











The purpose of this Method Statement is to ensure this operation is undertaken in a safe and orderly manner. Only competent persons are permitted to carry out this procedure. At all times employees are reminded to work in a safe manner, both to prevent injury to themselves and others.










**Refer to RA(s):** Generic Manual Handling of Plant and Equipment from vehicles and trailers, General Use of Power Tools Plant, Excavators, Dumpers and Equipment.  
Slips, Trips and Falls – Macadam handling & Laying  
Manual Handling materials  
City Services Landscapes Standard Risk Assessments Pack & Site-specific Toolbox Talks

**Significant Hazards:** Existing trees – Pedestrian traffic – Vehicular traffic – Construction Plant & Machinery – SSSI  
Ecology – Flora and Fauna – Archaeology

**PPE Requirements:**

									
✓	✓	✓	✓	✓	✓				

**SPECIALIST PPE REQUIREMENTS:**

<b>Substances Required</b>	Diesel							
								
Toxic	Flammable	Oxidising	Health Hazard	Corrosive	Irritant	Explosive	Compressed Gas	Environment
	✓							

**Equipment Required for Task:** 2 x Excavators 2 x Mini Dumpers 2 x Bomag Rollers 1 x Skid Steer 2 x Disc cutters 2 x Vibrating plates 1 x Mini Paver – Mini Road Sweeper  
Offsite – Macadam deliveries – Container – 3 x Work Vehicles – Plant lorry – Grab Lorry

**Project Description:** This scheme proposes to widen the path leading through Southampton Common from Westwood Road to Burgess Road. This route is commonly known as Lover's Walk

**Project Scope:** *Section 1: Widening of the existing path of Lover's Walk between Burgess Road and Highfield Avenue. It is currently of varying width generally between 2.0m and 3.0m and is of tarmac surface. This application proposes widening to 3.5m with tarmac surface.*


*Section 2: Widening of the existing footpath of Lover's Walk between Highfield Road and Winn Road. The widening from 1.8-2.0m to 2.5m will enable it to hold existing levels of use with reduced conflict. This is to be tarmacadam surface, similar to the current surface. The width will be 3.0m where the current path from Blenheim Avenue joins the route.*

*Section 3: Construction of 3.0m wide tarmacadam hard standing on the existing hoggin path between Winn Road and Westwood Road.*

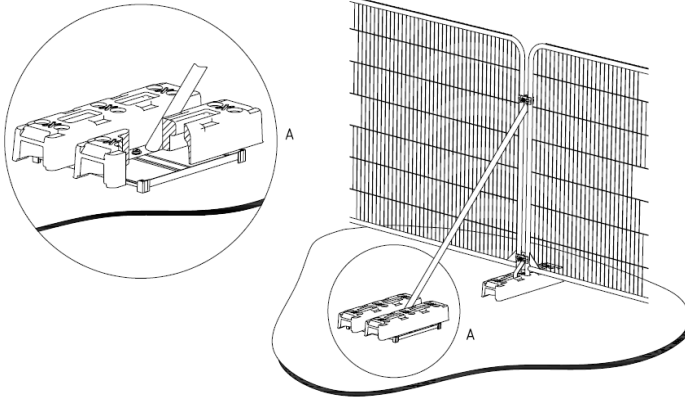
<b>Permit to Work req'd</b>	Yes	<b>No. of persons required to safely carry out task:</b>	<b>8</b>
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<b>Supervised</b>	<b>Matthew Lovell Eddie Schofield Chris Pouralli</b>
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**The Stage-by-Stage Method of the Task:**

<b>1</b>	All persons involved with the project shall be briefed in advance of the Works starting regarding the Tree & root protection – Archaeology & Ecology measures selected.
<b>2</b>	Trees protection zones to be agreed with the project engineer and appointed arboriculturist. Weekly site meetings with arboriculturist To be held to assess the week's programme and agree measures required for tree protection.
<b>3</b>	Trees will be protected before any machinery or materials are brought onto site and before any groundwork or construction begins. All tree and root protection measures shall be put in place utilising competent operatives and approved materials. No construction works are to take place until permits for site operations are granted by the project engineer and appointed arboriculturist.
<b>4</b>	<p><b>Root protection option 1.</b></p> <p>The alignment of the protection area to be delineated by means of pedestrian barriers. These are interlocked and shall be set along the full length of the protection areas.</p> 
<b>5</b>	<p><b>Root protection option 2.</b></p> <p>Heras fence type panels to be deployed surrounding identified Trees with TPO's and root protection areas identified by the tree protection officer. No fixings to the ground to avoid root disturbance.</p>

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b) Stabilizer strut mounted on block tray

**6**

Plant lay down and turning areas shall have deployed protective matting, Bog mats, and bark mulch layer. Bog matts & track mats – Bark mulch option to lay underside the mat to further protect existing ground and rooted areas –



**7**

No tree removal is required to facilitate the widening of lovers walk.

**Phase one – Westwood road to Winn road – Compound Winn Road**

**QS**

Before 3m wide compacted gravel



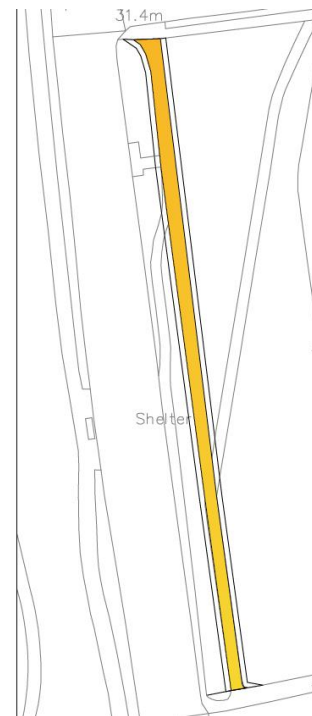
After 3m wide macadam AC6 – 25mm AC20 -90mm – with metal edge secured with driven pins



No	Task	Material	Approx Unit	Approx Tonnes	Approx LM	Approx M2	Approx M3	Deliveries by Van or Lorry
1	Site fencing	Heras or Chapter 8	77/135		270			1
2	Excavate where T.O approved	Existing path gravel @ 115mm		89.01		364	44.51	5
3	Tree friendly edging	Metal edging			258			1
4	Treetex - Geotextile	Treetex where required by T.O				364		1
5	Cellweb TRP	Cellweb where required by T.O				364	38.7	1
6	Additional excavation	Only where T.O requires Cellweb		77.4		364	38.7	2
7	20/40 Angular stone	Only where T.O requires Cellweb		77.4		364	38.7	2
8	Macadam base course	AC20 @ 90mm deep – 3.5m wide		80.11		364	34.83	4
9	Macadam wearing course	AC6 @ 25mm deep – 3.3m wide		22.25		364	9.68	1
10	Reinstatement	Common Soil		6.6		129	3.87	1
11	Bench and Bin	Streetmaster Bench & Bin						1

**1**

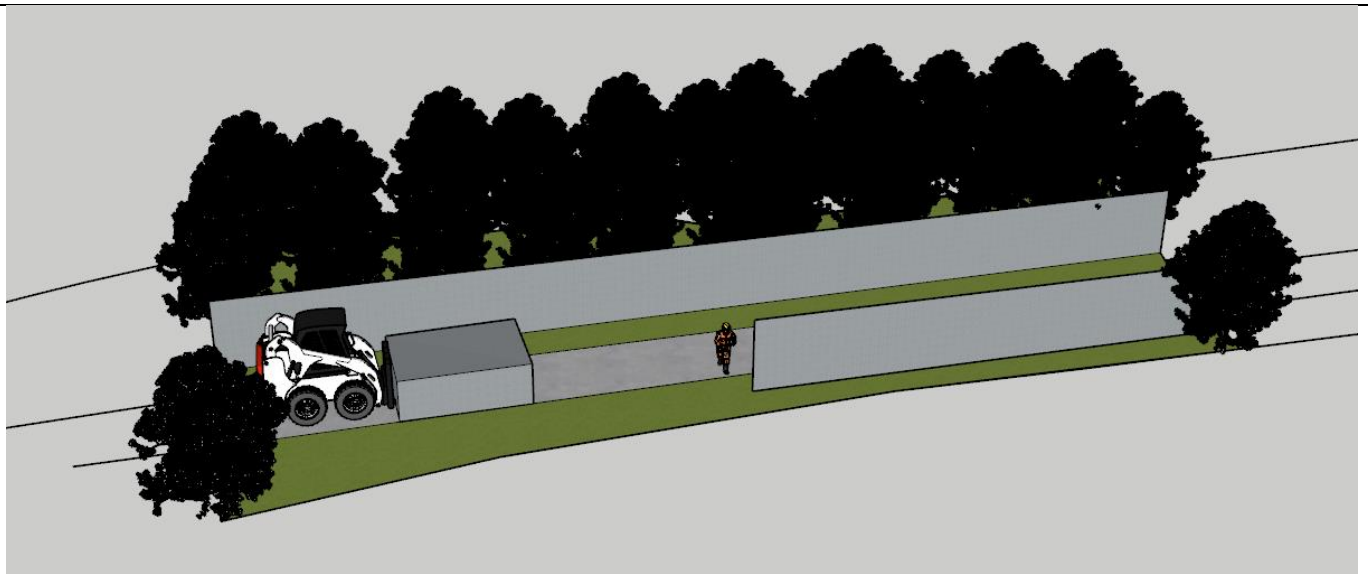
**Erect pedestrian traffic management control and secure site for Operations**



**2**

Only working from the existing bound gravel pavement – We will erect protective fencing either Chapter 8 barriers or Heras fencing – Bobcat using extended forks removes any manual handling risks

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**3a Ecology Risk**

Works will only proceed in suitable conditions and at a time of year approved by our ecologist to ensure no negative impact on the local wildlife.

To protect adjacent vegetation, all construction work will be undertaken within the footprint of the existing compacted gravel pathway avoiding any vehicular traffic in other areas.

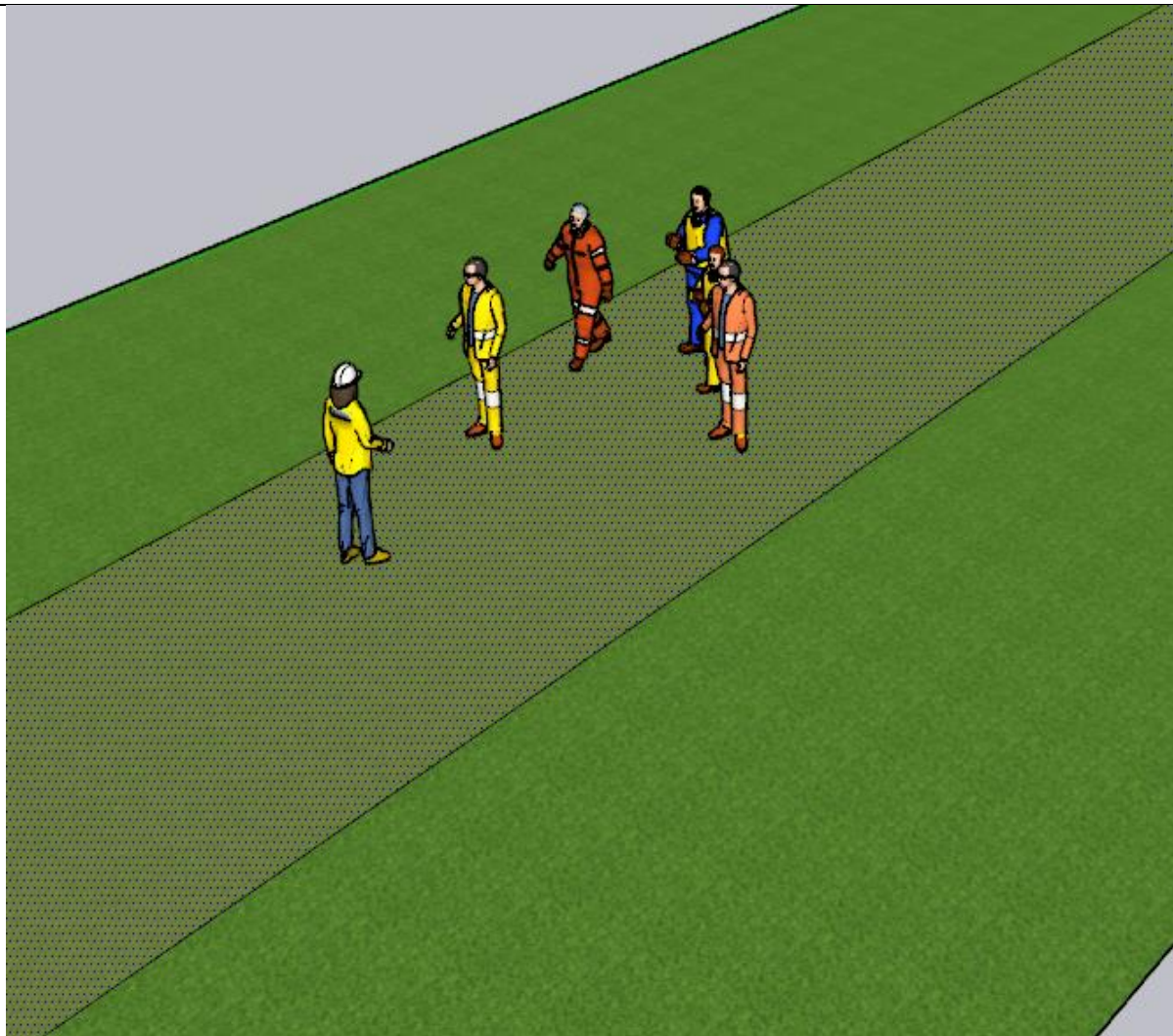
Working hours are restricted to ensure the working day starts well after dawn and finishes well before dusk.

Our ecology officer will very kindly check the area for Wildlife, present an Ecology TBT and we will follow any dynamic procedures she recommends for this section of works.

General non project specific RAMS below

Our Ecology Officer undertakes an Ecology Toolbox Talk – Result recorded – Actions followed.

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**3b**

1. Identify the scope of work: Clearly define the scope of work and identify the ecological area that will be impacted.
2. Evaluate the environmental impact: Conduct a thorough evaluation of the potential environmental impact of the work. This should include an assessment of the risks to the ecology, the flora and fauna present, and any other relevant environmental factors.
3. Develop a plan to minimize the impact: Based on the environmental impact assessment, develop a plan to minimize the impact of the work on the ecology. This plan should include measures to protect the existing flora and fauna, minimize soil erosion and disturbance, and prevent any pollutants from entering the area.
4. Obtain the necessary permits: Ensure that all necessary permits are obtained from the relevant authorities before commencing work.
5. Train personnel: Ensure that all personnel working in the area are adequately trained on the potential impact of their activities on the ecology and the measures they need to take to minimize this impact.
6. Implement the plan: Implement the plan to minimize the impact of the work on the ecology.

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- 7. Monitor the impact: Regularly monitor the impact of the work on the ecology to ensure that the measures implemented are effective in minimizing the impact.
- 8. Adjust the plan if necessary: If monitoring reveals that the impact of the work is greater than anticipated, adjust the plan to minimize the impact.
- 9. Communicate with stakeholders: Regularly communicate with stakeholders, including the public, to ensure that they are aware of the measures being taken to minimize the impact of the work on the ecology.
- 10. Document the process: Document the process of working with the area of ecology, including the environmental impact assessment, the plan to minimize the impact, and any monitoring results. This documentation will be valuable for future reference and can help to inform similar projects in the future.

**3c Ecology Risk – Fuels and Oil  
Ecology Risk - Biosecurity**

Pre-use checks will be carried out prior to works commencing. Paying particular attention to any obvious leaks from equipment. Service – repair as required - All machines power washed with Propellar, Cleankill or similar disinfectant – Additional info here - [How biosecurity can prevent the introduction and spread of tree pests and diseases - GOV.UK \(www.gov.uk\)](http://www.gov.uk)  
Spill kits on site - at all times.  
No fuelling on site – all machinery will be removed from site to be refilled with fuel.

**4** Tree protection – To ensure protection of all trees during this project – Our tree officer will very kindly check this phase of works for any trees or trees roots that may be close to our works. Our tree officer will conduct a tool box talk specific to this section of works and advise us of any systems or procedures we need to follow to ensure best practice and tree protection.

To protect adjacent trees, all construction work will be undertaken within the footprint of the existing macadamed pathway avoiding any vehicular traffic in other areas.

We will follow any dynamic procedures our tree officer recommends including but not limited to, additional fencing, ground protection and the use of airspades

General non project specific RAMS below

Risk Assessment:

1. Hazard: Damage to tree roots

- Likelihood: Moderate
- Consequence: Moderate
- Control Measures:

- Identify and mark the area where the tree roots are present before starting excavation.
- Use air spades to excavate the soil carefully around the roots, minimizing the risk of damage.

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- Assign experienced and trained personnel for the excavation process.

**2. Hazard: Injury to personnel**

- Likelihood: Low
- Consequence: Moderate
- Control Measures:
  - Provide appropriate personal protective equipment (PPE) to all personnel involved, including safety goggles, gloves, and steel-toe boots.
  - Conduct training sessions on the proper handling and operation of air spades.
  - Establish clear communication protocols and signals among team members during the excavation.

**3. Hazard: Underground utilities**

- Likelihood: Low
- Consequence: Major
- Control Measures:
  - Conduct a thorough utility scan and identify any underground services before commencing the excavation.
  - Clearly mark the location of any identified utilities.
  - Exercise caution and implement hand digging when working in close proximity to utilities.

**Method Statement:**

**1. Site Preparation:**

- Perform a visual inspection of the excavation site to identify any potential hazards, including overhead power lines, unstable ground, or nearby structures.
- Mark the boundaries of the work area and clearly identify the tree and its roots to avoid damage.

**2. Equipment and Tools:**

- Ensure that air spades and associated equipment are in good working condition.
- Conduct regular maintenance checks on the air spades to ensure proper functionality.
- Have appropriate tools available for cutting roots or removing soil, if required.

**3. Personnel:**

- Assign trained and experienced personnel for the excavation work.
- Provide personnel with the necessary PPE, including safety goggles, gloves, and steel-toe boots.
- Clearly communicate the roles and responsibilities of each team member.

**4. Excavation Process:**

- Use air spades to carefully remove soil from around the tree roots, starting from the outer edge and working inward.
- Exercise caution to avoid excessive force or direct contact with the roots.
- Continuously monitor the excavation process to identify any potential issues or hazards.

**5. Monitoring and Inspection:**

- Regularly inspect the excavated area to assess any changes or potential risks.
- Conduct a final inspection to ensure that all roots have been safely exposed or severed.
- Keep a safe distance from the tree to avoid any falling branches or debris.



**6. Waste Management:**

- Dispose of excavated soil and any waste materials in accordance with local regulations.
- Keep the work area clean and free from trip hazards.

Note: The above risk assessment and method statement is a general example and should be adapted and tailored to the specific site and project requirements. It is crucial to consult with experts, including arborists or tree specialists, to ensure the safe and effective excavation around tree roots.

**HE**

risk assessment for using air spades.

**Risk Assessment for Using Air Spades:**

**1. Hazard: Flying debris**

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - All personnel involved should wear appropriate personal protective equipment (PPE), including safety goggles and helmets, to protect against flying debris.
  - Establish exclusion zones and restrict access to the work area to prevent unauthorized personnel from entering the hazardous zone.
  - Use caution when operating the air spade and direct the air flow away from personnel and sensitive equipment.

**2. Hazard: Noise exposure**

- Likelihood: Moderate
- Consequence: Minor
- Control Measures:
  - Provide hearing protection to all personnel operating or working near the air spade.
  - Limit the duration of exposure to loud noise by scheduling breaks for personnel.
  - Maintain the air spade equipment in good working condition to minimize noise levels.

**3. Hazard: Hand-arm vibration**

- Likelihood: Low to Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - Ensure that the air spade is well-maintained and properly balanced to minimize vibration levels.
  - Provide training to personnel on proper handling techniques and recommend frequent breaks to minimize the risk of hand-arm vibration syndrome.
  - Rotate personnel during extended periods of use to reduce individual exposure.

**4. Hazard: Striking underground utilities**

- Likelihood: Low
- Consequence: Major
- Control Measures:
  - Conduct a thorough utility scan and mark the location of underground utilities before commencing excavation.

- Implement a hand digging approach or use alternative techniques near known utility lines to avoid accidental strikes.
- Maintain communication with utility companies and follow any specific protocols or guidelines provided.

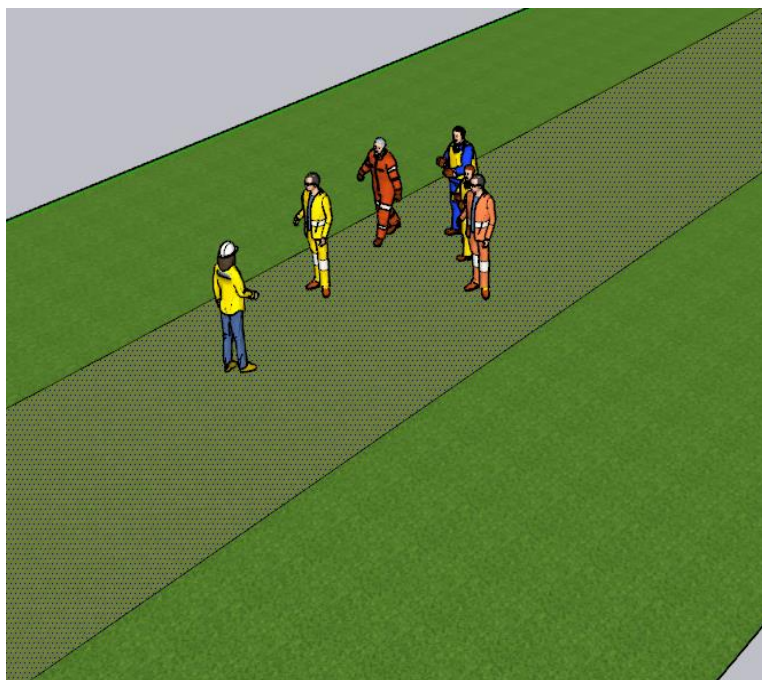
**5. Hazard: Trips, slips, and falls**

- Likelihood: Moderate
- Consequence: Minor to Major
- Control Measures:
  - Ensure a clean and organized work area, free from trip hazards such as loose cables or debris.
  - Provide adequate lighting in the work area, especially in low visibility conditions.
  - Ensure that personnel wear appropriate footwear with slip-resistant soles and maintain proper footing while operating the air spade.

**6. Hazard: Ergonomic strain**

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - Provide training to personnel on proper body mechanics and lifting techniques to minimize strain and injury.
  - Encourage regular breaks and rotation of tasks to reduce prolonged physical exertion.
  - Provide ergonomic tools and equipment to reduce strain and improve operator comfort.

Our Tree Officer undertakes an arboricultural Toolbox Talk – Results recorded – Actions Followed

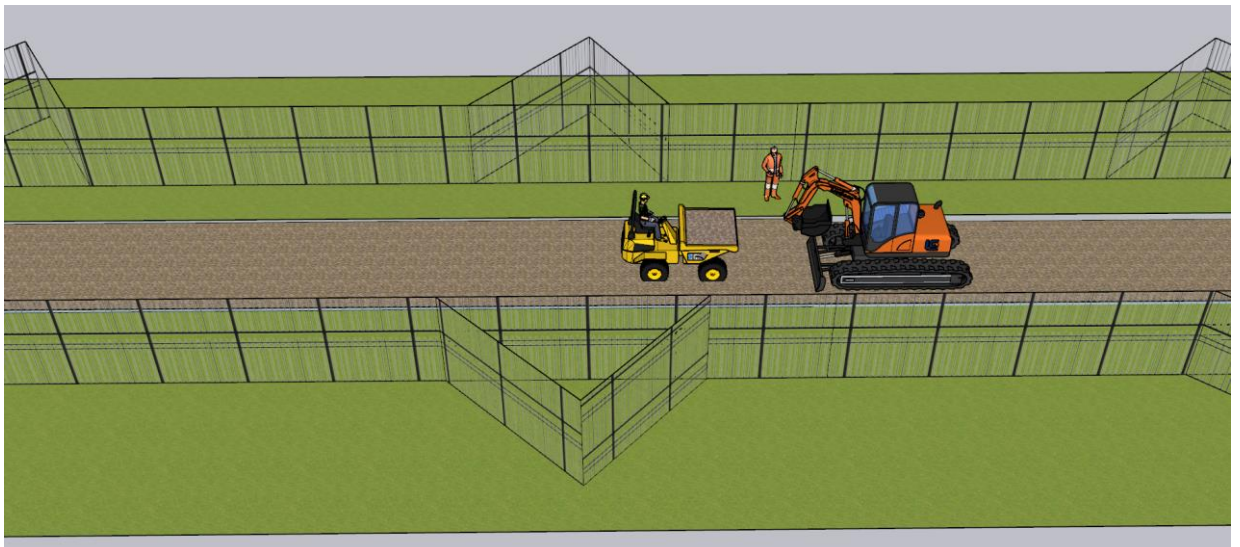


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**5** Plant to access from Winn Road end of site using compound.



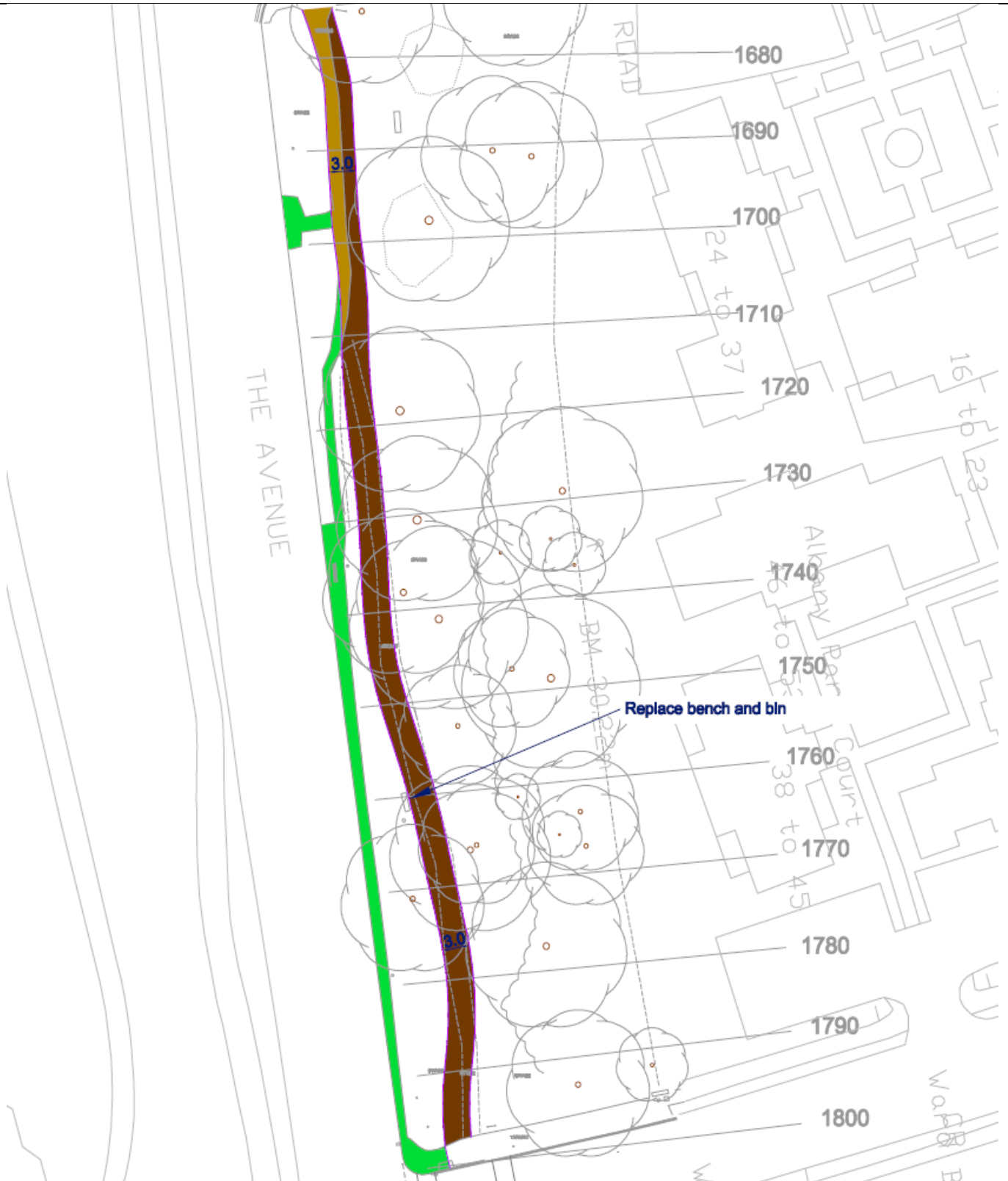
**6** The existing path will be reduced in levels to accommodate the new macadam surfacing.



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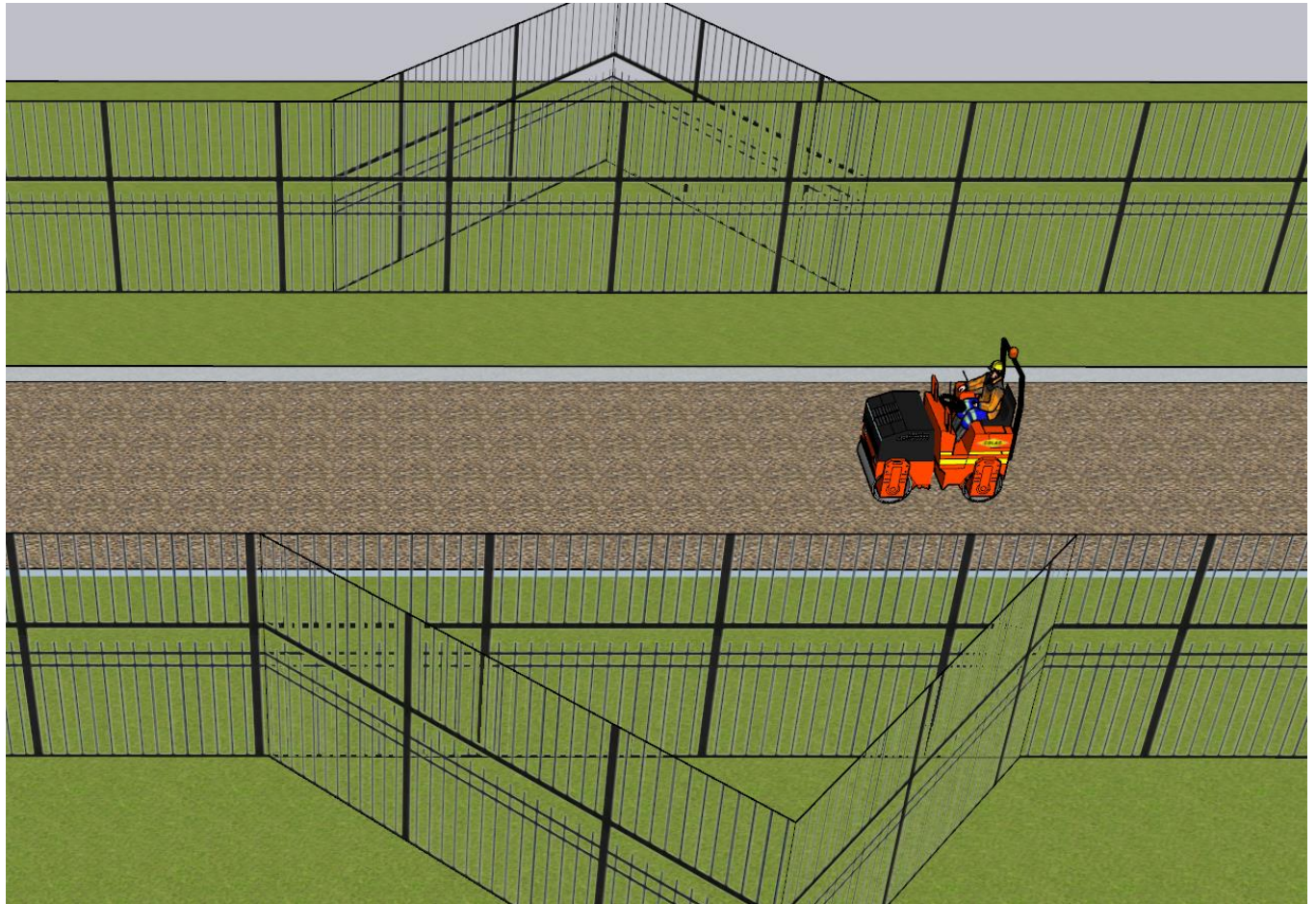
6A



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**6C**

The reduction in levels will be well within the paths current “build-up”.  
The subbase will be compacted and tested for suitability.



