

12. MATERIAL ASSETS

12.1 Traffic & Transport

12.1.1 Introduction

12.1.1.1 Purpose of Section

The purpose of this Traffic and Transport EIAR Section is to assess the traffic impact of the proposed Housing Development on the surrounding road network.

This section is written as a concise summary of the Traffic Impact Assessment (TIA), included as Appendix 12-1 of this EIAR. Rather than repeat the detailed information and traffic assessments carried out within this TIA, it is referred to throughout this Section, with the impact assessment findings discussed below.

12.1.1.2 Statement of Authority

The TIA included as Appendix 12-1 has been prepared by Patrick Raggett of O'Connor Sutton Cronin & Associates (OCSC). Patrick is a Chartered Civil Engineer with over 11 years' experience and with specific expertise in traffic & transport engineering, having been involved in the successful planning, design and completion of a wide range of projects in Ireland and the UK, ranging from a mix of commercial, residential, healthcare and leisure developments to major road and civil infrastructural schemes.

This EIAR Section was written by John Staunton of MKO and reviewed by Patrick Raggett of OCSC. John is a Project Environmental Scientist with MKO with over 10 years of postgraduate experience in both research and private consultancy. John's key strengths and areas of expertise are in project management, report writing, mapping, communication and impact assessments.

12.1.2 Receiving Environment

The receiving environment is urban in nature. The main transportation arteries in the study area are New Two Mile Round, Coosan Road, Ballymahon Road and the N6. Outside of the study area, development generated traffic will dissipate and so is expected to have a negligible impact on the operation of the wider network. While there is expected to be substantial variation in the type of traffic travelling on the links locally, during the peak travel hours they would be expected to mainly carry commuter traffic.

A full description of the receiving environment is provided in the TIA as Appendix 12-1.

12.1.3 Proposed Development

It is proposed to access the development via a new entrance on New Two Mile Round opposite the Glen Park entrance creating a 4 arm crossroads. The development has also allowed for the future strategic Cornamaddy- Coosan Link Road which is currently proposed to run along the northern boundary of the site as per the Core Strategy Map of the Athlone Town Development Plan which will increase overall accessibility to the site and spread the traffic associated with the development on a wider basis, thereby limiting the potential impact in any one location.

However, it must be stressed that this future roads project from the Coosan Point Road to the L8048 northwest of the roundabout on the N55 at Cornamaddy, is not part of the proposed development and subject to its own separate planning and design process. As a result, this assessment has only considered the existing roads infrastructure which is considered to represent the worst-case scenario in this instance.

The residential elements of the development are expected to be the primary trip generator and form the basis of the development trip generation estimates. The crèche is expected to be ancillary and so not be a primary trip generator, instead serving residents at the development.

A full description of the proposed development from a traffic perspective is provided in the TIA as Appendix 12-1.

12.1.4 Likely and Significant Effects and Associated Mitigation Measures

12.1.4.1 Do-Nothing Scenario

The do-nothing scenario would involve leaving the subject site in its current underdeveloped state. This would have a negative impact on the overall development of the area while simultaneously showing no impact in terms of traffic and transportation.

12.1.4.2 Construction Phase

Relative to the operation stage, the construction period will be temporary in nature. Construction traffic is expected to consist of the following categories:

- Vehicles owned and driven by site construction staff and by full time site supervisory staff and occasional professional supervisory staff i.e. design team members and supervisory staff from utility companies;
- Materials delivery and removal vehicles.

An estimate of the quantum of traffic that will be generated during the construction period is provided in the TIA which is provided as Appendix 12-1.

The increase in traffic volumes as a result of construction vehicles visiting the site is not considered to be excessive and will be spread out over the duration of the construction phase of the development.

Further details of the potential impacts are provided in the TIA (Appendix 12-1).

Overall there will be a short-term imperceptible negative impact to local traffic during the construction phase.

12.1.4.3 Operational Phase

The residential elements of the development are expected to be the primary trip generator and form the basis of the development trip generation estimates. The crèche is expected to be ancillary and so not be a primary trip generator, instead serving residents at the development. Nevertheless, considering the above to ensure a robust analysis the crèche trip generation figures have been included in modelling exercises.

Modelling has been carried out on the road network in the area which shows that the main road links in the area will operate within capacity in the design year of 2038. The masterplan development is expected to generate approximately 2,067 additional trips per day. Of these, approximately 66 arrivals and 123 departures are expected during the A.M. peak hour (08:30- 09:30) while approximately 137 arrivals and 72 departures are expected in the P.M. peak hour (17:15-18:15).

