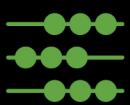


profitable | productive | professional

Benchmark Apps - Parametric Models



benchmark
estimating software



Benchmark Apps – Parametric Models

User Manual

**This manual is designed to assist users in the day-to-day use
of the Parametric Models feature with Benchmark
Estimating Software.**

Version 7.85, August 2022

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Contents

Benchmark Apps - Parametric Models Overview	6
Prerequisites	7
Accessing Parametric Models	8
Accessing the App from Benchmark	8
Accessing the App from LoadSpring	9
Navigating the App	10
Landing Page	10
Summary Page	11
Managing User Access	12
Setting Up New Access	12
Modifying User Access	14
Deleting User Access	15
Viewing Access History	15
Creating New Model Instances	16
Indirect Works (Prelims)	16
Viewing the BQ	19
Regional Investment Programme (RIP)	20
Viewing the BQ	24
Smart Motorway Program (SMP)	25
Viewing the BQ	27
Other Functions	29
Searching Model Instances	29
Saving Model Instances	29
Adding Comments	31
Archiving Model Instances	32
Copying Model Instances	33
Logging Out	34
Appendix	35
Indirect Works	35
Primary Input	35
TTM Input	35
Scaffold Input	35
Temp Retaining Input	36



Regional Investment Programme (RIP)	36
Roadworks	36
Earthworks	37
Drainage	38
Carriageway	38
Signs & Lighting	39
Smart Motorway Program (SMP)	41
Roadworks	41
Earthworks	42
Carriageway	43
Drainage	44
Signs & Lighting	45



Benchmark Apps - Parametric Models Overview

Benchmark apps, built using Microsoft Power Apps, offer an intuitive, cloud-hosted solution for Parametric Models. This application allows Estimators to perform a two-step process, where:

- Estimators can input details about the works to be undertaken in a sophisticated app interface to produce the list of quantities and review these quantities.
 - These quantities are then priced in Benchmark i.e., the Bill of Quantity (BQ or BOQ) is then created back in Benchmark.
- Estimators can also view a summarised or full version of the BQ in the app. At this stage, the BQ in the app is read-only.

Prerequisites

To use the Parametric Models feature in Benchmark, you must have:

- Access to Microsoft Power Apps in your organisation.
- Permission to use the Parametric Models app in Power Apps.
- PowerApps URL configured in Administration > Integration Settings > PowerApps.
Contact your system administrator for more information.
- **Parametric Models Library** role-based or individual access. An administrator can provide the relevant level of this access to the estimator from the [Estimator Library](#) or [Role Based Access](#) windows.

Access	Role Based Access
Disallow change to Project status after Wo	No
Custom Export Library	Read, Edit, Add, Delete
Run Inactive Routines in a Project	No
Reports/Exports	View
Allow editing in Project Mark-up Calculato	Yes
Workflow	Read, Edit, Add, Delete
Mark-Up/On-Cost/TEF Calculation Library	Read, Edit, Add, Delete
Do not allow Project Client to be edited	No
Mark-Up/On-Cost/TEF Percentage Settings	Read, Edit, Add, Delete
Display Workbank on My Benchmark	Yes
Parametric Models Library	Read, Edit, Add, Delete

Accessing Parametric Models

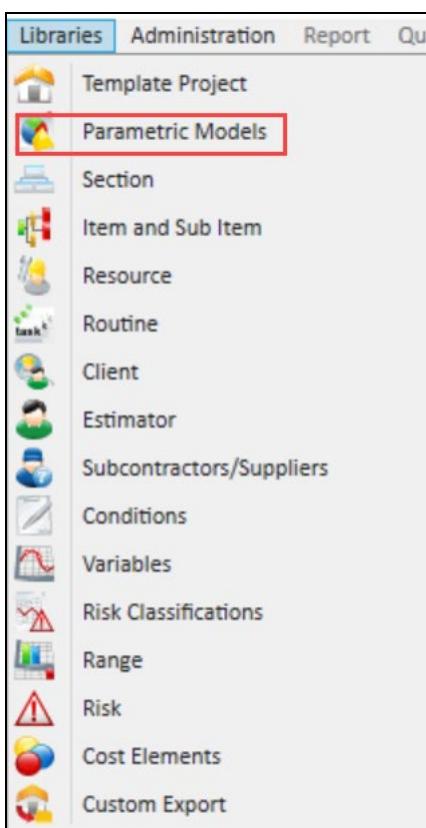
You can access the Parametric Models feature from:

- [Benchmark](#)
- [LoadSpring Homepage](#)

Accessing the App from Benchmark

From the main Benchmark menu:

1. In the **My Benchmark** window, select **Libraries**.
2. Select **Parametric Models**.



From Projects:

3. Open the relevant **Project Section** or **Composite Total**.
4. Select the **Parametric Model**  icon in the toolbar. Alternatively, use the right-click menu option.
5. The app will open in your web browser.



You can continue working in Benchmark when the Parametric Models app is open.

Accessing the App from LoadSpring

You can access the Parametric Models app from the LoadSpring Homepage.

1. Go to the LoadSpring homepage.
2. From My Applications section, select Benchmark Apps - Parametric Models.
The app opens in your web browser.

Navigating the App

There are several model types available and in development for this feature. In this document, we will look at some of the implemented model types, such as Indirect Works and Regional Investment Programme (RIP).



The Indirect Works model is also called the Preliminary model or Prelims model.