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**6D** Once suitability is confirmed the final site-specific specification will be confirmed and agreed with the Tree officer

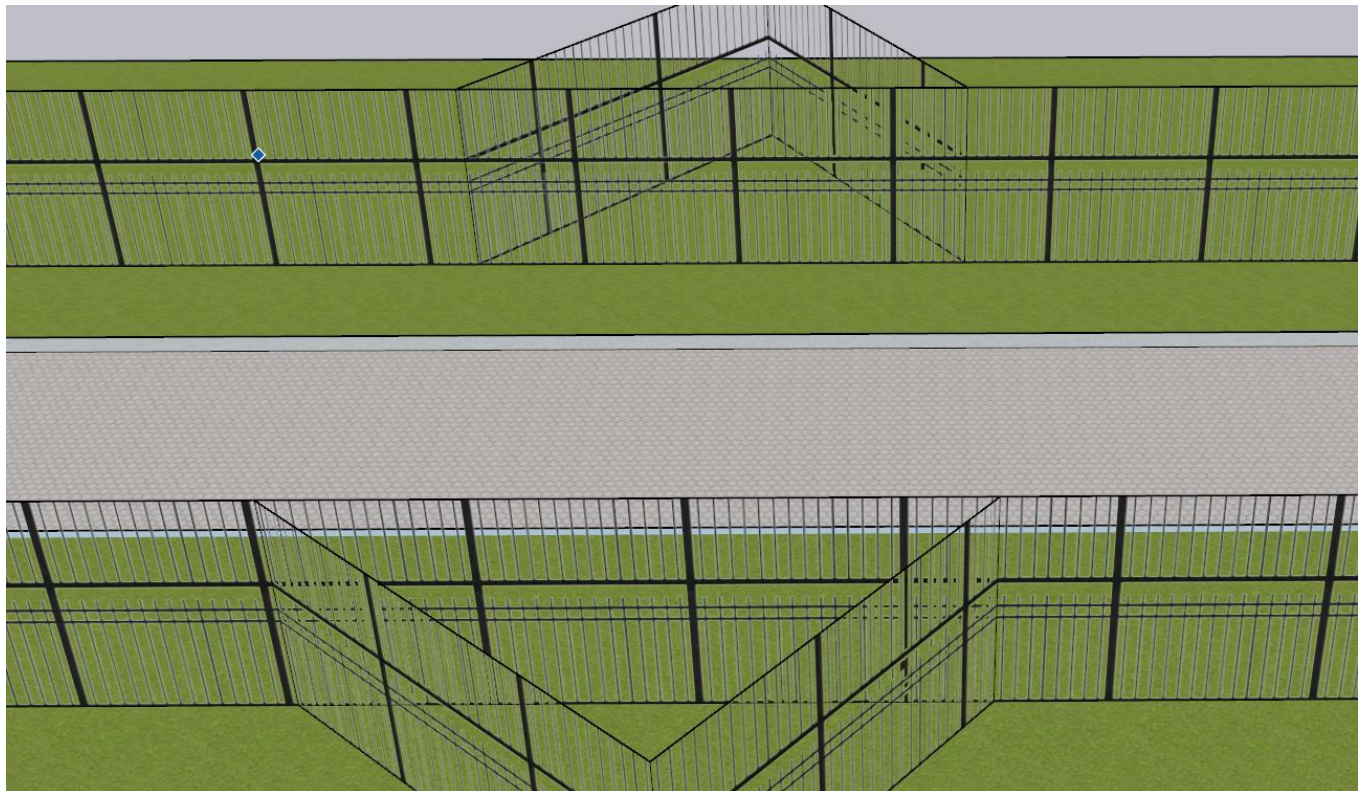
**Table 3.18c Heavy-vehicle footways/cycleways**

Layer	Surface options				
	Asphalt		Pavers / setts or flags / slabs		Concrete
Surfacing	25 mm surface course		As Table 3.17b		200 mm unreinforced
Base	90 mm dense AC		90 mm dense AC	100 mm CBGM A C 5/6 (or stronger)	-
Subbase	320 mm	210 mm	165 mm	150 mm	150 mm
Subgrade	2.5% ≥ CBR ≤ 4%	CBR > 4 %	2.5% ≥ CBR ≤ 5%	CBR > 5%	≥ 2.5% CBR

**7** Instal Tree friendly metal edging secured by driven pins

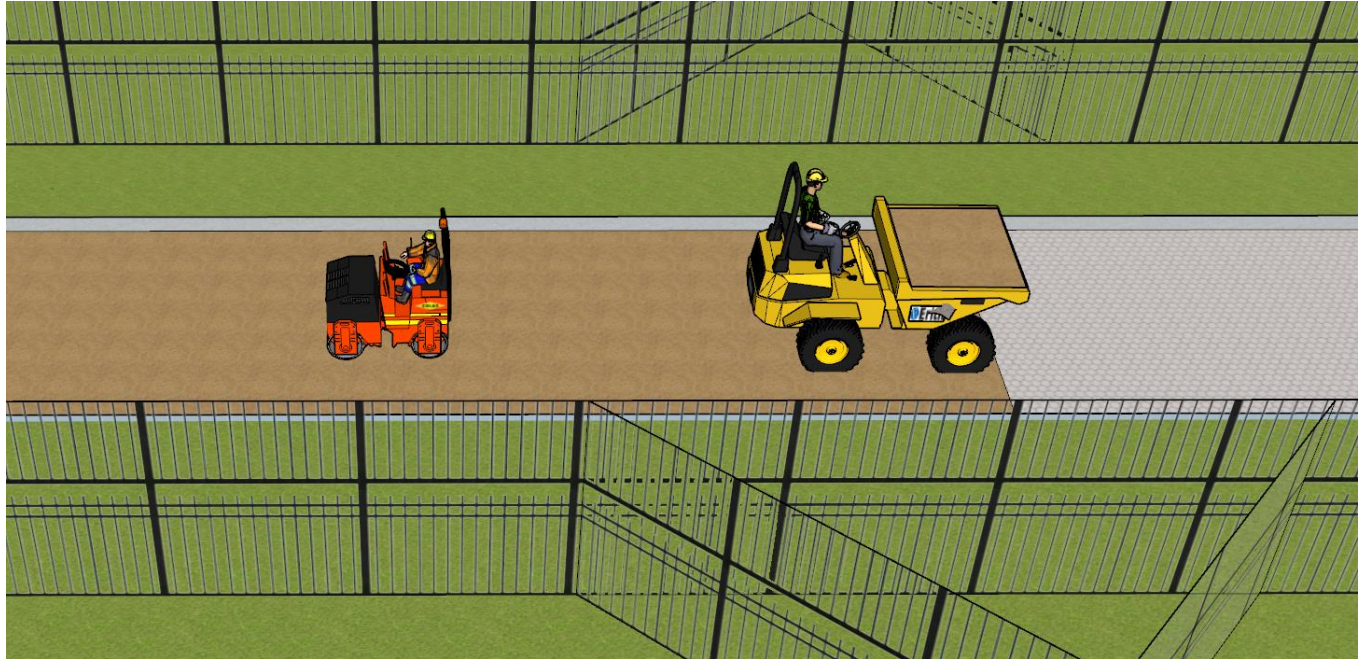
**8** Lay treetex t300 geotextile separation fabric to prevent contamination with existing ground. Where recommended by T.O

**9** Lay 100mm geocellular tree root protection grid. Where recommended by T.O



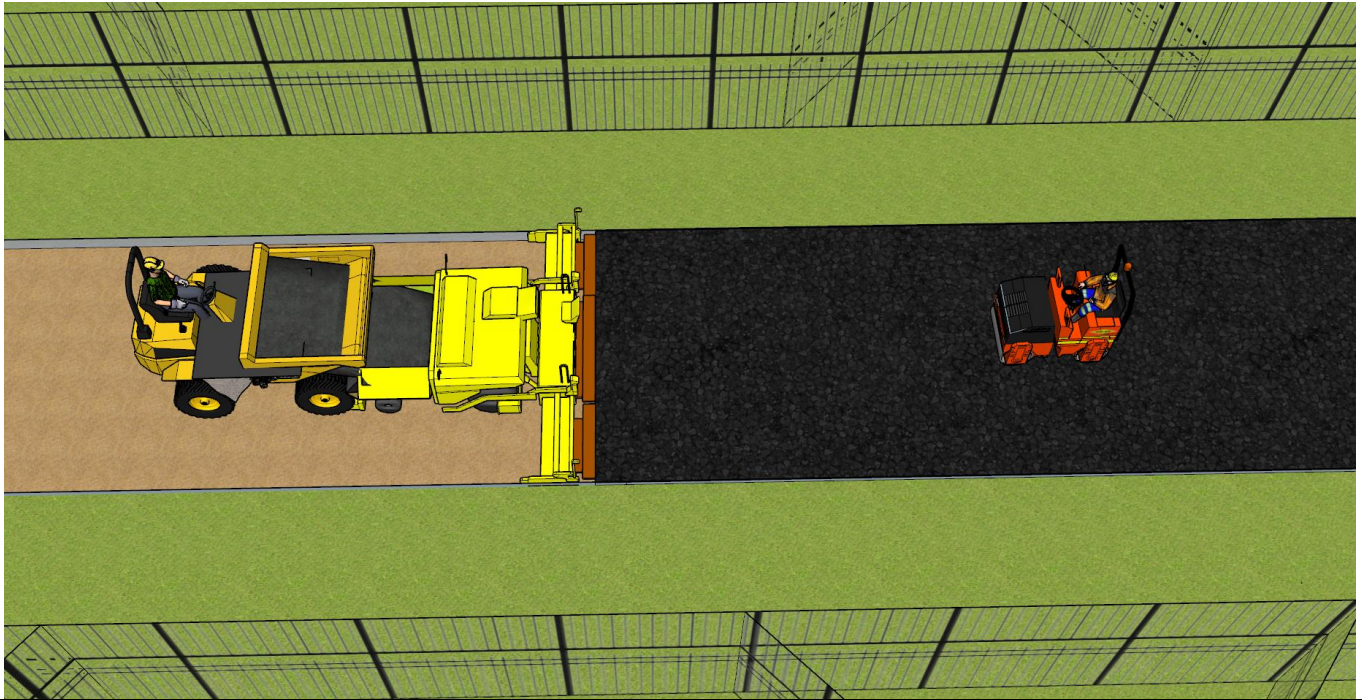
**10**

- Overfill grid pockets with angular stone type 20/40 material,  
Forward tipping dumpers to be used to transport materials to the grid starting point, materials will be spread into the grid voids, the dumper shall progress forward travelling over the existing paths footprint.  
Compact with vibrating plate or twin drum roller.



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- 11** A layer of asphalt binder course shall be laid over the subbase. Dumpers collecting hot lay materials from an off-site designated compound.  
All plant strictly restricted to the footprint of the existing pathway.  
Raked by hand or levelled with mini paver.

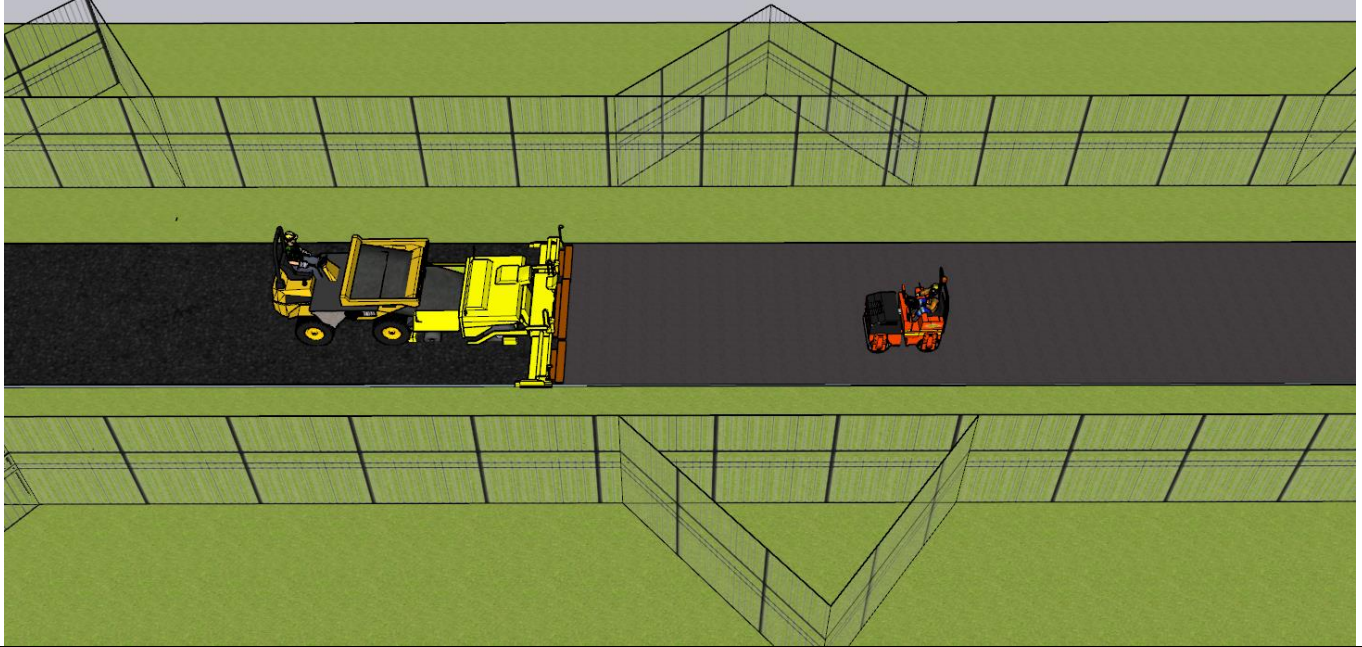


- 12** Mechanical twin drum vibrating rollers shall compact the asphalt.  
Layers as per the required pass rate.

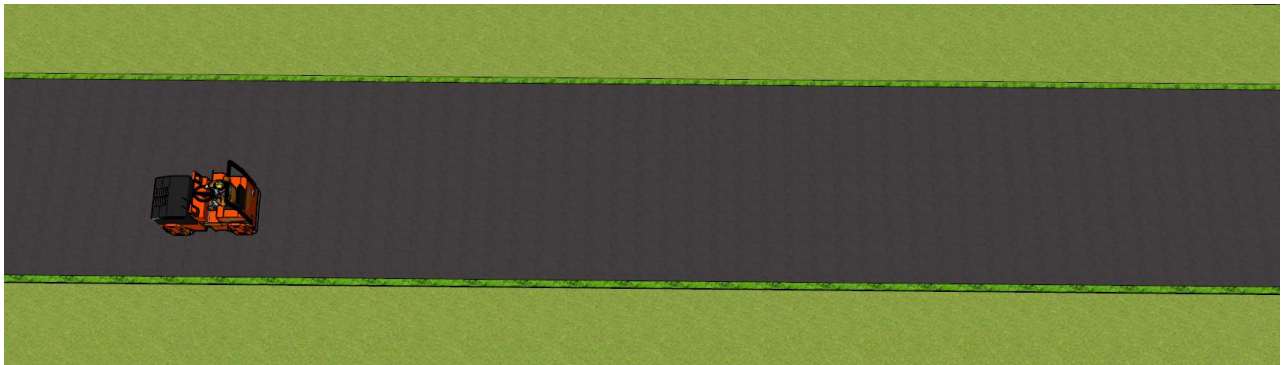




**13** 20mm asphalt surface course to be laid as per 11 and 12.



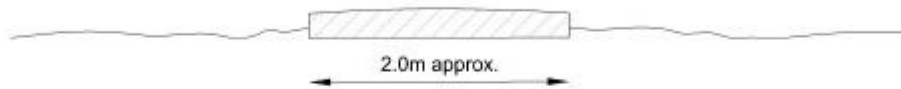
**14** Re-grade soil to edge of new path using approved existing stripped soil.  
Materials left to naturalise



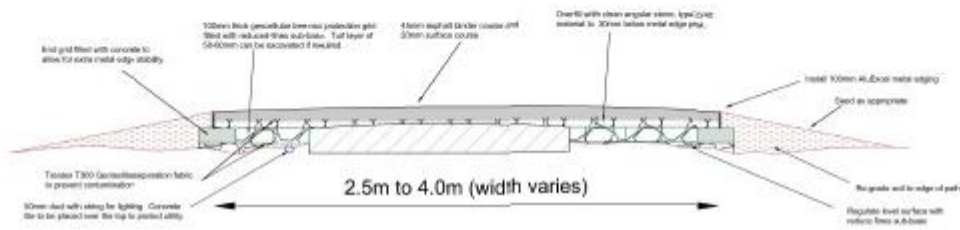
**15** Site cleared of all tree & root protection systems and site open to Pedestrian traffic

## Phase 2 Winn Road to Blenheim Ave – Compound Winn Road

Before



After



No	Task	Material	Approx Unit	Approx Tonnes	Approx LM	Approx M2	Approx M3	Deliveries by Van or Lorry
1	Errect site fencing	Heras or Chapter 8	72/126		252			1
2	Excavate where T.O approved	Existing vegetation @ max 60mm		6.12		60	3.6	0
3	Install tree friendly edging	Metal Edging			240			1
4	Lay Treetex - Geotextile	Treetex				60		1
5	Lay Cellweb TRP	Cellweb				60	6	1
6	Fill cells	20/40 Angular stone		12		60	6	1
7	Macadam base course	AC20 @ 45mm deep - 2.5m wide		31.05		275	13.5	2
8	Macadam wearing course	AC6 @ 20mm deep – 2.5m wide		13.8		275	6	1
9	Reinstatement	Common Soil		6.12		120	3.6	1
10	Speed calming Setts type I	Granite Setts 100x100mm 3m x 1.7m	510	1.372		5.1	0.51	1
11	Concrete base	Ready Mix		2.179		5.1	1.02	1
12	Pointing Grout	Flowpoint 25K bags	3	0.075		5.1		
13	Timber Bollards	Fixed Timber Bollard	2					1
14	Soil Bunds	Common soil		7.65	18	9	45	1
15	Ditch pipe	150mm twinwall 3m			3			1

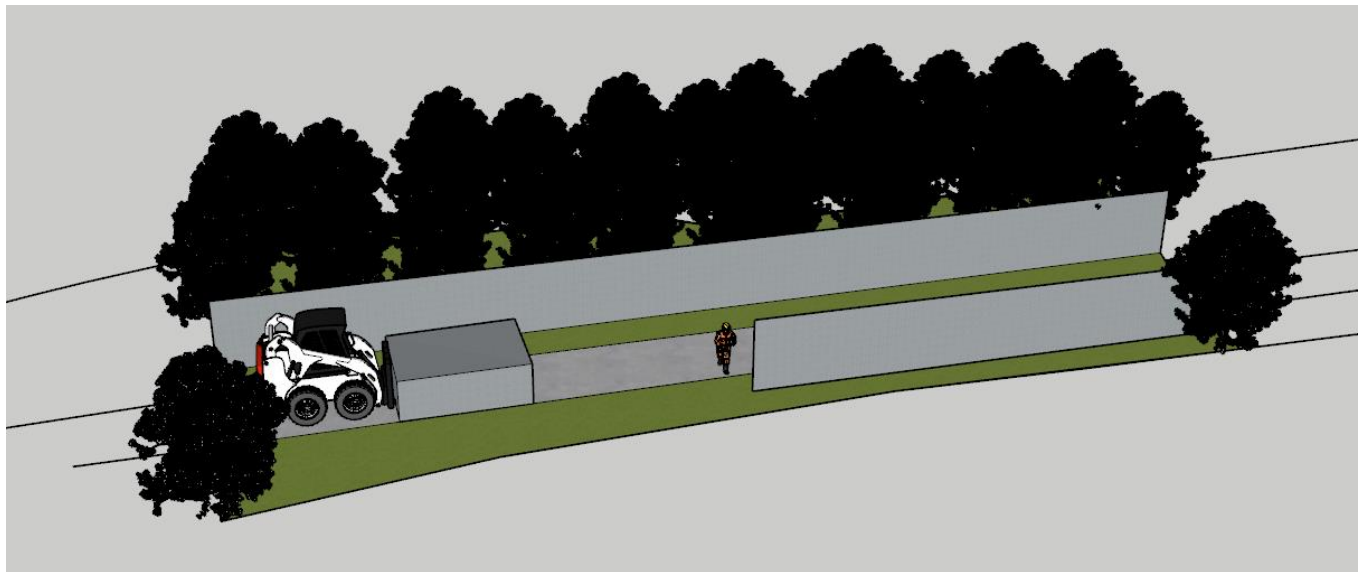
**1**

**ERECT PEDESTRIAN TRAFFIC MANAGEMENT CONTROL AND SECURE SITE FOR OPERATIONS**



**2**

Only working from the existing pavement – We erect protective fencing either Chapter 8 barriers or Heras fencing – Bobcat using extended forks removes any manual handling risks



### 3 Ecology Risk

Works will only proceed in suitable conditions and at a time of year approved by our ecologist to ensure no negative impact on the local wildlife.

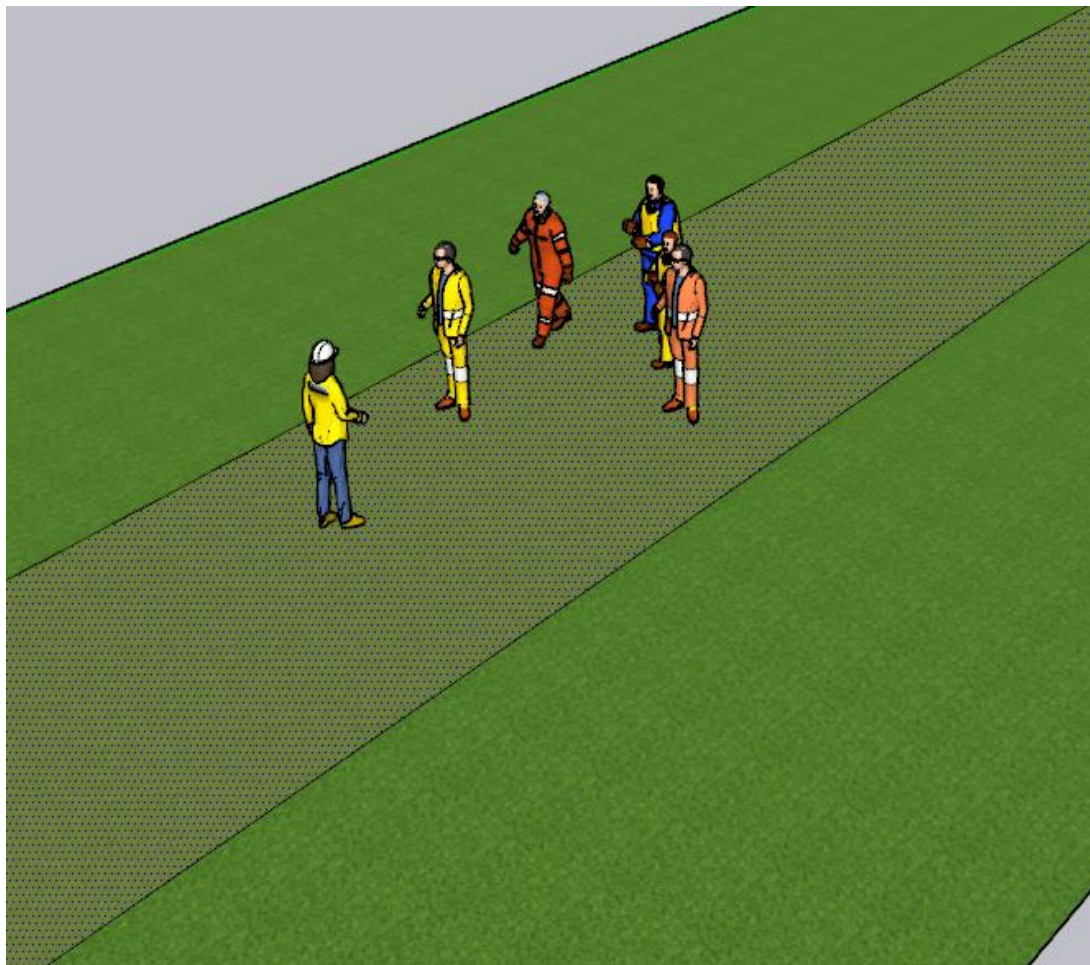
To protect adjacent vegetation, all construction work will be undertaken within the footprint of the existing macadamed pathway avoiding any vehicular traffic in other areas.

Working hours are restricted to ensure the working day starts well after dawn and finishes well before dusk.

Our ecology officer very kindly checks the area for Wildlife, presents an Ecology TBT and we follow any dynamic procedures she recommends for this section of works.

General non project specific RAMS below

Our Ecology Officer undertakes an Ecology Toolbox Talk – Result recorded – Actions followed.



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**3B**

2. Identify the scope of work: Clearly define the scope of work and identify the ecological area that will be impacted.
3. Evaluate the environmental impact: Conduct a thorough evaluation of the potential environmental impact of the work. This should include an assessment of the risks to the ecology, the flora and fauna present, and any other relevant environmental factors.
4. Develop a plan to minimize the impact: Based on the environmental impact assessment, develop a plan to minimize the impact of the work on the ecology. This plan should include measures to protect the existing flora and fauna, minimize soil erosion and disturbance, and prevent any pollutants from entering the area.
5. Obtain the necessary permits: Ensure that all necessary permits are obtained from the relevant authorities before commencing work.
6. Train personnel: Ensure that all personnel working in the area are adequately trained on the potential impact of their activities on the ecology and the measures they need to take to minimize this impact.
7. Implement the plan: Implement the plan to minimize the impact of the work on the ecology.
8. Monitor the impact: Regularly monitor the impact of the work on the ecology to ensure that the measures implemented are effective in minimizing the impact.
9. Adjust the plan if necessary: If monitoring reveals that the impact of the work is greater than anticipated, adjust the plan to minimize the impact.
10. Communicate with stakeholders: Regularly communicate with stakeholders, including the public, to ensure that they are aware of the measures being taken to minimize the impact of the work on the ecology.
11. Document the process: Document the process of working with the area of ecology, including the environmental impact assessment, the plan to minimize the impact, and any monitoring results. This documentation will be valuable for future reference and can help to inform similar projects in the future.

**4**

Tree protection – To ensure protection of all trees during this project – Our tree officer will very kindly check this phase of works for any trees or trees roots that may be close to our works.

Our tree officer will conduct a tool box talk specific to this section of works and advise us of any systems or procedures we need to follow to ensure best practice and tree protection.

To protect adjacent trees, all construction work will be undertaken within the footprint of the existing macadamed pathway avoiding any vehicular traffic in other areas.

We will follow any dynamic procedures our tree officer recommends including but not limited to, additional fencing, ground protection and the use of airspades

General non project specific RAMS below

Risk Assessment:

4. Hazard: Damage to tree roots

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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

- Likelihood: Moderate
- Consequence: Moderate
- Control Measures:
  - Identify and mark the area where the tree roots are present before starting excavation.
  - Use air spades to excavate the soil carefully around the roots, minimizing the risk of damage.
  - Assign experienced and trained personnel for the excavation process.

**5. Hazard: Injury to personnel**

- Likelihood: Low
- Consequence: Moderate
- Control Measures:
  - Provide appropriate personal protective equipment (PPE) to all personnel involved, including safety goggles, gloves, and steel-toe boots.
  - Conduct training sessions on the proper handling and operation of air spades.
  - Establish clear communication protocols and signals among team members during the excavation.

**6. Hazard: Underground utilities**

- Likelihood: Low
- Consequence: Major
- Control Measures:
  - Conduct a thorough utility scan and identify any underground services before commencing the excavation.
  - Clearly mark the location of any identified utilities.
  - Exercise caution and implement hand digging when working in close proximity to utilities.

**Method Statement:**

**7. Site Preparation:**

- Perform a visual inspection of the excavation site to identify any potential hazards, including overhead power lines, unstable ground, or nearby structures.
- Mark the boundaries of the work area and clearly identify the tree and its roots to avoid damage.

**8. Equipment and Tools:**

- Ensure that air spades and associated equipment are in good working condition.
- Conduct regular maintenance checks on the air spades to ensure proper functionality.
- Have appropriate tools available for cutting roots or removing soil, if required.

**9. Personnel:**

- Assign trained and experienced personnel for the excavation work.
- Provide personnel with the necessary PPE, including safety goggles, gloves, and steel-toe boots.
- Clearly communicate the roles and responsibilities of each team member.

**10. Excavation Process:**

- Use air spades to carefully remove soil from around the tree roots, starting from the outer edge and working inward.
- Exercise caution to avoid excessive force or direct contact with the roots.
- Continuously monitor the excavation process to identify any potential issues or hazards.

**11. Monitoring and Inspection:**

- Regularly inspect the excavated area to assess any changes or potential risks.
- Conduct a final inspection to ensure that all roots have been safely exposed or severed.
- Keep a safe distance from the tree to avoid any falling branches or debris.

**12. Waste Management:**

- Dispose of excavated soil and any waste materials in accordance with local regulations.
- Keep the work area clean and free from trip hazards.

Note: The above risk assessment and method statement is a general example and should be adapted and tailored to the specific site and project requirements. It is crucial to consult with experts, including arborists or tree specialists, to ensure the safe and effective excavation around tree roots.

**HE**

risk assessment for using air spades.

Risk Assessment for Using Air Spades:

**7. Hazard: Flying debris**

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - All personnel involved should wear appropriate personal protective equipment (PPE), including safety goggles and helmets, to protect against flying debris.
  - Establish exclusion zones and restrict access to the work area to prevent unauthorized personnel from entering the hazardous zone.
  - Use caution when operating the air spade and direct the air flow away from personnel and sensitive equipment.

**8. Hazard: Noise exposure**

- Likelihood: Moderate
- Consequence: Minor
- Control Measures:
  - Provide hearing protection to all personnel operating or working near the air spade.
  - Limit the duration of exposure to loud noise by scheduling breaks for personnel.
  - Maintain the air spade equipment in good working condition to minimize noise levels.

**9. Hazard: Hand-arm vibration**

- Likelihood: Low to Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - Ensure that the air spade is well-maintained and properly balanced to minimize vibration levels.
  - Provide training to personnel on proper handling techniques and recommend frequent breaks to minimize the risk of hand-arm vibration syndrome.

- Rotate personnel during extended periods of use to reduce individual exposure.

**10. Hazard: Striking underground utilities**

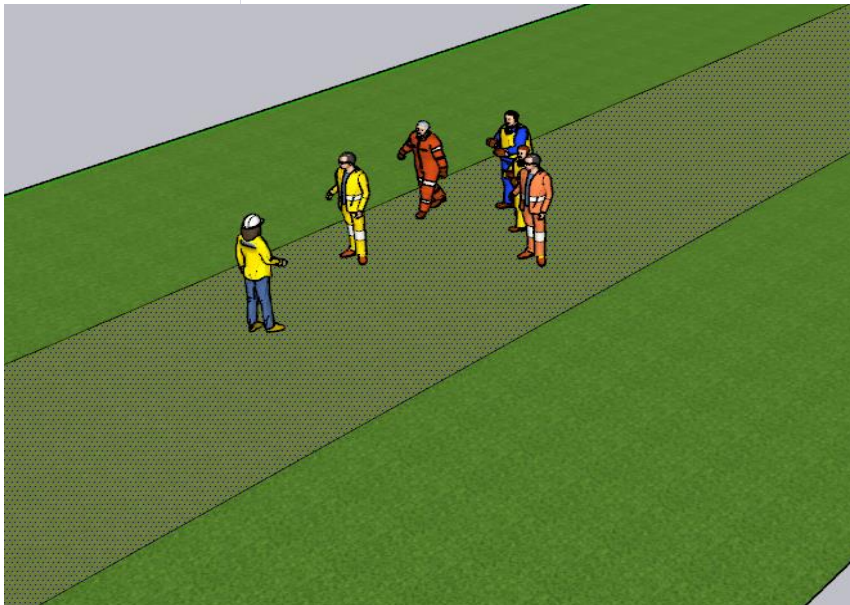
- Likelihood: Low
- Consequence: Major
- Control Measures:
  - Conduct a thorough utility scan and mark the location of underground utilities before commencing excavation.
  - Implement a hand digging approach or use alternative techniques near known utility lines to avoid accidental strikes.
  - Maintain communication with utility companies and follow any specific protocols or guidelines provided.

**11. Hazard: Trips, slips, and falls**

- Likelihood: Moderate
- Consequence: Minor to Major
- Control Measures:
  - Ensure a clean and organized work area, free from trip hazards such as loose cables or debris.
  - Provide adequate lighting in the work area, especially in low visibility conditions.
  - Ensure that personnel wear appropriate footwear with slip-resistant soles and maintain proper footing while operating the air spade.

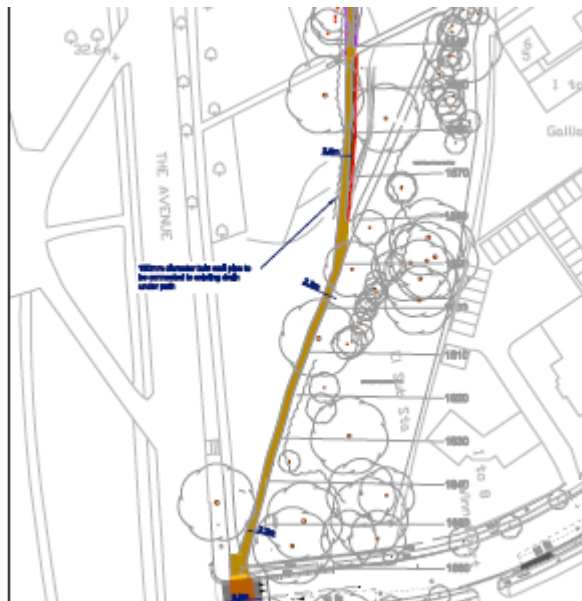
**12. Hazard: Ergonomic strain**

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - Provide training to personnel on proper body mechanics and lifting techniques to minimize strain and injury.
  - Encourage regular breaks and rotation of tasks to reduce prolonged physical exertion.
  - Provide ergonomic tools and equipment to reduce strain and improve operator comfort.





