Kirkliston High School, Kirklands Park Street, Kirkliston

Transport Feasibility Study

On behalf of

EDINBVRGH
THE CITY OF EDINBURGH COUNCIL

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For and on behalf of Stantec UK Limited				

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1 Introduction

1.1 Background

1.1.1 Stantec UK Limited (Stantec) has been appointed by Edinburgh City Council (ECC) to provide transport advice on the feasibility of developing a new high school alongside the under construction Early Years Nursery (planning ref: 20/05679/FUL) on the southern part of the existing leisure centre site, which is located at the western edge of Kirkliston, adjacent to Kirklands Park Street.

1.1.2 High school pupils who live within Kirkliston currently attend Queensferry High School, located approximately 3 miles north of Kirkliston and are transported to school by bus service, public bus service or by private car. The proposal would be to develop a new high school at Kirkliston Leisure Centre site to serve the pupils who live in Kirkliston. This Transport Feasibility Study considers the feasibility of a new high school opening in Kirkliston in 2028.

1.2 Planning History

1.2.1 Planning Permission was sought in December 2020 for the development of an Early Years Nursery (126 places) and a Primary School (240 places) on the northern section of the leisure centre site (planning application ref: 20/05679/FUL). Planning permission was granted in June 2021 and the site is currently under construction.

1.3 Report Structure

1.3.1 The remainder of this Transport Feasibility Study (TFS) is structured as follows:

- **Section 2:** Description of the existing site and local road network, including a review of Personal Injury Collison data;
- **Section 3:** Description of the potential development, including details of site access and parking;
- **Section 4:** Assessment of the accessibility of the site by sustainable modes of travel including on foot, by cycle and by public transport;
- **Section 5:** Assessment of the multi-modal trip generation associated with the potential development during a weekday morning and afternoon peak hour to cover the start and end of the school day and outlines the junctions that may require further traffic assessment; and
- **Section 6:** Assessment of the potential parking proposed compared against ECC parking standards for development;
- **Section 7:** Provides scope of traffic assessment that will be carried our when traffic surveys are undertaken; and
- **Section 8:** Summary and Conclusion.

2 Existing Conditions

2.1 Introduction

2.1.1 This section provides a description of the application site and the local road network, including a review of Personal Injury Collison data.

2.2 Application Site

2.2.1 The location of the proposed development, in a general context, is shown in **Figure 2.1**.

2.2.2 The site is situated at the southern part of the existing leisure centre site, which is located at the western edge of Kirkliston, adjacent to Kirklands Park Street. Kirkliston town centre is located approximately 650m to the east of the site and residential areas surround the site to the north, east and south.

2.2.3 To the north, the site is bounded by Kirkliston Leisure Centre building, Kirklands Park Street to the east, the B9080 to the south and the M90 to the west. The site is currently occupied by playing fields associated with the existing leisure centre.

2.2.4 The site is currently accessed via a simple priority junction from Kirklands Park Street, located approximately 76m north of the Stirling Road (B9080)/Kirklands Park Street/Buie Brae roundabout junction. The access currently serves the existing leisure centre, located to the north of the site, and will access the Early Years Nursery and Primary School currently being built at the northern end of the leisure centre site.

2.2.5 In addition to the existing Leisure Centre and the Early Years Nursery and Primary School currently being built, the site is used as a parking area for school buses that transport pupils living in Kirkliston to Queensferry High School. The site is also used as a drop-off/pick-up facility for parents/carers of pupils travelling by school buses to Queensferry High School.

2.3 Local Road Network

2.3.1 **Figure 2.2** shows the site location in context with the local road network. A site visit was carried out on the 13th of July 2023 to inform this section of the report.

2.3.2 The majority of Kirkliston is located within a 20mph Zone Entering Kirkliston from the west, the 20mph Zone commences on the B9080 from the Stirling Road (B9080)/Kirklands Park Street/Buie Brae roundabout junction. From the north, the 20mph Zone commences on Queensferry Road (B800) approximately 100m north of the signal junction with Eilston Road. From the east, the 20mph Zone commences on Main Street at the junction with Burnshot Road and from the south on the High Street at the junction with The Square. The extent of the 20mph Zone is shown in **Figure 2.2**.

2.3.3 Kirklands Park Street bounds the site to the east. Kirklands Park Street runs north of the Stirling Road (B9080)/Buie Brae roundabout junction for approximately 300m where the road becomes Eilston Road and continues east to the Queensferry Road (B800)/Housefield Drive signalised junction. The road is a single two-way carriageway and has street lighting at regular intervals.

2.3.4 Footways are present either side of the carriageway on Kirklands Park Street and Eilston Road from the Stirling Road (B9080)/Buie Brae roundabout junction to the Queensferry Road (B800)/Housefield Drive signalised junction. The footway on the east side of the road widens to a shared cycleway/footway at the northern end of Kirklands Park Street and continues along the south side of Eilston Road.

2.3.5 Uncontrolled pedestrian crossings in the form of central islands and dropped kerbs are provided on the Kirklands Park Street and B9080 arms of the Stirling Road (B9080)/Buie Brae Roundabout junction. In addition, an uncontrolled pedestrian crossing in the form of tactile paving and dropped kerns is situated on Kirklands Park Street approximately 230m north of the site access junction, which is in the vicinity of bus stops on both sides of the road.

2.3.6 As part of the early years and primary school currently being built on the northern end of the leisure centre site, a controlled pedestrian crossing will be provided on Kirklands Park Street located approximately 170m north of the Stirling Road (B9080)/Buie Brae Roundabout junction and approximately 85m north of the existing leisure centre site access.

2.3.7 In addition, traffic calming measures in the form of speed humps are present at the northern end of Kirklands Park Street and continue onto Elliston Road. Parking is unrestricted on Kirklands Park Street. Based on the site visit it was observed that on-street residential parking occurs on the western side of the carriageway towards the northern end of Kirklands Park Street, where a number of residential properties fronting Kirklands Park Street are located. **Photograph 1** highlights the on-street parking occurring on Kirklands Park Street.

Photograph 1: Kirklands Park Street Parking

2.3.8 Eilston Road continues east for approximately 350m from Kirklands Park Street and terminates onto the Queensferry Road (B800)/Housefield Drive signalised junction. The road is a single two-way carriageway for approximately 130m where the road narrows to approximately 3.5m and becomes a bus and taxi lane only for 95m, before widening again to a two-way single carriageway road to the signal junction. The bus and taxi lane are sown in **Photographs 2** and **3**.

Photograph 2 and 3: Eilston Road Bus and Taxi Lane

2.3.9 The road has street lighting at regular intervals along both sides of the carriageway. In addition, traffic calming measures in the form of speed humps are present along Eilston Road. Parking is not restricted along Eilston Road.

2.3.10 A footway is present on the northern side of the carriageway along Eilston Road. In addition, a shared footway/cycleway is present on the south side of the road, continuing to the eastern end of the road at the signal junction with Queensferry Road.

2.3.11 Controlled pedestrian crossings with advance cycle stop lines are present on all arms of the Queensferry Road (B800)/Housefield Drive signalised junction. In addition, Elliston Road benefits from a number of uncontrolled pedestrian crossings in the form of tactile paving at regular intervals along the road.

2.3.12 Queens Ferry Road (B800) is located approximately 650m to the east of the site, which runs north through Kirkliston town centre, commencing from a four arm signal junction with Main Street (B9080) and Station Road and continues north to Queensferry, which is located approximately 2km from Kirkliston. The Queensferry Road/Main Street (B9080)/Station Road signalised junction incorporates controlled pedestrian crossing on all arms.

2.3.13 Within the vicinity of the site, Queensferry Road is a single two-way carriageway with footways either side of the carriageway and street lighting at regular intervals along the road. There is also a signalised pedestrian crossing located outside of Kirkliston Community Centre, located approximately 220m north of the Main Street (B9080)/Station Road signalised junction.

2.3.14 Although there are no dedicated cycle lanes on Queensferry Road, advance cycle stop lanes are present at the Main Street (B9080)/Station Road signalised junction and the Queensferry Road (B800)/Housefield Drive signalised junction. In addition, traffic calming measures in the form of speed humps are present along Queensferry Road between the Main Street (B9080)/Station Road signalised junction and the Queensferry Road (B800)/Housefield Drive signalised junction.

2.3.15 Parking is mainly unrestricted along Queensferry Road. Based on a site visit carried out on the 13th of July 2023 it was observed that parking occurred on the footway on the western side of the carriageway along Queensferry Road, between Kirkliston Community Centre to the north and Main Street (B9080)/Station Road signalised junction to the south. **Photographs 4** to **6** highlight the on-street parking occurring on the footway on Queensferry Road.

Photograph 4-6: Footway Parking Along Queensferry Road



2.3.16 Stirling Road (B9080) is located to the south of the site and runs east of the four arm roundabout with Kirklands Park Street, for approximately 270m, before continuing as Main Street. Stirling Road (B9080) is a single two-way carriageway with footways either side of the carriageway and street lighting at regular intervals along the road.

2.3.17 The B9080 (Stirling Road and Main Street) road benefits from three signalised pedestrian crossings located approximately 175m, 475m and 620meast of the Kirklands Park Street/Stirling Road roundabout junction. In addition, a partially controlled crossing with a central refuge is present at the Stirling Road (B9080)/Buie Brae Roundabout junction. There is also a further signalised crossing located approximately 93m east of the Stirling Road (B9080)/Buie Brae Roundabout junction.

2.3.18 Parking is mainly unrestricted along Stirling Road and Main Street. Based on a site visit carried out on the 13th of July 2023 it was observed that parking occurred along both sides of the carriageway along the main commercial area of Main Street. **Photograph 7** highlights the on-street parking occurring on Main Street.

