

COMHAIRLE CONTAE LAOISE

LAOIS COUNTY COUNCIL



ROADS & PARKING STANDARDS

FEBRUARY 2007

ROAD DESIGN
PLANNING AND ROADS

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AMENDMENTS

This document may be subject to amendment as required under the instruction and sanction of the Laois Roads Senior Engineer and/or the Laois Road Design Senior Executive Engineer.

1. Car Parking Standards

TABLE 1.1. CAR PARKING STANDARDS

DEVELOPMENT	PARKING REQUIREMENT
Town Centre Apartments / Mews Type developments	1.25 per unit
Townhouse	1 per unit
Suburban House or apartment	2 per unit
Shop < 250 sq.m.	1 space per 25 sq.m.
Shop > 250 sq.m.	1 space per 20 sq.m.
Large stores > 1000 sq.m.	1 space per 30 sq.m.
Banks Financial Institutions	1 space per 20 sq.m.
Offices	1 space per 10 sq.m.
Industry / Manufacturing	1 space per 50 sq.m.
Warehousing	1 space per 100 sq.m.
Theatre/Cinema/Church/Stadium	1 space per 3 seats
Hotels Guest Houses (excluding function rooms)	1 space per bedroom
Public Houses / Lounge Bars	1 space per 10 sq.m.
Restaurants	1 space per table
Function Rooms/Dance Halls/ Clubs	1 space per 3 sq.m.
Playing Fields	15 spaces per pitch
Primary Schools	2 spaces per classroom
Secondary Schools	2 spaces per classroom
Nursing Homes	1 space per 2 bedrooms
Hospitals	1 space per bed
Childcare Facilities	1 space per staff member plus 1 space per 4 children
Clinics and Group Medical Practices	2 spaces per consultant/practitioner

TABLE 1.2. CAR PARKING DIMENSIONS

Car Parking Bay	5m x 2.5m
Car Parking Bay (Disabled User)	5m x 3.75m
Loading Bay	6m x 3m
Circulations Aisles	6m wide

All car parking areas will be required to have a durable, permanent surface with bays and aisles adequately lined and lit, with provision for surface water drainage. Suitable provision for landscaping and screening shall be made.

2. Visibility Standards

2.1 Visibility Standards for Rural Sites

Figure 2.1a shows the desired minimum sight triangles joining the public road.

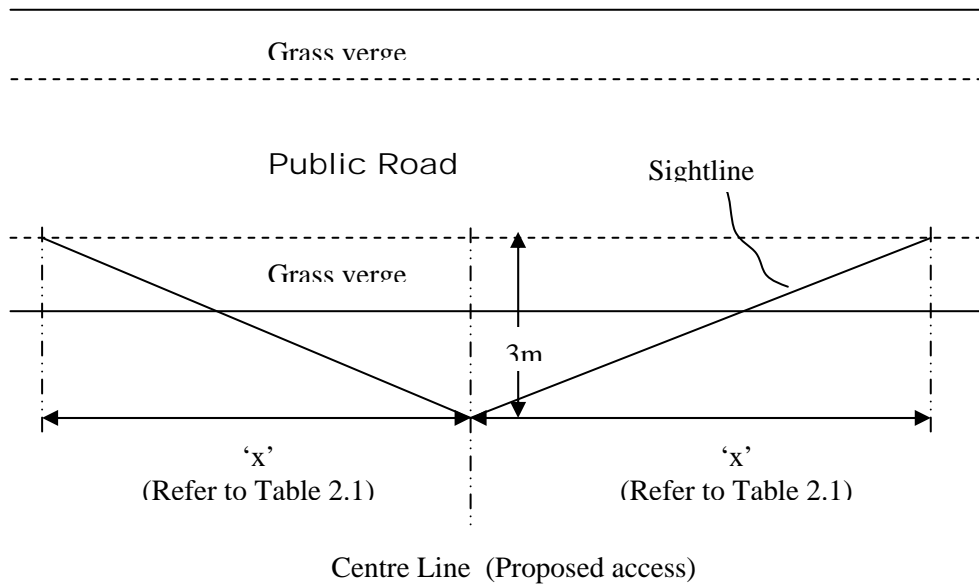


Figure 2.1a Desired minimum sight triangles – dimension 'x' joining public road

Figure 2.1b shows the desired minimum sight triangles joining a public road with hard shoulders.