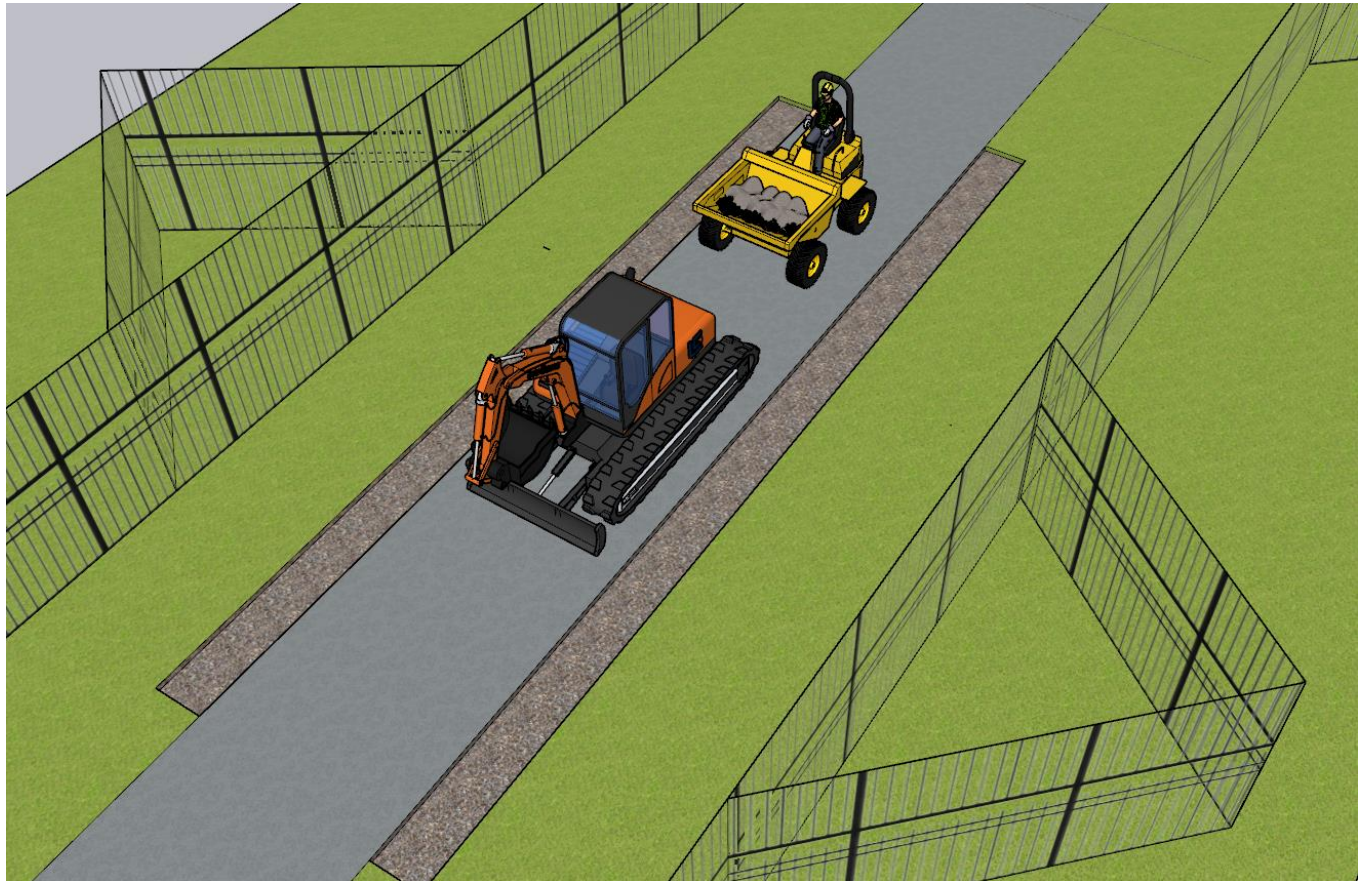
**5** Plant to access from Winn Road end of site



<b>Developed By:</b>	Becky Farminer	<b>Date:</b>	15 11 2023
<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

**6**

- . Footway extents to be marked and existing surfaces to be stripped back to a maximum of 60mm ensuring a regular level construction surface.  
The stripping back of existing surfaces shall be executed by mechanical 360 mini excavators.
- \*Note – protected tree root areas **shall not be** excavated by mechanical means, identified areas shall be hand excavated using hand tools
- All machinery strictly restricted to working upon the existing footway.



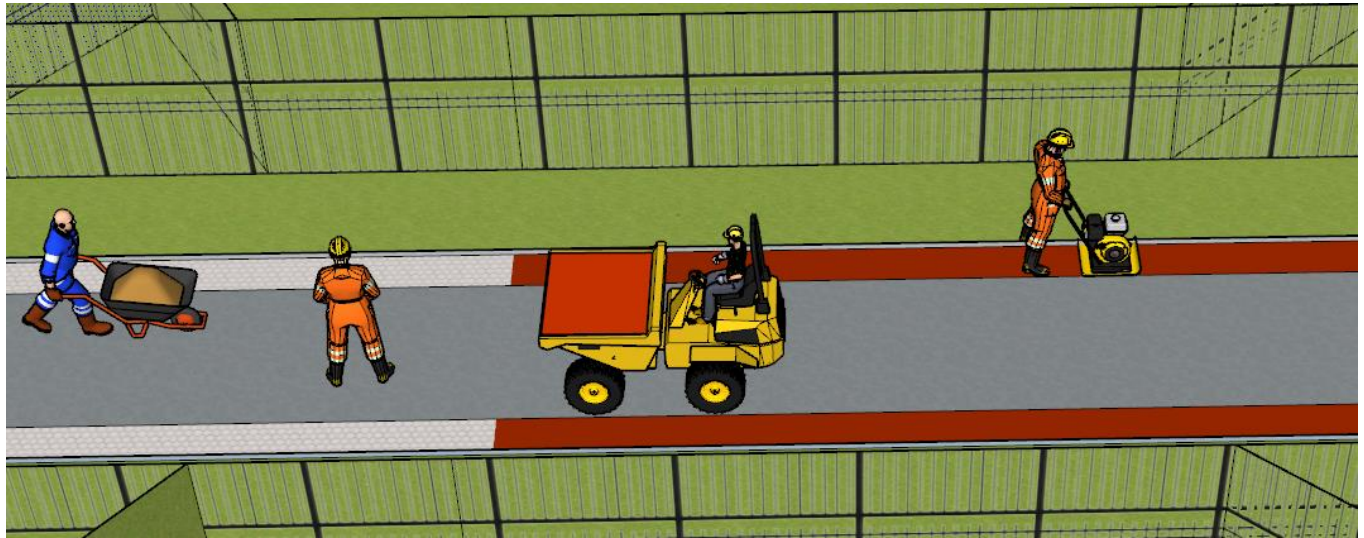
**7**

- Lay treetex t300 geotextile separation fabric to prevent Contamination with existing ground. Where recommended by t.o

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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

**8**

Overfill grid pockets with angular stone type 20/40 material and compacted using a vibrating plate. Forward tipping dumpers to be used to transport materials to the grid starting point, materials will be spread into the grid voids, the dumper shall progress forward travelling over the existing macadam path.



**9**

**Inset I –Speed calming detail.**

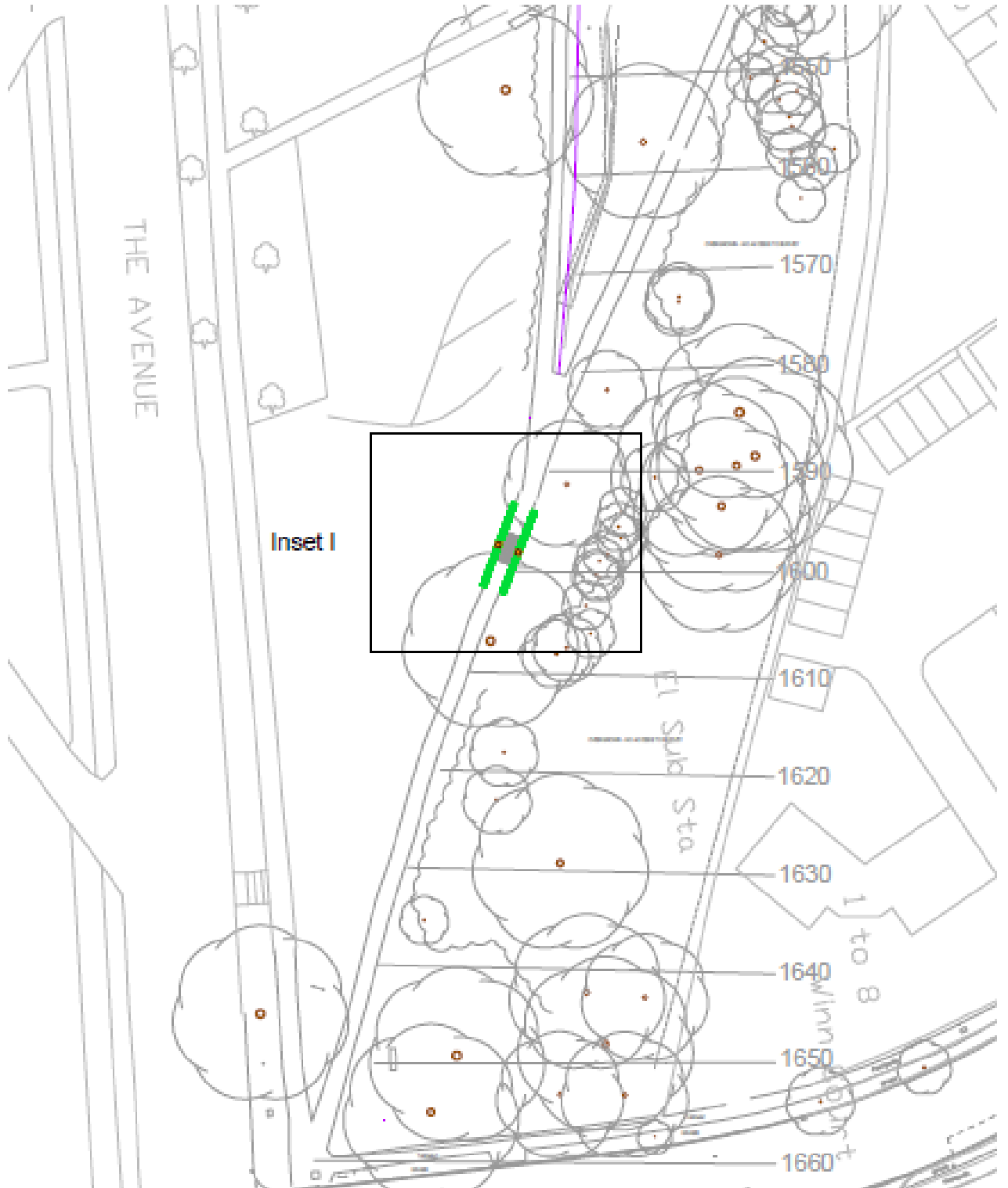
Granite setts will be installed within the current build up (destruction layer) of the existing path. The existing macadam will be carefully removed, and the base material carefully excavated in readiness to install the Granite Setts - Locations will be carefully discussed with the TO and EO during their phase of works inspections.

Once the path is completed the posts will be installed during an Archaeological watching brief – any dynamic instructions will be from the archaeology officer will be carefully followed.

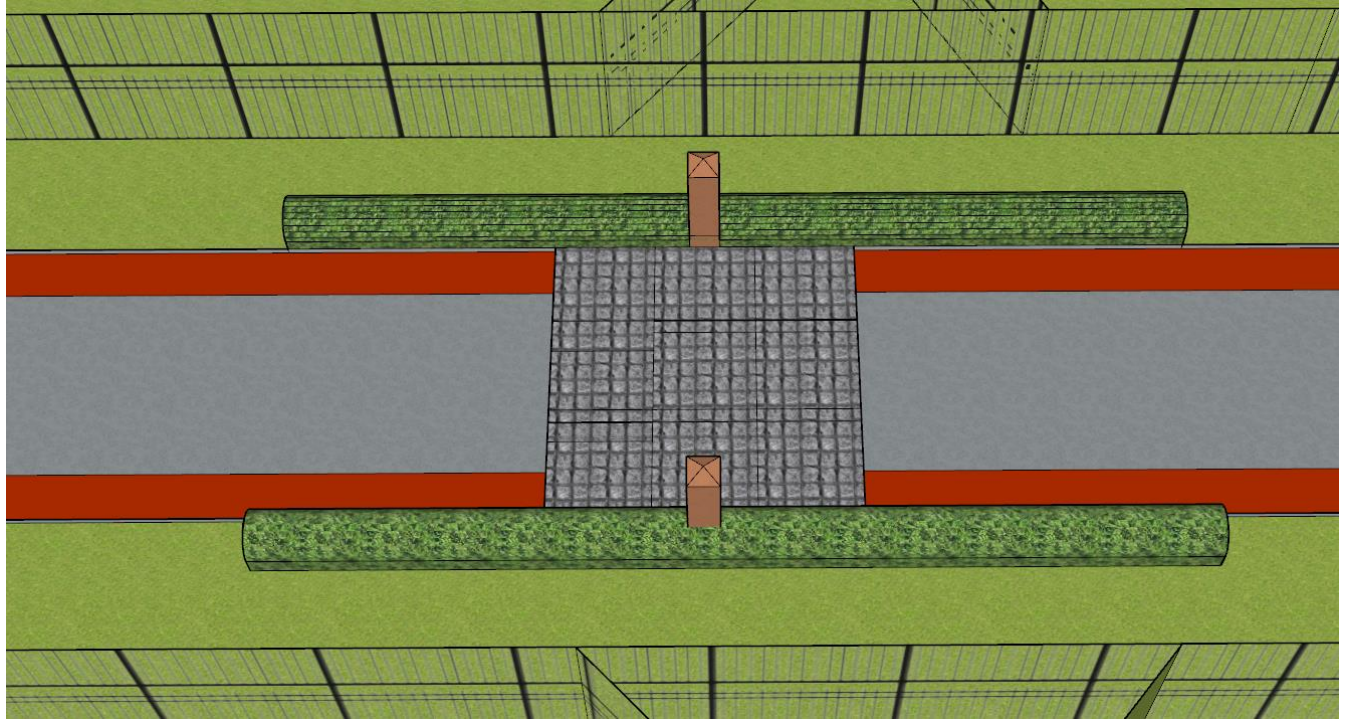
Once the posts holes have been excavated and the AO is happy for us to proceed the new bollards will be fitted and a bund will be constructed around them as per plan – soil used - will be soil sourced from the Common



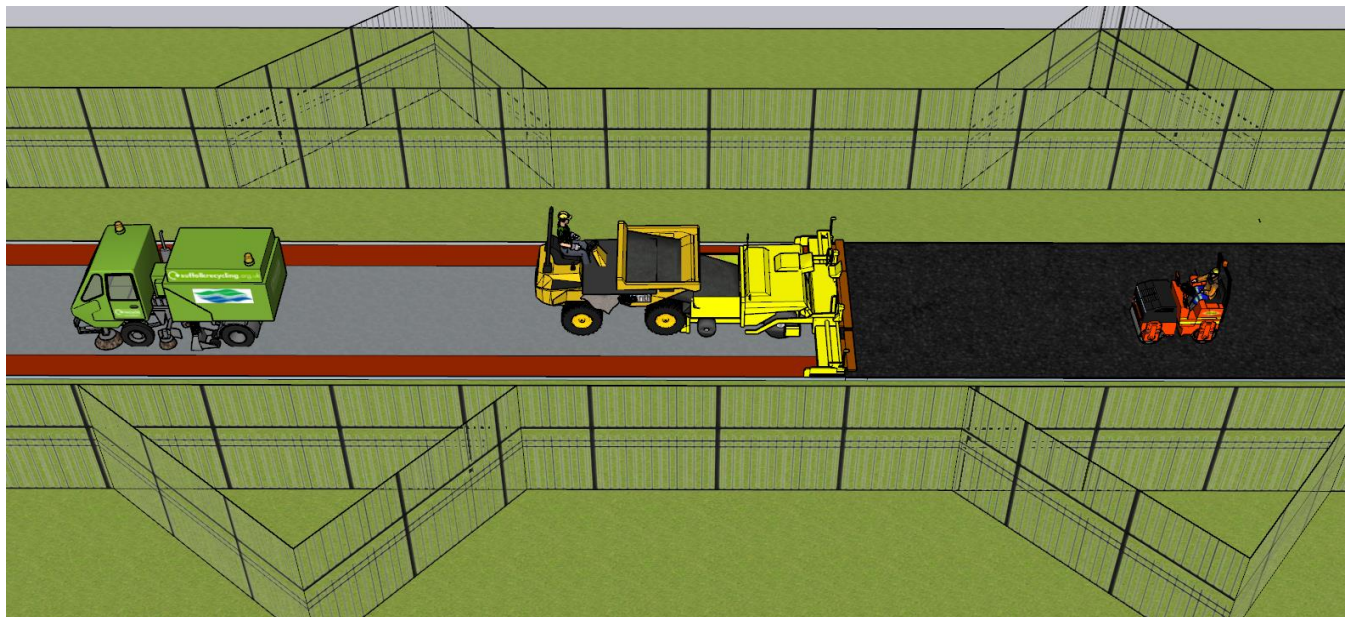
<b>Developed By:</b>	Becky Farminer	<b>Date:</b>	15 11 2023
<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001



<b>Developed By:</b>	Becky Farminer	<b>Date:</b>	15 11 2023
<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001



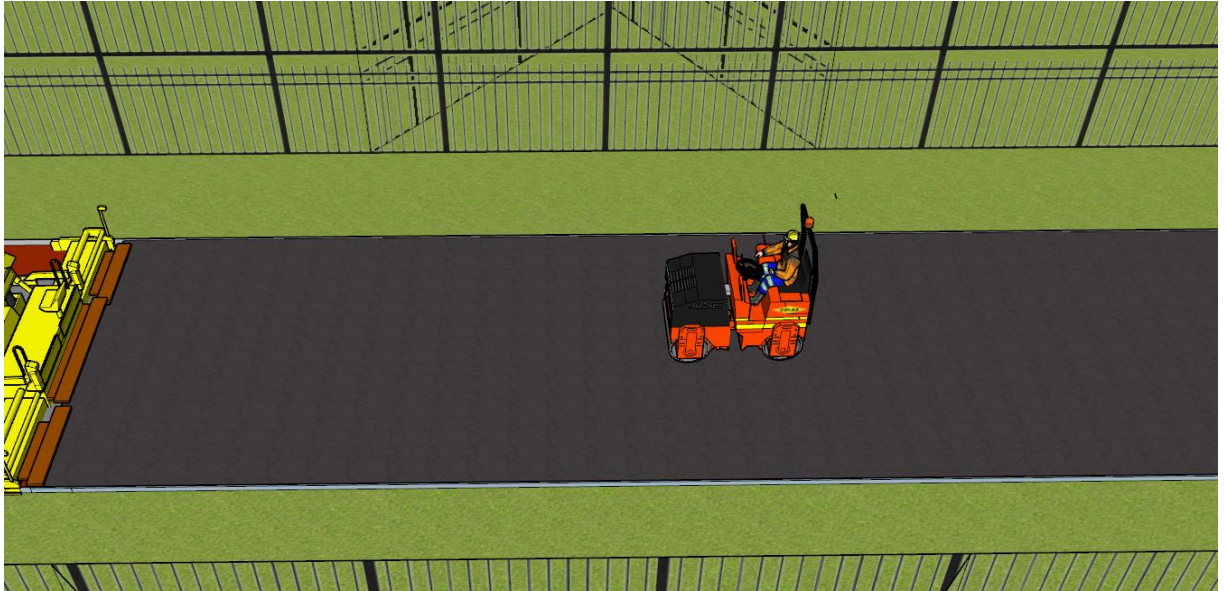
- 10** Once mechanically swept, a layer of 45mm asphalt binder course shall be laid over a tack coat emulsion. Dumpers collecting hot lay materials from an off-site designated compound. All plant strictly restricted to the existing pathway. Raked by hand or levelled with mini paver.



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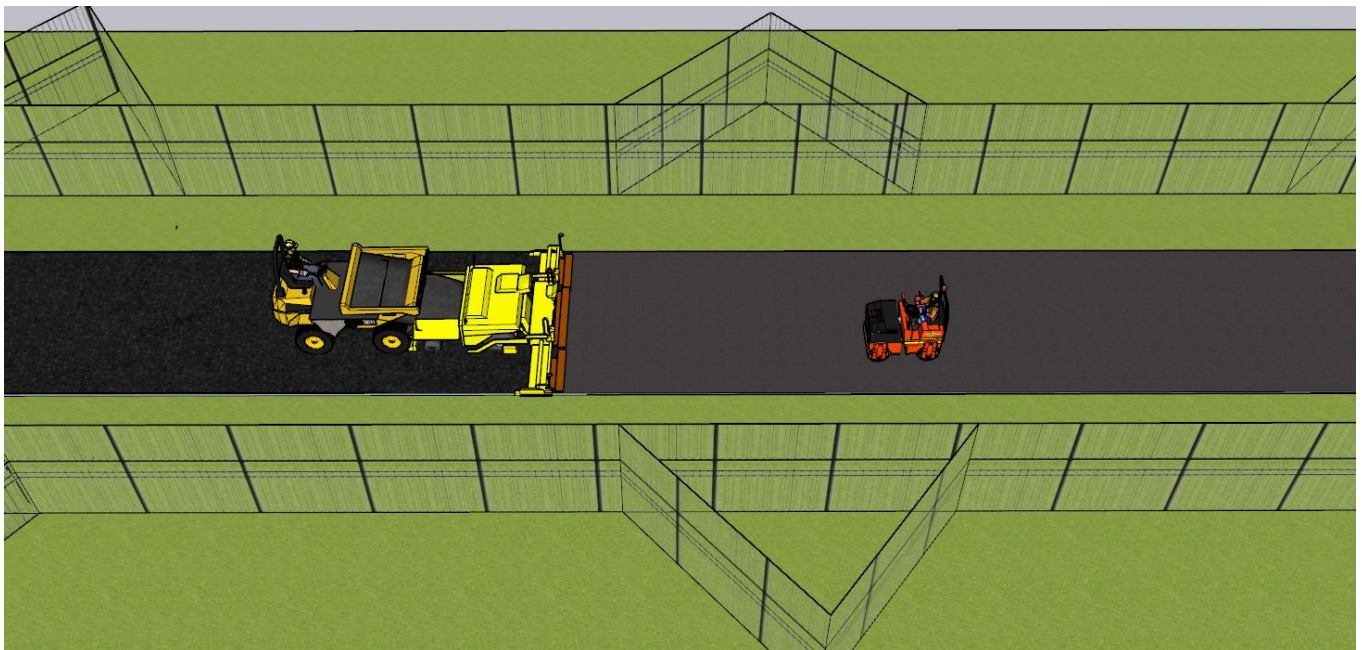
**11**

Mechanical twin drum vibrating rollers shall compact the asphalt layers as per the required pass rate.



**12**

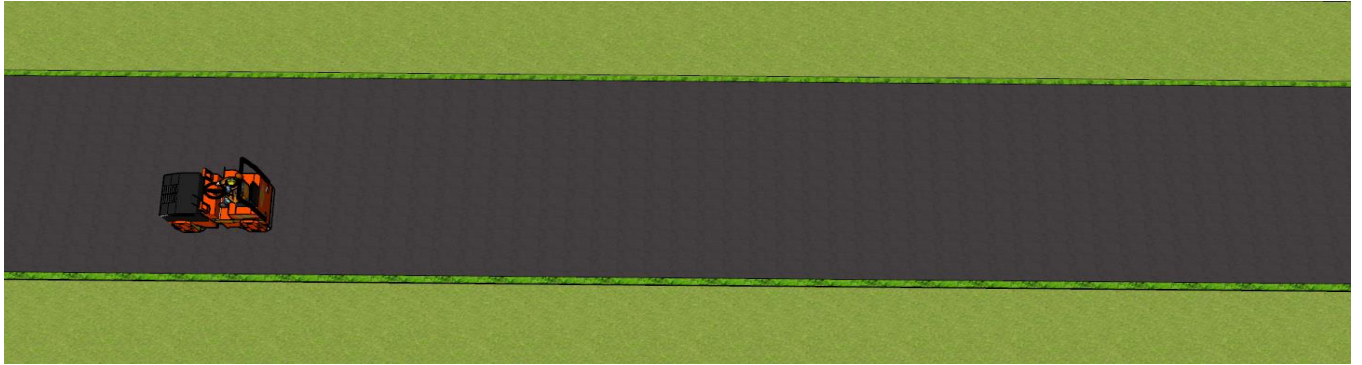
20mm asphalt surface course to be laid as per 10 & 11.



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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

**13**

Re-grade soil to edge of new path using approved existing stripped soil.  
Materials left to naturalise



**14**

Site cleared of all tree & root protection systems and site open to  
Pedestrian traffic

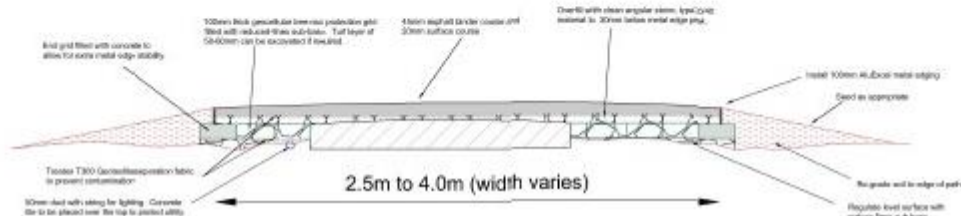
<b>Developed By:</b>	Becky Farminer	<b>Date:</b>	15 11 2023
<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

## Phase 3 - Blenheim Ave to Oakmount Rd – Compound Blenheim Ave

Before



After



No	Task	Material	Approx Unit No	Approx Tonnes	Approx LM	Approx M2	Approx M3	Deliveries by Van or Lorry
1	Errect site fencing	Heras or Chapter 8	204/357		714			1
2	Excavate where T.O approved	Existing vegetation @ max 60mm		18		176	10.56	0
3	Install tree friendly edging	Metal Edging			702			1
4	Lay Treetex - Geotextile	Treetex				176		1
5	Lay Cellweb TRP	Cellweb				176	17.6	1
6	Fill cells	20/40 Angular stone		35		176	17.6	2
7	Macadam base course	AC20 @ 45mm deep - 2.5m wide		91		852	39.5	5
8	Macadam wearing course	AC6 @ 20mm deep – 2.5m wide		40.36		852	17.55	2
9	Reinstatement	Common Soil		18		351	10.53	1
10	Speed calming Setts types F,G,H	Granite Setts 100x100mm 3m x 2.5m	2250	6.056		22.5	2.250	1
11	Concrete base	Ready Mix		9.612		22.5	4.5	1
12	Pointing Grout	Flowpoint 25k bags	12	0.3		22.5		1
13	Timber Bollards	Fixed Timber Bollard	6					1
14	Soil Bunds	Common soil		23	54	27	13.5	1



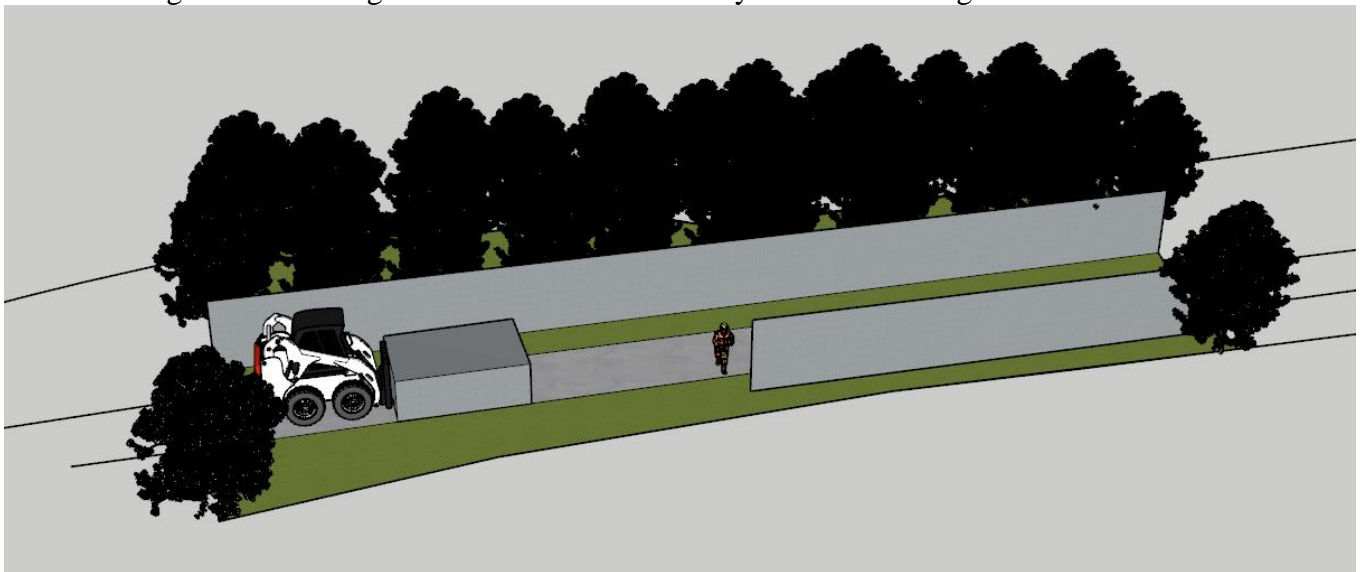
**1**

**ERECT PEDESTRIAN TRAFFIC MANAGEMENT CONTROL AND SECURE SITE FOR OPERATIONS**



**2**

Only working from the existing pavement – We erect protective fencing either Chapter 8 barriers or Heras fencing – Bobcat using extended forks removes any manual handling risks



**3A**

**Ecology Risk**

Developed By:	Becky Farminer	Date:	15 11 2023
Approved By:	Matthew Lovell	Version No:	001

Works will only proceed in suitable conditions and at a time of year approved by our ecologist to ensure no negative impact on the local wildlife.

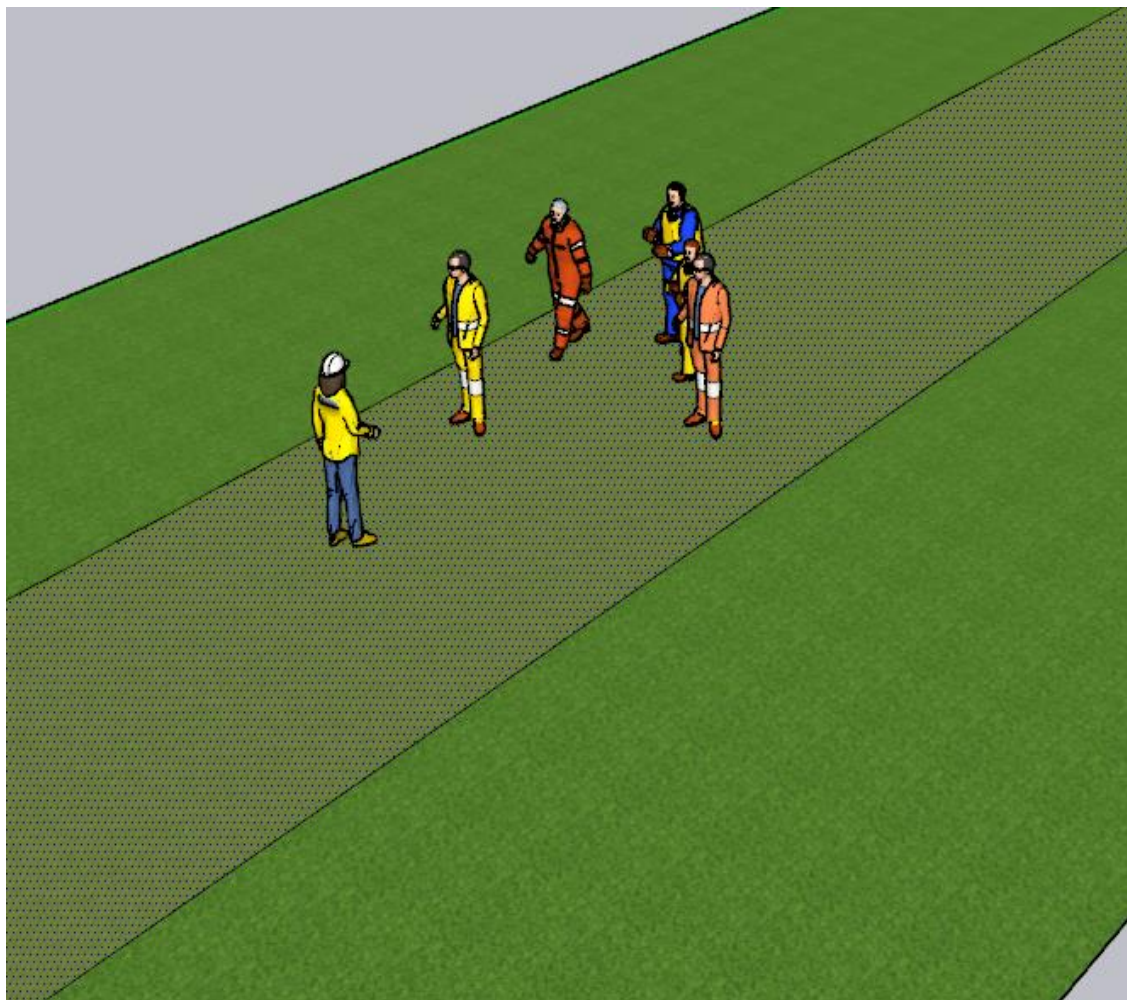
To protect adjacent vegetation, all construction work will be undertaken within the footprint of the existing macadamed pathway avoiding any vehicular traffic in other areas.

Working hours are restricted to ensure the working day starts well after dawn and finishes well before dusk.

Our ecology officer very kindly checks the area for Wildlife, presents an Ecology TBT and we follow any dynamic procedures she recommends for this section of works.

General non project specific RAMS below

Our Ecology Officer undertakes an Ecology Toolbox Talk – Result recorded – Actions followed.



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3B

3. Identify the scope of work: Clearly define the scope of work and identify the ecological area that will be impacted.
4. Evaluate the environmental impact: Conduct a thorough evaluation of the potential environmental impact of the work. This should include an assessment of the risks to the ecology, the flora and fauna present, and any other relevant environmental factors.
5. Develop a plan to minimize the impact: Based on the environmental impact assessment, develop a plan to minimize the impact of the work on the ecology. This plan should include measures to protect the existing flora and fauna, minimize soil erosion and disturbance, and prevent any pollutants from entering the area.
6. Obtain the necessary permits: Ensure that all necessary permits are obtained from the relevant authorities before commencing work.
7. Train personnel: Ensure that all personnel working in the area are adequately trained on the potential impact of their activities on the ecology and the measures they need to take to minimize this impact.
8. Implement the plan: Implement the plan to minimize the impact of the work on the ecology.
9. Monitor the impact: Regularly monitor the impact of the work on the ecology to ensure that the measures implemented are effective in minimizing the impact.
10. Adjust the plan if necessary: If monitoring reveals that the impact of the work is greater than anticipated, adjust the plan to minimize the impact.
11. Communicate with stakeholders: Regularly communicate with stakeholders, including the public, to ensure that they are aware of the measures being taken to minimize the impact of the work on the ecology.
12. Document the process: Document the process of working with the area of ecology, including the environmental impact assessment, the plan to minimize the impact, and any monitoring results. This documentation will be valuable for future reference and can help to inform similar projects in the future.

4

Tree protection – To ensure protection of all trees during this project – Our tree officer will very kindly check this phase of works for any trees or trees roots that may be close to our works.

Our tree officer will conduct a tool box talk specific to this section of works and advise us of any systems or procedures we need to follow to ensure best practice and tree protection.

To protect adjacent trees, all construction work will be undertaken within the footprint of the existing macadamed pathway avoiding any vehicular traffic in other areas.

