



Together to Zero

Worthing Heat Network

Densification Phase 1

Route Statement

This document and the information controlled therein is the property of Pinnacle Power. Reproduction or disclosure, by whatever means, in whole or part, is not permissible without prior consent of the above-named Company.



Document Number: 2389-HEM-DH-XX-TN-H-0001

Revision: 05

Author: DR

Rev	Date	Status	Description	Approved By
01	20/08/25	For Issue	Route Statement for Planning	
02	04/09/25	For Issue	Revised based on feedback from WBC Planning	
03	09/09/25	For Issue	Additional information added	
04	18/09/25	For Issue	Additional information added	
05	25/11/25	For Issue	Content updated for HDD methodology	

Reviews:

Date	Comments	Reviewer



Table of Contents

1.	Introduction	4
2.	Proposed Route	4
3.	Alternatives Considered	5
4.	Key Decisions	5
5.	Lessons Learned from Phase 1	8
6.	Trees and Green Infrastructure	9
7.	Construction Impacts and Mitigation	12
8.	Working Time	12
9.	Business and Concessions.	13
10.	Steyne Gardens Impacts and Mitigation	13
11.	Promenade Impacts and Mitigation	13
12.	Events and Construction Timetable	14
13.	Policy and Benefits	15
14.	Conclusion	16



1. INTRODUCTION

This document sets out the proposed alignment for the Worthing Heat Network (WHN) Densification Phase 1, providing detailed justification for the route selection and the anticipated impacts on residents, businesses, and the public realm. It reflects the lessons learned from earlier phases of network delivery and outlines how these have informed a more resilient and community-sensitive approach for this stage. The statement includes:

- The rationale for the chosen route and alternatives considered.
- A detailed analysis of tree impacts, including work within root protection zones.
- Consideration of impacts on gardens, conservation areas, and recent public realm improvements.
- Integration of construction planning with the town centre's existing event schedule.
- Mitigation strategies to minimise disruption during delivery.
- Local business and stakeholder engagement mapping.

2. PROPOSED ROUTE

The proposed alignment runs South from the Energy Centre at High Street Multi-Storey Car Park to connection points at the Pavilion Theatre and Splash Point Leisure Centre. It follows High Street, Brighton Road, Steyne Gardens, crosses Marine Parade onto the Promenade (east and west), and Beach Parade (cycle path).

The alignment was selected to:

- Avoid significant conflicts with underground utilities where practicable.
- Minimise disruption to residents, businesses, and events.
- Optimise constructability and limit time within key highways.