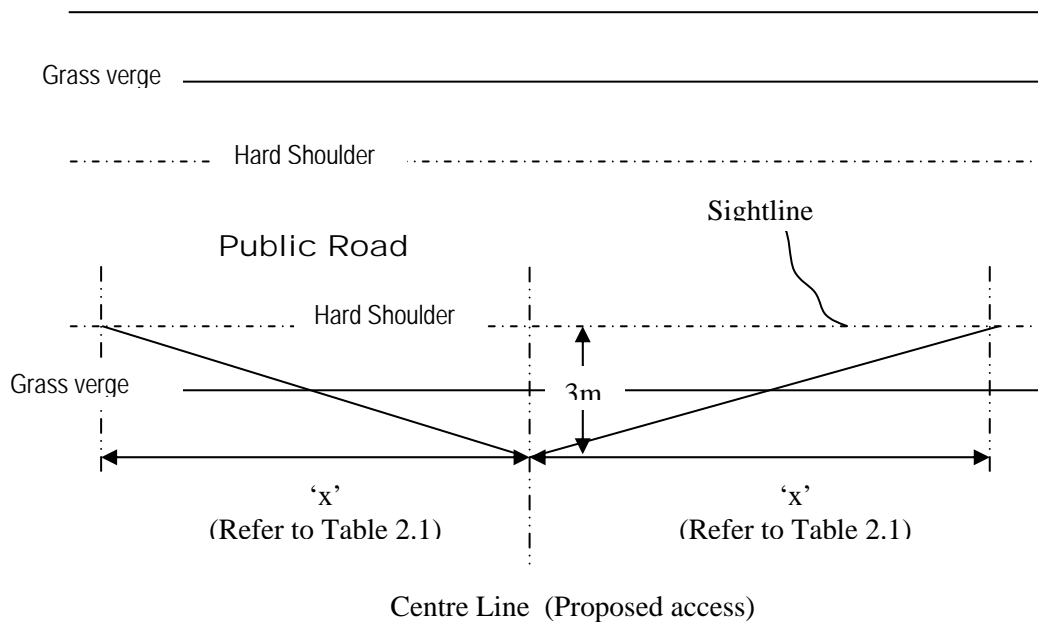
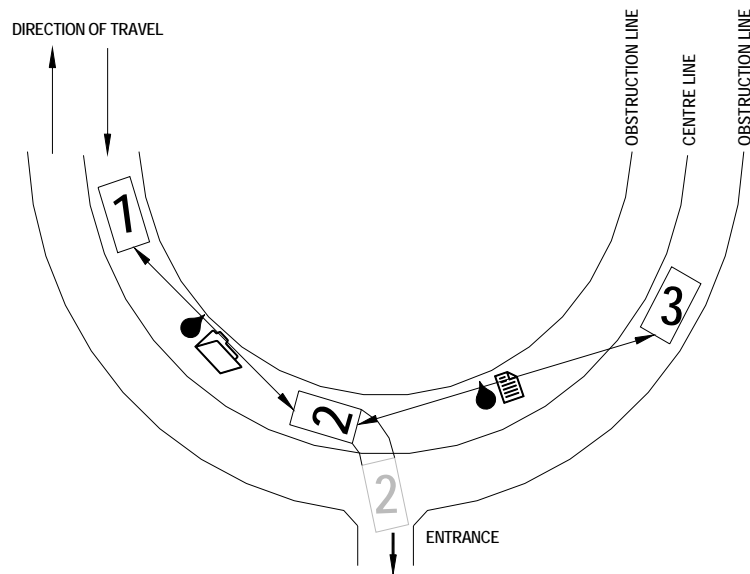


Figure 2.1b Desired minimum sight triangles – dimension 'x' joining public road with hard shoulders.

Figure 2.2 shows the desired minimum sightlines when turning right off the public road into the entrance.



- 1: Vehicle 1 travelling in left lane towards Vehicle 2
 - 2: Vehicle 2 stationary waiting to turn right into entrance
 - 3: Vehicle 3 travelling in opposing direction to that of Vehicles 1 & 2
- S1 & S2: Minimum sight distance required (refer to Table 2.2). The sightline must be an unobstructed line of sight.

Figure 2.2 Desired minimum sightlines, S1 & S2, for vehicles turning right off public road into the entrance

At the proposed entrance the driver joining the road or turning right into the entrance shall be able to have full-unobstructed vision along the required sight line distance. The line of vision **must**, without exception, lie within the curtilage of the site and the public road. The driver must be able to have full vision along the required sight line distance from a driver's eye height of 1.05m to an object height of 1.15m.

TABLE 2.1 – DIMENSION ‘X’ REFERRED TO IN FIGURE 2.1A AND FIGURE 2.1B.

County Road	Speed Limit (Km/h)	Design Speed (Km/h)	Dimension ‘x’ metres
National Primary	100	100	No New Development Allowed
National Secondary	100	100	N/A* (see footnote)
Strategic Regional	80	85	N/A* (see footnote)
Regional	80	85	160
Strategic Local Primary	80	85	160
Local Primary	80	70	120
Local Secondary	80	60	90
Local Tertiary	80	50	60

*This restriction will not necessarily apply in certain specific cases as outlined in the county development plan. In such cases the dimension ‘x’ is 215m for National Secondary roads and ‘x’ is 180m for Strategic Regional roads.

In certain cases where there are extenuating circumstances and where there is no alternative road frontage available, relaxations in relation to sight distances will be considered subject to the approval of the Senior Executive Engineer. These relaxations will not compromise the safety of any road user. These relaxations will not apply in the case of Strategic Regional or National Secondary Routes.

TABLE 2.2 – DIMENSIONS S1 & S2 REFERRED TO IN FIGURE 2.2.

County Road	Dimension S1 metres	Dimension S2 metres
National Primary	No New Development Allowed	No New Development Allowed
National Secondary	215	215
Strategic Regional	180	180
Regional	160	160
Strategic Local Primary	160	160
Local Primary	120	120
Local Secondary	90	90
Local Tertiary	60	60

Strategic Regional roads are listed in Table 2.3. Strategic Local Primary roads are listed in Table 2.4.