We will follow any dynamic procedures our tree officer recommends including but not limited to, additional fencing, ground protection and the use of airspades

General non project specific RAMS below

Risk Assessment:

7. Hazard: Damage to tree roots

Developed By:	Becky Farminer	Date:	15 11 2023
Approved By:	Matthew Lovell	Version No:	001



- Likelihood: Moderate
- Consequence: Moderate
- Control Measures:

- Identify and mark the area where the tree roots are present before starting excavation.
- Use air spades to excavate the soil carefully around the roots, minimizing the risk of damage.
- Assign experienced and trained personnel for the excavation process.

**8. Hazard: Injury to personnel**

- Likelihood: Low
- Consequence: Moderate
- Control Measures:

- Provide appropriate personal protective equipment (PPE) to all personnel involved, including safety goggles, gloves, and steel-toe boots.
- Conduct training sessions on the proper handling and operation of air spades.
- Establish clear communication protocols and signals among team members during the excavation.

**9. Hazard: Underground utilities**

- Likelihood: Low
- Consequence: Major
- Control Measures:

- Conduct a thorough utility scan and identify any underground services before commencing the excavation.
- Clearly mark the location of any identified utilities.
- Exercise caution and implement hand digging when working in close proximity to utilities.

**Method Statement:**

**13. Site Preparation:**

- Perform a visual inspection of the excavation site to identify any potential hazards, including overhead power lines, unstable ground, or nearby structures.
- Mark the boundaries of the work area and clearly identify the tree and its roots to avoid damage.

**14. Equipment and Tools:**

- Ensure that air spades and associated equipment are in good working condition.
- Conduct regular maintenance checks on the air spades to ensure proper functionality.
- Have appropriate tools available for cutting roots or removing soil, if required.

**15. Personnel:**

- Assign trained and experienced personnel for the excavation work.
- Provide personnel with the necessary PPE, including safety goggles, gloves, and steel-toe boots.
- Clearly communicate the roles and responsibilities of each team member.

**16. Excavation Process:**

<b>Developed By:</b>	Becky Farminer	<b>Date:</b>	15 11 2023
<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

- Use air spades to carefully remove soil from around the tree roots, starting from the outer edge and working inward.
- Exercise caution to avoid excessive force or direct contact with the roots.
- Continuously monitor the excavation process to identify any potential issues or hazards.

**17. Monitoring and Inspection:**

- Regularly inspect the excavated area to assess any changes or potential risks.
- Conduct a final inspection to ensure that all roots have been safely exposed or severed.
- Keep a safe distance from the tree to avoid any falling branches or debris.

**18. Waste Management:**

- Dispose of excavated soil and any waste materials in accordance with local regulations.
- Keep the work area clean and free from trip hazards.

Note: The above risk assessment and method statement is a general example and should be adapted and tailored to the specific site and project requirements. It is crucial to consult with experts, including arborists or tree specialists, to ensure the safe and effective excavation around tree roots.

**HE**

risk assessment for using air spades.

Risk Assessment for Using Air Spades:

**13. Hazard: Flying debris**

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - All personnel involved should wear appropriate personal protective equipment (PPE), including safety goggles and helmets, to protect against flying debris.
  - Establish exclusion zones and restrict access to the work area to prevent unauthorized personnel from entering the hazardous zone.
  - Use caution when operating the air spade and direct the air flow away from personnel and sensitive equipment.

**14. Hazard: Noise exposure**

- Likelihood: Moderate
- Consequence: Minor
- Control Measures:
  - Provide hearing protection to all personnel operating or working near the air spade.
  - Limit the duration of exposure to loud noise by scheduling breaks for personnel.
  - Maintain the air spade equipment in good working condition to minimize noise levels.

**15. Hazard: Hand-arm vibration**

- Likelihood: Low to Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - Ensure that the air spade is well-maintained and properly balanced to minimize vibration levels.
  - Provide training to personnel on proper handling techniques and recommend frequent breaks to minimize the risk of hand-arm vibration syndrome.

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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001



- Rotate personnel during extended periods of use to reduce individual exposure.

**16. Hazard: Striking underground utilities**

- Likelihood: Low
- Consequence: Major
- Control Measures:
  - Conduct a thorough utility scan and mark the location of underground utilities before commencing excavation.
  - Implement a hand digging approach or use alternative techniques near known utility lines to avoid accidental strikes.
  - Maintain communication with utility companies and follow any specific protocols or guidelines provided.

**17. Hazard: Trips, slips, and falls**

- Likelihood: Moderate
- Consequence: Minor to Major
- Control Measures:
  - Ensure a clean and organized work area, free from trip hazards such as loose cables or debris.
  - Provide adequate lighting in the work area, especially in low visibility conditions.
  - Ensure that personnel wear appropriate footwear with slip-resistant soles and maintain proper footing while operating the air spade.

**18. Hazard: Ergonomic strain**

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - Provide training to personnel on proper body mechanics and lifting techniques to minimize strain and injury.
  - Encourage regular breaks and rotation of tasks to reduce prolonged physical exertion.
  - Provide ergonomic tools and equipment to reduce strain and improve operator comfort.

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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001



Our Tree Officer undertakes an arboricultural Toolbox Talk – Results recorded – Actions Followed

**5** Plant to access from Blenheim Avenue Compound



<b>Developed By:</b>	Becky Farminer	<b>Date:</b>	15 11 2023
<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001



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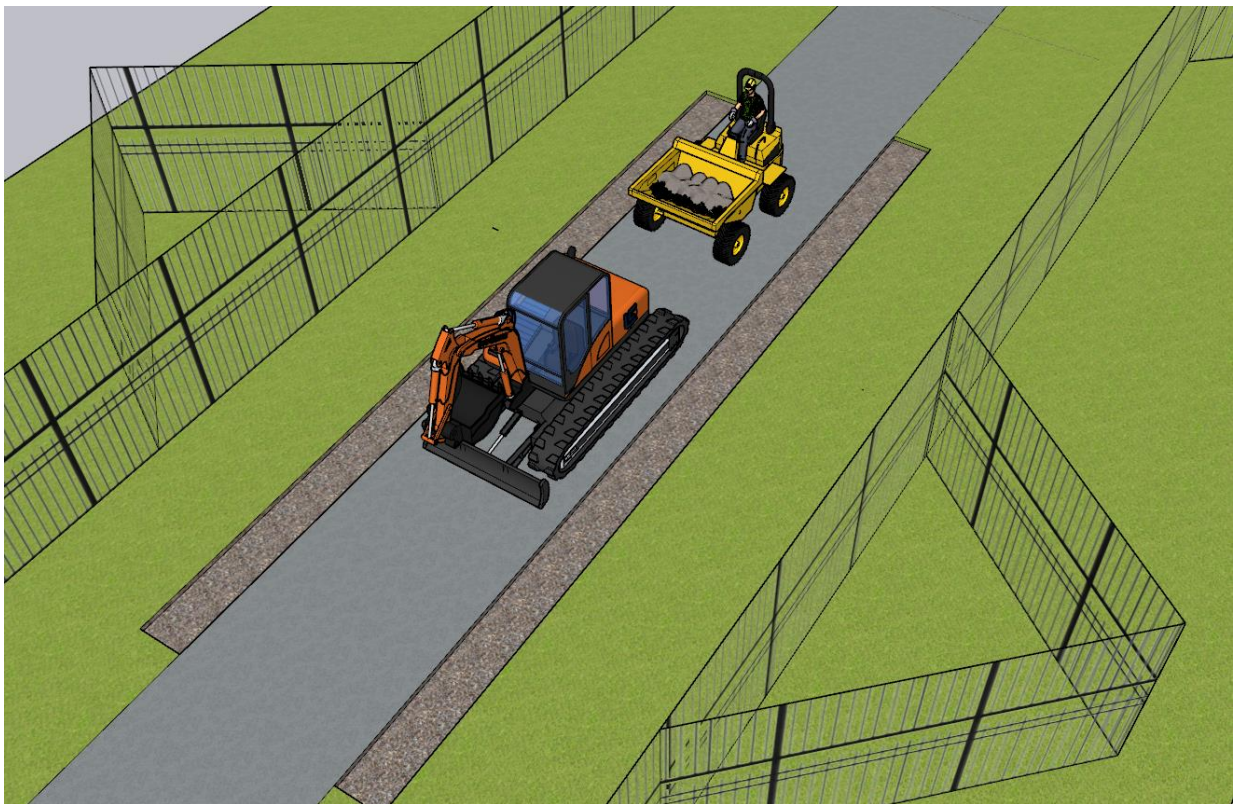
**6**

Footway extents to be marked and existing surfaces to be stripped back to a maximum of 60mm ensuring a regular level construction surface.

The stripping back of existing surfaces shall be executed by mechanical 360 mini excavators.

\*Note – protected tree root areas **shall not be** excavated by mechanical means, identified areas shall be hand excavated using hand tools

All machinery strictly restricted to working upon the existing footway.



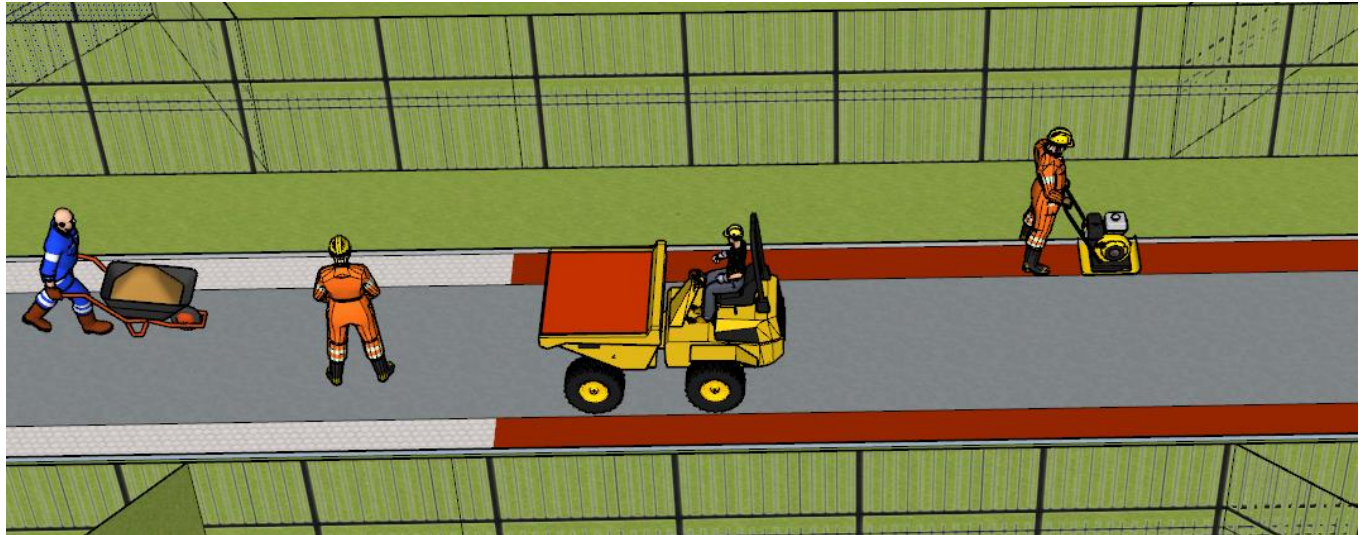
**7**

Lay treetex t300 geotextile separation fabric to prevent Contamination with existing ground. Where recommended by t.o

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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

**8**

Overfill grid pockets with angular stone type 20/40 material and compacted using a vibrating plate. Forward tipping dumpers to be used to transport materials to the grid starting point, materials will be spread into the grid voids, the dumper shall progress forward travelling over the existing macadam path.



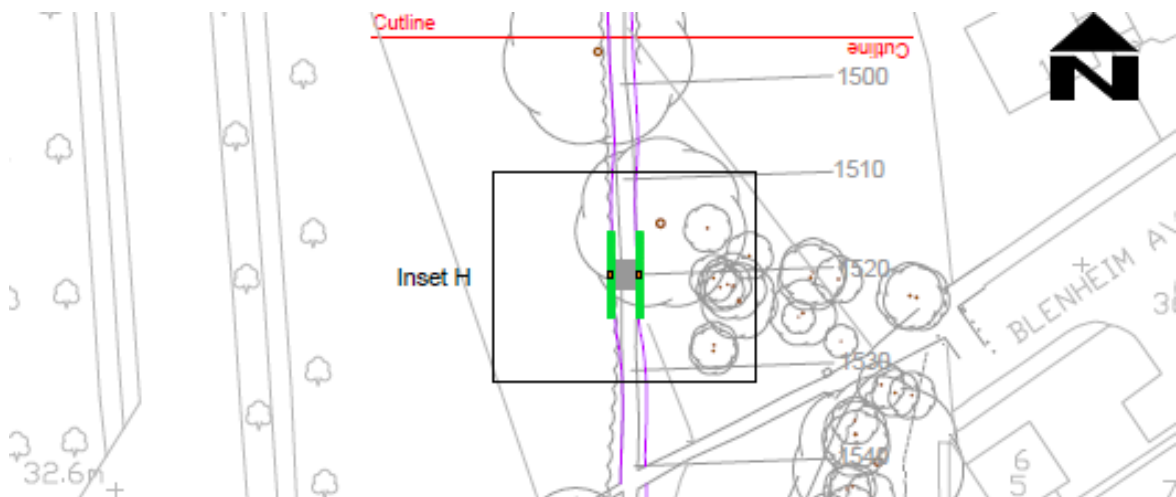
**9**

Inset F G & H –Speed calming details.

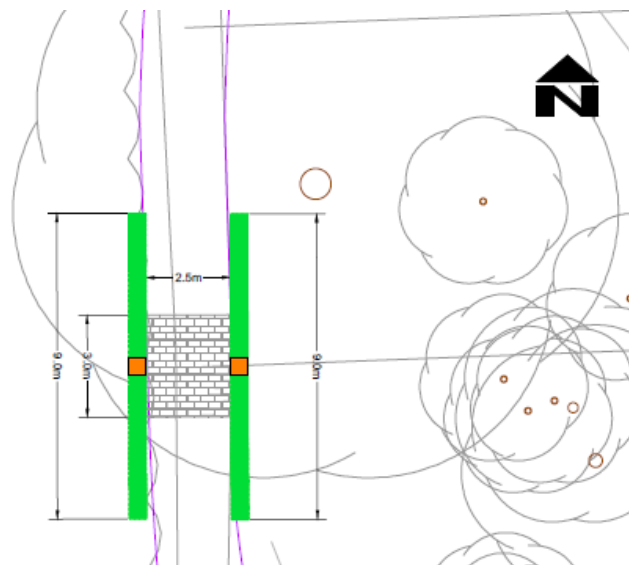
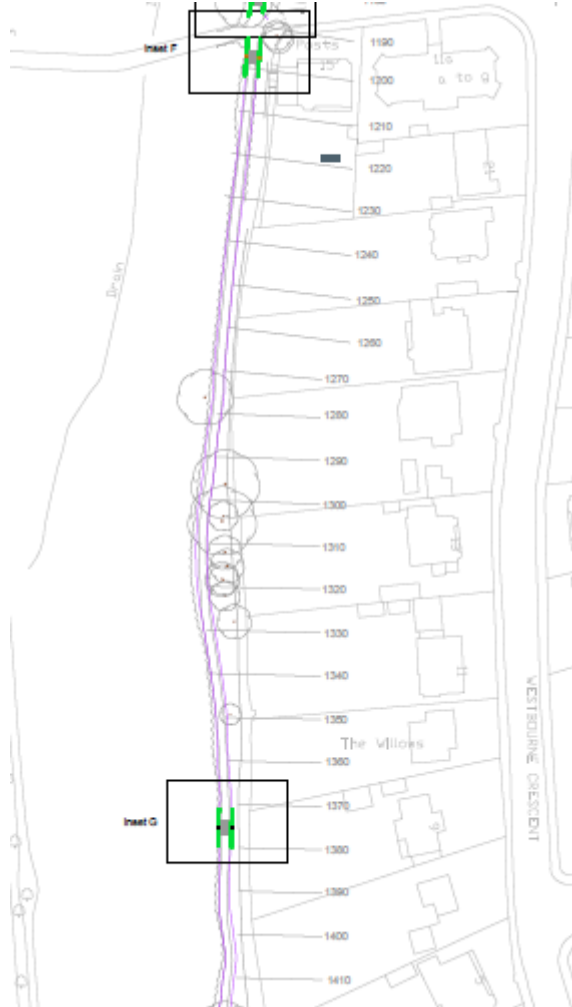
Granite setts will be installed within the current build up (destruction layer) of the existing path. The existing macadam will be carefully removed, and the base material carefully excavated in readiness to install the Granite Setts - Locations will be carefully discussed with the TO and EO during their phase of works inspections.

Once the path is completed the posts will be installed during an Archaeological watching brief – any dynamic instructions will be from the archaeology officer will be carefully followed.

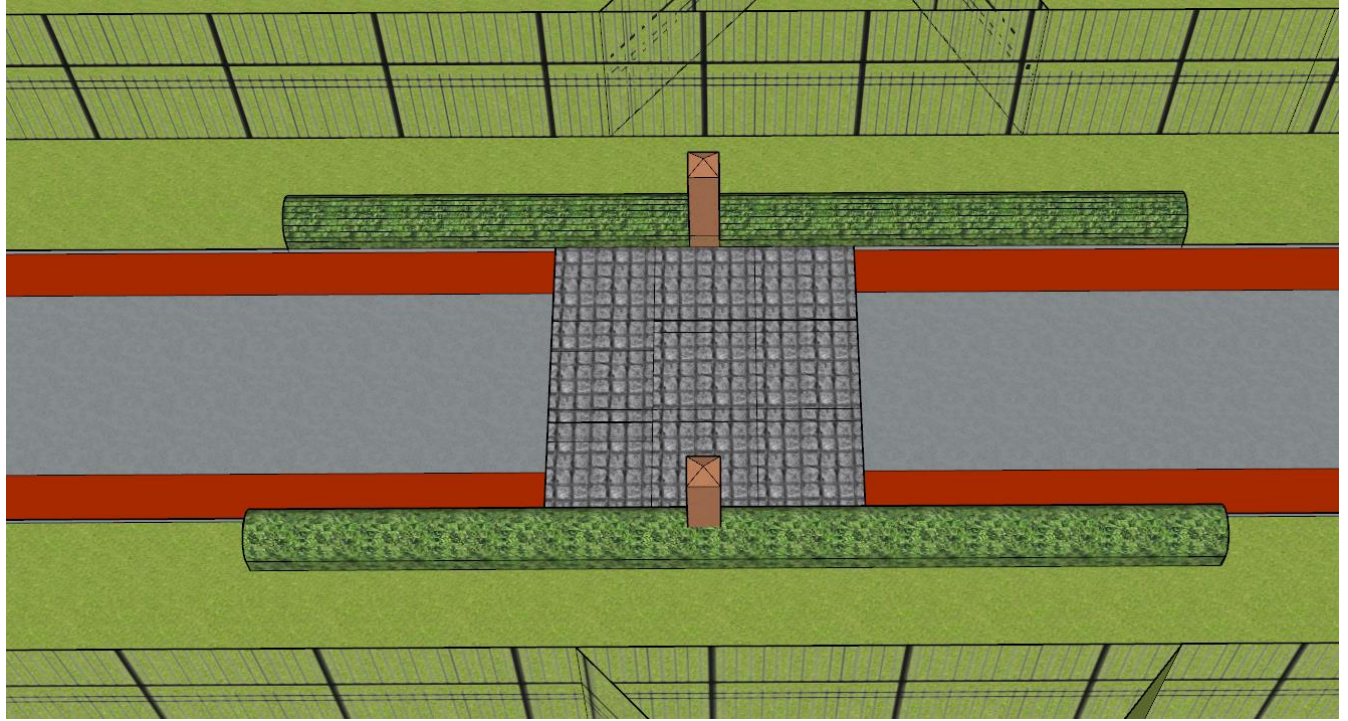
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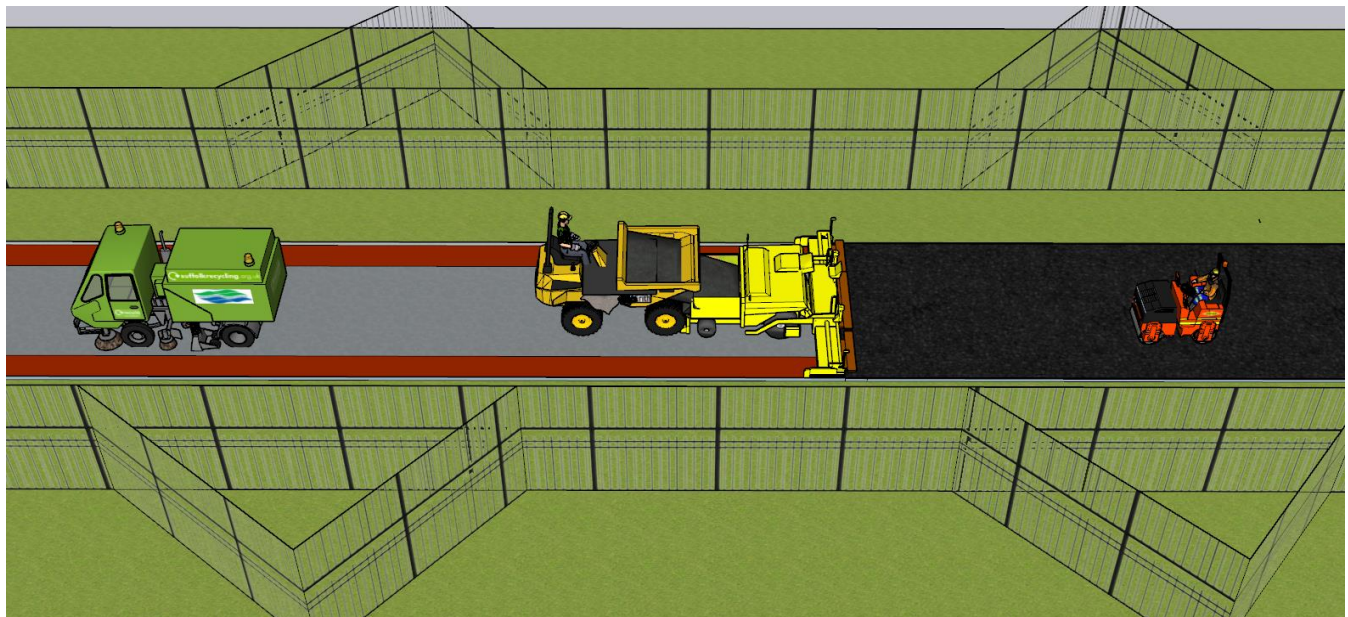
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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001



- 10** Once mechanically swept, a layer of 45mm asphalt binder course shall be laid over a tack coat emulsion. Dumpers collecting hot lay materials from an off-site designated compound. All plant strictly restricted to the existing pathway. Raked by hand or levelled with mini paver.

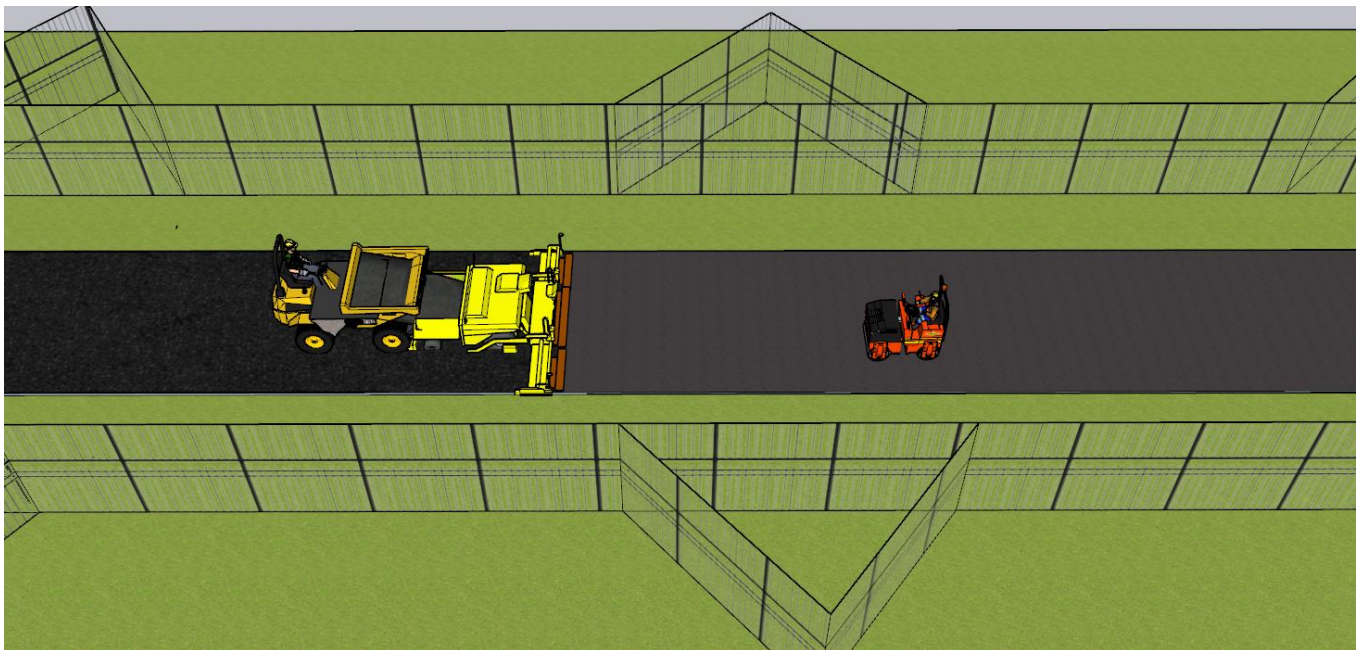


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- 11** Mechanical twin drum vibrating rollers shall compact the asphalt layers as per the required pass rate.

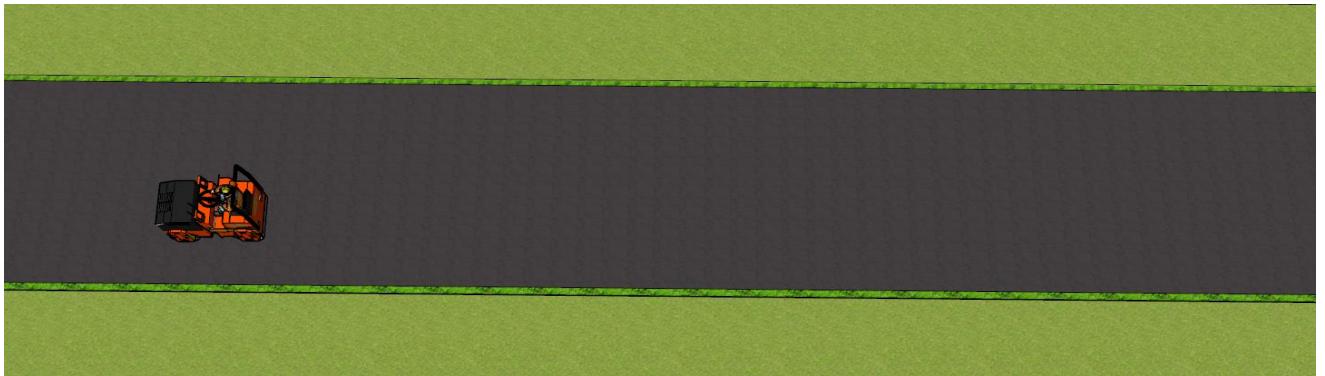


- 12** 20mm asphalt surface course to be laid as per 10 & 11.



**13**

Re-grade soil to edge of new path using approved existing stripped topsoil.  
Materials left to naturalise.



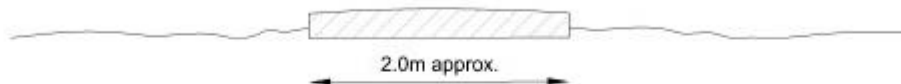
**14**

Site cleared of all tree & root protection systems and site open to Pedestrian traffic.

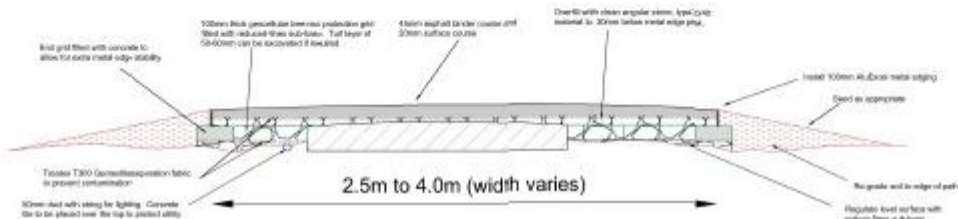
<b>Developed By:</b>	Becky Farminer	<b>Date:</b>	15 11 2023
<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

## Phase 4 - Oakmount Rd to Highfield Road– Compound Highfield Road

Before



After



No	Task	Material	Approx Unit No	Approx Tonnes	Approx LM	Approx M2	Approx M3	Deliveries by Van or Lorry
1	Errect site fencing	Heras or Chapter 8	62/108		216			1
2	Excavate where T.O approved	Existing vegetation @ max 60mm		10.40		102	6.12	0
3	Install tree friendly edging	Metal Edging			204			1
4	Lay Treetex - Geotextile	Treetex				102		1
5	Lay Cellweb TRP	Cellweb				102	10.2	1
6	Fill cells	20/40 Angular stone		20.4		102	10.2	1
7	Macadam base course	AC20 @ 45mm deep - 2.5m wide		26.4		230	11.48	2
8	Macadam wearing course	AC6 @ 20mm deep – 2.5m wide		11.73		230	17.55	1
9	Reinstatement	Common Soil		5.2		351	3.06	1
10	Speed calming Setts type E	Granite Setts 100x100mm 3m x 2.5m	750	2.018		7.5	0.75	1
11	Concrete base	Ready Mix		3.204		7.5	1.5	1
12	Pointing Grout	Flowpoint 25k bags	4	0.1		7.5		1
13	Timber Bollards	Fixed Timber Bollard	2					1
14	Soil Bunds	Common soil		7.6	18	9	4.5	1

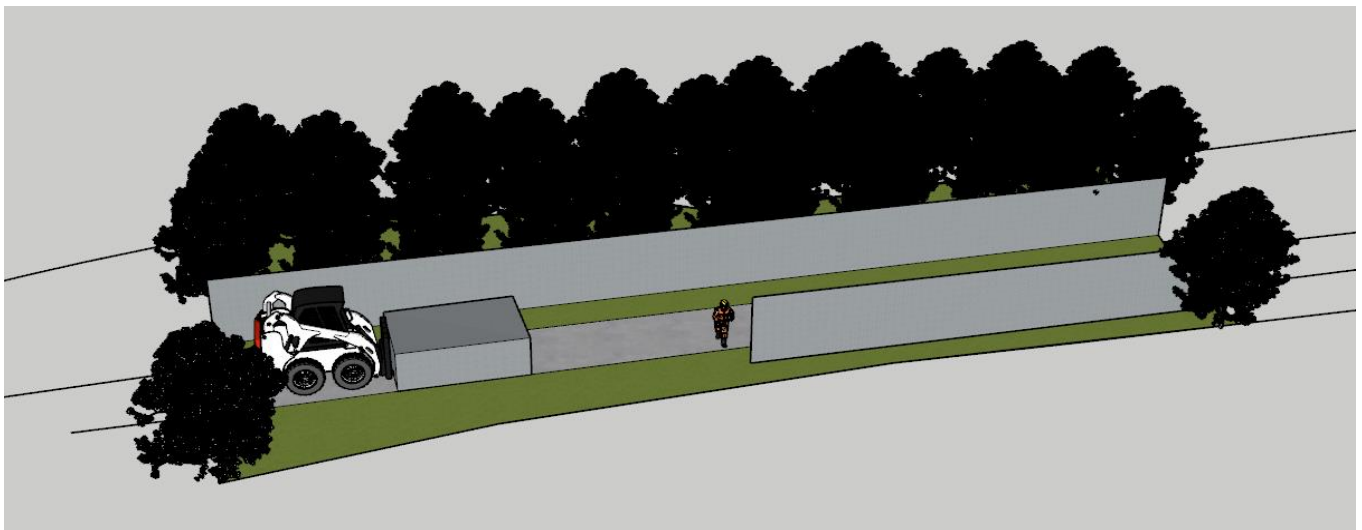
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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

**1**



**2**

Only working from the existing pavement – We erect protective fencing either Chapter 8 barriers or Heras fencing – Bobcat using extended forks removes any manual handling risks



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**3A Ecology Risk**

Works will only proceed in suitable conditions and at a time of year approved by our ecologist to ensure no negative impact on the local wildlife.

To protect adjacent vegetation, all construction work will be undertaken within the footprint of the existing macadamed pathway avoiding any vehicular traffic in other areas.

Working hours are restricted to ensure the working day starts well after dawn and finishes well before dusk.

Our ecology officer very kindly checks the area for Wildlife, presents an Ecology TBT and we follow any dynamic procedures she recommends for this section of works.

General non project specific RAMS below

Our Ecology Officer undertakes an Ecology Toolbox Talk – Result recorded – Actions followed.

**3B**

4. Identify the scope of work: Clearly define the scope of work and identify the ecological area that will be impacted.
5. Evaluate the environmental impact: Conduct a thorough evaluation of the potential environmental impact of the work. This should include an assessment of the risks to the ecology, the flora and fauna present, and any other relevant environmental factors.
6. Develop a plan to minimize the impact: Based on the environmental impact assessment, develop a plan to minimize the impact of the work on the ecology. This plan should include measures to protect the existing flora and fauna, minimize soil erosion and disturbance, and prevent any pollutants from entering the area.
7. Obtain the necessary permits: Ensure that all necessary permits are obtained from the relevant authorities before commencing work.
8. Train personnel: Ensure that all personnel working in the area are adequately trained on the potential impact of their activities on the ecology and the measures they need to take to minimize this impact.
9. Implement the plan: Implement the plan to minimize the impact of the work on the ecology.
10. Monitor the impact: Regularly monitor the impact of the work on the ecology to ensure that the measures implemented are effective in minimizing the impact.
11. Adjust the plan if necessary: If monitoring reveals that the impact of the work is greater than anticipated, adjust the plan to minimize the impact.
12. Communicate with stakeholders: Regularly communicate with stakeholders, including the public, to ensure that they are aware of the measures being taken to minimize the impact of the work on the ecology.
13. Document the process: Document the process of working with the area of ecology, including the environmental impact assessment, the plan to minimize the impact, and any

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monitoring results. This documentation will be valuable for future reference and can help to inform similar projects in the future.