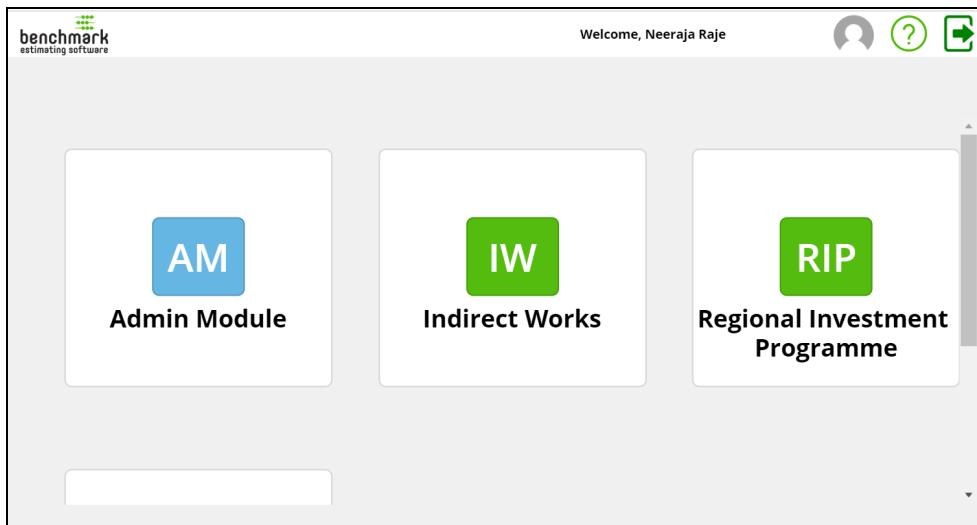
Landing Page

The app landing page allows you to select a model type to view the saved, submitted and archived model instances or create a new one.



Only users with an Administrator role for this application in Power Apps will have access to the Admin Module.

Use the scroll bar on this page to view all the model types available to you.



Summary Page

Model Instance	Estimate	Date Created	Status	Scheme Name	Project Manager	Created By	Action
New Preliminaries Model v1.7		31/01/2022	Saved		Shailendra Mishra	View	
New Preliminaries Model SAG	PowerApps New	14/12/2021	Saved	Bypass	1dassa	Sagar Chavan	View Archive
HW Repairs_Updated	Golden Quadrilateral	10/12/2021	Saved	Bypass	Joe	Neeraja Raje	View Archive
New Preliminaries Model v1.5_V	Project V	10/12/2021	Saved	Widening	Joe	Vinodh KP	View Archive
New Preliminaries Model v1.4	Golden Quadrilateral	08/12/2021	Saved			Neeraja Raje	View Archive
New Preliminaries Model v1.3	Modified title	08/12/2021	Saved			Neeraja Raje	View Archive
New Preliminaries Model v1.2	Load sections from library	08/12/2021	Saved			Neeraja Raje	View Archive
New Preliminaries Model v1.1	Golden Quadrilateral	07/12/2021	Saved	CSB		Neeraja Raje	View Archive
New Preliminaries Model v1.0	Highway Upgrade	02/12/2021	Saved	Junction Improvement	PM	Shailendra Mishra	View Archive

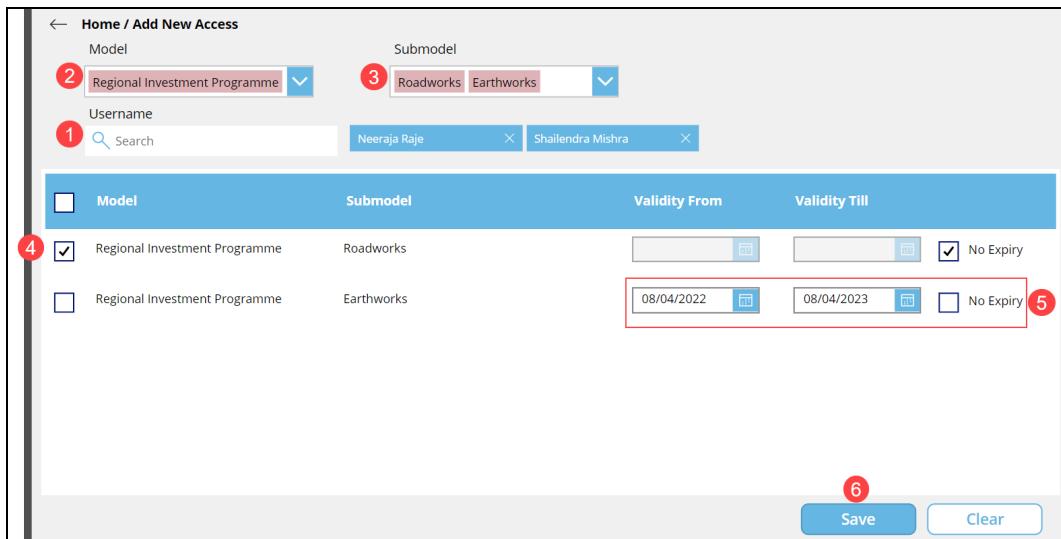
- 1 - Displays the name of the logged in user.
- 2 - Use this toggle to view the list of Saved, Submitted or Archived model instances.
- 3 - Search for model instances.
- 4 - Create new model instances.
- 5 - Displays key information for each of the model instances:
 - Model Name
 - Estimate Name
 - Date the instance was created
 - Status of the model instance – *Saved, Submitted or Archived*
 - Scheme Name
 - Name of the Project Manager
 - Name of the user who created the model instance
- 6 - View all the details for the selected model instance.
- 7 - Archive the model instance.
- 8 - Log out of the application.
- 9 - Go back to the Home (previous) screen.
- 10 - Open this Help document.

Managing User Access

Administrators must grant users access to the relevant model types and sub models. This access can be granted for a set duration, if required.

Setting Up New Access

1. [Open](#) the Parametric Models app.
2. Select Admin Module.
3. Select the New Access + button.

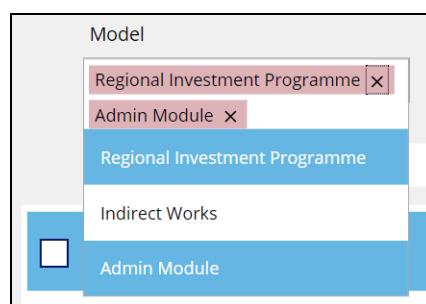


The screenshot shows the 'Add New Access' page. At the top, there are dropdown menus for 'Model' (set to 'Regional Investment Programme') and 'Submodel' (set to 'Roadworks, Earthworks'). Below these are two search input fields: 'Username' containing 'Neeraja Raje' and 'Shailendra Mishra', and 'Model' containing 'Regional Investment Programme'. The main table lists access details:

Model	Submodel	Validity From	Validity Till	
<input checked="" type="checkbox"/> Regional Investment Programme	Roadworks	<input type="text"/> 08/04/2022	<input type="text"/> 08/04/2023	<input checked="" type="checkbox"/> No Expiry
<input type="checkbox"/> Regional Investment Programme	Earthworks	<input type="text"/> 08/04/2022	<input type="text"/> 08/04/2023	<input type="checkbox"/> No Expiry

At the bottom right are 'Save' and 'Clear' buttons. Numbered callouts point to specific elements: 1 points to the 'Username' search field; 2 points to the 'Model' dropdown; 3 points to the 'Submodel' dropdown; 4 points to the checked 'Regional Investment Programme' checkbox; 5 points to the 'No Expiry' checkbox for the second row; and 6 points to the 'Save' button.

