Analysis

Shared street around central village green and road geometry provides a pleasant walking and cycling experience.

The arrangement of cottages around the perimeter of the village green creates a distinctive urban form that provides surveillance over communal open space; listed buildings provide landmarks and views of the Forth Estuary provide vistas for ease of navigation.

The simple urban pattern of buildings arranged around a central space responds positively to local conditions and enhances the special historic character and appearance of the conservation village.

Buildings present gable ends to face the Forth Estuary to provide shelter for front and rear elevations.

Street Design Hierarchy

Street Structure

- Pedestrians and Cyclists
- Connections to Wider Networks
- Connections Within a Place
- Block Structure
- Walkable Neighbourhood
- Public Transport
- Context and Character
- Orientation

Qualities of Successful Places - Kinnaird

Kinnaird Village has been developed in accordance with an approved masterplan. The vision for the scheme was to create a new settlement comprising a mix of housing types and streets within a mature landscaped setting ; new landscaping features including a major SUDS element and the introduction of mixed uses, including shops and schools, add to interest and variety within the development as a whole. The layout and design of the new suburb demonstrates qualities of successful urban places that can be applied to the layout and design of new settlements within the greater Falkirk area.

Distinctive ✓

The development positively responds to relevant aspects of the local context including the mature landscaped setting providing tree lined streets and open landscaped areas.

Safe and Pleasant ✓

Wide cycle/footpaths provide safe and attractive pedestrian and cycle movement network connections.

Easy to Move Around ✓

Streets with cycle/pathways are well connected to existing movement networks providing good circulation for all modes of transport and all groups of street users.

Welcoming ✓

Layout provides walkable access to local shops and schools with landscaped open spaces providing opportunities for social interaction.

Adaptable ✓

Parking is accommodated by a variety of in-curtilage, on-street and rear parking courts, lessening visual impact and providing variety.

Resource Efficient ✓

The major SUDS feature attenuates surface water drainage and provides biodiversity, a habitat for wildlife and an attractive aspect and amenity space for surrounding streets.

Analysis

Street design offers a pleasant, safe and varied walking and cycling experience.

The development is well connected to nearby main roads and public transport facilities.

Shops and other mixed use facilities including a range of schools from nursery to primary are within walking and cycling distance.

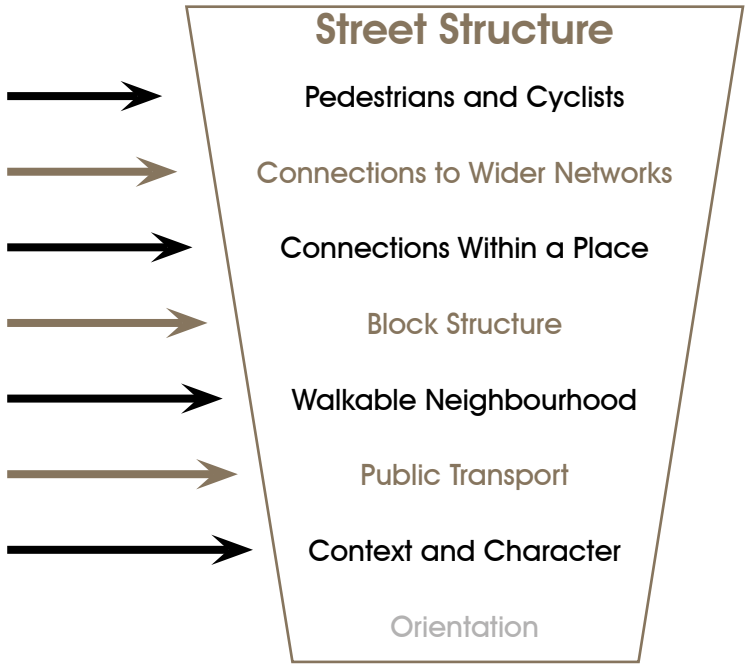
A range of street types provides distinctive urban form with landmarks and vistas that provide good orientation and navigation.

New development provides a range of facilities in key locations within walking and cycling distance via permeable street network.

The area is serviced by buses, with a train station available nearby.

Varied street design responds positively to a range of local site conditions including mature landscaping, open green space, local schools and shops and SUDS feature.