4

Tree protection – To ensure protection of all trees during this project – Our tree officer will very kindly check this phase of works for any trees or trees roots that may be close to our works. Our tree officer will conduct a tool box talk specific to this section of works and advise us of any systems or procedures we need to follow to ensure best practice and tree protection.

To protect adjacent trees, all construction work will be undertaken within the footprint of the existing macadamed pathway avoiding any vehicular traffic in other areas.

We will follow any dynamic procedures our tree officer recommends including but not limited to, additional fencing, ground protection and the use of airspades

General non project specific RAMS below

Risk Assessment:

10. Hazard: Damage to tree roots

- Likelihood: Moderate
- Consequence: Moderate
- Control Measures:
  - Identify and mark the area where the tree roots are present before starting excavation.
  - Use air spades to excavate the soil carefully around the roots, minimizing the risk of damage.
  - Assign experienced and trained personnel for the excavation process.

11. Hazard: Injury to personnel

- Likelihood: Low
- Consequence: Moderate
- Control Measures:
  - Provide appropriate personal protective equipment (PPE) to all personnel involved, including safety goggles, gloves, and steel-toe boots.
  - Conduct training sessions on the proper handling and operation of air spades.
  - Establish clear communication protocols and signals among team members during the excavation.

12. Hazard: Underground utilities

- Likelihood: Low
- Consequence: Major
- Control Measures:
  - Conduct a thorough utility scan and identify any underground services before commencing the excavation.
  - Clearly mark the location of any identified utilities.

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- Exercise caution and implement hand digging when working in close proximity to utilities.

**Method Statement:**

**19. Site Preparation:**

- Perform a visual inspection of the excavation site to identify any potential hazards, including overhead power lines, unstable ground, or nearby structures.
- Mark the boundaries of the work area and clearly identify the tree and its roots to avoid damage.

**20. Equipment and Tools:**

- Ensure that air spades and associated equipment are in good working condition.
- Conduct regular maintenance checks on the air spades to ensure proper functionality.
- Have appropriate tools available for cutting roots or removing soil, if required.

**21. Personnel:**

- Assign trained and experienced personnel for the excavation work.
- Provide personnel with the necessary PPE, including safety goggles, gloves, and steel-toe boots.
- Clearly communicate the roles and responsibilities of each team member.

**22. Excavation Process:**

- Use air spades to carefully remove soil from around the tree roots, starting from the outer edge and working inward.
- Exercise caution to avoid excessive force or direct contact with the roots.
- Continuously monitor the excavation process to identify any potential issues or hazards.

**23. Monitoring and Inspection:**

- Regularly inspect the excavated area to assess any changes or potential risks.
- Conduct a final inspection to ensure that all roots have been safely exposed or severed.
- Keep a safe distance from the tree to avoid any falling branches or debris.

**24. Waste Management:**

- Dispose of excavated soil and any waste materials in accordance with local regulations.
- Keep the work area clean and free from trip hazards.

Note: The above risk assessment and method statement is a general example and should be adapted and tailored to the specific site and project requirements. It is crucial to consult with experts, including arborists or tree specialists, to ensure the safe and effective excavation around tree roots.

**HE**

risk assessment for using air spades.

**Risk Assessment for Using Air Spades:**

**19. Hazard: Flying debris**

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:

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- All personnel involved should wear appropriate personal protective equipment (PPE), including safety goggles and helmets, to protect against flying debris.
- Establish exclusion zones and restrict access to the work area to prevent unauthorized personnel from entering the hazardous zone.
- Use caution when operating the air spade and direct the air flow away from personnel and sensitive equipment.

**20. Hazard: Noise exposure**

- Likelihood: Moderate
- Consequence: Minor
- Control Measures:
  - Provide hearing protection to all personnel operating or working near the air spade.
  - Limit the duration of exposure to loud noise by scheduling breaks for personnel.
  - Maintain the air spade equipment in good working condition to minimize noise levels.

**21. Hazard: Hand-arm vibration**

- Likelihood: Low to Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - Ensure that the air spade is well-maintained and properly balanced to minimize vibration levels.
  - Provide training to personnel on proper handling techniques and recommend frequent breaks to minimize the risk of hand-arm vibration syndrome.
  - Rotate personnel during extended periods of use to reduce individual exposure.

**22. Hazard: Striking underground utilities**

- Likelihood: Low
- Consequence: Major
- Control Measures:
  - Conduct a thorough utility scan and mark the location of underground utilities before commencing excavation.
  - Implement a hand digging approach or use alternative techniques near known utility lines to avoid accidental strikes.
  - Maintain communication with utility companies and follow any specific protocols or guidelines provided.

**23. Hazard: Trips, slips, and falls**

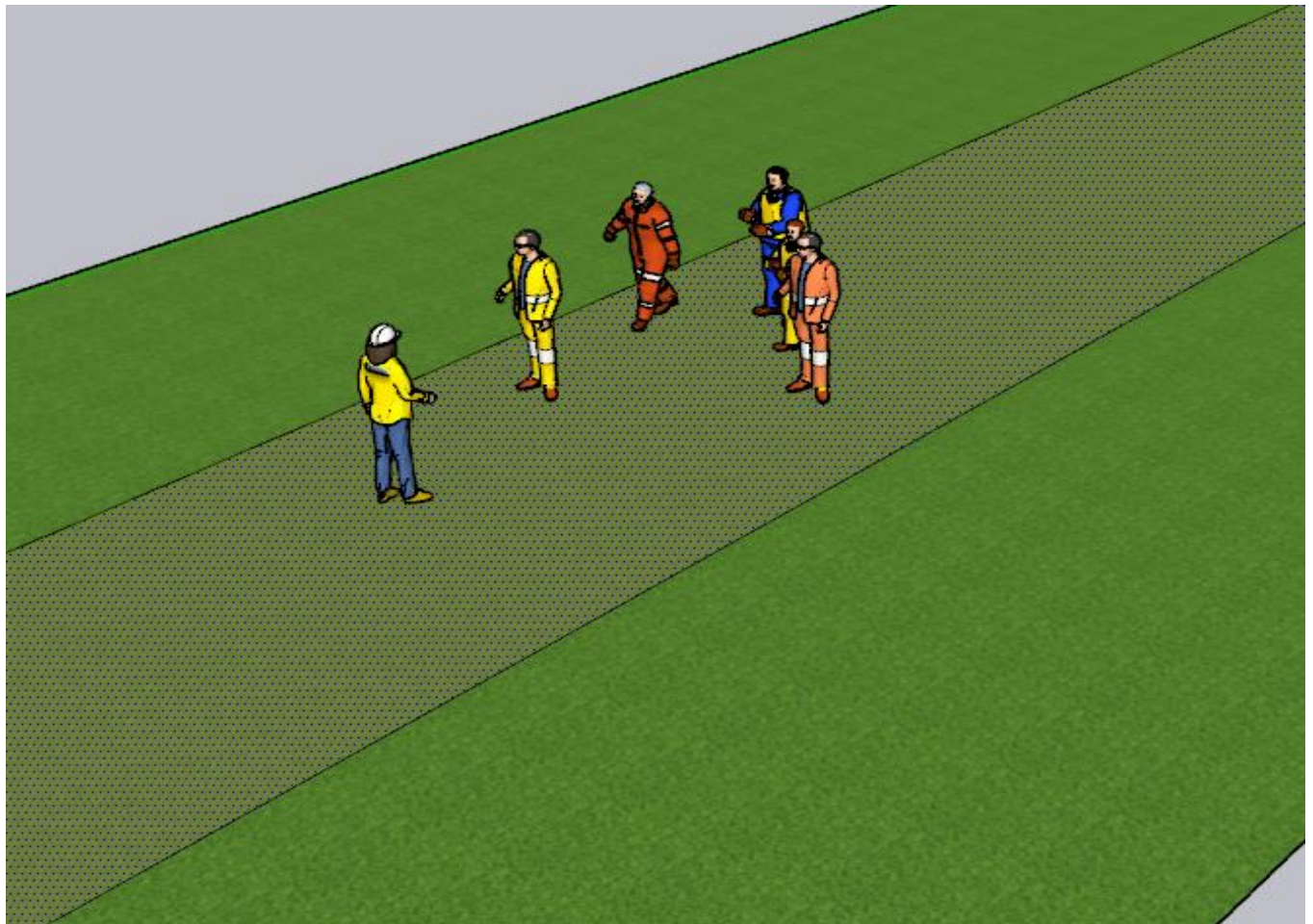
- Likelihood: Moderate
- Consequence: Minor to Major
- Control Measures:
  - Ensure a clean and organized work area, free from trip hazards such as loose cables or debris.
  - Provide adequate lighting in the work area, especially in low visibility conditions.
  - Ensure that personnel wear appropriate footwear with slip-resistant soles and maintain proper footing while operating the air spade.

**24. Hazard: Ergonomic strain**

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:

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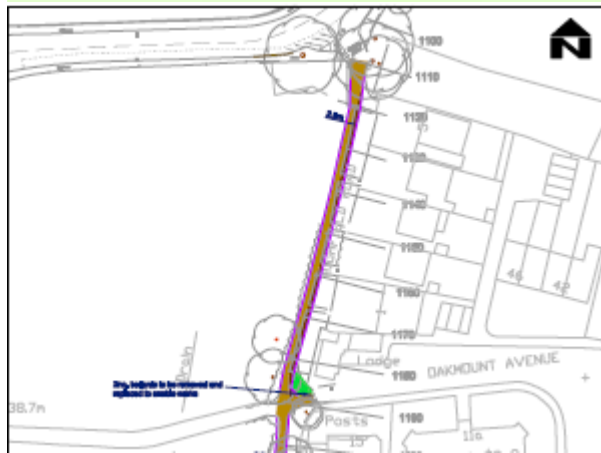
- Provide training to personnel on proper body mechanics and lifting techniques to minimize strain and injury.
- Encourage regular breaks and rotation of tasks to reduce prolonged physical exertion.
- Provide ergonomic tools and equipment to reduce strain and improve operator comfort.



Our Tree Officer undertakes an arboricultural Toolbox Talk – Results recorded – Actions Followed

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**5** Plant to access from Highfield Road Compound



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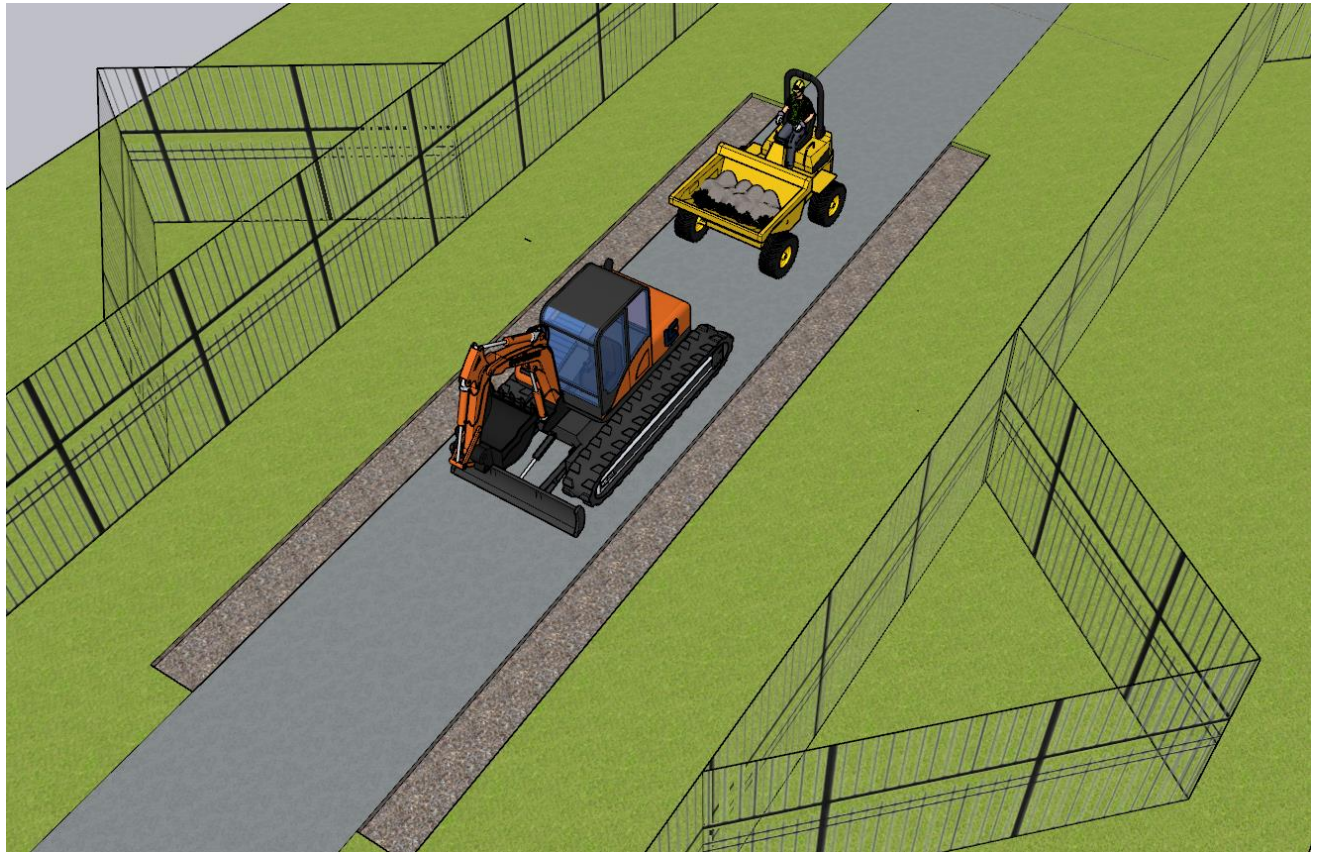
**6**

Footway extents to be marked and existing surfaces to be stripped back to a maximum of 60mm ensuring a regular level construction surface.

The stripping back of existing surfaces shall be executed by mechanical 360 mini excavators.

\*Note – protected tree root areas **shall not be** excavated by mechanical means, identified areas shall be hand excavated using hand tools

All machinery strictly restricted to working upon the existing footway.



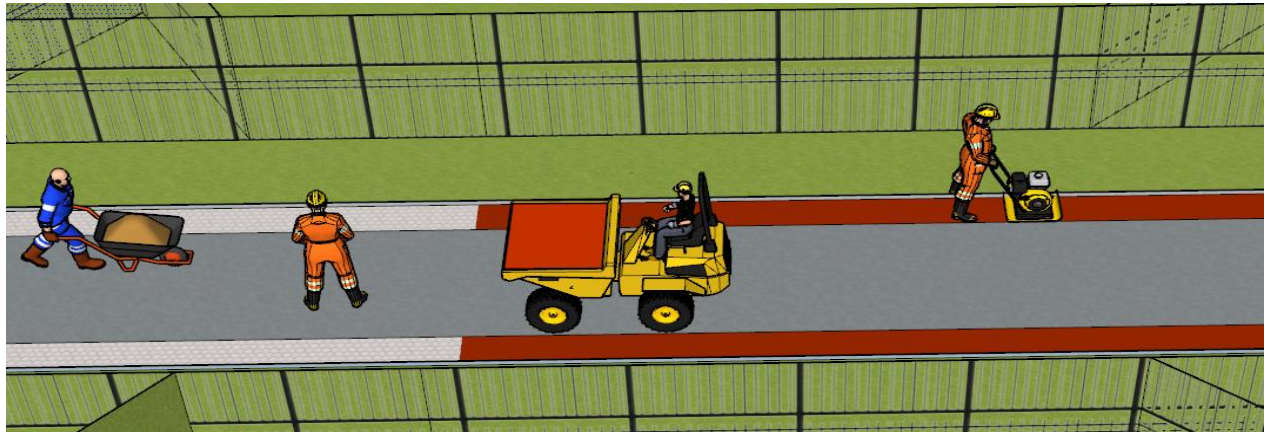
**7**

Lay treetex t300 geotextile separation fabric to prevent contamination with existing ground. Where recommended by T.O

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**8**

Overfill grid pockets with angular stone type 20/40 material and compacted using a vibrating plate. Forward tipping dumpers to be used to transport materials to the grid starting point, materials will be spread into the grid voids, the dumper shall progress forward travelling over the existing macadam path.



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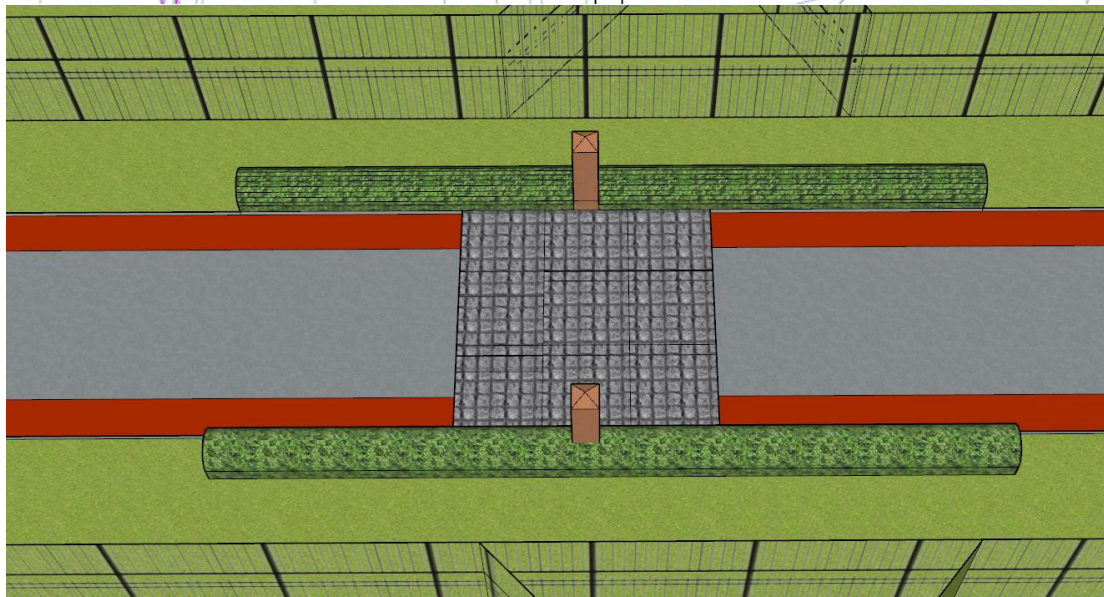
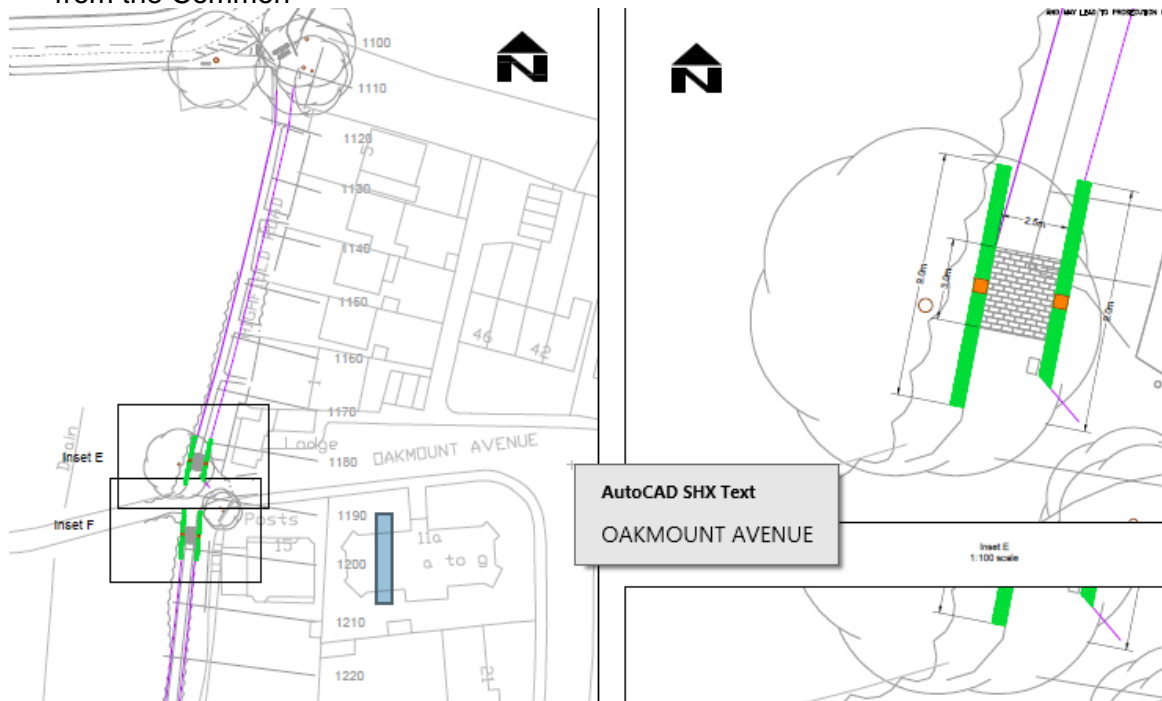
**9**

**Inset E –Speed calming details.**

Granite setts will be installed within the current build up (destruction layer) of the existing path. The existing macadam will be carefully removed, and the base material carefully excavated in readiness to install the Granite Setts - Locations will be carefully discussed with the TO and EO during their phase of works inspections.

Once the path is completed the posts will be installed during an Archaeological watching brief – any dynamic instructions will be from the archaeology officer will be carefully followed.

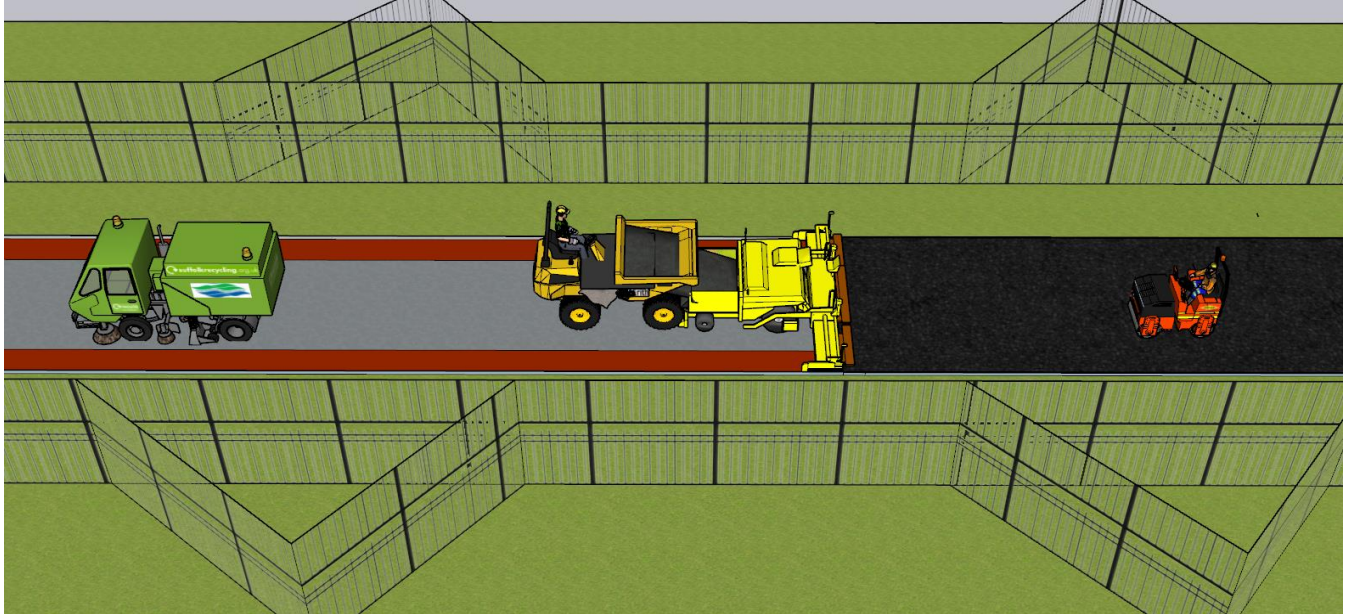
Once the posts holes have been excavated and the AO is happy for us to proceed the new bollards will be fitted and a bund will be constructed around them as per plan – soil used - will be soil sourced from the Common



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**10**

Once mechanically swept, a layer of 45mm asphalt binder course shall be laid over a tack coat emulsion. Dumpers collecting hot lay materials from an off-site designated compound. All plant strictly restricted to the existing pathway. Raked by hand or levelled with mini paver.

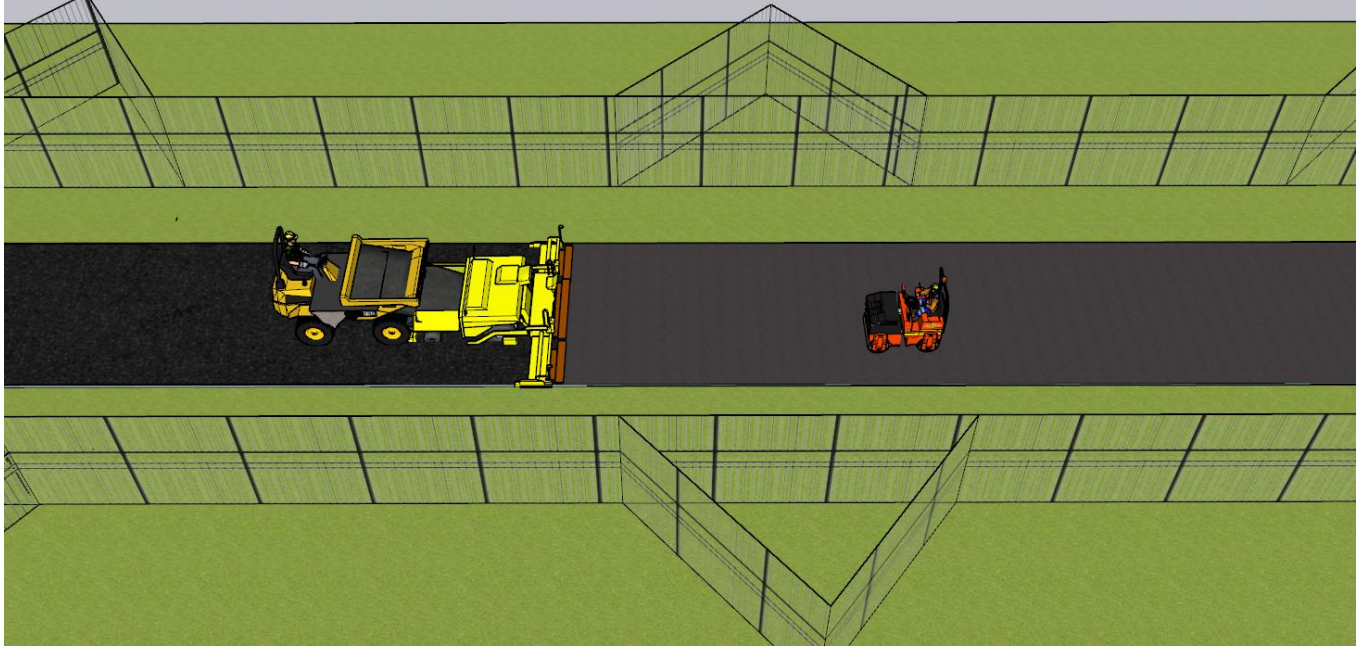


**11**

Mechanical twin drum vibrating rollers shall compact the asphalt layers as per the required pass rate.



**12** 20mm asphalt surface course to be laid as per 10 & 11.



**13** Re-grade soil to edge of new path using approved existing stripped soil.  
Materials left to naturalise.

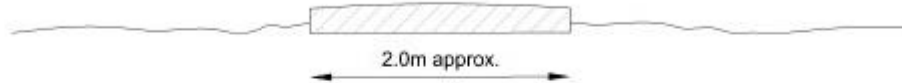


**14** Site cleared of all tree & root protection systems and site open to Pedestrian traffic.

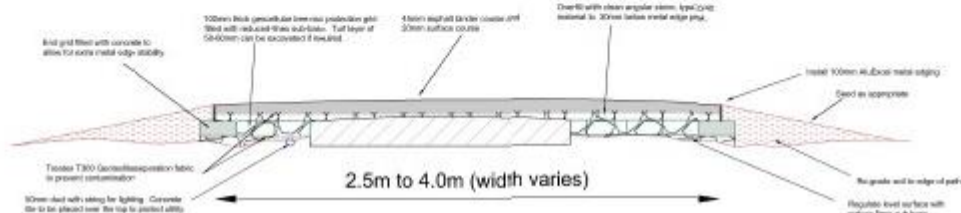
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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

## Phase 5 - Highfield Avenue to Chamberlain Road – Compound Oakhurst Road

Before



After



No	Task	Material	Approx Unit No	Approx Tonnes	Approx LM	Approx M2	Approx M3	Deliveries by Van or Lorry
1	Errect site fencing	Heras or Chapter 8	135/236		472			1
2	Excavate where T.O approved	Existing vegetation @ max 60mm		49.26		483	29	0
3	Install tree friendly edging	Metal Edging			460			1
4	Lay Treetex - Geotextile	Treetex				483		1
5	Lay Cellweb TRP	Cellweb				483	48.3	1
6	Fill cells	20/40 Angular stone		96.6		483	48.3	5
7	Macadam base course	AC20 @ 45mm deep - 3.5m wide		83.31		691	36.23	4
8	Macadam wearing course	AC6 @ 20mm deep – 3.5m wide		37.03		691	16.01	2
9	Reinstatement	Common Soil		11.73		230	6.9	1
10	Speed calming Setts type D	Granite Setts 100x100mm 3.2m x 1.5 x 2	960	2.583		9.6	0.96	1
11	Concrete base	Ready Mix		2.136		9.6	1.92	1
12	Pointing Grout	Flowpoint 25k bags	5	0.125		9.6		1
13	Timber Bollards	Fixed Timber Bollard	4					1
14	Timber Bollards	Removable Timber Bollard	1					
15	Soil Bunds	Common soil		13.6	32	9	8	1

**1**

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**A**



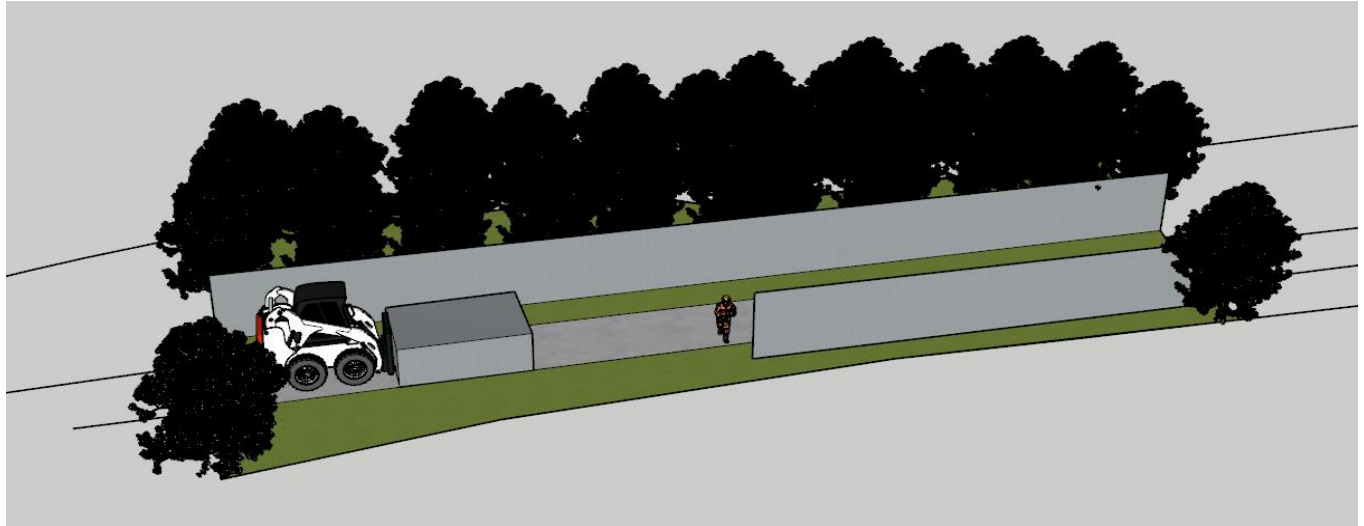
**B**



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**2**

Only working from the existing pavement – We erect protective fencing either Chapter 8 barriers or Heras fencing – Bobcat using extended forks removes any manual handling risks



**3A Ecology Risk**

Works will only proceed in suitable conditions and at a time of year approved by our ecologist to ensure no negative impact on the local wildlife.

To protect adjacent vegetation, all construction work will be undertaken within the footprint of the existing macadamed pathway avoiding any vehicular traffic in other areas.

Working hours are restricted to ensure the working day starts well after dawn and finishes well before dusk.

Our ecology officer very kindly checks the area for Wildlife, presents an Ecology TBT and we follow any dynamic procedures she recommends for this section of works.

General non project specific RAMS below

Our Ecology Officer undertakes an Ecology Toolbox Talk – Result recorded – Actions followed.

**3B**

- 5. Identify the scope of work: Clearly define the scope of work and identify the ecological area that will be impacted.
- 6. Evaluate the environmental impact: Conduct a thorough evaluation of the potential environmental impact of the work. This should include an assessment of the risks to the ecology, the flora and fauna present, and any other relevant environmental factors.

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7. **Develop a plan to minimize the impact:** Based on the environmental impact assessment, develop a plan to minimize the impact of the work on the ecology. This plan should include measures to protect the existing flora and fauna, minimize soil erosion and disturbance, and prevent any pollutants from entering the area.
8. **Obtain the necessary permits:** Ensure that all necessary permits are obtained from the relevant authorities before commencing work.
9. **Train personnel:** Ensure that all personnel working in the area are adequately trained on the potential impact of their activities on the ecology and the measures they need to take to minimize this impact.
10. **Implement the plan:** Implement the plan to minimize the impact of the work on the ecology.
11. **Monitor the impact:** Regularly monitor the impact of the work on the ecology to ensure that the measures implemented are effective in minimizing the impact.
12. **Adjust the plan if necessary:** If monitoring reveals that the impact of the work is greater than anticipated, adjust the plan to minimize the impact.
13. **Communicate with stakeholders:** Regularly communicate with stakeholders, including the public, to ensure that they are aware of the measures being taken to minimize the impact of the work on the ecology.
14. **Document the process:** Document the process of working with the area of ecology, including the environmental impact assessment, the plan to minimize the impact, and any monitoring results. This documentation will be valuable for future reference and can help to inform similar projects in the future.

