

Appendix F

Workshop Minutes

Meeting Notes

A96 Dualling East of Huntly to Aberdeen Corridor Options – Sifting Workshop No.1

Purpose of Meeting To review engineering, environmental and traffic constraints and opportunities for each Corridor Option and sift any poorer Corridor Options out prior to the development of First Fix Alignments.

Location: Arup, 1 West Regent Street, Glasgow

Time/Date: 10.00 – 16.00, 9 February 2018

Attendees: [REDACTED] – Transport Scotland – A96 East of Huntly to Aberdeen Project Manager
[REDACTED] – AmeyArup – Contract Director
[REDACTED] – AmeyArup – Contract Manager
[REDACTED] – AmeyArup – Deputy Contract Manager
[REDACTED] – AmeyArup – Roads and Infrastructure Manager
[REDACTED] – AmeyArup – Roads and Infrastructure Manager
[REDACTED] – AmeyArup – Senior Roads and Infrastructure Design Engineer
[REDACTED] – AmeyArup – Senior Roads and Infrastructure Design Engineer
[REDACTED] – AmeyArup – Senior Roads and Infrastructure Design Engineer
[REDACTED] – AmeyArup – Senior Roads and Infrastructure Design Engineer
[REDACTED] – AmeyArup – Senior Hydrological Specialist
[REDACTED] – AmeyArup – Roads and Infrastructure Design Engineer
[REDACTED] – AmeyArup – Roads and Infrastructure Design Engineer
[REDACTED] – AmeyArup – Roads and Infrastructure Design Engineer
[REDACTED] – AmeyArup – Senior Geotechnical Specialist
[REDACTED] – AmeyArup Structures Manager
[REDACTED] – AmeyArup – Transportation Manager
[REDACTED] – AmeyArup – Senior Transportation Specialist
[REDACTED] – AmeyArup – Senior Transportation Specialist
[REDACTED] – Amey Arup – Environmental and Landscaping Manager
[REDACTED] – AmeyArup – Senior Environmental Specialist
[REDACTED] – AmeyArup – EIA Co-ordinator
[REDACTED] – AmeyArup – Senior Landscape Specialist
[REDACTED] – AmeyArup – Senior GIS Specialist
[REDACTED] – AmeyArup – Stakeholder Co-ordinator

Prepared by [REDACTED]

Date of circulation

Date of next meeting

Apologies:

Circulation: All attendees

Item	Notes	Actions
1.0	<u>Introductions and Background</u>	
	█ introduced the meeting and explained the purpose of the meeting which was to review the appraisal of the Corridor Options.	
1.2	█ explained the sifting methodology and the progressive phases including the development of Corridor Areas from the improvement strategies, the identification of Corridor Options and then how the development of First Fix and Second Fix alignments will follow.	
1.3	█ explained that all the Corridor Areas had been assessed against the Scheme and Programme Objectives. All Corridor Areas progressed to the Corridor Options stage.	
1.4	█ outlined some of the environmental constraints within the study area. █ stated there were no internationally designated environmental constraints such as Ramsars or World Heritage Sites. However, there were other environmental constraints within the study area including five Garden and Designed Landscapes (GDL), two battlefield sites, numerous listed buildings and Scheduled Monuments, and several Site of Special Scientific Interest (SSSI). In addition, there is Ancient Woodland and Woodland scattered across the study area and the Bennachie Special Landscape Area (SLA) identified in the Aberdeenshire Local Development Plan (ALDP). █ also noted that prime agricultural land is located in the study area.	
1.5	█ outlined the development of the High Impact Areas (HIA) based on the high impact constraints identified. The high impact constraints were identified as constraints tied to national designations (e.g. battlefields and GDLs) and topographical constraints where there were areas of high ground and large areas of steep terrain with slopes typically greater than 25% (1 in 4). The HIAs were then developed based on the high impact constraints and the geometry required to achieve a compliant alignment. █ stated that this was an iterative process and that the HIAs may be reinvestigated during the assessment process, if required.	
1.6	Corridor Options were then briefly described. HIAs used to define the Corridor Options within each Corridor Area, each Corridor Option being broadly 2km wide. The online Corridor Options were centred on the line of the existing A96. The online corridor has been split into four Corridor Options as detailed below: Online Corridor North (OLN) – East of Huntly to Colpy Online Corridor Central (OLC) – Colpy to Inveramsay Online Corridor Inverurie (OLI) – Inveramsay to Port Elphinstone Online Corridor South (OLS) - Port Elphinstone to Craibstone	
1.7	█ explained the southern Corridor Options and how a natural split developed in the Corridor Area C due to the pinch point created by the HIA associated with the topography at Bennachie. This allowed the development of Northern and Southern Corridor Options for Corridor Area C.	
1.8	█ explained how the HIAs around Corridor Area B Inverurie North, Corridor Area B+ Inverurie North and Corridor Area D+ had defined a single broadly 2km wide Corridor Options.	