The development Entrance was modelled as both a signalised junction and as a priority cross roads junction. As per the TIA results (Appendix 12-1), the junction continues to operate well within capacity in both scenarios even in the design year. The analysis results show that the junction could operate well within capacity as a priority junction in future years. A signalised pedestrian crossing could be provided at this junction as an alternative to a fully signalised junction that would cater for vulnerable road users wishing to cross the Coosan Road.

It is proposed to access the development via a new entrance on New Two Mile Round opposite the Glen Park entrance creating a 4 arm crossroads. The development has also allowed for the future strategic Cornamaddy- Coosan Link Road which is currently proposed to run along the northern boundary of the site as per the Core Strategy Map of the Athlone Town Development Plan which will increase overall accessibility to the site and spread the traffic associated with the development on a wider basis, thereby limiting the potential impact in any one location.

For further information on the operational phase impacts, see the TIA provided as Appendix 12-1.

Overall there will be a long-term imperceptible negative impact to local traffic.

12.1.4.4 Cumulative Assessment

The projects referred to in Section 2.5.2 of this EIAR have been included in this cumulative impact assessment. There is thought to be an anticipated negligible cumulative impact on traffic.

12.1.4.5 Mitigation Measures

The assessment has shown that the operation of Junction 2 & 3 and Junctions 6 & 7 respectively should be linked and their signal plans coordinated to ensure the optimal operation of the road network in these locations. This is recommended irrespective of the proposed development.

While it has been demonstrated that the proposed development has no significant impact on the operation of the local network, it is nevertheless recommended that the local area should be monitored in terms of transportation efficiencies into the future.

12.1.4.6 Residual Impact

Taking into account the mitigation measures which are described in detail the TIA (Appendix 12-1), the proposed development will overall have a long-term imperceptible negative impact.

12.1.4.7 Significance of Effects

Based on the assessment above there will be no significant effects.

12.1.5 Summary & Conclusions

12.1.5.1 Summary

The results of the overall assessment showed that the proposed development will have a negligible impact on the links and junctions in the local network. The proposed development entrance has been shown to operate well within normal capacity limits without the need for a right turn lane and will have no negative impact on the operation of the local road network.

Junction 5/Development Entrance was modelled as both a signalised junction and as a priority cross roads junction. As can be seen from the TIA analysis (Appendix 12-1) results the junctions continues to operate well within capacity in both scenarios even in the design year. The analysis results show that the junction could operate well within capacity as a priority junction in future years. A signalised pedestrian crossing could be provided at this junction as an alternative to a fully signalised junction that would cater for vulnerable road users wishing to cross the Coosan Road.

12.1.5.2 Conclusion

The results of the overall assessment showed that the proposed development will have no significant negative impact on the local road network.

12.2 Water and Other Services

12.2.1 Statement of Authority

This section of the EIAR has been prepared by John Staunton and reviewed by Michael Watson, both in MKO. John Staunton is a Project Environmental Scientist and Michael Watson is a Project Director with MKO; with over 9 and 17 years of experience in the environmental sector respectively. Their environmental experiences involves report writing of Environmental Reports (ER), Environmental Impact Statements/Environmental Impact Assessment Reports (EIS/EIAR) & Strategic Environmental Assessments (SEA) as well as project management of a variety of small and large scale jobs, including residential and commercial development projects.

12.2.2 Consultation

The relevant national and regional authorities and bodies listed in Section 2.4 were consulted to identify any potential impact on material assets. Acknowledgements were received from ESB Networks and the National Transport Authority, but no comments were made on the development, with the exception of an email from ESBN advising the developer makes contact with them prior to the construction phase to organise the relocation of overhead lines. A letter was received from Irish Water with general information in relation to water services. A letter was received from Transport Infrastructure Ireland with general advice for EIAR and avoiding impacts on roads networks. The scoping responses are discussed in further detail in Section 2.4.2 of this EIAR.

12.2.3 Construction Methodology

The construction methodology detailed in Chapter 3 of this EIAR describes the manner in which the proposed development will be constructed, including any excavations and installation of services. Prior to works, the area where excavations are planned will be surveyed and all existing services will be identified. All relevant bodies i.e. ESB, Bord Gáis, Eir, Irish Water, Westmeath County Council etc. will be contacted and all drawings for all existing services sought.