TABLE 2.3. STRATEGIC REGIONAL ROADS IN LAOIS

Road No.	Road Description
R419	Junction with R445 (Rathbrennan) to County Boundary (Portarlington)
R420	Junction with R419 (Portarlington) to Junction with N7[R445] (Killinure)
R421	County Boundary (Ballynahown) to Junction with R422 (Coolagh Cross Rds)
R422	Junction with R421 (Coolagh Cross Rds) to Junction with N7[R445]
R423	Junction with N7[R445] (Mountrath) with Junction with N80 (Derryclooney)
R425	Junction with N8 (Abbeyleix) to Junction with R445 (Rathbrennan)
R427	Junction with R425 (Cashel) to Junction with N80 (Stradbally)
R428	Junction with N80 (Stradbally) to County Boundary (Blackford)
R430	Junction with N7[R445] (Mountrath) to County Boundary (Carlow)
R433	Junction with N8 (Abbeyleix) to County Boundary (Knockahaw)
R434	Junction with N7[R445] (Derrin Cross Roads) to Junction with N8 (Durrow)
R435	Junction with N7[R445] (Borris-in-Ossory) to County Boundary (Rossdaragh)
R445	Junction with N7[R445] (Clonboyne) northwards to County Boundary (Killinure)

TABLE 2.4. STRATEGIC LOCAL PRIMARY ROADS IN LAOIS

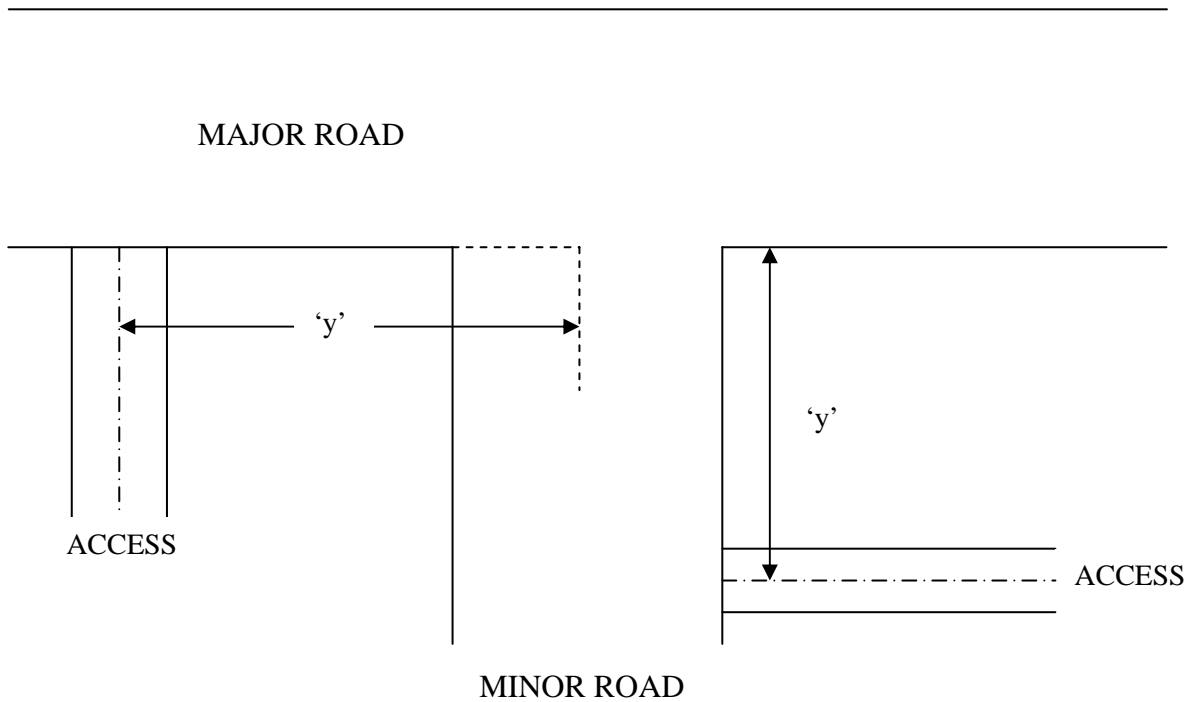
Road No.	Road Description
L-7156-27	Junction with N7 (Ballybrittas) to intersection with L-3171-0 (Ballybrittas)
L-3171-0	Intersection with L-7156-27 (Ballybrittas) to intersection with L-3159-0 (Ballybrittas)
L-3170	Intersection with L-3159-0 (Rathleash) to junction with R420 (Cooltederry)
L-3159	Intersection with L-3170 (Rathleash) to intersection with L-3171-0 (Ballybrittas)
L-3158	Junction with R419 (Ballymorris) to junction with R420 (Bracklone)
L-3930	Junction with N7 (Cappakeel) to Junction with R427 (Vicarstown)
L-3838	Junction with R426 (Timahoe) to junction with N80 (Stradbally)
L-3976	From County Boundary (Garroonagh) to County Boundary (Graigue)
L-3920	From County Boundary (Graigue) to County Boundary (Clogrenan)
L-2013	Junction with R422 (Rosenallis) to Junction with N80 (Moneyquid)
L-2059	Junction with N80 (Nyra) to junction with R423 (Camcloon)
L-2112	Junction with R423 (Ballyfin) to junction with N80 (Portlaoise)
L-1050	Junction with N7 (Ballaghmore) to intersection with L-1033 (Marymount)
L-1033	Intersection with L-1050 (Marymount) to intersection with L-1031 (Longford Cross Rds)
L-1031	Intersection with L-1031 (Longford Cross Rds) to intersection with L-1037 (Tinnakill)
L-1037	Intersection with L-1031 (Tinnakill) to L-1038 (Derrynaseera)
L-1038	Intersection with L-1037 (Derrynaseera) to L-5070 (Glebe)
L-1059	Intersection with L-5070 (Glebe) to junction with N7 (Pike-of-Rushall)
L-1596	Junction with N7 (Aghafin) to junction with R433 (Coolkerry)
L-1558	Junction with R435 (Rathdowney) to junction with N8 (Cullahill)
L-1575	Junction with R433 (Oldglass) to County Boundary (Oldtown)
L-1640	Junction with R433 (Redhouse Cross Rds) to junction with R434 (Coolnabehy)

2.2 Visibility Standards for Urban Sites

For developments requiring access onto urban county roads where the 60kph speed limit applies the desired minimum dimension 'x' referred to in Figure 2.1a and Figure 2.1b above is **90m**.