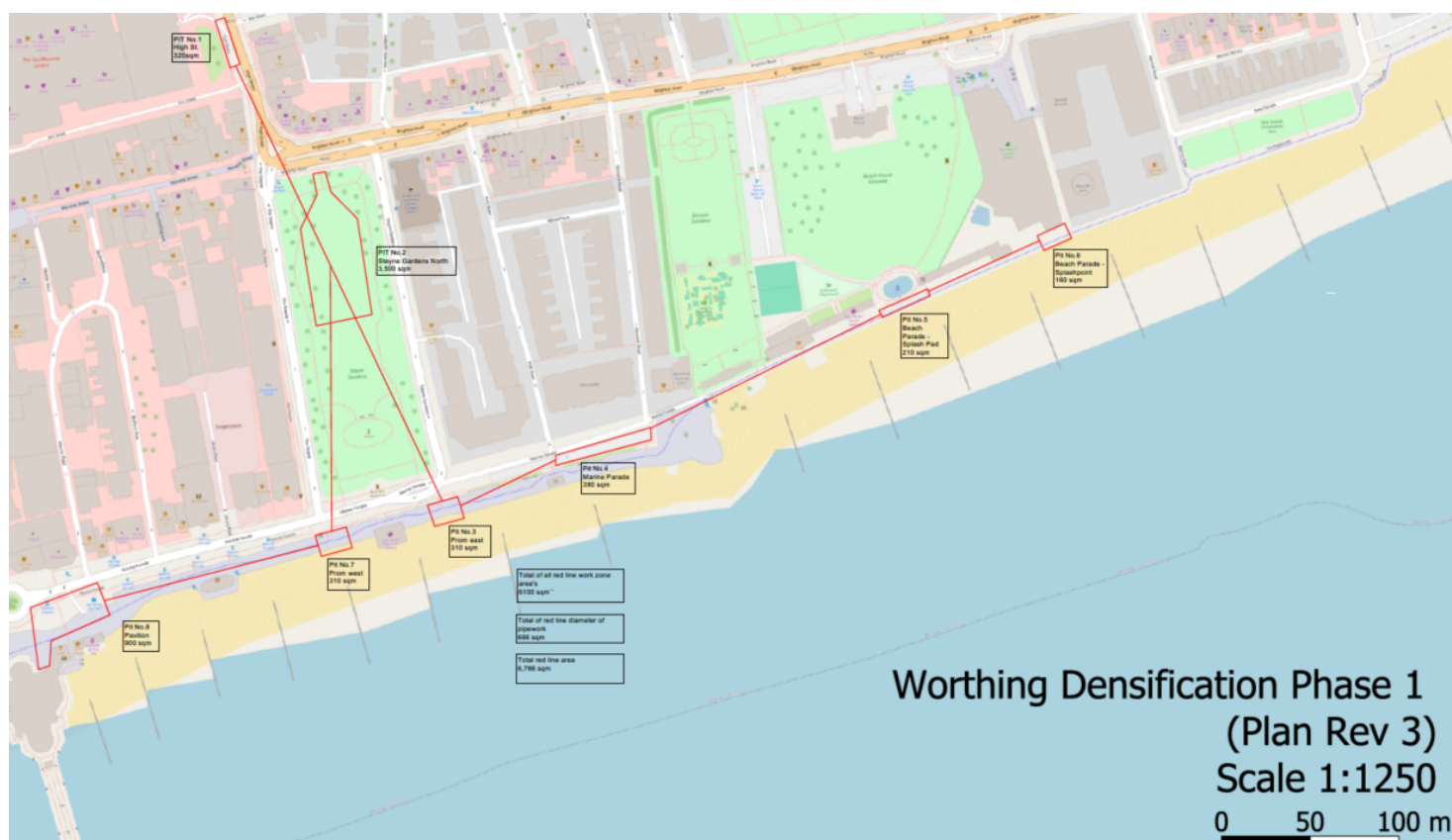


Figure 1 Red Line Boundary for Planning



3. ALTERNATIVES CONSIDERED

During RIBA 1-2 design stage, several alternative options to the red-line route were assessed:

Brighton Road (to Splash Point) - Discounted due to extensive highways traffic management, diversions, parking bay suspensions, and the potential for local loss of tourism revenue.

- Chosen alternative: The promenade and Beach parade (cycle path).

The Steyne (road) - Discounted due to extensive highways traffic management, diversions, parking bay suspensions, and the potential for local loss of tourism revenue.

- Chosen alternative: Steyne Gardens.

Steyne Gardens (road) - Discounted due to extensive highways traffic management, diversions, parking bay suspensions, and the potential for local loss of tourism revenue.

- Chosen alternative: Steyne Gardens.

100% Marine Parade (road east to west) - Discounted due to extensive highways traffic management, diversions, parking bay suspensions, and the potential for local loss of tourism revenue.

- Chosen alternatives: 86% The Promenade. 14% Marine Parade (parking spaces only)

The proposed alignment provides the most robust balance of minimising disruption, deliverability, cost, and future resilience.

4. KEY DECISIONS

The below route decisions have been made following design reviews and stakeholder input:

Steyne Gardens:

- Hemiko have carried out ground investigations with results showing that the route will not impact any buried structures within Steyne Gardens. Please refer to radar scanning and trial hole docs.
- A requirement to reduce construction duration spent within the Highway.
- Extensive engagement with WBC and WSCC members including the Events coordination and Parks teams.

The Promenade:

- Based on a requirement to reduce construction duration spent within the Highway.
- Increase productivity and shorten construction durations by increasing the available construction space within the redline boundary.
- Extensive engagement with WBC members including the Events coordination, concessions, and Engineering (sea defence) teams.

25/11/25 - Horizontal Directional Drill update:

The original proposed route will generally stay the same using HDD, however the highways and construction disruptions and impacts are minimised to localised work zones within 8No. specific areas (launch/receiver pits) instead of open trench works that pose a higher level of



