

UWTSD

SA1 Housing Estate Access Road

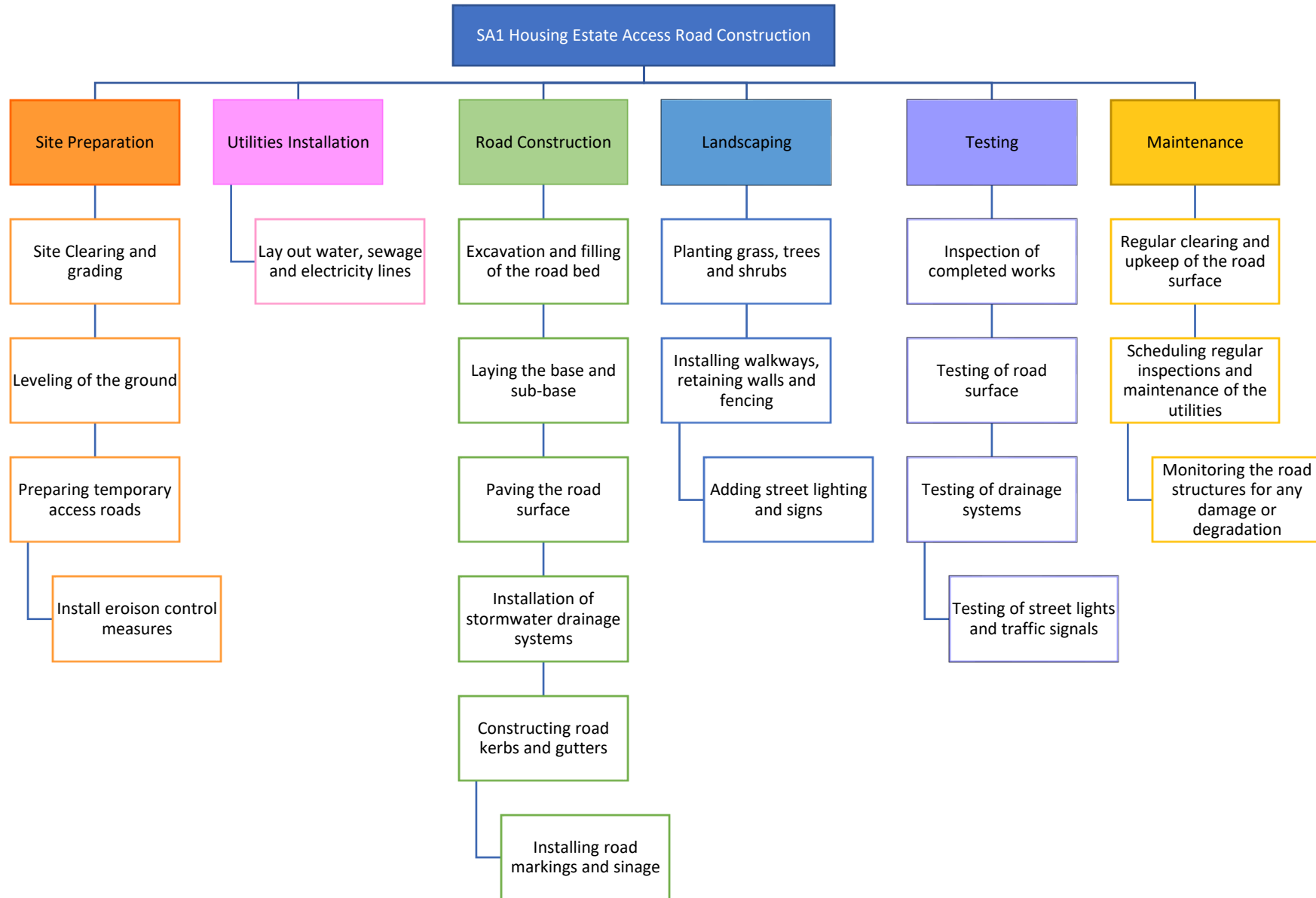
Project Schedule

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Work Breakdown Structure



METHOD STATEMENTS

Health and Safety requirements for General Construction works.

