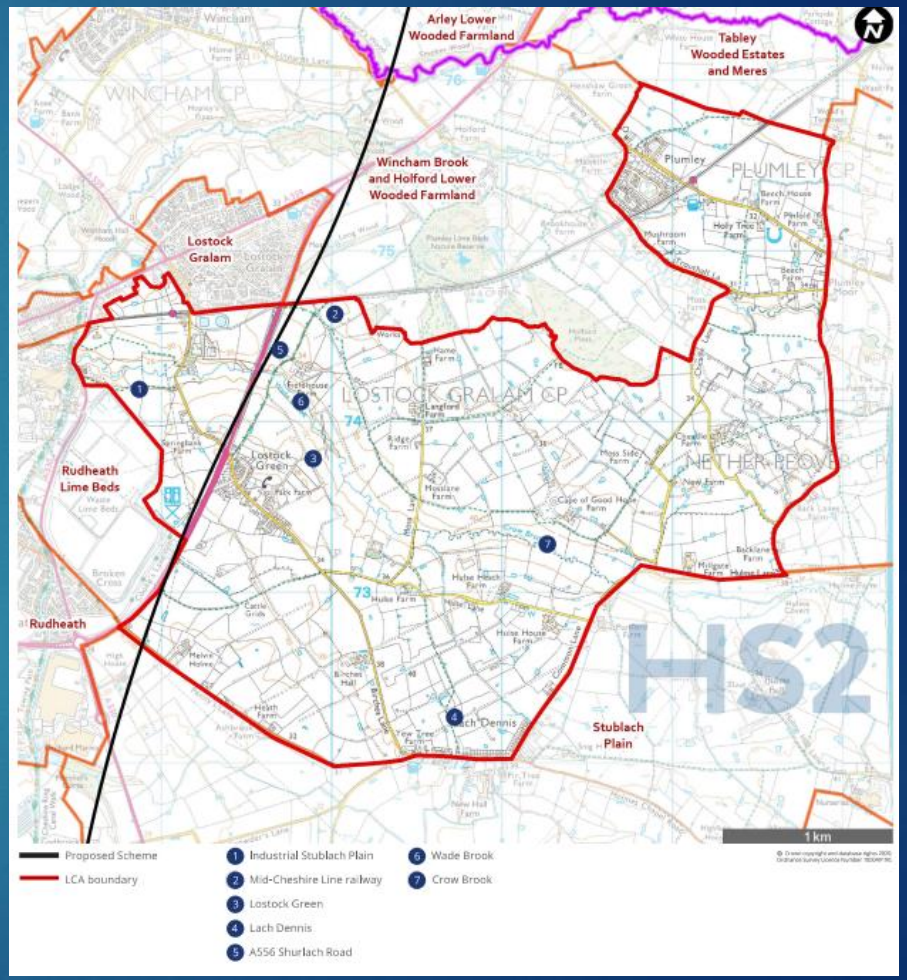
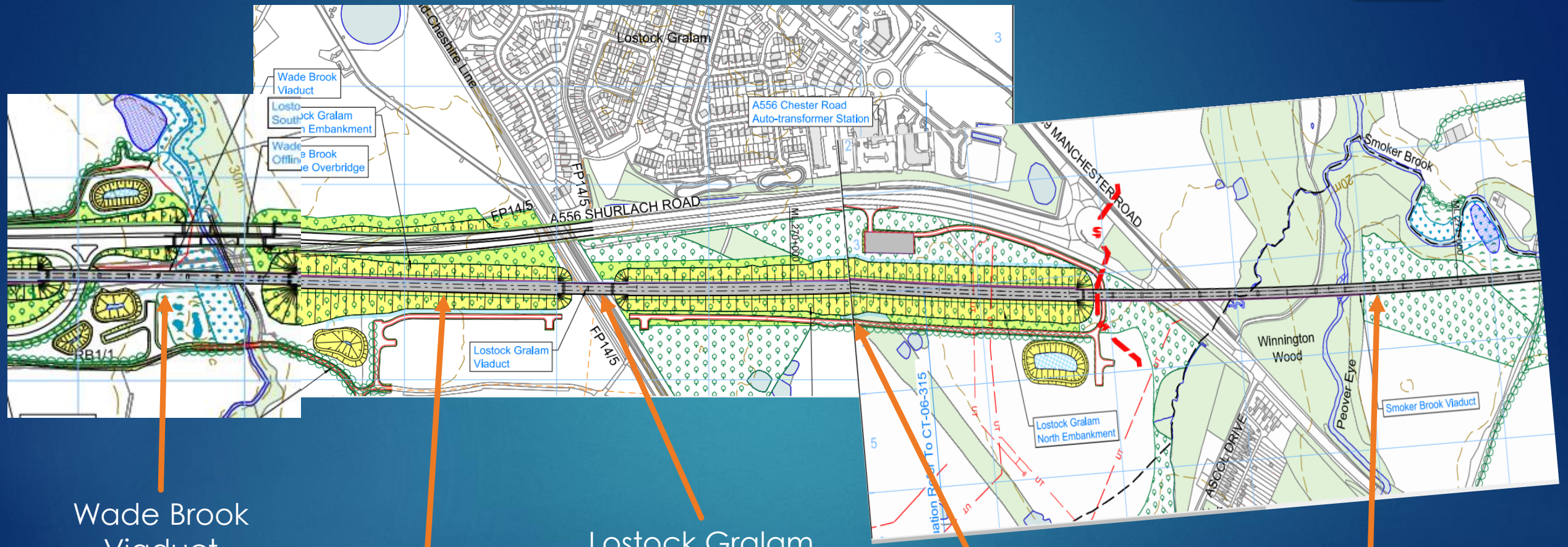
HS2 Phase 2b

