

Gatwick Airport Northern Runway Project

Environmental Statement

Appendix 8.8.1: Outline Landscape and Ecology Management Plan – Part 3 – Clean Version

Book 5

VERSION: 6.0

DATE: JULY 2024

Application Document Ref: 5.3

PINS Reference Number: TR020005



Annex 1

Typical Programme of Operations

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ACTIVITY	Janua	ry	Februa	ary	March	April	l	May	June	•	July	Augus	t	Septe	mber	Octo	ber	Nove	ember	December
GRASS & MEADOW AREAS:																				
Mow grass																				
Strim meadow																				
Weed control																				
WOODLAND and NATIVE/AMENITY SHRUB AND HEDGE PLANTING:																				
Maintain mulch (where used)																				
Weed control																				
Selective pruning																				
Hedge Clipping																				
Trim groundcover & climbers																				
Coppice (if required)																				
Watering (until establishment)																				
INDIVIDUAL TREES:																				
Check and adjust support																				
Formative pruning																				
Remedial pruning																				
LITTER CONTROL:																				
Collect litter																				





ACTIVITY	Janua	ry	Februa	ary	March	April	May	June	July	Augus	t	Septer	nber	Octo	ber	Nove	mber	December
CONSTRUCTED WETLAND (REED BEDS)																		
Remove decomposing vegetation/ fallen leaves																		
Control reeds/wetland species																		
HARD AREAS:																		
Sweeping																		
Control moss/algae																		
Weed control																		
Ice and snow removal																		
LEAF FALL:																		
Clear fallen leaves																		
PLANT NUTRITION:																		
Apply fertiliser																		
PEST AND DISEASE CONTROL																		
Physical / Mechanical means																		
MONITORING AND INSPECTION:																		
Generally																		
TIMING OF OPERATIONS:																		
Avoid nesting birds																		
Avoid disturbing bats																		



Annex 2

Landscape Maintenance Schedule

	Landscape/ Ecological Element	Maintenance Objectives	Maintenance Requirements	Relevant standards/ guidance
Exi	sting Planting			
1	Woodland (Incl. Existing Tree Belts and Tree Groups)	Retain trees in a safe condition of good general health, vigour and structural stability. Enhance visual amenity Protect and enhance landscape character Enhance biodiversity Bats: Maintain and enhance existing bat foraging habitats around the site. Habitats: Create and maintain new patches of scrub and small copses Integrate with surrounding landscape and character	Inspect all trees adjoining public highways and footpaths for public safety periodically or immediately after any extreme weather event such as high winds. Carry out any remedial pruning and/or general tree works in accordance with BS:3998 Selectively control excessive invasive growth such as bramble. Undertake coppicing to selected species on a 5-year cycle or other specialist management operations as specified and leave all arisings on site, to provide dead wood habitat of benefit to wildlife. Undertake thinning to ensure the health of the regenerating tree areas. Thinning should be commenced when the outermost leaves of crowns are competing for light with leaves of neighbouring trees. Leave all arisings on site in the woodland, to provide dead wood habitat of benefit to wildlife. Exercise extreme care when working in close proximity to fall risks. Adopt a 'man-safe' or similar system of working. Retain live or dead wood cut from trees on site in habitat piles. All works in woodlands should be undertaken between November and February to avoid impacts on woodland-nesting birds. However, when carrying out works, avoid compacting ground during autumn/winter.	BS:3998: Recommendations for tree work BS 7370-4: Grounds maintenance The Arboricultural Association Standard Conditions of Contract and Specification for Tree Works.
2	Solitary trees (Hedgerow trees)	Enhance visual amenity Protect and enhance landscape character Reinforce site layout and legibility Enhance biodiversity Bats: maintain and enhance existing bat foraging habitats around the site. Bats: create and maintain a new commuting flight path across the site.	Stagger operations to provide adjoining, alternative undisturbed areas for wildlife to migrate to. Inspect trees to assess whether they pose any unacceptable risk to public safety on an annual basis or immediately after any extreme weather event such as high winds. Maintain a well-balanced crown, shape and character typical of the species, clear of any crossing or rubbing growth allowing a clear stem, 2m above ground level. Maintain a crown height of 4.5m on trees directly bounding main access ways. Remove any dead, dying and damaged branches or growth obstructing pedestrian or vehicular routes (obtain advice from an ecologist regarding possible presence of bat roosts prior to undertaking work). Retain live or dead wood cut from trees on site in habitat piles. Replace any damaged bat boxes. Undertake pest and disease control using suitable pesticides or fungicides as advised, only if severe infestation occurs.	BS 3998: Recommendations for tree work The Arboricultural Association Standard Conditions of Contract and Specification for Tree Works.
3	Woodland Edge (Woodland Edge)	Reinforce a wind-firm woodland edge Enhance visual amenity Protect and enhance landscape character Integrate with nearby woodland character Enhance biodiversity Bats: Maintain and enhance existing bat foraging habitats around the site.	Scallop edges of dense regenerative woodland to produce a varied edge to the woodland. Selectively coppice native shrubs to provide a varied woodland edge canopy. Cut patches of vegetation on rotation every 2-3 years in late August, to a height of 10cm, to form glades and encourage the formation of a structure of benefit to invertebrates. Leave cut vegetation in situ for 3-5 days, turning occasionally to dry and allow more seeds to be shed. Remove litter, rubbish and other debris from grassed areas prior to cutting.	None