Street Design Hierarchy



Qualities of Successful Places - The Drum

Initial phases of The Drum have been developed within former farmlands on the outskirts of Bo'ness town in accordance with an approved masterplan. The vision for the scheme was to create a strong sense of place, reflecting the special urban qualities of surrounding towns and villages; landscaping and variable character within each part of The Drum would add to the overall urban quality. The built settlement, to date, demonstrates qualities of successful urban places that can be applied to the layout and detailed design of other new neighbourhoods within the greater Falkirk Council area.

Distinctive ✓

The development as built to date has created a strong sense of place by integrating different typologies of street design and building types with a variety of open and enclosed spaces including parking courts, squares and terraces.

Safe and Pleasant ✓

The designed street hierarchy applied to the site carefully balances movement with traffic flow; minimal application of street signage and furniture results in clutter free spaces.

Easy to Move Around ✓

Non - standardised street designs provide good connectivity and movement networks for all users.

Welcoming ✓

The street layout is punctuated by a variety of public spaces including squares, play area and landscaped edges which encourage walking and social interaction.

Adaptable ✓

Parking is provided by a range of off street and rear parking courts and on street parking. The mix of parking solutions lessens the visual impact of cars in the development and provides some flexibility for visitors and residents.

Resource Efficient ✓

Buildings and open spaces are orientated to benefit from solar gain and shelter from the prevailing wind. Lack of street clutter, areas of open space with soft and hard landscaping and distinctive, durable materials add quality and visual appeal.

Analysis

Some residential streets incorporate shared surfaces to favour pedestrian movement over vehicles.

Irregular internal street pattern contributes to variety of character within different parts of the settlement.

An aspect of the development that does not meet the terms of Designing Streets is that the development, as built to date, provides only residential uses; the facilities of the town centre of Bo'ness are not within easy walking distance.

The structure of the street network takes a variety of non - standard forms, creating gateways, vistas, enclosed and open streets and squares; multiple parking solutions add interest and diversity.

Different phases have contrasting architectural and urban character through careful design and planning; influences in phase 1 from traditional urban vernacular differentiate from contemporary courtyard houses and houses around compact squares to offer a pleasing variety and sense of place.

Streets laid out on an east west axis provide environmental benefits, maximising solar gain and daylight.

Street Design Hierarchy

Street Structure

- Pedestrians and Cyclists
- Connections to Wider Networks
- Connections Within a Place
- Block Structure
- Walkable Neighbourhoods
- Public Transport
- Context and Character
- Orientation