LOSTOCK GRALAM



Local Area Route



Wade Brook Viaduct

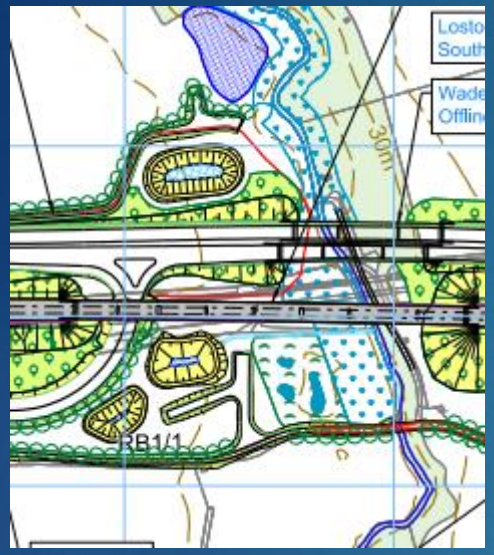
Lostock Gralam South Embankment

Lostock Gralam Viaduct

Lostock Gralam North Embankment

Smoker Brook Viaduct

Wade Brook Viaduct

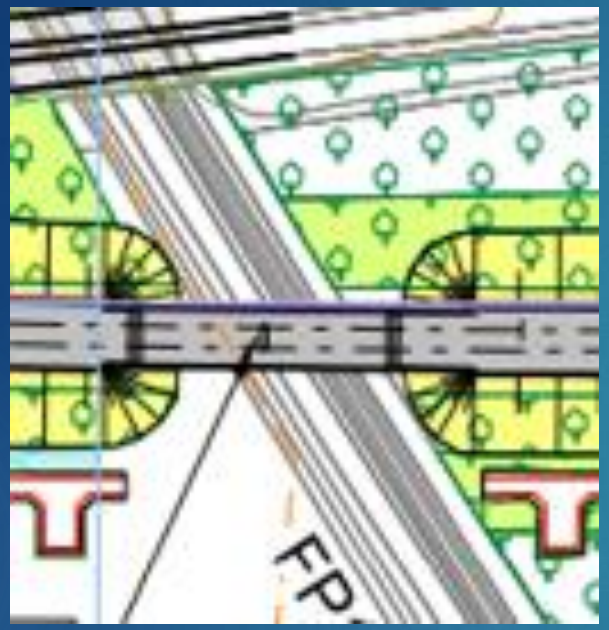


Wade Brook viaduct, 285m in length and up to 20m in height

Lostock Gralam South Embankment

Lostock Gralam South embankment, 353m in length and up to 14m in height, with landscape mitigation planting on both sides to help integrate the Proposed Scheme into the surrounding landscape (see Volume 2: MA02 Map Book, map CT-06-315, F5 to H6);

Lostock Gralam Viaduct



Lostock Gralam viaduct, 62m in length and up to 9m in height (see Volume 2: MA02 Map Book, map CT-06-315, H6);

Lostock Gralam Viaduct

Lostock Gralam North Embankment

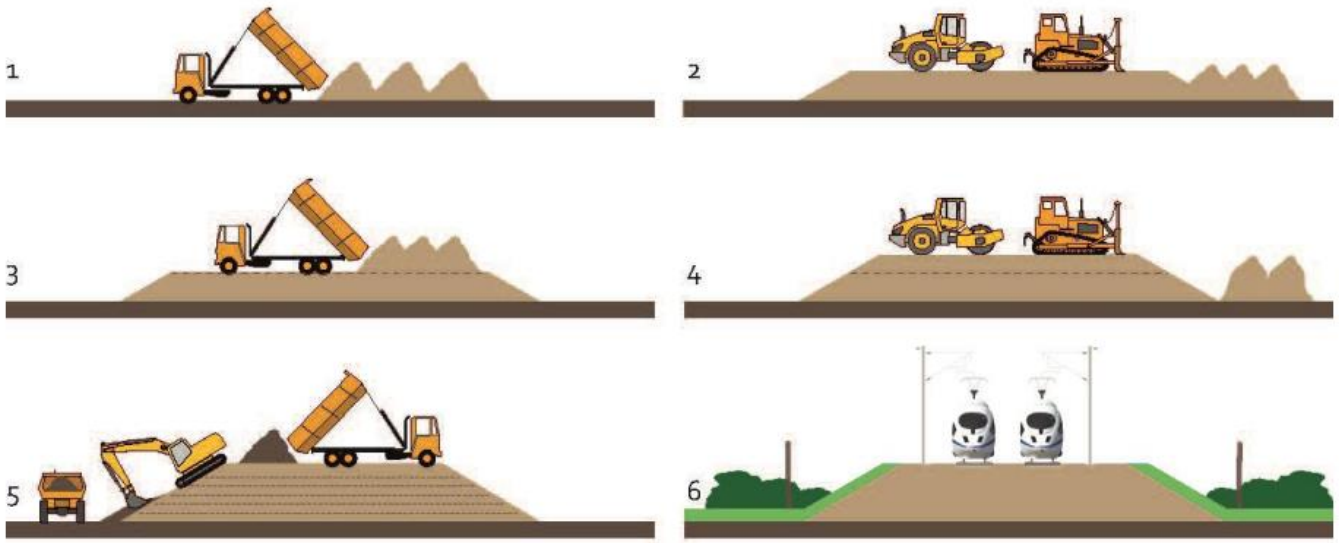
Lostock Gralam North embankment, 655m in length and up to 14m in height, with landscape mitigation planting on both sides to help integrate the Proposed Scheme into the surrounding landscape (see Volume 2: MA02 Map Book, map CT-06-315, H6 to map CT-06-316a, B4);