Photograph 7: Main Street Parking

2.4 Winchburgh Bypass

2.4.1 A planning application (planning application ref: 1012/P/05) seeking Planning Permission in Principle (PPiP) was submitted in September 2005 for a 352ha development on land around Winchburgh, which is approximately 2.5km to the west of Kirkliston. The development includes residential, commercial, industrial and retail uses, community facilities, landscaping and open space, road and rail infrastructure, including M9 junction, train station, park & ride, primary and secondary schools. Permission was granted in April 2012.

2.4.2 As part of the development a new road, named the Winchburgh Bypass, has been constructed, which runs south of a new junction onto the M9 (Junction 1B), to the east of Winchburgh to provide strategic access to its expanding community. As well as serving new housing and business, the proposals will facilitate a step change in accessibility for this part of West Lothian.

2.4.3 Stantec has reviewed the following documents, that were submitted in support of the planning application, in relation to the development of a new M9 junction and Winchburgh:

- Local Road Assessment, dated November 2008;
- Transport and Movement Chapter 7, dated January 2010; and
- Local Roads Assessment dated March 2016.

2.4.4 A Transport Statement dated September 2005 has also been submitted however was not available for review at the time of writing.

2.4.5 Following a review of the documents above, no information is provide outlining the traffic impact on Kirkliston following the construction of the new Winchburgh Bypass. Therefore, given the information available Stantec are unable to assess the traffic impact of the proposed Winchburgh Bypass on Kirkliston.

2.5 Road Safety

2.5.1 Personal Injury Collision (PIC) data for the most recent five-year period from 2017 to 2021 has been obtained from the CrashMap database, which is an official database of personal injury collision data in Great Britain.

2.5.2 PIC data is recorded by severity of injury, as slight, serious, or fatal. These are statistical definitions regarding the injuries to the casualties of a collision, which mean the following:

- **Slight**: at least one person is slightly injured, but no person is killed or seriously injured. Here a slight injury is one where treatment does not require a hospital stay as an in-patient;
- **Serious**: at least one person is seriously injured, but no person is killed. Here a serious injury is one where treatment requires a hospital stay as an in-patient; and
- **Fatal**: where a human casualty sustained injury, which caused death less than 30 days after the collision.

2.5.3 The PIC data that has been reviewed for the following junctions:

- Existing Leisure Centre site access junction;
- B9080/Kirkland Park Street/Buie Brae roundabout junction;
- Main Street/Queenferry Road (B800)/Station Road four arm signal junction; and
- Queensferry Road (B800)/Eilston Road/Housefield four arm staggered signal junction.

2.5.4 In addition, the following road links have been reviewed as part of the study area:

- Kirkland Park Street;
- Eliston Road;
- Queensferry Road, within Kirkliston;
- Main Street; and
- Stirling Road.

2.5.5 The review identified that three PICs have occurred within the study area within the last five years of most recent information available. All three PICs resulted in slight injury and involved vehicle users only. None of the PICs recorded resulted in fatal injury.

2.5.6 One PIC occurred on Queensferry Road approximately 270m north of the Main Street/Queensferry Road (B800)/Station Road four arm signalised junction. A further two PICs occurred on Main Street, approximately 110m and 300m west of the Main Street/Queensferry Road (B800)/Station Road four arm signal junction.

2.5.7 In summary, three PICs have occurred in the study area within the last 5 years of available data. All three PICs occurred at different locations and resulted in slight injury. In conclusion the collision data indicates that there is no inherent road safety issue with the current road layout within the study area reviewed.

2.6 Existing Queensferry High School

2.6.1 At present pupils living in Kirkliston are transported by school buses from the existing Leisure Centre car park to Queensferry High School.

2.6.2 **Table 2.1** provides a summary of the projected number of pupils that will be transported from Kirkliston to Queensferry High School if no high school is developed in Kirkliston from 2023 to 2036. In addition, the table summarises the projected number of pupils that will still be transported to Queensferry High School if a new high school is developed in Kirkliston from 2023 to 2036.

Table 2.1: Projected Kirkliston Pupils to/from Queensferry High School

Year	Projected Kirkliston Passengers to/from Queensferry HS.
2023	406
2024	431
2025	475
2026	487
2027	434
2028	434
2029	434
2030	434
2031	434
2032	434
2033	434
2034	434
2035	434
2036	434

Source: Edinburgh City Council

2.6.3 As it can be seen from **Table 2.1**, over 400 pupils are currently transported to Queensferry High School and will in the future if no high school is provided in Kirkliston. It is projected that the number of pupils could increase to 487 in 2026 and then reduce to 434 pupils thereafter.

2.6.4 The existing Queensferry High School operates from 8:30am to 3:30pm Monday to Thursday and 8:30am to 1:15pm on a Friday.

2.7 Committed Nursery and Primary School Opening Hours

2.7.1 An Early Years Nursery (126 places) and a Primary School (240 places) is currently under construction on the northern section of the leisure centre site (planning ref: 20/05679/FUL). Following a review of the Transport Statement dated August 2020, the opening times of the committed Early Years Nursery and Primary School are summarised below:

- Early Years Nursery – 8am to 6pm Monday to Friday; and
- Primary School – 9am to 3pm (Monday to Thursday) and 9am to 12:35pm (Friday)

2.8 Existing Leisure Centre Opening Hours

2.8.1 The site is situated at the southern part of the existing leisure centre site. The existing leisure centre provides a range of sporting and community activities during the week, comprising a gross floor area (GFA) of 1,346.53sqm. **Table 2.2** shows the existing opening hours for the leisure centre.

Table 2-2: Leisure Centre Opening Times

Day of the Week	Opening Hours
Monday	16:00 – 21:00
Tuesday	16:00 – 21:00
Wednesday	09:00 – 21:00
Thursday	09:00 – 21:00
Friday	09:00 – 21:00
Saturday	09:00 – 16:00
Sunday	09:00 – 16:00

2.8.2 Although open daily, it can be seen from **Table 2.2** that existing leisure centre only opens at 9am on Wednesday, Thursday and Friday weekdays. The existing leisure centre offers facilities including a fitness gym and racket sports. Classes also available at the existing leisure centre are summarised in **Table 2.3**.

Table 2-3: Leisure Centre Classes

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Bodypump 17:15 – 18:00	Pilates 18:00 – 18:45	Pilates 18:00 – 18:45	Bodypump 18:00 – 18:45		Bodypump 09:10 – 09:55	Yoga 09:05 – 10:20
Bodycombat 18:10 – 18:55	Pilates 18:50 – 19:35				Bodybalance 10:10 – 10:55	
Pilates 18:15 – 19:00						
Yoga 19:05 – 20:20						

2.8.3 As it can be seen from **Table 2.3**, there are no classes during the weekday prior to 5:15pm. None of the existing leisure centre classes will therefore clash with when the Early School, Primary School and a high school operate. Although, there will be some visits to the leisure centre throughout the day to use the gym and for racket sports.

3 Potential Development

3.1 Introduction

3.1.1 This section considers the proposed development that this Transport Feasibility Study assesses.

3.2 Development Proposals

3.2.1 The development would consist of the construction of a new High School on the southern part of the existing leisure centre site. The following two options have been assessed:

- Option 1 – 600 pupil/60 staff capacity High School; and
- Option 2 – 1,200 pupil/120 staff capacity High School.

3.3 Site Access

3.3.1 Access to the site would be maintained via the existing simple priority junction off Kirklands Park Street, which currently serves the existing leisure centre and will serve the consented Early Years Nursey and Primary School scheme.

3.4 Car Parking Provision

3.4.1 With regard to car parking provision, reference has been made to Figure 1 of the Early Years Nursey and Primary School scheme Transport Statement (TS) which shows the existing leisure centre car park is to increase to 56 spaces (an increase of six spaces) to cater for both the existing leisure centre and the consented Early Years Nursey and Primary School scheme. In addition, the Transport Statement states that a total of 20 spaces are required for the consented Early Years Nursey and Primary School scheme.

3.4.2 In addition, the existing leisure centre car park is currently used as a drop-off/pick-up by parents/carers for pupils currently attending Queensferry High School to be transported by school buses. The school buses also park within the existing car park.

3.4.3 This feasibility study has considered using the existing leisure centre car park for the high school development. A parking assessment for the potential high school development against ECC's parking standards is included as **Section 6**.

3.5 Hours of Operation

3.5.1 For the purposes of this assessment the same start and finish times at the existing Queensferry High School has been applied. The existing Queensferry High School operates from 8:30am to 3:30pm Monday to Thursday and 8:30am to 1:15pm on a Friday.

3.5.2 As previously stated in **Section 2**, it has been noted that the existing Kirkliston Leisure Centre opens from 4pm Monday and Tuesday and 9am Wednesday to Friday. As well as this, as stated in **Section 2** the committed Early Years Nursery would operate between the hours of 8am to 6pm. In addition, the committed primary school would operate between the hours of 9am to 3pm Monday to Thursday and 9am to 12:35pm on a Friday.

3.5.3 In comparison, a high school operating the same start and finish times as the Queensferry High School would start 30 minutes after the early years school and 30 minutes prior to the opening of the primary school and earliest start for the existing leisure centre. As well as this, the high school would finish 30 minutes after the primary school Monday to Thursday and 40 minutes on

a Friday. In addition, the high school would finish well before the early years school and the existing leisure centre.

3.5.4 Therefore, if the high school was to adopt the same opening hours as the existing Queensferry High School, there would be no conflict with the existing leisure centre. In addition, given the opening times of the committed Early Years Nursery and Primary School, arrivals and departures to the high school would not clash with the pick-up and drop-off times of the Early Years Nursery.

3.6 Queensferry High School Transfer

3.6.1 Further to the opening of a new high school in Kirkliston, it is anticipated that existing pupils currently attending Queensferry High School will continue to. In addition, in the future pupils living in Kirkliston will be offered to attend Queensferry High School or a new Kirkliston High School, from 2028.

3.6.2 **Table 3.1** provides a summary of the projected number of pupils that will still be transported to Queensferry High School if a new high school is developed in Kirkliston from 2023 to 2036.