For developments requiring access onto urban county roads where the 50kph speed limit applies the desired minimum dimension 'x' referred to in Figure 2.1a and Figure 2.1b above is **50m** where possible.

3. Distance from Junctions



Dimension 'y' is measured from the centreline of the proposed access road.

Figure 3.1 Distance of proposed entrance from junctions.

TABLE 3.1 – DIMENSION 'Y' REFERRED TO IN FIGURE 3.1.

Access onto	Access distance from junction
County Road	75m
Regional Road	100m
National Road	150m

4. Building Lines and Fence Lines

Building lines and fence lines should allow for future road development.

It is the policy of the council that permitted developments along the different class of roads conforms to the following guidelines.

TABLE 4.1 – MINIMUM DESIRED BUILDING LINES AND FENCE LINES

Road Category	Min. Distance between Building Line & Fence Line	Min. Distance between Fence Line & Road Centreline
County Road	20m	5m
Regional Road	25m	7.75m
National Road	30m	8.25m
Motorway	100m	N/a

All development proposals will be checked for conflict with proposed road realignments and road widening lines. Development proposals within the curtilage of the proposed M7 and M8 motorway corridor shall be referred for recommendation to the National Roads Project Office, Clonkeen, Portlaoise, Co. Laois.

5. Surface Water Drainage

The discharge of surface water to foul sewage systems will not be permitted.

In general and where possible surface water will be required to discharge to a watercourse or surface water drain.

The discharge of surface water from roofed and paved areas onto the public road will not be permitted.

Adequate provision shall be made for the disposal of surface water and no development shall be permitted to interfere with the existing road drainage system.

Existing road drainage shall be incorporated into any new surface water drainage system along the site boundary adjacent to the public road.

Development will not be permitted within flood plains of rivers.

Adequate provision shall be made for the disposal of surface water runoff from the public road in the hydraulic calculations submitted.

5.1 Single Private Dwelling

Surface Water Drainage: Information Required	
Layout	A plan showing the layout of the proposed storm water system to collect all flows from paved and roofed areas and the public roads.
Interception	Details of the method of interception of storm water on the access road and drive ways and the public roads.
Details	Details of the proposed storm water sewer system showing gradients and pipe sizes.
Calculations	In the case where the topography of the proposed site is such that it slopes towards the road, detailed calculations as to how the subsequent run off from the site onto the road shall be disposed of are required.

Where it is not practicable to discharge surface water to a watercourse or surface water drain, recommendation may be given to the use of a soak pit subject to the approval of the following supporting information to be supplied by the Applicant:

1. Details of soil type.
2. Details of construction including specification of the fill material and separating membrane.
3. Plan and cross section of the soak pit.
4. Details correlating the dimension of the soak pit to expected storm water flows.
5. Details of the prevailing water table.
6. Contour survey map of the site.

Soak pits shall be designed in accordance with BRE Digest 365 Soakaway Design.

5.2 Housing Estate / Commercial / Industrial Development

Developers shall submit proposals for Sustainable Drainage Systems (SuDS) to control the quantity and quality of surface water arising on the proposal site. Refer to Laois County Council Storm Water Management Policy document for further information on SuDS.

The Developer must submit on a Compact Disc all digital information pertaining to the design of the roads and storm water network. This data must be capable of being read using AutoCAD2000 software and be referenced to the National Ordnance Survey grid and Malin Head Datum. The application will not be considered otherwise.

As constructed drawings shall be provided as phases of the development is completed giving details of all roads and sewers.

Surface Water Drainage: Information Required	
Layout	A plan showing the layout of the proposed SuDS.
Details/ Sections	<p>Longitudinal sections of the proposed SuDS showing levels, gradients, sizes, types and classes of pipe, types of bedding, haunch and surround.</p> <p>On plan and longitudinal section show crossings and / or points of conflict of all utilities.</p> <p>On plan show outfall points or connections to existing sewers or other watercourses giving details of invert levels, diameters, and gradient of the existing sewer network or watercourse.</p>
Hydraulic Analysis	<p>Hydraulic analysis of the proposed SuDS for the development.</p> <p>The following parameters shall be used in the hydraulic analysis:</p> <ul style="list-style-type: none"> - Rainfall Intensity: Appropriate site specific metrological data from Met Éireann / Office of Public Works. - Time of Entry: 4 minutes - Contributing Areas: <ul style="list-style-type: none"> All Roofed & Paved Areas: 100% Impermeable Open Spaces & Grass Margins: 10% Impermeable - Pipe Flow Velocity Range: 0.8m/sec-3.0m/sec <p>Surface water drainage sewers shall be designed to cater for a storm return period of a 1 in 5 year storm.</p> <p>Hydraulic analysis of the public storm sewer external to the</p>