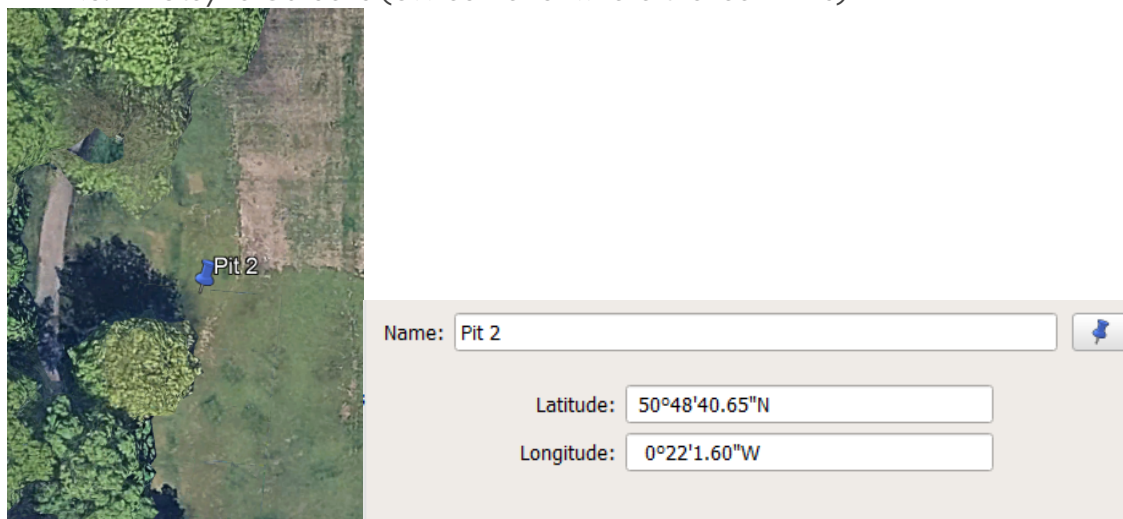
generalised disruption overall. Hemiko's visible presence is reduced, as well as programme durations.

Launch/Receiver pit locations:

PIT No.1 - High St (MSCP NB entrance)



PIT No.2 – Steyne Gardens (SW corner of where the ice rink is)

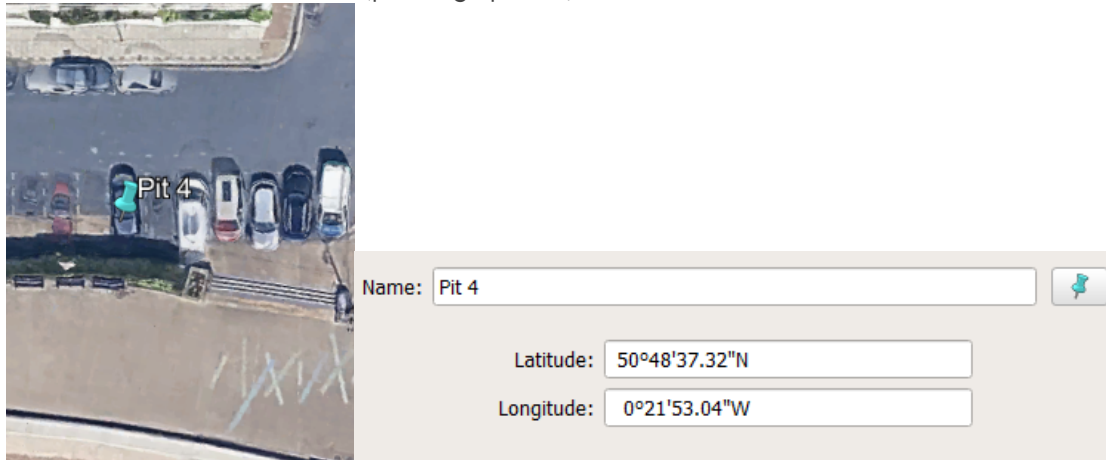


PIT No.3 – Promenade SE of gardens

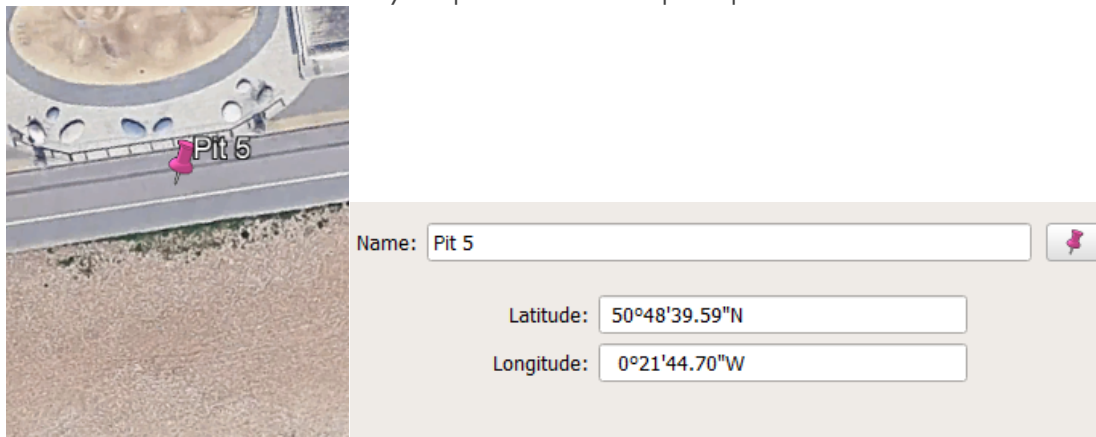




PIT No.4 – Marine Parade (parking spaces)