Table 3.1: Projected Kirkliston Pupils to/from Queensferry HS (New Kirkliston HS)

Year	Projected Kirkliston Passengers to/from Queensferry HS
2023	406
2024	431
2025	475
2026	487
2027	434
2028	434
2029	415
2030	351
2031	281
2032	207
2033	136
2034	84
2035	58
2036	38

Source: Edinburgh City Council

3.6.3 It can be from **Table 3.1** that although it is projected that pupils living in Kirkliston will continue to choose to attend Queensferry High School, the numbers will reduce after the opening of a high school in Kirkliston.

3.6.4 The potential opening of a new high school in Kirkliston would be in 2028. It can be seen from **Table 3.1**, that the number of pupils projected to attend Queensferry High School would reduce from 434 in 2028 to only 38 pupils by 2036.

4 Accessibility by Sustainable Modes of Travel

4.1 Introduction

4.1.1 This chapter provides a review of the existing walking and cycling infrastructure present within Kirkliston and considers if the current provisions are adequate or in need of improvement. In addition, this section also provides an assessment of existing bus routes in Kirkliston.

4.1.2 At present children who live within Kirkliston currently attend Queensferry High School, located approximately 2.8km north of Kirkliston and are transported to school by supported bus service, public bus service or by private car. Developing a high street at the site of the existing Kirkliston Leisure Centre site would result in all pupils currently travelling to South Queensferry from Kirkliston would live within a 1-mile walking or cycling distance of the new school, thereby reducing the need for pupils to travel to school by motorised transport.

4.1.3 On 13th July 2023, a site visit was undertaken to assess the study area with regards to existing pedestrian, cycle and public transport conditions and to provide a robust, detailed picture of options for active travel to and from the site.

4.1.4 The following road links have been included within the assessment:

- Kirkland Park Street;
- Eilston Road;
- Queensferry Road; and
- Main Street/Stirling Road.

4.1.5 In addition, the following areas have been assessed in terms of pedestrian and cycle permeability:

- Residential areas east of Kirklands Park Street and west of Queensferry Road;
- Residential areas north of Eilston Road;
- Residential areas east of Queensferry Road; and
- Residential areas south of Stirling Road/Main Street.

4.2 Walking and Cycling Routes

4.2.1 **Figure 4.1** provides an overview of the walking and cycling routes to the site.

4.2.2 As described in **Section 2** the majority of Kirkliston is located within a 20mph Zone, as shown in **Figure 2.2**. In addition to the footways described in **Section 2**, a number of footpaths are located within the residential areas of Kirkliston. The surrounding residential roads have the benefit of street lighting with footways or shared cycleway/ footways, providing safe routes for pupils and staff living within Kirkliston to walk cycle to the site.

4.2.3 The local walking and cycling routes and their approximate distance to the site are shown in **Figure 4.1** and summarised in **Table 4.1**. The table also provides estimates of walking and cycling times of each route to the site based on a walking speed of 1.4m/s and a cycling speed of 4.4m/s.

Table 4-1: Walking and Cycling Routes

Route	Description of Route	Distance (m)	Walking Time (min)	Cycling Time (min)
1	Humbie Road to Site	700m	8	2
2	Queensferry Road to Site	1000m	12	4
3	B800 to Site	1000m	12	4
4	Almondhill Road to Site	1200m	16	4
5	Path Brae to Site	1200m	16	4
6	New Liston Road to Site	1200m	16	5
7	Gateslide Road to Site	1300m	17	5
8	Catelbrock Close to Site	1400m	17	5

4.2.4 As can be seen in **Table 4.1** above, all of the routes to the site are located within 1.5km of the site. In addition, the maximum walking distance to the site is 17 minutes and the maximum cycling distance to the site is 5 minutes. Therefore, it can be concluded that the site is accessible on-foot and by cycle for pupils and staff living within Kirkliston.

4.3 Walking Facilities

4.3.1 **Figure 4.2** provides an overview of the existing walking and cycling facilities within Kirkliston.

4.3.2 Kirklands Park Street benefits from two pedestrian crossings, including one existing crossing and one committed crossing, which has been approved as part of the Early Years and Primary School development. The location of the two pedestrian crossings is highlighted in **Figure 4.2**. **Photograph 8** highlights the condition of the existing crossing on Kirkland Park Street.

Photographs 8 and 9: Existing Crossings on Kirklands Park Street

4.3.3 There are pedestrian crossings with central refuses on the Kirklands Park Street and B9080 arms of the Kirklands Park Street/ Stirling Road (B9080)/Buie Brae roundabout junction, as highlighted in **Figure 4.2**. **Photograph 9-11** highlights the condition of the existing crossing on Kirkland Park Street.

Photograph 9-11: Existing Crossings at Kirklands Park Street/ Stirling Road (B9080)/Buie Brae roundabout junction

4.3.4 Eilston Road benefits from three pedestrian crossings. The location of the crossings can be seen in **Figure 4.2**. **Photograph 12-15** highlights the condition of the existing crossings on Eilston Road.

Photograph 12-15: Existing crossings on Elliston Road

4.3.5 In addition, there are controlled crossings provided on all arms of the Queensferry Road (B800)/Housefield Drive signalised junction, with the south Queensferry Road arm also catering for cyclists. The location of the crossings can be seen in **Figure 4.2**. **Photographs 16-20** highlight the existing signalised crossings present on the Queensferry Road (B800)/Housefield Drive junction.

Photograph 16-20: Existing Signalised Crossing on Queensferry Road (B800)/Housefield Drive signalised junction

4.3.6 Queensferry Road benefits from one signalised pedestrian crossing at approximately the mid-point between the junctions of Eillston Road and Main Street, as shown in **Figure 4.2**. **Photograph 21** highlights the condition of the existing crossing on Queensferry Road.

Photograph 21: Existing Signalised Pedestrian Crossing on Queensferry Road

4.3.7 Stirling Road (B9080) benefits from three pedestrian crossings, including uncontrolled crossing in the form of dropped kerbs and central refuge crossing, one signalised controlled crossing and uncontrolled crossing in the form of dropped kerbs and tactile paving. The location of the crossings can be seen in **Figure 4.2**. **Photographs 22-24** highlight the existing crossings present on Stirling Road.

Photographs 22-24: Existing Crossings on Stirling Road

4.3.8 In addition, Main Street (B9080) benefits from a further two signalised crossings, the location of the pedestrian crossing is highlighted in **Figure 4.2**. **Photograph 25** and **26** highlights the condition of the existing crossing on Main Street.

Photograph 25 and 26: Existing Crossing on Main Street

4.3.9 There are also pedestrian crossings provided on all arms of the Main Street/Queensferry Road (B800)/Station Road four arm signal junction, as shown in **Figure 4.2**. **Photograph 27-30** highlights the condition of the existing crossing at the Main Street/Queensferry Road (B800)/Station Road four arm signal junction.

Photographs 27-30: Existing crossings at the Main Street/Queensferry Road (B800)/Station Road signal junction




Summary

4.3.10 Following an assessment of the existing walking facilities in Kirkliston it has been demonstrated that the site is highly accessible from all parts of Kirkliston on foot for pupils and staff living within Kirkliston. In conclusion, no improvements are considered necessary to enhance the pedestrian connectivity to the site.

4.4 Cycling Facilities

4.4.1 Kirklands Park Street benefits from a footway on the east side of the road which widens to a shared cycleway/footway at the northern end and continues along the south side of Eilston Road to the junction with Queensferry Road. The location of the shared footway/cycleway can be seen in **Figure 4.2**. **Photographs 31** and **32** highlights the existing cycleway/footway.

Photographs 31 and 32: Existing Cycleway Footway


4.4.2 In addition, advance cycle stop lines are present on the Queensferry Road (B800)/Housefield Drive signalised junction on Eilston Road. Advance cycle stop lanes are also present at the Main Street (B9080)/Station Road signalised junction and the Queensferry Road (B800)/Housefield Drive signalised junction.

4.4.3 **Photographs 33** highlights one the existing advance cycle stop lines on the Queensferry Road (B800)/Housefield Drive signalised junction.

Photograph 33: Existing Advance Cycle Stop Line

4.4.4 Although there are no cycle facilities along Quensferry Road or Stirling Road/Main Street (B9080), these roads are within a 20mph speed limit zone. The low traffic speeds therefore are conducive for cyclists also using these roads.

4.4.5 To make the site more accessible by cycle Stantec recommend that the existing cycleway/footway along the east side of the Kirklands Park Street is extended to the south to the roundabout junction with the B9080. In addition, the committed pedestrian crossing to be provided as part of the Early Years and Primary School development is recommended to be upgraded to a Toucan crossing, which also caters for cyclists.

Summary

4.4.6 Following an assessment of the existing cycle facilities in Kirkliston it has been demonstrated that the site is highly accessible from all parts of Kirkliston on cycle for pupils and staff living within Kirkliston. The following recommendations have however been identified to make the site more accessible by cycle:

- Extend the existing shared footway/cycleway along east side of Kirklands Park Street south to the roundabout junction with the B9080; and
- Upgrade the pedestrian crossing to be provided as part of the Early Years and Primary School development to a Toucan crossing, which can also cater for cyclists.

4.5 Public Transport

4.5.1 The CIHT document “Guidelines for Planning for Public Transport in Development” (March 1999) states that new developments should be located so that public transport trips involve a walking distance of less than 400m from the nearest bus stop.

4.5.2 It is acknowledged that the majority of pupils attending the school will walk or cycle due to the proximity of the development to nearby residential areas. However, pupils living further than a 1km walking distance from the site may choose to travel by public transport. In addition, members of staff living outside of Kirkliston could choose to access the site by public transport.