Employees should aim to:

Take reasonable steps to protect their own health and safety, as well as the health and safety of others who may be affected by their acts or omissions.

Work with their employer or any other person who has an obligation to help them complete or comply with such tasks or requirements.
(The health and safety Act, 1974)

Excavations (CDM, 2015)

All practicable steps must be taken to prevent danger to any person involved in excavation works.

Before carrying out any construction work in an excavated area, a competent person must inspect it at the start of the shift, after any event that may affect its stability, or after any unintentional material dislodgement.

Practical measures to be taken to ensure safety involves:

1. Providing supports or battering to prevent collapse.
2. Ensure materials around the excavation does not fall.

3. Take necessary precautions to avoid people, equipment and materials from falling into the excavation or adjacent ground.

Vehicles (CDM, 2015)

1. Avoiding unintentional vehicle movement

Take the appropriate precautions to keep a vehicle from moving inadvertently. Setting the parking brake, shutting off the engine, or utilising wheel chocks are all examples of this.

2. Notifying others of vehicle movement

If there are individuals nearby who may be in risk from a moving car, you must notify them. If you're driving, use your horn or signals to warn others. If you're advising the driver due to low vision, make sure your directions are clear and timely.

3. Vehicle operation safety on building sites

While operating a vehicle for construction purposes, you must do it safely. This entails driving, operating, or towing it in a manner that takes into consideration the site circumstances and the nature of the work. You must also ensure that the car is loaded safely and securely.

4. Riding in automobiles when working on construction sites.

Do not ride in a construction vehicle unless there is a designated safe location for passengers. This might be a seat or a specific spot within the vehicle.

5. Keeping safe during loading and unloading

Unless there is a designated safe workspace, do not stay on or near the vehicle when loading or unloading loose goods. Keep a safe distance from any locations where you might be harmed by falling or moving items.

6. Keeping cars from sliding or falling

Take precautions to keep vehicles from falling into excavations or pits, rolling over embankments or earthworks, or ending up in water. This might involve the use of barricades or warning signs, as well as ensuring that the vehicle is placed on level ground.

Method Statement for Site Preparation: clearance, Grubbing, Setting out.

The objective of site clearing and grubbing is to remove the site of any vegetation, debris, or other impediments so that the access road may be built. This is a thorough method statement for the tasks involved in site clearing and grubbing, including the necessary equipment.

Equipment

1. Excavators
2. Bulldozers
3. Dump trucks
4. Chainsaws

PPE

1. hard hats,
2. Gloves
3. Safety boots

Site Clearance & Grubbing:

1. Remove all vegetation from the location, including trees, shrubs, and other plants. To chop down trees, use chainsaws and brush cutters as needed. Verify that trees, bushes, and other features and locations designated for preservation on the drawings are properly recognised and safeguarded.
2. Use a backhoe to remove tree roots and uproot shrubs.
3. Remove any rocks, boulders, or other obstacles from the site and transfer them off-site for disposal.

Setting out:

1. Obtain a copy of the plans and specifications for the housing estate's access road.
2. Determine the access road's datum level, which will serve as a reference point for all subsequent measurements, using a surveyor's level.
3. Place profile boards at regular intervals along the access road, making sure they are firmly fastened and level. Install the profile boards at a height that allows for the thickness of the surface materials.
4. Using a spirit level check the levels of the profile boards to ensure that they are correctly positioned according to the design drawings.

5. Place string lines between the profile boards, making sure they are tight and level. To obtain the desired levels for the access road, the string lines should be put at the appropriate height.

Method statement for Excavation works.

This method statement outlines the procedures to be followed during excavation works on the SA1 housing estate access road project. The works will include excavation of the section of the highway along the junction leading into the housing estate and the topsoil.