Any underground services encountered during the works will be surveyed for level and where possible will be left in place. If there is a requirement to move the service, then the appropriate body (ESB, Gas Networks Ireland, Irish Water etc.) will be contacted, and the appropriate procedure put in place. Back fill around any utility services will be with dead sand/pea shingle where appropriate. All works will be in compliance with required specifications. Construction methodologies are described in further detail in Chapter 3 of this EIAR.

12.2.4 Receiving Environment

The existing site is almost entirely a greenfield site, and so the presence of underground services will be limited in extent, if present at all. It is not proposed to do any significant excavation works at the site boundary. With this in mind, the proposed development could have the potential to impact the following:

- > Electricity Network
- > Telecommunications Networks (including phone and broadband)
- > Gas Distribution Networks
- > Water Supply Networks
- > Sewage Networks
- > Land Use

12.2.4.1 Electricity

There are some overhead electricity cables on the site of the proposed development. While it is unlikely that there will be any underground electrical services encountered during the construction works (as the site is greenfield agricultural land), there is still a possibility that an issue may occur while carrying out

works, particularly at the site boundaries. The striking of an underground electricity cable during construction operations could potentially result in serious injury or death of site staff. A map of all existing electrical cables in the vicinity of the site is provided in Appendix 12-2 of this EIAR. All proposed works for the project have been designed to avoid these services as much as possible, but where any moving of electricity lines is required, this will be carried out in consultation with ESNB.

12.2.4.2 Telecommunications

There are no known telecommunication cables within the site of the proposed development. While it is unlikely that there will be any underground telecommunication services encountered during the construction works (as the site is greenfield agricultural land), there is still a possibility that an issue may occur while carrying out works, particularly at the site boundaries. The breaking of an underground telecommunication cable during construction operations could potentially result in disruption to businesses and homes in the area. A map of all existing telecommunication cables in the vicinity of the site is provided in Appendix 12-2 of this EIAR. All proposed works for the project have been designed to avoid these services as much as possible.

12.2.4.3 Gas

There are no major gas lines on the site of the proposed development. While it is unlikely that there will be any underground gas services encountered during the construction works (as the site is greenfield agricultural land), there is still a possibility that an issue may occur while carrying out works, particularly at the site boundaries. Rupturing an underground gas line during construction operations could potentially result in serious injury or death of site staff, and/or disruption to local services. A map of all existing gas services in the vicinity of the site is provided in Appendix 12-2 of this EIAR. All proposed works for the project have been designed to avoid these services as much as possible.

12.2.4.4 Water Supply

There are no major water pipelines within the boundaries of the site of the proposed development. While it is unlikely that there will be any water mains encountered during the construction works (as the site is greenfield agricultural land), there is still a possibility that an issue may occur while carrying out works, particularly near the site boundaries. Rupturing a water main during construction operations could potentially result in disruption to local supply. A map of the existing water supply network in the vicinity of the site is provided in Appendix 12-2 of this EIAR. All proposed works for the project have been designed to avoid this network as much as possible. The project has received a confirmation of feasibility for connection to Irish Water assets.

12.2.4.5 Sewage

There are no major sewage network pipelines within the boundaries of the site of the proposed development. While it is unlikely that there will be any unexpected sewer pipes encountered during the construction works (as the site is greenfield agricultural land), there is still a possibility that an issue may occur while carrying out works, particularly near the site boundaries. Unexpectedly breaking a sewer pipe during construction operations could potentially result in disruption to local services, and a risk to the health and safety of site workers. A map of the existing sewage network in the vicinity of the site is provided in Appendix 12-2 of this EIAR. All proposed works for the project have been designed to avoid this network as much as possible. The project has received a confirmation of feasibility for connection to Irish Water assets outside the development.

12.2.4.6 Land Use

The subject site is currently in use for extensive pastoral livestock grazing. The current statutory planning policy document for the subject lands is the Athlone Town Development Plan 2014-2020 (ATDP). The plan is generally supportive of high-quality residential development provided they adhere to the sustainable development and proper planning of the area and several objectives and policies support this. The subject lands are zoned as a matrix of open space and low to medium density residential.

The proposed development will assist Westmeath County Council in meeting its commitment to provide for residential development and for associated support development, which will ensure the protection of existing residential amenity and will contribute to sustainable residential neighbourhoods.

The proposed scheme includes a series of measures to encourage/increase the use of public transport, walking and cycling for residents, staff and visitors and for work-related travel and to facilitate travel by bicycle, bus and train.

In summary, it is submitted that the proposed development results in a development which accords fully with the proper planning and development of the area while providing an attractive, high quality, contemporary development which enhances the development of the area.

