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## NORTH AYRSHIRE COUNCIL

23 March 2021

### Cabinet

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<b>Title:</b>	<b>Roads, Structures and Street Lighting Maintenance Programme 2021/22</b>
<b>Purpose:</b>	To seek Cabinet approval of the proposed Roads, Structures and Street Lighting Maintenance Programme for 2021/22.
<b>Recommendation:</b>	That the Cabinet (a) notes the approach taken to determining the asset maintenance programme for roads, structures and street lighting; (b) approves the maintenance programme for 2021/22, as shown at Appendix 1a and 1b; and (c) notes that the programme will be issued to the Locality Planning Partnerships for information.

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### 1. Executive Summary

- 1.1 North Ayrshire Council has a statutory obligation under the Roads (Scotland) Act 1984 to manage and maintain its public road network. The adopted road network within North Ayrshire has a total length of 1043km. The core roads assets are currently estimated at a value of approximately £1.7 billion.
- 1.2 The Council's Roads Service has adopted an asset management approach to road maintenance to allocate available road maintenance funds to locations that will offer the most beneficial return on the investment.
- 1.3 The Roads Asset Management Plan (RAMP) and the roads assets maintenance strategy follows the recommendations contained within the 'Well Maintained Highways Code of Practice', ensuring that the Council's statutory obligations as delegated Roads Authority are met.
- 1.4 In complying with the Code of Practice, an effective regime of inspection, assessment and condition recording is well established which assists in not only providing a road network for the future but one that promotes social inclusion and contributes to economic growth within the area. This approach also ensures the Council is providing value for money on any investment attributed to road maintenance.
- 1.5 The proposed Roads, Structures and Street Lighting Maintenance Programme 2021/22 is attached at Appendix 1a and 1b. The Programme is based on approved revenue and capital budgets, including an additional £0.700m in 2021/22 which will be funded from the recently approved increased capital infrastructure investment.

## **2. Background**

- 2.1 North Ayrshire Council is responsible for the maintenance of the adopted local road network including lighting and structures assets as well as its other non-adopted road assets. However, the Council has no responsibility for the maintenance of the Trunk Road Network which falls to Transport Scotland and their management contractor, Amey. The Trunk Road network includes the A78, the A737 from Kilwinning to the Renfrewshire Boundary and A738 from the Pennyburn Roundabout to the A737 Dalry Road Kilwinning.
- 2.2 North Ayrshire Council's roads are the Council's largest community asset and play a vital role in supporting the local and wider economy by facilitating the movement of people, goods and services and connecting people with economic and social opportunities.
- 2.3 The proposed Roads, Structures and Street Lighting Maintenance Programme for 2021/22 has been developed in accordance with the strategy contained within the Roads Asset Management Plan (RAMP) to deliver the maximum return on investment and ensures the provision of an effective road network throughout North Ayrshire.
- 2.4 Road Condition is measured nationally through the Scottish Road Maintenance Condition Survey (SRMCS). The measure in place, the Road Condition Index (RCI), records the percentage of the Council's roads which should be considered for maintenance. North Ayrshire's current RCI is 37.1 which is an improvement from 37.3 in 2019 and from 38.1 in 2018 and 39.1 in 2017.
- 2.5 However, the estimated carriageway maintenance backlog figure for North Ayrshire is currently £34.800 million. The 'steady state' figure for maintaining our roads at present condition is £4.300 million per year. The allocated capital budget supported by revenue funding is £4.300 million for 2021/22. An additional £0.700m has been identified from the 'core infrastructure, property and vehicles renewal investment' capital budget allocation, taking the total investment in the road network to £5.000 million for 2021/22. This level of investment outpaces the 'steady state' figure and should therefore contribute to an improvement in network condition over time. It should be noted that the roads investment programme for Arran includes an additional £0.305m for 2021/22, this sum is carried over from the 2020/21 financial year as the programmed works on the island could not be carried out before the 2020/21 financial year end due to restrictions on ferry timetabling as a result of the pandemic.
- 2.6 Road lighting condition is measured through programmes of structural and electrical assessment and testing and is complemented through the ongoing review of age profile and material type life expectancy. The results are categorised and recorded in the lighting asset management database to inform a prioritised list of replacement schemes. Lighting is allocated an annual Capital budget of £1.000m.
- 2.7 Bridge and retaining wall condition is also evaluated through a robust inspection programme. General inspections are undertaken every 2 years, while an in-depth 'principal inspection' is carried out every 6 years. The results of the inspections are input into a Structures database which is then used to calculate an average Bridge Structure Condition Index (BSClav). The BSClav is currently 85.7 (2019/20 figure) which still falls

within the 'good' classification of 85 to 94. The allocated capital budget supported by revenue funding is £0.710m.

- 2.8 Details of how condition assessments are carried out and how roads, structures and lighting locations are prioritised for inclusion in our Maintenance Programme are provided in Appendix 2. The assessment matrix used for scoring and ranking footways for inclusion in our footway resurfacing programme is attached in Appendix 3. The assessment matrix used for scoring and ranking structures for inclusion in the Structures Maintenance Programme is attached in Appendix 4.

### **3. Proposals**

- 3.1 That Cabinet notes the approach taken to determining the asset maintenance programme for roads, structures and street lighting.
- 3.2 That Cabinet approves the maintenance programme for 2021/22, as shown at Appendix 1a and 1b.
- 3.3 That Cabinet notes that the programme will be issued to Locality Planning Partnerships for information.

### **4. Implications/Socio-economic Duty**

#### **Financial**

- 4.1 The Roads, Structures and Street Lighting Maintenance Programme will be delivered from allocated capital and revenue budgets. Estimated costs are detailed within the appendices.

#### **Human Resources**

- 4.2 Delivery of the programme will be met from the existing staff resource.