Context and Character


Orientation


Block Structure


Pedestrians and Cyclists

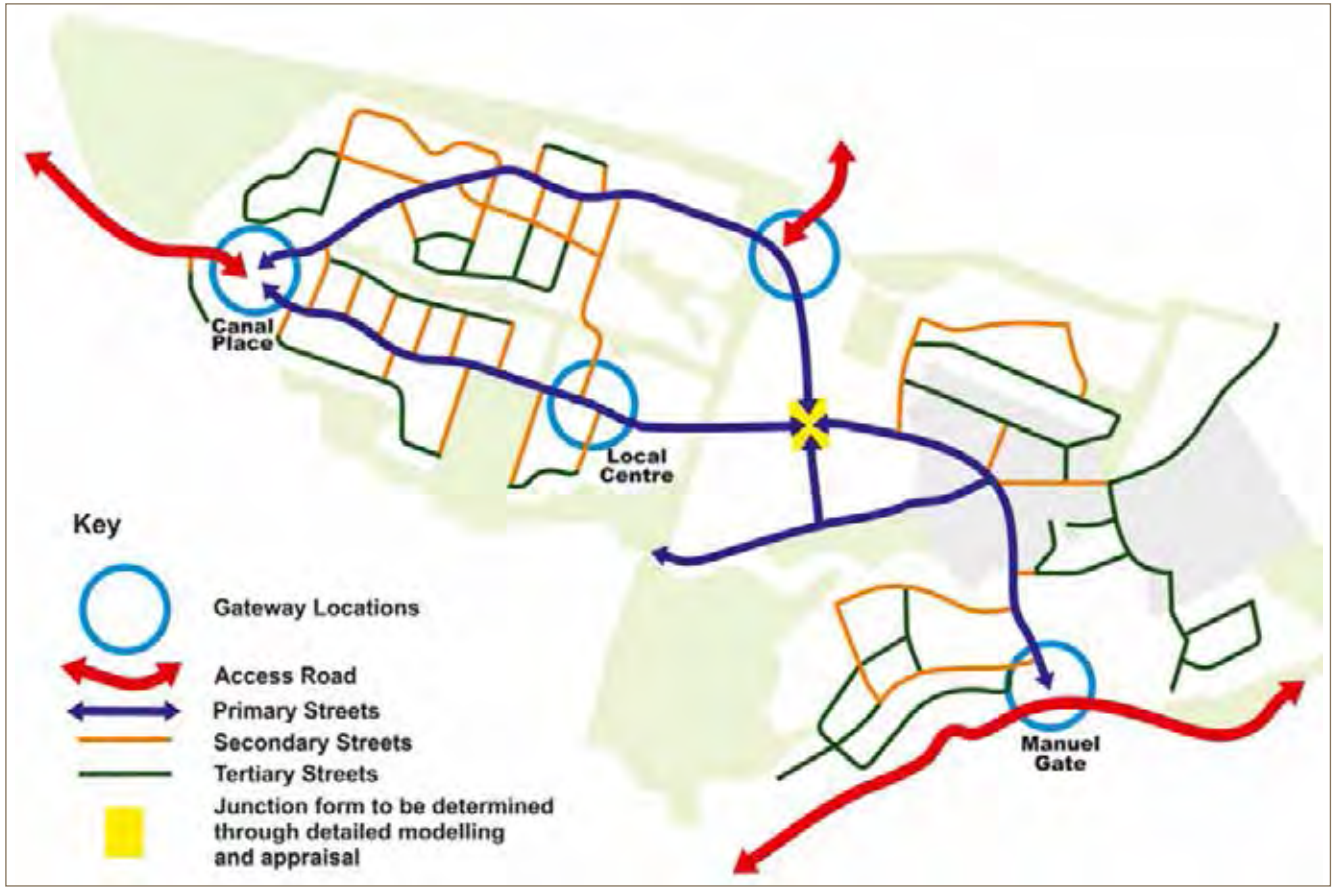
Understanding the site and its surroundings is essential to good site planning and design. It will help determine the appropriate character and sense of place which will inform the street structure and layout.

Key Principles

- Understand and take account of the landscape setting and topography of the site and the surrounding built form and street pattern.
- Make the most of the site's assets, including safeguarding and providing a setting for existing natural and built heritage features.
- Determine the appropriate street types (high streets, avenues, squares, wynds/lanes, mews, courtyards etc), and the corresponding building types (tenement, terrace, detached).
- Introduce appropriate mixed use where possible to create variety.
- Apply The Place Standard to help local community identify character and qualities of a place and to help set out local aspirations.

Further Guidance

- Designing Streets Pages 29-30
- Falkirk Council Supplementary Planning Guidance 'Design Statements'



Street Structure: Proposals should be underpinned by a clear understanding of the role and function of different types of streets. It is useful to set this out in a Street Hierarchy document.

Main Street

Secondary Street

Courtyard

Square

Street and Building Types:
These provide traditional, proven models for structuring streets. The street structure should be built around an appropriate menu of typologies rather than a traditional roads hierarchy which was based purely on vehicle numbers and speeds.

Utilising Assets:
Burns, mature trees, hedgerows, historic buildings and walls are examples of features which can be retained to give character and sense of place.

Mixed Use:
Larger new neighbourhoods offer the opportunity to introduce services and facilities which are convenient to local residents.