Item	Notes	Actions
1.9	<p>█ asked if areas outside the Strategic Environmental Assessment (SEA) boundary had been considered during Corridor Option development. This was to allow all options to be considered without missing anything. AmeyArup to consider Corridor Options that extend outside SEA boundary where appropriate and if considered necessary.</p>	AmeyArup
1.10	<p>█ explained the process used to assess the Corridor Options. Each option has been assessed against the scheme and programme objectives and the Scottish Transport Appraisal Guidance (STAG) criteria with the duplicated criteria sifted out. The Corridor Options have been appraised to identify better performing Corridor Options using a five-point scale.</p>	
2.0	<u>Corridor D+</u>	
2.1	<p>█ explained the topographical constraints associated with Corridor Option D+01 and the ridge that runs across the extent of the Corridor Option. This would create large cuttings or embankments. The earthworks associated with the crossing the ridge result in D+01 scoring Major Adverse Impact in the assessment.</p>	
2.2	<p>Corridor Option D+02 is a link back to OLN Corridor Option and only functions if Corridor Option D+01 is taken forward. Corridor Option D+02 crosses the Glen Water/Urie Valley so there will be a large earthworks/structure required to tie into the OLN Corridor Option.</p>	
2.3	<p>█ stated that the Corridor Options in D+ had areas of peat, shallow rock and compressible material. There is also an area of sands and gravels which may allow material to be borrowed. There may be issues associated with slope stability due to the steep slopes within the D+ Corridor Options.</p>	
2.4	<p>Corridor Option D+01 is generally slightly lower than the existing A96 and there are no major flooding or utility issues.</p>	
2.5	<p>█ stated that materials cannot be assessed at this stage but will be assessed during the later stages of the appraisal. █ noted there were few air quality or noise receptors as the area was sparsely populated. █ noted that Corridor Option D+01 was one of the better scoring environmental Corridor Options.</p>	
2.6	<p>█ stated that a predominantly qualitative approach to assessing the landscape and visual impact had been used at this stage. █ stated that highly sensitive areas had been identified which will require some form of mitigation. █ stated a more focused appraisal will take place when the alignments are presented. Crossing the two ridges in the north of D+01 Corridor Option will result in large visual and landscape impact.</p>	
3.0	<u>Corridor D</u>	
3.1	<p>All Corridors Options D01, D02 and D03 allow connections to Corridor Options D+01 and OLN at Colpy. The Corridor Options are constrained by the existing electricity pylons and settlements. There is also the potential to use the existing A920 road corridor within the D03 Corridor Option and all three Corridor Options can connect into a northern Inverurie bypass.</p>	
3.2	<p>█ stated there are a number of watercourse crossings within the D Corridor Options which would require bridge structures. █ stated the bridges were unlikely to be significant. █ to review if bridges will be required at all watercourse crossings and check where SEPA may accept culverts.</p>	AmeyArup
3.3	<p>█ stated Corridor Option D03 has the most peat (based on the BGS geological map review) of any of the Corridor Options within the study area. There is potential for more peat to be present across the site due to the areas identified as compressible alluvial deposits. █ stated there is fairly limited</p>	