4. From the *Username* ① dropdown, search and select the relevant user(s).
To remove a selected user, select x in their username tab.
5. From the *Model* ② dropdown, select all the model types you want this user to be able to access.
For example, *Regional Investment Programme*.
To remove a selected model type, select x.



6. From the *Submodel* ③ dropdown, select all the sub models that you want this user to be able to access.

For example, if you select the model type *Regional Investment Programme*, then *Roadworks, Earthworks, Drainage, Carriageway, Signs & Lighting* will be the sub models available for selection.

To remove a selected sub model, select x.

7. All the selected models / sub models will be added to the grid, with a default validity of one year.
8. Select the relevant row (model / sub model) **4**
Alternatively, use the checkbox in the header to select all the rows.
9. To modify the default access duration, use the *Validity From* and *Validity To* calendar tools or check *No Expiry* **5**
10. Select Save **6**

Modifying User Access

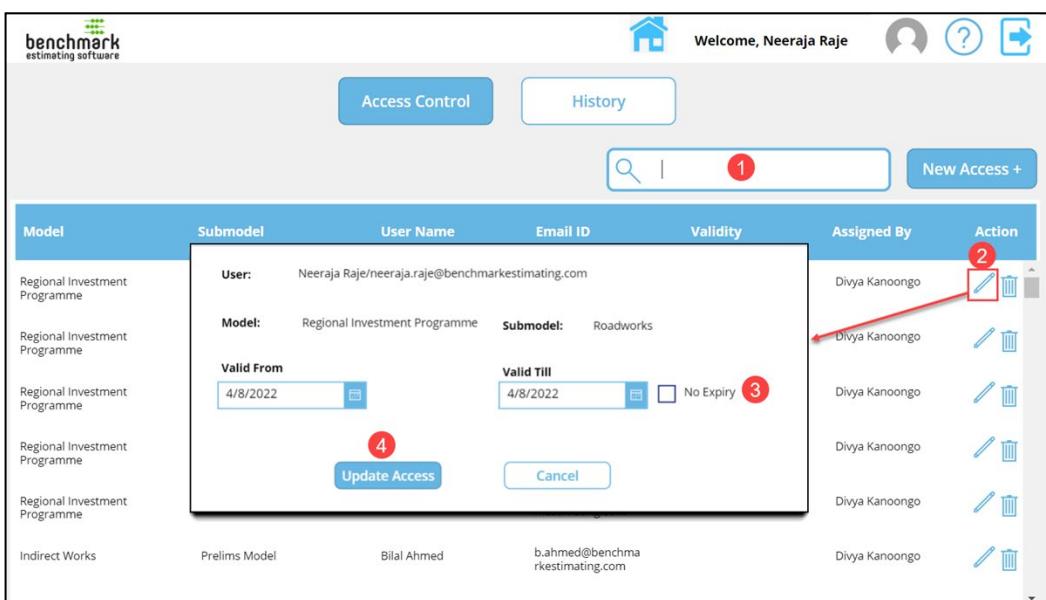
The Access Control tab lists all the users and their access within the application. Administrators can modify the duration for which users can access the assigned models/sub models.

1. In the Access Control tab, search **1** the relevant user.

You can also search by:

- Model
- Sub model
- Email
- User who assigned the access

2. Select the Edit **2** icon.
3. In the pop-up screen, modify the validity of the user's access to this model/sub model or select **No Expiry** **3**
4. Select Update Access **4**



Model	Submodel	User Name	Email ID	Validity	Assigned By	Action
Regional Investment Programme		Neeraja Raje/neeraja.raje@benchmarkestimating.com			Divya Kanoongo	
Regional Investment Programme					Divya Kanoongo	
Regional Investment Programme					Divya Kanoongo	
Regional Investment Programme					Divya Kanoongo	
Regional Investment Programme					Divya Kanoongo	
Indirect Works	Prelims Model	Bilal Ahmed	b.ahmed@benchmarkestimating.com		Divya Kanoongo	

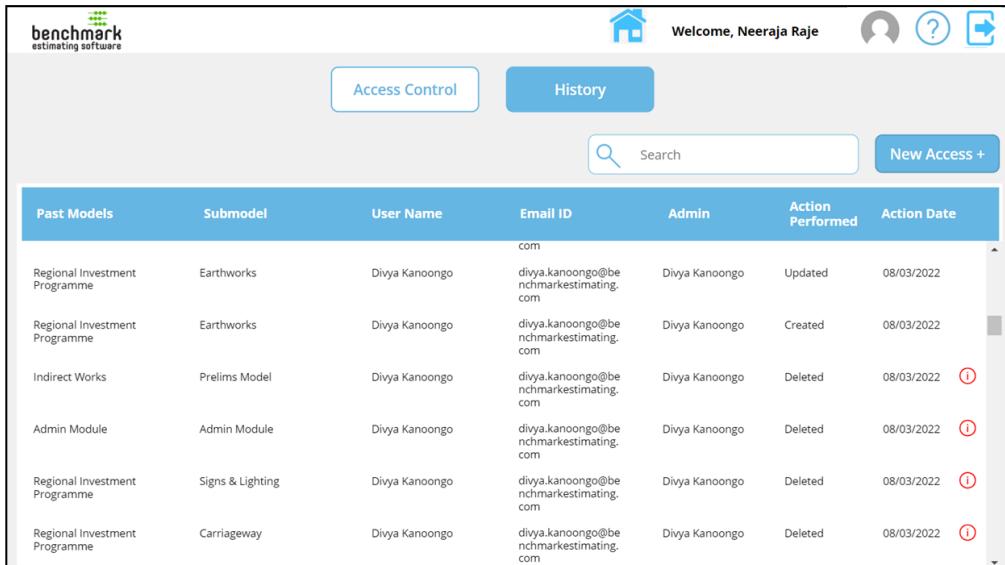
Deleting User Access

Administrators can revoke a user's access to the assigned models / sub models.