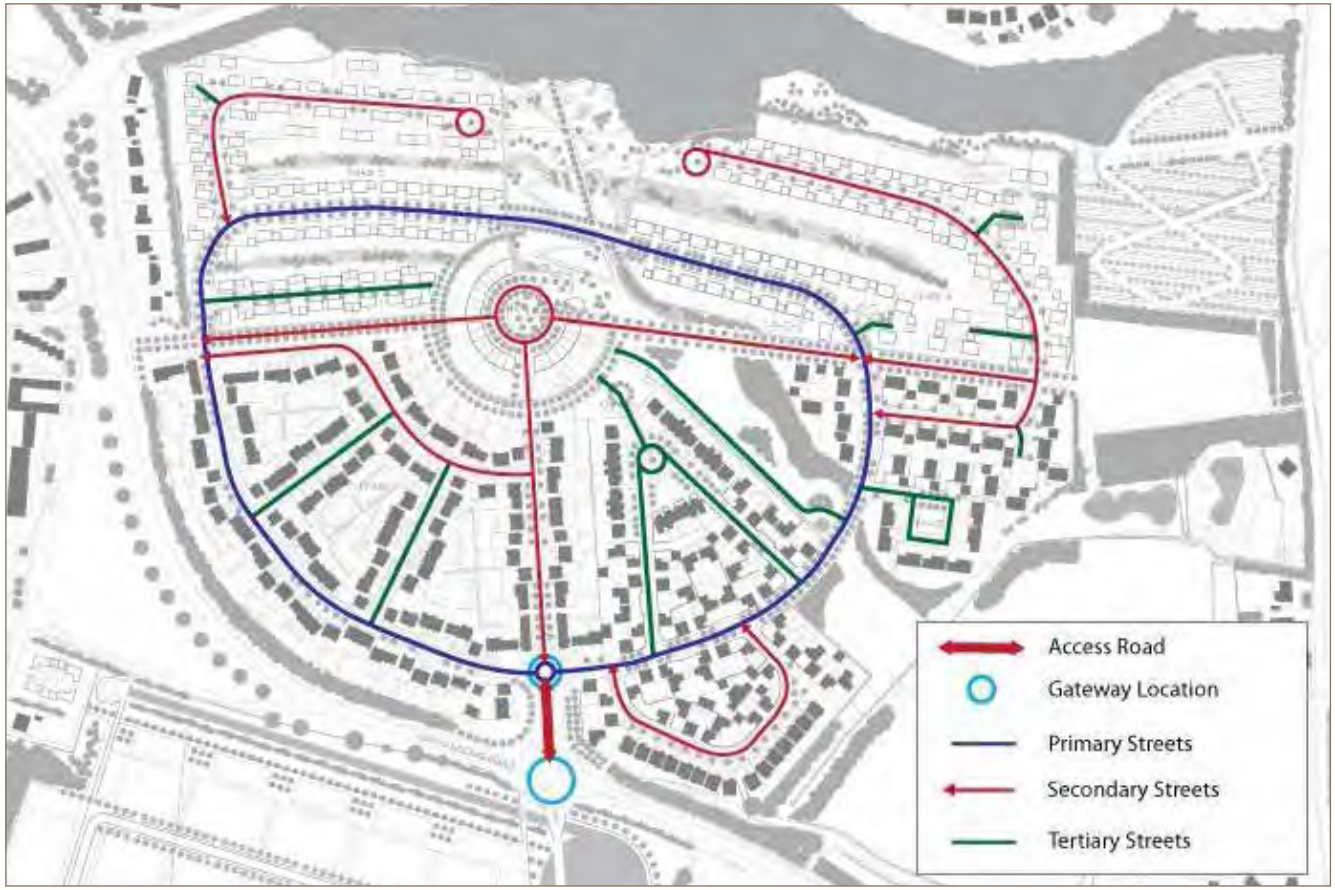
Ease of movement and navigation is vital in new neighbourhoods, so that journeys on foot, in particular, are encouraged.

Key Principles

- Prioritise the needs of pedestrians and cyclists over vehicles in the design of streets, spaces and junctions.
- The layout should be permeable, and maximise connections with the surrounding street and path network.
- Exploit the potential to integrate active travel routes into the green infrastructure.
- There should be easy access to local facilities such as schools, public transport, shops and other services.
- Use features, nodes and landmarks to provide legibility and identity.
- Apply The Place Standard to input from local community on how places perform and function with respect to ease of movement and navigation.

Further Guidance

- Designing Streets Pages 15-25
- Falkirk Council Supplementary Planning Guidance Note - Travel Plans



The Drum: Permeable street structure created by a traditional block structure allows multiple options for pedestrians, cyclists and vehicles. This, combined with building height at key nodes and distinctive junctions and open spaces helps navigation and orientation within the development. (Masterplan Copyright of AREA, Linlithgow)

Grid Pattern:
The Grahamston area, with its traditional block structure, provides excellent permeability with a range of route options for pedestrian to access the surrounding area.

Connections within a Place:
Street and footpath connects local facilities with residential areas, creating a walkable neighbourhood.

Cul de Sacs:
This 1980s layout is poorly connected with its surroundings, lengthening journeys, and reducing flexibility and adaptability.