	<p>development to receive the storm water flows, demonstrating the spare capacity of the public sewer and the flow rate from the development.</p> <p>In the case where it is proposed to discharge storm water flows to a watercourse, hydraulic catchment analysis and flood history of the watercourse. Flood history of the watercourse includes: Report known peak water levels in the watercourse channel, Report on physical evidence of flooding and overtopping of watercourse channel, Report on any erosion of watercourse upper-banks, Report on local knowledge about flooding of adjoining crop or grass fields, The applicant (and his/ her agent) is responsible for the accuracy and reliability of the flood history data supplied about this watercourse to receive attenuated surface water flows. Laois County Council will not be liable for any action or complaint brought against it on account of erroneous or misleading flood history data supplied by the applicant in fulfilment of the planning application for the site.</p> <p>Applications requiring OPW consent under Sections 47 or 50 of the Arterial Drainage Act 1945 shall include the required consent.</p>
SuDS Features	<p>The developer shall provide details of the size, type, construction, specified performance and maintenance requirements of these systems. Full sizing calculations must be provided for all SuDS features and for the entire Stormwater Management System. Attenuation tanks shall be of concrete construction and shall facilitate maintenance access. The discharge rate at outfall shall be calculated in accordance with the Storm Water management Policy standards laid down by the Council.</p>
‘Way-Leave’	<p>Details of legal ‘way-leave’ agreement(s) if required.</p>
Oil/Petrol Interceptors	<p>Surface water run-off from all paved areas for garages, petrol stations and industrial sites or any other site deemed necessary by the Road Design Office shall pass through an approved interceptor.</p>

The minimum diameter of storm sewer drainage pipe shall be **225mm**.

The minimum pipe diameter connecting to a gully shall be **150mm**.

The maximum depth trench for a storm sewer pipe shall be **4.5m** below ground level.

The minimum cover to a storm sewer pipe, ground level to the outer crown of pipe, shall be **0.6m**.

Cover to storm sewer pipes for housing estates will be required to comply with the requirements set out in the current “Recommendations for Site Development Works for Housing Areas” published by the Department of Environment & Local Government.

6. Access Roads

6.1 Housing Estate / Commercial / Industrial Development

Road design and construction for housing estates will be required to comply with the requirements set out in the current “Recommendations for Site Development Works for Housing Areas” published by the Department of Environment & Local Government, “Road Geometry Handbook” published by the National Roads Authority and “Traffic Management Guidelines Manual” published in 2003 by the Department of Environment & Local Government and Dublin Transportation Office.

The roads layout plan should demonstrably provide for traffic calming with a plain hierarchy of roads, sufficient and safe pedestrian, cyclist and mobility impaired facilities and proposals for fully standardised road markings and signage. The hierarchy of roads may range from short cul-de-sac to wider distributor roads and where the safety of the public receives precedence. Individual dwelling entrances will not be permitted onto major distributor roads.

Speed restraint measures should reduce speeds over distances that drivers would find acceptable and ensure that accelerating and braking vehicles do not create additional hazards and that unexpected conditions are not met by pedestrians, cyclists or drivers. Recommended measures include short cul-de-sacs, offsets, junctions and small radius bends to provide changes in the horizontal alignment of the carriageway. Road humps are not recommended for new estate roads. Speed tables or raised junctions should be combined with the other measures described above.

Estate **access** roads serving as arterial / collector road are required to be 6.0m wide to allow vehicles to pass each other. Separate cycle facilities shall be provided alongside these roads.

Cul-de-sac **spur** roads, leading off the collector access road, are required to be 5.5m in width. These roads may be shared with cyclists without the need for a separate cycle lane.

Cycle lane shall be 1.5m in width and may be shared with the footpath provided the shared surface is 3m in width with 1.5m for each use. In a shared surface arrangement the cycle lane shall be segregated from the footpath with a white centreline or differing surface treatment for each use. Appropriate signs must be provided. Headroom shall be at least 2.1m. At entries to roads dropped kerbs shall be provided and entries shall be at 90 degrees. Visibility shall be maintained along the cycle lane.

The roads proposals must also provide the horizontal and vertical alignment of the junction of new access point(s) onto the public road(s) with adequate visibility. The entrance must cater for fire appliances and other and emergency vehicles.

The road layout must provide acceptable direct access routes to community facilities or other utility buildings within the curtilage of the site.

Cross roads are discouraged on access roads. The staggering of junctions or provision of an island is recommended. Right-left staggers are recommended and the stagger distance should be at least one-carriageway in width.

Visibility must be maintained across bends and along the carriageway edge. Visibility must be maintained from driveways to footpaths.

Footpaths shall be dished with appropriate tactile paving at road junctions to facilitate access for people with disabilities. Appropriate tactile paving shall also be provided elsewhere in accordance with “Guidance on the use of tactile paving surfaces”, Department of the Environment, Transport and the Regions.

Street lighting for roads, footpaths and other public paths shall be provided in accordance with relevant ESB standards and as per section 5 of the Recommendations for Site Works for Housing Areas.

Car parking needs shall be in accordance with the current development plan Car Parking Standards. Car parking provision shall be safe, secure, adequate and convenient for residents, visitors and service vehicles. Each residential unit shall have parking facilities provided in accordance with the Car Parking Standards.

Refuse and service vehicles should not have to reverse.

Parking facilities for apartment complexes should be self sufficient in parking provision within curtilages and within view and convenient parking for visitor and delivery / service.

In respect of roads design the Developer shall submit the following information.

