

Significant Assumptions Tool

Better Value Rail



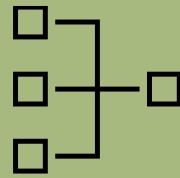
How to use this tool



Work through each assumption in sequence



Validate and record your understanding of each assumption. Keep this record in your files.



Schedule when you will revisit each assumption based on the advisory timescale



Keep track of how maturing assumptions become scope, risk, cost or opportunity



Better Value Rail is a tripartite initiative between Office of Road and Rail, Department for Transport and Network Rail.

Better Value Rail Team



Land Boundary

Whether the land you will use is inside or outside of the railway boundary is a significant factor.

It is important to consider the following list to check if you need any land outside of the railway boundary because if you do you will need consents as well as a way to acquire the land.

Land Boundary



All land within railway boundary?

You may be able to use Permitted development for permission to build and operate.

Network Rail must confirm that the works are likely to fall within PDRs and that they would be willing to make a PDR application. They are the only party legally able to make that application.



Any and outside of railway boundary?

You will need consent to do 3 things:

Acquire the land for the railway & works

Build the works & works

Operate the railway

Land Boundary Assumptions

Can everything you need to build be built within the existing railway boundary?	Yes / No / Details	When to revisit this assumption
Have you included at a high level:		
Land for the railway		As your design develops and before awarding a construction contract
Land for utility diversions		As your design develops and before awarding a construction contract
Land for construction compounds		As your design develops and before awarding a construction contract
Land to undertake any enabling works such as raising the height of bridges or installing new road networks to replace level crossings?		As your design develops and before awarding a construction contract
Land for drainage outfalls		As your design develops and before awarding a construction contract
Land for drainage attenuations		As your design develops and before awarding a construction contract
Land for stations, depots, train crew areas, cleaning, ground remediation		As your design develops and before awarding a construction contract
Stabilisation of embankments or cuttings, if embankments are being monitored do you need more consents etc. to stabilise, land nails		As your design develops and before awarding a construction contract
Land for access either temporary or permanent		As your design develops and before awarding a construction contract
What are your assumptions around cost for land and any compensation?		As your design develops and before awarding a construction contract



Consents

Consents for the railway are complex. You should seek specialist advice.

If you wish to use Network Rail's powers or seek consents which impact or alter their infrastructure or assets you should contact Network Rail to discuss this in detail.

Consent Assumptions

Have you considered whether you need to get TWAO, planning permission, hybrid bill, DCO?	Yes / No / Details	When to revisit this assumption
Have you checked?		Any time changes are made to the design that could impact any of these
Will the project interface with any building or asset with heritage status?		Any time changes are made to the design that could impact any of these
Will any listed building consent be required?		Any time changes are made to the design that could impact any of these
Is there a clear understanding on environmental consents e.g. noise and air pollution?		Any time changes are made to the design that could impact any of these
Are there any rights of way that will be affected by the project?		Any time changes are made to the design that could impact any of these
What planning conditions are being assumed?		Any time changes are made to the design that could impact any of these

Railway Interface Assumptions

Does the project drive any changes to the existing railway?	Yes / No / Details	What impact might this have?	When to revisit this assumption
Do the changes mean altering the physical infrastructure?		If you have to alter the physical infrastructure you will need the consent of Network rail as the infrastructure owner. This may include new platform, turnbacks, depots etc.	As your design develops
Do they change the way the network operates?		All works that change how the network operates require Regulated Consents. Assess which of these you may need and how likely you would be to secure them.	As your design develops
Do you need Regulated Consents?		Who will be impacted by this change who also has a right to object or to receive compensation? Ask questions of TOCs or FOCs now about any mitigation or compensation they may be entitled to via the Regulated Consent process.	As your design develops
Access to Railway to undertake work. Does your project require a closure of the railway to build the works?		Have you valued risk relating to your assumptions about access?	Confirm this throughout

Asset Condition Assumptions

Is there a clear understanding of asset condition?	Yes / No / Details	When to revisit this assumption
When was the last time the asset was inspected and assessed?		You should revisit this when you receive the asset records, conduct surveys or have discussion with the asset owners that progress the understanding of the asset condition.
What have promoters assumed that they need to pay for?		You should revisit this when you receive the asset records, conduct surveys or have discussion with the asset owners that progress the understanding of the asset condition.
Is the condition of the asset appropriate for the new service that your project aims to deliver?		You should revisit this when you receive the asset records, conduct surveys or have discussion with the asset owners that progress the understanding of the asset condition.
Is there a clear understanding on the ownership of assets and who is responsible for maintenance or enhancing the assets?		You should revisit this when you receive the asset records, conduct surveys or have discussion with the asset owners that progress the understanding of the asset condition.
Have you confirmed the condition of assets		You should revisit this when you receive the asset records, conduct surveys or have discussion with the asset owners that progress the understanding of the asset condition.