4.5.3 The nearest bus stops to the site are located on either side of the carriageway on Stirling Road (B9080), approximately 190m walking distance to the south of the site. These bus stops are sheltered on-street stops with a post and a flag. Bus services 63 and X38 can be accessed from these stops for journeys to and from the school. In addition, there is an uncontrolled pedestrian crossing located on Stirling Road between the two bus stops in the form of dropped kerbs and a pedestrian refuge (**Figure 4.2**).

4.5.4 In addition to the bus stops located on Stirling Road, a further set of bus stops are located on either side of the carriageway on Kirklands Park Street, approximately a 240m walking distance to the north of the existing leisure centre site access. Bus service 63 can be accessed from

these stops for journeys to and from the school. In addition, there is an uncontrolled pedestrian crossing in the form of dropped kerbs and tactile paving on Kirklands Park Street in the vicinity of the bus stops (**Figure 4.2**).

4.5.5 **Figure 4.3** shows the bus route of bus services 63. As can be seen from bus service 63, the southbound bus route travels south on Queensferry Road, turns right into Eilston Road, continues onto Kirklands Park Street, turns left onto Station Road, continues onto Main Street and turns left onto Station Road to exit Kirkliston to the south (the northbound bus route travels in the opposite direction). There are bus stops located on Queensferry Road and Station Road (**Figure 4.3**) that pupils and staff living in Kirkliston, east of Queensferry Road and south of Main Street, could use to travel to the site by bus.

4.5.6 **Figure 4.3** also shows the bus route of bus services X38. As can be seen from bus service 38, travels east along the B9080, continues onto Stirling Road and Main Street and turns right onto Station Road to exit Kirkliston to the south (the westbound buys route travels in the opposite direction). There are bus stops on Main Street and Station Road (**Figure 4.3**) that pupils and staff could also use to travel to the site by bus.

4.5.7 Further details of the bus services operating during typical school hours on Stirling Road and Kirkland Park Street, including the frequency, are provided in **Table 4.2**

Table 4-2: Bus Services

Bus Service	Provider	Destinations	Frequency at peak hours
Stirling Road and Kirklands Park Street Bus Service			
63	McGill's Scotland East	Balerno, Currie, Sighthill, Edinburgh Park, Newbridge, Kirkliston, Queensferry.	0700-1800 1 bus per hour
		Stirling Road Bus Service	
X38	McGill's Scotland East	Stirling, Falkirk, Laurieston Polmont, Linlithgow, Bridgend, Winchburgh, Kirkliston, Corstorphine, Edinburgh.	0500-2159 2 buses per hour

4.5.8 **Table 4.2** demonstrates that the site benefits from a regular bus service, ranging from every 30 minutes, to Queensferry and Edinburgh throughout the day Monday to Friday. In addition, both bus services stop within Kirkliston for pupils living further than a 1km walking distance from the site. The start and end times of the bus services are suitable for pupils and staff working or studying at the proposed site.

4.5.9 Following an assessment of the existing bus services in Kirkliston it can therefore be concluded that the site is accessible for pupils and staff to travel to the site at the start and end of the school day.

5 Trip Generation

5.1 Introduction

5.1.1 This section provides a forecast of the multi-modal trip generation for a high school for two options. In addition, this section highlights existing junctions that will require assessment to determine if improvement works may be required to mitigate the traffic impact of the high school options.

5.2 Pupil Person Trip Generation

5.2.1 The latest Trip Rate Information Computer System (TRICS) database version 7.10.2 has been examined to derive the total pupil person trip rates for a high school, which is a recognised method for forecasting trip generation associated with existing and proposed development. The sites selected within the TRICS database were chosen from the "Land Use 04 – Education /B– Secondary" category, and the following selection criteria:

- Excluding Greater London, South East, Northern Ireland and Ireland regions;
- Range of 520 to 1500 pupils;
- Date ranges from 1 January 2000 to 24 May 2022; and
- Weekday surveys only.

5.2.2 The above criteria identified a selection of four sites and the full TRICS output is included as **Appendix A**.

5.2.3 The following two options for a high school have been assessed:

- Option 1 – 600 pupil high School; and
- Option 2 – 1,200 pupil high School.

5.2.4 **Table 5.1** provides a summary of the total pupil person trip rates during a weekday morning and afternoon highway network peak hour (as identified from proposed opening times).

Table 5-1: Proposed Development Total Person Trip Rates

Time Period	Trip Rate (per pupil)		
	Arrivals	Departures	Totals
0800 - 0900	0.950	0.078	1.028
1500 - 1600	0.059	0.760	0.819

Option 1

5.2.5 The resultant pupil person trip generation for option 1 (600 pupils), based on the trip rates set out in **Table 5.1**, during a weekday morning school start and afternoon school finish times are summarised in **Table 5.2**.

Table 5-2: Option 1 Total Pupil Person Trip Generation

Time Period	Trips		
	Arrivals	Departures	Totals
0800 - 0900	570	47	617
1500 - 1600	35	456	491

5.2.6 As can be seen from **Table 5.2**, option 1 high school is forecast to generate a total of 617 multi-modal two-way pupil person trips (arrivals and departures) during a weekday morning start time and 491 multi-modal two-way pupil person trips at the afternoon finish time.

Option 2

5.2.7 The resultant pupil person trip generation for option 2 (1200 pupils), based on the trip rates set out in **Table 5.1**, during a weekday morning school start and afternoon school finish times are summarised in **Table 5.3**.

Table 5-3: Option 2 Total Pupil Person Trip Generation

Time Period	Trips		
	Arrivals	Departures	Totals
0800 - 0900	1,140	94	1,234
1500 - 1600	71	912	983

5.2.8 As can be seen from **Table 5.3**, option 2 high school is forecast to generate a total of 1,234 multi-modal two-way person during a weekday morning start time and 983 multi-modal two-way pupil person trips at the afternoon finish time.

5.3 Pupil Multi-modal Trip Generation

5.3.1 To understand the mode share of the proposed development trips Stantec has assessed the 2022 Hands up Scotland Survey that looks how pupils across Scotland travel to school and nursery.

5.3.2 **Table 5.4** provides a summary of the modal split data for Edinburgh City for Secondary Schools.

Table 5-4: Mode Split – Secondary Schools

National Travel Modes	Secondary School Modal Split (%)
	2022
Walk	65.8%
Cycle	1.6%
Bus	20.6%
Taxi	0.5%
Scooter/Skate	0.4%
Driven (Car)	7%
Park & Stride	3.8%
Other	0.3%
Total	**100%**

5.3.3 Table 5.4 above shows that 20.6% of pupils travel to school by bus. Taking account that all pupils will live within 1 mile of the school and the cycle routes within the area, it is considered that the majority of pupils will walk and cycle to school. Therefore, the percentage of pupils traveling by bus as seen in Table 5.4 is therefore not representative of the Kirkliston site.

5.3.4 For the purpose of this assessment, it has been assumed that 5% of pupils will travel by bus. The remaining 15.6% of the bus mode share has been reallocated onto walking and cycling modes on a pro-rata basis to the existing hands up survey. Table 5.5 below provides a summary of the adjusted proposed modal split data, taking into account that most pupils will walk and cycle.

Table 5-5: Proposed Mode Split

National Travel Modes	Proposed Secondary School Modal Split (%)
	2022
Walk	81.03%
Cycle	1.97%
Bus	5%
Taxi	0.5%
Scooter/Skate	0.4%
Driven (Car)	7%
Park & Stride	3.8%
Other	0.3%
Total	**100%**

Option 1

5.3.5 Table 5.6 provides a summary of the resultant person trip generation by mode for option 1 (600 pupils), based on the proposed modal split, during a weekday morning school start and afternoon finish time peak hours.

Table 5-6: Option 1 Proposed Person Trip Generation by Mode

Mode Share	Morning Peak			Afternoon Peak		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Walk	462	38	500	28	369	398
Cycle	11	1	12	1	9	10
Bus	29	2	31	2	23	25
Taxi	3	0	3	0	2	2
Scooter/Skate	2	0	2	0	2	2
Driven (Car)	40	3	43	2	32	34
Park & Stride	22	2	23	1	17	19
Other	2	0	2	0	1	1
Total	570	47	617	35	456	491

5.3.6 Based on the proposed modal split set out in above, **Table 5.6** shows that the option 1 (600 pupils) of the proposed development would generate a total of 43 two-way vehicle trips (arrivals and departures) during a weekday morning school start peak hour and 34 two-way vehicle trips during a weekday afternoon school finish peak hour.

5.3.7 In addition, the proposed development would generate a total of 31 two-way bus trips during a weekday morning school start peak hour and 25 two-way bus trips during a weekday school finish peak hour.

5.3.8 As well as this the proposed development would generate a total of 512 two-way active travel trips during a weekday morning school start peak hour and 408 two-way active travel trips during a weekday afternoon school finish peak hour.

Option 2

5.3.9 **Table 5.7** provides a summary of the resultant person trip generation by mode for option 2 (1200 pupils), based on the proposed modal split, during a weekday morning school start and afternoon finish time peak hours.

Table 5-7: Option 2 Proposed Person Trip Generation by Mode

Mode Share	Morning Peak			Afternoon Peak		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Walk	924	76	1000	58	739	797
Cycle	22	2	24	1	18	19
Bus	57	5	62	4	46	49
Taxi	6	0	6	0	5	5
Scooter/Skate	5	0	5	0	4	4
Driven (Car)	80	7	86	5	64	69
Park & Stride	43	4	47	3	35	37
Other	3	0	4	0	3	3
Total	1140	94	1234	71	912	983

5.3.10 Based on the proposed modal split set out above, **Table 5.7** shows that the option 2 (1200 pupils) of the proposed development would generate a total of 86 two-way vehicle trips during a weekday school start network peak hour and 69 two-way vehicle trips during a weekday afternoon school finish peak hour.

5.3.11 In addition, the proposed development would generate a total of 62 two-way bus trips during a weekday morning school start peak hour and 49 two-way bus trips during a weekday afternoon school finish peak hour.