Item	Notes	Actions
	GI with most of the existing GI located in the south of the study area adjacent to the existing A96, comprising of mainly shallow boreholes.	
3.4	█ explained that Corridor Option D03 contains National Grid gas pipelines so has been scored as Adverse Impact from a utilities point of view.	
3.5	Within Corridor Option D02 there are two Major Adverse impacts for air quality and noise due to the proximity settlements. There are generally higher levels of prime agricultural land within all the D Corridor Options . Corridor Option D03 scores a Major Adverse Impact for ecology due to the biological SSSI at Wartle Moss for the SSSI.	
3.6	There is high quality landscape within Corridor Options D02 and D03, in particular at Daviot, which has a high sensitivity due to its setting. Discussion required between the highways and landscape team to determine the best locations/routes for alignment options. █ to arrange with █.	AmeyArup
3.7	For traffic, all D Corridor Options perform relatively well. From a public acceptability point of view Corridor Option D03 might be more favourable because may utilise the existing A920. However, there is less chance of communities in the south using the new A96 but a route within a D Corridor Option would provide greater access to communities to the north.	
4.0	<u>Corridor B Inverurie North</u>	
4.1	The topography with Corridor Option BN01 is not as challenging as the more northern options. There is a large area of floodplain in the Corridor Option. There is a gas pipeline crossing the Corridor Option in the north and two more in the south. There would be a significant cost associated with replacing sections of pipe with heavy wall pipe, if this was required and could not be avoided.	
4.2	Geotechnical constraints included rock at shallow depths and soft alluvial deposits centred around the watercourses.	
4.3	Three major structures are required within Corridor Option BN01 to cross watercourses. A large viaduct approximately 500m would be required to cross the River Don and its associated floodplain.	
4.4	Public acceptability for the Corridor Option is a large benefit due to public feedback received, the Corridor Option also aligns well with the ALDP and would improve journey time reliability and reduce congestion. The Corridor Option could also reduce traffic through Inverurie.	
4.5	It was agreed that the extent of the appraisal needed to be extended to include the tie into the existing A96. The Corridor Options need to consider the overlap/connection between adjacent corridors. This will be done at a later stage in the appraisal process when alignments are available.	AmeyArup
4.6	█ queried whether we needed to look at refining Corridor Options BN01 and D03 to reduce ingress into the floodplain. The HIA at Barra was highlighted as a constraint to this, but █ stated that future deign development may be a need to go out with the identified Corridor Option to avoid some constraints.	
4.7	█ queried the feasibility of having alignments through battlefields. █ highlighted the recent objection by HES about crossing the battlefield at Killiecrankie on the A9 Dualling Scheme. Battlefields are nationally designated sites so including in the current HIAs seems a reasonable approach but if required alignments could go into HIAs, in which case ongoing dialogue with Stakeholders, including HES will be utilised to inform the acceptability of any developing proposals.	
4.8	Corridor Option BN01 would allow junctions to be located to the north and south of Inverurie with another junction at Oldmeldrum. Public acceptability	AmeyArup