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Network Capacity & Capability Assumption

Is there room on the network to run the extra services that your project brings? If applicable consider:	Yes / No / Details	When to revisit this assumption
Can you add the services without detriment to existing performance? Are there are additional works to the network that adding your service will trigger? If so you would be expected to include these in your costs and business case.		At any stage you get more information about the operational impact or upon receipt of timetable, capacity or operational studies.
Performance considerations: Is the network performance and resilience strong enough to cope with the addition of your services?		At any stage you get more information about the operational impact or upon receipt of timetable, capacity or operational studies.
What do you actually require the railway to be capable of and is it possible with the available rolling stock? Practical in reality (is it driveable) and does it work in all seasons?		At any stage you get more information about the operational impact or upon receipt of timetable, capacity or operational studies.
What is your route availability assumption, does that match your current and future state?		At any stage you get more information about the operational impact or upon receipt of timetable, capacity or operational studies.
Have you assumed any planned deviance from train planning rules will be accepted?		At any stage you get more information about the operational impact or upon receipt of timetable, capacity or operational studies.
Confirm the power supply in the linked power supply question below (and ITSS)*		At any stage you get more information about the operational impact or upon receipt of timetable, capacity or operational studies.
Diversionary routes, diversionary arrangements, impact on Network Resilience		At any stage you get more information about the operational impact or upon receipt of timetable, capacity or operational studies.
Are there train paths? What is the likelihood of you securing those paths?		At any stage you get more information about the operational impact or upon receipt of timetable, capacity or operational studies.
Impact on rules of the route access?		At any stage you get more information about the operational impact or upon receipt of timetable, capacity or operational studies.
Have you checked that ITSS assumptions are Linked with traction power, rolling stock, infrastructure, TPRs etc. make sure the infrastructure is fit for purpose for the ITSS		As you confirm the Geographic boundary of the ITSS and the interactions with the rest of the network

Operational Impacts Assumptions

Operational impact	Yes / No / Details	When to revisit this assumption
Do you know who will operate these services?		When you get any new information about: Trains, Drivers, Crews, Depots, Stabling Maintenance, Stations, Signallers
Is it planned for new services to be served by an existing operator or for a new operator to be created?		When you get any new information about: Trains, Drivers, Crews, Depots, Stabling Maintenance, Stations, Signallers
Assumptions you are making about train operations through construction?		When you get any new information about: Trains, Drivers, Crews, Depots, Stabling Maintenance, Stations, Signallers
What are their operational requirements e.g. staffing, training, welfare facilities? Have you included those in your costs? Ability to service railway and trains?		When you get any new information about: Trains, Drivers, Crews, Depots, Stabling Maintenance, Stations, Signallers
Is it planned for new services to be served by an existing operator or for a new operator to be created?		When you get any new information about: Trains, Drivers, Crews, Depots, Stabling Maintenance, Stations, Signallers
What support facilities for crew may be needed		When you get any new information about: Trains, Drivers, Crews, Depots, Stabling Maintenance, Stations, Signallers
How will this impact on staff terms and conditions?		When you get any new information about: Trains, Drivers, Crews, Depots, Stabling Maintenance, Stations, Signallers
Crew learning the new route and other changes, do they have what they need to drive the route on the first day of the timetable?		When you get any new information about: Trains, Drivers, Crews, Depots, Stabling Maintenance, Stations, Signallers

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Interdependencies Assumptions

Interdependencies	Yes / No / Details	When to revisit this assumption
Does your project rely on other projects?		As this information becomes available, changes or matures
Do other projects rely on your project?		As this information becomes available, changes or matures
Are there any constructability or business case related interdependencies?		As this information becomes available, changes or matures
Is there an interface between enhancements and renewals?		As this information becomes available, changes or matures
Is there a dependency on signaling records (could another project need them at the same time as this one)?		As this information becomes available, changes or matures
Are they funded, what level of maturity is the work at. What risk are there to them proceeding? What happens if they are cancelled?		As this information becomes available, changes or matures
Are they funded, what level of maturity is the work at. What risk are there to them proceeding? What happens if they are cancelled?		As this information becomes available, changes or matures