Ground investigation information for the road bearing strata in the form of California Bearing Ratio measured in situ and in the laboratory. The road pavement design shall be based on the California Bearing Ratio soil test results.

6.2 Single private dwelling

Road Gradients for single private dwellings: Longitudinal gradients from the dwelling to the entrance gate(s) must not exceed 8.5% (1:12). Longitudinal gradients from the entrance to the road edge must not exceed 5% (1:20). All longitudinal gradients must be greater than 0.5%.

7. Road Safety Audits

The primary purpose of Road Safety Audit is to identify potential road safety hazards within the scheme design. Road Safety Audit should not consider structural safety. Road Safety Audit should consider only those matters that have an adverse effect on road safety. Road Safety Audit is not a check of compliance with design standards.

Road Safety Audit should consider road safety under all operating conditions.

Recommendations for dealing with identified road safety hazards should make allowance for the fact that strategic decisions on route choice and junction type reflect a balance of factors including safety.

Within the Planning process, at the pre-planning application discussion, the developer can discuss Road Safety issues with the Council where appropriate.

With respect to applications for full planning permission, the criteria to be used in deciding if a Road Safety Audit is required in respect to a new development is set out in Table 7.1. Any scheme meeting one or more of these criteria shall be submitted to the Road Safety Audit process.

Roads Safety Audit reports shall be submitted for approval at the following stages: -

A Stage 1 Road Safety Audit with the planning application.

A Stage 2 Road Safety Audit at the time of submission of the commencement notice.

A Stage 3 Road Safety Audit prior to Laois County Council taking the estate in charge.

Laois County Council does not require Road Safety Audits for outline planning applications or for schemes not meeting the criteria in Table 7.1

TABLE 7.1: CRITERIA FOR DETERMINING WHEN A DEVELOPMENT REQUIRES A SAFETY AUDIT

- Where there is a new access to the existing national primary, national secondary or regional road network as a result of the development other than single residential development.
- Where there is a new access to the remaining road network as a result of the development, and the daily flow is expected to exceed 500 vehicles per day or 50 vehicle movements in the peak hour;
- Where there is an intensification of an existing access on the road network as a result of the development, and the daily flow is expected to exceed 500 vehicles per day or 50 vehicle movements in the peak hour;
- Where there is change in junction control as a result of the development, e.g. a roundabout to traffic signals;
- For those developments where an EIA, EIS or TIA is required and where traffic growth on the adjacent roads is forecast to increase by over 5%, but a minimum of 500 vehicles movements per day;
- Where there is change to pedestrian and/or cycle routes as a result of the development, i.e. an increase in pedestrian or cycle flows by at least 5%, but a minimum of 50 per hour;
- For those developments where there is a significant change in modal split, e.g. an increase in heavy goods vehicles by 20%;
- For those developments where there is special consideration to road safety matters, where the development traffic could substantially affect a road with a sensitive existing land use type, e.g. a school or hospital;
- Where otherwise deemed necessary by the Planning Authority in the interests of road safety

Developers submitting schemes for planning approval are required to complete the Road Safety Audit process shown in the flowcharts 1 & 2.

Flowchart 1 and Flowchart 2 describe the role of the Road Safety Audit Procedures within the Planning process.

In developments, the intensification of use of existing access is normally preferable to the creation of new access onto a public road.

The developer is responsible for appointing a suitably experienced Road Safety Audit Team to undertake this work on developer-led schemes. The Road Safety Audit Team must be approved by the National Roads Authority as in accordance with the National Roads Authority (NRA) Design Manual for Roads and Bridges HD 19/04 (NRA DMRB HD 19/04). The Audit Team should list their experience within an appendix of their Road Safety Audit Report, and provide CV's for Audit Team members to the developer.

The Road Safety Audit Report, together with the developer's Exception Report and an Audit Team response, should be submitted as part of the planning application for the development.

If the developer fails to follow the Road Safety Audit Procedures Laois County Council will request a Road Safety Audit as part of its Additional Information requirement. Continued failure to follow the Road Safety Audit Procedures can result in refusal of development of road safety grounds.

Laois County Council will process the planning application in one of three ways. First, planning permission may be refused on road safety (or other) grounds. Standard road safety grounds for refusal are set out in Table 7.2. Second, planning permission may be granted, subject to special conditions being applied on road safety grounds. And third, planning approval may be granted without any special conditions being applied on road safety grounds.

In all cases where planning permission is granted for developments that have been subject to the initial Road Safety Audit process, the scheme will proceed subject to standard conditions to ensure that Road Safety Audits are carried out at subsequent stages of the scheme development. Standard conditions are set out in Table 7.2.

TABLE 7.2: STANDARD ROAD SAFETY GROUNDS FOR REFUSAL, AND STANDARD CONDITIONS FOR ACCEPTANCE OF DEVELOPMENT PROPOSALS

Standard grounds for refusal

- The development is not permitted because the developer has failed to comply with the Road Safety Audit Process requirements of Laois County Council

or

- The development is not permitted because following the adherence of the Road Safety Audit process, fundamental road safety issues remain. The issues have not been resolved, and it is therefore considered that were the development to go ahead in its present form it would pose a significant traffic hazard to road users.