Exercise extreme care when working in close proximity to existing/new trees and prevent damage to stems/trunks. Exercise extreme care when working in close proximity to any standing water. Do not apply insecticides, herbicides or fungicides, as these can destroy valuable wildlife. The exception is herbicides for the control of specific problem weeds (i.e. nettle, spear thistle, creeping thistle, curled dock, broadleaved dock and ragwort) – herbicides for these species should be applied by weed wiper or spot treatment with a back-pack sprayer.	
Stagger operations to provide adjoining, alternative undisturbed areas for wildlife to migrate to.	
Proposed Planting	
Screening of built form and infrastructure. Protect and enhance landscape character. Reinforce airport layout and legibility. Enhance biodiversity, Bats: maintain and enhance existing bat foraging habitats around the site. Bats: create and maintain a new commuting flight path across the site. Bats: dear of any crossing or rubbing growth allowing a clear stem, 2m above ground level (retain if flield tree feathered to ground) Remove any dead, dying and damaged branches or growth obstructing pedestrian or vehicular routes including the removal of any suckers at the tree base. Stack cut wood within the wooded area adjacent to the north east boundary in agreed locations to encourage ecological diversity. Tree support systems, ties and protective guards shall be checked regularly during establishment and adjusted where necessary. Any broken or missing items shall be replaced and ties adjusted to allow growth and prevent rubbing of bark. Replace any damaged bat boxes. Undertake Pest and Disease Control using suitable pesticides or fungicides as advised, only if severe infestation occurs. Maintain a weed free area at the base of all trees, 1m diameter mulch area for trees in grass or planting.	emmendations for tree work counds maintenance fons for maintenance of soft arral Association Standard Contract and Specification for Tree
Hedgerow Screening of built form and infrastructure. Protect and enhance landscape character. Hedgerow Screening of built form and infrastructure. Unchecked should be cut back annually outside the bird breeding season (March to August inclusive) to a poperations neat and consistent finish to maintain a dense screen and all arisings removed off site. BS 7370-4: Group	e of practice for general landscape bunds maintenance fons for maintenance of soft
approved locations only.	