Connections to Wider Networks:
This path offers pedestrian and cycle connections from the local neighbourhood to the railway station, the canal network and routes to the town centre.

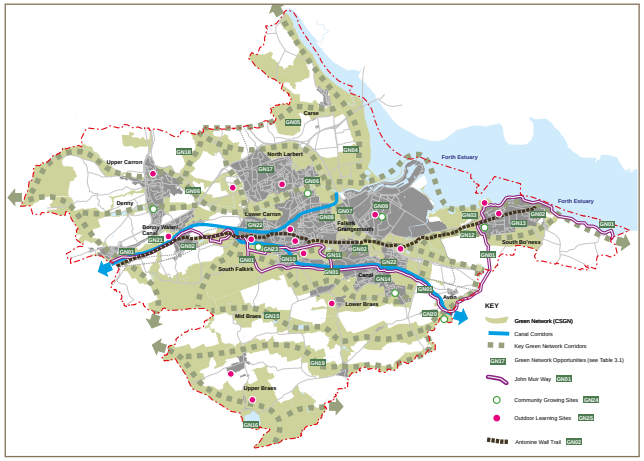
Well-integrated green and blue infrastructure is fundamental to quality of place and our response to climate change as well as helping to deliver Falkirk Greenspace.

Key Principles

- Create a landscape and open space framework which enhances, structures and unifies the development, based on the opportunities presented by the site, the intended street typologies and the requirements of the Council's open space policies and standards.
- Make connections with the surrounding green network.
- Integrate open space into the layout, using hard and soft landscaped spaces to create nodes and places for social interaction.
- Use street trees, particularly to give quality and emphasis to particular street typologies.
- Scottish Water is actively seeking to remove surface waters from combined sewerage systems, as set out in their surface water policy. On this basis, developments should include space for appropriate SUDS solutions wherever possible.
- Integrate SUDS creatively into the open space framework, using features to enhance amenity and biodiversity.
- Soften the edge of urban fringe sites through robust structure planting.
- The incorporation of sustainable drainage systems, watercourse corridors and natural flood management measures promotes improvements to the water environment and assists in contributing to sustainable flood risk management.
- Explore opportunities to restore the existing water environment.

Further Guidance

- Falkirk Council Supplementary Guidance:
  SG05 Green Infrastructure and New Development,
  SG07 Biodiversity & Development,
  SG10 Trees & Development.
- Falkirk Greenspace:
  A Strategy for our Green Network
- Green Infrastructure:
  Design & Placemaking Scottish Government



Falkirk Greenspace:
New development offers opportunities to contribute to the delivery of the wider green network.

Sustainable Urban Drainage Systems:
The SUDS ponds create a wetland which acts as an attractive focal point for the neighbourhood and brings the green network into the development.

Street Trees:
Provide structure and unity to a development, and can help to give identity and formality to main streets and boulevards.

Pocket Parks:
Small, well-designed open spaces at the heart of a neighbourhoods provide opportunities for play and social interaction.

The character of streets is formed by the way space is enclosed by buildings.

Key Principles

- Buildings and building lines should be designed to give definition, enclosure and character to streets and spaces.
- Streets, spaces and paths should wherever possible have buildings fronting on to them, with frontage access. Where this is not possible a high quality architectural or landscape treatment is required, with an appropriate level of natural surveillance to make them safe.
- For infill sites, existing building lines should be respected.
- Street elevations should be designed as a coherent composition, with appropriate features to order and unify them, rather than a random collection of individual house types.
- Orientate streets and buildings to take advantage of solar gain and shelter.

Further Guidance

- Designing Streets Pages 15-25

Boundary Treatments:
A natural stone wall provides a high quality edge to this development.

Enclosure: A strong linked building frontage close to the footway (with parking in rear courts) defines an intimate and characterful street space. The gently curving alignment and the occasional offsetting of the building lines creates an pleasing informality.

Street Composition:
Where detached houses have minimal spacing, appropriate grouping of house types and forms is important to create visual continuity within the frontage.

Frontages on Main Streets:
Achieving robust frontages on to major through routes is important. At Kinnaird, this has been delivered through a combination of flats with rear court parking and detached houses with a parallel service road.

The layout of the street and choice of materials should help achieve appropriate traffic speed.