5.3.12 As well as this the proposed development would generate a total of 1024 two-way active travel trips during a weekday morning school start peak hour and 816 two-way active travel trips during a weekday afternoon school finish peak hour.

5.4 Staff Trip Generation

5.4.1 To understand the mode share of staff trips for a high school, Stantec has assessed the 2011 DataShine Scotland Commute for Kirkliston, which is an accepted method for assessing multi-

modal trips for development in Scotland. The following two options for the proposed development have been assessed:

- Option 1 – 60 Staff Members; and
- Option 2 – 120 Staff Members.

5.4.2 **Table 5.8** provides a summary of the modal split data for the 2011 DataShine Scotland Commute data for Kirkliston.

Table 5-8: 2011 DataShine Scotland Commute for Kirkliston

Modal Share	DataShine Scotland Commute **Modal Split (%)**
	2011
Train/Metro	0%
Bus/Coach	2%
Car (Driving)	91%
Car (Passenger)	2%
Bicycle	0%
On-Foot	4%
Other	0%
Total	100%

Option 1

5.4.3 **Table 5.9** provides a summary of the staff trip generation by mode for option 1 (60 staff), based on the proposed modal split, during a morning start time and afternoon finish time. For the purpose of this assessment, it has been assumed 60 staff members will arrive to the site from 8am to 9am and 60 members of staff will depart from the site from 3pm to 4pm.

Table 5-9: Option 1 Proposed Staff Trip Generation by Mode

Mode Share	Morning Peak	Afternoon Peak
	Arrivals	Departures
Train/Metro	0	0
Bus/Coach	1	1
Car (Driving)	55	55
Car (Passenger)	1	1
Bicycle	0	0
On-Foot	2	2
Other	0	0
Total	59	59

**Discrepancies in numbers due to rounding*

5.4.4 **Table 5.9** shows that a 60 staff high school would generate a total of 55 staff vehicle trips during a weekday morning start time and afternoon finish time.

5.4.5 In addition, a 60 staff high school would generate a total of one staff bus trip during a weekday morning start time and afternoon finish time.

5.4.6 As well as this, a 60 staff high school would generate a total of two active travel trips during a weekday morning start time and afternoon finish time.

Option 2

5.4.7 **Table 5.10** provides a summary of the staff trip generation by mode for option 2 (120 staff), based on the proposed modal split, during a morning start time and afternoon finish time.

Table 5-10: Option 2 Proposed Staff Trip Generation by Mode

Mode Share	Morning Peak	Afternoon Peak
	Arrivals	Departures
Train/Metro	0	0
Bus/Coach	2	2
Car (Driving)	109	109
Car (Passenger)	2	2
Bicycle	0	0
On-Foot	5	5
Other	0	0
Total	119	119

**Discrepancies in numbers due to rounding*

5.4.8 **Table 5.10** shows that a 120 staff high school would generate a total of 109 staff vehicle trips during a weekday morning start time and afternoon finish time.

5.4.9 In addition, a 120 staff high school would generate a total of two staff bus trips during a weekday morning start time and afternoon finish time.

5.4.10 As well as this, a 120 staff high school would generate a total of five active travel trips during a weekday morning start time and afternoon finish time.

6 Parking Assessment

6.1 Introduction

6.1.1 This section considers the parking provision at the existing leisure centre site against Edinburgh City Councils parking provisions for schools and the existing leisure centre.

6.1.2 In addition, this section also assesses the potential developments parking against the committed Early Years Nursey and Primary School scheme to assess whether there will be adequate levels in the extended existing Leisure Centre car park.

6.2 Edinburgh Design Guidance – High School

Car Parking Provision

6.2.1 ECC's Edinburgh Design Guidance, adopted in January 2020, sets out the parking standards for new developments within Edinburgh and the surrounding areas. The site is located within Zone 3, which applies to 'elsewhere in within the Council boundary'. The standards for non-residential institutions including schools (Class 10) within Zone 3 states a maximum of 1 parking space per 20 pupils should be provided. In addition, a minimum of one space plus 8% of the total capacity when 5 or more car parking spaces are provided should be accessible parking spaces.

6.2.2 In terms of electric vehicle provisions, the standards state that where over 10 parking spaces are proposed, a minimum of one in every six proposed spaces should feature an electric charging point.

6.2.3 Based on option 1 with a capacity of 600 pupils, a maximum of 30 car parking spaces including a minimum of 4 accessible parking spaces would be required. Out of the 30 parking spaces required, 5 of these spaces should feature an electric charging point.

6.2.4 Based on option 2 with a capacity of 1,200 pupils, a maximum of 60 car parking spaces including a minimum of 6 accessible parking spaces would be required. Out of the 60 parking spaces required, 12 of these spaces should feature an electric charging point.

Cycle Parking Provision

6.2.5 With regard to cycle parking, the standards state that a minimum provision of 1 space per 9 pupils should be provided for schools.

6.2.6 Based on option 1 with a capacity on 600 pupils, a minimum of 67 cycle parking spaces would be required. In addition, based on option 2 with a capacity of 1200 pupils, a minimum provision of 134 cycle parking spaces would be required.

Motorcycle Parking Provision

6.2.7 With regard to motorcycle parking, the Council's standards state that a minimum provision of 1 space per 5 car parking spaces should be provided for schools. In addition, 1 space per 250 pupils should also be provided.

6.2.8 Based on option 1 with a capacity of 600 pupils and 30 parking spaces, a minimum of 9 motorcycle parking spaces would be required. In addition, based on option 2 with a capacity of 1200 pupils and 60 parking spaces, a minimum of 17 motorcycle parking spaces would be required.

6.3 Edinburgh Design Guidance – Existing Leisure Centre

6.3.1 ECC's car parking standard for leisure centres/gym (Class 11) within Zone 3 states a maximum of one car parking space per 60sqm GFA.

6.3.2 The existing leisure centre comprises a GFA of 1,346.53sqm equates to the requirement for a maximum car parking provision of 22 spaces.

6.4 Existing Car Park Provision Comparison

6.4.1 As set out in **Section 3**, this feasibility study has considered using the existing leisure centre car park for the high school development, which currently serves the existing leisure centre and will serve the consented Early Years Nursey and Primary School scheme.

6.4.2 Reference has been made to Figure 1 in the Early Years Nursey and Primary School scheme TS which shows a provision of 56 spaces for both the existing leisure centre and the consented Early Years Nursey and Primary School scheme. In line with Edinburgh Design Guidance the committed Early Years Nursey and Primary School scheme would require a total of 20 car parking standards.

6.4.3 In addition, based on ECC car parking standards, a maximum of 22 spaces is required for the existing leisure centre. Therefore, a total of 12 spaces are remaining within the leisure centre car park.

6.4.4 As stated above, for a high school with a capacity of 600 pupils, a maximum of 30 car parking spaces. Therefore, a maximum of an additional 18 car parking spaces would be required to cater for parking provision fora 600 pupil high school to meet ECC's maximum car parking standards.

6.4.5 In addition, as stated above for a high school with a capacity of 1,200 pupils, a maximum of 60 car parking spaces would be required. In line with Edinburgh Design Guidance standards the existing leisure centre car park would provide a shortfall of 48 car parking spaces. Therefore, a maximum of 48 parking spaces would be required in addition to the existing leisure centre provisions in order to meet the standards set out above.

6.4.6 It is recommended that a Travel Plan should be implemented at the site to encourage the reduction of staff travelling to the site by single occupancy car journeys and to encourage staff to travel to the site on foot, by cycle and by public transport.

6.4.7 Aside from parking provision within the site, it is recommended that "SCHOOL KEEP CLEAR" zig-zag road markings are provided along the west side of Kirklands Park Street along the full existing leisure centre site frontage, from the roundabout junction with Stirling Road to the south, to the residential properties north of the leisure centre site to the north. The road markings would discourage parent/carer drop-offs and pick-ups directly outside the site.

6.5 Queensferry High School Transport

6.5.1 The existing leisure centre car park is currently used as a drop-off/pick-up by parents/carers for pupils currently attending Queensferry High School to be transported by school buses.

6.5.2 It is recommended that school bus parking for Queensferry High School transport and associated drop-off/pick-up facilities are removed from the existing leisure centre car park to free up space for staff parking for a new high school in Kirkliston.

6.6 Conclusion

6.6.1 In conclusion, the existing leisure centre car park, extended as part of the committed early years and primary school development would provide a parking provision below ECC's maximum parking standards for both high school options.

6.6.2 A maximum of an additional 12 car parking spaces would be required for option 1 (600 pupils) and a maximum of an additional 48 car parking spaces would be required for option 2 (1,200 pupils). In addition, the number of electric vehicle charging points would need to be increased within the leisure centre car park, and cycle and motorcycle parking spaces will also be required.

6.6.3 In addition, the following measures are recommended:

- Travel Plan;
- "SCHOOL KEEP CLEAR" road markings on west side of Kirkland Park Street, along site frontage; and
- Removal of Queensferry High School drop-off/pick-up and school bus parking using the existing leisure centre car park.

7 Traffic Impact

7.1.1 This Transport Feasibility Study has been prepared during the school summer holidays, when it is not possible to carry out traffic surveys as results will not be representative of a typical day. As part of the traffic assessment, traffic surveys will be commissioned at the following junctions:

- B9080 / Kirklands Park Street Four Arm Roundabout Junction;
- Main Street/B800 four arm signalised junction; and
- B800/Eilston Road/Housefield Drive Four Arm Staggered Signalised Junction.

7.1.2 Traffic Surveys will be commissioned for the week commencing 21st August 2023 and will record a weekday morning and afternoon peak periods at the existing junctions. Following receipt of the results of the traffic surveys, this Transport Feasibility Study will be updated to include an assessment of the traffic impact associated with the high school options.

8 Summary and Conclusion

8.1 Summary

8.1.1 Stantec UK Limited has been appointed by Edinburgh City Council to provide transport advice on the feasibility of the construction of a new high school in Kirkliston.