PIT No.5 – Beach Parade – cycle path – outside splashpad

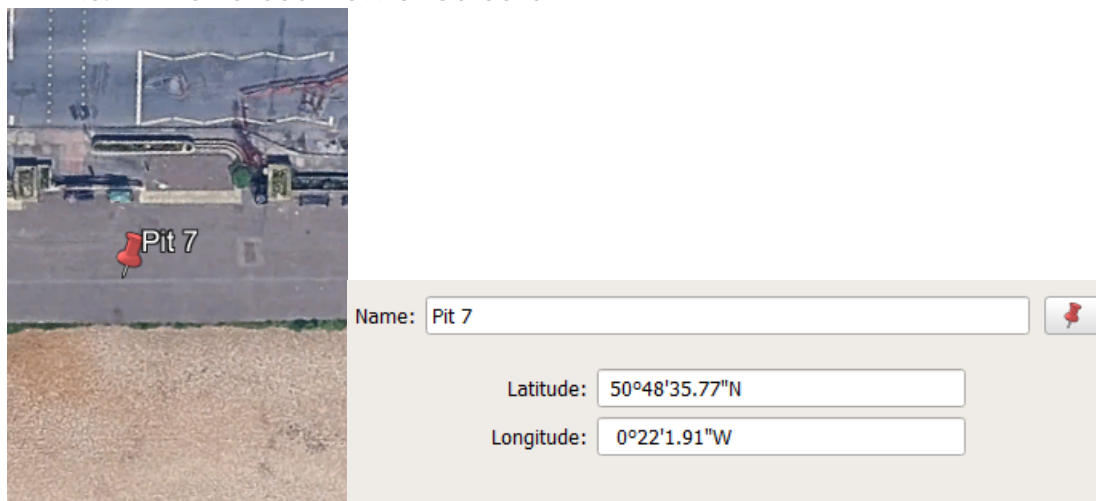


PIT No. 6 – Beach Parade – cycle path – outside Slash point

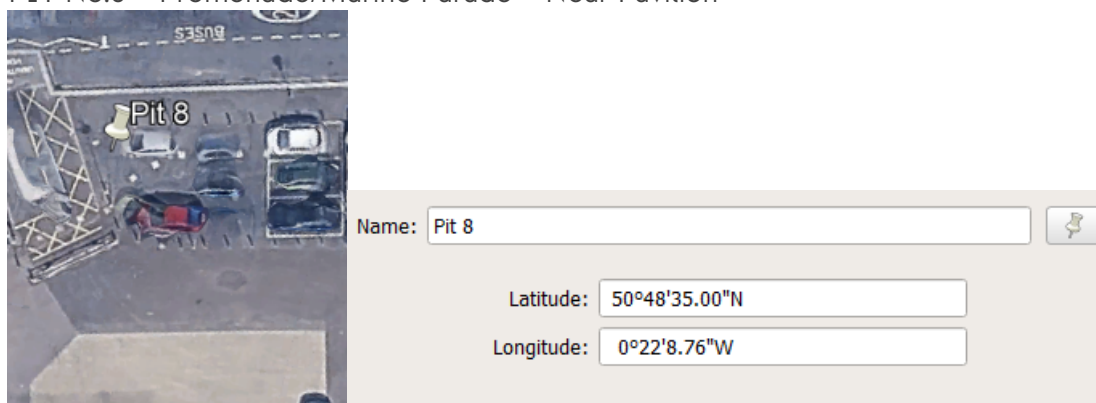




PIT No.7 – Promenade – SW of Gardens



PIT No.8 – Promenade/Marine Parade – Near Pavilion



5. LESSONS LEARNED FROM PHASE 1

Delivery of earlier phases highlighted challenges around traffic disruption, coordination with utilities, and maintaining safe pedestrian access in busy town centre environments. For Phase 1 densification we have taken the following actions:

- Design progression has allowed for the installation method of Horizontal Directional Drilling (HDD) to be feasible.
- Reduced the need to install within the highway where possible.
- Using HDD has scaled down the need for traffic management and has such allowed Hemiko to keep traffic flowing in all directions, whilst drilling is taking place.
- Pedestrian management around the Marine Parade/Promenade area will be designed in collaboration with local businesses and the Ice Rink to maximise and encourage footfall.
- Utility conflicts are being addressed earlier, following detailed radar and trial hole surveys.