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Technology Assumptions

Are you using any novel technology or approaches?	Yes / No / Details	When to revisit this assumption
Should you consider innovation/novel technology or challenging the current state/standard/process? Do you have a tight deadline or do you have capacity for the risks possibly associated with working in this way?		When you are considering how you might achieve the scope required or starting design work.
What is their Technological Readiness level?		
Does this require a change to peoples working practice that may require a change to any collective bargaining agreements?		When you are considering whether you might include any novel technology and assessing the implications.
Do you have to change any industry standards in order to do this?		When you are considering whether you might include any novel technology and assessing the implications.
Does this require any additional mitigation, trailing or pilot work that you have not yet included in cost or schedule.		When you are considering whether you might include any novel technology and assessing the implications.
Commercial implication of committing to novel technology - is it only provided by one company.		When you are considering committing to novel technology

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Operating Costs Assumptions

Operating Costs	Yes / No / Details	When to revisit this assumption
Does this project require a revenue return upon completion?		At appropriate point in SOBC development or funding stages
Is this likely to require an initial subsidy? Is there a wider policy position that makes this worth doing?		At appropriate point in SOBC development or funding stages
Passenger farebox Are your forecasts realistic about the number of passengers based on the local population and the likely fares? How sensitive are your forecasts? Are you projecting growth that can be accommodated?		At appropriate point in SOBC development or funding stages
Are there companies who run these trains expressing interest in any paths you may create?		At appropriate point in SOBC development or funding stages
Who will fund that and for how long?		At appropriate point in SOBC development or funding stages
Will there be Rental income? Are you likely to be the beneficiary of this income?		At appropriate point in SOBC development or funding stages
Are you taking into account a performance benefit that provides a cost reduction		At appropriate point in SOBC development or funding stages
Freight or Passenger train access charges?		At appropriate point in SOBC development or funding stages

Signalling Assumptions

Does this project require any changes to the signaling?	Yes / No / Details	When to revisit this assumption
Is this likely to require localised changes to existing interlocking that has capacity to accept the changes? Is Significant signaling required to provide sufficient capacity /headways? May it require new signaling interlocking? Is it digital signaling - cab fitment, working with the TOC/FOC? Balance between future proofing and what is needed now?		When you have access to expertise to guide you to understand the complexity of this area at a high level.
How well do you understand the implications? Are you likely to encounter any historic non compliances that you will have to rectify?		When you have access to expertise to guide you to understand the complexity of this area at a high level.
Consider operation of signaling as well as system		When you have access to expertise to guide you to understand the complexity of this area at a high level.

Civil Engineering Assumptions

	Yes / No / Details	When to revisit this assumption
Does a railway corridor exist for the length of the proposed route but reinstatement involves replacement/reinstatement of structures and minor sections of widening etc.		
Are alterations required to increase capability of existing route e.g. freight only branch to be upgraded for passenger use		As your design develops and before awarding a construction contract
Does this require significant construction of sections of new route and existing trackbed requires complete rebuild.		As your design develops and before awarding a construction contract
Are there any significant, historic, unusual structures e.g. tunnels, viaducts?		You should seek specialist advice for eth asset owner / manager
Will this involve building new or adapting existing stations and platforms?		As your design develops and before awarding a construction contract
Does a railway corridor exist for the length of the proposed route but reinstatement involves replacement/reinstatement of structures and minor sections of widening etc.		As your design develops and before awarding a construction contract
Are alterations required to increase capability of existing route e.g. freight only branch to be upgraded for passenger use		As your design develops and before awarding a construction contract
Does carrying out the work trigger any rectification of existing railway to modern equivalent standard?		As your design develops and before awarding a construction contract
Does carrying out the work trigger any rectification of existing railway to modern equivalent standard? Understanding of the existing asset condition.		As your design develops and before awarding a construction contract
What about drainage, embankments, cutting and structures?		As your design develops and before awarding a construction contract
Have you assumed normal ground conditions? Is this likely to change based on your current level of local knowledge?	What are the potential impacts? Are you anticipating: Significant mine workings, flood plain, contaminated land, rock, running sand, peat bogs, high water table, artesian water, subsidence, land slips, coastal erosion....	What level of impact could these have and what level of risk allowance have you made? Do you want to pull forward ground condition surveys, anything you can do to change that risk, does the risk matter (do you need to do these things earlier?).

Level Crossing Assumptions

Does the proposed route involve potential impact on level crossings	Yes / No / Details	When to revisit this assumption
Have you considered changes to rail or road interface and directly on crossing risk level?		When you have level crossing input or information. You should consider level crossing assumptions highly significant until you have specialist advice.
Does the proposed route include a large volume of potential high risk level crossings with or interfaces with highways that may require a new bridge to avoid a level crossing?		When you have level crossing input or information. You should consider level crossing assumptions highly significant until you have specialist advice.
Does the proposed route includes some potential level crossings but due to comparative low expected use and reasonable likelihood of deploying an approved level crossing solution?		When you have level crossing input or information. You should consider level crossing assumptions highly significant until you have specialist advice.

