

P13

APPLICATION FOR RELEASE OF BOND



Comhairle Contae an Chláir
Clare County Council

PLEASE NOTE THAT BEFORE A BOND IS RELEASED, ALL ELEMENTS OF THE DEVELOPMENT (I.E. PUBLIC LIGHTING, ROADS AND FOOTPATHS, WATERMANS, SURFACE WATER SEWERS, FOUL SEWERS & OPEN SPACES) MUST BE COMPLETED TO THE REQUIRED STANDARD.

ALL SECTIONS OF THE FORM MUST BE COMPLETED

(September, 2008)

Introduction – Release of Bond

This document outlines Clare County Council's procedure for the release of bonds in respect of private housing developments. Certain private housing developments (e.g. apartment complexes etc.) will have a condition in the planning permission that a properly constituted management company be established for the purpose of maintaining the public lighting, roads, footpaths, parking areas, services and open spaces. The said public lighting, roads, footpaths, etc. shall be conveyed to the Management Company.

If a management company is proposed for a development, it will be a requirement of the planning permission that the roads, footpaths, services etc. are constructed in accordance with the technical standards outlined in this document. Any security lodged with the planning authority for such a development will not be released until the satisfactory completion of the works and the said roads, footpaths, services etc. are conveyed to the management company. The '**Inspection/Certification**' procedure as outlined at section 6 and the Programme as outlined at section 7 of this document will apply in respect of Management Companies.

1. Applications for Release of Bond

Those Developers/Applicants who apply to Clare County Council for the release of a bond in respect of a housing scheme / residential/commercial development, will do so in writing on the attached application form, normally through their architect/agent. The application should be accompanied by all particulars outlined in Appendix II attached.

Where the development has not been completed to the satisfaction of the planning authority and enforcement proceedings have been commenced then the release of bond procedure will not commence until the enforcement matters have been regularised.

2. Construction and Design Standards

The Planning Authority will set out by way of conditions those standards, which apply to particular developments and to distinct parts of the development, in accordance with the recommendations/guidelines from the Department of the Environment, Heritage and Local Government and/or other Government Departments. The attached General Conditions and Standards (Appendix II) in respect of public lighting, roads and footpaths, water and sewer services and open spaces must be adhered to in respect of all residential developments.

3. Development Management

Developers will be required to complete residential developments to a standard that is in compliance with the planning permission granted.

Section 34 of the Planning and Development Act 2000 as amended by Section 23 of the Planning & Development (Amendment) Act 2010 provides the legislative basis for attaching conditions to planning permissions. Appropriate conditions will be attached to grants of permission for residential development in relation to for example:

- The giving of adequate financial security (S.34 (4)(g))
- The facilitation of inspections by the planning authority
- The phasing of the development, if appropriate (S.34 (4)(h))
- The completion of the development in accordance with specified standards

- The evidence to be produced by the developer to demonstrate that the residential development has been completed to the appropriate standards (see section 4.2) and the time period for the production of such evidence

4. Financial Security/Bond

As stated above, in the case of residential developments, a planning condition will be applied that will require the submission of a security, either through the lodgement of a bond from a financial institution or a cash deposit, that will be held by the planning authority to ensure the satisfactory completion of the development. Where a development is not completed to a satisfactory standard, the planning authority will hold this security until the development is completed to the required standard. When a development is completed to the satisfaction of the planning authority the security will be released.

5. Phasing of Development.

Where necessary, the planning authority will attach a condition in respect of the phasing of the development to ensure that all residents do not have to live in uncompleted developments for long periods.

6. Inspection of Construction

To facilitate the timely completion of a development, the Council will utilise an 'Inspection/Certification' procedure whereby a self-certification process would be put in place by the Developer. An outline of the process is set out below.

A series of interim certificates will be submitted to the Council (7 plus one on final completion), in relation to various aspects of the infrastructural works on the development, as each phase / stage of the development is completed.