Standard conditions of acceptance

- The development shall not commence until the Road Safety Audit Process has been carried out by the developer

and/or

- The development shall not open for the approved use intended by the developer until the Road Safety Audit Process has been complied with by the developer

and/or

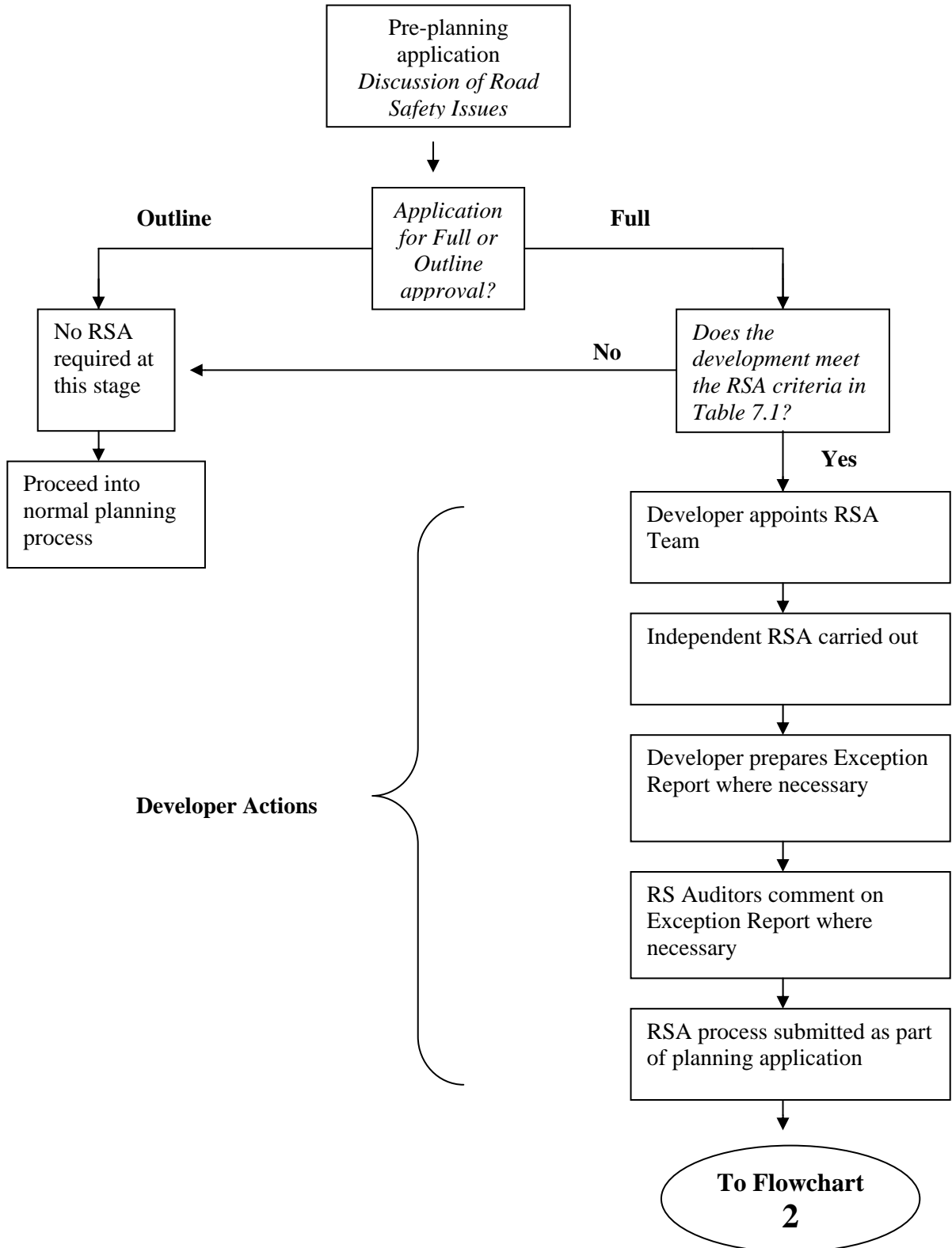
- The agreed recommendations from the Road Safety Audit Process must be completed by the developer to the satisfaction of Laois County Council, as the Roads Authority, before the public road hereby permitted is taken in charge by Laois County Council.

The scheme will be taken into charge by Laois County Council when each of the road safety issues raised during the Road Safety Audit process has been satisfactorily addressed.