1. In the Access Control tab, search the relevant user.
2. Select the Delete icon  for the model / sub model you no longer want this user to access.
The following confirmation prompt displays:
“Are you sure you want to delete <Model Type – Sub Model Name> model access for <Username>?”
3. Enter comments in the text area within the prompt, if required.
4. Select Yes.

Viewing Access History

The History tab of the Admin Module shows all the access created, updated and deleted by Administrators.



Past Models	Submodel	User Name	Email ID	Admin	Action Performed	Action Date
Regional Investment Programme	Earthworks	Divya Kanoongo	divya.kanoongo@benchmarkestimating.com	Divya Kanoongo	Updated	08/03/2022
Regional Investment Programme	Earthworks	Divya Kanoongo	divya.kanoongo@benchmarkestimating.com	Divya Kanoongo	Created	08/03/2022
Indirect Works	Prelims Model	Divya Kanoongo	divya.kanoongo@benchmarkestimating.com	Divya Kanoongo	Deleted	08/03/2022 
Admin Module	Admin Module	Divya Kanoongo	divya.kanoongo@benchmarkestimating.com	Divya Kanoongo	Deleted	08/03/2022 
Regional Investment Programme	Signs & Lighting	Divya Kanoongo	divya.kanoongo@benchmarkestimating.com	Divya Kanoongo	Deleted	08/03/2022 
Regional Investment Programme	Carriageway	Divya Kanoongo	divya.kanoongo@benchmarkestimating.com	Divya Kanoongo	Deleted	08/03/2022 



An information icon  displays if a comment was added when deleting an access. Select the icon to view the comment.

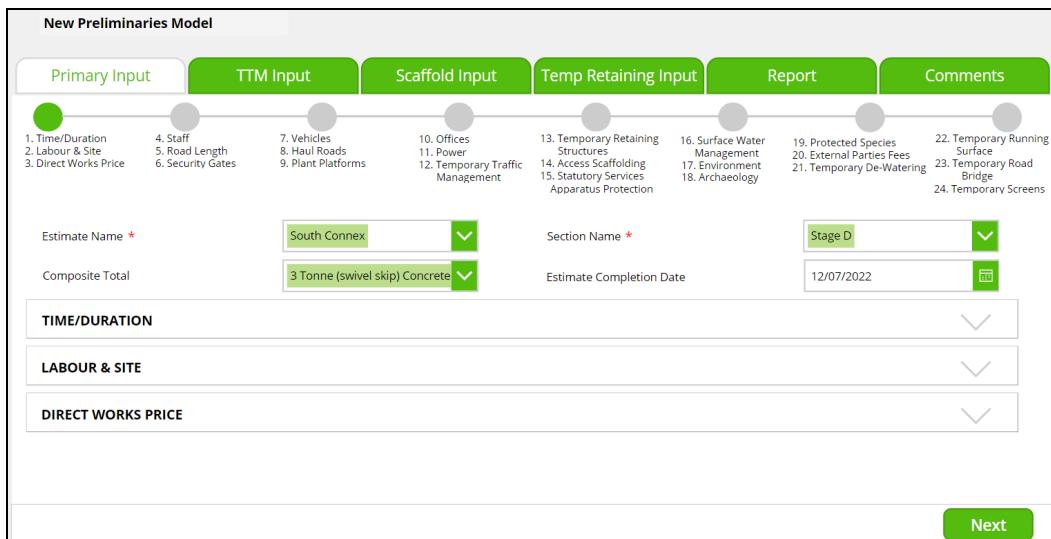
Creating New Model Instances

You can create model instances for Project Sections and/or Composite Totals within those Sections. Note that, only one model instance (of any model type) can be created for a Project Section/Composite Total.

Indirect Works (Prelims)

1. [Open](#) the Parametric Models app.
2. Select Indirect Works.
3. Select Create New Model Instance.
4. In the Primary Input tab, select the *Estimate Name*, *Section Name* and *Composite Total*. *Estimate Name* and *Section Name* are mandatory fields.

If you have accessed the app from a Project Section / Composite Total in Benchmark, then these fields will automatically populate the Project *Title*, Section *Description* and Composite Total *Description* from Benchmark.



The screenshot shows the 'New Preliminaries Model' interface. At the top, there's a navigation bar with tabs: Primary Input (selected), TTM Input, Scaffold Input, Temp Retaining Input, Report, and Comments. Below the tabs, there's a grid of numbered items corresponding to categories: 1. Time/Duration, 2. Labour & Site, 3. Direct Works Price, 4. Staff, 5. Road Length, 6. Security Gates, 7. Vehicles, 8. Haul Roads, 9. Plant Platforms, 10. Offices, 11. Power, 12. Temporary Traffic Management, 13. Temporary Retaining Structures, 14. Access Scaffolding, 15. Statutory Services Apparatus Protection, 16. Surface Water Management, 17. Environment, 18. Archaeology, 19. Protected Species, 20. External Parties Fees, 21. Temporary De-Watering, 22. Temporary Running Surface, 23. Temporary Road Bridge, and 24. Temporary Screens. Below this grid, there are dropdown menus for 'Estimate Name *' (set to 'South Connex') and 'Section Name *' (set to 'Stage D'). A date field 'Estimate Completion Date' shows '12/07/2022'. At the bottom right is a 'Next' button.

5. Use the up and down arrows on the accordions to expand or collapse panels in the screen.



6. Enter / select details for all the relevant fields in each of the panels in the screen.
7. Select **Next** to continue proceeding to the next screens.

When you proceed from the first screen, you will be prompted to enter the model instance name.