**4** Tree protection – To ensure protection of all trees during this project – Our tree officer will very kindly check this phase of works for any trees or trees roots that may be close to our works. Our tree officer will conduct a tool box talk specific to this section of works and advise us of any systems or procedures we need to follow to ensure best practice and tree protection.

To protect adjacent trees, all construction work will be undertaken within the footprint of the existing macadamised pathway avoiding any vehicular traffic in other areas.

We will follow any dynamic procedures our tree officer recommends including but not limited to, additional fencing, ground protection and the use of airspades

General non project specific RAMS below

**Risk Assessment:**

**13. Hazard: Damage to tree roots**

- Likelihood: Moderate
- Consequence: Moderate
- Control Measures:
  - Identify and mark the area where the tree roots are present before starting excavation.

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- Use air spades to excavate the soil carefully around the roots, minimizing the risk of damage.
- Assign experienced and trained personnel for the excavation process.

**14. Hazard: Injury to personnel**

- Likelihood: Low
- Consequence: Moderate
- Control Measures:

- Provide appropriate personal protective equipment (PPE) to all personnel involved, including safety goggles, gloves, and steel-toe boots.
- Conduct training sessions on the proper handling and operation of air spades.
- Establish clear communication protocols and signals among team members during the excavation.

**15. Hazard: Underground utilities**

- Likelihood: Low
- Consequence: Major
- Control Measures:

- Conduct a thorough utility scan and identify any underground services before commencing the excavation.
- Clearly mark the location of any identified utilities.
- Exercise caution and implement hand digging when working in close proximity to utilities.

**Method Statement:**

**25. Site Preparation:**

- Perform a visual inspection of the excavation site to identify any potential hazards, including overhead power lines, unstable ground, or nearby structures.
- Mark the boundaries of the work area and clearly identify the tree and its roots to avoid damage.

**26. Equipment and Tools:**

- Ensure that air spades and associated equipment are in good working condition.
- Conduct regular maintenance checks on the air spades to ensure proper functionality.
- Have appropriate tools available for cutting roots or removing soil, if required.

**27. Personnel:**

- Assign trained and experienced personnel for the excavation work.
- Provide personnel with the necessary PPE, including safety goggles, gloves, and steel-toe boots.
- Clearly communicate the roles and responsibilities of each team member.

**28. Excavation Process:**

- Use air spades to carefully remove soil from around the tree roots, starting from the outer edge and working inward.
- Exercise caution to avoid excessive force or direct contact with the roots.
- Continuously monitor the excavation process to identify any potential issues or hazards.

**29. Monitoring and Inspection:**

- Regularly inspect the excavated area to assess any changes or potential risks.



- Conduct a final inspection to ensure that all roots have been safely exposed or severed.
- Keep a safe distance from the tree to avoid any falling branches or debris.

**30. Waste Management:**

- Dispose of excavated soil and any waste materials in accordance with local regulations.
- Keep the work area clean and free from trip hazards.

Note: The above risk assessment and method statement is a general example and should be adapted and tailored to the specific site and project requirements. It is crucial to consult with experts, including arborists or tree specialists, to ensure the safe and effective excavation around tree roots.

**HE**

risk assessment for using air spades.

**Risk Assessment for Using Air Spades:**

**25. Hazard: Flying debris**

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - All personnel involved should wear appropriate personal protective equipment (PPE), including safety goggles and helmets, to protect against flying debris.
  - Establish exclusion zones and restrict access to the work area to prevent unauthorized personnel from entering the hazardous zone.
  - Use caution when operating the air spade and direct the air flow away from personnel and sensitive equipment.

**26. Hazard: Noise exposure**

- Likelihood: Moderate
- Consequence: Minor
- Control Measures:
  - Provide hearing protection to all personnel operating or working near the air spade.
  - Limit the duration of exposure to loud noise by scheduling breaks for personnel.
  - Maintain the air spade equipment in good working condition to minimize noise levels.

**27. Hazard: Hand-arm vibration**

- Likelihood: Low to Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - Ensure that the air spade is well-maintained and properly balanced to minimize vibration levels.
  - Provide training to personnel on proper handling techniques and recommend frequent breaks to minimize the risk of hand-arm vibration syndrome.
  - Rotate personnel during extended periods of use to reduce individual exposure.

**28. Hazard: Striking underground utilities**

- Likelihood: Low
- Consequence: Major
- Control Measures:

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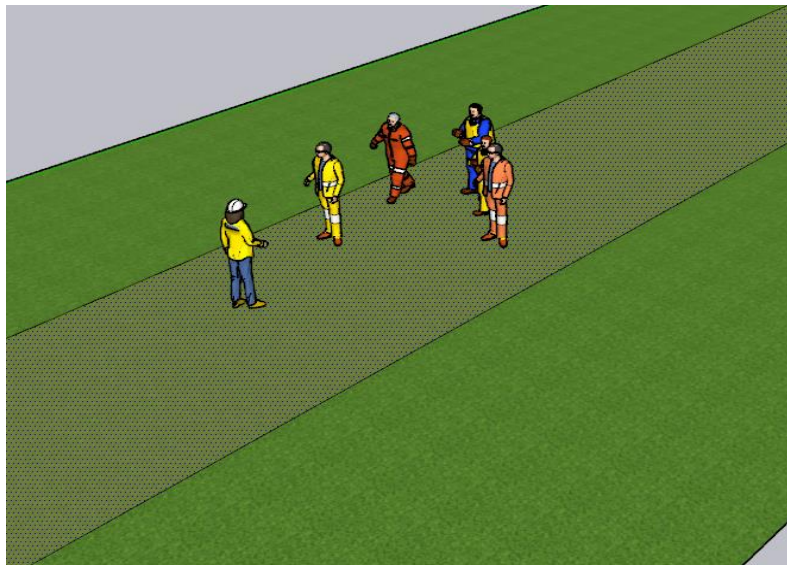
- Conduct a thorough utility scan and mark the location of underground utilities before commencing excavation.
- Implement a hand digging approach or use alternative techniques near known utility lines to avoid accidental strikes.
- Maintain communication with utility companies and follow any specific protocols or guidelines provided.

**29. Hazard: Trips, slips, and falls**

- Likelihood: Moderate
- Consequence: Minor to Major
- Control Measures:
  - Ensure a clean and organized work area, free from trip hazards such as loose cables or debris.
  - Provide adequate lighting in the work area, especially in low visibility conditions.
  - Ensure that personnel wear appropriate footwear with slip-resistant soles and maintain proper footing while operating the air spade.

**30. Hazard: Ergonomic strain**

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - Provide training to personnel on proper body mechanics and lifting techniques to minimize strain and injury.
  - Encourage regular breaks and rotation of tasks to reduce prolonged physical exertion.
  - Provide ergonomic tools and equipment to reduce strain and improve operator comfort.



Our Tree Officer undertakes an arboricultural Toolbox Talk – Results recorded – Actions Followed

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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

**5** Plant to access from Oakhurst Road Compound



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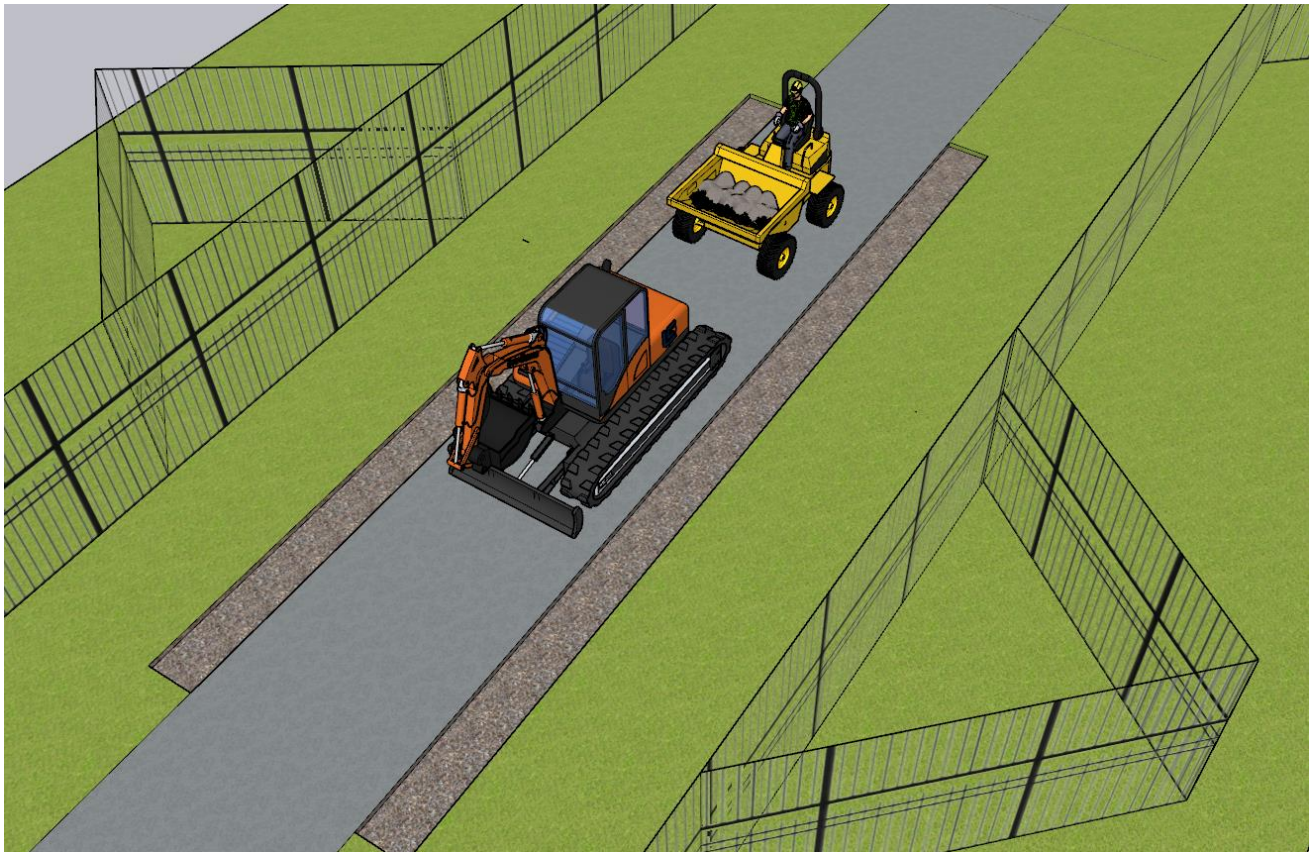
**6**

Footway extents to be marked and existing surfaces to be stripped back to a maximum of 60mm ensuring a regular level construction surface.

The stripping back of existing surfaces shall be executed by mechanical 360 mini excavators.

\*Note – protected tree root areas **shall not be** excavated by mechanical means, identified areas shall be hand excavated using hand tools

All machinery strictly restricted to working upon the existing footway.



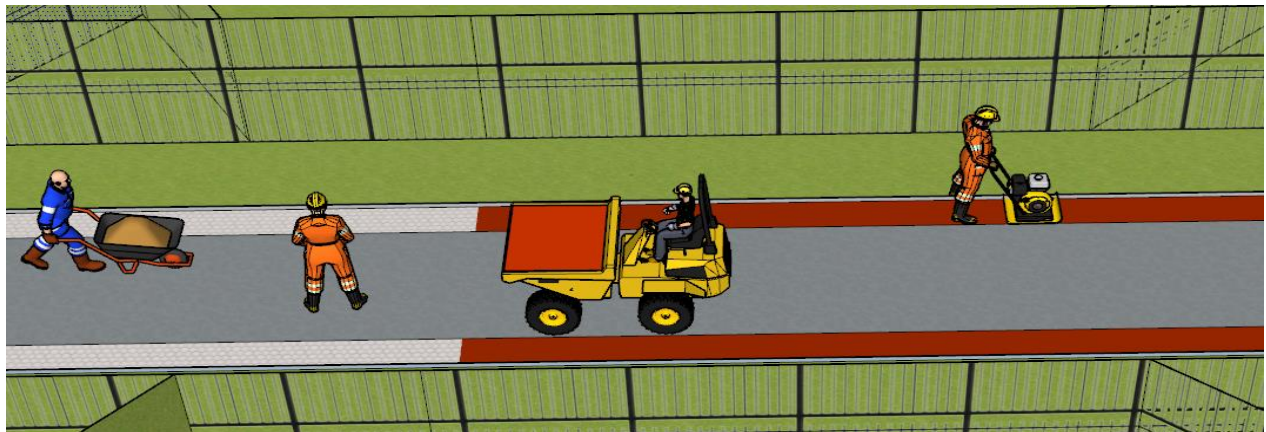
**7**

Lay treetex t300 geotextile separation fabric to prevent contamination with existing ground. Where recommended by T.O

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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

**8**

Overfill grid pockets with angular stone type 20/40 material and compacted using a vibrating plate. Forward tipping dumpers to be used to transport materials to the grid starting point, materials will be spread into the grid voids, the dumper shall progress forward travelling over the existing macadam path.



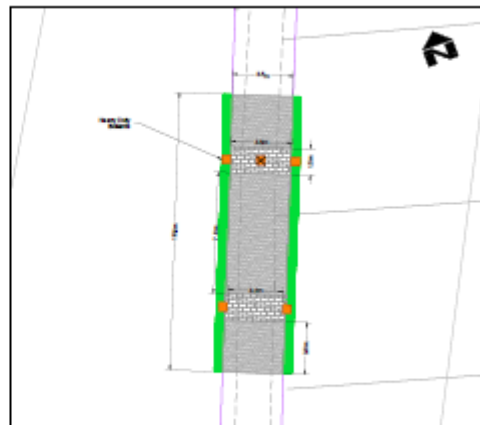
**9**

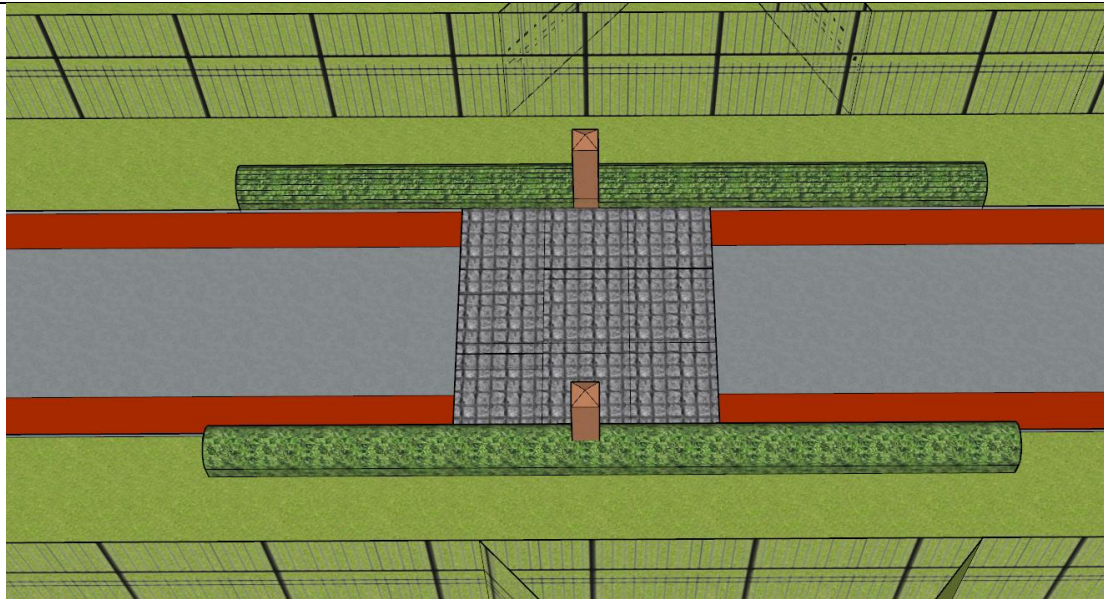
**Inset D –Speed calming details.**

Granite setts will be installed within the current build up (destruction layer) of the existing path. The existing macadam will be carefully removed, and the base material carefully excavated in readiness to install the Granite Setts - Locations will be carefully discussed with the TO and EO during their phase of works inspections.

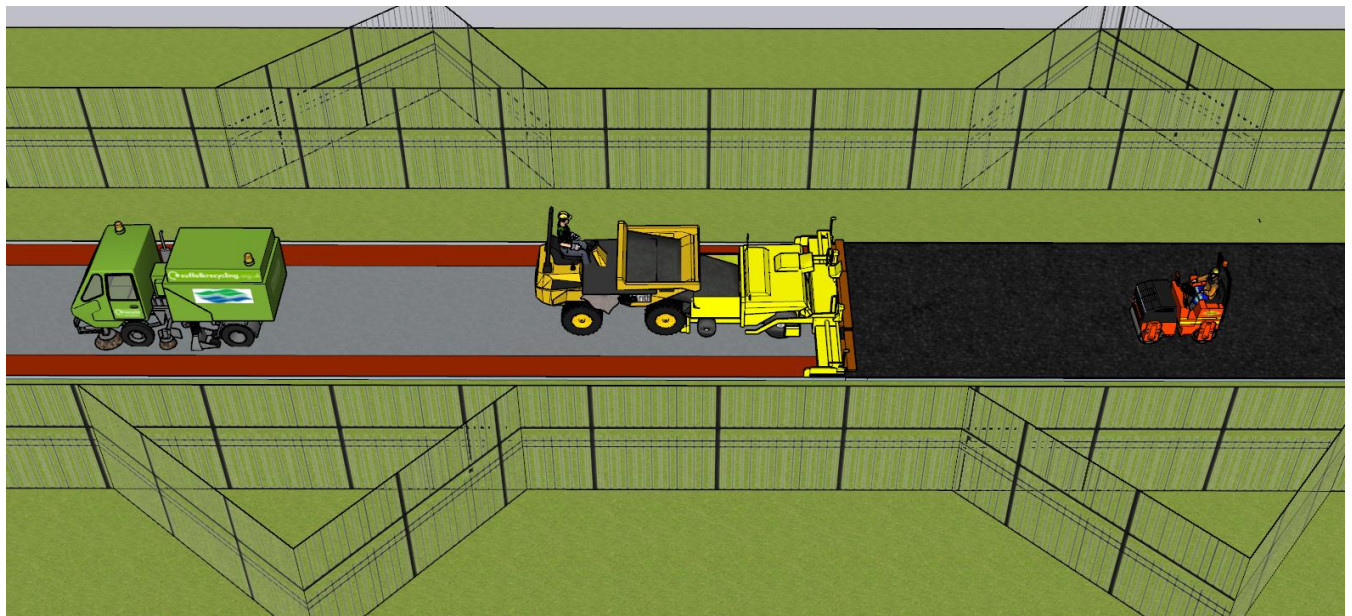
Once the path is completed the posts will be installed during an Archaeological watching brief – any dynamic instructions will be from the archaeology officer will be carefully followed.

Once the posts holes have been excavated and the AO is happy for us to proceed the new bollards will be fitted and a bund will be constructed around them as per plan – soil used - will be soil sourced from the Common





- 10** Once mechanically swept, a layer of 45mm asphalt binder course shall be laid over a tack coat emulsion. Dumpers collecting hot lay materials from an off-site designated compound. All plant strictly restricted to the existing pathway. Raked by hand or levelled with mini paver.

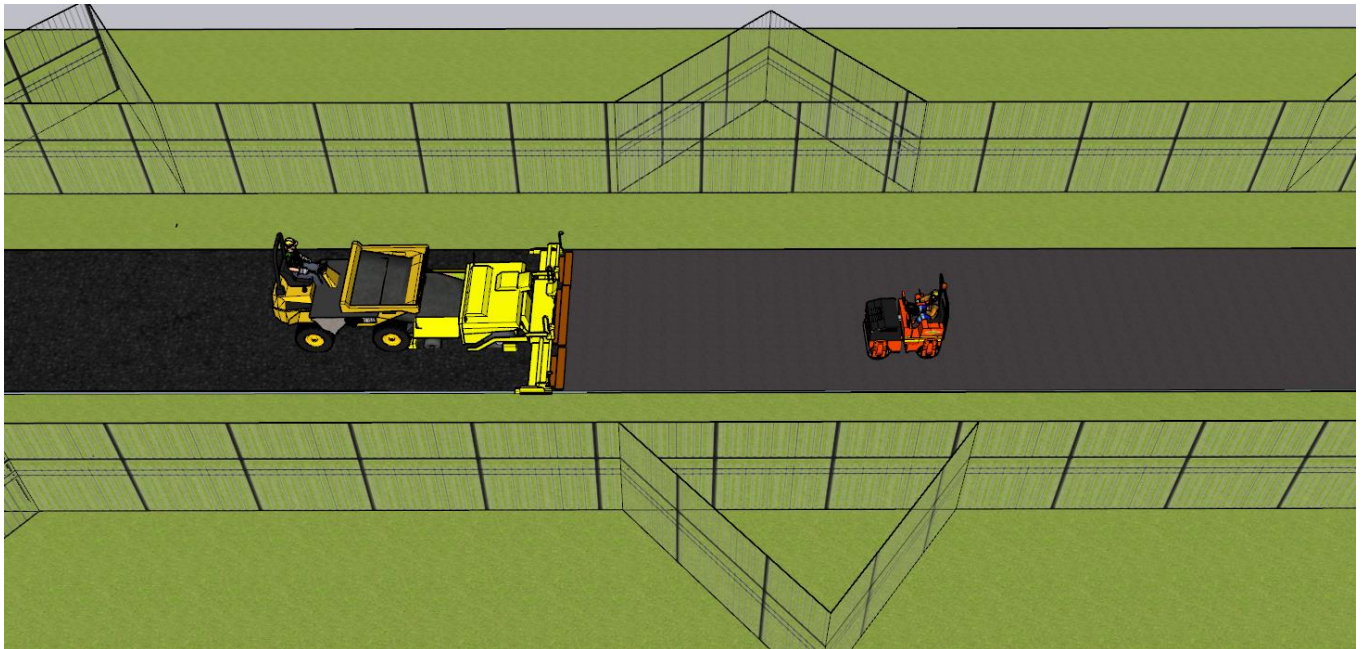


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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

**11** Mechanical twin drum vibrating rollers shall compact the asphalt layers as per the required pass rate.



**12** 20mm asphalt surface course to be laid as per 10 & 11.



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**13**

Re-grade soil to edge of new path using approved existing stripped soil.  
Materials left to naturalise.



**14**

Site cleared of all tree & root protection systems and site open to Pedestrian traffic.

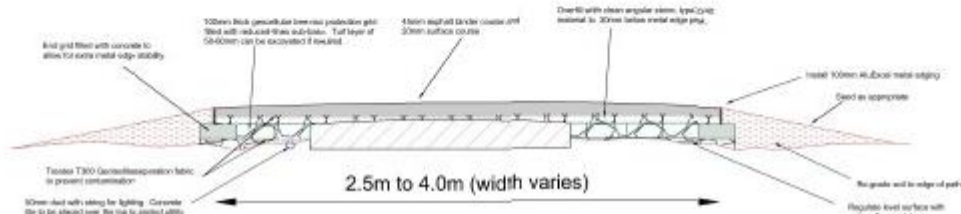


## Phase 6 - Chamberlain Road to Burgess Road – Compound Salisbury Road

Before



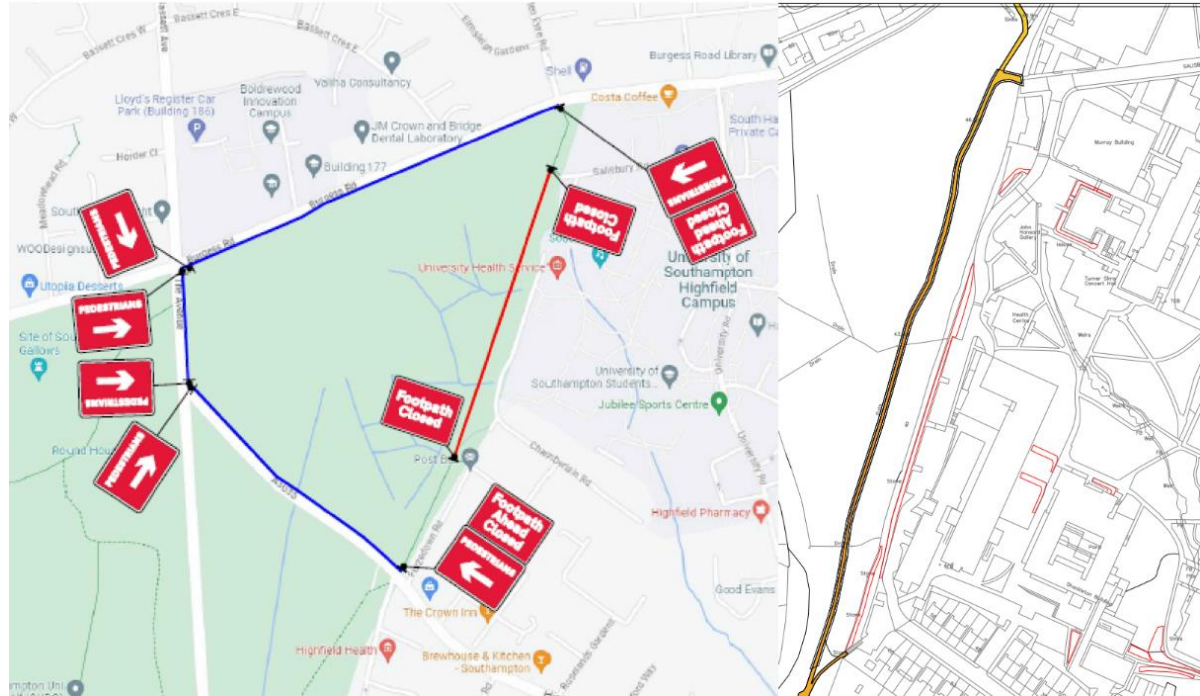
After



No	Task	Material	Approx Unit No	Approx Tonnes	Approx LM	Approx M2	Approx M3	Deliveries by Van or Lorry
1	Errect site fencing	Heras or Chapter 8	288/486		972			1
2	Excavate where T.O approved	Existing vegetation @ max 60mm		73.44		720	43.2	0
3	Install tree friendly edging	Metal Edging			960			1
4	Lay Treetex - Geotextile	Treetex				720		1
5	Lay Cellweb TRP	Cellweb				720	72	2
6	Fill cells	20/40 Angular stone		144		720	72	7
7	Macadam base course	AC20 @ 45mm deep - 3.5m wide		173.88		1566	75.6	8
8	Macadam wearing course	AC6 @ 20mm deep - 3.5m wide		77.28		1566	33.6	4
9	Reinstatement	Common Soil		24.48		480	14.40	1
10	Speed calming Setts types A,B,C	Granite Setts 100x100mm 3.2m x 1.5 x 4 + 3m x 3m	2820	7.588		28.2	2.82	1
11	Concrete base	Ready Mix		12.05		28.2	5.68	1
12	Pointing Grout	Flowpoint 25k bags	14	0.35		28.2		1
13	Timber Bollards	Fixed Timber Bollard	10					1
14	Timber Bollards	Removable Timber Bollard	2					
15	Soil Bunds	Common soil		34.85	82	41	20.50	1

**1**

**A**



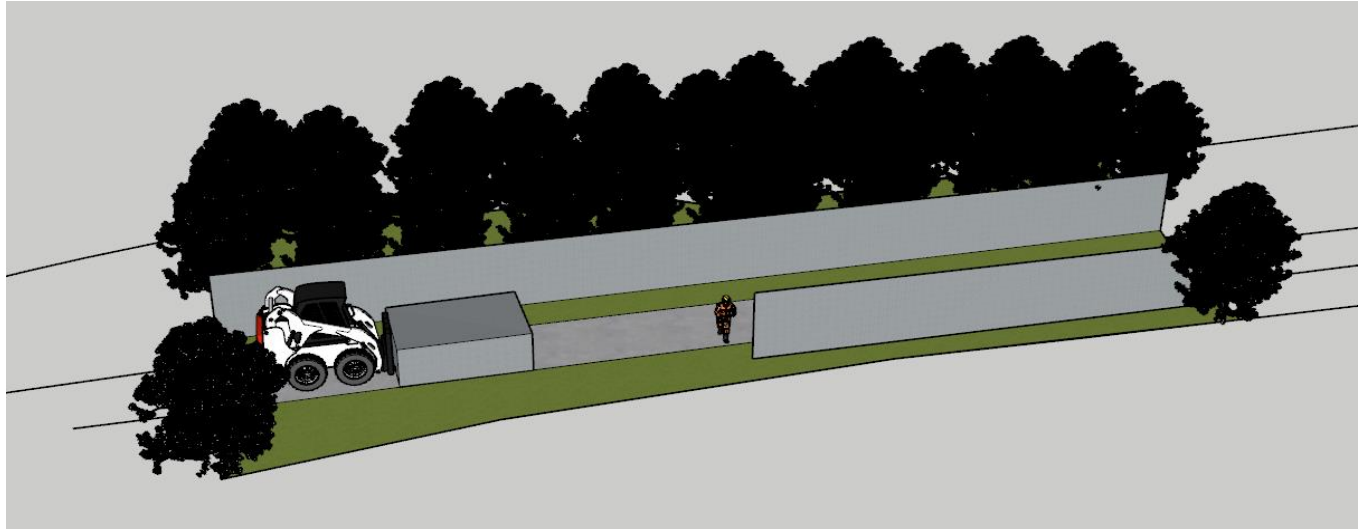
**B**



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<b>Approved By:</b>	<b>Matthew Lovell</b>	<b>Version No:</b>	<b>001</b>

**2**

Only working from the existing pavement – We erect protective fencing either Chapter 8 barriers or Heras fencing – Bobcat using extended forks removes any manual handling risks



**3A Ecology Risk**

Works will only proceed in suitable conditions and at a time of year approved by our ecologist to ensure no negative impact on the local wildlife.

To protect adjacent vegetation, all construction work will be undertaken within the footprint of the existing macadamed pathway avoiding any vehicular traffic in other areas.

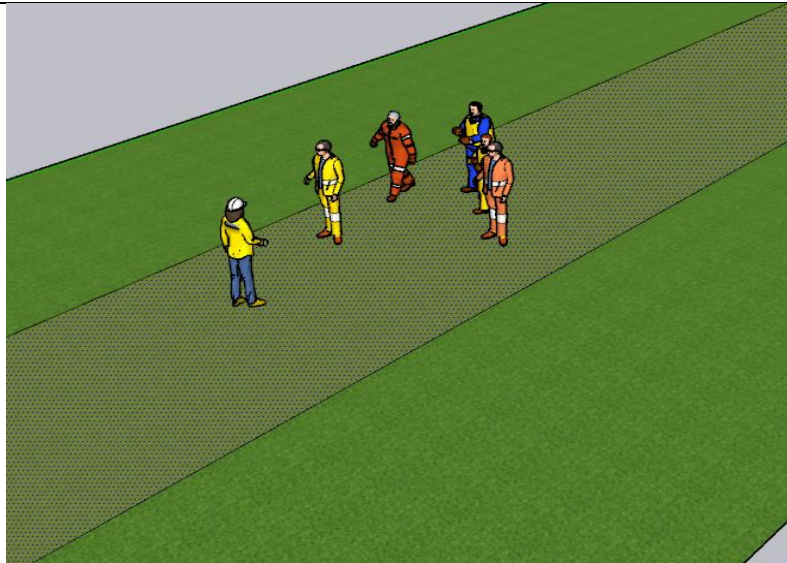
Working hours are restricted to ensure the working day starts well after dawn and finishes well before dusk.

Our ecology officer very kindly checks the area for Wildlife, presents an Ecology TBT and we follow any dynamic procedures she recommends for this section of works.

General non project specific RAMS below

Our Ecology Officer undertakes an Ecology Toolbox Talk – Result recorded – Actions followed.

<b>Developed By:</b>	Becky Farminer	<b>Date:</b>	15 11 2023
<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001



**3B**

6. Identify the scope of work: Clearly define the scope of work and identify the ecological area that will be impacted.
7. Evaluate the environmental impact: Conduct a thorough evaluation of the potential environmental impact of the work. This should include an assessment of the risks to the ecology, the flora and fauna present, and any other relevant environmental factors.
8. Develop a plan to minimize the impact: Based on the environmental impact assessment, develop a plan to minimize the impact of the work on the ecology. This plan should include measures to protect the existing flora and fauna, minimize soil erosion and disturbance, and prevent any pollutants from entering the area.
9. Obtain the necessary permits: Ensure that all necessary permits are obtained from the relevant authorities before commencing work.
10. Train personnel: Ensure that all personnel working in the area are adequately trained on the potential impact of their activities on the ecology and the measures they need to take to minimize this impact.
11. Implement the plan: Implement the plan to minimize the impact of the work on the ecology.
12. Monitor the impact: Regularly monitor the impact of the work on the ecology to ensure that the measures implemented are effective in minimizing the impact.
13. Adjust the plan if necessary: If monitoring reveals that the impact of the work is greater than anticipated, adjust the plan to minimize the impact.
14. Communicate with stakeholders: Regularly communicate with stakeholders, including the public, to ensure that they are aware of the measures being taken to minimize the impact of the work on the ecology.
15. Document the process: Document the process of working with the area of ecology, including the environmental impact assessment, the plan to minimize the impact, and any monitoring results. This documentation will be valuable for future reference and can help to inform similar projects in the future.

**4**

Tree protection – To ensure protection of all trees during this project – Our tree officer will very kindly check this phase of works for any trees or trees roots that may be close to our works.

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Our tree officer will conduct a tool box talk specific to this section of works and advise us of any systems or procedures we need to follow to ensure best practice and tree protection.

To protect adjacent trees, all construction work will be undertaken within the footprint of the existing macadamed pathway avoiding any vehicular traffic in other areas.

We will follow any dynamic procedures our tree officer recommends including but not limited to, additional fencing, ground protection and the use of airspades

General non project specific RAMS below

Risk Assessment:

16. Hazard: Damage to tree roots

- Likelihood: Moderate
- Consequence: Moderate
- Control Measures:
  - Identify and mark the area where the tree roots are present before starting excavation.
  - Use air spades to excavate the soil carefully around the roots, minimizing the risk of damage.
  - Assign experienced and trained personnel for the excavation process.

