Schedule 7- WILDFLOWER MIX

%	SPECIES	COMMON
75	Cynosurus cristatus	Crested Dogstail
	Festuca rubra ssp litoralis	Slender Creep Red Fesc
	Festuca arundinacea	Tall Fescue
25	Centaurea nigra	Common Knapweed
	Chrysanthemum segetum	Corn Marigold
	Hypochoeris radicata	Cat's Ear
	Leucanthemum vulgare	Ox-eye Daisy
	Lotus uligonosus	Marsh Trefoil
	Lychnis flos-cuculi	Ragged Robin
	Papaver rhoeas	Corn Poppy
	Plantago lanceolata	Ribwort Plantain
	Prunella vulgaris	Self-Heal
	Ranunculus acris	Meadow Buttercup
	Rhinanthus minor	Yellow Rattle
	Rumex acetosa	Common Sorrel
	Silene diocia	Red Campion
	Succisa pratensis	Devil's Bit Scabious
	Vicia cracca	Tufted Vetch

Schedule 8 - Lowland Wet Meadow

This mix is ideal for wet areas - open woodland - River and Lake banks - industrial land. It is designed to encourage insects and support birds. Sowing rate 4g/m2

%	Latin name	Common name
23%	Festuca rubra litoralis	Slender Creeping Red F
10%	Cynosurus cristatus	Crested Dogstail
10%	Festuca pratensis	Meadow Fescue
6%	Holcus lanatus	Yorkshire Fog
5%	Arrenatherum elatior	Tall Oat-Grass
5%	Deschampsia cespitosa	Tufted Hair-Grass
5%	Phleum bertolonii	Small Timothy
5%	Poa trivialis	Rough Stalk Meadow Grass
3%	Alopecurus pratensis	Meadow Foxtail
3%	Trisetum flovescens	Crested Hair-Grass
2%	Centurea nigra	Common Knapweed
2%	Galium verum	Lady's Bedstraw
2%	Leucanthemum vulgare	Oxeye Daisy
2%	Plantago lanceolata	Ribwort Plantain
2%	Ranunculus acris	Meadow Buttercup
2%	Ranunculus repens	Creeping Buttercup
1.5%	Rumex acetosa	Common Sorrel
1%	Achillea millefolium	Yarrow
1%	Agrimonia eupatorium	Agrimony
1%	Agrostis stolonifera	Creeping Bent
1%	Anthoxanthum odoratum	Sweet Vernal
1%	Briza media	Quaking Grass
1%	Filipendula ulmaria	Meadow Sweet
1%	Prunella vulgaris	Self-Heal
1%	Trifolium pratense	Red Clover
0.8%	Trifolium repens	White Clover
0.2%	Lathyrus pratensis	Meadow Vetchling
0.2%	Leonodon autumnale	Autumn Hawkbit
0.2%	Taraxacum officinale	Dandelion
0.1%	Pulicaria dysenteria	Common Fleabane

PLANT SCHEDULES

Schedule 1 - AVENUE & SPECIMEN TREES — As Shown

KEY		SPECIES	COMMON	SIZE (girth)	GROW	HABIT
	QR	Quercus robur	Oak	18-20cm	BR	Clear Stem
	QRF	Quercus robur 'Fastigiata'	Oak - Columner	18-20cm	BR	Clear Stem
	CbF	Carpinus betulus (Frans Font)	Hornbeam	18-20cm	BR	Clear Stem
	TCO	Tilia cordata 'Greenspire'	Lime	16-18cm	BR	Clear Stem
	APC	Acer platanoides 'Crimson K'	Norway Maple	16-18cm	BR	Clear Stem
	SAT	Salix alba 'Tristis'	White Willow	16-18cm	BR	Clear Stem
	AG	Alnus glutinous	Alder	16-18cm	BR	Clear Stem
	BP	Betula pendula	Birch	16-18cm	BR	Clear Stem
	SA	Sorbus aucaparia	Mountain Ash	16-18cm	BR	Clear Stem
	MD	Malus domestica	Apple	12-14cm	BR	Clear Stem
	PAVP	Prunus avium 'Plena'	Wild Cherry	12-14cm	BR	Clear Stem
	HM	Hamamelis mollis	Witchhazel	6-8cm	BR	Branched
	AC	Amelanchier canadensis	Shadbush	10-12cm	BR	Clear Stem
	PCF	Pyrus calleryana 'Fastigiata'	Callery Pear	16-18cm	BR	Clear Stem
	PS	Pinus sylvestris	Scots Pine	16-18cm	BR	Branched
	PM	Pinus mugo	Dwarf Pine	6-8cm	BR	Clear Stem

