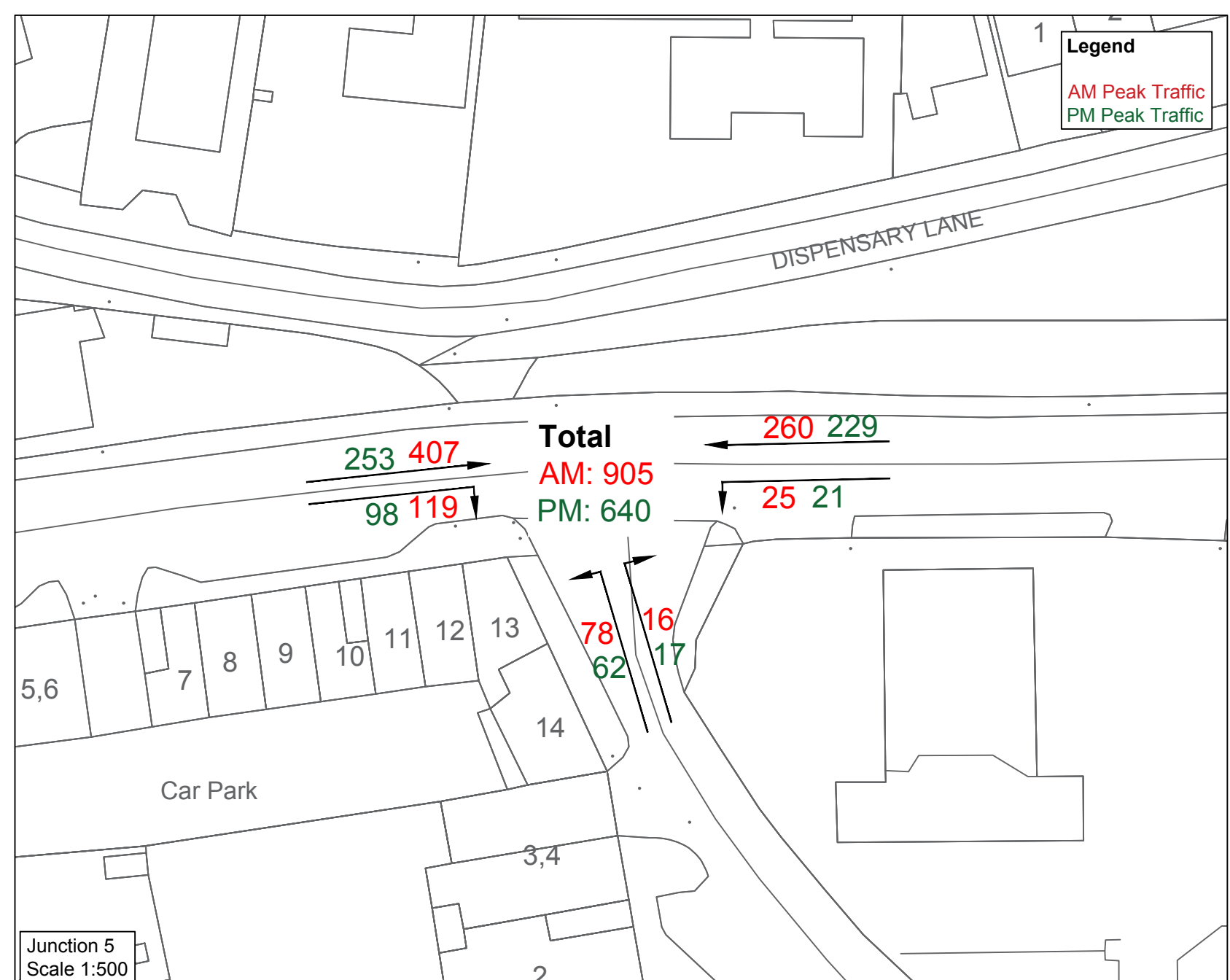
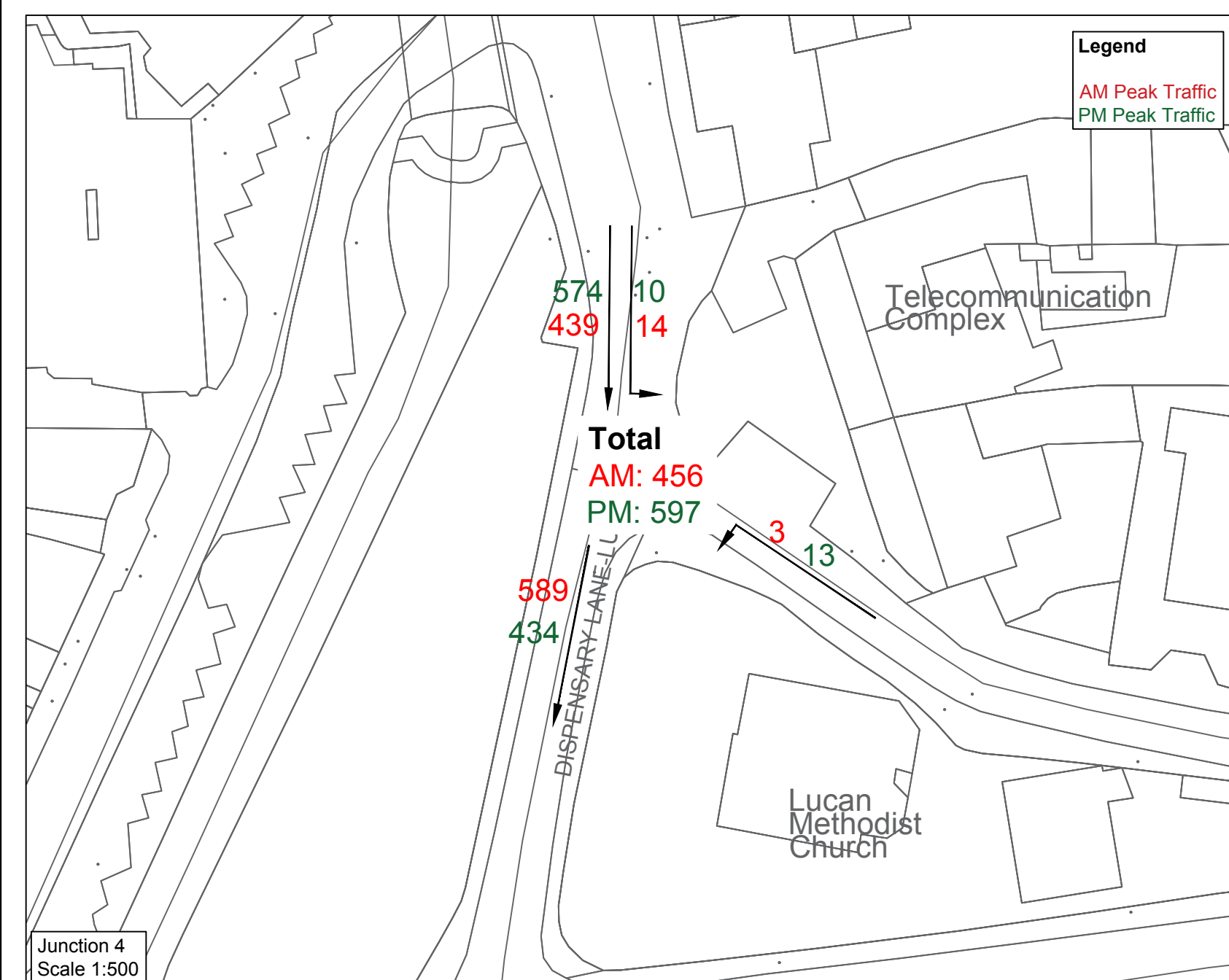
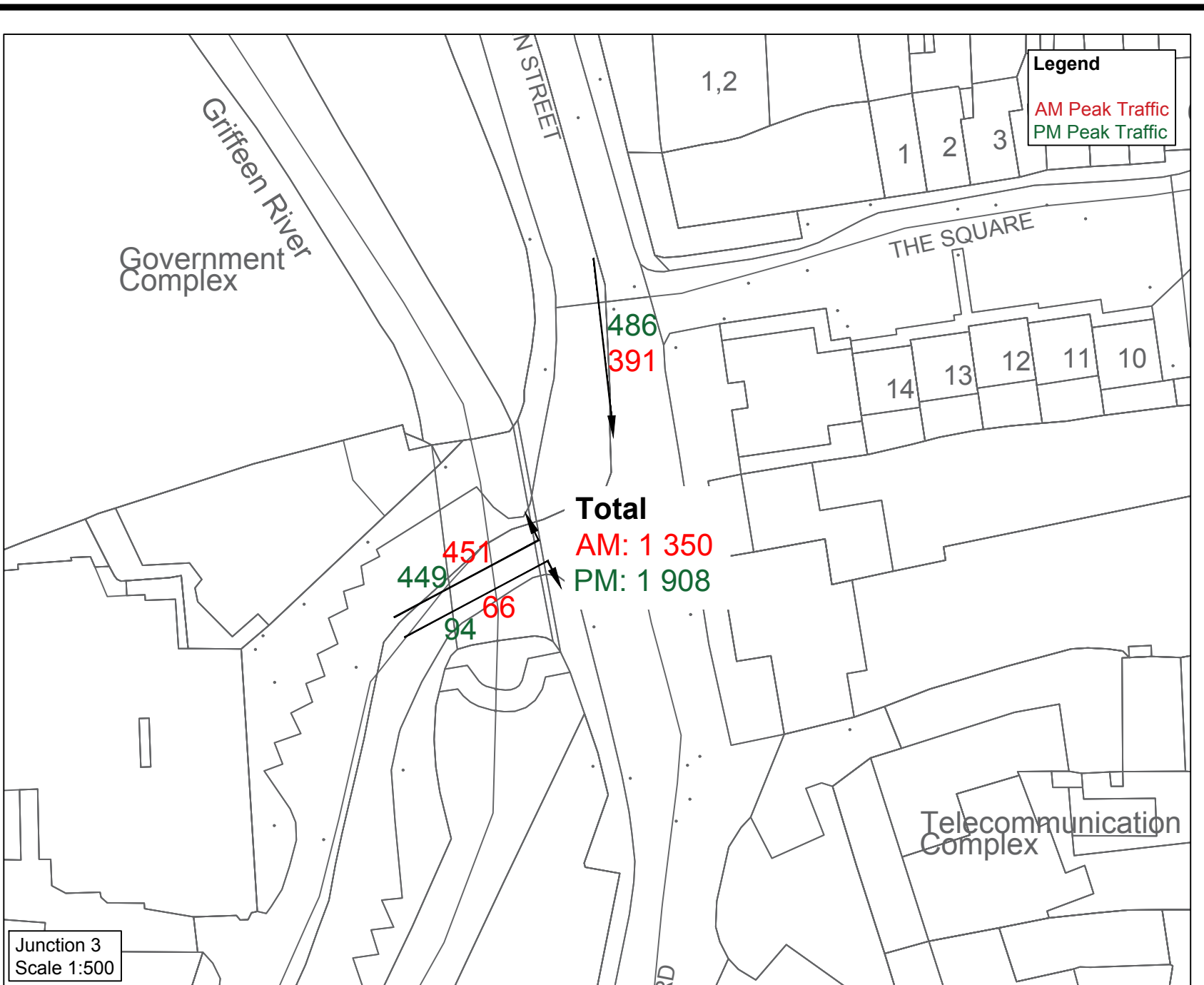