Key Principles

- Appropriate traffic speed for the context should be achieved by good design from the outset rather than bolted-on traffic calming measures at the end of the design process.
- Where sufficient space is available to locate all street utility services together with other on-street physical features such as landscaping, on-street parking and staggered building lines, the resultant narrowing of street width reduces speed.
- Reduction in the uninterrupted lengths of street between junctions influences speed.
- Materials can have a significant influence on speed through visual perception or physical characteristics.

Further Guidance

- Designing Streets Pages 32-35
- SCOTS Road Development Guide, p.35 & pp.121-125.

Limiting Forward Visibility: The curving alignment of the street combined with street trees, which reduce the perceived width, help to limit vehicle speeds. This is reinforced by traditional traffic calming in the form of speed tables.

Build Outs:These build outs create sufficient deviation in the street to assist calming, and also create informal parking opportunities. The parked car itself contributes to the calming effect. The grassed treatment helps soften the street appearance.

Calming Through Street Design: Traffic speeds are kept low through an abrupt stagger in the road alignment, reinforced by prominent and attractive planters. No vertical features (bumps, cushions, or speed tables) are necessary.

Curved Road Layouts:
To reduce traffic speeds in the neighbourhood.

The needs of pedestrians should be prioritised in the design of street junctions.

Key Principles

- Junctions should be designed to suit the needs of pedestrians first in terms of visibility and desire lines.
- Junctions should be designed to suit street style, use and demand.
- Residential areas should incorporate a variety of different junction types prioritising urban design objectives that consider the quality of the space, rather than relying on standardised solutions.
- Swept paths for large vehicles and parking requirements for residents should be taken into consideration.

Further Guidance

- Designing Streets Pages 35-37
- SCOTS Road Development Guide, p.39 & pp.70-73.

Tight Corners:
Are an effective means of reducing traffic speeds and making the street safer for pedestrians.

Raised Junction:
Slows traffic speed and provides crossing point for pedestrians.

Alternative Street Transition:
Different treatment to show transition from one street type to another.

Crossroads:
Are an effective way of reducing traffic speed in urban areas.

Streets should be designed to create places where people can meet and socialise.

Key Principles

- Streets should provide shared spaces for social interaction and safe activity by a community.
- Shared space should be designed to encourage low vehicle speeds and to prioritise pedestrians.

Further Guidance

- Designing Streets Pages 38-39
- SCOTS Road Development Guide, p.39-41 & pp.85-94.

Central Green Space:
Provides social space for neighbourhood residents.

Shared surfacing:
With tight corners helps reduce traffic speeds and provides a connection between the surrounding houses and green space.

Falkirk High Street:
Has provision for vehicles but is prioritised for use by pedestrians.

Shared streets:
Create safe places for activities.

The quality of the street should be enhanced through the use of a variety of types of parking.

Key Principles

- Car parking to meet Falkirk Council's standards should be carefully designed into developments to lessen visual impact.
- Integrated parking should be incorporated into street design by a variety of means to enhance street quality.

Further Guidance

- Designing Streets Pages 40-43
- SCOTS Road Development Guide, p.41-42 & pp.137-170.

Undercroft Residents' Parking:
Stops vehicles and parking bays dominating the street layout.

Parking Courts:
Allows cars to be taken off the streets.

Integrated Parking:
Parking is well integrated into this shared use street through appropriate planting and materials.

Variety of hard surfacing :
Parking areas are highlighted by contrasting materials to enhance the shared space in this development.

Street layouts should accommodate emergency and service vehicles without compromising a positive sense of place.

Key Principles

- Street layouts should be designed with the consideration of the needs and space standards required by emergency and service vehicles.
- Service and emergency vehicles should be accommodated by street design without compromising the quality of the place or dominating the layout.
- Swept path analysis is a useful tool to inform street layout and design.layout.

Further Guidance

- Designing Streets Pages 44-45
- SCOTS Road Development Guide, p.43, p.74, pp. 81-82 & pp.95-98.

Service Vehicles:
Can be accommodated through careful street design without domintating the street layout.

Street Design:
Should accommodate service vehicle without dominating the street layout.

Well connected street patterns:
Reduce the need for reversing of service and emergency vehicles.

Emergency Vehicles:
Street design should accommodate emergency vehicles without detriment to positive quality of place.