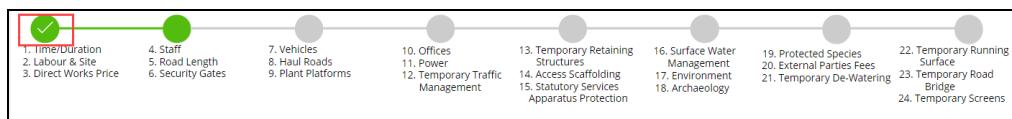
8. Enter a unique name and select Continue.



If required, you can edit this name in any of the screens using the Edit icon.

Then, Save the new name.

Each completed screen is denoted by a tick within a green circle in the progress line. Active screens are denoted by a green circle. Screens pending completion are denoted by grey circles.



9. Enter / select details for all the relevant fields in each of the panels in the TTM Input tab.

10. Select Next to continue proceeding to the next screens.

You can select Back to return to the previous screen and make changes.

11. Enter / select details for all the relevant fields in each of the panels in the Scaffold Input tab.

Primary Input	TTM Input	Scaffold Input	Temp Retaining Input	Report	Comments
1. Overbridge Abutments	2. Underbridge Abutments	3. Wing Walls 4. Pile-Cap And Foundation Access	5 Wall Scaffolding 6. Central Reserve Pier Scaffolding	7. Loading Bay Addition 8. Suspended And Bent Scaffolding (Birmingham Box)	9. Cost Engineer Self Price Selection
OVERBRIDGE ABUTMENTS					
Number of Scaffold of this Size	Scaffolding Number of Faces Front and Rear	Scaffold Length in Metres	Scaffold width in Boards	Scaffold Height in Metres	Number of Staircases
Adjusted Allowance	2	39	5	7	2
1	Access Scaffold to an Overbridge Abutment carrying 4 lanes x 2 carriageways plus hardstrips and verg	26			
Adjusted Allowance	2	39	5	7	2
2	Access Scaffold to an Overbridge Abutment carrying 3 lanes x 2 carriageways plus hardstrips and verg	26			
Adjusted Allowance	2	32	5	7	1
3	Access Scaffold to an Overbridge Abutment carrying 2 lanes x 2 carriageways plus hardstrips and verg	26			
Back Next					

12. Select Next to continue proceeding to the next screens.
 13. Enter / select details for all the relevant fields in each of the panels in the Temp Retaining Input tab.

Primary Input
TTM Input
Scaffold Input
Temp Retaining Input
Report
Comments

Sheet Piled Wall King Piled Wall Gabion Walls Cofferdam

Sheet Piled Wall

▼

Retaining Wall Constructed in Select from here Sheet Piles Working in Cantilever

Number of Walls	Retained Height	Length of Wall	Calculated Pile length	Ground Conditions	Pre-auger	Buy Back / Removal Percentage
Adjusted Allowance	<input type="text"/>	<input type="text" value="3"/>	<input type="text" value="100"/>	<input type="text" value="8"/>	Unknown ▼	<input type="text" value="50%"/>

▼

Back
Next

14. Select **Next** to continue proceeding to the next screens.
 15. In the **Report** screen, review the summary of the BQ.
Alternatively, select **Full BQ** to review all the details of the Bill of Quantities.

Primary Input TTM Input Scaffold Input Temp Retaining Input Report Comments

Summary Full BQ

Submit

ITEM	DESCRIPTION	Minimum	TOTAL AMOUNT Most-Likely	Maximum
1	PROJECT MANAGEMENT	£ 1,588	£ 1,835	£ 2,030
2	CLIENT REQUIREMENT	£ 8,042,807	£ 8,936,452	£ 10,296,687
3	ANCILLARY OVERHEADS	£ 1,365,415	£ 1,517,174	£ 1,744,697
4	MAIN COMPOUND	£ 891,260	£ 990,289	£ 1,138,832
5	COST OF OFFICES	£ 45,617	£ 50,979	£ 59,131
Total		£ 17,229,056	£ 19,156,341	£ 22,243,003

Back **Next**

16. Select Submit.

The BQ will be created in Benchmark.

Viewing the BQ

When you submit a model instance from the Parametric Models app:

ITEM	DESCRIPTION	Minimum	TOTAL AMOUNT Most-Likely	Maximum
1	PROJECT MANAGEMENT	£ 1,588	£ 1,835	£ 2,030
2	CLIENT REQUIREMENT	£ 8,042,807	£ 8,936,452	£ 10,296,687
3	ANCILLARY OVERHEADS	£ 1,365,415	£ 1,517,174	£ 1,744,697
4	MAIN COMPOUND	£ 891,260	£ 990,289	£ 1,138,832
5	COST OF OFFICES	£ 45,617	£ 50,979	£ 59,131
Total		£ 17,229,056	£ 19,156,341	£ 22,243,003

- A BQ is created back in Benchmark.
- BQ line items are created as part of a Section or Composite Total.
- BQ line items with quantity and units are created as normal items.
- BQ line items without quantity and units are created as text items.
- BQ line items with 0 quantity are not created.

To view the BQ created in Benchmark:

1. Open the Project for which you created the BQ.
2. Select the relevant Section.

All the BQ line items are created as Project Items.

Line	Code	WBS	Description	Quantity	Unit	Rate	Cost	Sub Rate
1			Staff Daily Travel	0.54	Days	£0.00	£0.00	£0.01
2			Door Access, including swipe cards	2.00	units	£0.00	£0.00	£0.00
3			Gate Access	5.00	units	£0.00	£0.00	£0.00
4			Manager	4,528.30	hours	£0.00	£0.00	£0.00
5			CCTV Watchers Days	5,434.00	hours	£0.00	£0.00	£0.00
6			CCTV Watchers Nights	5,434.00	hours	£0.00	£0.00	£0.00
7			Staff Weekly Travel	0.49	Weeks	£0.00	£0.00	£0.01

You can also view these items in the app using the **Full BQ** option (read-only BQ) in the Report tab.



All the Items from the legacy Excel files will be displayed here. Only the non-zero quantity Items will be created in Benchmark.