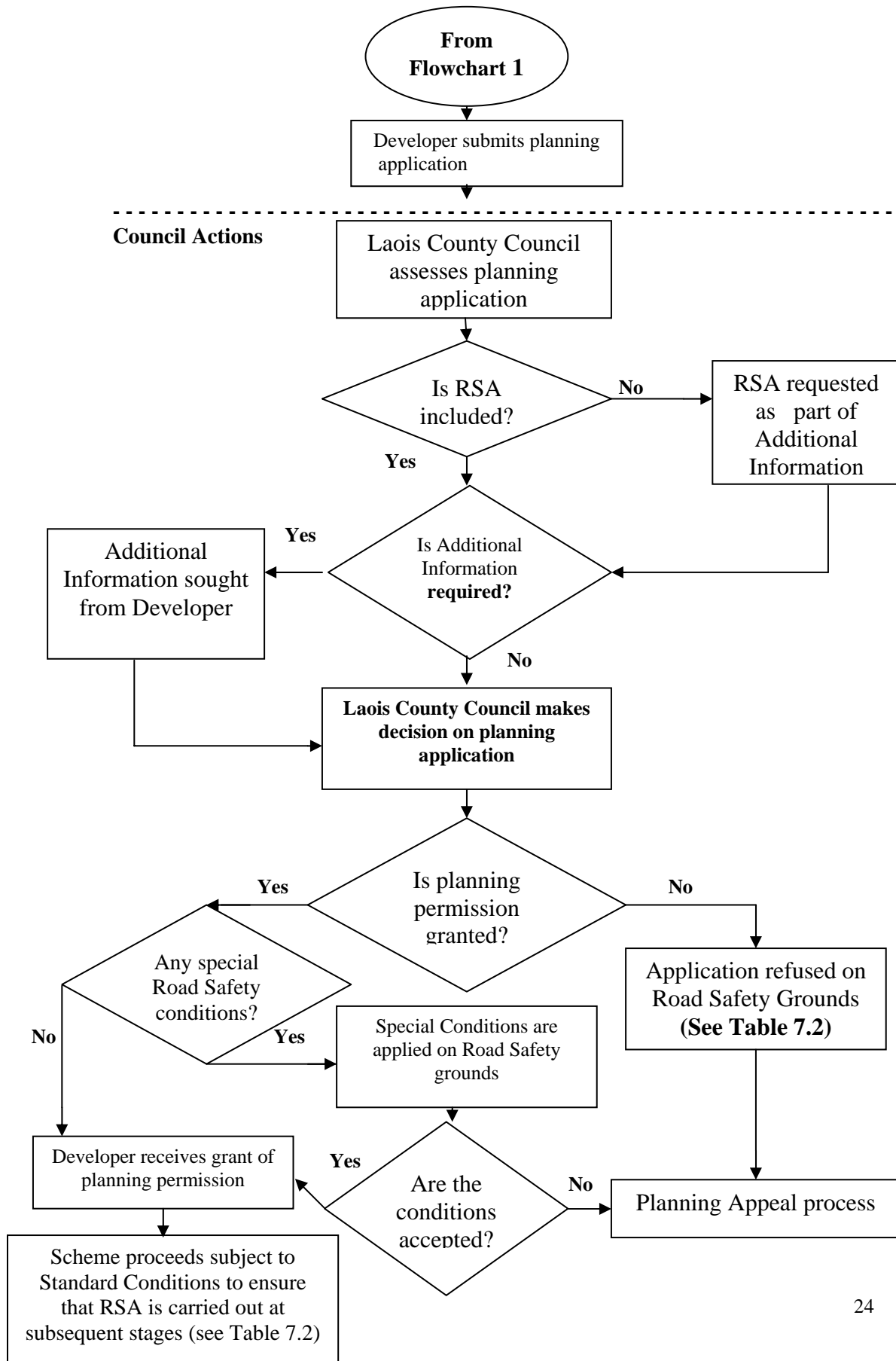
At all stages of Road Safety Audit, the Exception Report should clearly state which (if any) of the Road Safety Audit report recommendations have not been adopted, and provide reasons why recommendations have not been adopted. The Exception Report should also provide details of alternative proposals to Road Safety Audit recommendations where appropriate. The Road Safety Audit Report, the Exception Report, and the Auditors' response to the Exception Report should be submitted to Laois County Council at each stage of the Road Safety Audit process.

ROAD SAFETY AUDIT WITHIN THE PLANNING PROCESS

(Flowchart 1)



**ROAD SAFETY AUDIT WITHIN THE PLANNING PROCESS
(Flowchart 2)**



8. Traffic Impact Assessment

The primary purpose of the Traffic Impact Assessment Study is to

- Assess the volume of traffic likely to be generated by the proposed development
- Consider the impact of traffic generated by the proposed development.

A Traffic Impact Assessment Study will be carried out in accordance with Section 1.11 of the Traffic Management Guidelines [published by the DoELG, DOT and dto] in respect of the proposed development, to assess the impacts of the proposed development on the adjacent road network.

The Traffic Impact Assessment shall be presented in two reports. The first, a scoping report, will set out the methodology of the Traffic Impact Assessment Study and will be submitted for approval by the County Council before embarking on the traffic assessment study. The second report will be the final Traffic Impact Assessment Study and will deal with the issues arising from the scoping report. The framework of the scoping study shall be as follows:

- The size and nature of the development.
- The roads study area.
- The existing traffic patterns (based on Annual Average Daily Traffic calculations) within the roads study area.
- Traffic growth prediction across the local road network at
 1. day-of-opening flows and
 2. assessment year (15 years after year-of-opening).
- The level of development generated traffic (number of trips generated).
- The distribution of development generated traffic (trips) across the local road network.
- Junction assessment methodology.
- Analysis of adequacy (spare capacity and queue lengths) of the local road network without AND with the development at
 1. day-of-opening
 2. assessment year (15 years after year-of-opening)

9. Petrol Filling and Service Stations

The design and location of petrol filling and service stations shall meet the standards set out in the current “Road Geometry Handbook” issued by the National Roads Authority and the dangerous Substances Regulations 1979 (S.I. 311) relating to the storage of petrol.

No petrol filling station development shall be permitted to create a traffic hazard. Therefore the proposed traffic management arrangements for the petrol filling station development shall be the subject of an independent Safety Audit Stages 2 and 3, undertaken as prescribed in the “Design Manual for Roads and Bridges Ireland, HD 19/04 Road Safety Audits, 2004” published by the National Roads Authority. Also refer to HA 42/04 National Roads Authority Road Safety Audit Guidelines.

The developer must liaise with the Laois County Council Road Design Office and with Laois County Fire Officer in respect of the petrol station development proposal.