Smoker Brook Viaduct

Smoker Brook viaduct, 806m in length in this area and up to 25m in height (see Volume 2: MA02 Map Book, map CT-06-316a, B4 to F4);

Embankments

Figure 27: Illustration of a generic construction sequence for an embankment



Earthworks will include the bulk excavation of material and placing of that material to create the route of the Proposed Scheme. Embankments may be built in stages, commencing early in the construction programme, to allow uniform settlement and compaction to occur.

Viaducts

Viaducts will generally be constructed by:

- installing the construction access and working platform;
- constructing foundations and piers from the platform, installing concrete piles, excavating pile caps and constructing pile caps and support piers, followed by backfilling of excavations;
- constructing abutments, including excavating and constructing the pile mat, installing piles, constructing the abutment base and wall, and backfilling; and
- constructing the deck using either launched, in-situ construction or beam and deck solution.

Figure 18: Cross-section of a generic viaduct including parapet noise fence barrier

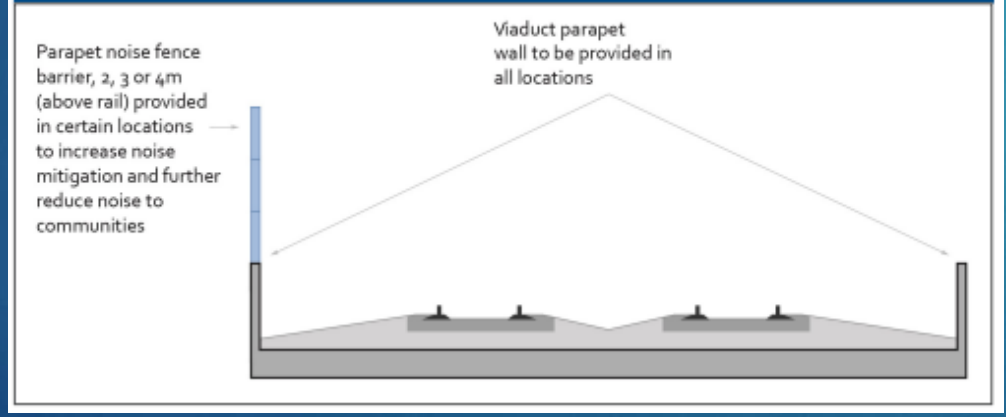
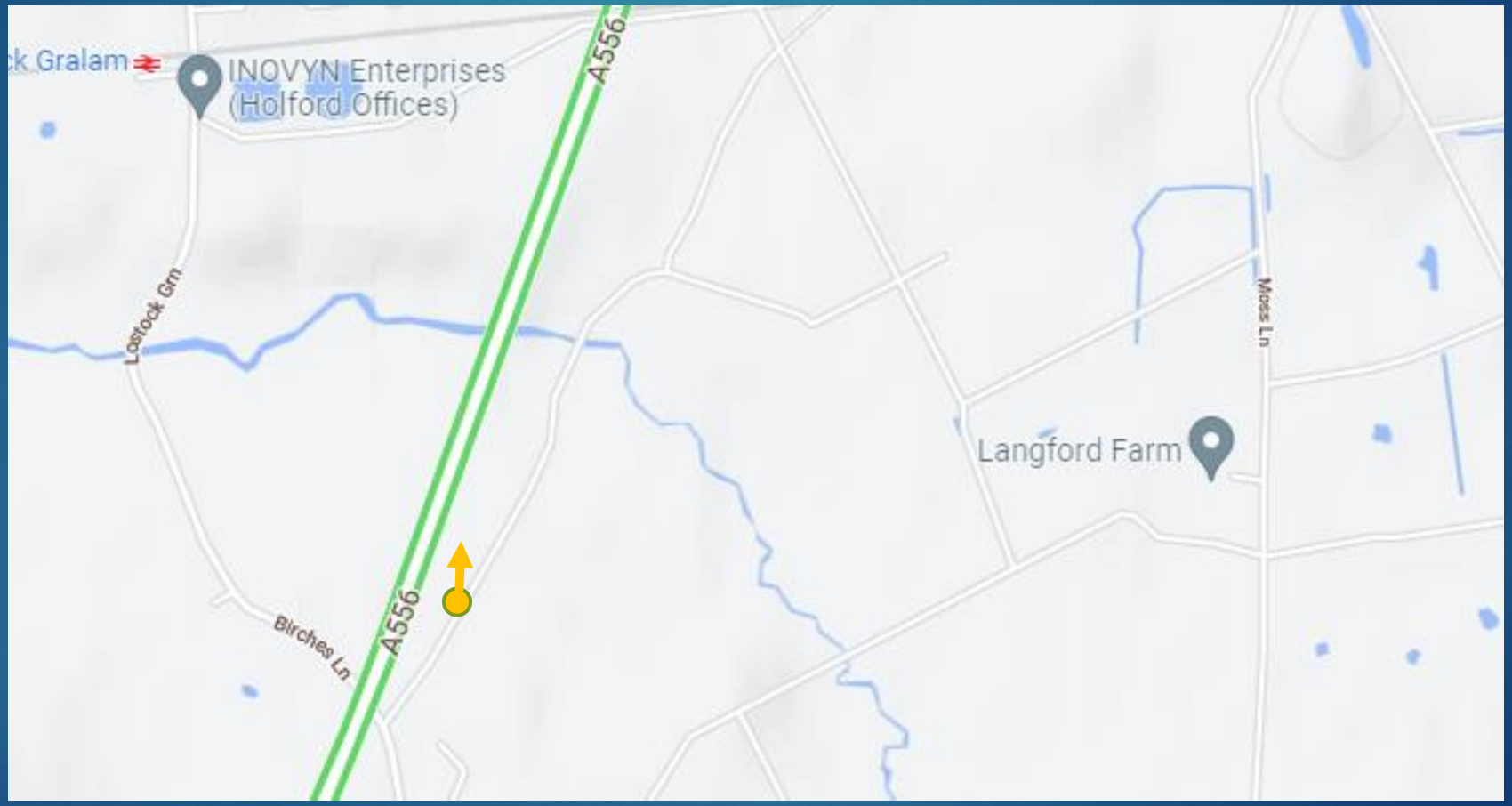
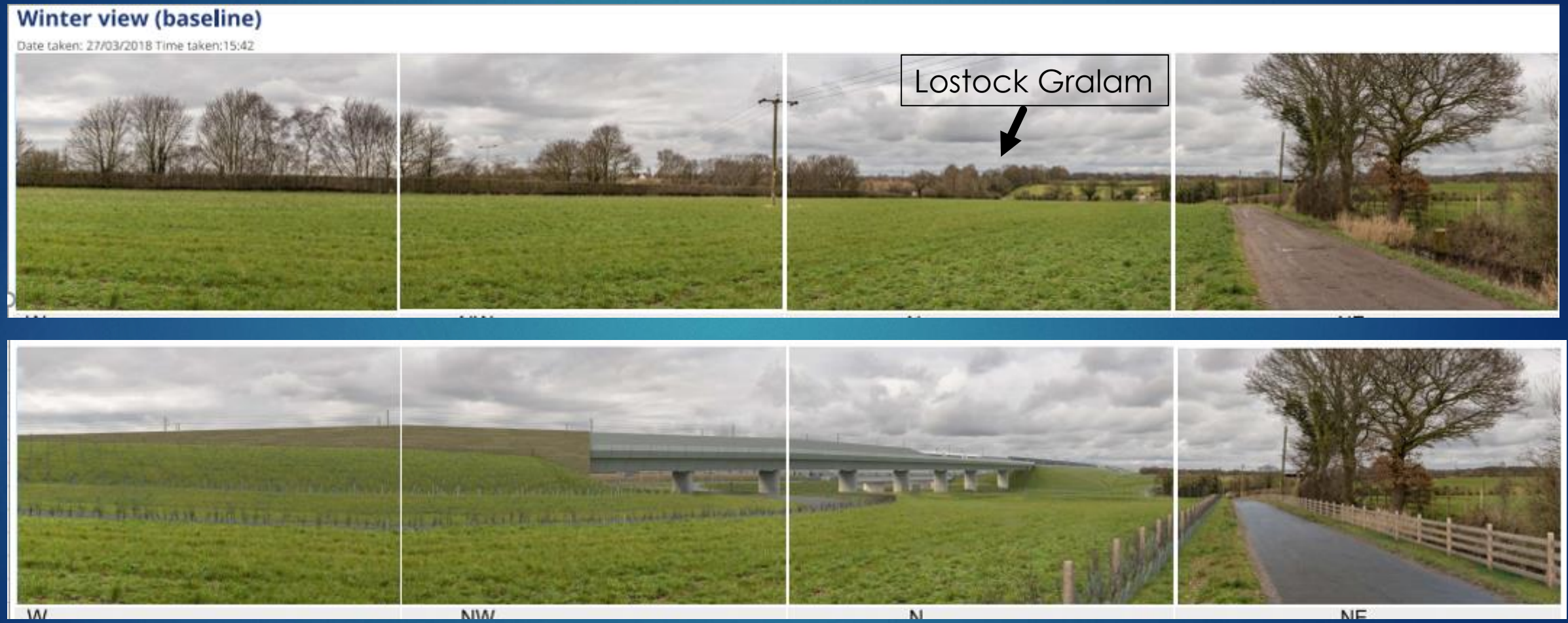