#### **Legal**

- 4.3 North Ayrshire Council has a statutory obligation to manage and maintain its public road network under the terms of the Roads (Scotland) Act 1984.

#### **Equality/Socio-economic**

- 4.4 There are no equality implications. The maintenance programme contributes to the Council's socio-economic duty, as well-maintained roads are essential for the social and economic prosperity of North Ayrshire.

#### **Environmental and Sustainability**

- 4.5 Effective programming and management of these assets assists in reduced carbon associated with mobilisation of unplanned reactive maintenance resources and extends the use of assets in a cost effective and sustainable manner.

## **Key Priorities**

- 4.6 Effective management of these assets contributes to a number of Council plan objectives ensuring that North Ayrshire is well-connected with effective infrastructure and that we maximise resources and provide value for money.

## **Community Wealth Building**

- 4.7 The maintenance programme contributes to Community Wealth Building as a proportion of the maintenance programme is delivered by local contractors and inhouse by the Roads Operations Team and Building Services.

## **5. Consultation**

- 5.1 The maintenance programme once approved will be shared with each Locality Partnership.

RUSSELL McCUTCHEON  
Executive Director (Place)

For further information please contact **David Hammond, Head of Commercial Services,** on **Tel: 01294 324750.**

## **Background Papers**

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# Mainland Roads Programme 2021/22

<i>Carriageway Resurfacing</i>			
<i>Street</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
A71	Irvine	EAC boundary to Corsehill Mount Roundabout	£130,000
A71	Irvine	Corsehill Mount Roundabout towards Irvine	£100,000
A71	Irvine	Greenwood Interchange to Corsehill Mount Roundabout	£200,000
A736	Irvine	Torranyard southwards	£105,000
A737 Irvine Road	Kilwinning	Buckreddan to Eglinton Park Gates	£120,000
A737 Kilwinning road	Irvine	Redburn Roundabout to Castlepark	£130,000
A737 Lauchlan Way	Kilwinning	Tesco car park entrance to Howgate	£80,000
A737 Marress Road Northbound	Irvine	Marress Roundabout to Traffic Lights	£140,000
A738 Glencairn Street	Stevenston	Jet to Wallace Avenue including Hayocks Roundabout	£55,000
A738 High Road	Saltcoats	Jacks Road to McGillivray Avenue	£30,000
B7025 Charles Street	Largs	Full Length	£55,000
B7080 Long Drive	Irvine	Riverside Roundabout to joint at SMA	£50,000
B7080 Long Drive	Irvine	Behind BP Garage to Riverside Roundabout	£100,000
B7081 Main Road	Springside	Dreghorn Roundabout to EAC Boundary	£200,000
B714	Dalry	Girthing Farm to Yonderhouses	£100,000
B769 Middleton Road	Irvine	Stanecastle Road to Bowhouse Rise	£50,000
B779 Sandy Road	Irvine	Bartonholm to new estate	£35,000
B780 Manse Street	Saltcoats	Chapelwell Street to Sainsbury exit	£40,000
B780 Canal Street	Saltcoats	Auchenharvie park to Barnett Crescent	£80,000
B781 Cubrieshaw St	West Kilbride	Number 84 to Gateside Street	£25,000
B896	Cumbræ	Stinking Goat	£35,000
Burns Terrace	Ardrossan	Full Length	£30,000
Clyde Terrace	Ardrossan	Number 55 to Firthview Terrace	£15,000
Lawson Drive	Ardrossan	Part Length	£65,000
Sorbie Road	Ardrossan	Garage to end of cemetery	£60,000
Head Street	Beith	Park Court to A737	£30,000
Main Street	Beith	Project Contribution	£20,000
Mains Road	Beith	Meadowside to Hawthorn Crescent	£25,000
Clyde Street	Cumbræ	Full Length	£15,000
Hastie Avenue	Cumbræ	Full Length	£30,000
Woodlands Street	Cumbræ	Full Length	£10,000
Broadlie Drive	Dalry	Full Length	£10,000
Craig Avenue	Dalry	Broadlie Avenue to Kirkland Crescent	£10,000
Kirkland Crescent	Dalry	Full Length	£65,000
Peden Avenue cul-de-sacs	Dalry	4 No.	£25,000
Putyan Avenue	Dalry	Full Length	£20,000
Wingate Avenue/Burnhouse	Dalry	Full Length	£50,000

# Mainland Roads Programme 2021/22

Wingfaulds Avenue	Dalry	Derestricted area to B780	£40,000
Annick Road	Irvine	Roundabout to pedestrian crossing	£40,000
Bensley Rise	Irvine	Full Length	£30,000
Blairdennon Way	Irvine	Full Length	£30,000
Burns Crescent loop	Irvine	Part Length	£20,000
Campsie Way	Irvine	Towerlands Road to car park at Kilsyth Walk	£50,000
Galt Avenue	Irvine	Full Length	£35,000
Livingstone Terrace	Irvine	Bilby Terrace to Paterson Avenue	£110,000
Martin Avenue	Irvine	Junction with Paterson Avenue (Large Patch)	£10,000
Mill Road	Irvine	Beech Avenue to Thornhouse Avenue	£55,000
Ravenscroft	Irvine	Number 2 to Number 40	£40,000
Stronsay Way	Irvine	Full Length	£40,000
The Glebe	Irvine	Part Length	£15,000
Bankfaulds Avenue	Kilbirnie	from turning circle	£20,000
Hagthorn Avenue	Kilbirnie	o/s school	£10,000
Place View	Kilbirnie	Ladysmith Road to Alexander Fleming	£40,000
Walker Street	Kilbirnie	Full Length	£15,000
Blacklands Avenue	Kilwinning	Part Length	£40,000
Blacklands Crescent	Kilwinning	Full Length	£42,000
Corsehill	Kilwinning	Part Length	£25,000
Evelyn Terrace	Kilwinning	Part Length	£10,000
Pennyburn Road	Kilwinning	Cranberry Road to Sundrum Place	£150,000
Underwood	Kilwinning	Full length	£45,000
Whitehirst Park Road	Kilwinning	From existing surfacing to Duddingston Avenue	£55,000
Brisbane Street	Largs	Full Length	£55,000
Haco Street	Largs	Full Length	£40,000
Kelvin Street	Largs	Full Length	£45,000
Adams Avenue	Saltcoats	Outside shops to circle	£20,000
Galloway Place	Saltcoats	Full Length	£10,000
Guthrie Road/Parkend Road/Braehead Place	Saltcoats	Guthrie Road (except surfaced area) Parkend Road from Guthrie Road to Kerr Avenue	£40,000
Middlepart Crescent	Saltcoats	Part Length	£10,000
Saughtree Avenue	Saltcoats	Full Length	£20,000
Stanley Road	Saltcoats	Full Length	£30,000
Wheatley Road	Saltcoats	Full Length	£25,000
Garven Road	Stevenston	Part Length	£25,000
Highfield Drive	Stevenston	Full Length	£27,000
Kilwinning Road Service Road	Stevenston	Full Length	£26,000
Shore Road	Stevenston	Full Length	£10,000
Bellard Road	West Kilbride	Goldenberry Avenue to South Road	£15,000
Gateside Street	West Kilbride	St Brides Road to Cubrieshaw Street	£15,000