Schedule 2 - TYPICAL SHRUB/ GROUNDCOVER — Ave Density 5 No. Plants Per m2

KEY		SPECIES	SIZE (girth)	NO.m2	HABIT
	Sp	Stipa 'Pony Tails'	PG 5L	4/m2	Bushy
	Cs	Cornus sanguinea	PG 3L	3/m2	Branched (3)
	Pf	Photinia x fraseri' red robin'	PG 3L	3/m2	Branched (3)
	Ep	Echinacea purpurea	PG 3L	3/m2	Branched (3)
	Pa	Pennisetum+advena 'Rubrum'	PG 3L	3/m2	Branched (3)
	Cr	Choisya ternata	PG 5L	3/m2	Bushy
	Hh	Hedera helix 'hibernica'	PG 3L	6/m2	Serv Shoots
	Vm	Vinca major	PG 3L	6/m2	Bushy
	Ha	Hebe albicans	PG 3L	6/m2	Bushy
	Hmaur	Hakonechloa macra Albaaurea	PG 3L	6/m2	Branched (3)
	Cs	Carex elata 'Aurea'	PG 3L	6/m2	Bushy
	Hf	Heuchera 'Fire Chief'	PG 3L	5/m2	Branched (3)
	Wn	Weigela nain rouge	PG 3L	4/m2	Bushy (3)
	Cc	Caryopteris x clandonensis	PG 3L	5/m2	Bushy (3)
	La	Lavandula angustifolia	PG 3L	4/m2	Bushy
		Cirsus 'Silver Pink'	PG 3L	4/m2	Bushy

Schedule 3 - CLIPPED HEDGE OPTIONS — 6 plants per m3 - Staggered Rows c400mm

		SPECIES	COMMON	SIZE	GROW	HABIT
	Cb	Carpinus betulus	Hornbeam	60-90cm	BR	Feathered
	Gi	Griselinia littoralis	NZ Kapuka	60-90cm	BR	Feathered
	Lv	Lugustrum vulgaris	Privet	60-90cm	BR	Feathered
	Tb	Taxus baccata	Yew	60-90cm	BR	Feathered
	Ir	Escallonia rubra ' Crimson'	Escallonia	60-90cm	BR	Feathered

Schedule 4 - TYPICAL CLIMBING SPECIES — Ave 3 No. Plants Per Lin M

KEY		SPECIES	SIZE (girth)	NO.m2	HABIT
	Cs	Hydrangea petiolaris	Hydrangea	PG 3L	3/m2	Branched (3)
	Pf	Lonicera periclymenum	Honeysuckle	PG 3L	3/m2	Branched (3)
	Pc	Pyracantha coccinea	Firethorn	PG 3L	3/m2	Branched (3)

Schedule 5 - WOODLAND / WOODLAND EDGE MIX — 8-5 plants per m2 or 5000 plants per Ha

%	SPECIES	COMMON	SIZE	GROW	HEIGHT/TRAN
20	Quercus robur	Oak	40-60cm	CG	1 + 1 Branched
20	Crataegus monogyna	Hawthorn	40-60cm	CG	1 + 1 Branched
10	Alnus glutinosa	Alder	40-60cm	CG	1 + 1 Branched
10	Ilex aquifolium	Holly	40-60cm	CG	1 + 1 Branched
5	Corylus avellana	Hazel	40-60cm	CG	1 + 1 Branched
10	Pinus sylvestris	Scots Pine	40-60cm	CG	1 + 1 Branched
5	Prunus avium	Cherry	40-60cm	CG	1 + 1 Branched
10	Betula Pendula	Birch	40-60cm	CG	1 + 1 Branched
5	Viburnum opulus	Guelder- Rose	40-60cm	CG	1 + 1 Branched
5	Fagus sylvatica	Beech	40-60cm	CG	1 + 1 Branched