Primary Input	TTM Input	Scaffold Input	Temp Retaining Input	Report	Comments
		Summary	Full BQ	Submit	
		DESCRIPTION	QUANTITY	UNIT	
PROJECT MANAGEMENT BQ	TRAVEL				
PROJECT MANAGEMENT BQ	Staff Daily Travel	.54	Days		
PROJECT MANAGEMENT BQ	Staff Weekly Travel	.49	Weeks		
PROJECT MANAGEMENT BQ	SUBSISTENCE				
PROJECT MANAGEMENT BQ	Regular Subsistence	.38	Weeks		

[Back](#)

Regional Investment Programme (RIP)

The RIP model includes the following sub models:

- Roadworks
- Earthworks
- Drainage
- Carriageway
- Signs & Lighting



This topic describes the process of creating a Roadworks submodel instance in the application to generate a Bill of Quantities (BQ). You can create other submodel instances following a similar process.

1. [Open](#) the Parametric Models app.
2. Select Regional Investment Programme.
3. Select Roadworks.
4. Select Create New Model Instance.
5. In the Options Parameters tab, select the *Estimate Name*, *Section Name* and *Composite Total*.

Estimate Name and *Section Name* are mandatory fields.

If you have accessed the app from a Project Section / Composite Total in Benchmark, then these fields will automatically populate the Project *Title*, Section *Description* and Composite Total *Description* from Benchmark.



The Scheme Credentials panel will populate details for the Scheme that this Estimate (Project) is associated with in Benchmark.

6. Use the up and down arrows on the accordions to expand or collapse panels in the screen.

Site Information						
Existing Network		Length (Kms)	Standard	Elevated Sections (kms)	Grade Separated Interchanges (No)	At Grade Junctions (No)
Rural:		Primary 10	S2 (rural) 			2
		Secondary 10	S2 (rural) 			2

7. Select Next to continue proceeding to the next screens.

When you proceed from the first screen, you will be prompted to enter the model instance name.

8. Enter a unique name and select Continue.



If required, you can edit this name in any of the screens using the Edit icon.

Then, Save the new name.



Each completed screen is denoted by a tick within a green circle in the progress line. Active screens are denoted by a green circle. Screens pending completion are denoted by grey circles.



9. Enter / select details for all the relevant fields in each of the panels in the Detailed Parameters screen.

Pipelines

Save As Draft

Options Parameters	Detailed Parameters	Series Parameters	Full BQ	Comments			
1.Existing Infrastructure	2.Principal Routes	3.Grade Separated Interchanges	4.At Grade Junction	5.Side Roads	6.Side Road Junctions	7.Off-Line Tracks	8.Proposed Landscaping Bunds

Existing Infrastructure

Existing roads to be abandoned/upgraded		RURAL	URBAN	TOTAL	
Grade Separated Interchanges:	Donut	no	2	1	3
	Dumbell	no	2	1	3
	Half Dumbell	no			0
	Diamond	no			0

Back **Next**

10. Select **Next** to continue proceeding to the next screens.
You can select **Back** to return to the previous screen and make changes.
11. Enter / select details for all the relevant fields in each of the panels in the **Series Parameters** tab.

Pipelines

Save As Draft

Options Parameters	Detailed Parameters	Series Parameters	Full BQ	Comments									
1.Proportion of heavily wooded areas requiring clearance	2.Take down existing safety barriers	3.Take up existing kerbs and channels	4.Take up existing lighting columns	5.Take down existing traffic signs	6.Take down existing technology	7.Take down existing Fencing (as specified and shown on the drawings)	8.Temporary Fencing	9.Post and rail boundary fencing	10.Other fencing (excluding Environmental Barriers)	11.Environmental Barriers	12.LANDSCAPING & ECOLOGY Planting	13.Additional habitat creation	14.Temporary Reptile Fencing

Proportion of heavily wooded areas requiring clearance

Take down existing fences

Assumptions: All widening in RURAL locations require fences to be taken down on BOTH sides of existing highway boundary.

ADJUST for retained fencing associated with:

Areas of assumed take down both sides of road:	Proportion to be retained	Areas of assumed no fences taken down:	Proportion to be removed
Parallel widening	10% <input checked="" type="checkbox"/>	Symmetric widening with no land take (rural)	20% <input checked="" type="checkbox"/>
Assymetric widening	10% <input checked="" type="checkbox"/>	Urban sections	25% <input checked="" type="checkbox"/>
Symmetric widening with land take	5% <input checked="" type="checkbox"/>	Detrunked sections	5% <input checked="" type="checkbox"/>

Back **Next**

12. Select **Next** to continue proceeding to the next screens.

13. In the Full BQ tab, review all the details of the Bill of Quantities (BQ).

The screenshot shows the Benchmark estimating software interface. At the top, there is a header with the Benchmark logo, user name 'Welcome, Neeraja Raje', and navigation icons. Below the header, the title 'Pipelines' is displayed. A horizontal menu bar contains tabs: 'Options Parameters', 'Detailed Parameters', 'Series Parameters', 'Full BQ' (which is highlighted in green), and 'Comments'. To the right of the menu is a large green 'Submit' button. The main area features a table with columns: 'Sr No', 'Description', 'Unit', and 'Qty'. The table lists six items:

Sr No	Description	Unit	Qty
1	General site clearance	ha	65.28
2	General site clearance - wooded areas	ha	6.95
3	General site clearance - removal of hedges	m	0.57
4	Demolition of buildings	no	0
5	Demolition of bridges	no	0
6	Demolition of retaining walls	no	0

14. Select Submit.

The following confirmation prompt displays:

"No changes to the model are permissible once you submit the item list to Benchmark. Please press Confirm to continue."