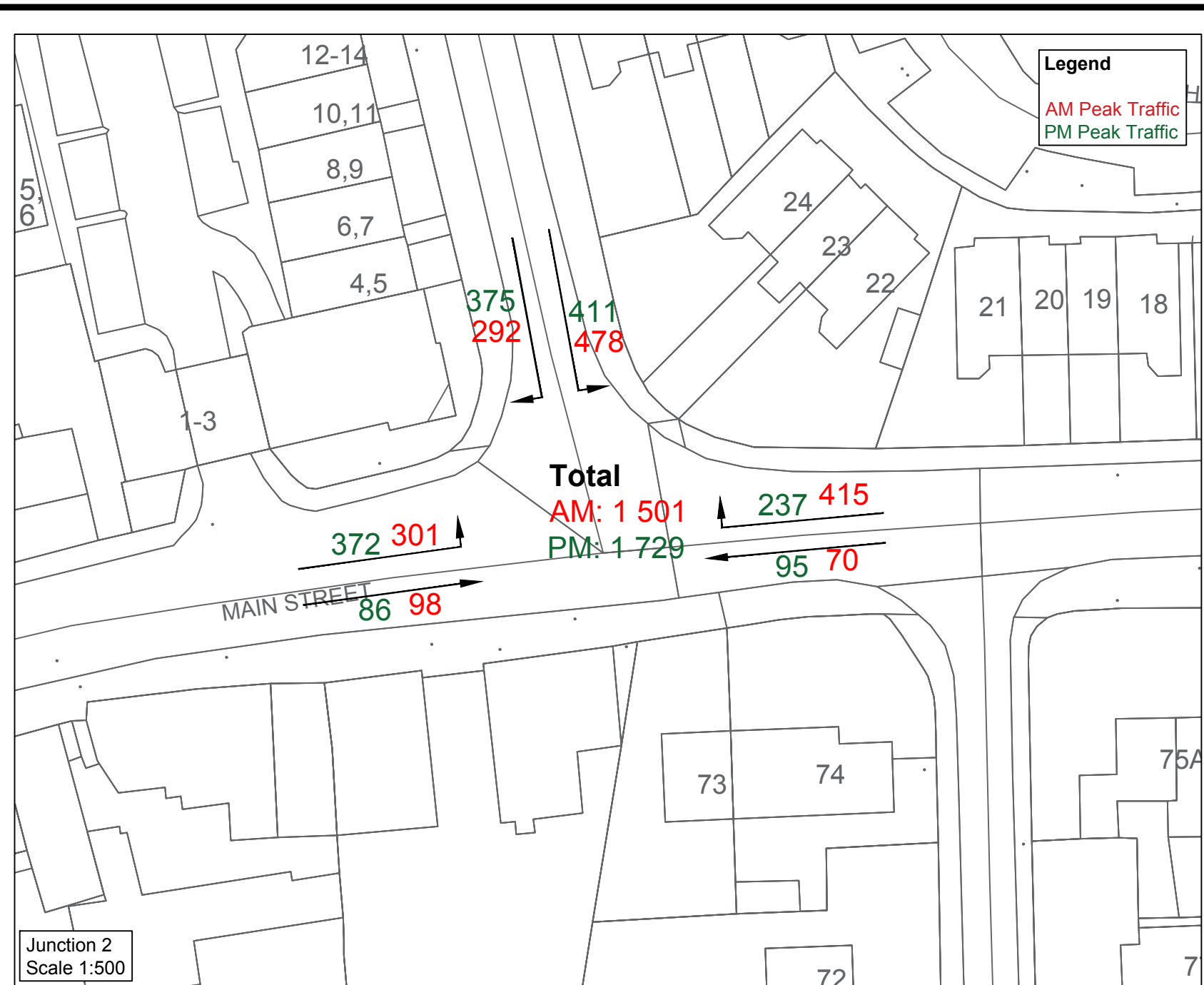
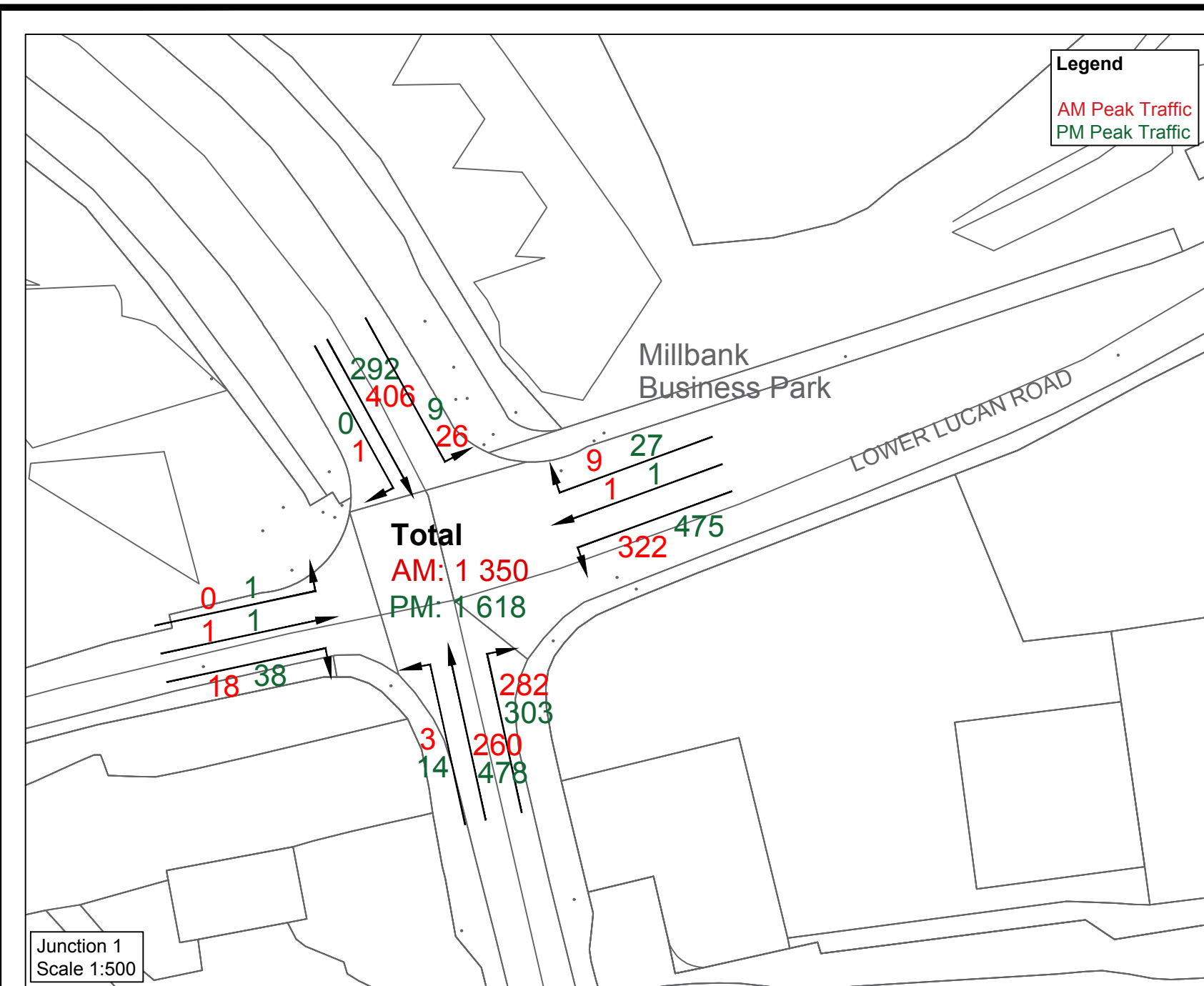
Project: **Lucan Public Realm**  
 Client: **South Dublin County Council**  
 Drawing Title: **Village Green Proposal**  
 Scale: **Varies**  
 Drawn by: **dhb**  
 Approved by: **dhb**