The stages can be categorised as follows:

Stage	Works
1	Made up ground (greater than 0.5m depth)
2	Water Supply, Foul and Storm Water Drainage systems prior to backfilling
3	Roads and Footpaths construction layers excluding final macadam wearing course where appropriate
4	Road construction final wearing course, service chambers and covers
5	Public Lighting
6	Landscaping, boundaries, street markings and street furniture
7	Compliance with Planning Permission
8	Final completion of scheme or phase of scheme

'Inspection/Certification' Procedure

The following are the various steps required

- (i) The commencement notice and all requests for inspections and other correspondence arising from the process are formally acknowledged;
- (ii) A calendar of inspections, tied to the projected completion of the development, including such phasing as may be conditioned in

the Grant of Permission or as agreed by the planning authority, is set out in the Release of Bond file at the outset;

- (iii) An **‘Inspection/Certification’** procedure whereby a self-certification process will be put in place subject to a number of requirements as set out hereunder will apply in respect of residential developments.
- (iv) In accordance with the process, a series of interim certificates will be submitted to the Council, in relation to various aspects of the infrastructure works on the housing estate development, as each stage of development is completed (8 stages in total).
- (v) The works are to be certified by an independent Chartered Engineer / Consultant approved by the local authority before the development commences.
- (vi) Work should be certified within one week of an item or element being completed, with regular inspections taking place.
- (vii) The certificates should be submitted to the County Council within 3 working days of signature.
- (viii) If the County Council do not raise any queries / issues in relation to this aspect of the works within a period of 6 weeks from receipt of the certificate, it will be accepted by both parties that the works in question are considered satisfactory.
- (ix) The nominated engineer / consultant must have satisfactory experience, and be fully bonded with Professional Indemnity Insurance in the sum of €2m. Evidence of such insurance shall be furnished to the Council
- (x) The Council may carry out random checks in addition to the above mentioned self-certification process. The Council will endeavour to make contact with the ‘nominated point of contact’ on behalf of the developer to facilitate any such random checks. The results of these checks will also be included on the ‘Release of Bond File’
- (xi) Copies of any test results, photographs, etc in support of the ‘works certificate’ are to be retained by the Certifying Engineer / Consultant and shall be available for inspection by Clare County Council for a period of 7 years.
- (xii) The Engineer shall not sign the certificate unless satisfied that adequate measures are in place by the Developer to protect any interim work pending overall completion of the estate.
- (xiii) Areas to be certified include roads / footpaths, public lighting water services, service chambers and covers, landscaping, fencing / boundary treatment etc.
- (xiv) The integrity of the Foul and Storm Water Drainage Systems shall be established by all necessary surveys including CCTV Survey.

7. Release of Bond Programme

The ‘**Inspection/Certification**’ procedure and/or independent inspections carried out by the Planning Authority will facilitate the process for release of a bond. The following programme will be followed,

- (i) Within three weeks from receipt of the application for release of bond, the Planning authority will acknowledge receipt of the application and the “as constructed drawings” and any other items as outlined on the Application form and in Appendix II.
- (ii) Within three months of receipt of application for release of bond, the authority will in conjunction with the developer, carry out a comprehensive inspection of the development or phase of development; taking into account any ‘interim certificates’ submitted and notify the developer in writing of all outstanding issues associated with the satisfactory completion of the development.
- (iii) The developer will within one month of receipt of details of outstanding issues from the authority, arrange for completion of the said works, and notify the authority when works are completed. If works cannot be carried out within that period the developer must notify the authority as to when the works will be completed.
- (iv) The authority will, within two months of being notified of completion of the works at (iii), arrange for final inspection of the estate to determine the satisfactory completion of the said outstanding issues as identified at (ii).
- (v) Upon final inspection of the estate or phase of the estate and satisfactory completion of the works, the authority will release that element of the security lodged to secure completion of the works.

8. Enforcement Action

The Planning Authority will carry out inspections to ensure that developments are being carried out in compliance with the planning permission granted. Where the development is not being carried out in compliance with the conditions or in conformity with the planning permission the Planning Authority will use all the remedies available to them under the Planning and Development Act 2000 to ensure the development is completed to a satisfactory standard.

9. Power to Refuse Planning Permission

Consideration will also be given to Section 35 of the Planning and Development Act 2000 as amended by Section 24 of the Planning & Development (Amendment) Act 2010 which gives the Planning Authority power to refuse planning permission to a developer who has substantially failed to comply with previous planning permissions. This power can now be applied without recourse to the High Court.