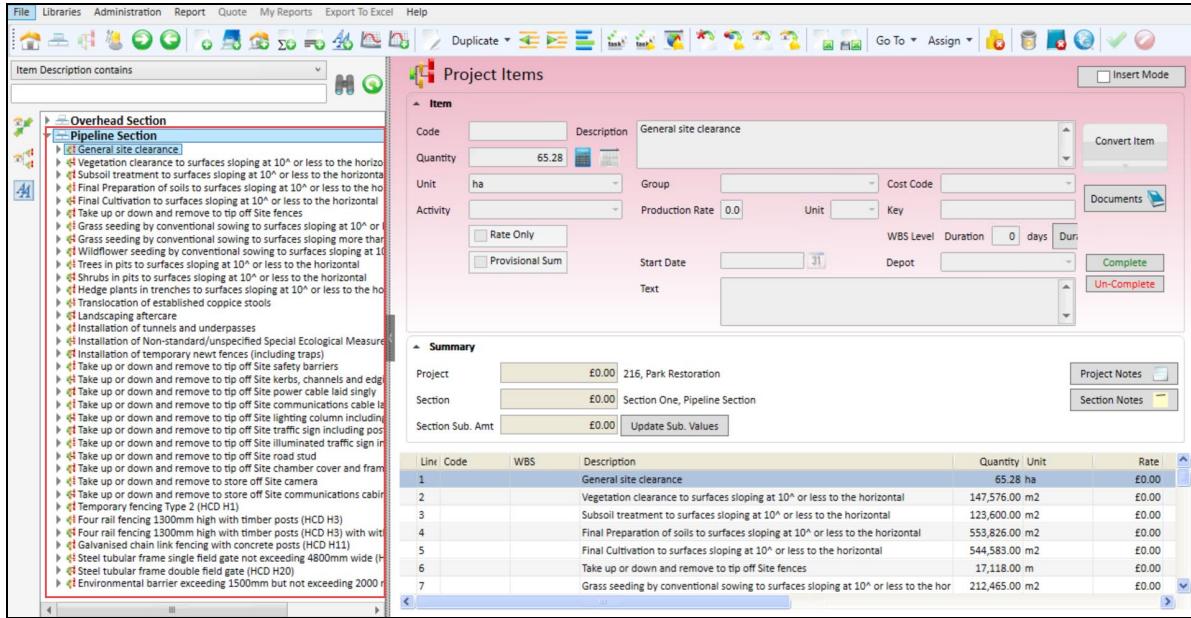
15. Select Confirm.

Viewing the BQ

To view the BQ created in Benchmark:

1. Open the Project for which you created the BQ.
2. Select the relevant Section or Composite Total.

All the BQ line items are created as Project Items.

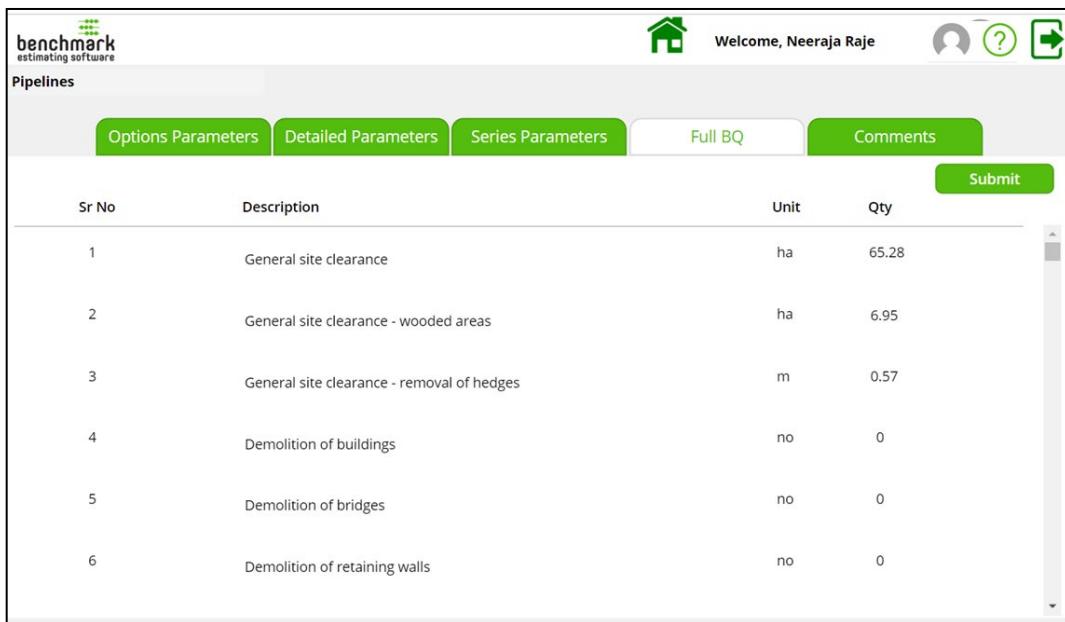


Line	Code	Description	Quantity	Unit	Rate
1		General site clearance	65.28	ha	£0.00
2		Vegetation clearance to surfaces sloping at 10° or less to the horizontal	147,576.00	m ²	£0.00
3		Subsoil treatment to surfaces sloping at 10° or less to the horizontal	123,600.00	m ²	£0.00
4		Final Preparation of soils to surfaces sloping at 10° or less to the horizontal	553,826.00	m ²	£0.00
5		Final Cultivation to surfaces sloping at 10° or less to the horizontal	544,583.00	m ²	£0.00
6		Take up or down and remove to tip off Site fences	17,118.00	m	£0.00
7		Grass seeding by conventional sowing to surfaces sloping more than 10° or less to the horizontal	212,465.00	m ²	£0.00

You can also view these items in the app using the **Full BQ** tab:



All the Items from the legacy Excel files will be displayed here. Only the non-zero quantity Items will be created in Benchmark.



Sr No	Description	Unit	Qty
1	General site clearance	ha	65.28
2	General site clearance - wooded areas	ha	6.95
3	General site clearance - removal of hedges	m	0.57
4	Demolition of buildings	no	0
5	Demolition of bridges	no	0
6	Demolition of retaining walls	no	0

Smart Motorway Program (SMP)

The SMP model includes the following sub models:

- Roadworks
- Earthworks
- Drainage
- Carriageway
- Signs & Lighting



This topic describes the process of creating a Drainage submodel instance in the application to generate a Bill of Quantities (BQ). You can create other submodel instances following a similar process.

1. [Open](#) the Parametric Models app.
2. Select Smart Motorway Program.
3. Select Drainage.
4. Select Create New Model Instance.
5. In the Options Parameters tab, select the *Estimate Name*, *Section Name* and *Composite Total*.