# Mainland Roads Programme 2021/22

<b>£3,720,000</b>
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<i><b>Carriageway Screeding</b></i>			
<i>Street</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
C20	Irvine	Cunninghame Head to boundary	£15,000
C20	Irvine	Kilmaurs side to layby	£63,000
C24	Irvine	Junction of B769	£3,500
U27	Dalry	Full Length	£47,000
U62	Beith	C56 to 560m past Windyedge	£44,000
U45	Kilbirnie	Milton Road	£40,000
U17	Beith	Coldstream Farm to past Coldstream Bridge	£31,000
U50	Beith	Full Length	£52,000
U63	Beith	Coldstream Bridge No1 to boundary	£57,000
U7	Beith	Bigholm from A737 to U50 Newmills (Part Length)	£66,000
U30	Beith	A737 to B777	£29,000
U48	Beith	Full Length	£16,500
U26	Kilbirnie	Geirston Road (Carried over from 20/21)	£36,000
			<b>£500,000</b>

<i><b>Patching Contract</b></i>			
<i>Area</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
Various Locations			<b>£100,000</b>

# Mainland Roads Programme 2021/22

<i><b>Footway Resurfacing</b></i>			
<i>Street</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
Ardneil Court Footpaths	Ardrossan	Part Length	£31,500
Boydston Road	Ardrossan	Junction of Montfode Drive	£2,500
Elm Park footpaths	Ardrossan	Internal slabbed paths at front of houses	£15,000
Glebe Court	Beith	Full Length	£10,000
Iona Court	Dreghorn	Number 22-27 underpass at gable no 22, gable number 1	£3,000
Castlepark Circle	Irvine	Lomond Place to Katrine Place	£22,000
Castlepark footpaths	Irvine	Part Length	£30,000
Craignaw Place	Irvine	Bus stop at link footpath to shops	£3,000
Fullarton Footpaths	Irvine	Part Length	£15,000
Heatherstane Bank	Irvine	footpath beside bus route from number 91 to Gable 77	£1,000
Kilsyth Crescent	Irvine	Gable no 1 to junction	£2,000
Moorfoot Way	Irvine	Numbers 14 - 34	£3,000
Mull Crescent	Irvine	Between Housing improvements	£15,500
Pladda Crescent	Irvine	Numbers 6 - 10	£2,000
Sillars Meadow	Irvine	Part Length	£13,000
Stronsay Way	Irvine	Rear footpath	£15,500
Pennyburn footpaths	Kilwinning	Corner of Kilkerran Square to Stevenston Road Front of older peoples housing from Cranberry Court to Muirside Place to the bottom of the slope leading to the railway bridge	£16,000
Scott Place & Owen Kelly Place	Saltcoats	Internal Footpaths	£8,000
Eglinton Gardens	Skelmorlie	Halketburn to Skelmorlie Castle Road	£22,500
Overtoun Road	Springside	Opposite nursery and outside Premier Stores	£6,000
Cambuskeith Road	Stevenston	Full Length	£30,000
Drumilling Drive	West Kilbride	Both sides	£7,500
Weston Terrace/South Road	West Kilbride	Bowling green side, from Orchard Street to Alton Street	£8,000
			<b>£282,000</b>



# Mainland Roads Programme 2021/22

<i>Lighting Deteriorated Infrastructure Replacements</i>		
<i>Area</i>	<i>Town</i>	<i>Estimate Cost</i>
Bath Villas Hill Lane Bridgepark Eglinton Square Colehill Place Arran Lane Dalry Road - Service Road Ardneil Court	Ardrossan	£160,000
<b>Dalry:-</b> East Kirkland West Kirklands Place Aitken Street Merksworth Avenue Russell Drive - check ownership Garnock Street <b>Kilwinning:-</b> Pathfoot View Ladyacre Tammy Dales Road Corsehill	Dalry & Kilwinning	£145,000
<b>Irvine:-</b> Kirkgate Caldon Road <b>Stevenston:-</b> Donaldson Ave Hawkhill Place High Road Kilwinning Road - Service Road Townhead Street Millhill Road	Stevenston & Irvine	£220,000
Campsie Walk Fintry Terrace Fintry Place Campsie Avenue Campsie Way Kilpatrick Court Kilpatrick Place Kilsyth Crescent Kilsyth Walk	Bourtreehill, Irvine	£215,000
Capringstone Foot Drummuir Foot Fortacre Place East Bowhouse Way Busbiehead Bowhouse Rise East Bowhouse Head	Girdle Toll, Irvine	£215,000