	Landscape/ Ecological Element	Maintenance Objectives	Maintenance Requirements	Relevant standards/ guidance
		Protect and enhance landscape character. Integrate with surrounding landscape/townscape character. Enhance biodiversity. Bats: maintain and enhance existing bat foraging habitats around the site. Habitats: create and maintain new patches of scrub and small copses	Fork over beds as necessary to eliminate any hollows or cambers, ensuring the depth of mulch is maintained. Redistribute mulch as necessary to maintain specified levels. Check condition of stakes, ties, guys and shelters and replace broken or missing items until plants establish. Adjust if necessary to allow for growth and prevent damage to plants. Cut back any damaged, dead or diseased branches to a healthy node outside of bird breeding season (March to July inclusive). Re-firm any plants that have been disturbed by adverse weather or interference. Undertake pest control with approved pesticides in accordance with manufacturer's instructions in approved locations only. Replace dead / dying plants as necessary. Redistribute mulch to provide groundcover as required.	BS 7370-4: Grounds maintenance Recommendations for maintenance of soft landscape The Arboricultural Association Standard Conditions of Contract and Specification for Tree Works.
7	Planted Amenity Shrubs and Groundcover Areas	Enhance visual amenity. Protect and enhance landscape character. Create visual interest and articulation in the soft landscape and integrate with hard landscape and built form. Create an attractive place to work and socialise. Enhance biodiversity	Ensure all planted areas are kept free of weeds by the use of suitable herbicides; maintain levels of mulch and hand weeding in more prominent areas as required. Fork over beds as necessary to eliminate any hollows or cambers, ensuring the depth of mulch is maintained. Redistribute mulch as necessary to maintain specified levels. Check condition of stakes, ties and guys and replace broken or missing items until plants establish. Adjust if necessary to allow for growth and prevent damage to plants. Cut back any damaged, dead or diseased branches to a healthy node or any growth obstructing adjacent areas of hard standing. Remove any dead flowers/foliage at times appropriate to the species. Refirm any plants that have been disturbed by adverse weather or interference. Undertake pest control with approved pesticides in accordance with manufacturer's instructions in approved locations only. Do not use adjacent to play areas. Prune shrubs annually using normal horticultural standards to form attractive natural habit. Clip ornamental hedges annually to form a neat, compact hedgerow. Maintain at approx height of 0.9 - 1.2m. Dead head bulb planting once the flowering period has finished, trim back dead vegetative growth. Check the condition of the supports for any non-clinging climbing shrubs until they establish. Note that climbing plants have potential to provide refuge for species such as bats and birds. Replace dead / dying plants as necessary. Compost arisings and vegetation waste on site.	BS 4428: Code of practice for general landscape operations BS 7370-4: Grounds maintenance Recommendations for maintenance of soft landscape
8	Meadow and Woodland Edges	Enhance visual amenity. Protect and enhance landscape character. Provide valuable habitat to reptiles and invertebrates. Integrate with nearby woodland character. Provide a meadow edge to areas of woodland and coppice.	Cut all fringe areas adjacent to footpaths / hard surfaces fortnightly between April and November, mow to a height of >40mm. Cut all other areas in late July – early August following the displacement of any annual seeds. Leave cut grass in situ for 3-5 days, before removing all arisings off site to approved tip or compost on site. Carry out further cuts until November and again in early spring to maintain sward at 3 - 4cm. Compost arisings on site. Stop cutting grass in mid-April to allow grass to grow Cut a neat and consistent finish including edges, without rutting or scalping, ensuring adjacent areas of hard standing free are kept free of arisings.	BS 7370-1: Grounds maintenance Recommendations for establishing and managing grounds maintenance organisations and for design considerations related to maintenance.