12.2.4.7 **Waste Management**

As with any project of this scale, there will be significant volumes of waste produced, both during the construction and operational phases. For the construction phase, a project specific Waste Management Plan (WMP) will be adhered to by all Subcontractors / Specialists and all other site personnel involved in the project. The WMP will be explained during the induction process for all site personnel. The waste hierarchy will always be employed to ensure that the least possible amount of waste is produced during the construction phase. Reuse of certain types of construction wastes such as broken rock will cut down on the cost and requirement of raw materials therefore further minimising waste levels. The WMP outlines the methods of waste prevention and minimisation by recycling, recovery and reuse at each stage. Recycling of waste will be the preferred option with disposal of waste to landfill minimised as much as possible. Further details on waste management for the project during both the construction and operational phases are provided in Chapter 3 of this EIAR, and in Appendix 3-2 of this EIAR.

12.2.5 **Likely and Significant Impacts and Associated Mitigation Measures**

12.2.5.1 **Do-Nothing Impact**

The site currently comprises greenfield land which is used for pastoral grazing. Should the proposed development not proceed the current state of the site will not change materially. The potential impacts are considered imperceptible.

12.2.5.2 **Construction Phase**

The construction of the proposed development will have no impact on above ground or underground telecommunications networks.

There are over ground electricity cables within the site boundaries. These will need to be re-routed around the site based on ESNB design and approval.

There are no known services existing beneath the proposed development, however, there is the potential for brief nuisance to users of local networks and services that may be accommodated underground near the site boundary. The overall proposed development will have a temporary potential negative impact.

Mitigation

Specific measures are incorporated into the Construction and Environmental Management Plan, included as Appendix 3-2 of this EIAR, to ensure that the construction of the proposed development will not have any adverse effect on any service networks in the vicinity. The mitigation measures include the following:

- Any area where excavations are planned will be surveyed and all existing services will be identified prior to commencement of any works.

- Liaison will be had with the relevant sections of the Local Authority including all the relevant area engineers to ensure all services are identified.
- Excavation permits will be completed and all plant operators and general operatives will be inducted and informed as to the location of any services.
- The contractor must comply with and standard construction codes of practice in relation to working around electricity, gas, water, sewage and telecommunications networks.

Residual Impacts

There will be an overall imperceptible impact on electricity, gas, water, sewage and telecommunications networks.

Significance of Effects

Based on the assessment above there will be no significant effects.

12.2.5.3 **Operational Phase**

There will be no operational phase impacts or associated effects on electricity, gas, water, sewage and telecommunications networks associated with the proposed development. There will be a moderate positive impact on land use at the site, as the current agricultural use on the site will change to what it is zoned for, providing a location for housing.

12.2.5.4 **Decommissioning Phase**

The proposed development will become a permanent part of the local housing supply, and therefore the requirement for decommissioning is not foreseen. There is therefore considered to be no potential for impacts on non-traffic material assets.

12.2.5.5 **Cumulative Effects**

The potential cumulative impacts and associated effects between the proposed development and the projects described in Section 2.6.2 of this EIAR, hereafter referred to as the other projects, have been considered in terms of telecoms and other services.

The measures outlined above, and in the Construction and Environmental Management Plan (CEMP), included as Appendix 3-2 of this EIAR, will eliminate any potential for cumulative effects in relation to electricity, gas, water, sewage and telecommunications networks during the construction phases of the proposed development and the other projects.

There will be no cumulative operational phase effects in relation to electricity, gas, water, sewage and telecommunications networks. There will be a positive cumulative impact on land use in the area when the proposed development is considered with the projects listed in Section 2.6.2 of this EIAR.

12.2.6 **Summary & Conclusions**

12.2.6.1 **Summary**

There are a number of services located in the area surrounding the site including electricity, gas, water, sewage and telecommunications networks. An electricity line runs through the site and it is planned to reroute this subject to ESBN recommendations. Best practices will be implemented to ensure that there are no impacts on these services, and to ensure safety of the site workers. Increased public access to the site facilities and amenities benefit both the local community and wider town. Site specific Waste Management Plans will be in operation through the construction and operational phases.

12.2.6.2 **Conclusion**

Based on this assessment it is considered that the traffic generated by the proposed development will be accommodated on the local highway network in the vicinity of the site. There will be no significant impacts on electricity, gas, water, sewage and telecommunications networks as a result of the proposed development. There will be a significant positive impact on land use.