# Mainland Roads Programme 2021/22

Southook Row		
Bowhouse Head		
Rigfoot		
Newfield Place		
Newtonhead		
Overton Place		
<b>West Kilbride:-</b>		
Farmfield Terrace		
Craufurd Avenue		
Law Brae	West Kilbride & Largs	£95,000
Simson Avenue		
<b>Largs:-</b>		
Allanpark St		
		<b>£1,050,000</b>

<b>Lighting Deteriorated Column Replacements</b>			
<i>Area</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
Various Unplanned Locations			<b>£150,000</b>

<b>Lighting Deteriorated Column Inspections</b>			
<i>Area</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
Various Locations			<b>£50,000</b>

<b>Structures Projects</b>			
<i>Structure</i>	<i>Town</i>	<i>Project</i>	<i>Estimate Cost</i>
Merryvale Footbridge	Irvine	Strengthening and refurbishment	£250,000
Multi Storey Car Park	Irvine	Strengthening and refurbishment	£120,000
Kirkland Bridge	Busbiehill	Replacement (cost shared with EAC)	£60,000
Threadmill Bridge	Kilwinning	Replacement / Strengthening	£100,000
			<b>£530,000</b>

# Mainland Roads Programme 2021/22

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Carriageway Resurfacing:	<i>£3,720,000</i>
Carriageway Screeding:	<i>£500,000</i>
Patching Contract:	<i>£100,000</i>
Footway Resurfacing:	<i>£282,000</i>

Lighting Infrastructure Replacements:	<i>£1,050,000</i>
Deteriorated Column Replacements:	<i>£150,000</i>
Deteriorated Column Inspections:	<i>£50,000</i>

Structures Projects:	<i>£530,000</i>
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<b><i>Overall Mainland Total:</i></b>	<b><i>£6,882,000</i></b>
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# Arran Roads Programme 2021/22

<i>Carriageway Resurfacing</i>			
<i>Street</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
<i>Carry Over from 2020/21</i>			
A841	Whiting Bay	Largiemhor House to Ashdale Way (Increased Length shown in 2021/22)	£65,000
A841	Brodick	North of Market Road to West of Co-op	£100,000
B880	Shiskine	Bridgend to Shiskine 30 mph signs (Partially Completed)	£30,000
B880	Shiskine	Surface dressing at Balmichael to past Balmichael House Junction	£62,000
Hospital road	Lamlash	From Margnaheglish Road Junction	£22,000
Manse Road	Lamlash	Full Length	£66,000
Margnaheglish Road	Lamlash	From A841 to Junction Hospital road	£25,000
<b>2020/21 Total</b>			<b>£305,000</b>
<i>2021/22</i>			
A841	Whiting Bay	Ashdale Way to Fernbank (Increased Length from 2020/21)	£206,000
A841	Lamlash	End of new surface at Glenarry	£72,000
C147	Whiting Bay	South of Braehead Cottage to Joint at Largybeg	£98,000
C147	Kildonan	Dippen Lodge	£30,000
C3 Ross Road	Lamlash	Contribution with Timber Transport	£35,000
Rodden Road	Shiskine	From Shiskine to Torbeg	£92,000
Kildonan Low Road	Kildonan	Miodar to church brae	£72,000
C147	Kildonan	Landslip Contribution	£75,000
<b>2021/22 Total</b>			<b>£680,000</b>
			<b>£985,000</b>

<i>Footway Resurfacing</i>			
<i>Street</i>	<i>Town</i>	<i>Location</i>	<i>Estimate Cost</i>
The Avenues	Lamlash	Full Length	£5,000
Park Terrace	Lamlash	Part Length	£8,000
Silverhill	Whiting Bay	Part Length	£5,000
			<b>£18,000</b>

# Arran Roads Programme 2021/22

<i>Structures Projects</i>			
<i>Structure</i>	<i>Town</i>	<i>Project</i>	<i>Estimate Cost</i>
C147-55 Kildonan Landslip	Kildonan	Retaining Wall Construction	£150,000
C147-049 Culvert West of Ballymeanoch	Kildonan	Design work and ground investigation for retaining wall strengthening	£30,000
			<b>£180,000</b>

Carriageway Resurfacing 2020/21 Carryover: £305,000

Carriageway Resurfacing 2021/22: £680,000

Footway Resurfacing: £18,000

Structures Projects: £180,000

**Overall Arran Total: £1,183,000**

### **Condition Assessment and Prioritisation Process**

- 1.1 The Audit Scotland Follow-up report, Maintaining Scotlands Roads published in August 2016 stated that Councils should use their RAMPs to establish long term investment plans for maintaining the road network taking into account whole-life costing and treatment options.
- 1.2 As part of the Roads Asset Management process, annual condition assessments are carried out on the public road network as part of the inspection regime. All locations are assessed using a risk based approach.
- 1.3 Condition assessments are carried out simultaneously with the Safety Inspections in accordance with the pre-determined timescales contained within our Safety Inspection Manual. All faults noted during these inspections are logged within our electronic Routine Maintenance System (RMS).
- 1.4 For carriageways, to take account of whole-life and different treatment options the carriageway maintenance programme is developed using road asset management principles. Lifecycle planning is at the core of this approach and takes into account, hierarchies, condition and local community priorities. Preventative treatments are used to prolong the life of carriageway surfaces before their condition deteriorates and requires extensive resurfacing.
- 1.5 The main factors considered are:-
  - Road Condition – based on detailed visual inspection and the Scottish Road Maintenance Conditions Survey (SRMCS).
  - Road Hierarchy – this takes account of the strategic importance of the road and is determined from our Local Transport Plan.
  - Assistance to Council and Community Priorities – this takes account of other priorities such as economic development, access to shops, amenity housing or schools.
- 1.6 Carriageways and footways are both condition assessed and scored in accordance with the assessment table below. Where the condition assessment score (referring to table below) is assessed as being 11 or more, then a priority assessment is carried out, in accordance with the Scheme Assessment Form attached as Appendix 3.