	Landscape/ Ecological Element	Maintenance Objectives	Maintenance Requirements	Relevant standards/ guidance
			Hand pull or spot herbicide spray invasive weed species. Allow leaf litter and fallen woody material to mulch / compost naturally. Remove litter, rubbish and other debris from grassed areas prior to cutting. Exercise extreme care when working in close proximity to existing/new trees and prevent damage to stems/trunks. Do not apply organic or inorganic fertilisers Do not apply insecticides, herbicides or fungicides, as these can destroy valuable wildlife. The exception is herbicides for the control of specific problem weeds (i.e. nettle, spear thistle, creeping thistle, curled dock, broadleaved dock and ragwort) – herbicides for these species should be applied by weed wiper or spot treatment with a back-pack sprayer. Do not plough, level or re-seed the grassland areas, except with the same species-rich seed mix as used	
9	Amenity Grass	Enhance visual amenity. Integrate with surrounding landscape/townscape character. Provide easily accessible areas of short	originally. Maintain public areas to a maximum height of 5cm during March / April and end of September / October or at times when grass exceeds 5cm. Compost arisings on site. Cut a neat and consistent finish including edges, without rutting or scalping, ensuring adjacent areas of hard standing free are kept free of arisings.	BS 7370-1: Grounds maintenance Recommendations for establishing and managing grounds maintenance organisations and for design considerations related to maintenance.
10	Airfield grassland	amenity grass for the use of workers and visitors. Provide safe and functional airside	Remove litter, rubbish and other debris from grassed areas prior to cutting. Exercise extreme care when working in close proximity to existing/new trees and prevent damage to stems/trunks. Generally, airside grassland managed at a height of approximately 220 to 300mm to deter nesting, feeding	Civil Aviation Authority, CAP 772 Wildlife Hazard
		environment	 and loafing birds, in line with current Long Grass Policy and management practices. Deviations from Long Grass Policy: ILS glidepath: grass height of up to 100 mm is considered to be acceptable from the glidepath aerial to approximately 5 m beyond the monitors. A grass height of up to 200 mm is considered to be acceptable beyond this point up to the limit of the glidepath critical area. ILS localiser: a grass height of up to 200 mm may be considered acceptable within the critical area. Other heights may also be suitable; however, the advice from the Air Navigation Service Provider (ANSP) should be sought before implementation of any deviation from these grass heights. Aerodrome visual aids: aerodrome visual aids should be maintained as short grass for the smallest radius around the object necessary to prevent sightlines being obscured. The use of a 'total kill' herbicide in these areas will create bare ground and bird feeding opportunities and therefore should be avoided. Shorter grass should be maintained at between 50 mm and 100 mm 	Management at Aerodromes, Version 2, 2017 GAL Civil Engineering Airside Reference Specifications: Section 31 - Agricultural Work, Blast Protection and Delethalisation. Document number: 20000-XX-C-XXX-DSP-000023
11	Constructed wetland (reed beds)	Provision of a constructed wetland system for the biological treatment of de-icer contaminated waters from the pollution storage lagoons.	Remove decomposing vegetation/ fallen leaves annually to ensure the reed beds are fully operational. Control reeds/wetland species through removal/thinning on an annual basis to avoid overcrowding. Inspect pond liners and remove litter on a weekly basis.	BS 4428: Code of practice for general landscape operations





	Landscape/ Ecological Element	Maintenance Objectives	Maintenance Requirements	Relevant standards/ guidance
12	Hard Landscape	Maintain all hard paved surfaces in a clean and safe state of use. Keep all hard landscaped surfaces and fencing/walls/barriers clear of litter and graffiti. Repair surfaces or fencing which are worn, damaged or vandalised.	Keeping all hard surfaces, footways and parking areas reasonably weed free at all times using integrated physical / mechanical measures Control moss and algae as necessary to maintain a clear route across all hard paved areas to avoid the risk of slipping in wet conditions. Sweeping hard surfaces at regular intervals, at least 4 times per annum, to avoid a build-up of grit and other debris. This will also assist with discouraging the growth of moss, algae and weeds. Removal of snow and ice as directed by the operator to maintain safe routes. Keep all grass and paved areas free from fallen leaves at all times throughout the autumn/winter period. Leave fallen leaves in planting areas where they will form a natural mulch and humus layer. Only remove if they are likely to smother smaller plants. Remove litter from all hard and soft areas at regular intervals. Empty litter bins weekly. Top up, level and roll to a firm finish any areas of worn or damaged bark or gravel surfacing. Repair timber edgings where damaged. Inspect and make good fencing, access gates and street furniture where damaged or vandalised. Maintain seating, bollards, railings and gates in good working condition, oiling moving parts where necessary. Inspect, record and repair play equipment and play safety surfacing on a weekly basis, or as directed by the site operator. Provide routine monitoring to ensure that operations are undertaken as programmed and to take appropriate action to deal with damage and debris arising from storms, flood events and heavy snowfall.	BS 4428: Code of practice for general landscape operations BS 7370: Grounds maintenance
13	Drainage	Keep gullies from blocking up and overflowing Keep ditches from becoming choked with silt and woody vegetation	Gully emptying, jetting and drainage inspections carried out regularly but in particular during Autumn to clear leaf fall away and at times when the site is heavily used. Inspect regularly particularly during the high season clearing blockages and maintaining grease traps. Inspect drainage ditches regularly. Clear accumulated silt in late Summer /Autumn and spread arisings on low side of ditch to ensure run off is not impeded.	None
14	Seating and street furniture	Maintain furniture in safe working order	Routine inspections, especially faults due to vandalism, using simple checklist, weekly. Operational inspection, particularly vandalism and minor wear	Inspections to EN1176, Part 7
15	Pesticides, Insecticides and Fungicides	Enhance biodiversity. Limit use of pesticides, insecticides and fungicides, unless absolutely essential.	Allow pest control only by spraying with a suitable approved pesticide in cases of severe insect and pest infestation. All spraying must be carried out in accordance with manufacturers written recommendations. All damage that occurs, as a result of spraying, shall be made good at the Contractor's own cost. No insecticides, fungicides or pesticides shall be used except with the prior written approval of the managing authority. In such cases all pesticides shall be selected from the current list of approved chemicals and applied in strict accordance with the Control of Pesticide Regulations 1986 and other related Acts and Regulations. The approval of the Environment Agency will be required when applying a pesticide to or within 3m of any watercourse. Take appropriate action only if severe infestation occurs. If problem persists over a number of years, consider changing the plant species concerned to one less vulnerable to infestation.	Control of Pesticide Regulations 1986 Plant Protection Regs (2006) BASIS (the registration, standards and certification scheme for pesticides and fertilisers) BS 4428: Code of practice for general landscape operations BS 7370-4: Grounds maintenance.