Equipment

1. Excavators
2. Bulldozers
3. Dump trucks
4. Backhoes

PPE

1. Hard hats
2. Safety boots
3. Hearing Protection
4. High visibility vest
5. Safety glasses/ goggles

Before excavation works can begin, the following preparatory works will be carried out:

1. The site should be cleared of any vegetation, debris, and obstructions.
2. The site boundaries should be established and marked.
3. The area where excavation works will be carried out should be fenced off to prevent unauthorized access.
4. All underground services such as gas, water, and electricity will be identified, marked and protected before excavation.

Environmental Measures

The following environmental measures will be implemented during the excavation works:

5. Any excavated debris will be disposed of in line with local standards and will not be left on site to cause a threat or damage the environment.
6. All on-site machinery shall be fuel-efficient and in accordance with applicable environmental requirements.
7. Noise and dust pollution will be minimised by utilising water to wet the soil during excavation.

Excavating Asphalt surface:

1. Remove the asphalt layer to its full depth using appropriate equipment (either a road saw or a hand-held disc- cutter). Taking precautions not to damage any beneath utilities.
3. All bitumen-bound edges must be clean and vertical, with no noticeable undercutting.

4. After removing the top layer of asphalt, continue excavating to the needed depth any underlying materials, such as base course or subbase.
5. After removing the asphalt, use a compaction machine to verify that the surface is flat and sturdy.
6. Transport the removed items to a suitable disposal place by loading them into dump truck.
7. Re-excavate and remove until the whole area to be restored has been excavated to the requisite length and depth.
8. Remove any debris and dirt from the excavated area and adjacent surfaces with a blower machine.
9. Perform a final check of the excavated area to confirm that all materials have been removed to the necessary depth and that no underground services have been damaged.

Excavating of extension leading into housing estate:

1. Topsoil Stripping: Using heavy equipment such as bulldozers or excavators, remove the topsoil layer to a depth of the desired level. Stockpile dirt in a specified position for re-use.
2. Excavate or cut the subsoil to the desired depth, being careful not to disturb any underground utilities or other services. Transport the excavated material to a specified spot for temporary storage or disposal. To obtain the appropriate formation level, fill the excavated area with suitable fill material, crushed stone. To guarantee stability and consistent density, compress the fill material using a roller or compactor.
3. Land Grading and Shaping: Shape the land with an excavator or bulldozer to the appropriate curves and slopes to guarantee good drainage. To guarantee conformity, compare the grading and shape to the design parameters.

5. Site clean-up and restoration: Clear the location of any residual debris, extra dirt, or equipment. Restore the site's surface to its original level using the stored topsoil.

NOTE:

- Excavation work must be done as safely as possible to minimise the risks to road users and contractor staff.
- When stockpiling, ensure the excavated material does not cause damage to roads, services, or property, and they must not prevent water from draining from the road or the surrounding area.
- To be appropriate for fill material, the soil must not include any vegetative matter.

Method statement for Pavement Works.

Equipment:

1. Motor grader
2. Vibrating roller
3. Water truck

PPE:

1. Hard hats
2. Heat resistant gloves
3. Earplugs or earmuffs
4. High visibility gloves

1. Base course construction:

- a. Apply a layer of crushed stone aggregate to specified thickness.
- b. Using a motor grader, spread and level the base course material.
- c. Using a vibrating roller, compact the base course to specified dry density.
- d. Check the surface of the compacted base course to verify it is level and smooth.

2. Binder course development:

- a. Apply a layer of bituminous material as binder course to specified thickness.
 - a. Using a paver spread and level the binder course material.
 - c. Using a vibrating roller, compact the binder course.
 - d. Check the surface of the compacted binder course to verify it is level and smooth.
3. Surface Course Construction:
- a. As the surface course, apply a layer of asphalt.
 - a. Using a paver or similar equipment, spread and level the surface course material.
 - c. Compress the surface course with a vibrating roller.
 - d. Check the surface of the compacted surface course to verify it is level and smooth.
4. Site clean-up:
- a. Clear the project site of any extra materials and waste.
 - b. Clean and maintain any construction equipment that was utilised.
 - c. In compliance with local legislation, dispose of any waste items.

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