### **Assessment Table**

<b>Extent</b>	<b>CONDITION</b>			
	<b>1 (Acceptable)</b>	<b>2 (Safe but poor appearance)</b>	<b>3 (Minor deterioration)</b>	<b>4 (Major deterioration)</b>
1 - Up to 25%		<b>5</b>	<b>9</b>	<b>13</b>
2 – 25% to 50%		<b>6</b>	<b>10</b>	<b>14</b>
3 – 50% to 75%		<b>7</b>	<b>11</b>	<b>15</b>
4 – 75% to 100%	<b>4</b>	<b>8</b>	<b>12</b>	<b>16</b>

Each location that progresses onto the prioritisation process is rated using the additional criteria contained in the Scheme Assessment Form and is placed on the strategic list of priorities relative to its score. Each location is also reviewed at least once a year depending on its location within the Roads Hierarchy as part of the routine inspection process.

- 1.7 There are various types of surfacing materials and processes available depending on the particular road type, location and level of existing deterioration. Options available for treatment include preventative measures such as surface dressing, micro surfacing or asphalt preservation. Resurfacing options such as screeding, resurfacing (inlay and overlay), retread and overlay and depending on the severity of deterioration full reconstruction may be the most effective option.
- 1.8 The level of investment associated with the varying treatment types identified in the table below was established using the Society of Chief Officers of Transportation in Scotland's cost projection model, developed as part of the Roads Asset Management Planning project. The model assists with identifying the effect of various treatments on the on-going condition of the carriageway. This enables a more accurate design life for the treatments currently available to be developed and ensuring value for money on their use. An option appraisal matrix has also been developed to assist with the identification of the most appropriate treatment to be used at each location.

**Treatment Option Table**

<b>Treatment Option</b>	<b>Cost / Sqm</b>	<b>Extension to life</b>
Surface Dressing	£3.30	Up to 10 years
Micro Surfacing	£11.35	7 – 10 years
Asphalt Preservation	£5.00	Up to 5 years
Screeding	£9.00	5 – 10 years
Retread	£22.50	Up to 20 years
Inlay HRA	£18.00	Up to 20 years
Inlay SMA	£18.00	Up to 10 years
Overlay <100mm	£20.70	Up to 20 years
Inlay 100mm	£27.26	Up to 20 years
Reconstruction 300mm	£112.40	Up to 20 years

- 1.9 Street Lighting column replacement is prioritised through non-destructive strength testing to determine the level of deterioration associated with the columns. Following testing, columns are categorised within the Asset Management database for road lighting.
- 1.10 Testing is carried out in accordance with the Institute of Lighting Engineer's Technical Report No.22 Managing a Vital Asset: Lighting Supports as well as UK Lighting Board Code of Practice: Well-lit Highways.
- 1.11 Once results are input, the database then compares these results against the more general age profile to determine a final list of priority repairs. This produces recommendations in order of priority for both individual units and whole streets or areas.
- 1.12 Recommendations are generally categorised as Category A through K as follows:
- A: Immediate replacement
  - B: Replace urgently or reinspect within 6 months
  - C1: Column Material failure, replace as soon as possible or reinspect within 1 year
  - C2: Bracket failure, sleeve where possible or replace unit within 1 year



- D: Foundation failure, realign, reinstate and reinspect within 6 months
- E: Material approaching failure, replace as part of planned maintenance programme or reinspect within 2 years
- F: Material approaching failure, replace as part of planned maintenance programme or reinspect within 5 years
- G: Condition reasonable, but age expired and certified insured for 2 year periods until replaced
- H: Condition reasonable, but age expired and certified insured for 5 year periods until replaced
- I: Acceptable condition but age expired and insured for 5 years periods until replaced.
- J: Sound condition but age expired & visually poor (evidence of concrete cracking etc.)
- K: Sound condition and not age expired – no current requirement for strength structural inspection, visual only at planned maintenance cycle.

1.13 Where non-urgent replacement recommendations (Category F through to J) are on an individual column basis, the data is further analysed to determine a percentage value for recommended replacement numbers against the balance of units in a street. If this figure exceeds 30% then the entire street will be considered for higher prioritisation which will address the design class standard of the street beyond individual replacement for safety reasons only.

1.14 The structures programme is identified based on the structures prioritisation matrix which ranks assets based on a number of factors including its condition, safety, and usage.

# North Ayrshire Council - Roads Carriageway Scheme Assessment Form



Number

Town:

Area:

Road Name:

Location:

Comments:

Category: **CONDITION RATING**

Type: **CARRIAGEWAY**

Rated By:

Date Rated:

Criteria	Score (S)	Weighting (W)	Priority Score (S x W)
1. Condition		<b>4</b>	
2. Maintenance Category		<b>2</b>	
3. Public Liability Claims / Fault Reports / Complaints		<b>1</b>	
4. Assistance to Other Priorities		<b>1</b>	
<b>Total Priority Score:</b>			

<b>Treatment Type:</b>					
<b>Length:</b>		<b>Breadth:</b>		<b>Area:</b>	
<b>Patching Required:</b>	<b>Area:</b>			<b>Depth:</b>	
<b>Kerbing Required:</b>	<b>Length:</b>				

## Additional Comments

<b>Assessed By:</b>	
<b>Assessment Date:</b>	
<b>Checked By:</b>	

<b>Reassessed By:</b>	
<b>Reassessment Date:</b>	
<b>Checked By:</b>	

# North Ayrshire Council - Roads Carriageway Resurfacing Scheme Priority System

## General

The weighting system devised enables the programme of carriageway resurfacing schemes to be objective, rated against a number of important criteria.