COMHAIRLE CHONTAE AN CHLÁIR CLARE COUNTY COUNCIL

APPLICATION FORM FOR RELEASE OF BOND

Developer's Name: _____

Developer's Address: _____

Telephone No: _____

Development Name: _____

Development Location: _____

Management Company Name & Address: (If Applicable): _____

Management Company Telephone No:

O.S. Map No: _____

Planning Reference Numbers: _____

Development Contribution Receipt Numbers: _____

Connection Fee Receipt Numbers: _____

No. of Houses: _____

No. of Apartments: _____

No. of Commercial Units: _____

As-Constructed Drawings Completed By: _____

Qualification: _____

Professional Insurance Indemnity Details: _____

Items Submitted with this Request Form: (Tick as appropriate ✓)

- 5 x Copies of As-Constructed Drawings (5 x Hard Copies & 2 x Diskettes)
- 2 x Copies CCTV Survey/Manhole Survey & Survey Report
- 4 x Copies of Public Lighting Design
- 4 x Copies of Wayleave agreements registered on the folio of the property outside the subject property (if applicable)
- Third Party Insurance Certificate
- Copy of Management Company Certificate

I, the undersigned hereby apply to have the bond in respect of the above named development released by Clare County Council.

Signed: _____ DATE: _____
DEVELOPER

PLEASE PROVIDE THE FOLLOWING DETAILS

1. **PUBLIC LIGHTING:**
No. of Public Lights: _____

Types of Lantern: _____

2. **ROADS AND FOOTPATHS:**
Length of Roadway: _____ (Metres)

Length of Footpath: _____ (Metres)

3. **WATERMAINS:**

Lengths(m)	Diameters(mm)	Material	Class
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

4. **FIRE HYDRANTS:**
Number of Fire Hydrants: _____

5. **FOUL SEWERS:**
Number of Foul Sewer Manholes: _____

Lengths(m)	Diameters(mm)	Material
_____	_____	_____
_____	_____	_____
_____	_____	_____

Pumping Stations (Please tick as appropriate) **Yes** **No**

6. **SURFACE WATER SEWERS:**
Number of S.W.S. Manholes: _____

Number of Road Gullies: _____

Lengths(m)	Diameters(mm)	Material
_____	_____	_____
_____	_____	_____
_____	_____	_____

7. **TREATMENT PLANTS (WATER AND WASTEWATER):**

Water Treatment

Plant Capacity: _____ m3/day

Water Source: _____

Treatment Plant Description:
Intake _____

Health and Safety (Hazard Identification and Risk Assessment): Yes No

Operations Procedures Manual: Yes No

Asset Register- Condition Report: Yes No

Equipment Supplier: _____

O & M Contract in place: Yes No

Waste Water Treatment Plant

Plant Capacity: _____ P.E.

Primary Treatment: _____ Yes No

Secondary Treatment: _____ Yes No

Tertiary Treatment: _____ Yes No

Receiving Waters : _____

Licence from EPA to Discharge to Receiving Waters: _____
Yes No

Health and Safety (Hazard Identification and Risk Assessment): Yes No

Operations Procedures Manual: Yes No

Asset Register- Condition Report: Yes No

O & M Contract in place: Yes No

Equipment Supplier: _____

8. **OPEN SPACES:**

Area(s): _____ (hectares)

STAGE CERTIFICATION

CERTIFICATE NO. 1

For the benefit of Clare County Council, this is to certify that the made up ground (greater than 0.5m depth) complies with the standards and requirements of this policy document.

Signed: _____ **Date:** _____
Third Party

Qualification: _____

Professional Insurance Indemnity up to €2,000,000 provided by

CERTIFICATE NO. 2:

For the benefit of Clare County Council, this is to certify that:

Sewers have been laid, backfilled, tested and passed in accordance with the requirements of Clause 3.20 of 'Recommendations for Site Development Works for Housing Areas' – Department of the Environment and Local Government (November, 1998).

Water Pipes have been laid, backfilled, tested, passed and sterilised in accordance with the requirements of Clause 4.18 of 'Recommendations for Site Development Works for Housing Areas' – Department of the Environment and Local Government (November, 1998).

All wayleaves as per items 8 and 11 of Appendix II, section A are registered (if applicable)

Signed: _____ **Date:** _____
Third Party

Qualification: _____

Professional Insurance Indemnity up to €2,000,000 provided by

CERTIFICATE NO. 3

For the benefit of Clare County Council, this is to certify that the roads and footpaths (up to final wearing course) comply with the requirements of this policy document.

Signed: _____ **Date:** _____
Third Party

Qualification: _____

Professional Insurance Indemnity up to €2,000,000 provided by

CERTIFICATE NO. 4

For the benefit of Clare County Council, this is to certify that the road construction final wearing course, service chambers and covers comply with the requirements of this policy document.