Stage: **2A**  
 Project No.: **21-01-LPR**  
 Drawing No.: **PL-200**  
 Date: **11.01.22**  
 Revision: **A**

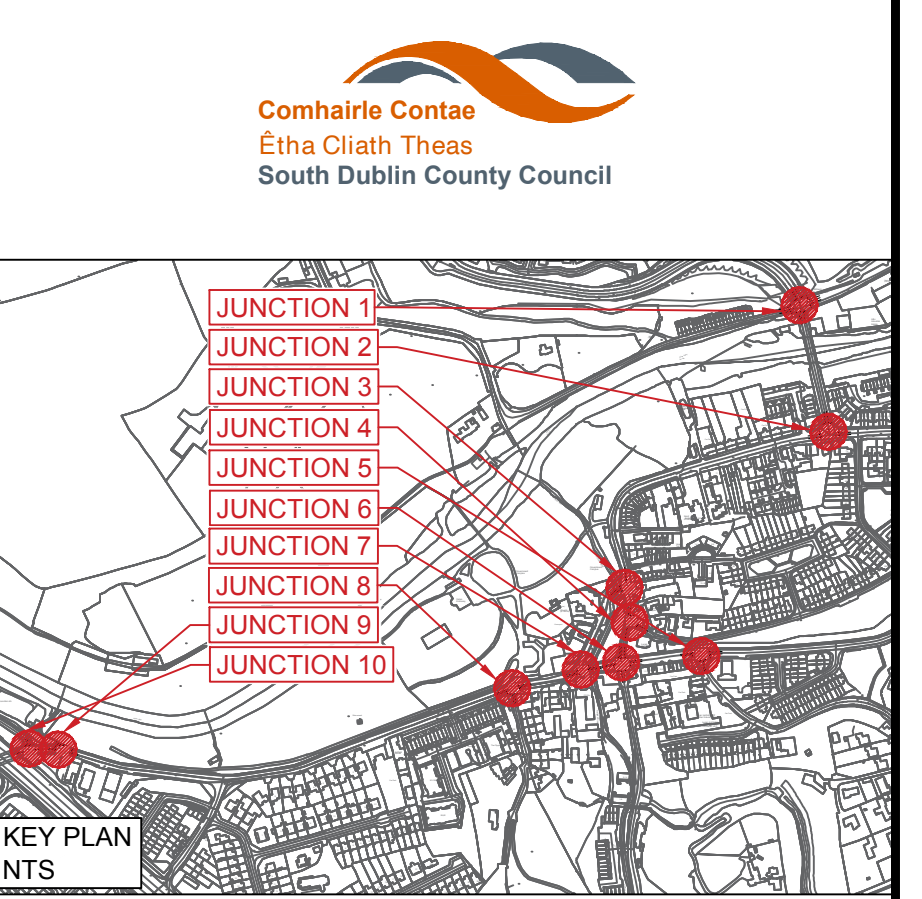


## **Appendix B – Junction Traffic Counts Survey Results**





DRAWING IS PRODUCED USING THE IRISH TRANSVERSE MERCATOR (ITM) GEOGRAPHIC COORDINATE SYSTEM **A1**



NOTES  
SURVEY WERE UNDERTAKEN ON THURSDAY, 20th OF MAY 2021.

Rev	Description	Drawn	Checked	Date
P02	PLANNING	PS	RG	12/01/2022
P01	FOR INFORMATION	PS	RG	29/07/2021