Scoring System			
Criteria	Maximum Score	Weighting	Score
1. Condition	16	4	64
2. Maintenance Category	22	2	44
3. Public Liability Claims / Fault Reports / Complaints	6	1	6
4. Assistance to Other Priorities	14	1	14
Maximum Total:			128

## 1. Condition

Taken from initial Condition Assessment Score generated during inspection

Condition → Extent ↓	1 – Acceptable	2 – Safe but poor appearance	3 – Minor deterioration	4 – Major Deterioration
1 – Up to 25%		5	9	13
2 – 25% - 50%		6	10	14
3 – 50% - 75%		7	11	15
4 – 75% - 100%	4	8	12	16

## 2. Maintenance Category - Local Transport Strategy (LTS)

Maintenance Category	Score
Strategic Routes - (A760 / A736 / A71)	22
Main Distributor Routes	15
Secondary Distributor Routes	11

## 3. Public Liability Claims / Fault Reports / Complaints

Score according to the type / source of complaint / fault report / request for service received for the location

- 1 - Public Complaint or a Fault Report resulting in a confirmed defect
- 2 - Multiple Requests for service or Fault Reports resulting in confirmed defects
- 4 - Elected Member Complaint or Request for Service
- 6 - Public Liability Claim

## 4. Assistance to Other Priorities

Use your own knowledge of the surrounding area to rate the location in relation to:

- 2 - Adjacent to Local Shops
- 4 - Adjacent to Amenity Housing, Residential Care Homes and Medical Centres
- 6 - Adjacent to Schools, Leisure Facilities and Tourist Attractions
- 8 - Business Parks and Industrial Estates
- 10 - Access to Train Stations and Park & Ride facilities
- 14 - Town Centre

# North Ayrshire Council - Roads

## Footway & Footpath Scheme Assessment Form



Number

Town:

Area:

Road Name:

Location:

Comments:

Category: **CONDITION RATING**

Type: **FOOTWAY**

Rated By:

Date of Rated:

Criteria	Score (S)	Weighting (W)	Priority Score (S x W)
1. Condition		4	
2. Importance / Accessibility		2	
3. Public Liability Claims / Fault Reports / Complaints		1	
4. Assistance to Other Priorities		2	
Total Priority Score:			

<b>Treatment Type:</b>					
<b>Length:</b>		<b>Breadth:</b>		<b>Area:</b>	
<b>Kerbing Required:</b>	<b>Length:</b>				

### Additional Comments

<b>Assessed By:</b>	
<b>Assessment Date:</b>	
<b>Checked By:</b>	

<b>Reassessed By:</b>	
<b>Reassessment Date:</b>	
<b>Checked By:</b>	

# North Ayrshire Council - Roads

## Footway & Footpath Resurfacing Scheme Priority System

### General

The weighting system devised enables the programme of footway & footpath resurfacing schemes to be objective, rated against a number of important criteria.

Scoring System			
Criteria	Maximum Score	Weighting	Score
1. Condition	16	4	64
2. Importance / Accessibility	5	2	10
3. Public Liability Claims / RMS Faults / Complaints	6	1	6
4. Assistance to Other Priorities	10	2	20
Maximum Total:			100

### 1. Condition

Taken from initial Condition Assessment Score generated during inspection

Condition Extent →	1 – Acceptable	2 – Safe but poor appearance	3 – Minor deterioration	4 – Major Deterioration
1 – Up to 25%		5	9	13
2 – 25% - 50%		6	10	14
3 – 50% - 75%		7	11	15
4 – 75% - 100%	4	8	12	16

### 2. Importance / Accessibility

	Score
Footway / Footpath Priority 1 Gritting Route	5
Footway / Footpath Priority 2 Gritting Route	3
Footway / Footpath Priority 3 Gritting Route	2
Other Footway / Footpath	1

### 3. Public Liability Claims / Fault Reports / Complaints

Score according to the type / source of complaint / fault report / request for service received for the location

- 1 - Public Complaint or Fault Report resulting in a confirmed defect
- 2 - Multiple Requests for service or Fault Reports resulting in confirmed defects
- 4 - Elected Member Complaint or Request for Service
- 6 - Public Liability Claim

### 4. Assistance to Other Priorities

Use your own knowledge of the surrounding area to rate the location in relation to:

- 1 - Shared Cycle / Footways
- 2 - Adjacent to Local Shops
- 4 - Adjacent to Schools, Leisure Facilities and Tourist Attractions
- 6 - Adjacent to Amenity Housing, Residential Care Homes and Medical Centres
- 8 - Local Bus Route, access to Train Stations and Park & Ride facilities
- 10 - Town Centre

Structure Name:  
Date when the scoring is carried out:

Structure Name:					Enter score based on the description in the following coloured cells			
Date when the scoring is carried out:								
Priority Ranking for structure capital programme								
No.	Factors	Maximum Score			Structure Score Input	Net score	% of total Score	Additional commentry
1	Type of Bridge	1	Score 1 if road bridge and 0 if foot bridge	Culverts, Subways which carry road shall be considered as road bridge as per this scoring system. Structures which carry only pedestrians, cyclists and equestrians shall be considered as footbridge.		NA		
2	Route Factor	40	Score based on NAC route hierachy	Route hierachy Cat 2 - SPT/ NAC strategic routes - 40 Cat 3a - Main distributor routes - 30 Cat 3b - secondary distributor routes - 20 Any other category - 10 Routes serving fewer than 5 properties - 5		0	0%	
3	HGV Restriction factor	60	Score based on weight capacity	Weight restriction 3 tonnes - 60 7.5 to 13 tonnes tonnes - 50 18 tonnes - 40 26 tonnes - 30 No weight restriction - 0		0	0%	
4	Condition factor	10	Score based on the condition of the bridge	Sliding score based on 0 for very good condition to 10 for poor condition. (10 - (BCI crit/ 10))		0	0%	
5	Deterioration factor	10	Score based on the rate of deterioration of the structure	Sliding score based on 0 for very slow deterioration to 10 for rapid deterioration		0	0%	
6	Pedestrian factor	20	Score based on pedestrian usage. Bridges with footways of heavy pedestrian usage shall score a maximum of 30.	Structures with footways in heavily used urban areas score 20. Score 20 if route is access to a school or railway station. Apply a sliding scale going down to 0 for rural structures without footways.		0	0%	
7	Flooding factor	40	Score based on the potential for the existing structure to contrubute to flooding	A structure that makes no contribution to flooding risk will score 0. Structures that are know to increase the risk of flooding due to restrictions in width or soffit height will score 30.		0	0%	
8	Scour factor	60	Score based on risk of collapse due to expose to scour in heavy flow conditions	Risk of collapse of structure due to scouring. Structures which have been deterioted severely because of inadequate scour protection and on verge of collapse score maximum. Scour risk based on a sliding scale.		0	0%	
9	Parapet Condition Factor	15	Score based on the condition of the parapets	Structures with substandard Parapets with poor conditon will score 15 . Structures with substandard parapets with a 'monitor only' recommendation will score 10. Structures which have parapets to current standards will score 0.		0	0%	
10	Parapet Risk Factor	10	Score based on risk in the event of a parapet collapse leading to high risk injuries and human casualties.	What is the likelihood of severe injury or even death while the parapet is open to use considering the condition of the structure. Risk based on a sliding scale.		-5	100%	

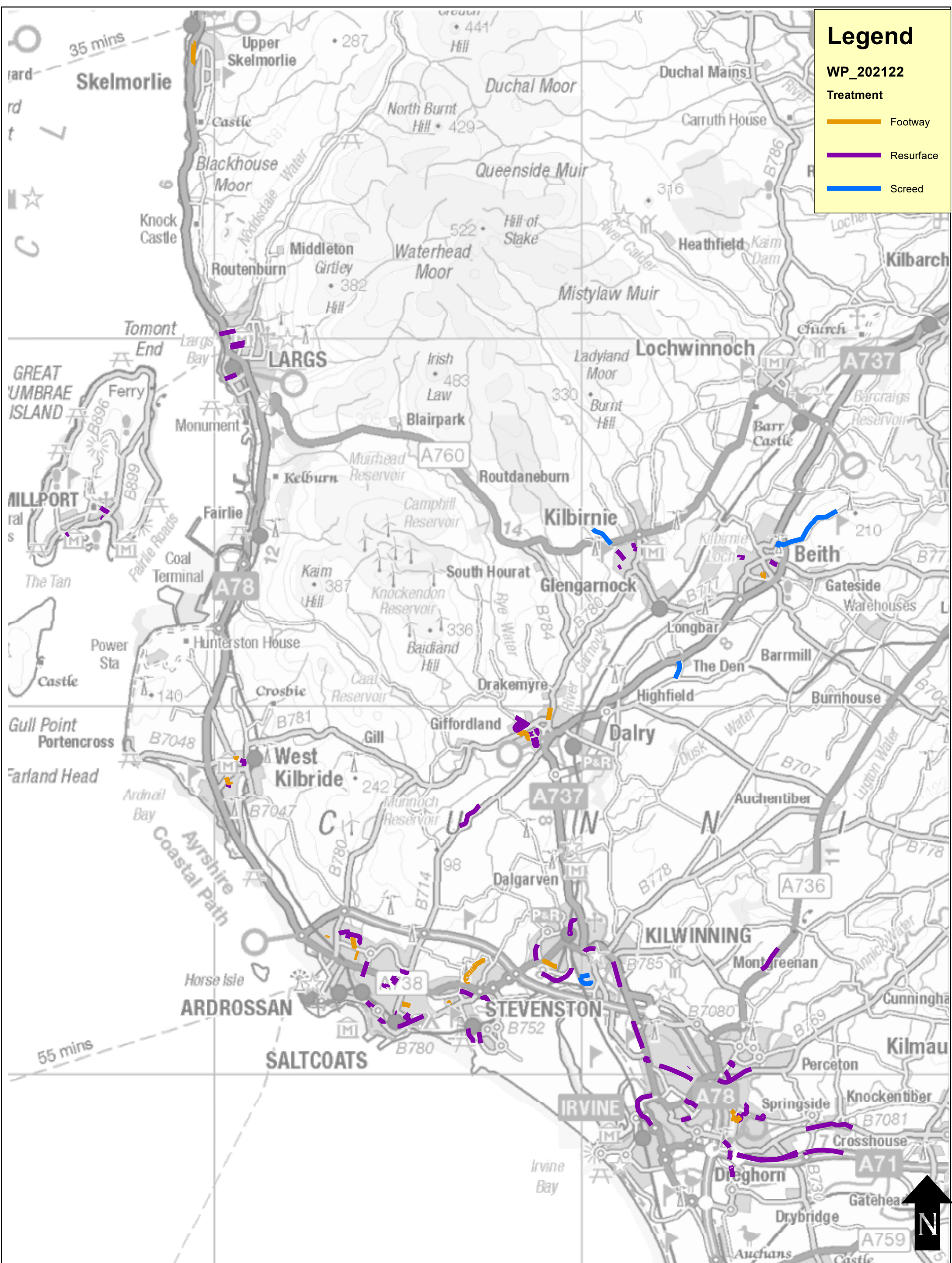
11	Delay factor	10	Score based on whether existing restrictions such as limited width cause delays at the structure	Structures where delays are caused by width, weight, height or other restrictions such as traffic lights will be given a score higher than zero. Delays less then 2 minutes at peak times will score 5 and longer than 2 minutes will score 10. Score maximum if fire station, railway station or hospital affected by delay.		0	0%	
12	Structure Risk factor	10	Score based on risk in the event of a Structure collapse leading to high risk injuries and human casualties.	What is the likelihood of someone getting a high risk injury or even death while the structure is open to use considering the condition of the structure. Risk based on a sliding scale.		0	0%	
13	Maintenance factor	20	Score based on maintenance required to keep the existing structure open.	Score based on known maintenance history and requirement. No maintenance requirement will score 0. Listed structures score 15.		0	0%	
14	Diversion factor	10	Score based on the length of the diversion route if the structure is closed in an unplanned manner with no finite time limit.	Score based on diversion length. Any diversion equal to or more than 20 miles scores 20. Score 1 for each 2 miles of diversion up to 20. Score 10 if a road closure adversely affects a fire or railway station or hospital. Score 10 if there is no alternative diversion.		0	0%	
						-5		