Schedule 6 - TYPICAL HEDGEROW /MIX — 2 plants per linear m2

%	SPECIES	COMMON	SIZE	GROW	HEIGHT/TRAN
75	Crataegus monogyna	Hawthorn	40-60cm	CG	1 + 1 Branched
10	Corylus avellana	Hazel	40-60cm	CG	1 + 1 Branched
5	Ilex aquifolium	Holly	40-60cm	CG	1 + 1 Branched
5	Prunus spinosa	Blackthorn	40-60cm	CG	1 + 1 Branched
5	Frangula alnus	Alder Buckthorn	40-60cm	CG	1 + 1 Branched

LANDSCAPE MANAGEMENT (YEAR 1-20)

GENERAL NOTES:
Following handover of planting works at the end of the agreed establishment maintenance period. All general maintenance will be undertaken according to the listed 'Annual Ongoing Landscape Maintenance'

EXISTING MATURE TREES:
All retained trees to be inspected annually for defects or disease and managed in accordance with best arboricultural practices current at the time of assessment and execution of remedial work.

AVENUE AND SPECIMEN TREES: (All staked trees):

Years 1-3 (Establishment)
Inspect on each maintenance visit to ensure that stakes, ties etc are in good condition and adjust as required to maintain healthy development. Carry out pruning to remove minor damage, to promote a shapely well-balanced head and wind-firm as necessary. Where trees are in grass verges maintain a minimum diameter of one metre around the base free of weeds and take every precaution to avoid bark damage by maintenance machinery. Replace damaged or failed trees in accordance with the original planting specification.

Year 4-10
1 no. basic-level inspection per annum.(Trees subject to cable bracing, staking or other mechanical support should be inspected twice each year). Trees in lower-risk areas may be subject to longer inspection intervals by qualified arboriculturist (in spring to identify foliar issues) to check physiological and biological condition.
Strimming/spraying of tree base in April and August to control weed growth
Stakes removed at year 5 or as instructed
Remove dead, dying or deformed branches every other year
Prune, shape and raise crown years 5 and 10
Replace damaged or failed trees in accordance with the original planting specification. A method statement should be prepared for these operations.

Year 11-20
1 no. basic-level inspection per annum by qualified arboriculturist (in autumn to coincide with fungal fruiting) to check physiological and biological condition
Professional-level inspections and arboricultural works as necessary arising from basic-level inspections
Prune and remove basal growth (3 year cycle)
Prune, shape and raise crown years 15 and 20

Year 21 +
1 no. basic-level inspection per annum by qualified arboriculturist (in autumn to coincide with fungal fruiting) to check physiological and biological condition
Professional-level inspections and arboricultural works as necessary arising from basic-level inspections
Prune and remove basal growth (3 year cycle)
Pollard and crown reduction considered at year 21would be carried out to maintain attractive form, regular and compact crown architecture, prevent the development of heavy branches and reduce the overall requirement of the trees' rooting systems. This operation would be repeated as necessary to prevent crown interference in adjacent trees, typically every 10 years. A method statement should be prepared.for these operations

Hedge Maintenance
The hedge should ideally be planted in the autumn when the soil is warm after the summer and damp from autumn rain. Planted a double or triple row of trees to create width. If space is restricted a single row of plants zig-zagged slightly to allow root space. Do not cut top leader growth until plants has reached 1.1m high.
Prune hedge in the autumn when there is no chance of disturbing nesting birds. It is best to prune deciduous varieties in late autumn when they are dormant. Cut back quite hard in the first couple of years so the hedge thickens up at the base.
Deciduous species are usually pruned twice annually, first in winter while dormant and again in mid-summer. If using electrical or fuel powered shears, exercise all precautions as instructed by manufacturer. Cut Hedge in an A profile (Tapered sides) Heavy snowfall lying on top of a hedge can cause serious damage. Ensure snow is removed as soon as possible to reduce the unaccustomed weight. Woody prunings can attract fungal diseases such as coral spot if they are left to decay where they fall. It is best to clear them up when you finish hedge trimming.