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Client	SOUTH DUBLIN COUNTY COUNCIL		
Project	LUCAN VILLAGE PUBLIC REALM		
Dwg. Title	JTC RESULTS - OVERALL		
Drawn By	PS	Date	JULY
Checked By	RG	Scale	AS INDICATED @ A1
Project Code	Originator	Zone/Phase	Level Type Role Dwg. No.
21_005 - CSE - GEN - XX - DR - C - 1105		S2 PLANNING	
Status Code	S2 PLANNING		
P02	Revision	Project Status	PLANNING



## **Appendix C – Vehicle Parking Survey Results**

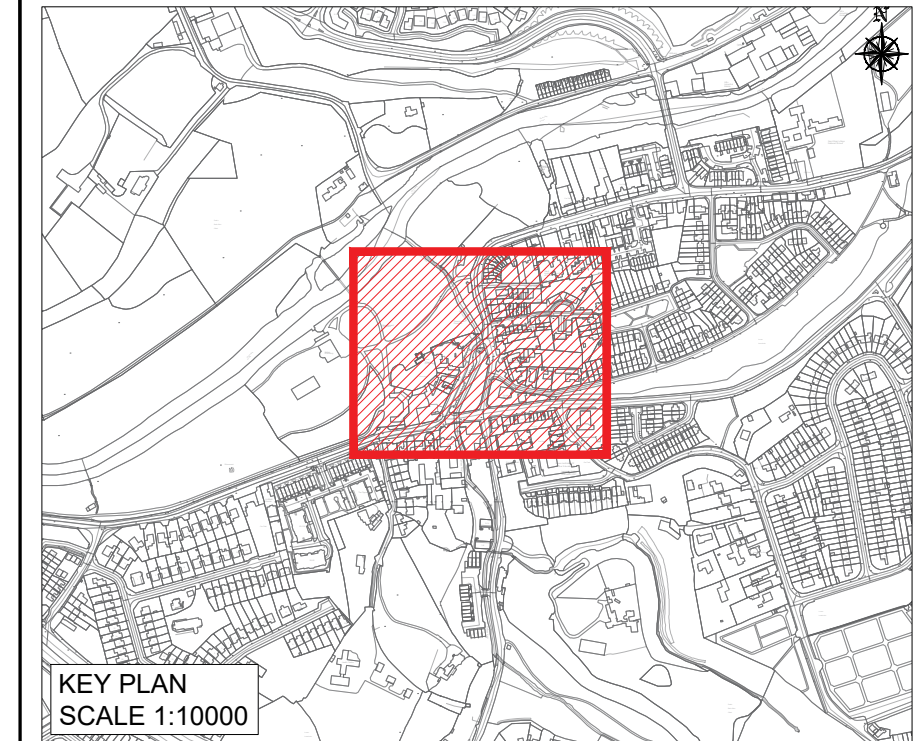
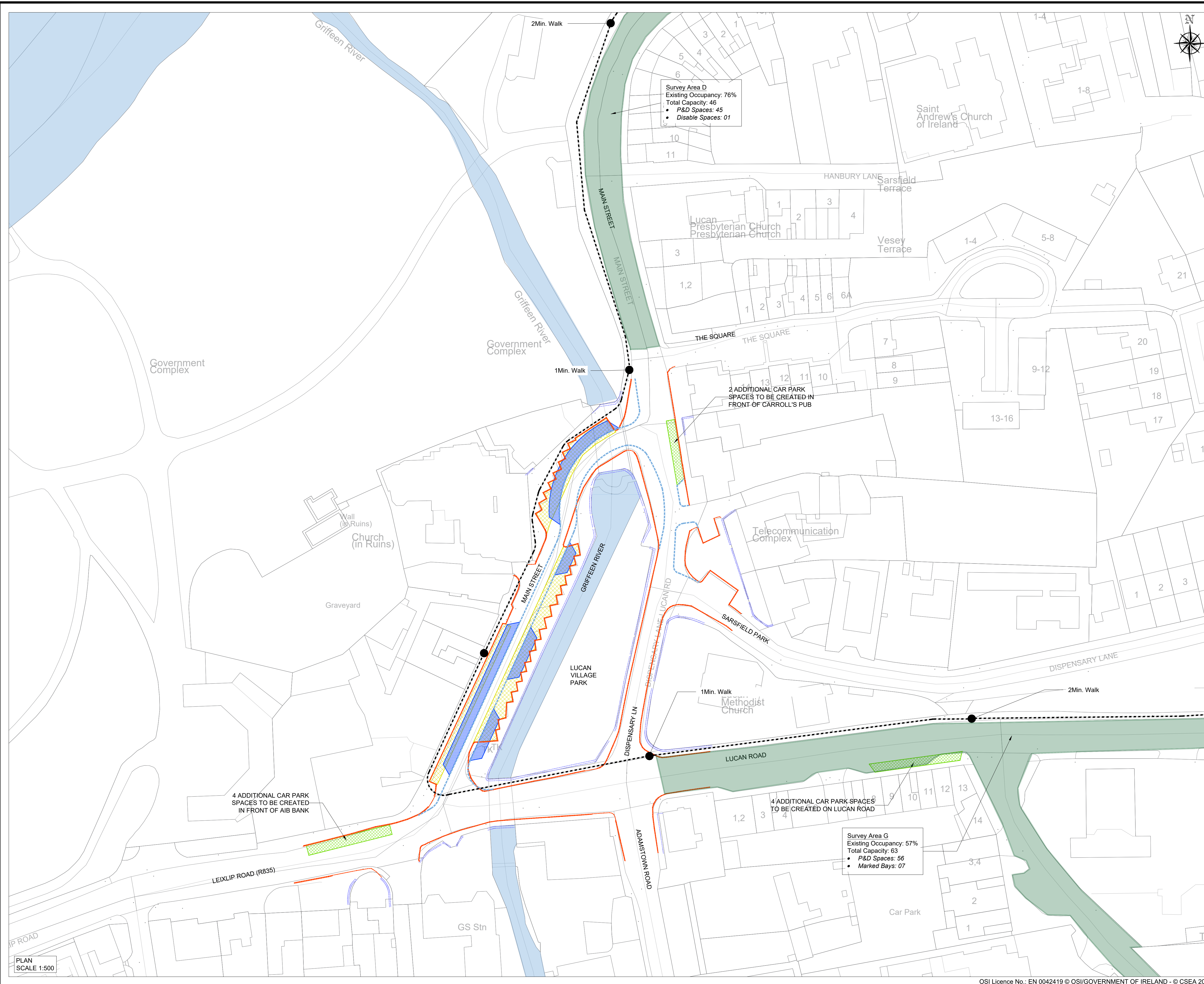