Note maximum score that can be achieved for road bridge= 500

Priority level Chart		Structure Name: Date of Scoring: 00-Jan-00							
Priority Level Indicator		Overall works (500)		Structure works (100)		Parapet works (70)		Scour Protection (60)	
		Level	Score	Level	Score	Level	Score	Level	Score
No Action Rquired									
Low Priority									
Medium Priority									
High Priority									
Immediate action required									

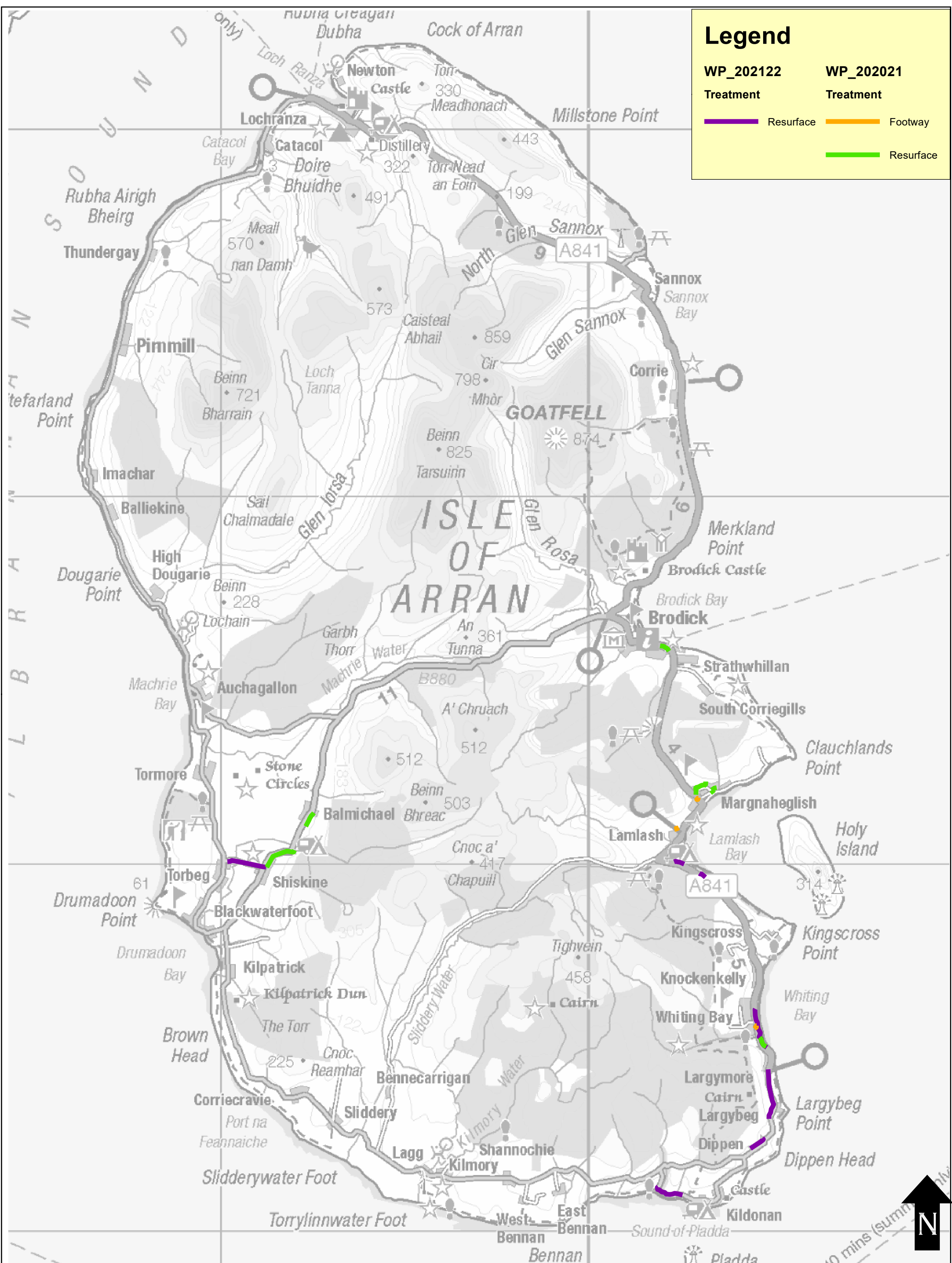
Note : Works are divided above into three sub categories as each work can be independent and each has its own significance in terms of attention required.






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			Date: 18 Mar 2021
			Scale: 1:90,000
			Drawing No:





<p>Title:</p> <p><b>Arran Roads Programme</b></p> <p><b>2021 / 2022</b></p>	<p>"Reproduced from the Ordnance Survey Mapping with the permission of the Controller of Her Majesty's Stationery Office, © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. North Ayrshire Council SLA Licence Number: 100023393."</p>	 <p><b>NORTH AYRSHIRE</b> COUNCIL</p> <p>Commercial Services Roads</p>	<p>Section: Asset Management</p> <p>Date: 22 Feb 2021</p> <p>Scale: 1:90,000</p> <p>Drawing No:</p>
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