	Landscape/ Ecological Element	Maintenance Objectives	Maintenance Requirements	Relevant standards/ guidance
Eco	logical Management Obj	ectives		
16	Bat boxes	To provide enhanced bat roosting	Annually - A suitably qualified ecologist to check the bat boxes for evidence of roosting bats. Remove any	None
		opportunities.	old bird nests. Any damage to be made good.	
17	Bird boxes	To provide enhanced bird nesting	Annually = A suitably qualified ecologist to check the bird boxes for evidence of nesting birds. Any damage	None
		opportunities.	to be made good.	
18	Hibernacula/brash piles	Create refuges in suitable locations to	A portion of the cut timber from felling/maintenance activities to be retained in locations on site to creation	None
		increase habitat suitability for a range of	refuges for wildlife, where this does not constitute a health and safety risk.	
		wildlife, in particular, amphibians, reptiles,	Log piles can be created using timber in varying lengths. These should be laid / piled within the edge of	
		bats, birds and hedgehogs.	wetland habitats around ponds and on the periphery of wooded areas.	



Annex 3

Typical Planting Schedules

The following schedules set out typical plant species, sizes and mixes that could be incorporated in detailed design proposals, subject to approval by the relevant authorities. These schedules should be read in conjunction with Figures 1.2.1 to 1.2.18.

Native Woodland Mix A										
Latin Name	Common Name	Form	Height in mm	% Mix						
Acer campestre	Field maple	Transplant	600-800	15						
Betula pendula	Silver Birch	Transplant	600-800	5						
Corylus avellana	Hazel	Transplant	450-600	15						
Crataegus monogyna	Hawthorn	Transplant	450-600	10						
llex aquifolium	Holly	Transplant	450-600	5						
Pinus sylvestris	Scots Pine	Transplant	600-800	5						
Populus tremula	Aspen	Transplant	600-800	5						
Prunus avium	Cherry	Transplant	600-800	10						
Quercus robur	English Oak	Transplant	600-800	15						
Salix caprea	Goat willow	Transplant	450-600	5						
Tilia cordata	Small Leaved Lime	Transplant	600-800	10						

Latin Name	Common Name	Form	Height in mm	% Mix
Betula pendula	Silver Birch	Transplant	450-600	20
Cornus sanguinea	Dogwood	Transplant	450-600	15
Corylus avellana	Hazel	Transplant	450-600	15
Crataegus monogyna	Hawthorn	Transplant	450-600	20
Euonymous europeaus	Spindle	Transplant	450-600	10
llex aquifolium	Holly	Transplant	450-600	10
Salix caprea	Goat willow	Transplant	450-600	10

Native Scrub Mix				
Latin Name	Common Name	Form	Height in mm	% Mix
Cornus sanguinea	Dogwood	Transplant	450-600	10





Corylus avellana	Hazel	Transplant	450-600	15
Crataegus monogyna	Hawthorn	Transplant	450-600	10
Euonymous europeaus	Spindle	Transplant	450-600	10
llex aquifolium	Holly	Transplant	450-600	10
Prunus spinosa	Blackthorn	Transplant	450-600	10
Rosa canina	Dog Rose	Transplant	450-600	10
Salix caprea	Goat willow	Transplant	450-600	10
Ulex europaeus	Gorse	Transplant	450-600	5
Viburnum opulus	Guelder Rose	Transplant	450-600	10