- Below ground utility surveys are being modelled in 3 dimensions and will include service diameters. This additional measure allows for more accurate clash detection prior to construction.
- Stakeholder engagement is being carried out further in advance, including with WBC Events and Parks Teams and local businesses to ensure planned works align with local priorities.
- Public realm reinstatement standards have been raised, with WBC-approved landscaping teams engaged for sensitive areas.

6. TREES AND GREEN INFRASTRUCTURE

Survey work confirms that sections of the pipework route alignment pass through the Root Protection Zones (RPZs) of mature trees along the northern and western edges of Steyne Gardens.

Initial arboriculture advice indicates that works can proceed provided protective measures are applied, including:

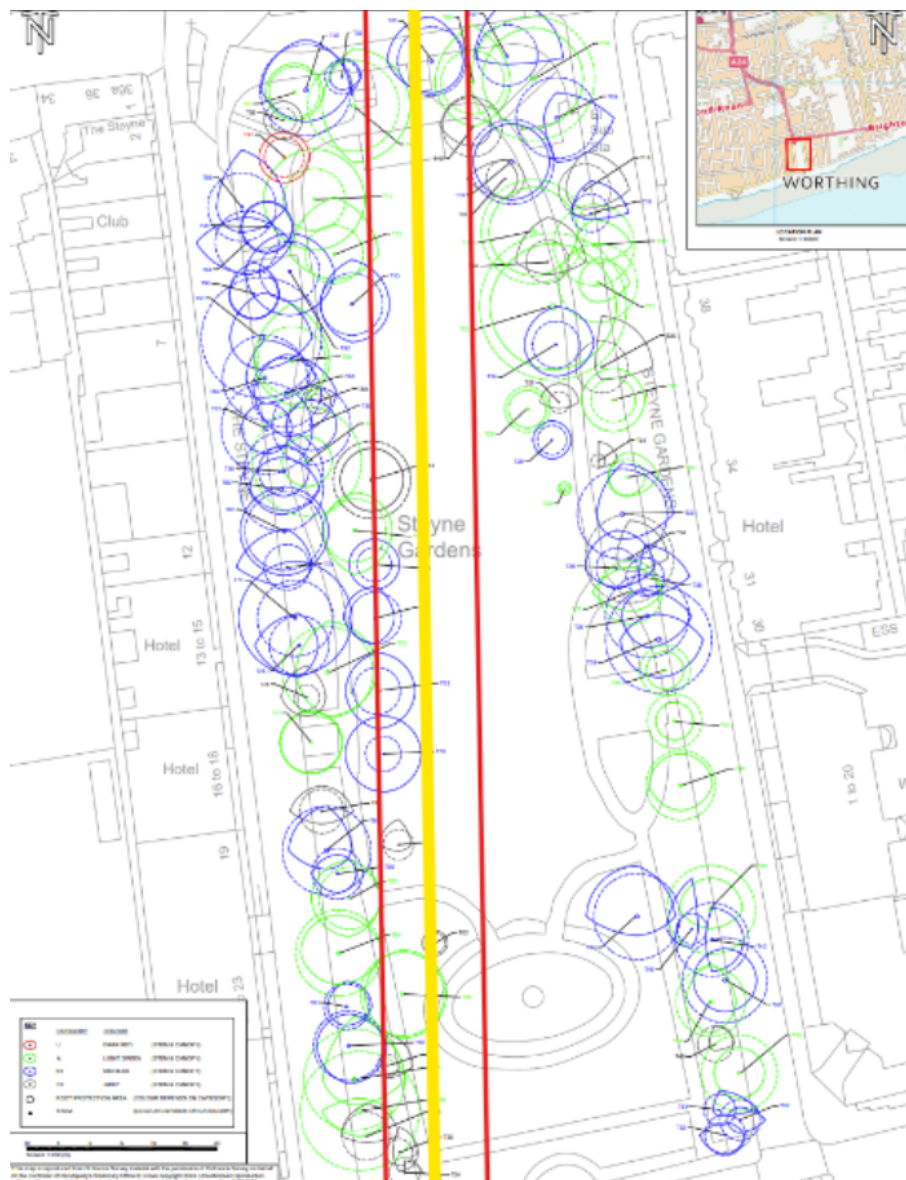
- Tree protection fencing installed prior to works. This will be to an approved method statement.
- Low-impact excavation methods (e.g., air spade or hand digging) in RPZs.
- Arboriculture supervision (“watching brief”) during excavation inside root protection zones.
- Root pruning and wrapping where required.
- Reinstatement of soft landscaping with replacement planting.
- Relocation of the young Ash tree T62