Signed: _____ **Date:** _____
Third Party

Qualification: _____

Professional Insurance Indemnity up to €2,000,000 provided by

CERTIFICATE NO. 5

For the benefit of Clare County Council, this is to certify that the public lighting has been designed and installed in accordance with the requirements of this policy document.

Signed: _____ **Date:** _____
Third Party

Qualification: _____

Professional Insurance Indemnity up to €2,000,000 provided by

CERTIFICATE NO. 6

For the benefit of Clare County Council, this is to certify that the landscaping, boundaries, street markings and street furniture comply with the requirements of this policy document.

Signed: _____ **Date:** _____
Third Party

Qualification: _____

Professional Insurance Indemnity up to €2,000,000 provided by

CERTIFICATE NO. 7

For the benefit of Clare County Council, this is to certify that the development complies with the Planning Permission granted.

Signed: _____ **Date:** _____
Third Party

Qualification: _____

Professional Insurance Indemnity up to €2,000,000 provided by

CERTIFICATE NO. 8

For the benefit of Clare County Council, this is to certify that the development has been completed to the required standard and that all Certification Stages are in accordance with Clare County Councils Taking in Charge Policy.

Signed: _____ **Date:** _____
Third Party

Qualification: _____

Professional Insurance Indemnity up to €2,000,000 provided by

Appendix II: General Conditions and Standards

A. General Conditions

1. The development is an authorised development.
2. All development contributions have been paid in full.
3. All connection fees have been paid in full.
4. The Developer may apply to have the bond released by submission to Clare County Council of the application form at Appendix I – “Release of Bond Application Form”. The contents of the application form shall be deemed to be for the benefit of Clare County Council.
5. The development must be constructed in accordance with the planning permission granted.
6. Any bond or security lodged with the Planning Authority will not be released until the works have been completed to a satisfactory standard.
7. The roads, footpaths, sewers, drains and water mains shall be constructed in accordance with the “Recommendations for Site Development Works for Housing Areas” – Department of the Environment and Local Government 1998* (or any updated version), save where the conditions hereunder otherwise require.

**Available from Government Publications Sale Office, Sun Alliance House, Molesworth Street, Dublin 2 – Tel: 01 – 6613111.*

8. Four copies of any wayleave agreements registered on the folio of the property outside the subject property (if applicable) must be submitted, e.g. sewers and/or watermains located in property not being transferred to Clare County Council
9. The Developer shall furnish evidence to the Council that all necessary wayleaves for services are reserved forever in the transfer documentation to house purchasers.
10. The Developer shall note that a minimum width of 10 metres shall be required in respect of any Wayleave for sewers or watermains. This width may be reduced in certain circumstances only after consultation with the Council.
11. Five copies of “as constructed” drawings (scale 1:500) of the development shall be submitted to the Council. The drawings shall indicate the following information:
 - (i) The estate boundary depicted in red, open spaces coloured green, all roads, footpaths and public lights coloured yellow.
 - (ii) All services including watermains, valves, hydrants, sewers, road gullies, Telecom ducts/poles, ESB ducts/poles, cablelink (NTL) ducts and all manholes. The invert and cover levels of all manholes shall be indicated relative to Malin ordnance datum. The gradients of all sewer sections shall be indicated on the drawings.

- (iii) All wayleaves on property not being transferred to Clare County Council (see no. 8 above) shown coloured blue (if applicable)

12. Four copies of the public lighting design for the development
13. A CCTV survey/manhole survey completed at the developer's expense, of the collection systems as conditioned in the relevant planning permission. The sewers to be surveyed to be thoroughly cleaned out first and the CCTV Survey to be carried out using a camera which is capable of measuring distances from one manhole to another. The CCTV Survey report also to include a summary of any defects in the systems to be corrected by the Developer at his own expense.
14. A drainage layout plan of 'as-constructed' sewers shall be submitted on diskette, showing a detailed survey of each manhole, sewer structure and a digitised layout of the 'as-constructed' housing estate. The manhole survey and digitised layout of the estate shall be prepared to national grid co-ordinates. The invert and cover levels of the manholes shall be indicated relative to Malin ordnance datum.
15. Health and Safety file for the development.