8.1.2 This report considers the development proposals for the construction of a high school alongside the under construction Early Years Nursery (planning ref: 20/05679/FUL) on the southern part of the existing leisure centre site, which is located at the western edge of Kirkliston, adjacent to Kirklands Park Street. Two options have been considered, option 1 for a 600 pupil high school and option 2 for a 1,200 pupil high school, to open in 2028.

8.1.3 To the north, the site is bounded by Kirkliston Leisure Centre building, Kirklands Park Street to the east, the B9080 to the south and the M90 to the west. The site is currently occupied by playing fields associated with the existing leisure centre.

8.1.4 The site is currently accessed via a simple priority junction from Kirklands Park Street, located approximately 76m north of the Stirling Road (B9080)/Kirklands Park Street/Buie Brae Roundabout junction. The access currently serves the existing leisure centre, located to the north of the site and will serve the committed Early Years Nursery and Primary School.

8.1.5 A review of Personal Injury Collision data over a five-year period, from 2017 and 2021 has been carried out. The review identified that three Personal Injury Collisions occurred within the study area during the last available five-year period. It can be concluded from the review that there is no inherent road safety issue with the existing road layout.

8.1.6 An assessment of the existing walking and cycling infrastructure present within Kirkliston has been carried out. Although no improvements were identified to improve pedestrian connectivity to the site, the following measures are recommended to improve access by cycle:

- Extend the existing shared footway/cycleway along east side of Kirklands Park Street south to the roundabout junction with the B9080; and
- Upgrade the pedestrian crossing on Kirklands Park Street to be provided as part of the Early Years and Primary School development to a Toucan crossing, which can also cater for cyclists.

8.1.7 An assessment of the multi-modal trip generation based on the two options has been carried out. As the site is located within 1 mile of the entirety of Kirkliston, it is considered that the majority of pupils will walk or cycle to the site. Based on the results of the 2022 Hands up Scotland Survey for the Edinburgh City region and factored to reflect the location of the site, it has been forecast that there would be 512 and 408 walking and cycling trips at the morning school start and afternoon school finish time respectively for a 600 pupil high school (option 1). For a 1,200 pupil high school (option 2), it has been forecast that there would be 1,024 and 816 walking and cycling trips at the morning school start and afternoon school finish time respectively.

8.1.8 Parking provision for both high school options has been assessed against Edinburgh City Council's parking standards for schools. In comparison, the existing leisure centre car park a maximum of an additional 12 car parking spaces would be required for option 1 (600 pupils) and a maximum of an additional 48 car parking spaces would be required for option 2 (1,200 pupils). In addition, the number of electric vehicle charging points would need to be increased within the leisure centre car park, and cycle and motorcycle parking spaces will also be required.

8.1.9 The following measures to encourage staff to travel to the site by sustainable travel modes and to discourage parent/carer drop-off/pick-up directly outside the site are recommended:

- Travel Plan;
- "SCHOOL KEEP CLEAR" road markings on west side of Kirkland Park Street, along site frontage; and
- Removal of Queensferry High School drop-off/pick-up and school bus parking from the existing leisure centre car park.

8.1.10 A high school development would also generate vehicle trips. Traffic surveys will be commissioned for after the summer school holidays to assess the traffic impact of a 600 (option 1) and 1,200 (option 2) pupil high school. This Transport Feasibility Study will be updated to include the findings of the traffic assessment.

8.2 Conclusion

8.2.1 In accordance with national and local policy, it has been demonstrated that the proposed development is in a sustainable location with no local road safety issues. Following the implementation of the recommendations outlined, Stantec concluded that:

- Option 1 – no further measures than recommended to improve cycle connectivity, the implementation of a Travel Plan and "SCHOOL KEEP CLEAR" road markings would be required; and
- Option 2 – in addition to the recommendations for option 1, a maximum additional car parking spaces would be required for this option to be in line with the Councils' car parking standards.

8.2.2 Both options will also require the removal of Queensferry High School drop-off/pick-up and school buses parking using the existing leisure centre car park.

Figures

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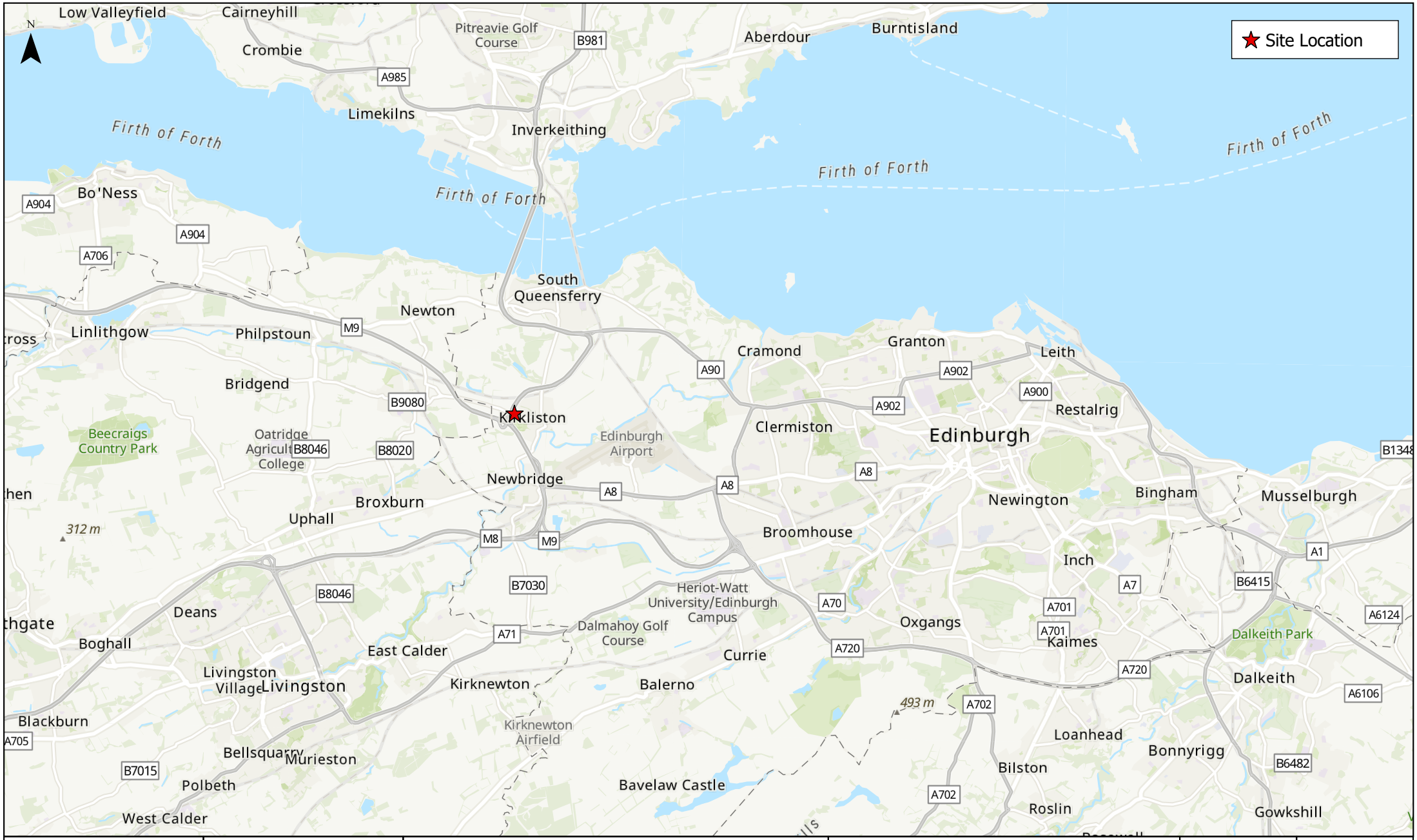

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Figure 2.1: Site Location Plan

World Topographic Map: Esri UK, Esri, HERE, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS

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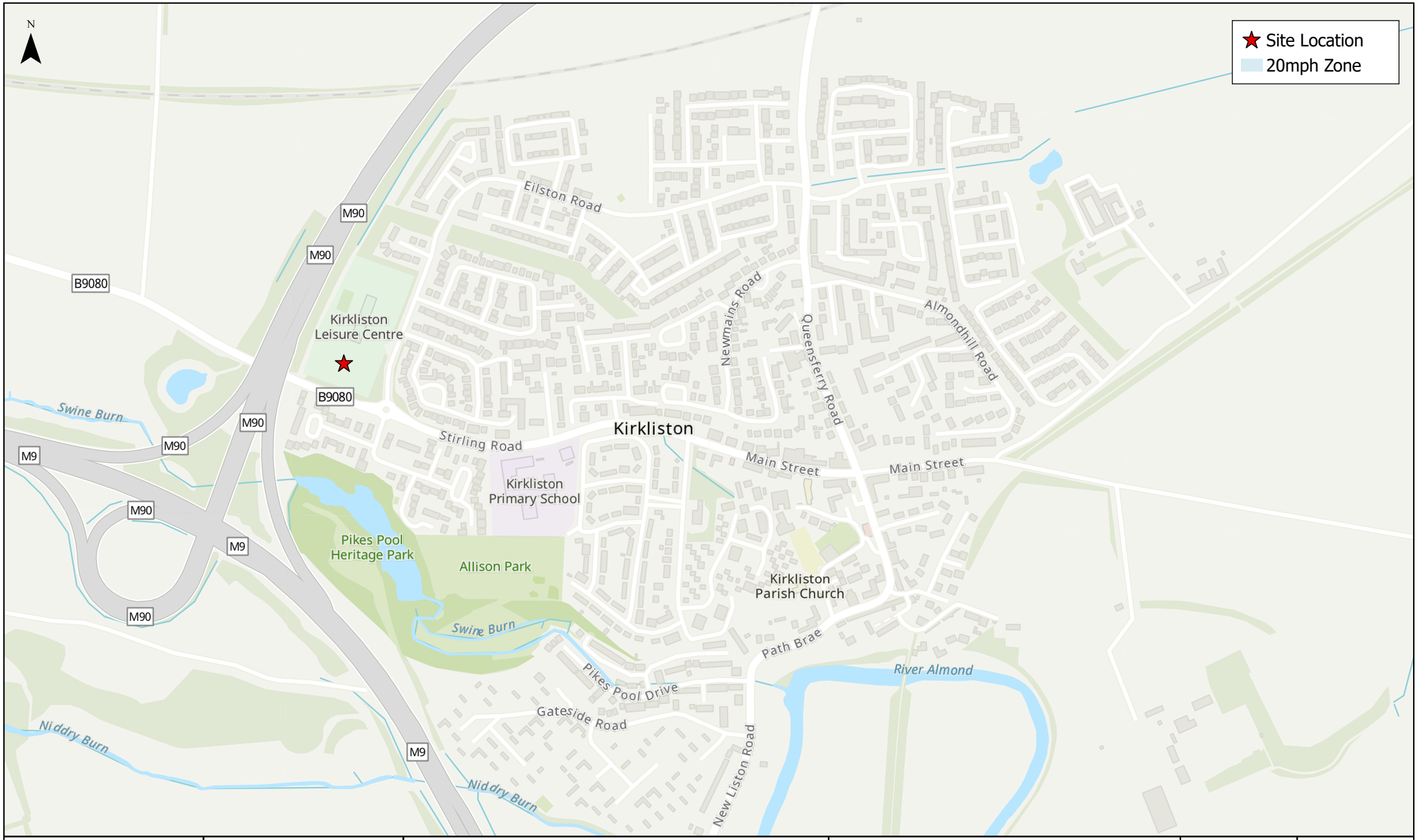