17. Hazard: Injury to personnel

- Likelihood: Low
- Consequence: Moderate
- Control Measures:
  - Provide appropriate personal protective equipment (PPE) to all personnel involved, including safety goggles, gloves, and steel-toe boots.
  - Conduct training sessions on the proper handling and operation of air spades.
  - Establish clear communication protocols and signals among team members during the excavation.

18. Hazard: Underground utilities

- Likelihood: Low
- Consequence: Major
- Control Measures:
  - Conduct a thorough utility scan and identify any underground services before commencing the excavation.
  - Clearly mark the location of any identified utilities.
  - Exercise caution and implement hand digging when working in close proximity to utilities.

Method Statement:

31. Site Preparation:

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Approved By:	Matthew Lovell	Version No:	001

- Perform a visual inspection of the excavation site to identify any potential hazards, including overhead power lines, unstable ground, or nearby structures.
- Mark the boundaries of the work area and clearly identify the tree and its roots to avoid damage.

**32. Equipment and Tools:**

- Ensure that air spades and associated equipment are in good working condition.
- Conduct regular maintenance checks on the air spades to ensure proper functionality.
- Have appropriate tools available for cutting roots or removing soil, if required.

**33. Personnel:**

- Assign trained and experienced personnel for the excavation work.
- Provide personnel with the necessary PPE, including safety goggles, gloves, and steel-toe boots.
- Clearly communicate the roles and responsibilities of each team member.

**34. Excavation Process:**

- Use air spades to carefully remove soil from around the tree roots, starting from the outer edge and working inward.
- Exercise caution to avoid excessive force or direct contact with the roots.
- Continuously monitor the excavation process to identify any potential issues or hazards.

**35. Monitoring and Inspection:**

- Regularly inspect the excavated area to assess any changes or potential risks.
- Conduct a final inspection to ensure that all roots have been safely exposed or severed.
- Keep a safe distance from the tree to avoid any falling branches or debris.

**36. Waste Management:**

- Dispose of excavated soil and any waste materials in accordance with local regulations.
- Keep the work area clean and free from trip hazards.

Note: The above risk assessment and method statement is a general example and should be adapted and tailored to the specific site and project requirements. It is crucial to consult with experts, including arborists or tree specialists, to ensure the safe and effective excavation around tree roots.

**HE**

risk assessment for using air spades.

Risk Assessment for Using Air Spades:

**31. Hazard: Flying debris**

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - All personnel involved should wear appropriate personal protective equipment (PPE), including safety goggles and helmets, to protect against flying debris.
  - Establish exclusion zones and restrict access to the work area to prevent unauthorized personnel from entering the hazardous zone.
  - Use caution when operating the air spade and direct the air flow away from personnel and sensitive equipment.

**32. Hazard: Noise exposure**

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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001



- Likelihood: Moderate
- Consequence: Minor
- Control Measures:
  - Provide hearing protection to all personnel operating or working near the air spade.
  - Limit the duration of exposure to loud noise by scheduling breaks for personnel.
  - Maintain the air spade equipment in good working condition to minimize noise levels.

**33. Hazard: Hand-arm vibration**

- Likelihood: Low to Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - Ensure that the air spade is well-maintained and properly balanced to minimize vibration levels.
  - Provide training to personnel on proper handling techniques and recommend frequent breaks to minimize the risk of hand-arm vibration syndrome.
  - Rotate personnel during extended periods of use to reduce individual exposure.

**34. Hazard: Striking underground utilities**

- Likelihood: Low
- Consequence: Major
- Control Measures:
  - Conduct a thorough utility scan and mark the location of underground utilities before commencing excavation.
  - Implement a hand digging approach or use alternative techniques near known utility lines to avoid accidental strikes.
  - Maintain communication with utility companies and follow any specific protocols or guidelines provided.

**35. Hazard: Trips, slips, and falls**

- Likelihood: Moderate
- Consequence: Minor to Major
- Control Measures:
  - Ensure a clean and organized work area, free from trip hazards such as loose cables or debris.
  - Provide adequate lighting in the work area, especially in low visibility conditions.
  - Ensure that personnel wear appropriate footwear with slip-resistant soles and maintain proper footing while operating the air spade.

**36. Hazard: Ergonomic strain**

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - Provide training to personnel on proper body mechanics and lifting techniques to minimize strain and injury.
  - Encourage regular breaks and rotation of tasks to reduce prolonged physical exertion.
  - Provide ergonomic tools and equipment to reduce strain and improve operator comfort.

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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001

Our Tree Officer undertakes an arboricultural Toolbox Talk – Results recorded – Actions Followed

**5** Plant to access from Salisbury Road Compound



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**6**

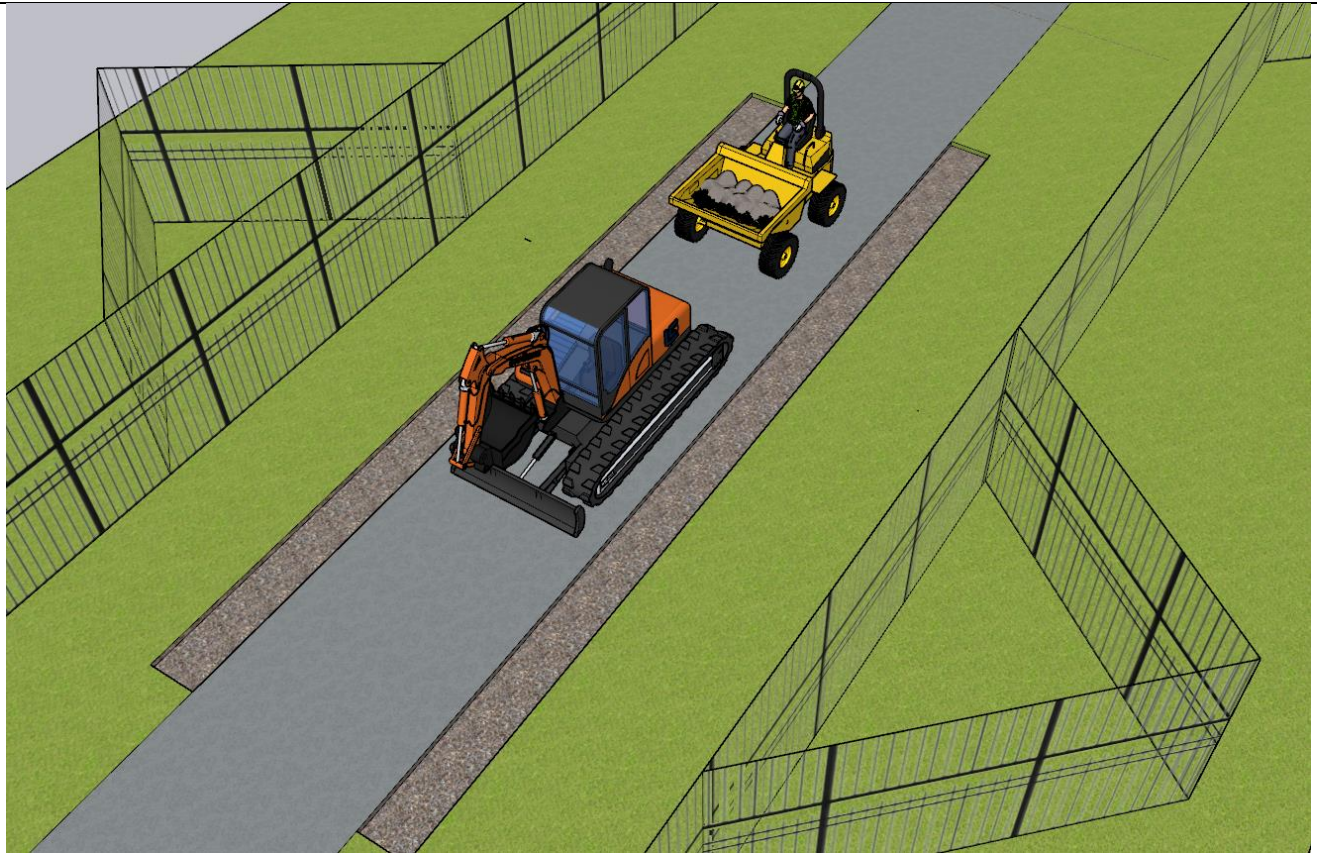
Footway extents to be marked and existing surfaces to be stripped back to a maximum of 60mm ensuring a regular level construction surface.

The stripping back of existing surfaces shall be executed by mechanical 360 mini excavators.

\*Note – protected tree root areas **shall not be** excavated by mechanical means, identified areas shall be hand excavated using hand tools

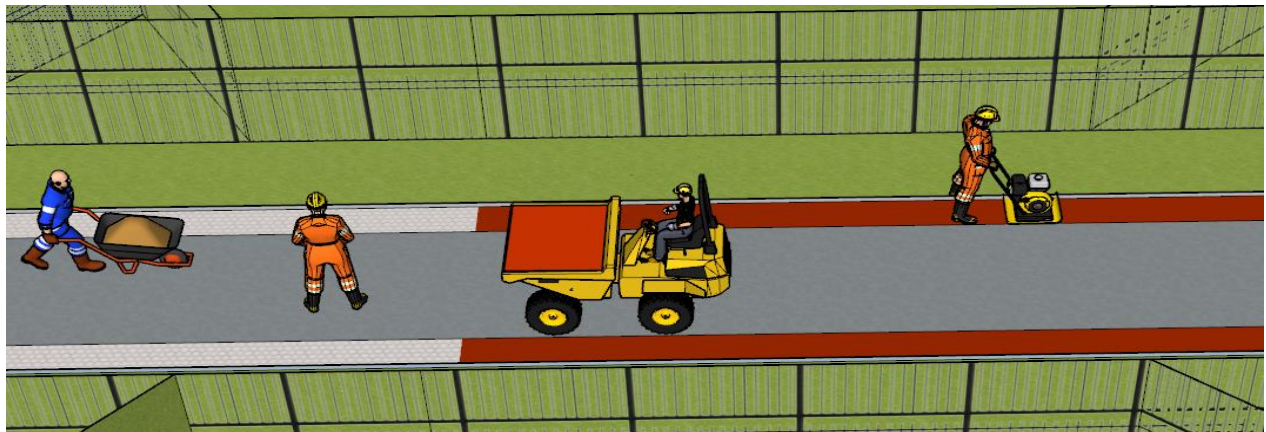
All machinery strictly restricted to working upon the existing footway.

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**7** Lay treetex t300 geotextile separation fabric to prevent contamination with existing ground. Where recommended by T.O

**8** Overfill grid pockets with angular stone type 20/40 material and compacted using a vibrating plate. Forward tipping dumpers to be used to transport materials to the grid starting point, materials will be spread into the grid voids, the dumper shall progress forward travelling over the existing macadam path.



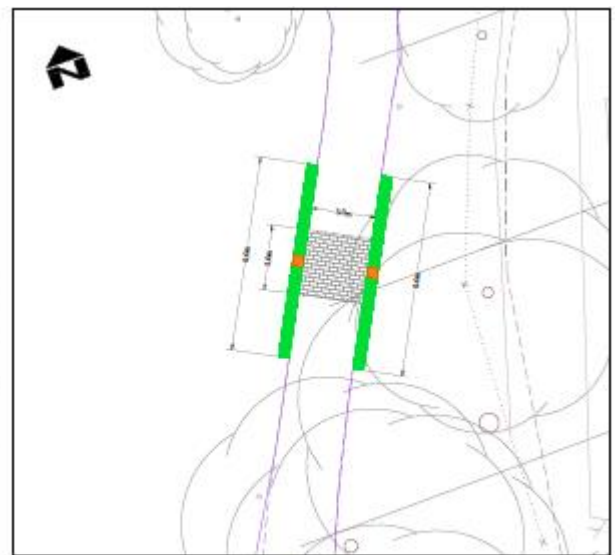
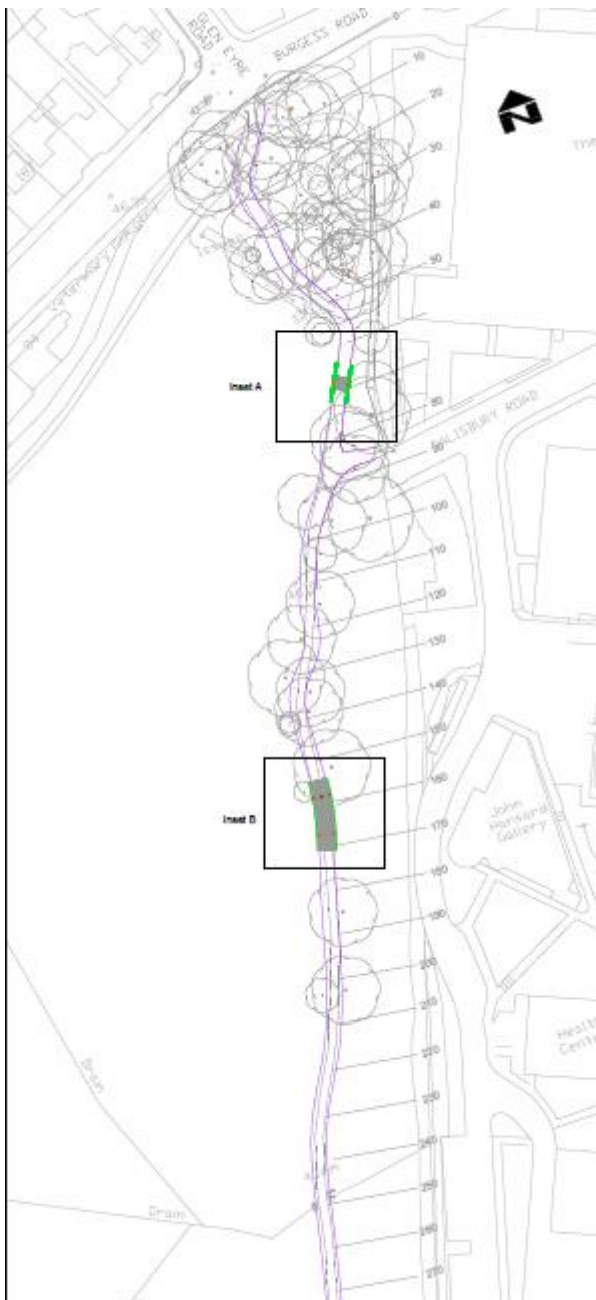
**9**

**Inset A B & C –Speed calming details.**

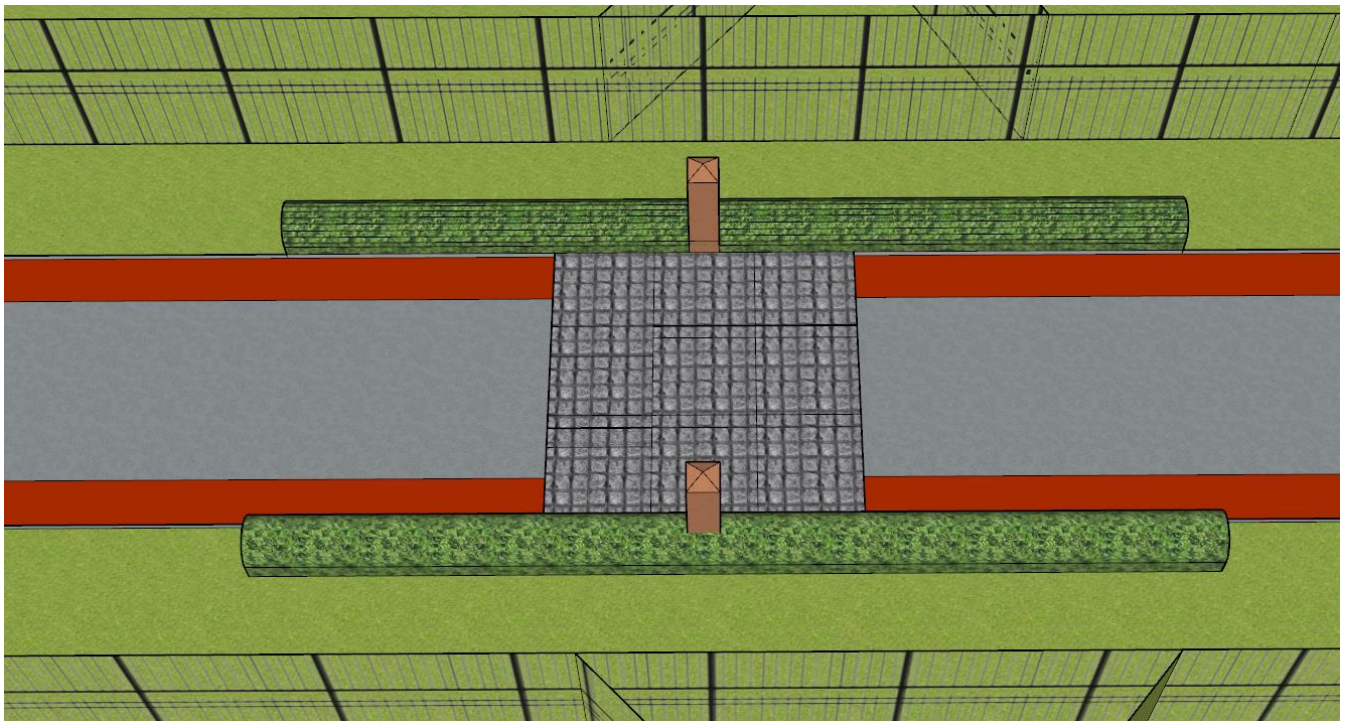
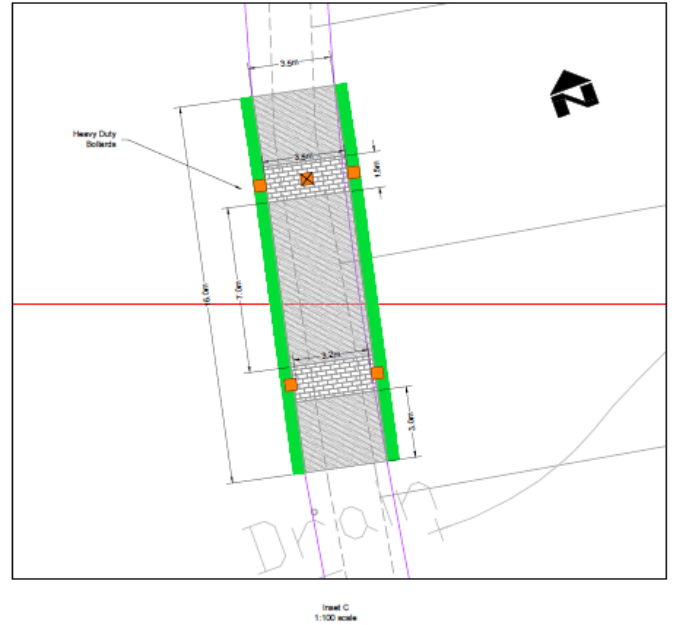
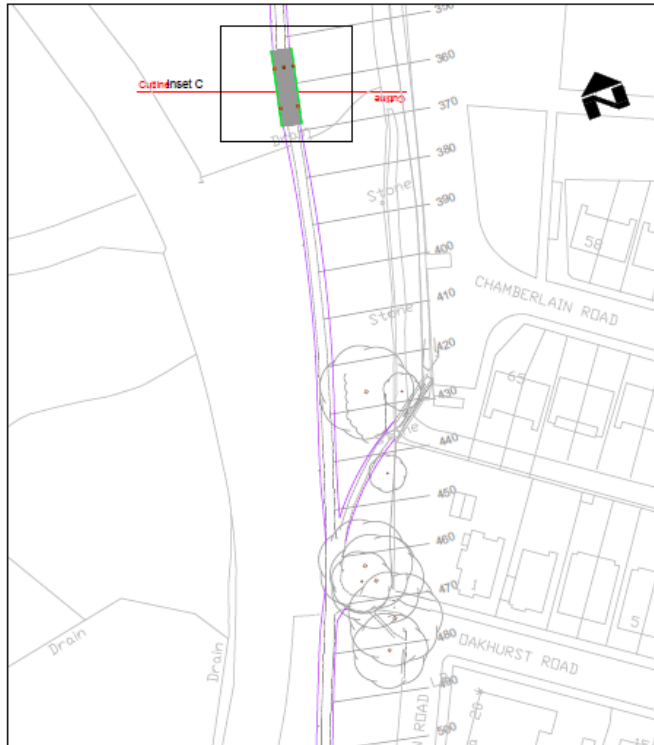
Granite setts will be installed within the current build up (destruction layer) of the existing path. The existing macadam will be carefully removed, and the base material carefully excavated in readiness to install the Granite Setts - Locations will be carefully discussed with the TO and EO during their phase of works inspections.

Once the path is completed the posts will be installed during an Archaeological watching brief – any dynamic instructions will be from the archaeology officer will be carefully followed.

Once the posts holes have been excavated and the AO is happy for us to proceed the new bollards will be fitted and a bund will be constructed around them as per plan – soil used - will be soil sourced from the Common

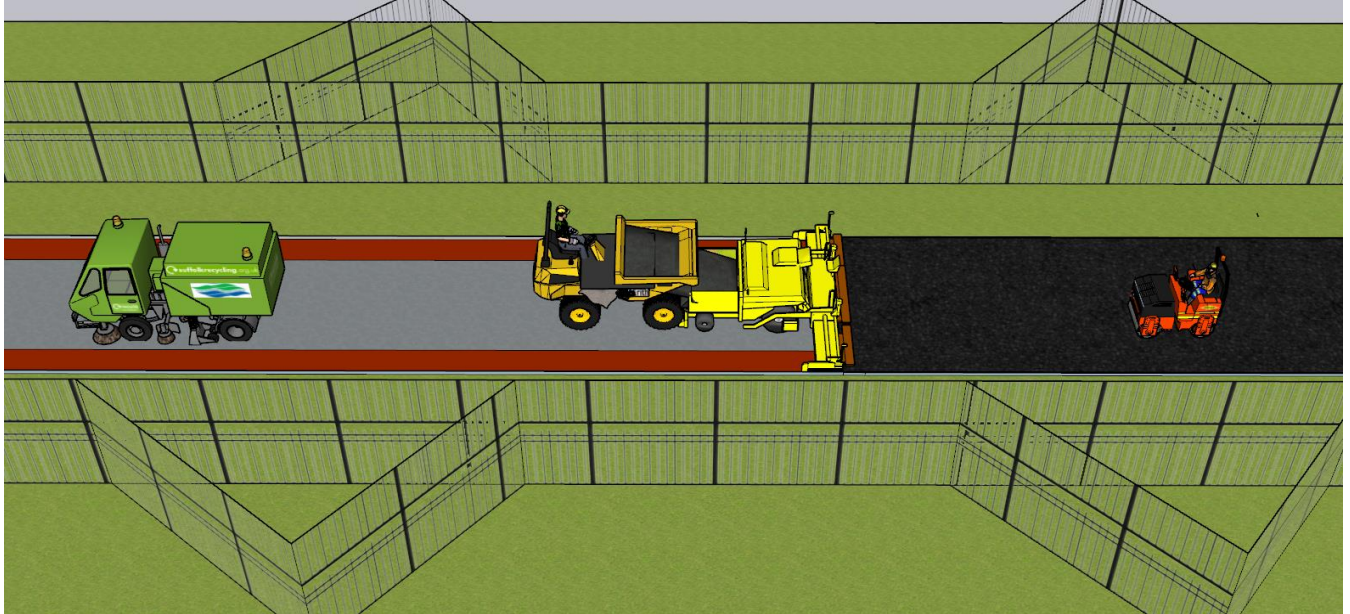


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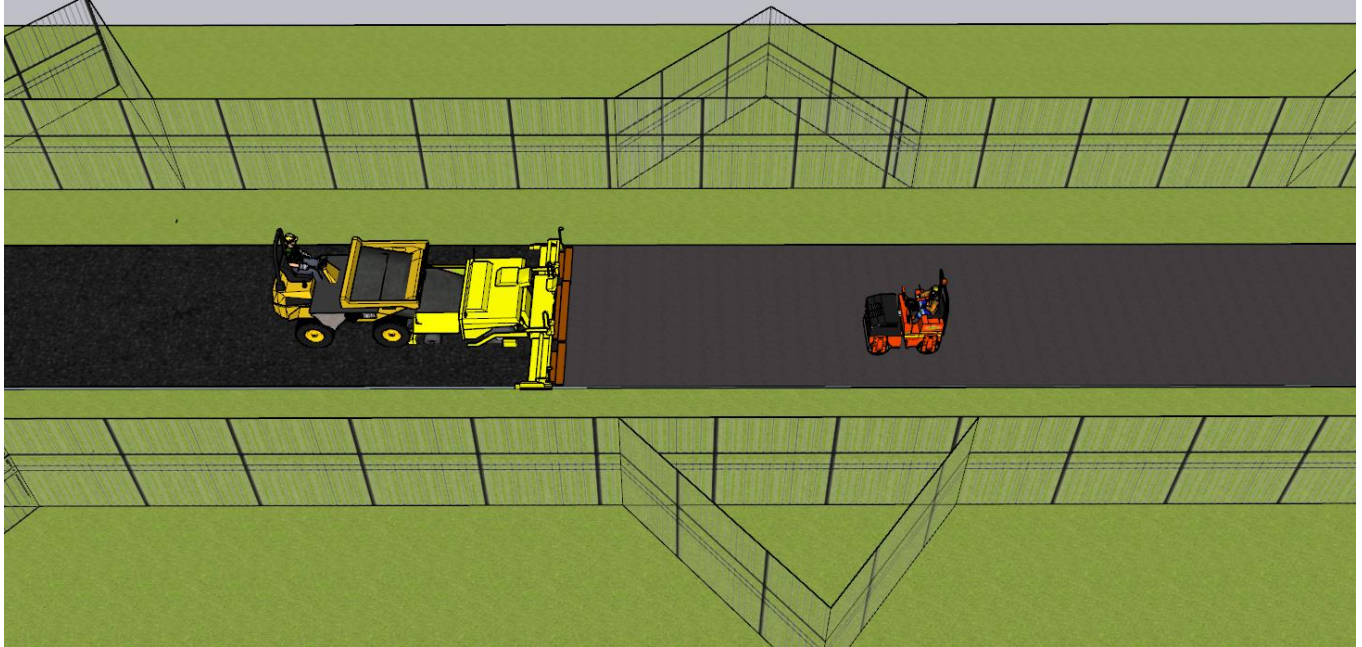
- 10** Once mechanically swept, a layer of 45mm asphalt binder course shall be laid over a tack coat emulsion. Dumpers collecting hot lay materials from an off-site designated compound. All plant strictly restricted to the existing pathway. Raked by hand or levelled with mini paver.



- 11** Mechanical twin drum vibrating rollers shall compact the asphalt layers as per the required pass rate.



**12** 20mm asphalt surface course to be laid as per 10 & 11.



**13** Re-grade soil to edge of new path using approved existing stripped soil.  
Materials left to naturalise.



**14** Site cleared of all tree & root protection systems and site open to Pedestrian traffic.

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## Removal of hardsurface at offset areas

**1** Before – hardsurface area

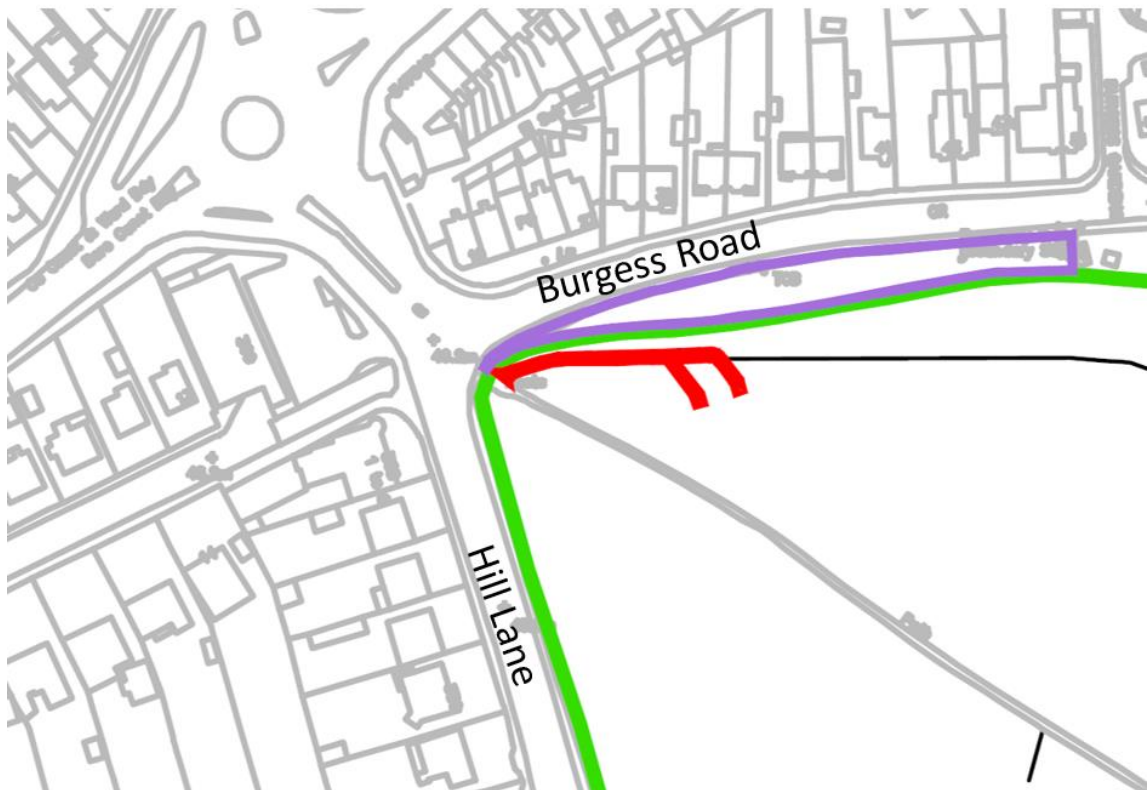


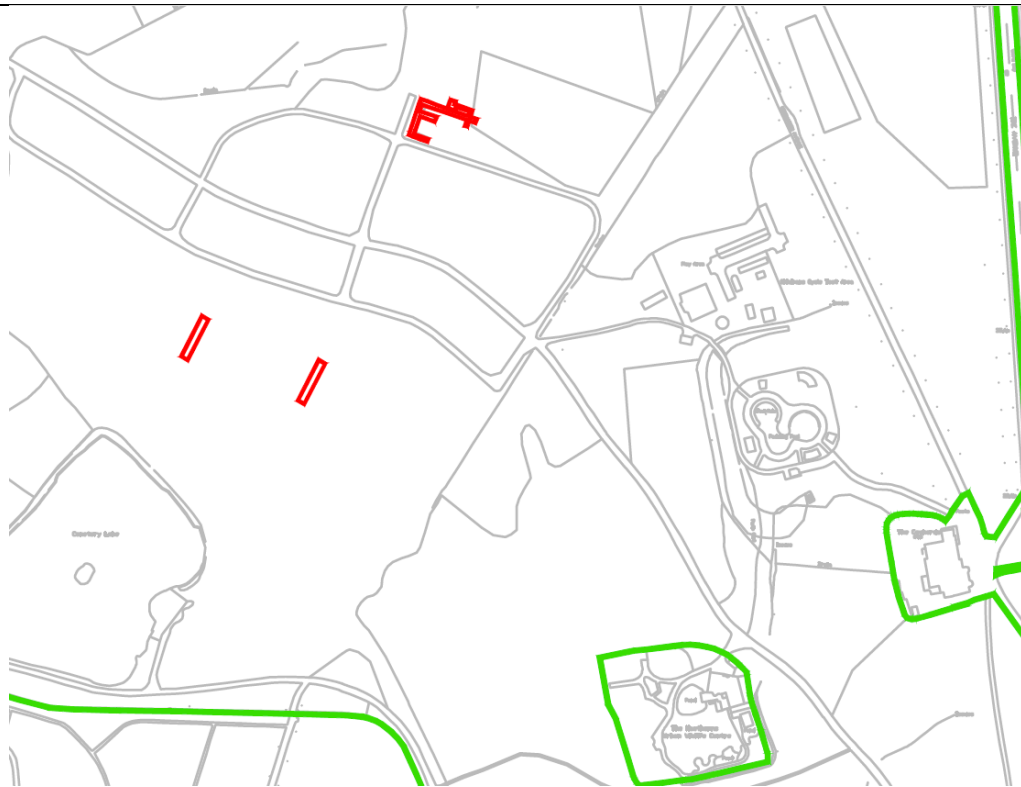
After – Area of hard surface removed and backfilled with topsoil.



**2** The following land parcels, which are already common land, will be converted from existing hardstanding to grassland:

- Former Toilets Footpath (52 square metres) - There is a section of footpath at the access from Hill Lane / Burgess Road junction which connected to former toilets. The toilets have long been removed and footpath no longer required. This is to be broken out and returned to grass;
- Former Changing Rooms (200 square metres) - The foundations of a former changing rooms remain on Southampton Common. This is to be broken out and returned to grass; and
- Old Cricket Strips x 2 (111 square metres) - There are two tarmac strips on Southampton Common to be used for playing cricket. These are now in poor condition and will be broken out and returned to grass.





**3 Ecology Risk**

**All work areas to be treated as SSSI**

Works will only proceed in suitable conditions and at a time of year approved by our ecologist to ensure no negative impact on the local wildlife.

Working hours are restricted to ensure the working day starts well after dawn and finishes well before dusk.