B. Standards

PUBLIC LIGHTING

1. The lighting shall comply with BS5489-1: 2003 "Code of Practice for the Design of Road Lighting" and BS EN 13201: 2003.
2. A public lighting column shall be installed on the far side of the public road opposite the centre of the T-junction serving the development.
3. The developer shall provide public lighting to the residential & pedestrian areas which shall comply with BS5489-1: 2003, Code of Practice for Design of Road Lighting – Part 1: Lighting of Roads and Public Amenity Areas and BS EN 13201: 2003. The general standard of lighting for residential roads is 70-watt high pressure sodium (Son T) lanterns at a 6 metres mounting height. This shall comply with Class S3 lighting and a required maintained minimum point illuminance of 1.5 lx and a maintained average illuminance of 7.5 lx. as per BS EN 13201-2: 2003 Table 3 – S Series of lighting classes.
4. The developer shall provide public lighting to the car park areas within the development, which shall comply with BS 5489-1: 2003 Part 10 Lighting of Urban Areas and Public Amenity Areas.
5. The developer shall submit a public lighting layout, designed and signed by a competent Lighting Engineer for the development, including the section of public road serving the site together with a plot of light levels and supporting calculations, designed and signed by a competent Lighting Engineer, to Clare County Council.

The public lighting layout, to a scale of 1/500 or 1/1000, shall indicate the location of lighting columns, their reference number, the supply circuits, micropillars and a schedule of lanterns to be installed within the development.

6. The developer shall provide public lighting to the multi-use play area within the development, which shall comply with BS 5489-1: 2003 Part 10 Lighting of Urban Areas and Public Amenity Areas.
7. Public lighting to the development shall be kept active and maintained by the developer.
8. Prior to the occupation of any new units within any phase of new development, the public lights shall be switched on and maintained by the developer and also any paved pedestrian walkways serving proposed occupied units shall be complete prior to the occupation of any units within any phase of the development.
9. All lighting points shall be accessible by means of a hydraulic hoist for maintenance purposes. Such a hoist requires a minimum clear space of 3.5 metres. If such access is not available special arrangements shall be made such as the use of hinged columns.
10. All public lighting columns, electric cable circuits and the associated feeder pillars (mini/micro pillars) serving the public lights shall be installed at the locations as per the Lighting Engineers Public Lighting Layout and at the back of footpaths and not in private property.
11. The developer shall install underground ducting to serve the new public lights, which shall be accessible to public lighting maintenance service providers and shall not be located in private property.
12. All electrical work shall comply with the requirements of the National Rules for Electrical installations of the Electro-Technical Council of Ireland, latest edition, including Part 7, Section 714, External Lighting Installation.
13. The approved public lighting layout shall be installed to the E.S.B.'s specification.

Trees shall not be planted close to within the line of public lighting columns as tree canopy growth can diminish the lighting illumination levels.

ROADS AND FOOTPATHS

- The roads and footpaths shall be constructed in accordance with Section 2 of "Recommendations for Site Development Works for Housing Areas", with the exception of Section 2.24 (Surface Dressing) as surface dressing will not be accepted as a surfacing layer in Housing Estates. All road making materials must comply with the NRA Specifications for Roadworks
- During footpath construction all pre cast kerbs shall be laid on edge and not on the flat. Wheelchair/pram accesses shall be provided at all roadway junctions. There shall be no steps incorporated in the footpath construction. Where necessary, a ramp shall be provided with a maximum gradient of 1 in 20.

- Road Lining and Signing to comply with the Traffic Signs Manual (Department of Transport).
- All road signs and markings shall be provided by the Developer, as directed by Clare County Council.

WATER AND SEWER SERVICES

Elements under this section include watermains, surface water sewers and foul water sewers.

Watermains

- Watermains to be 100mm diameter (min) Class C rating and comply with Section 4 of “Recommendations for Site Development Works for Housing Areas” – Department of Environment and Local Government (1998). A certificate of satisfactory testing of the watermain shall be provided by an engineer as part of the documentation submitted for release of bond. The Council reserves the right to establish the integrity of the system by monitoring water use in the development.
- All water service connections shall incorporate a water service control unit (round type) and a 12.5 mm water meter.
- All watermains, valves, stop cocks and fire hydrants to be located in public footpath or roadway, insofar as possible. Stopcocks shall not be located in private driveways. A separate stopcock or shut off valve shall be fitted within each house.

Collection Systems

The following minimum specific requirements for collection systems shall apply to minimise the risk of a public health hazard.