These measures will be implemented under the guidance of WBC’s Arbor cultural officer, ensuring compliance with BS5837 (Trees in relation to design, demolition and construction).

Please refer to PKX-JBAU-XX-XX-FN-Z-0001 – Tree technical note supporting document



Figure 2: Steyne Gardens: Tree plan plus pipe route:



The above tree plan has been overlaid with the planning red line boundary (red) and an indicative trench width of 1.5m (yellow). Based on a straight installation of pipework the trench will encroach on root protection zones of trees: T03, T04, T05, T62, and T63. These are detailed below:



Tree ID Reference	Species	Full Structure	Stem Diameter/s (mm)	RPA	Branch Spread (m)				Height (m)	Crown Clearance (m)	Life Stage	Rem. Contrib.	Physiological Condition	Structural Condition	Bat Potential	Retention Category	Survey Notes	Photo
					North	East	South	West										
T3	English yew (<i>Taxus baccata</i>)	Tree 2 stems	160	Radius: 2.7m. Area: 23 sq m.	3.0	3.0	2.0	2.0	6.0	1.0	Semi Mature	40+ Years	Good	Fair	Low	B	Suppressed. Stems leans slightly north	
T4	London plane (<i>Platanus x hispanica</i>)	Tree	600	Radius: 7.2m. Area: 163 sq m.	9.0	9.0	9.0	5.0	15.0	3.0	Mature	40+ Years	Good	Good	None	A	No visual defects	
T5	European lime (<i>Tilia x europaea</i>)	Tree	450	Radius: 5.4m. Area: 92 sq m.	7.0	5.0	5.0	7.0	14.0	2.0	Early Mature	40+ Years	Poor	Poor	None	B	5 stems forming at 2m. Tight branch unions at fork. Overhangs footpath and highway to north. Wound at base to south west, measures 30cmW x 90cmL.	
T62	Common ash (<i>Fraxinus excelsior</i>)	Tree	130	Radius: 1.6m. Area: 8 sq m.	2.0	2.0	2.0	2.0	6.0	2.0	Young	40+ Years	Good	Good	None	C	No visible defects	
T63	Norway maple (<i>Acer platanoides</i>)	Tree	550	Radius: 6.6m. Area: 137 sq m.	7.0	7.0	7.0	6.0	12.0	5.0	Mature	40+ Years	Fair	Fair	None	A	Close to footpath. Some moderate deadwood present	

During the detailed design stage measures and assessments will be undertaken to maximise and eliminate where possible the proximity risk of the proposed pipe trench in relation to the identified trees and tree roots. This could be through expansion requirements that dictate areas where bends may be required and influence the path of the trench to suit secondary needs, such as root avoidance, or double stacking the pipework in areas which would decrease trench width so that suitable and effective root protection measures can be employed and demonstrated more efficiently, such as the North entrance to Steyne Gardens.

25/11/25 – Horizontal Directional Drill update:

The depth in which the pipework is drilled and then pulled is beneath the 2m depth window usually occupied by mature tree roots. Hemiko intend to drill to a depth of 4.5m to ensure all tree roots are avoided.



7. CONSTRUCTION IMPACTS AND MITIGATION

The works will be delivered in phases from launch pit to receiver pit to minimise disruption. Mitigation measures include:

- Traffic management agreed with the highway authority.
- One working zone on the highway used by vehicles at any one time. High St and Marine Parade
- Safe pedestrian routes always maintained.
- Engagement with the WBC Events Team.
- Engagement with local concession and business owners.
- Using WBC approved landscaping teams for works within Steyne Gardens.
- Early engagement with statutory undertakers to manage utility crossings.
- Pioneering installation methods to speed up construction durations.

8. WORKING TIME

To facilitate the timely completion of works within Steyne Gardens, Promenade (inc. Beach Parade), and the associated highway network, extended working hours are proposed as part of the construction programme. This adjustment is intended to optimise productivity and compress the overall project duration, reducing the cumulative impact of construction activities on the public realm. The extension of site operating hours will allow for sequential and overlapping tasks to be undertaken more efficiently, enabling earlier release and reinstatement of key zones back to operational use.