Figure 6: Illustration of a generic high viaduct

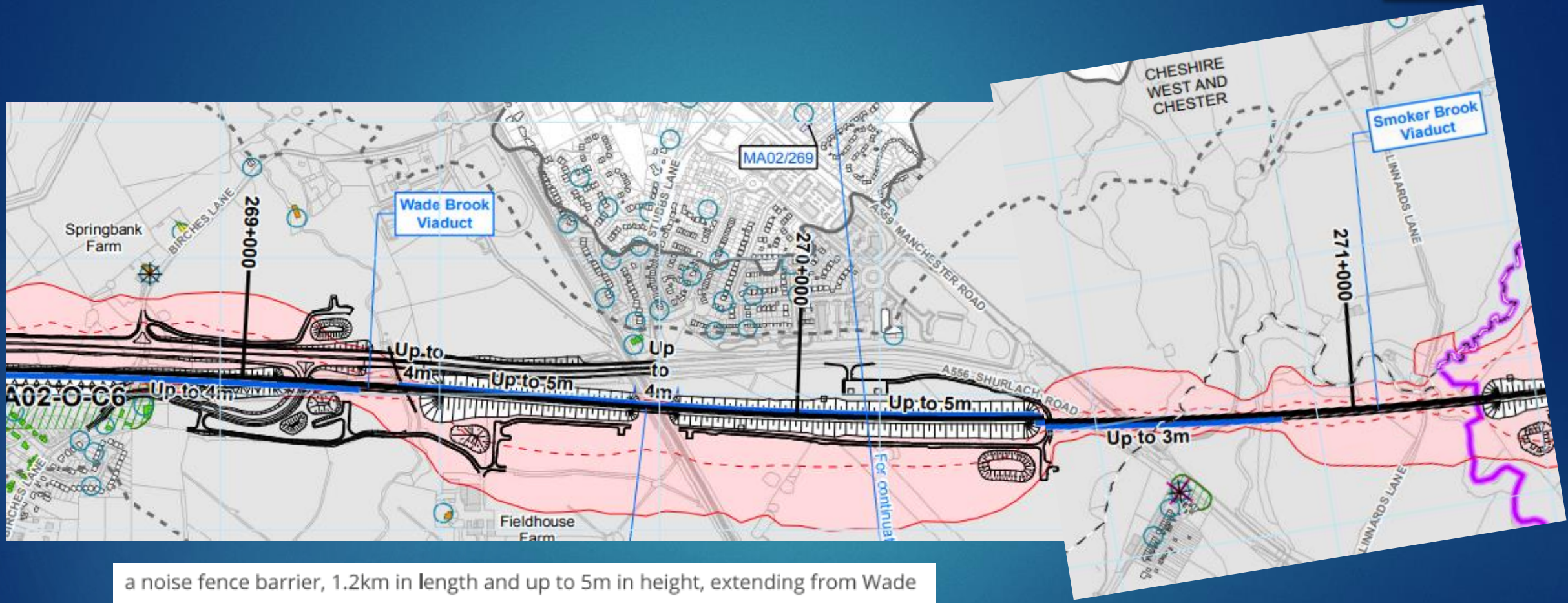
Wade Brook Viaduct



Wade Brook Viaduct

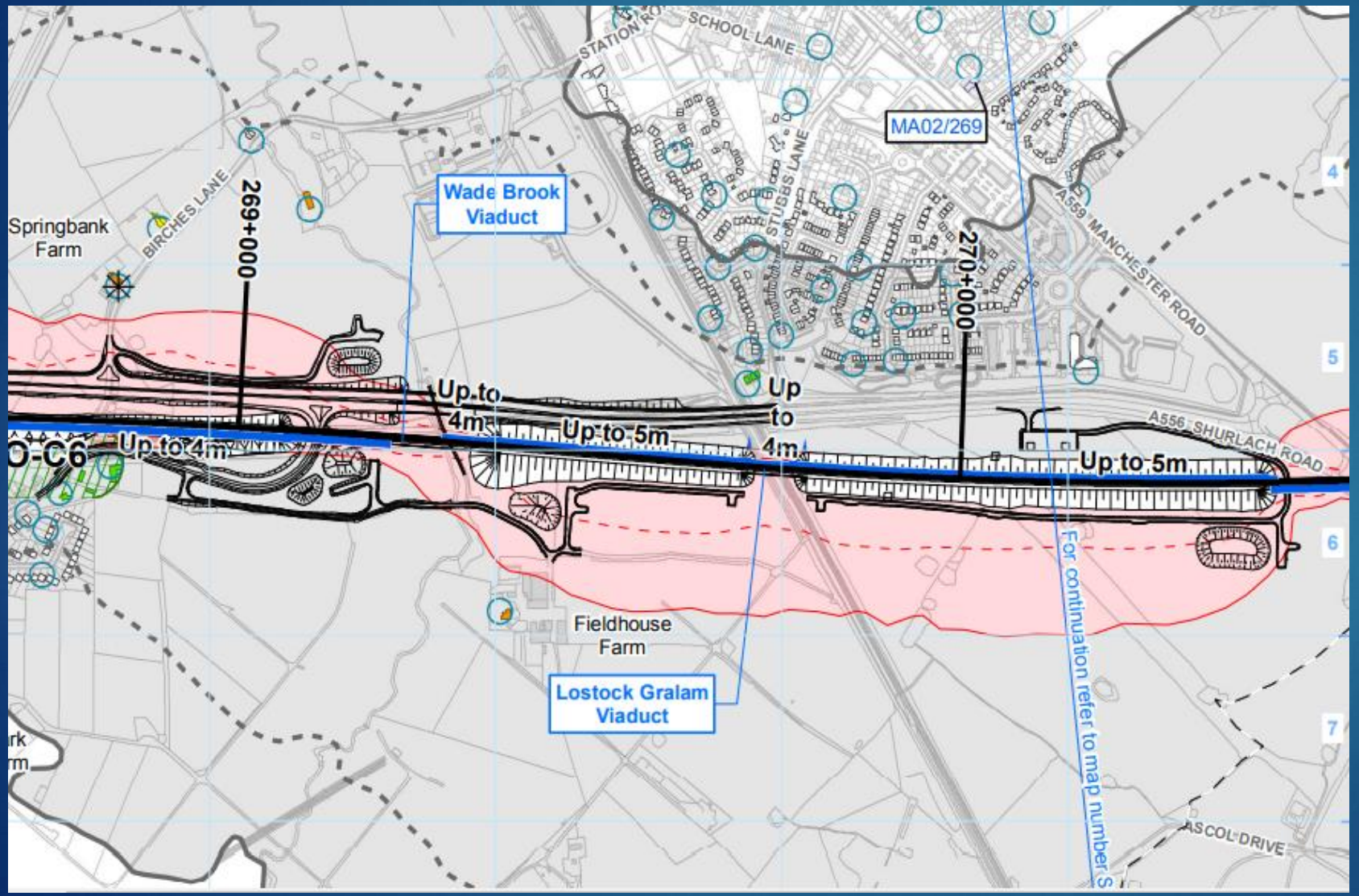


Noise Mitigation



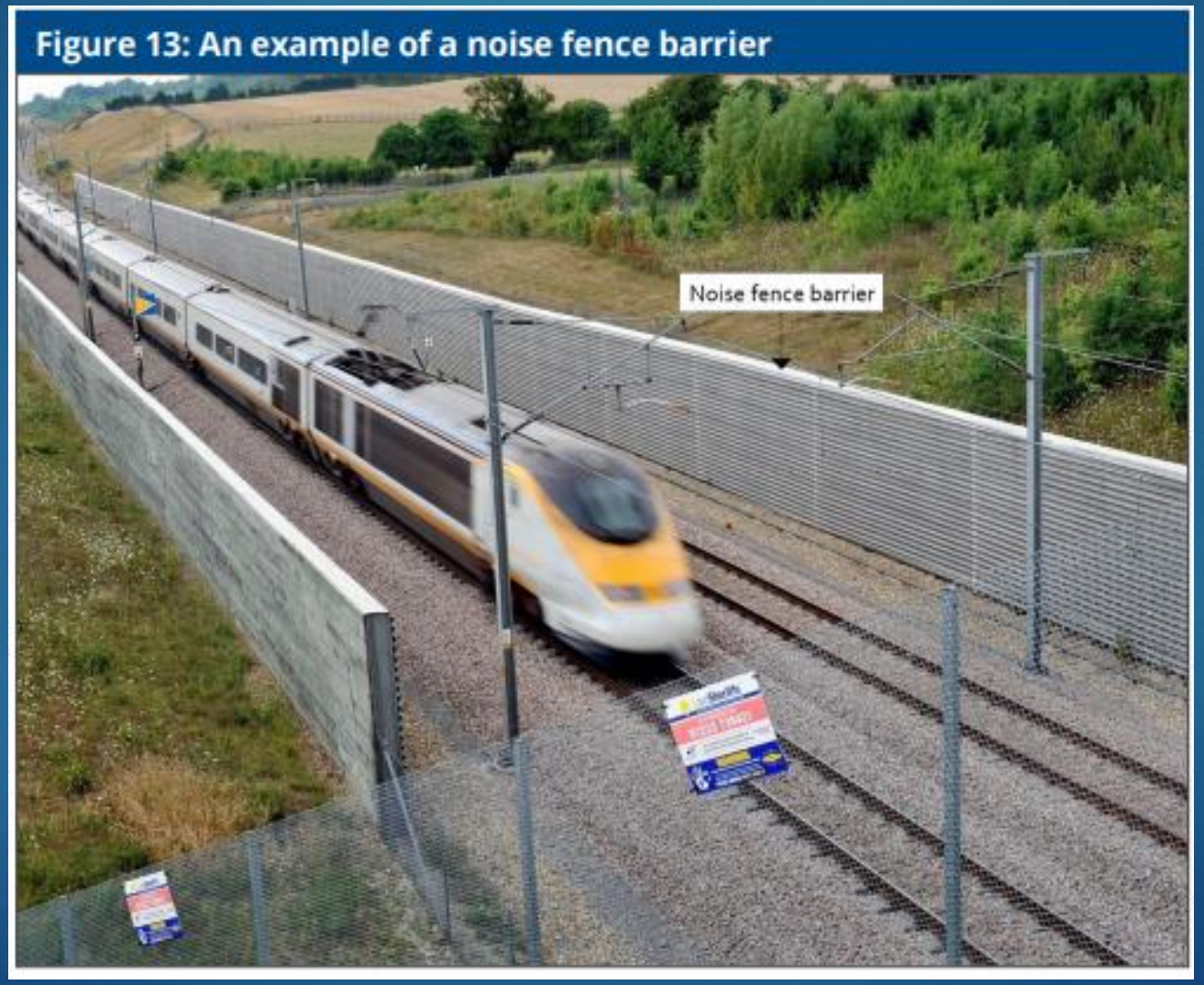
a noise fence barrier, 1.2km in length and up to 5m in height, extending from Wade Brook, along the western side of Wade Brook viaduct, Lostock Gralam South embankment, Lostock Gralam viaduct, to the northern end of Lostock Gralam North embankment, to provide acoustic screening for properties in Lostock Gralam (see Volume 2: MA02 Map Book, map CT-06- 315, E5 to map CT-06- 316a, B4);