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Figure 2.2: Local Highway Network Plan

World Topographic Map: Esri Community Maps Contributors, Esri UK, Esri, HERE, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS

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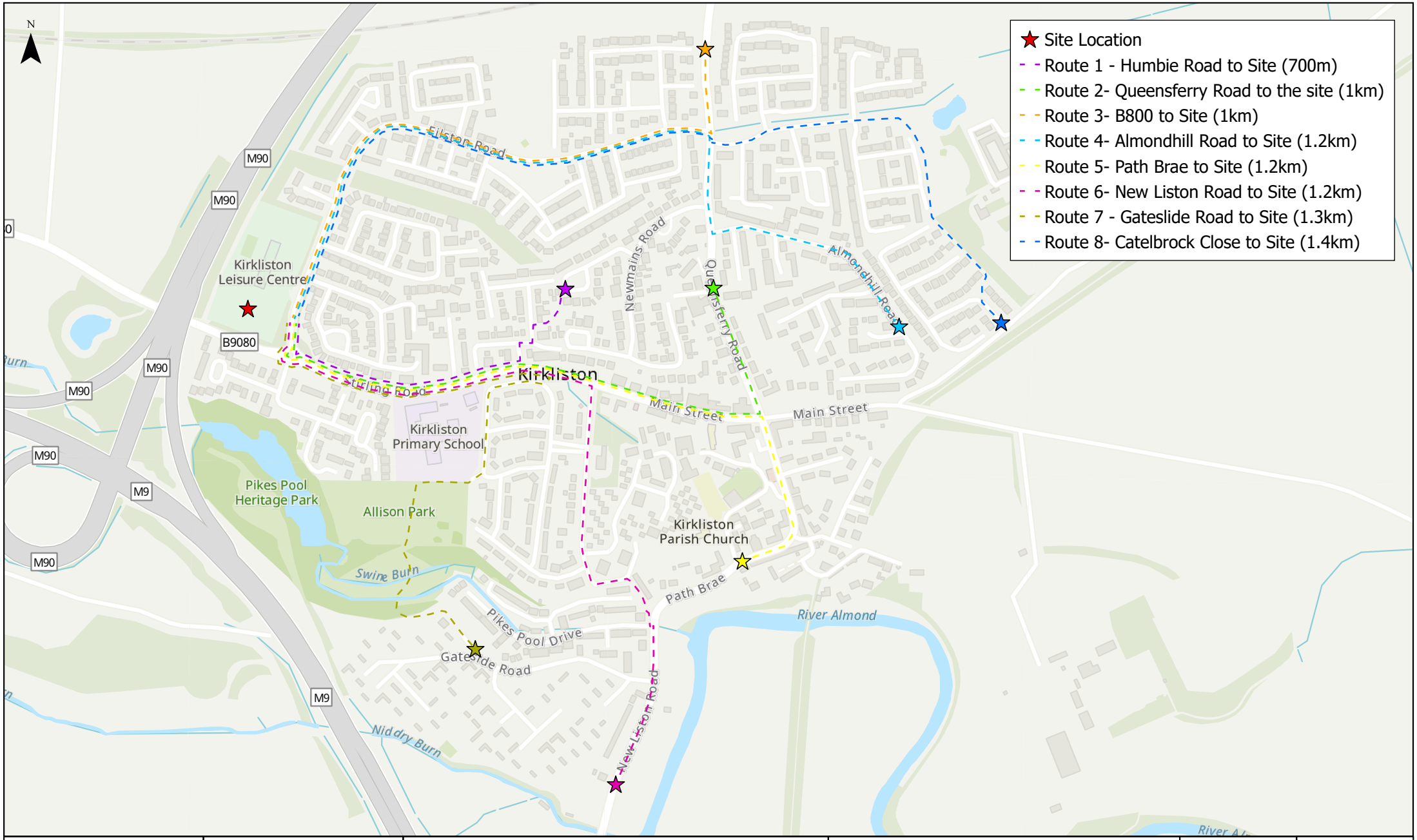

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Figure 4.1: Walking and Cycling Routes

World Topographic Map: Esri Community Maps Contributors, Esri UK, Esri, HERE, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS

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Figure 4.1	

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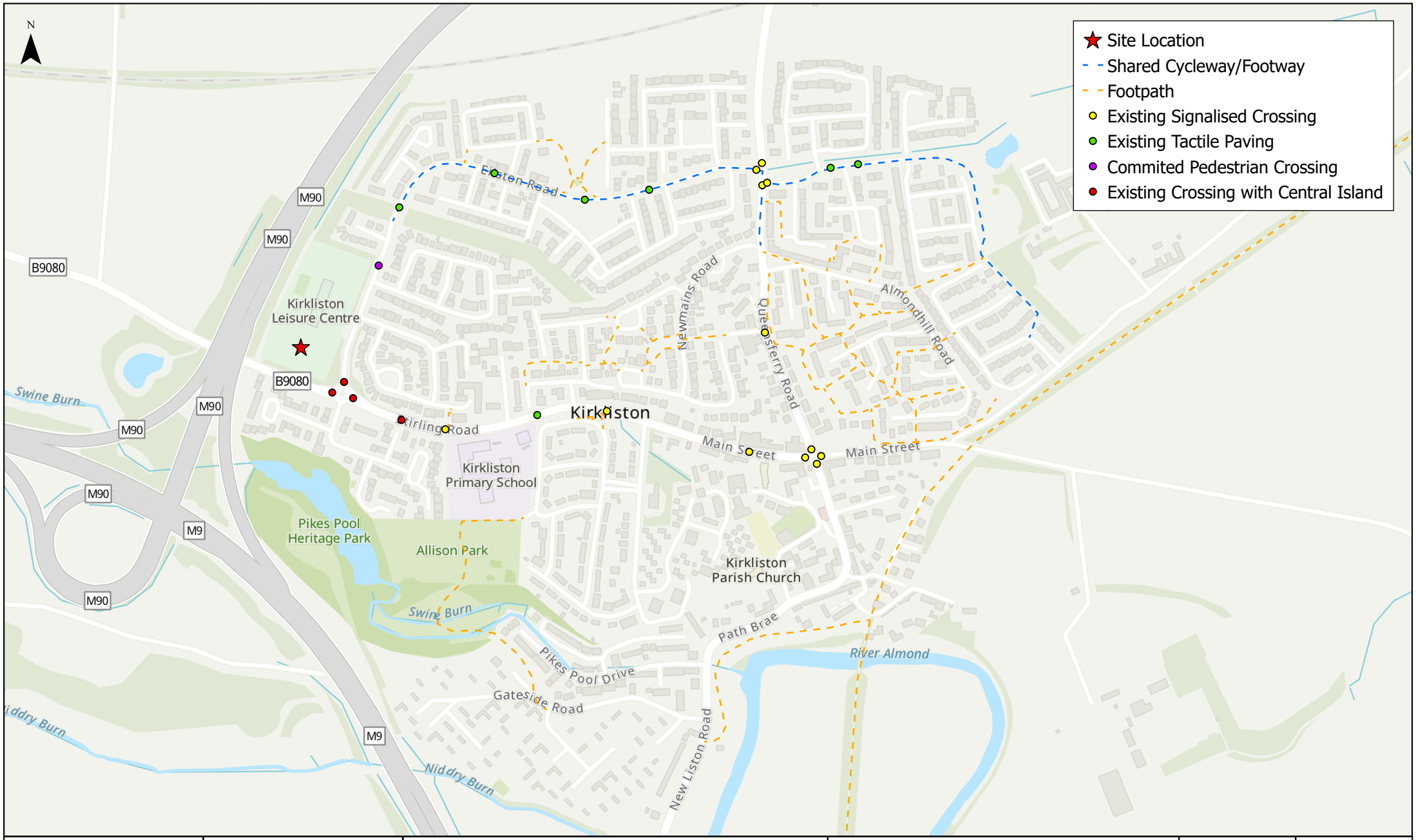