Wetland Tree and Scrub Mix					
Latin Name	Common Name	Form	Height in mm	% Mix	
Alnus glutinosa	Alder	Transplant	600-800	20	
Betula pubescens	Downy Birch	Transplant	600-800	10	
Salix caprea	Goat willow	Transplant	450-600	20	
Salix fragilis	Crack Willow	Transplant	600-800	10	
Salix viminalis	Common Osier	Transplant	450-600	20	
Viburnum opulus	Guelder Rose	Transplant	450-600	20	

Groundcover Mix				
		1		
Latin Name	Common Name	Height in mm/pot size cm	% Mix	
Geranium macrorrhizum	Cranesbill	9cm pot	20	
Geranium nodosum	Cranesbill	9cm pot	20	
Hedera helix	lvy	450-600	60	

Marginal Planting Mix				
Latin Name	Common Name	Form	% Mix	
Caltha palustris	Marsh Marigold	9cm pot	15	
Carex spissa	Sedge	9cm pot	10	
Filipendula ulmaria	Meadowsweet	9cm pot	20	
Iris pseudacorus	Flag Iris	9cm pot	15	
Juncus effusus	Corkscrew Rush	9cm pot	15	
Lythrum salicaria	Purple Loosestrife	9cm pot	15	
Phalaris arundinacea	Reed Canary-grass	9cm pot	10	





Reed Bed				
Latin Name	Common Name	Form		
Phragmites australis	Common Reed	9cm pot		

Hedgerow Mix				
Latin Name	Common Name	Form	Height in mm	% Mix
Acer campestre	Field maple	Transplant	600-800	10
Corylus avellana	Hazel	Transplant	450-600	10
Crataegus monogyna	Hawthorn	Transplant	450-600	30
Euonymous europaeus	Spindle	Transplant	450-600	10
llex aquifolium	Holly	Transplant	450-600	5
Ligustrum vulgare	Privet	Transplant	450-600	10
Prunus spinosa	Blackthorn	Transplant	450-600	10
Quercus robur	English oak	Transplant	600-800	5
Viburnum opulus	Guelder Rose	Transplant	450-600	10

Specimen Trees				
Latin Name	Common Name	Form	Height in m	Stem Girth
Ginkgo biloba	Maidenhair Tree	Light standard	3-4m	8-10cm
Liquidambar styraciflua	Sweet Gum	Light standard	3-4m	8-10cm
Pinus sylvestris	Scots Pine	Light standard	3-4m	8-10cm
Prunus avium 'Plena'	Cherry	Light standard	3-4m	8-10cm
Pyrus calleryana 'Chanticleer'	Pear	Light standard	3-4m	8-10cm
Quercus robur	Oak	Light standard	3-4m	8-10cm

Ornamental Shrubs				
Latin Name	Common Name	Form	Height in mm	
Amelanchier lamarckii	Snowy Mespilus	5L pot	600-800	
Carpinus betulus (hedge)	Hornbeam	Transplant	600-800	
Cistus corbariensis	Rock Rose	3L pot	250-300	
Cornus kousa chinensis	Flowering Dogwood	5L pot	600-800	
Cornus mas	Cornelian Cherry	5L pot	600-800	
Euonymous europaeus 'Red Cascade'	Spindle	3L pot	450-600	
Osmanthus delavayi	Sweet Olive	3L pot	450-600	





Rosa pimpinellifolia	Dunwich Rose	3L pot	450-600
Sarcoccoca humilis	Winter Box	3L pot	200-300
Symphoricarpus x chenaultii 'Hancock'	Snowberry	3L pot	300-400
Taxus baccata (hedge)	Yew	Rootballed	450-600
Viburnum tinus	Larustinus	3L pot	450-600
Vinca minor	Periwinckle	3L pot	200-300

Grassland and Meadow			
Turfed Areas			
Medallion turf by Rowlawn			
Meadow and Amenity Grass Areas			
(anti bird strike grass seed mixes where appropriate)			
General Amenity Grassland Mix	A22 (Low Maintenance Mix) British Seed Houses		
General Meadow Mix	NVC MG6 Species Rich Wildflower Mix		
Wet Meadow and Margins	WFG9 British Seed Houses		



Our northern runway: making best use of Gatwick

Annex 4

Preliminary Location for Advance Planting