## **Appendix D – Car Park Spaces Analysis**





- LEGEND**
- EXISTING CAR PARK SPACES TO BE REMOVED AS PART OF THE SCHEME
  - PROPOSED CAR PARK SPACES TO BE CREATED AS PART OF THE SCHEME
  - ADDITIONAL CAR PARK SPACES TO BE CREATED AS PART OF THE SCHEME
  - CAR PARK AREAS SURVEYED BEING USED BELOW CAPACITY
  - REFERENCE ROUTE FOR WALKING TIME
  - PROPOSED REALIGNED KERBLINE
  - EXISTING KERBLINE
  - EXISTING WALL

- NOTES**
1. THE TOTAL NUMBER OF CAR PARK SPACES PROPOSED TO BE REMOVED IS 37.
  2. THE TOTAL NUMBER OF CAR PARK SPACES TO BE CREATED WITH THE SCHEME IS 28 BEING AS FOLLOW:
    - 2.1. 16 SPACES WILL BE CREATED IN MAIN STREET REPLACING THE EXISTING SPACES.
    - 2.2. 10 ADDITIONAL SPACES WILL BE CREATED AS FOLLOW:
      - 2.2.1. 4 ADDITIONAL SPACES IN FRONT OF THE AIB BANK
      - 2.2.2. 2 ADDITIONAL SPACES IN FRONT OF CARROLL'S PUB
      - 2.2.3. 4 ADDITIONAL SPACES ON LUCAN ROAD
  3. THE NET VALUE OF CAR PARK SPACES PROPOSED TO BE REMOVED WITH THE SCHEME IS 11.

P02	REVISED ADD SPACES	PS	RG	12/01/22
P01	FOR INFORMATION	PS	RG	10/12/21
Rev	Description	Drawn	Checked	Date