From a planning perspective, the proposed working hours will remain within the parameters of Section 60 of the Control of Pollution Act 1974 and will be subject to agreement with the Adur-Worthing Planning Authority and Environmental Health Officer. Noise, vibration, and dust management measures will be implemented in accordance with the Construction Environmental Management Plan (CEMP) to ensure compliance with statutory thresholds and best practice guidance (BS 5228). By managing delivery through extended hours, the installation works will not only aim to achieve earlier handover of sensitive areas but also reduce the duration of disruption to businesses, residents, and users of the highway network, thereby aligning with both project objectives and regulatory obligations.

The construction programme will be coordinated to avoid undue interference with periods of high community use and visitor activity, with working practices adapted to minimise disturbance during these sensitive times. Where possible, non-intrusive or low-impact activities will be prioritised on such dates to maintain a balance between construction efficiency and community expectations. This ensures that while the works progress at an accelerated pace, the wider social and cultural calendar of the area is respected.

Extended working hour proposal:

- Monday-Friday: 8am – 7pm
- Saturday: 8am – 7pm
- Sunday: 8am – 7pm



9. BUSINESS AND CONCESSIONS.

Please refer to 'Statement of Community Involvement' document

10. STEYNE GARDENS IMPACTS AND MITIGATION

The route passes through Steyne Gardens, a conservation area, featuring trees, raised flowerbeds, seating, and formal landscaping. To mitigate impact, temporary works will involve:

- Removal, secure storage, and reinstatement of benches, if required.
- Tree and root protection measures.
- Landscaping reinstated to “existing or better” condition, with opportunities to refresh planting schemes in partnership with WBC.
- No impact on the war memorial, which will be protected throughout.

A small benched oval garden lies within the proposed route alignment. Works may require the temporary removal of benches and disturbance to soft landscaping and raised flower beds to the west side.

- Benches will be carefully removed, securely stored, and reinstated in their original positions, or replaced on a like-for-like basis if required due to age and deterioration.
- The garden area will be reinstated to its existing, or better, condition, including replacement planting where required.
- All reinstatement works will be agreed in advance with relevant stakeholders, such as 'Sight Support Worthing' and undertaken in line with good landscaping practice.
- The works shall preserve or enhance the appearance of the conservation areas in accordance with legislation and national and local policies.
- The works involve construction activities in proximity to existing trees. Tree protection plans will be in place and ongoing consultancy with the Abor cultural team regarding root protection will be carried out. A watching brief may be implemented.

Advice taken from independent abororcultural consultants has shown that the proposed route can be achieved without affecting the oval gardens as long as tree protection methods are investigated and adhered too. Please refer to PKX-JBAU-XX-XX-FN-Z-0001 – Tree technical note supporting document.

25/11/25 Horizontal Directional Drilling update:

The use of HDD now allows Hemiko to install beneath the afore mentioned obstacles mentioned in the statement above. Hemiko now intend to the North end of Steyne Gardens only, with no works at ground level in the vicinity of items sited within the South end. These are trees, the sensory garden, and war memorial.

11. PROMENADE IMPACTS AND MITIGATION

Recent public realm improvements along the Promenade have been considered. Construction methodology has been adapted to:

- Minimise break-out of newly paved areas.
- Ensure reinstatement with matching materials.
- Phase works outside of peak visitor periods where possible.
- Store original paving materials for reinstatement.



- Procure matching paving ahead of construction to mitigate any delivery delay regarding breakages.

25/11/25 Horizontal Direction Drill update:

Although launch and receiver pits will need to be constructed on the promenade, using an HDD method has reduced the reinstatement area required by an estimated 95% when compared to open trench.

12. EVENTS AND CONSTRUCTION TIMETABLE

Worthing town centre and seafront host a significant programme of events throughout the year. The construction programme has been developed in consultation with the WBC Events Team to mitigate clashes with major events such as festivals, parades, and markets. Specific measures include:

- Relocation discussion with events during Spring and early Summer 2026.
- Clear pedestrian routes maintained during all works.
- Flexible and extended working hours where appropriate to accelerate delivery outside event windows.
- Advance communication with residents, concession holders, and businesses.