Power Assumptions

Have you assumed there is appropriate power supply for the project?	Yes / No / Details	When to revisit this assumption
Is it the correct type of power available to run the service?		As you progress your idea to design or development
Is there accessibility of power - is there sufficient supporting infrastructure for alternative fuels e.g. where is hydrogen or battery charging facilities?		As you progress your idea to design or development
Are independent power supplies required?		As you progress your idea to design or development
Is there available and sufficient power for the services, depots, stations etc.?		As you progress your idea to design or development
Have you engaged with the DNO?		As you progress your idea to design or development
Is there additional power required for the traction power?		As you progress your idea to design or development
If you're introducing electrification have you considered the signaling and telecoms impact?		As you progress your idea to design or development
Can you utilise existing system spare capacity or require an entirely new traction power system		As you progress your idea to design or development
Does the additional power required need assessing but not expected to have a material effect on current spare capacity?		As you progress your idea to design or development

ITSS Assumptions

Can everything you need to build be built within the existing railway boundary?	Yes / No / Details	When to revisit this assumption
Have you included at a high level:		
Land for the railway		As your design develops and before awarding a construction contract
Land for utility diversions		As your design develops and before awarding a construction contract
Land for construction compounds		As your design develops and before awarding a construction contract
Land to undertake any enabling works such as raising the height of bridges or installing new road networks to replace level crossings?		As your design develops and before awarding a construction contract
Land for drainage outfalls		As your design develops and before awarding a construction contract
Land for drainage attenuations		As your design develops and before awarding a construction contract
Land for stations, depots, train crew areas, cleaning, ground remediation		As your design develops and before awarding a construction contract
Stabilisation of embankments or cuttings, if embankments are being monitored do you need more consents etc. to stabilise, land nails		As your design develops and before awarding a construction contract
Land for access either temporary or permanent		As your design develops and before awarding a construction contract
What are your assumptions around cost for land and any compensation?		As your design develops and before awarding a construction contract

Rolling Stock Assumptions

Is additional rolling stock required to run the new service?	Yes / No / Details	When to revisit this assumption
Is there an understanding on the rolling stock that will be used? Will it be diesel, electric or a different technology?		When you have this information confirmed
Will the current operator decide the rolling stock that is to be used?		When you have this information confirmed

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Freight Assumptions

Does this project affect existing or future freight paths?	Yes / No / Details	When to revisit this assumption
Are you aware of the freight usage on the existing network your project interfaces with?		Consider freight in a different way to your passenger assumptions
Is there potential for a growth in freight traffic on the infrastructure this project aims to deliver? If so, what freight, what rolling stock, what weight and at what frequency?		Consider freight in a different way to your passenger assumptions

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Utilities Assumptions

What is the maturity stage of your knowledge about utilities?	Yes / No / Details	When to revisit this assumption
Are you are aware of the location, condition and reconstruction requirements for utilities assets?		As utility information becomes available. This is an area that often has to be assumed until records can be retrieved. The assumption should be revisited then. Further utilities information may become available as surveys start and this should be another revisit.
What are you assuming about betterment costs?		When wayleaves are available and legal positions confirmed.

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Environmental Impact Assumptions

Is there likely to be an environmental impact during construction or when operational?	Yes / No / Details	When to revisit this assumption
Is this part of your land & consents category?		As your idea develops
Are you taking appropriate advice?		As your idea develops
Do you have a formal scoping report that confirms this?		As your idea develops
How significant is your impact? Can it be mitigated? Who is likely to object?		As your idea develops
Have you made assumptions on climate change and the resilience required?		As you get asset information and local climate & resilience information
What are your assumptions on climate change and 100 year time frame?		As you get asset information and local climate & resilience information
Would any infrastructure be exposed to effects of climate change or weather events such as flooding?		As you get asset information and local climate & resilience information

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Funding Assumptions

	Yes / No / Details	When to revisit this assumption
Is there a clear understanding on how this project will be funded?		Throughout the framework stages
Is there funding available to fully deliver the project?		Throughout the framework stages
Is funding required from the Department for Transport to deliver this project?		Throughout the framework stages
Has the availability of funding got a time constraint on it?		Throughout the framework stages

Stakeholder Assumptions

	Yes / No / Details	When to revisit this assumption
Is there a clear understanding and expectations of the project across all stakeholders?		Anytime there is a change in the stakeholder landscape
Is there wider stakeholder support for this project?		Anytime there is a change in the stakeholder landscape

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