Noise Mitigation

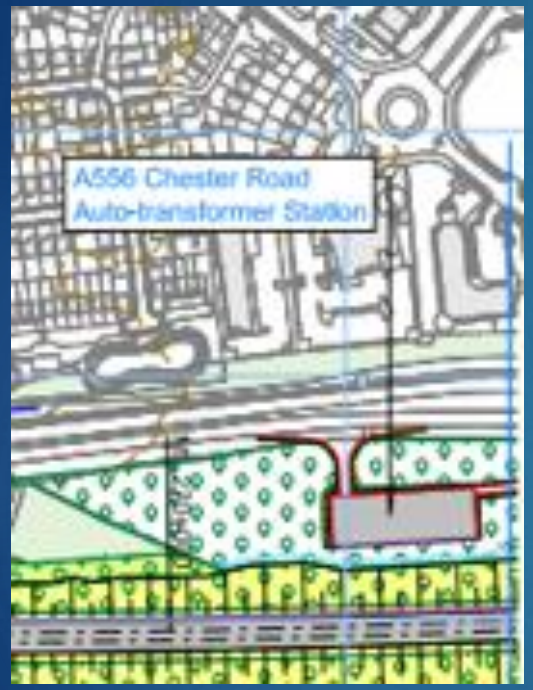


HS2 (rail only) noise level $L_{pAeq,T}$	
Night-time $L_{pAeq,T}$ (T=23:00 to 07:00)	Daytime $L_{pAeq,T}$ (T=07:00 to 23:00)
> 55 dB	> 65 dB
40 to 55 dB	50 to 65 dB
< 40 dB	< 50 dB

Noise Mitigation



Auto Transformer Station A556



A556 Chester Road auto-transformer station, 75m by 26m in area, to the west of the Proposed Scheme, including a railway telecommunications mast up to 20m in height and signalling equipment. Access will be provided from the A556 Shurlach Road (see Volume 2: MA02 Map Book, map CT-06-315, I5 to J5);

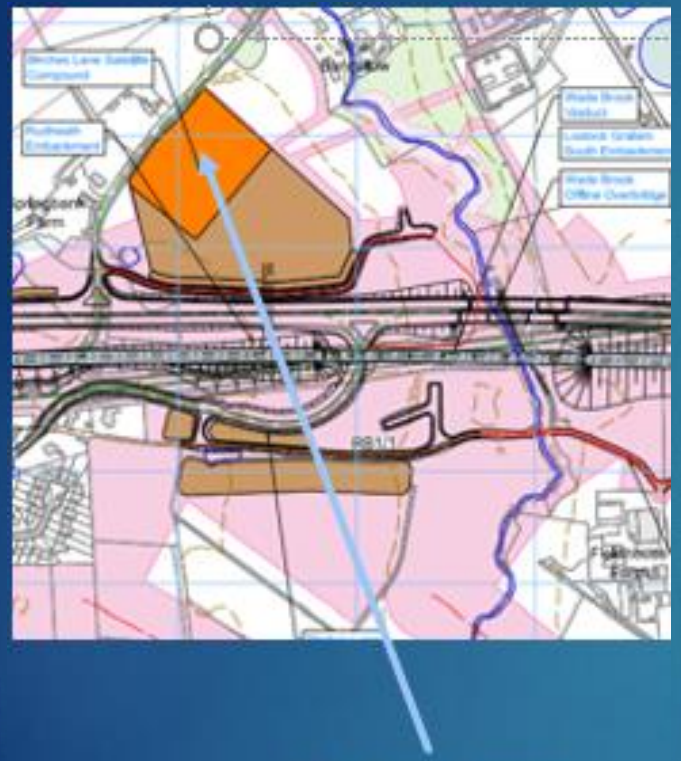
Compounds

Birches Lane Satellite Compound

Lostock Gralam Viaduct Compound

Smoker Brook Compound

Birches Lane Compound



6 years and 6 months, commencing in 2025

An average of 30 workers per day, with 150 workers and 45 staff at peak times

No worker accommodation

Core site operating hours of 08:00 to 18:00 on weekdays and 08:00 to 13:00 on Saturdays

Table 8: Demolitions required as a result of the works to be managed from Birches Lane satellite compound

Type	Description	Location	Feature resulting in demolition
Residential	Four residential properties	Birches Lane, Lostock Gralam	Rudheath embankment
Residential	One property	Birches Lane, Lostock Gralam	Rudheath embankment

The works to be managed from this compound will require the temporary realignment of the A556 Shurlach Road over a distance of 233m, 30m north of its existing alignment, which will take nine months to complete. The junction with Birches Lane will be reinstated once Wade Brook viaduct and Lostock Gralam viaduct works are complete.

Lostock Gralam Viaduct Compound

1 years and 6 months, commencing in 2028

An average of 30 workers per day, with 170 workers and 45 staff at peak times

No worker accommodation

Lostock Gralam viaduct (along with Smoker Brook viaduct south satellite compound), which will take one year and three months to complete.