Item	Notes	Actions
	is likely to be positive based on comments received from the public to date. Aberdeenshire Council had plans for an eastern bypass of Inverurie.	
5.0	<u>Corridor BN+01</u>	
5.1	█ explained that this was an additional Corridor Option developed as a result of feedback from the public at the meet the team event and the constrained nature of the existing A96 at Port Elphinstone.	
5.2	The floodplain within the Corridor Option is extensive. █ stated that there needs to be a perceived benefit for this option as the section of the existing dual carriage was between Port Elphinstone and Blackburn would not form part of the A96, becoming a local connector road. █ stated that BN+01 provides another option for Inverurie North bypass would remove the need for grade separating the existing junctions at Kintore and Port Elphinstone. █ also noted that this option bypassed the three structures on the existing A96 which did not provide the high load clearances required removing the need for structural interventions.	
5.3	█ stated a large structure would be required to cross the River Don and its associated floodplain and a rail crossing would also be required.	
5.4	█ noted the Corridor Option contained a large area of shallow rock and extensive alluvial compressible deposits.	
5.5	█ noted there was a Scheduled Monument within the middle of the Corridor Option and a GDL.	
5.6	█ noted SSE transmission lines and national grid gas pipelines in BN+01 Corridor Option.	
5.7	█ stated the crossing required for the River Don would have a large landscape and visual impact due to the scale of structure required.	
6.0	<u>Corridor C North</u>	
6.1	█ stated that comments had been received at the Meet the Team event about using the existing rail corridor to develop options. The route of Corridor Option CN01 generally follows the rail line. There are numerous topographical constraints and Scheduled Monuments within Corridor Option CN01. Leith Hall GDL is a major constraint. Corridor Option CN01 appraised as Major Adverse due to the pinch point at Leith Hall which will restrict alignment options to an area with topographical constraints. It was discussed to consider an alignment that goes out with the SEA boundary as previously highlighted by █ (Item 1.9) and an alignment through the GDL of Leith Hall that currently forms part of a HIA. This will provide a robust appraisal of all potential options following CN01 Corridor Option.	
6.2	█ stated the potential to look at a southern bypass of Leith Hall however noted that within Leith Hall there was ancient woodland, a listed building and the GDL. There is also ancient woodland, woodland and SSSI to the south of the CN01 boundary at Leith Hall. AmeyArup to look at alignment options out with the SEA at Leith Hall at First Fix Alignment development.	AmeyArup
6.3	█ stated that structures would be required for crossings of the River Bogie and the railway.	
6.4	█ stated that Corridor Option CN01 was generally around the same or lower than the existing A96.	
6.5	The main constraints in Corridor Option CN02 were topography and existing settlements. The level of Corridor Option CN02 was generally higher than the existing A96.	
6.6	█ noted that there was a large area of floodplain approximately 100m wide near Inch golf club which would need to be crossed.	
6.7	█ noted that a structure to cross the railway would be required.	

Item	Notes	Actions
6.8	█ stated that Corridor Option CN03 could tie into the existing A96 at the western end of the scheme much sooner than Corridor Options CN01 or CN02.	
6.9	█ noted that all C North Corridor Options had an Adverse Impact with regards to utilities as there is an SSE substation and SSE transmission lines at the northern end. It is likely that this can be avoided with alignment options. Corridor Option CN03 contains a SGN small diameter gas pipe.	
6.10	Corridor Options CN02 and CN03 options cannot avoid the floodplain and have the most watercourse crossings.	
6.11	█ noted that Corridor Option CN01 would have the largest crossing at the River Don out of the three C North Corridor Options. Corridor Option CN02 had a high number of structures and Corridor Option CN03 was neutral in terms of the number of structures required.	
6.12	█ stated that Oyne and Inch were located within Corridor Option CN03 and Corridor Option CN01 goes through Strathbogie so there would be a large landscape and visual impact. █ noted there was high ground throughout the north of all Corridor C North options.	
6.13	All three C North Corridor Options provide journey time savings. They provide better connectivity to communities on the south and align well with the Inverness to Aberdeen rail improvement proposals.	
6.14	Corridor Option CN01 should be extended to the north/west of Huntly to see if there is a feasible route. █ to investigate during the First Fix Alignment development.	AmeyArup
6.15	█ queried what dictated the southern boundary of CN01 at Bennachie. █ stated the boundary was dictated by the topography.	
6.16	█ stated the geotechnical constraints were shallow rock and potentially compressible material. All C North Corridor Options scored Adverse Impact.	
6.17	█ identified a gap in Corridor Option CN02 where a route could potentially be located with lesser impacts on the landscape.	
6.18	Whilst noting the sensitivities of the area, █ asked whether any route that encroached on the Bennachie SLA has been considered. █ confirmed that the area had been identified as part of the HIA due to topographical constraints and stated there are other potential Corridor Options that avoid the HIAs which would be considered first and this includes the wider local designation area of Bennachie not covered by the HIA.	
7.0	<u>Corridor C South</u>	
7.1	Corridor Option CS01 is bounded by HIAs identified but provides another option for an alternative route for CS02.	
7.2	█ stated there are significant utility constraints in both Corridor Options CS01 and CS02 with Kintore substation and electricity transmission lines. There is also a National Grid high pressure pipeline and SGN have smaller gas pipelines within the Corridor Options.	
7.3	█ stated there was no major flooding within Corridor Options CS01 and CS02. Corridor Option CS01 has few watercourse crossings with Corridor Option CS02 having slightly more.	
7.4	█ stated there is a significant amount of shallow rock within both Corridor Options and Corridor Options CS02 has more areas of potential made ground, then some of the other Corridor Options as identified from the BGS mapping. There are two large quarries located within Corridor Option CS02.	
7.5	█ stated that Corridor Option CS01 was neutral in terms of structures with Corridor Option CS02 being Adverse Impact due to the crossing of the River Don and potential of crossing of utility pipelines.	