- A separate storm water and foul water system shall be provided.
- Separate sewer service connections shall be provided for each dwellinghouse.
- All manhole covers and frames in public property shall comply with Standard I.S./EN 124:1994 and Loading Class D400.
- All road gully ratings shall be of an approved lockable type to Standard I.S./EN 124:1994 and Loading Class C250.
- All surface water pipes serving more than one house shall be a minimum of 225 mm diameter.
- All precast manholes shall be 1200mm in diameter.
- Manhole construction shall comply with the attached appropriate manhole details.
- All connections to sewers shall be made in the top left or right quadrant of the pipe by using coring equipment and a proper saddle.

- Intrusions greater than 5 mm shall not be permitted.
- All surface water collection systems discharging to a soakpit shall have trapped gullies rather than untrapped gullies.

Pumping Stations and Treatment Plants

The following minimum specific requirements shall apply:

- Emergency foul water overflow capable of holding and returning 12 hours dry weather flow into the works, minimum capacity 25m³.
- Access for vehicular traffic.
- Location of discharge pipe from the Wastewater Treatment Plant shall be clearly shown on "As Built " drawings and the co-ordinates of same provided.
- Health and welfare facilities for plant operative's in particular washing facilities.
- Alerter system to call out emergency response in the event of plant breakdown.
- Odour Control Equipment shall be fitted and maintained as required to meet Odour Control standards.
- Anti-intruder perimeter fencing appropriate to the plants surroundings.
- Control panels fitted with a socket to accept a supply from a generator.

The following extra specific facilities shall be provided at treatment plants:

- Capacity to measure inflows and outflows and to take influent and effluent samples.
- Automatic recording of the principal operating parameters of the particular process.
- Automatic Samplers shall be provided and fitted for treated effluent sampling at the Wastewater Treatment Plants
- Duty and standby units for all equipment essential to the correct functioning of the process.
- Sludge holding tanks, sealed and suitable for connection to a sludge tanker, capable of holding 3 months sludge output from the plant. It must also be fitted with the means to filter the gases given off from the sludge holding tank before releasing them into the environment.

The following extra specific facilities shall be provided at Pumping Stations:

- Duty and standby pumps.

- Flow meter on the outlet.
- Hours run meters for each pump.
- Ammeters.
- Certificate of compliance shall be provided for the electrical installation stating that installation is in accordance with the current edition of the Institution of Electrical Engineers wiring regulations. The certificate shall be issued by a competent person. All materials fitted shall be in accordance with relevant Irish, British and European standards and Codes of practice.

Commissioning of Plant

A commissioning report from the plant supplier or from an agreed third party shall be prepared to the satisfaction of the local authority before the plant is brought into operation. The developer will be required to obtain the necessary feed source for the plant in order to enable its performance to be measured.

Safety Requirements

Each plant shall have a safety statement and safe work practice sheets which will be the responsibility of the plant operator to implement and update as required.

CCTV Survey/Manhole Survey

A CCTV survey/manhole survey of the collection systems will be submitted to the Council prior to lodging an application form for release of bond. The survey shall be completed at the Developers expense.

The sewers to be surveyed shall be thoroughly cleaned out first.

The CCTV Survey shall be carried out using a camera, which is capable of measuring distances from one manhole to another.

The CCTV Survey report shall conform to the standards set out in the WRC Manual on Sewer Condition Classification. The report shall include a summary of any defects in the systems. Any defects in the systems shall be corrected by the Developer at his own expense, prior to release of bond. The printed report shall be supplemented by high-resolution photographs and quality VHS recordings.

A drainage layout plan of as-constructed sewers shall be submitted on diskette, prepared to SUS25 format, showing a detailed survey of each manhole, sewer structure and a digitised layout of the as-constructed housing estate. The manhole survey and digitised layout (DXF Format) of the estate shall be prepared to national grid co-ordinates. The invert and cover levels of the manholes shall be indicated relative to Malin Ordnance datum.

OPEN SPACES:

The development and landscaping of open spaces shall be carried out in accordance with the planning permission granted and the following specification.

With the exception of any features to be retained, grassed open space areas shall be free of rock and all hazardous objects and be developed for usage by persons present on the areas for the purpose of engaging safely in recreational activity.

TOPSOIL

Topsoil shall conform to the description of topsoil set out in British Standard Specification No. 3882; 1994, entitled “Specification for Topsoil”. Topsoil shall be good quality medium topsoil loam, easily moulded when moist. It must be neither too sticky nor leave a smooth polished surface when smeared. It shall be free from all chemical or other pollutants without excessive proportions of stones or flints and those present must not exceed 50mm gauge. It must not include subsoil, excessive proportions of clay, sand, chalk or lime, nor may it include rubbish or other extraneous material, pernicious weeds or couch grass whether roots or top growth, or roots of trees or shrubs. A minimum depth of 150mm of topsoil is required.