Proposed 2026 events for Steyne Gardens:

Ice Rink – Demobilises 5th March

Running event: 29th April – 5th May (meeting 24th Sept)

Food Festival: 4th June – 8th June (confirmed relocated)

Race For Life: 14th June (confirmed relocated)

Armed Forces Day: 27th – 28th June (Discuss relocating / use half site)

Worthing Pride: 29th June – 7th July (potential to relocate)

Worthing Summer Fate: 11th – 12th July

Worthing Lions Summer Festival: 25th – 26th July

More Radio: 11th – 17th Aug

Rotary Carnival: 29th – 30th Aug

The current construction programme has been sequenced as to try and avoid as many events scheduled for the start of 2026. The above events in green fall outside of the proposed construction dates except for the 29th of April running event. Hemiko intend to either hand Steyne Gardens back for the event window or discuss relocating the event to Beach House. To aid this WBC Events have arranged a call to discuss options on the 24th of Sept.

Those in orange fall just inside/close to the end of the sequencing window, however relocation discussions will progress due to the risk of any unforeseen engineering difficulties during construction that may cause programme delays. The current intention is to accelerate the programme and be demobilised from Steyne Gardens prior to the Armed Forces Day event planned for 27th June.



13. POLICY AND BENEFITS

The project aligns with the Worthing Local Plan (2020–2036), national planning policies, and sustainability objectives. Key benefits include:

- Enabling low-carbon heat supply to major town centre buildings.
- Supporting local climate change commitments and carbon reduction targets.
- Futureproofing infrastructure to expand connections across the town centre.
- Economic benefits through reduced energy costs and resilience of local institutions.

LOCAL POLICY

Local planning policy sets out the criteria that will be used in the determination of planning applications and has been used to inform and guide the design and development of the proposals.

WORTHING BOROUGH COUNCIL LOCAL PLAN DOCUMENT (2020-2036)

Although the Local Plan reflects local issues and choices, there are also some important limitations as the Local Plan must be aligned to, and conform with, European legislation and national planning policies and their support for sustainable development. Most notably, the preparation of the Local Plan has encompassed the requirements of the Government's NPPF. To support the NPPF, the Government has published Planning Practice Guidance (PPG) which has been taken into account. The Local Plan has also been influenced by local strategies, evidence documents and consultation responses.

Government legislation requires that all Development Plan Documents, including Local Plans, must be assessed in terms of their impact on society, the economy and the environment. The Sustainability Appraisal (that incorporates the requirements of the Strategic Environmental Assessment Directive) is an iterative process that is an integral part of plan making. It is used to consider all realistic options for growth and then identifies the significant social, environmental and economic impacts to ensure that the outcomes are as sustainable as possible.

OBJECTIVES

- **social - supporting strong, vibrant and healthy communities;**
- **economic - contributing to building a strong, responsive and competitive economy; and**
- **environmental - enhancing and contributing to our natural, built and historic environment.**



14. CONCLUSION

The proposed Phase 1 densification route has been carefully selected and refined based on technical feasibility, stakeholder engagement, and sensitivity to the local environment. It represents a deliverable and balanced solution that minimises disruption to planned events and necessary works within the highway while enabling substantial long-term benefits. The approach incorporates lessons learned from earlier phases, robust mitigation for trees and public realm, and coordination with Worthing's vibrant town centre programme.

25/11/25 – Horizontal Direction Drill update:

The planning committee meeting held on the 15 Oct 2025 highlighted that Hemiko needed to revise the current pipework installation proposal of open trench and provide a solution that would better suit the DP1 phase of network extension with a key point of minimising disruption at the forefront. This has been achieved by using an installation method of Horizontal Directional Drilling and then pulling specialised pipework through the drilled area using a natural clay bentonite lubricant which fills the void between the tunnel wall and pipework outer casing, which then hardens to provide a safe, cavity free installation.

Used in the UK for overcoming canal, river, train track and motorway crossings, the Brugg pipe system has limitations on size diameters suitable for heat network extensions. Due to the strategic placement of branch tees in Steyne Gardens and adjustments to the Energy Centre pump flow rates, Hemiko have been able to approve this system for use on this phase of works. Not all heat networks and situations are suited to this methodology.

The below links show an example of the same pipework proposed for DP1 being installed by the pipe manufacturer, Brugg:

General pull and reels: https://youtu.be/X_T9DwPZwmU?si=YY7PijiBfdq2_ncC

River crossing: https://youtu.be/ZCqdRptSvBc?si=2tgu5_URvmK-Z5Su

Within the highway: https://youtu.be/GebdJ5SeifU?si=F4HS1T2itXG7_lEq