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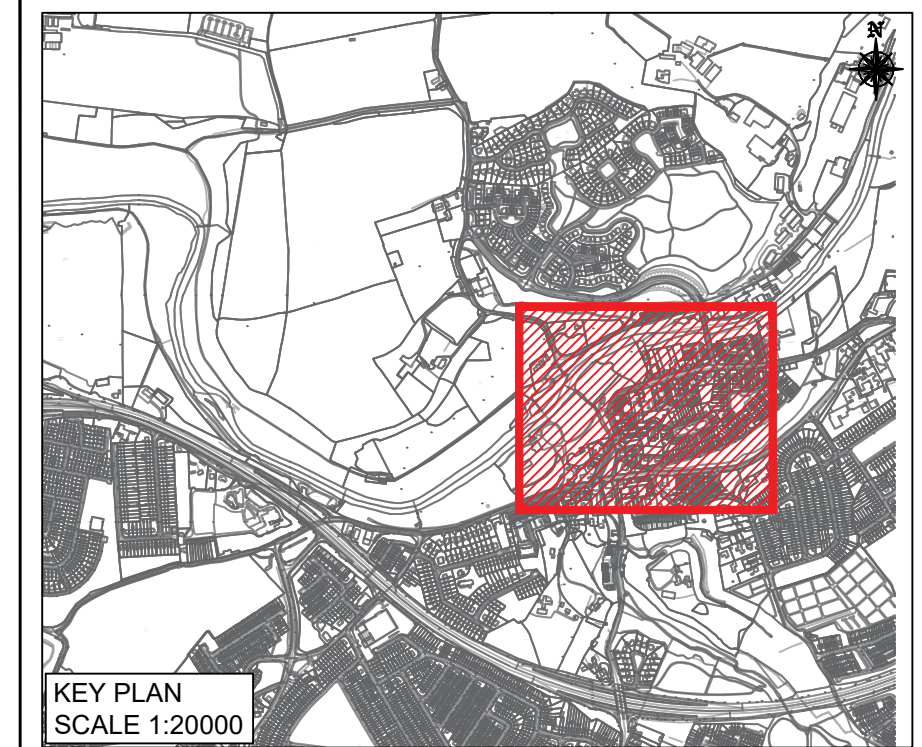
Client	SOUTH DUBLIN COUNTY COUNCIL		
Project	LUCAN VILLAGE PUBLIC REALM CAR PARK SPACES ANALYSIS		
Dwg. Title	21_005		
Drawn By	PS	Date	DEC 2021
Checked By	RG	Scale	AS INDICATED @ A1
Project Code	Originator	Zone/Phase	Level Type Role Dwg. No.
S2	PLANNING		
P02	PLANNING		