GRADING AND CULTIVATION

All grassed open space areas should be suitably graded so that the areas can be safely cut by four-wheel drive ride on mowers.

Surface cultivation shall be carried out where appropriate and shall be as defined and described in British Standard Specification No. 4428; 1989, entitled “Code of Practice for General Landscape Operations”, Section 4.

DRAINAGE

Drainage works shall be provided where appropriate and for the reasons outlined in British Standard Specification 4428; 1989, entitled “Code of Practice for General Landscape Operations”, Section 3.

Connection to existing drains or manholes shall be executed in a careful and workmanlike manner and to the satisfaction of Clare County Council.

Sand Slit Drainage to consist of a 300mm x 50mm trench. The spoil from trench excavations shall be removed simultaneously with the trenching operation. The trench shall have the profile of 225mm approx. of clean evenly sized washed pebble topped to surface levels with silica sands Grade T.

SEEDING OF GRASS AREAS

Grass seeding shall be carried out in accordance with British Standard 4428; 1989 entitled “Code of Practice for General Landscape Operations”. Section 5.

In the development of grass landscape areas the seeds to be used are the amenity grass mixture and certification of these mixtures are to be presented to Clare County Council. On no account should grass seed mixture intended for high yield grass for agricultural purposes be used.

Preparation of the Seed Bed

The seed bed shall be prepared in accordance with British Standard 4428; 1989 entitled “Code of Practice for General Landscape Operations”, Section 5.3 No seed shall be sown until the cultivation and preparatory work have been approved. Finish topsoil level shall be 25mm above adjoining paths, kerbs and manholes.

Sowing of seed strains shall be carried out during calm weather conditions with equal sowing in traverse directions at the specified rate per square metre as described in British Standard 4428; 1989, entitled "Code of Practice for General Landscape Operations". Section 5.3.

Initial Topping Cut

Immediately before cutting, all stones above 25mm in any dimension should be hand picked and the area shall be crossed with a lightweight roller to firm the grass and consolidate the surface.

When the grass is established from 40mm to 75mm high, according to seed mixture, it should be topped with a rotary mower so as to leave from 25mm to 50mm of growth and to cut weeds, in order to control the growth of coarser grass and to encourage tillering.

A mowing programme should be organised that gradually reduces the height of the grass. Grass cutting machinery should be very sharp and in good condition to avoid pulling out young seedlings.

When cutting takes place without a box all arising should be spread evenly to prevent damage to the growing grass beneath. This applies particularly to grass cut during periods of dull or wet weather.

SUPPLY AND PLANTING OF TREES

Quality of Plants

All feathered trees and ordinary nursery stock trees shall conform to British Standard 3936; Part 1, 1992, and all advanced nursery stock trees shall conform to British Standard 4043; except where otherwise specified. They shall have a strong fibrous root system with sufficient anchorage roots to give stability, a straight self supporting stem with at least three lateral branches, and be in a condition for successful transplanting.

Bare roots shall be protected with hessian or other suitable material during delivery to site. Plants with balled roots shall be supplied with the root system, together with the original ball of soil securely wrapped with hessian, polyethylene sheeting or other suitable material during delivery to site.

Trees shall be supplied with a rootball of adequate diameter and depth appropriate to the size and species of the tree. The minimum diameter of the rootball in all cases shall be not less than 10 times the diameter of stem measured at 300mm above ground level.

Timing of Planting and Delivery to Site

Planting of field grown plants shall not be commenced before 30th September or continued after 31st March following unless authorised in writing. Planting will be suspended during periods of severe frost or when planting positions or areas are water logged.

No plant shall be delivered to site until the preparation of its planting programme has been finalised. The landscape contractor will be responsible for the adequate protection of all plant material from the time of delivery from whatever source until Planting has been approved. Care is to be taken to protect the foliage and roots from adverse weather conditions including heat, frost and drying winds. Where delay between delivery of plants and planting is unavoidable, the landscape contractor shall heel in property bare rooted plants in a prepared trench and pack moist soil/compost around the root. In frosty weather the plants shall be given extra protection with straw or similar material. Pot grown and balled rooted plants shall be protected from exposure to direct sunlight and shall be watered as necessary to prevent drying out of the roots. All pot grown and balled root plants shall be thoroughly watered two hours prior to the removal of the pots or wrappings. Pots, containers and other protective materials shall not be removed until immediately prior to planting.