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7.6	█ stated that Corridor Option CS02 was sparsely populated however there was significant areas of ancient woodland. Corridor Option CS01 lies within the Bennachie SLA and Corridor Option CS02 is partially with the SLA.	
7.7	Both Corridor Options CS02 and CS01 are remote from Inverurie so it is unlikely that traffic from Inverurie and the north would reroute to new A96. From a connectivity point of view and public acceptability both Corridor Options are unlikely to realise significant benefits.	
7.8	It was noted that Corridor Option CS01 has the most number of Major Adverse Impacts. . It was agreed that Corridor Option CS01 should be sifted out as it was more remote than Corridor Option CS02 and did not provide any additional benefits. The boundary of Corridor Option CS02 could be amended to include a portion of Corridor Option CS01 during the First Fix Alignment development, if required.	AmeyArup
8.0	<u>Corridor B Inverurie South</u>	
8.1	█ stated there are significant constraints at the Port Elphinstone/Thainstone areas which limit potential connections to a southern bypass of Inverurie. However, there are numerous options to tie into the existing A96 west of Inverurie.	
8.2	█ stated there are SSE transmission lines, a National Grid gas crossing and above ground gas installation within the corridor. SGN also have some infrastructure within the Corridor Option.	
8.3	█ stated that flooding for the Corridor Option was identified as an Adverse Impact and there is also a crossing required for the River Don. █ stated that the Corridor Option was sensitive to landscape and visual change which may impact on the type of structures used.	
8.4	█ noted there was a large quarry in the Corridor Option which would need to be avoided with any alignment options.	
8.5	█ stated the Corridor Option was within the Bennachie SLA. The Corridor Option was appraised as Adverse Impact with respect to ecology due to areas of ancient woodland within the Corridor Option. There are also community impacts associated with the proximity to the Chapel of Garioch. █ stated there could be a visual impact with any alignments close to Clovenstone.	
8.6	Any Corridor Option BS01 alignment option would need to tie into the A96 around Thainstone. The notional boundary between Corridor Options CS01 and BS01 can be amended to provide more tie ins to the A96 further to the south. It was noted that Corridor Option BS01 is highly constrained at Thainstone and although Aberdeenshire Council have planning requirements to grade separate this junction as part of future development proposals no detailed design options have been developed to date.	
9.0	<u>Online Corridor South</u>	
9.1	█ stated that the geometry of the existing dual carriageway has been assessed to identify sub-standard sections for a Category 7A dual carriageway. █ noted there are three low bridges at Kintore which may require structural intervention if the geometry cannot be lowered to generate the required headroom. The intervention would be a bridge replacement. There are also numerous at grade junctions which require grade separation. Tyrebagger hill constraints the options for realignment of the existing A96 in this location. The Junction strategy will be key to rationalising the number and ultimately the position of junctions.	
9.2	█ stated there was historical extensive flooding within the OLS Corridor Option and there are currently 14 existing watercourse crossings therefore the Corridor Option was appraised as Adverse Impact.	