PLAN SCALE 1:500

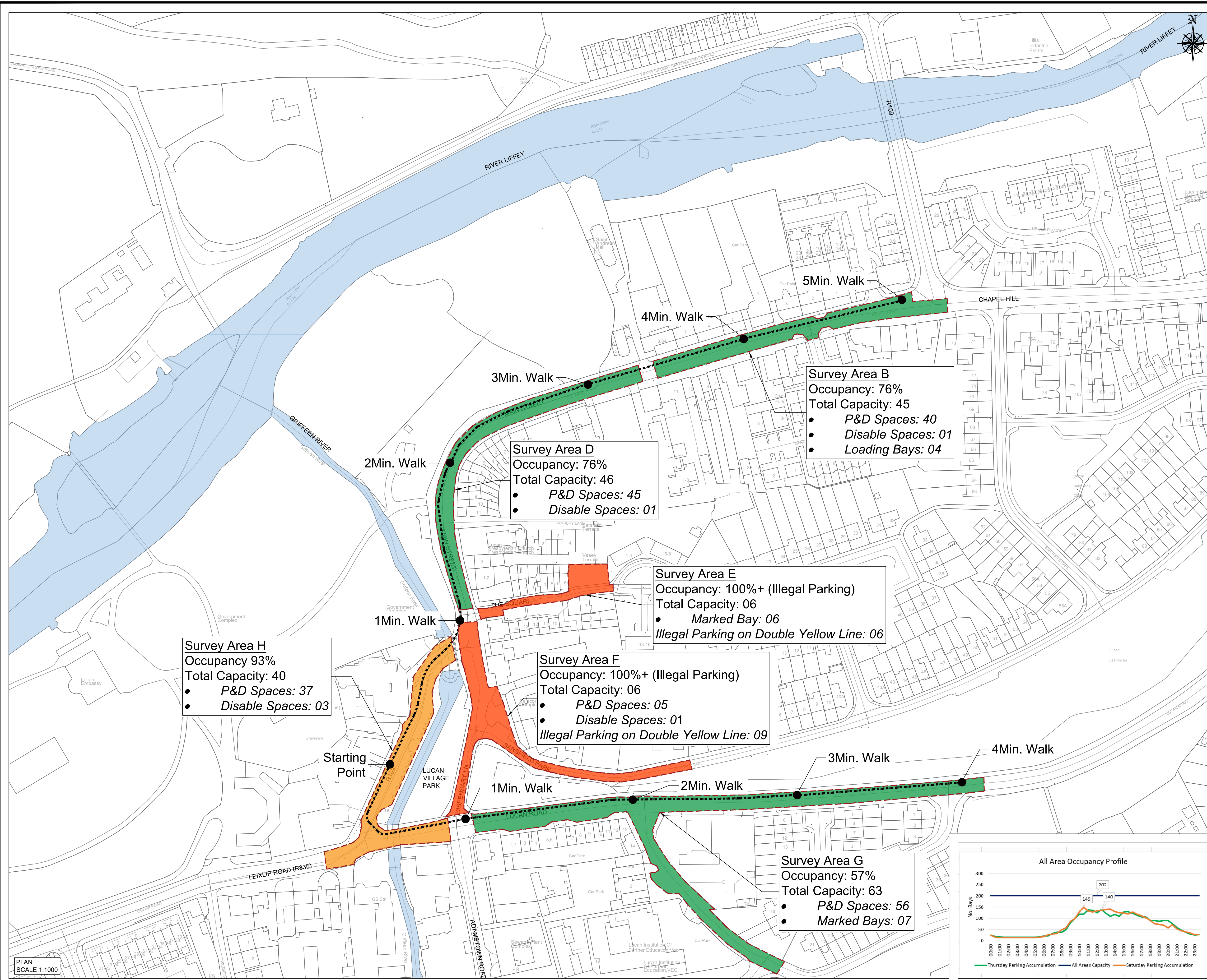


## **Appendix E – Vehicle Parking Usage**





KEY PLAN  
SCALE 1:20000



**Survey Area H**  
Occupancy 93%  
Total Capacity: 40  
• P&D Spaces: 37  
• Disable Spaces: 03

**Survey Area D**  
Occupancy: 76%  
Total Capacity: 46  
• P&D Spaces: 45  
• Disable Spaces: 01

**Survey Area B**  
Occupancy: 76%  
Total Capacity: 45  
• P&D Spaces: 40  
• Disable Spaces: 01  
• Loading Bays: 04

**Survey Area E**  
Occupancy: 100%+ (Illegal Parking)  
Total Capacity: 06  
• Marked Bay: 06  
Illegal Parking on Double Yellow Line: 06

**Survey Area F**  
Occupancy: 100%+ (Illegal Parking)  
Total Capacity: 06  
• P&D Spaces: 05  
• Disable Spaces: 01  
Illegal Parking on Double Yellow Line: 09

**Survey Area G**  
Occupancy: 57%  
Total Capacity: 63  
• P&D Spaces: 56  
• Marked Bays: 07

- LEGEND
- SURVEY AREA
  - █ PARKING AREA USAGE OVER CAPACITY
  - █ PARKING AREA USAGE AT CAPACITY
  - █ PARKING AREA USAGE UNDER CAPACITY
  - ROUTE FOR WALKING TIME

- NOTES
- VEHICLE PARKING SURVEY WERE UNDERTAKEN ON THURSDAY, 20th OF MAY 2021 AND 22nd OF MAY 2021.
  - SURVEY WAS CARRIED OUT BETWEEN 00:00 AND 24:00 ON EACH SURVEY DAY.
  - TOTAL CAPACITY TAKES INTO ACCOUNT THE TOTAL NUMBER OF P&D, MARKED BAYS, AND DISABLE PARKING.
  - PEDESTRIAN WALKING SPEED CONSIDER IS 1.50 m/s.

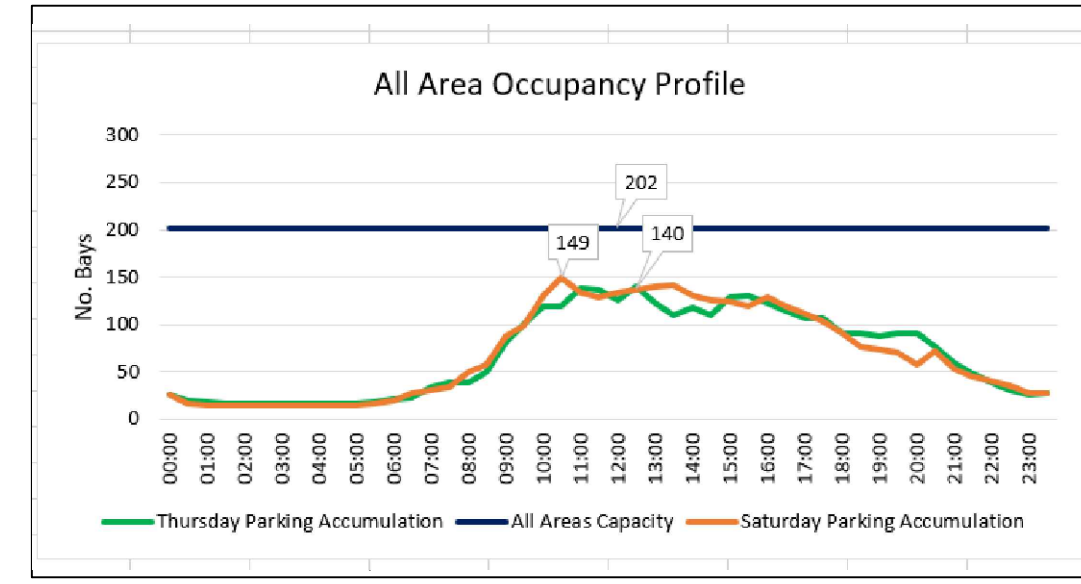
Rev	Description	Drawn	Checked	Date
P03	FOR PLANNING	PS	RG	12/01/2022
P03	FOR PLANNING	PS	RG	30/11/2021
P03	SURVEY AREA E AMENDED	PS	RG	15/11/2021
P01	FOR INFORMATION	PS	RG	19/10/2021

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Client: SOUTH DUBLIN COUNTY COUNCIL  
Project: LUCAN VILLAGE PUBLIC REALM

EXISTING VEHICLE PARKING USAGE

Drawn By:	PS	Date:	OCT 2021	21_005
Checked By:	RG	Scale:	AS INDICATED @ A1	CSEA Job No.
Project Code: 21_005 - CSE - GEN - XX - DR - C - 1103				



PLAN SCALE 1:1000

S2 FOR PLANNING  
P03 PLANNING



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