Stantec

Client

EDINBVRGH THE CITY OF EDINBURGH COUNCIL

KIRKLISTON, EDINBURGH

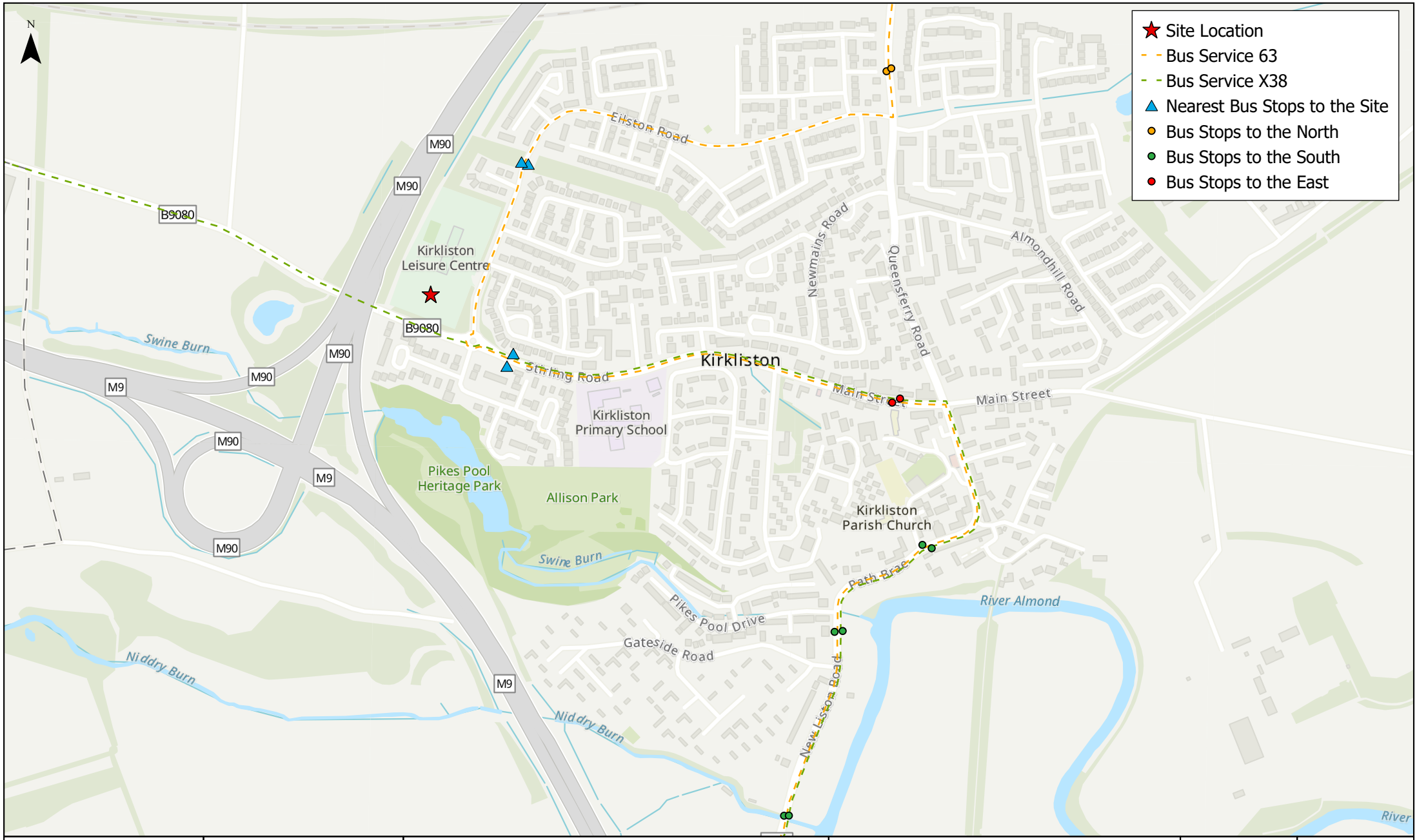
Figure 4.2: Walking and Cycling Facilities

World Topographic Map: Esri Community Maps Contributors, Esri UK, Esri, HERE, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS

0 60 120 240 360 480 M

1:8,000 @ A4	Date: 08/08/2023
Drawn: AL	Checked: BL
Figure 4.2	

Document Path: C:\Users\alister\OneDrive - Stantec\Documents\Kirkliston\Kirkliston GIS\Kirkliston GIS.aprx



Stantec

Client

EDINBVRGH THE CITY OF EDINBURGH COUNCIL

KIRKLISTON, EDINBURGH

Figure 4.3: Bus Routes

World Topographic Map: Esri Community Maps Contributors, Esri UK, Esri, HERE, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS

0 75 150 300 450 M

1:8,000 @ A4	Date: 09/08/2023
Drawn: AL	Checked: BL
Figure 4.3	

Appendices

Appendix A TRICS Output

Calculation Reference: AUDIT-706701-230721-0705

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION
Category : B - SECONDARY
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST		
	DC	DORSET	1 days
	DV	DEVON	1 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	OT	STOKE ON TRENT	1 days
	WK	WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	1 days
09	NORTH		
	CU	CUMBERLAND	1 days
	TV	TEES VALLEY	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of pupils
Actual Range: 520 to 1439 (units:)
Range Selected by User: 520 to 1500 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/00 to 24/05/22

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	4 days
Wednesday	1 days
Thursday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	4
Neighbourhood Centre (PPS6 Local Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	4
Village	1
No Sub Category	3

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

F1(a)	8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	2 days
15,001 to 20,000	2 days
20,001 to 25,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	3 days
75,001 to 100,000	1 days
125,001 to 250,000	3 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Not Known	3 days
Yes	1 days
No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	8 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 CU-04-B-01 SECONDARY SCHOOL CUMBERLAND
STAINBURN ROAD
WORKINGTON

Edge of Town
No Sub Category
Total Number of pupils: 861
Survey date: TUESDAY *21/06/05* *Survey Type: MANUAL*

2 DC-04-B-04 SECONDARY SCHOOL DORSET
BRISTOL ROAD
SHERBORNE

Edge of Town
No Sub Category
Total Number of pupils: 1327
Survey date: TUESDAY *02/10/01* *Survey Type: MANUAL*

3 DV-04-B-04 SECONDARY ACADEMY DEVON
EARL RICHARD 'S RD SOUTH
EXETER

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of pupils: 835
Survey date: TUESDAY *02/04/19* *Survey Type: MANUAL*

4 LN-04-B-01 SECONDARY SCHOOL LINCOLNSHIRE
WRAGBY ROAD
LINCOLN
GLEBE
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of pupils: 1200
Survey date: THURSDAY *12/09/02* *Survey Type: MANUAL*

5 NE-04-B-01 SECONDARY SCHOOL NORTH EAST LINCOLNSHIRE
FOXHILLS ROAD
SCUNTHORPE

Edge of Town
Residential Zone
Total Number of pupils: 520
Survey date: MONDAY *19/05/14* *Survey Type: MANUAL*

6 OT-04-B-01 SECONDARY SCHOOL STOKE ON TRENT
SANDON ROAD
STOKE-ON-TRENT
LIGHTWOOD
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of pupils: 758
Survey date: THURSDAY *14/11/02* *Survey Type: MANUAL*

7 TV-04-B-02 SECONDARY SCHOOL TEES VALLEY
THAMES ROAD
BILLINGHAM

Edge of Town
Residential Zone
Total Number of pupils: 1439
Survey date: TUESDAY *24/05/22* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

8 WK-04-B-01 SECONDARY SCHOOL WARWICKSHIRE
BANBURY ROAD
KINETON

Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of pupils: 839
Survey date: WEDNESDAY *25/09/19* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
KH-04-B-01	Proposals for Public School
NY-04-B-03	Proposal for Mixed Use

TRIP RATE for Land Use 04 - EDUCATION/B - SECONDARY
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 PUPILS
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 3.15

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	972	0.036	8	972	0.007	8	972	0.043
08:00 - 09:00	8	972	0.188	8	972	0.138	8	972	0.326
09:00 - 10:00	8	972	0.024	8	972	0.020	8	972	0.044
10:00 - 11:00	8	972	0.013	8	972	0.011	8	972	0.024
11:00 - 12:00	8	972	0.015	8	972	0.013	8	972	0.028
12:00 - 13:00	8	972	0.015	8	972	0.019	8	972	0.034
13:00 - 14:00	8	972	0.019	8	972	0.015	8	972	0.034
14:00 - 15:00	8	972	0.023	8	972	0.024	8	972	0.047
15:00 - 16:00	8	972	0.094	8	972	0.122	8	972	0.216
16:00 - 17:00	8	972	0.017	8	972	0.057	8	972	0.074
17:00 - 18:00	8	972	0.027	8	972	0.030	8	972	0.057
18:00 - 19:00	7	1037	0.025	7	1037	0.017	7	1037	0.042
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.496			0.473			0.969

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	520 - 1439 (units:)
Survey date date range:	01/01/00 - 24/05/22
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 04 - EDUCATION/B - SECONDARY
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 PUPILS
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 3.15

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate	No. Days	Ave. PUPILS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	972	0.060	8	972	0.008	8	972	0.068
08:00 - 09:00	8	972	0.950	8	972	0.078	8	972	1.028
09:00 - 10:00	8	972	0.060	8	972	0.020	8	972	0.080
10:00 - 11:00	8	972	0.027	8	972	0.026	8	972	0.053
11:00 - 12:00	8	972	0.022	8	972	0.032	8	972	0.054
12:00 - 13:00	8	972	0.075	8	972	0.107	8	972	0.182
13:00 - 14:00	8	972	0.124	8	972	0.058	8	972	0.182
14:00 - 15:00	8	972	0.039	8	972	0.119	8	972	0.158
15:00 - 16:00	8	972	0.059	8	972	0.760	8	972	0.819
16:00 - 17:00	8	972	0.018	8	972	0.201	8	972	0.219
17:00 - 18:00	8	972	0.054	8	972	0.056	8	972	0.110
18:00 - 19:00	7	1037	0.052	7	1037	0.035	7	1037	0.087
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.540			1.500			3.040

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*