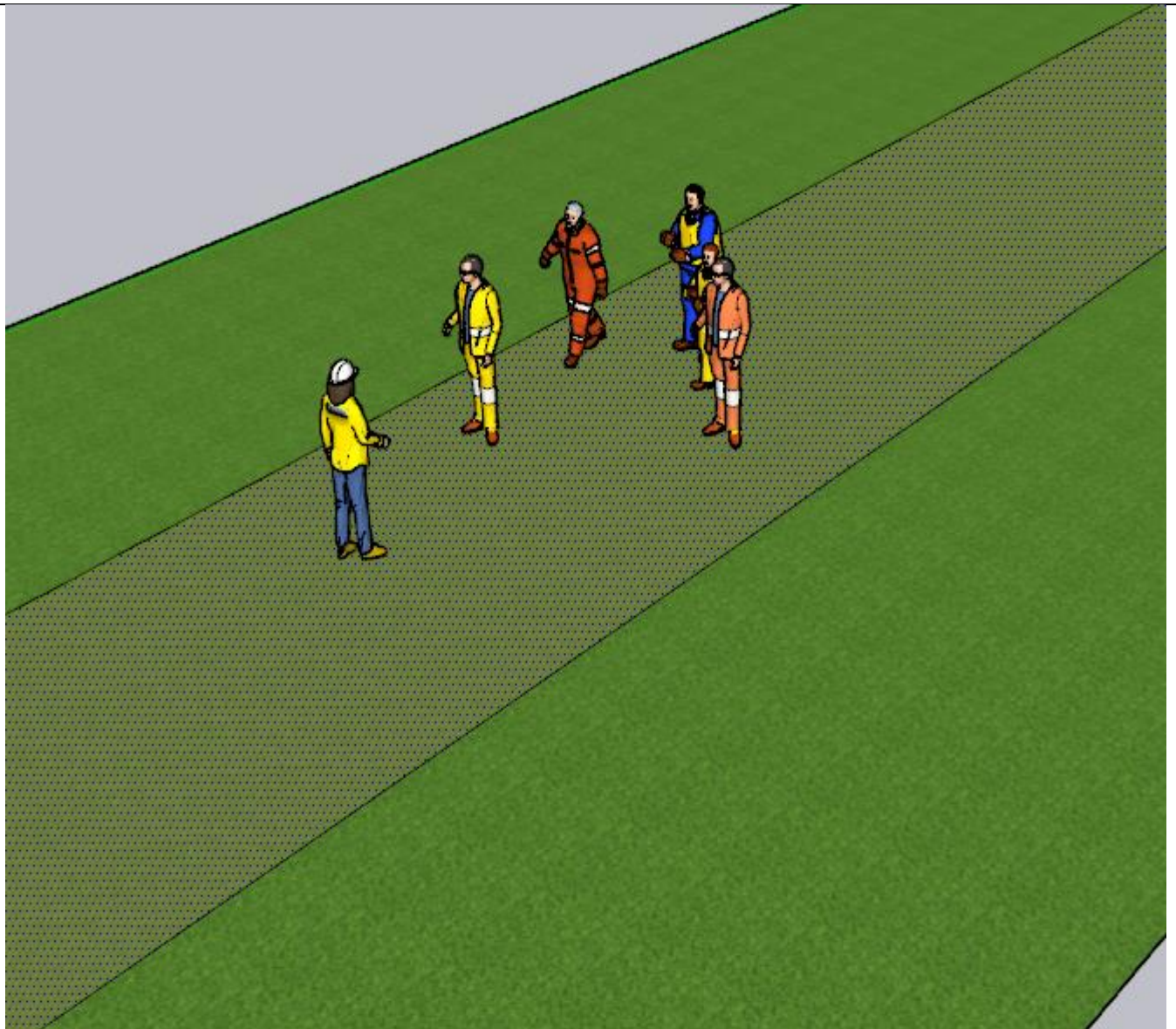
Our ecology officer very kindly checks the area for Wildlife, presents an Ecology TBT and we follow any dynamic procedures she recommends for this section of works.

General non project specific RAMS below

Our Ecology Officer undertakes an Ecology Toolbox Talk – Result recorded – Actions followed.

<b>Developed By:</b>	Becky Farminer	<b>Date:</b>	15 11 2023
<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001





- Identify the scope of work: Clearly define the scope of work and identify the ecological area that will be impacted.
- Evaluate the environmental impact: Conduct a thorough evaluation of the potential environmental impact of the work. This should include an assessment of the risks to the ecology, the flora and fauna present, and any other relevant environmental factors.
- Develop a plan to minimize the impact: Based on the environmental impact assessment, develop a plan to minimize the impact of the work on the ecology. This plan should include measures to protect the existing flora and fauna, minimize soil erosion and disturbance, and prevent any pollutants from entering the area.
- Obtain the necessary permits: Ensure that all necessary permits are obtained from the relevant authorities before commencing work.
- Train personnel: Ensure that all personnel working in the area are adequately trained on the potential impact of their activities on the ecology and the measures they need to take to minimize this impact.

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<b>Approved By:</b>	Matthew Lovell	<b>Version No:</b>	001



- Implement the plan: Implement the plan to minimize the impact of the work on the ecology.
- Monitor the impact: Regularly monitor the impact of the work on the ecology to ensure that the measures implemented are effective in minimizing the impact.
- Adjust the plan if necessary: If monitoring reveals that the impact of the work is greater than anticipated, adjust the plan to minimize the impact.
- Communicate with stakeholders: Regularly communicate with stakeholders, including the public, to ensure that they are aware of the measures being taken to minimize the impact of the work on the ecology.
- Document the process: Document the process of working with the area of ecology, including the environmental impact assessment, the plan to minimize the impact, and any monitoring results. This documentation will be valuable for future reference and can help to inform similar projects in the future.

**Ecology Risk – Fuels and Oil**

**Ecology Risk - Biosecurity**

Pre-use checks will be carried out prior to works commencing. Paying particular attention to any obvious leaks from equipment. Service – repair as required - All machines power washed with Propellar, Cleankill or similar disinfectant – Additional info here - [How biosecurity can prevent the introduction and spread of tree pests and diseases - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

Spill kits on site - at all times.

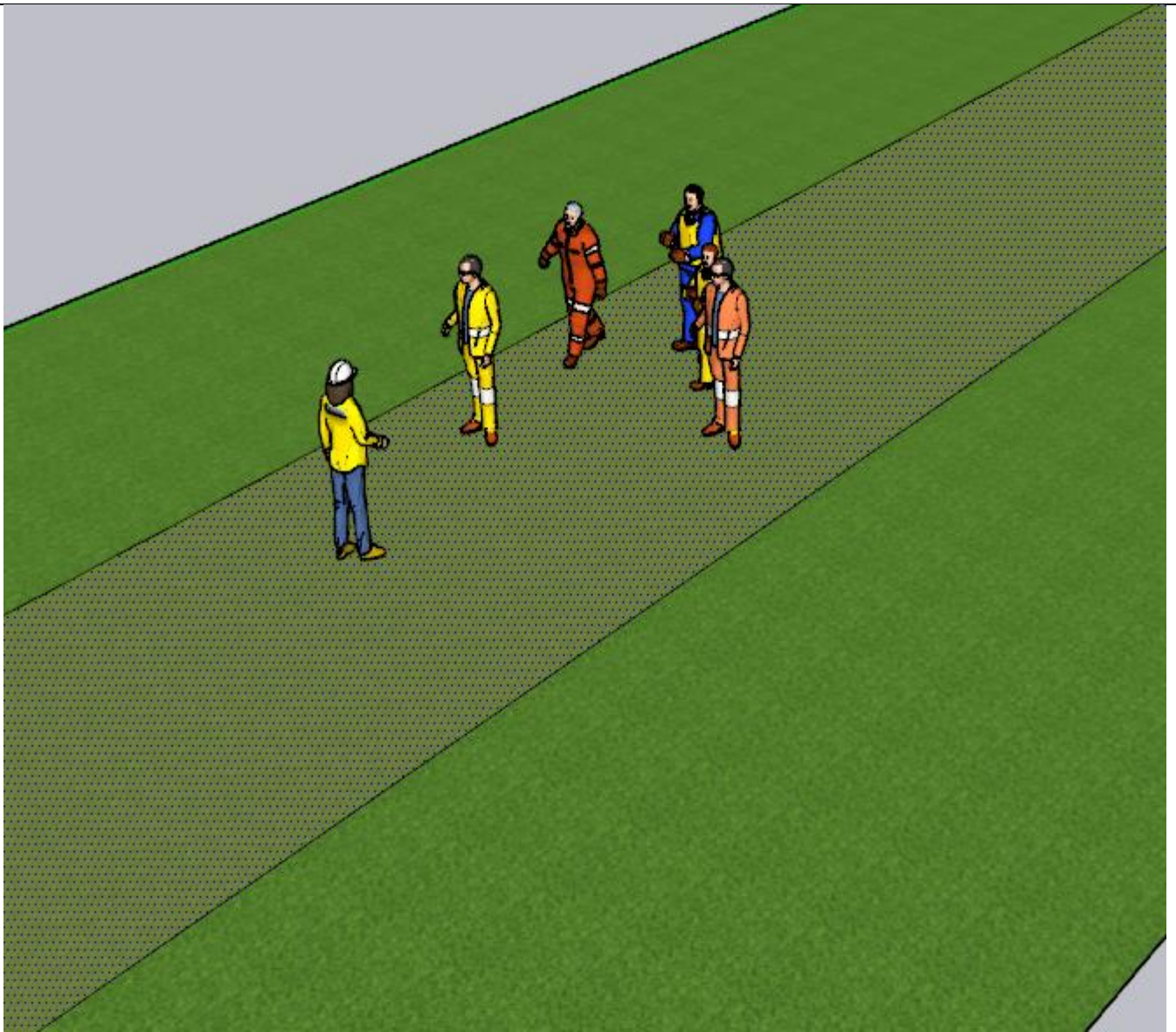
No fuelling on site – all machinery will be removed from site to be refilled with fuel.

**4 Tree Protection**

Our tree officer will conduct a tool box talk specific to this section of works and advise us of any systems or procedures we need to follow to ensure best practice and tree protection.

We will follow any dynamic procedures our tree officer recommends including but not limited to, additional fencing, ground protection and the use of airspades

Developed By:	Becky Farminer	Date:	15 11 2023
Approved By:	Matthew Lovell	Version No:	001



General non project specific RAMS below

Risk Assessment:

19. Hazard: Damage to tree roots

- Likelihood: Moderate
- Consequence: Moderate
- Control Measures:
  - Identify and mark the area where the tree roots are present before starting excavation.
  - Use air spades to excavate the soil carefully around the roots, minimizing the risk of damage.

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- Assign experienced and trained personnel for the excavation process.

**20. Hazard: Injury to personnel**

- Likelihood: Low
- Consequence: Moderate
- Control Measures:
  - Provide appropriate personal protective equipment (PPE) to all personnel involved, including safety goggles, gloves, and steel-toe boots.
  - Conduct training sessions on the proper handling and operation of air spades.
  - Establish clear communication protocols and signals among team members during the excavation.

**21. Hazard: Underground utilities**

- Likelihood: Low
- Consequence: Major
- Control Measures:
  - Conduct a thorough utility scan and identify any underground services before commencing the excavation.
  - Clearly mark the location of any identified utilities.
  - Exercise caution and implement hand digging when working in close proximity to utilities.

**Method Statement:**

**37. Site Preparation:**

- Perform a visual inspection of the excavation site to identify any potential hazards, including overhead power lines, unstable ground, or nearby structures.
- Mark the boundaries of the work area and clearly identify the tree and its roots to avoid damage.

**38. Equipment and Tools:**

- Ensure that air spades and associated equipment are in good working condition.
- Conduct regular maintenance checks on the air spades to ensure proper functionality.
- Have appropriate tools available for cutting roots or removing soil, if required.

**39. Personnel:**

- Assign trained and experienced personnel for the excavation work.
- Provide personnel with the necessary PPE, including safety goggles, gloves, and steel-toe boots.
- Clearly communicate the roles and responsibilities of each team member.

**40. Excavation Process:**

- Use air spades to carefully remove soil from around the tree roots, starting from the outer edge and working inward.
- Exercise caution to avoid excessive force or direct contact with the roots.
- Continuously monitor the excavation process to identify any potential issues or hazards.

**41. Monitoring and Inspection:**

- Regularly inspect the excavated area to assess any changes or potential risks.
- Conduct a final inspection to ensure that all roots have been safely exposed or severed.
- Keep a safe distance from the tree to avoid any falling branches or debris.

**42. Waste Management:**

- Dispose of excavated soil and any waste materials in accordance with local regulations.
- Keep the work area clean and free from trip hazards.

Note: The above risk assessment and method statement is a general example and should be adapted and tailored to the specific site and project requirements. It is crucial to consult with experts, including arborists or tree specialists, to ensure the safe and effective excavation around tree roots.

HE

**Risk Assessment for Using Air Spades:**

**1. Hazard: Flying debris**

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - All personnel involved should wear appropriate personal protective equipment (PPE), including safety goggles and helmets, to protect against flying debris.
  - Establish exclusion zones and restrict access to the work area to prevent unauthorized personnel from entering the hazardous zone.
  - Use caution when operating the air spade and direct the air flow away from personnel and sensitive equipment.

**2. Hazard: Noise exposure**

- Likelihood: Moderate
- Consequence: Minor
- Control Measures:
  - Provide hearing protection to all personnel operating or working near the air spade.
  - Limit the duration of exposure to loud noise by scheduling breaks for personnel.
  - Maintain the air spade equipment in good working condition to minimize noise levels.

**37. Hazard: Hand-arm vibration**

- Likelihood: Low to Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - Ensure that the air spade is well-maintained and properly balanced to minimize vibration levels.
  - Provide training to personnel on proper handling techniques and recommend frequent breaks to minimize the risk of hand-arm vibration syndrome.
  - Rotate personnel during extended periods of use to reduce individual exposure.

**38. Hazard: Striking underground utilities**

- Likelihood: Low
- Consequence: Major
- Control Measures:



- Conduct a thorough utility scan and mark the location of underground utilities before commencing excavation.
- Implement a hand digging approach or use alternative techniques near known utility lines to avoid accidental strikes.
- Maintain communication with utility companies and follow any specific protocols or guidelines provided.

39. Hazard: Trips, slips, and falls

- Likelihood: Moderate
- Consequence: Minor to Major
- Control Measures:
  - Ensure a clean and organized work area, free from trip hazards such as loose cables or debris.
  - Provide adequate lighting in the work area, especially in low visibility conditions.
  - Ensure that personnel wear appropriate footwear with slip-resistant soles and maintain proper footing while operating the air spade.

40. Hazard: Ergonomic strain

- Likelihood: Moderate
- Consequence: Minor to Moderate
- Control Measures:
  - Provide training to personnel on proper body mechanics and lifting techniques to minimize strain and injury.
  - Encourage regular breaks and rotation of tasks to reduce prolonged physical exertion.
  - Provide ergonomic tools and equipment to reduce strain and improve operator comfort.

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**5 Health & Safety Risk - Ingress and Egress**

Our works vehicles will use the same route as the public, pedestrians and cyclists. Preferred routes will be confirmed on a dynamic tool box talk – area by area and agreed with our ecologist, tree officer and area operations manager

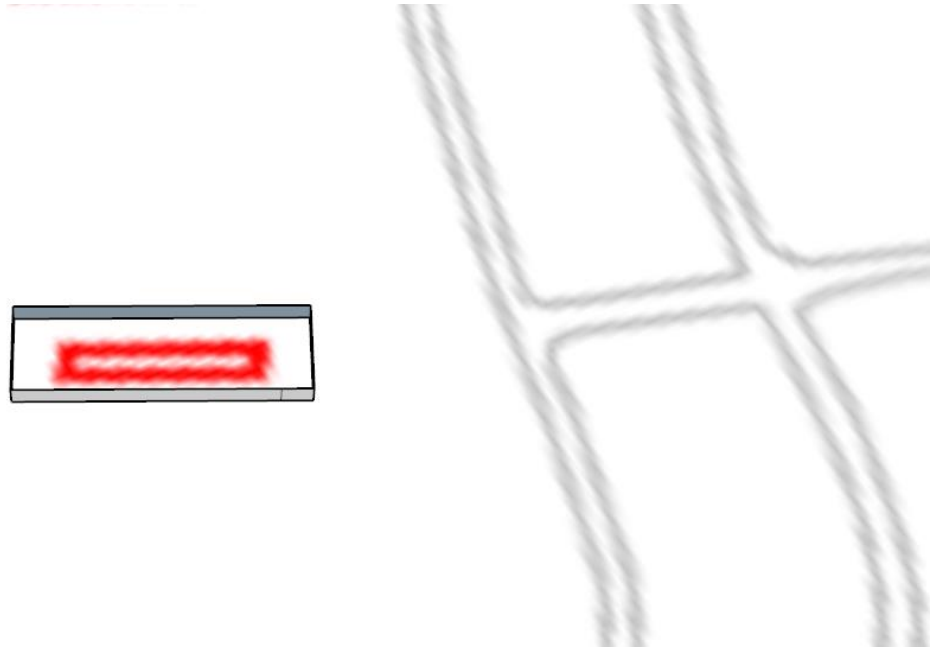
- Works vehicles to drive a 5mph.
- Flashing lights and beacons
- Lorries to be met at entrance by a banks person then carefully escorted through the common
- Work with our ecologist, tree officer and area operations manager to establish entry procedures and the preferred route to each area.
- All entrances will be secured immediately after our vehicles has passed through.
- Each route will have a dynamic risk assessment – example below

Risk Assessment	Assessment based on NO controls. To identify Risk Class, refer to Hazard Index Table	Class		>20=HIGH		>10=MODERATE		>5=MINOR		5=ACCEPTABLE	
		S	L	Risk Score	Class	No. Person	Type of Person Contractor/visitor/other				
1	Collision of traffic/plant & pedestrians	4	3	12	MOD	1	Contractor/Other				
2	Obstruction of areas dedicated to public	3	3	9	MIN	1+	Visitors/Others				
3	Obstruction of emergency vehicle routes	4	3	12	MOD	1+	Contractor/Other				
4	Transfer of waste onto roads/pavements	3	3	9	MIN	1+	Others				
5	Slips/Trips/Falls	4	3	12	MOD	1+	All				
6	Vehicles/Plant striking structure	4	3	12	MOD	1+	All				

Current Controls	
No.	Description
1	Established and segregated pedestrian routes, traffic management plans implemented to include parking, banksman and site speed limits.
2	Implement parking areas, trained banks-man for vehicle manoeuvres.
3	Emergency plans implemented, warning signs installed, controlled vehicular movements.
4	Barriers around parked vehicle and rear entrance to 28 Lebanon Road
5	High levels of housekeeping maintained, debris cleared from site, dedicated pedestrian routes installed if required
6	No reversing without a banks-man, signs displayed.
7	<b>Speed restriction 5mph</b>

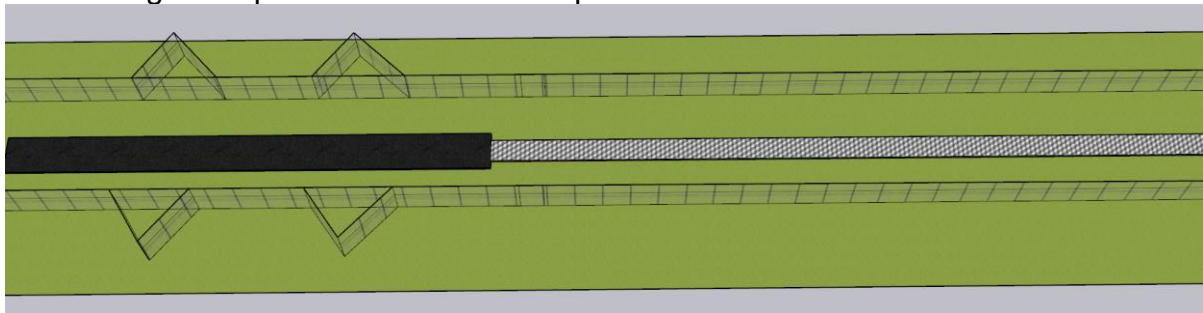
**6**

We will fence around each area using Heras or chapter 8 barriers prior to commencing any works.



**7**

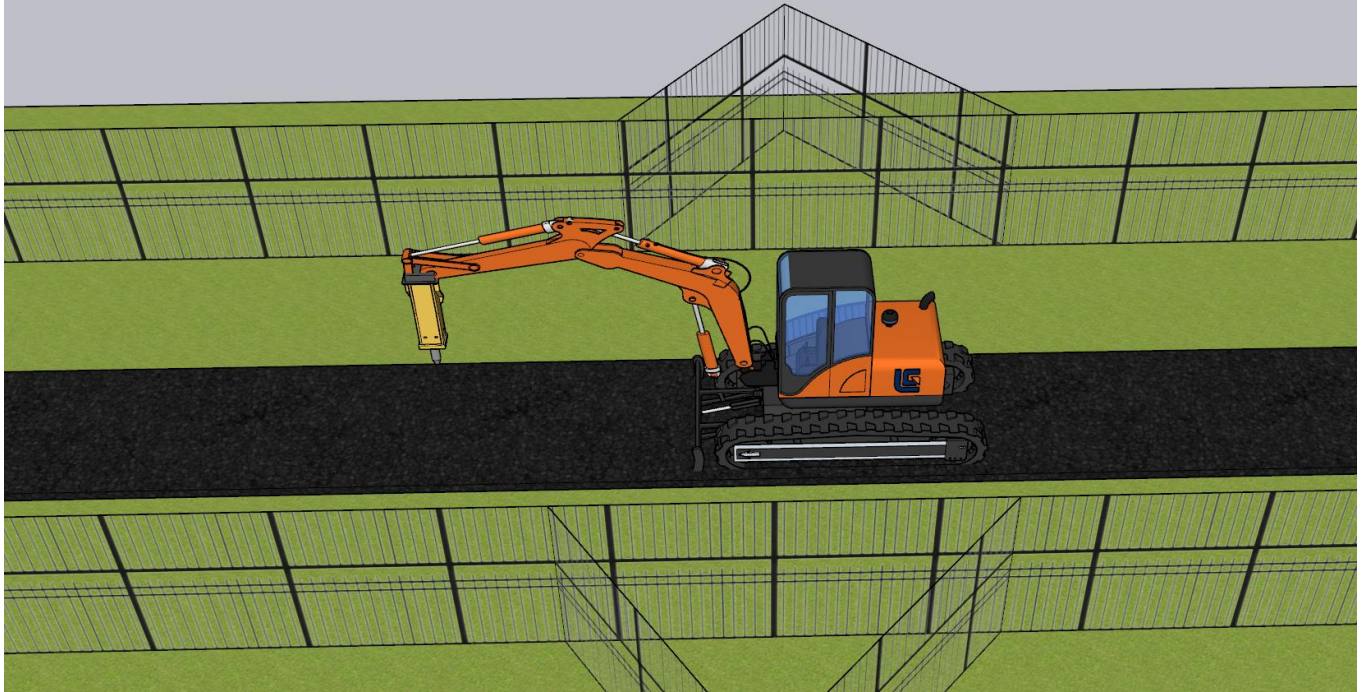
Once fenced – we will agree the access route with our ecologist – Add additional fencing and mud saver – ground protection boards if required.





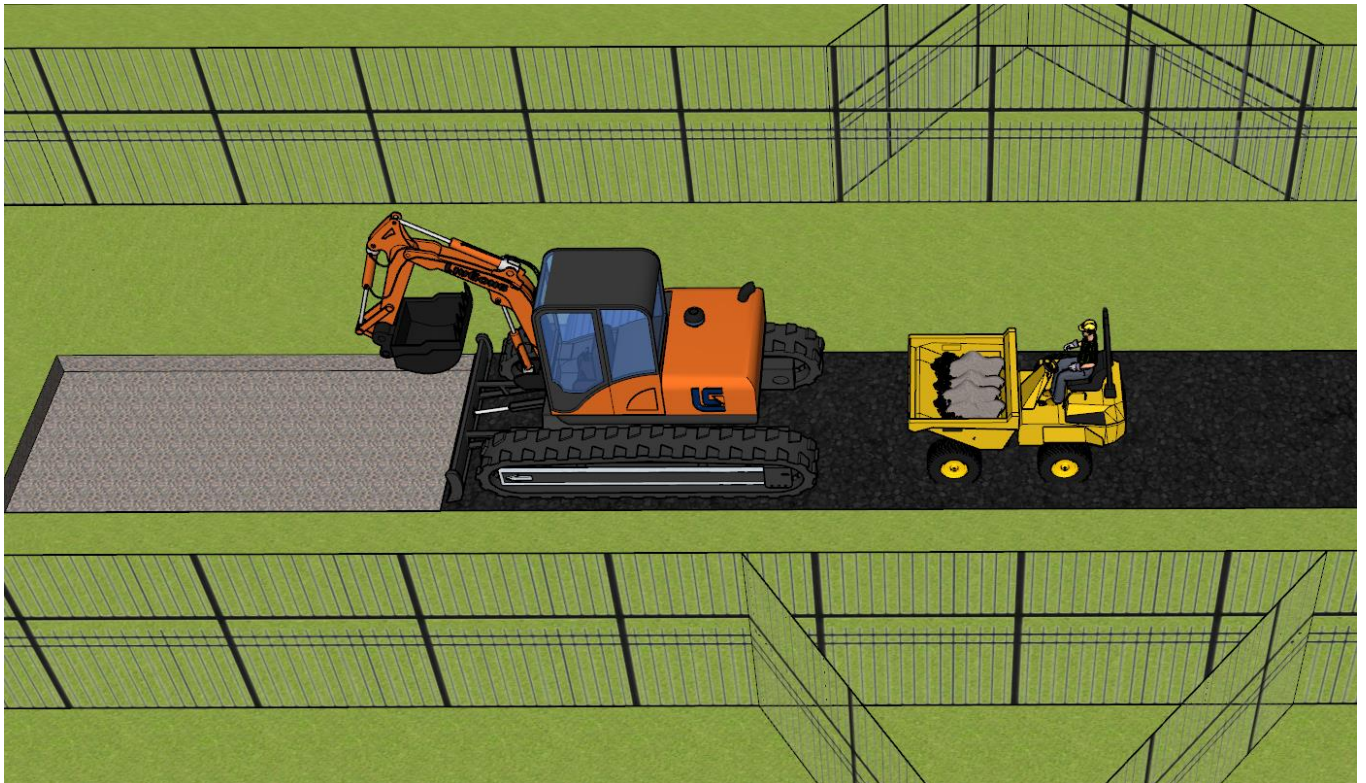
**8**

Where the macadam is sound – We will use a mechanical breaker to loosen the surface. Where the macadam is unsound, we will skip this process.



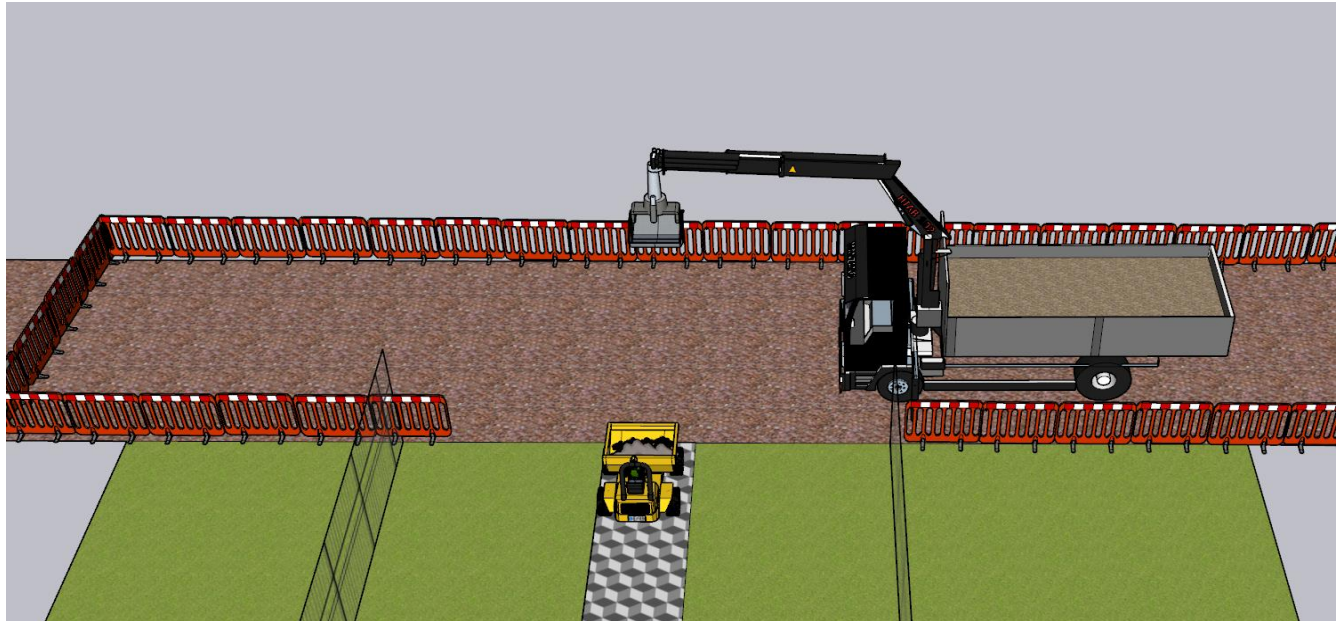
**9**

We will CAT scan the area and mechanically excavate the unwanted macadam. Strictly only removing the material within the destruction layer of the original construction leaving the natural layers undisturbed

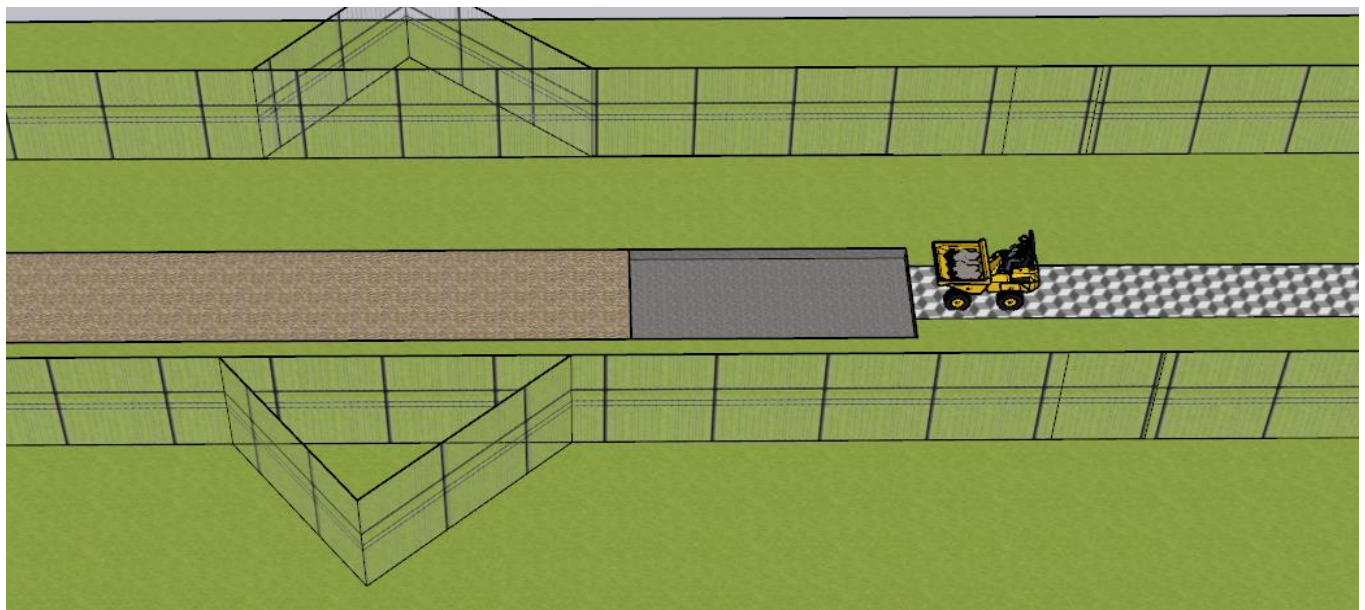


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**10** If we can get the grab lorry alongside the area, we will load the lorry directly using the grab. The grab lorry will stay strictly upon the common roads and trackways. If we need to move material from the excavation to the grab lorry, we will use a small dumper. We will undertake a dynamic risk assessment area by area. If required, the dumpers route will be protected will ground saver boards and fenced. The excavated material will be sent for recycling.



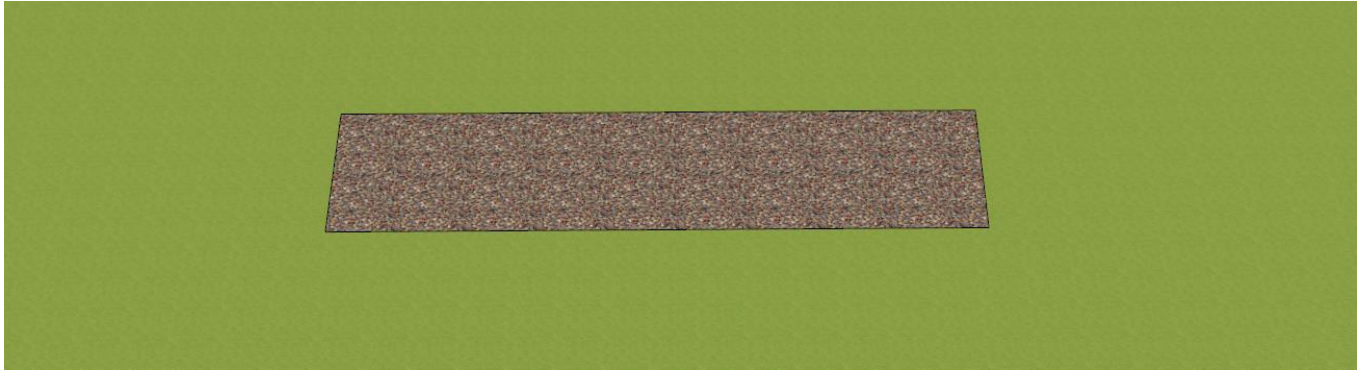
**11** Once excavated we will fill the area with common soil – the common soil will be transported to the area using our grab lorry – if we can get the grab lorry alongside the area, we will fill the excavated area using the grab. If we need to transport the soil from the grab lorry to the area. We will fill the small dumper using the clamshell. We will undertake a dynamic risk assessment area by area. If required, the dumpers route will be protected will ground saver boards and fenced.



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



**12** Once filled the area will be neatly raked to smooth running levels, leave to naturalise and remove the protective fencing.



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<p><b>1</b></p>	<p>Incase of an Emergency dial 999 or drive to Southampton General Hospital</p> <hr/> <p><b>11 min</b> (2.2 miles)   </p> <p>via Winchester Rd/A35 Best route now due to traffic conditions</p> <hr/> <p><b>Oakhurst Rd</b> Southampton SO17 1PP</p> <ul style="list-style-type: none"> <li>&gt; Take Furzedown Rd to Highfield Ave/A3035 58 sec (0.1 mi)</li> <li>&gt; Take A35 and Winchester Rd to Dale Rd 6 min (1.5 mi)</li> <li>&gt; Continue on Dale Rd to your destination 3 min (0.6 mi)</li> </ul> <p><b>Southampton General Hospital</b> Tremona Rd, Southampton SO16 6YD</p>
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