Smoker Brook Viaduct Compound

4 years and 6 months, commencing in 2027

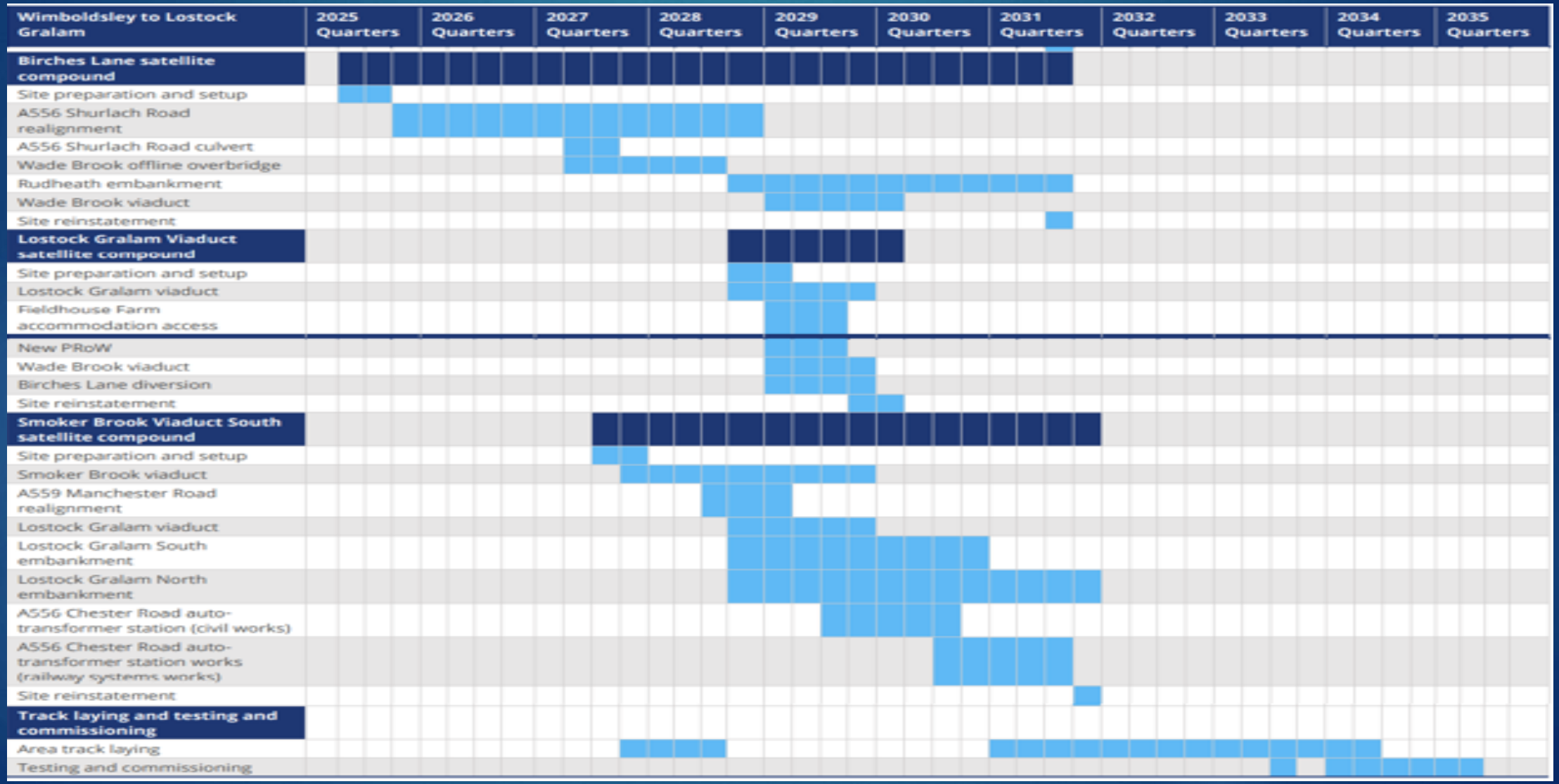
An average of 30 workers per day, with 140 workers and 60 staff at peak times

No worker accommodation

Will cover both Civils and Systems Work

The compound will be used to manage the construction and installation of the A556 Chester Road auto-transformer station. The construction of the A556 Chester Road auto-transformer station foundations and building will take one year and three months to complete. The construction and installation of the A556 Chester Road auto-transformer station will take two year and six months to complete.

Timeline


Wimboldsley to Lostock Gralam
2025 Quarters
2026 Quarters
2027 Quarters
2028 Quarters
2029 Quarters
2030 Quarters
2031 Quarters
2032 Quarters
2033 Quarters
2034 Quarters
2035 Quarters
Birches Lane satellite compound
Site preparation and setup
A556 Shurlach Road realignment
A556 Shurlach Road culvert
Wade Brook offline overbridge
Rudheath embankment
Wade Brook viaduct
Site reinstatement
Lostock Gralam Viaduct satellite compound
Site preparation and setup
Lostock Gralam viaduct
Fieldhouse Farm accommodation access
New PRoW
Wade Brook viaduct
Birches Lane diversion
Site reinstatement
Smoker Brook Viaduct South satellite compound
Site preparation and setup
Smoker Brook viaduct
A559 Manchester Road realignment
Lostock Gralam viaduct
Lostock Gralam South embankment
Lostock Gralam North embankment
A556 Chester Road auto-transformer station (civil works)
A556 Chester Road auto-transformer station works (railway systems works)
Site reinstatement
Track laying and testing and commissioning
Area track laying
Testing and commissioning

Implication on area

- Permanent re-alignment A556
- 1.2 kilometres of embankment and viaducts
- 3 large construction compounds
- 6 ½ years build program (Compounds, Viaducts, Embankments etc.)
- Significant re-landscaping (tree planting on embankments)
- Extensive Utility diversions (Gas, Overhead Power lines etc.)
- Large increase in traffic movements (HGVs, Abnormal Loads etc)
- Minor diversions of roadways (temporary closures)
- Significant visual impact for Lostock Triangle residents
- Increase in noise and vibration

Template

Spare slides after this one