The form and detailing of individual buildings should combine the best of the past and present, combining an understanding of local context and tradition with crisp, contemporary design.

Key Principles

- The design of buildings should respect their context and take inspiration from local vernacular traditions.
- Infill developments in particular should respect the immediate context in terms of height, massing, building lines, and materials.
- Elevational treatment and window arrangements should be crisp, balanced and well ordered, avoiding fussy 'period' features and detailing.
- A limited palette of appropriate materials should be deployed, again taking account of local context.
- The curtilage of buildings should be well defined, providing a clear demarcation between public and private space.
- The building layout and positioning of windows should provide the requisite levels of privacy and daylighting.

Best of Past and Present: These townhouses take design references from the surrounding traditional buildings incorporating steep pitched roofs and timber windows and doors within a contemporary design.

Balanced Composition: This development creates clean lines and a well ordered composition of windows and doors; the limited palette of colours and material helps create a unified appearance.

Contemporary Tenements: This redevelopment provides a contemporary interpretation of the Victorian tenements it replaced. Sandstone reclaimed from the previous buildings has been reused to provide a further link with the past. The colour of brick has been chosen to match the warmth of the red sandstone.

Local Distinctiveness: The elevations on this standard house type reflect the local context in terms of design, proportions and materials.

Drainage should be integrated into the design of a place in order to minimise environmental impacts.

Key Principles

- Streets should incorporate SUDS (Sustainable Urban Drainage Systems) techniques under current legislation as required.
- Drainage design principles should be discussed with Falkirk Council at an early stage in the design of street layouts.
- Scottish Water should be consulted as early as possible on proposed design and layout plans for drainage strategies.
- All assets intended to vest into Scottish Water must be constructed in compliance with latest Sewers for Scotland guidance.
- All drainage proposals for developments must consider Surface Water Management options early on as connection to the combined sewer network will not be accepted.

Further Guidance

- Designing Streets Pages 46-47
- SCOTS Road Development Guide, pp.43-47, p.117, pp.125-130, & pp.172-173.
- Falkirk Council: SG05 Biodiversity and Development
- CIRIA SUDS Manual (C757)
- Sewers for Scotland (current edition)
- PAN61: Sustainable Urban Drainage Systems
- Scottish Water's Surface Water Policy
- SUDS for Roads
- SUSDRAIN

Retention Pond:
Is integral to housing layout design.

Retention Pond:
Is integral to housing layout design and provides opportunities to enhance local biodiversity.

Variation of retention pond:
Exemplar of use of SUDS treatments in a modern neighbourhood design.

(Copyright City Legacy Homes)

Porous Paving:
A permeable resin surface surrounding trees allows water to penetrate the ground surface to the soil underneath.

The layout of streets and footways should not be dictated by the accommodation of services.

Key Principles

- The accommodation of services in streets should be designed to maintain the quality of place.
- Unless agreed otherwise, all services other than sewers should be located in land eligible for adoption by Falkirk Council as Roads authority, i.e. footways, verges and adoptable footpaths.

Further Guidance

- Designing Streets Page 48
- SCOTS Road Development Guide, p.47, & pp.98-102.
- National Joint Utilities Group at www.njug.org.uk.

Use of cobbles to form service strip retains the quality of the place without the street layout being dictated by the placement of services.

Services/Utilities strip at the side of a road.

The accomodation of utilities should not affect the layout/ design of roads and footways.

Utilities can be integrated into a service strip at the side of the roadway as a means of easy maintenance.

Street design should integrate natural landscaping features and foster biodiversity.

Key Principles

- Existing and new soft landscape features should be integrated into street design to enhance biodiversity value, add visual interest and to improve the micro-climate.
- Decisions on planting design including maintenance arrangements should be discussed with Falkirk Council at an early stage in the design process.
- Falkirk Council, acting in the role as Roads Authority, will not generally adopt planted areas except grass verges within the road boundary, main road visibility splays and elements of the SUDS system.

Further Guidance

- Designing Streets Pages 49
- SCOTS Road Development Guide, p.48, pp.106-107, pp.131-133 & pp.172-173.

Use of street trees and grass verges helps soften the appearance of the street.

Street visual quality is enhanced by the retention of mature trees and by the addition of new planting and appropriate hard landscaping materials.

Gardens as grass verges soften visual impact.

Street design should integrate soft landscape features and enhance biodiversity value.