Item	Notes	Actions
9.3	It was noted that rationalising the position of junctions will be key on the online sections.	
9.4	█ stated there are Strategic Utility Assets passing under the existing dual carriageway. There are four National Grid pipelines within the Corridor Option, therefore, the Corridor Option was appraised as Major Adverse Impact for utilities. █ challenged the appraisal as the utility crossings were already in place. █ responded to say that the appraisal was due to number of utilities constraints in this Corridor Option.	
9.5	Buildability could be an issue due to traffic management required to construct any online improvement.	
9.6	█ noted there was a high number of properties and receptors in the OLS Corridor Option. There may be a potential environmental benefit associated with free flow of traffic by removing the at-grade junctions.	
9.7	█ stated there is a large landscape and visual impact associated with the Corridor Option due to the hills at Thainstone and the structure required at the River Don crossing.	
9.8	A high number of accidents have been recorded on this section hence junction strategy will require careful consideration. █ stated that at Thainstone and Blackburn traffic leaves the A96 as vehicles head south to Westhill and further south. It was also noted that NMU routes and PROW cross the existing dual carriageway at grade.	
10.0	<u>Online Corridor Inverurie</u>	
10.1	█ explained the large constraint associated with settlement boundary of Inverurie and Port Elphinstone and therefore the Corridor Option was considered as an online widening of the existing road only. It was noted the provision of a new Grade Separated Junction at Blackhall is deemed to be very challenging.	AmeyArup
10.2	█ stated there are SSE transmission lines and National Grid plant within the Corridor Option.	
10.3	█ stated that there is not significant flooding in the south of the Corridor Option but flooding is present within the settlement therefore the Corridor Option is neutral in terms of flood impact. There are five existing watercourse crossings on this section of the A96.	
10.4	█ stated that a significant structure would be required to cross the River Don. █ also explained that the Upperboat Bridge could not be extended and would need to be replaced.	
10.5	█ stated that from air quality and noise the Corridor Option was appraised as Major Adverse Impact. The Corridor Option also contains Harlaw battlefield and is still within the Bennachie SLA.	
10.6	█ stated that the area was congested however junction upgrades would help but this would still not address the issue of traffic coming through Inverurie to reach the A96.	
11.0	<u>Online Corridor Central</u>	
11.1	█ stated that there was a railway crossing, a crossing of the River Urie and a significant topographical constraints (associated with Fallow Hill and Pitmachie) in the south. Generally, the topography within the Corridor Option is undulating and contains the hill of Pitmachie. There are settlements at Old Rayne and Oyne. The current geometry of the A96 is not compliant to allow online dualling of the existing carriageway so alignment options will be considered within the Corridor Option with short sections of online dualling where appropriate.	

Item	Notes	Actions
11.2	█ stated there are large areas of floodplain associated with the River Urie within the Corridor Option and ten existing watercourse crossings on this section of the A96.	
11.3	█ stated structures will be required to cross the railway and the Urie depending on the alignment.	
11.4	█ stated there are two SSE transmission lines in the Corridor Option and some SGN pipelines.	
11.5	Corridor Option OLC contains a geological SSSI, Old Rayne, the Scheduled Monument at Durno, two GDLs. Generally, the Corridor was more constrained to the north of the existing A96.	
11.6	█ stated the Corridor Option was appraised as Adverse from a geotechnical point of view due to the steepness of slopes within OLC.	
11.7	From a public acceptability point of view there is support for online dualling however there would be an impact on agricultural land.	
12.0	<u>Online Corridor North</u>	
12.1	█ stated that Williamston House GDL is in the Corridor Option. The Corridor Option goes through the hill of Tillymorgan and Hill of Foudland and also contains the Urie Valley. Generally, there are issues with topography and crossing the Urie.	
12.2	█ stated there was no major flooding and 13 small watercourse crossings on the existing A96.	
12.3	█ stated there are windfarms to north and south, an SGN pipeline and SSE overhead transmission line.	
12.4	█ stated that a structure would be required to cross the River Urie but no other major structures would be required.	
12.5	█ noted there may be stability issues associated with skirting existing steep slopes in the Corridor Option.	
12.6	█ asked whether buildability for OLN and OLI should be increased to Major Adverse Impact, which was discussed and agreed.	
12.7	It was agreed that resilience criteria should be changed to Adverse for Corridor Option OLN as we need to mindful that snow may close any new dual carriageway.	
13.0	<u>Conclusions</u>	
13.1	Corridor Option CS01 should be sifted out at this stage as it has numerous disadvantages and no additional benefits over Corridor Option CS02.	
13.2	Appraisal against resilience criteria to be reviewed post workshop to take account of elevations that may more susceptible to snow closures.	AmeyArup