AMENITY GRASS: Schedule 9
The Grass Seed Mixture shall contain the following varieties in the percentages stated by weight :-

- 30% Festuca Rubra Ssp Litoris (Slender creeping Red Fescue)
- 25% Festuca Rubra Commutata (Chewings Fescue)
- 15% Poa Pratensis (Smooth stalked meadow grass)
- 10% Agrostis Castellana (Brown Cultivar Highland)
- 20% Lolium Perenne (Perennial Rye grass) To be one of the following dwarf cultivars:- Elka, Emo, Majestic, Loretta, Barry, Lorina or Lucretia.

TIMES OF YEAR FOR PLANTING

Deciduous trees and shrubs:	Late October to late March.
Conifers and evergreens:	September/ October or April/ May.
Container grown plants:	At any time if ground and weather conditions are favourable. Ensure that adequate watering and weed control is provided.
Dried bulbs, corms and tubers:	September/ October.
Grass Seed:	Spring -April to May or Late Summer August toSeptember

ANNUAL ONGOING LANDSCAPE MAINTENANCE

Amenity grass	12 cuts during growing season /2 fertiliser applications/ 2 edgings with iron/ selective herbicide/ 2 spike aerations.
Hedging	6 weedings/2 firm ups/ 1 fertiliser/ 1 trim to shape
Groundcover	6 weedings/ 2 firm ups/ 1 fertiliser/ 1 prune if directed
Planting	
Staked Trees	6 visits for stakes, ties and firming/ 1 fertiliser/ 1 crown prune (when directed 8 watering to field capacity/ cut stakes down to half height at end of third year or as directed.

NOTES:

- **50mm bark mulch over all plant beds**
- **Weed barrier under all proposed hedging areas finished with 50mm of mulch**
- **Refer to Tree Report for all Arboricultural requirements to existing trees**
- **Use Reroot 1000 root barrier (or equivalent) were trees are proposed within 2m of services and 5m of all wall foundations.**
- **Refer to MDA Landscape Specification**
- **Refer to Softworks Planting Drawing 18.130.200**
- **Refer to Existing Tree Protection Drawing 18.130.300**
- **Refer to Boundary Plan & Details 18.130.400**
- **Landscape Proposals to be cross referenced with Architecture and Engineering Drawings**

Legend

Existing hedge (Protected)
Existing Trees (Protected)
Swales and Marginal Planting
Proposed Large & Medium Standard Trees (Sch 1)
Proposed Hedgerow Mix (Plant Schedule 5)
Tree Root Protection Fence (Magenta Line
Feature Shrub Planting (Schedule 2)
Wildflower Mix (Sch 6)
Proposed Woodland Mix (Plant Schedule 5) 80%Trans,10% F,10% LS
Blossom Trees (Plant Schedule 1)
Mown Grass / Private
Mown Grass / Public
Clipped Hedging (Plant Schedule 3)
400x400 silver grey pavors with granite aggregate
100x100 Charcoal setts with Granite aggregate
Climbing Plants (Schedule 4)
Safety surface
External Walls
Boundary Type A Render & Brick or Stone Wall 2m
Boundary Type B Rendered Blockwork Wall 2m
Boundary Type C Rendered Stone Finished Wall 0.9 - 1.2m
Boundary Type D Timber Closed Board Fence 2m
Boundary Type E Stone Retaining Wall (Louth Fence) <1m
Boundary Type F Black Paladine Fence 2.2m
Boundary Types G & H Black Railing 0.9 - 1.2m

Local Area for Play (LAP)
A small area of open space specifically designed for younger children mainly between the ages of 4-6 years of age.
The location of the area is determined as within 1 minute walking distance.
The area should be appropriate for low-key games; flat and level with grass surfacing. Hedging and low fence have been proposed as a safety buffer zone to protect against road related accidents.

Landscape Plan - Detail Plan Sh 1 of 4	Dwg.18.130.101.1
Haggardstown, Blackrock, Dundalk	Fig. 5.19 (LVIA)

mda
mullin design associates
559 Ormeau Road, Rosetta, Belfast BT7 3JA
t. 02890 296843 m. 0044 777 575 2010
chartered landscape architects

client	job no.	date	scale	by	notes
Kingsbridge Consultancy Ltd	(18)130	Nov. 18	1:200@A0	pjm	For Planning