Setting out and Planting Instructions

The landscape contractor shall carry out planting in accordance with supplied drawings. All trees shall be planted in the positions and in numbers indicated on the drawings and shall be planted in an informal manner so as to avoid a rigid matrix.

Unless otherwise agreed the ground shall be cultivated to a depth of 600mm in all shrub-planting areas.

In paved and hard surface areas, tree pits 1220mm square and at least 1200mm in depth shall be prepared by the excavation and removal from the site of surfacing material, hard-core foundation and subsoil prior to the importation of which shall conform to the description of topsoil as set out in British Topsoil Standard Specification No. 3882; 1994, entitled "Specification for Topsoil".

Planting Method

Standards of workmanship and materials used for planting and staking shall be as is outlined in British Standard Specification No. 4428; 1989, entitled "Code of Practice for General Landscape Operations" Section 7 – amenity tree planting, Section 8 – woodland planting, Section 9 – planting of shrubs, herbaceous plants and bulbs.

The roots of all bare root shrubs and transplants are to be treated with alginure root dip prior to planting, using a mixture of one part alginure to three parts water.

Tree stakes should be driven into the ground off centre of the prevailing wind side of tree. The pit will be partially backfilled with a mixture of topsoil, compost and fertiliser and the tree placed in the pit to the depth of the nursery soil mark, ensuring the roots are fully spread. The remaining mixture shall be used to cover the roots and shall be distributed amongst them by shaking them with a gentle up and down movement and then firming by walking.

Each tree shall be firmly secured to the stake after planting so as to prevent excessive movement or abrasion using a rubber buffer between the tree and stake. The tree shall be secured at the top of the stake about 0.6m from ground level. These ties shall allow for growth or secondary thickening of the tree stems.

On completion of planting any broken branches shall be pruned, damaged areas of bark shall be cut back to sound tissue. After planting trees, they should be watered thoroughly, with approximately 30 litres per tree.

Tree Stakes Ties and Tree Guards

Trees shall be staked using straight well formed Douglas fir or spruce poles, 1.53M in length (2.75M in length where use of tree guards is specified), driven 750mm into the ground before planting. These poles shall have all side shoots and laterals removed and shall be impregnated with copper chrome or copper chrome arsenic water borne wood preservative in accordance with I.S. 131: 1964. The poles shall be 90mm to 100mm in diameter at the heavy end and 75mm to 90mm at the light end. They shall be tapered to a point of 300mm in length at the heavy end and shall be trimmed to an angle of 45° at the light end after planting.

Tree guards shall be manufactured from 50mm x 50mm x 10 gauge weld mesh and shall be 1830mm x 920mm cylinder shape formed to 300mm diameter and are to be hot dipped galvanised, with an overall weight of 0.25kg/ft.

Where the use of tree guards is specified, a 2.75m length of tree stakes specified above should be used.

SUPPLY AND PLANTING OF SHRUBS, CLIMBING PLANTS AND HEDGES

Shrubs shall be provided and planted in precise locations as agreed by Clare County Council. Shrubs shall be as is defined and described in British Standard Specification No. 3936; 1992, entitled "Nursery Stock Part 1 – Specification for Trees and Shrubs".

Standards of workmanship and materials used; shall be as is described in British Standard Specification No. 4428; 1989, entitled "Code of Practice for General Landscape Operations", Section 9. All shrubs shall be true to name, vigorous, well grown specimens of their type, free from disease and insect pest. All shrubs shall be container grown in removable plastic containers unless otherwise stated. Shrubs considered to have inadequate site development at the time of planting must be replaced upon the instructions of Clare County Council.

Replacement Planting

The landscape contractor shall replace during the following planting season all plants, which fail to show growth or develop full foliage during the first growing season after planting. All such replacement planting shall be at the landscape contractors expense who shall also be responsible for any preparatory and other work necessary to be properly carried out, including the removal and disposal of dead plant material.

Grass Maintenance on Reseeded Areas

The Developers shall carry out the following operations prior to the bond being released by Clare County Council – stone picking down to 25mm, weed elimination, cutting, repair of all erosion and settlement, filling of all holes to ensure uniform grading throughout and reseeded as necessary to establish a uniform and healthy stand of the specified grasses.

Maintenance of open spaces areas (including grass cutting) shall be the responsibility of the residents/management company/developer after the Release of Bond process has been completed.