Estimate Name and *Section Name* are mandatory fields.

If you have accessed the app from a Project Section / Composite Total in Benchmark, then these fields will automatically populate the Project *Title*, Section *Description* and Composite Total *Description* from Benchmark.



The Scheme Credentials panel will populate details for the Scheme that this Estimate (Project) is associated with in Benchmark.

6. Use the up and down arrows on the accordions to expand or collapse panels in the screen.

Site Information

Site Information

Existing motorway	Length (kms)	Elevated Sections (m)	Standard (A-side)	Standard (A-side)	Length of Central Reserve existing VCB (kms)	Lit?
Link 1	20	10	D2M (rural)	D3M (rural)	2	No
Link 2	15	5	D3M (rural)	D4M (rural)	1.5	Yes
Link 3						
Link 4						

7. Select **Next** to continue proceeding to the next screens.

When you proceed from the first screen, you will be prompted to enter a model instance name.

8. Enter a unique name and select **Continue**.

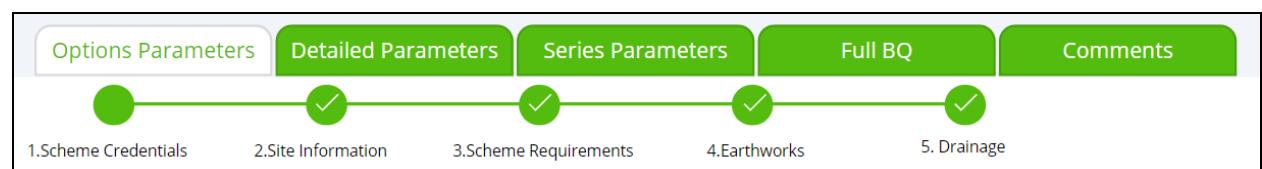


If required, you can edit this name in any of the screens using the **Edit** icon.

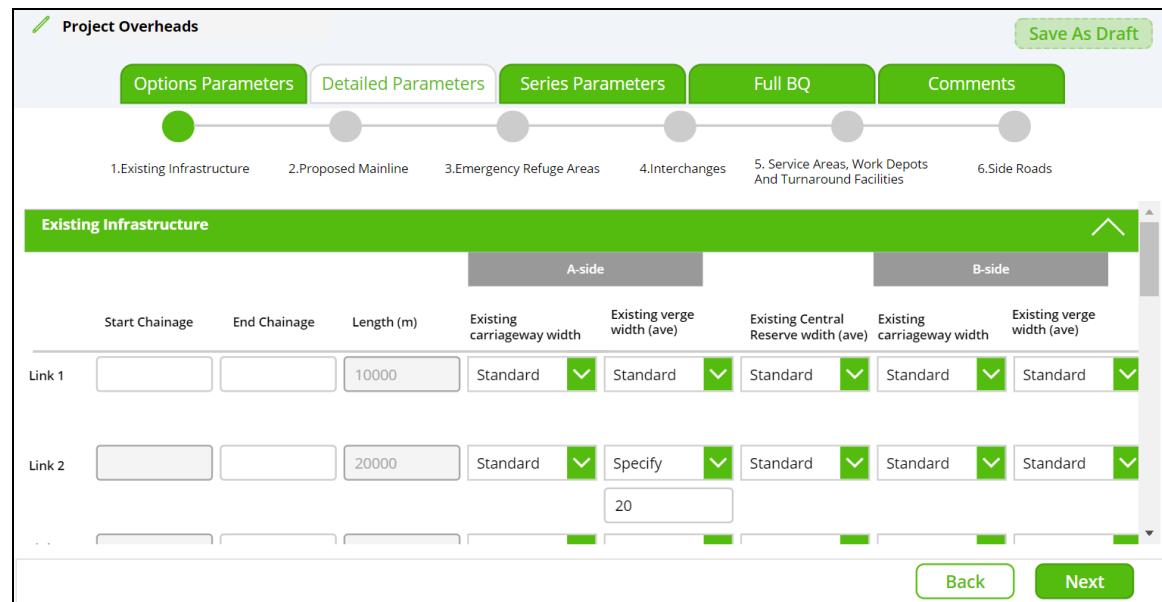
Then, **Save**  the new name.



Each completed screen is denoted by a tick within a green circle in the progress line. Active screens are denoted by a green circle. Screens pending completion are denoted by grey circles.



9. Enter / select details for all the relevant fields in each of the panels in the **Detailed Parameters** screen.



10. Select **Next** to continue proceeding to the next screens.

You can select **Back** to return to the previous screen and make changes.

11. Enter / select details for all the relevant fields in each of the panels in the **Series Parameters** tab.

Options Parameters	Detailed Parameters	Series Parameters	Full BQ	Comments																																																						
<input checked="" type="radio"/> 1.Drainage	<input checked="" type="radio"/> 2.Emergency Refuge Areas	<input checked="" type="radio"/> 3.Interchanges	<input checked="" type="radio"/> 4.Service Areas, Work depots and turnaround facilities 1	<input checked="" type="radio"/> 5. Side Roads																																																						
Drainage <table border="1"> <thead> <tr> <th colspan="9">Proposed Drainage Types and Renewal</th> </tr> <tr> <th>A-CARRIAGEWAY</th> <th>Start Chainage</th> <th>End Chainage</th> <th>Length (m)</th> <th>Upgrade</th> <th>% of Kerb & Gully Drainage Type</th> <th>% of Kerb & Gully Renewed</th> <th>% of Filter Drain Drainage Type</th> <th>% of Filter Drain Renewed</th> </tr> </thead> <tbody> <tr> <td>Link 1</td> <td></td> <td></td> <td>20000</td> <td>D2M (rural)</td> <td>15%</td> <td>70%</td> <td>10%</td> <td>80%</td> </tr> <tr> <td>Link 2</td> <td></td> <td></td> <td>0</td> <td></td> <td>0%</td> <td>100%</td> <td>0%</td> <td>100%</td> </tr> <tr> <td>Link 3</td> <td></td> <td></td> <td>0</td> <td></td> <td>0%</td> <td>100%</td> <td>0%</td> <td>100%</td> </tr> <tr> <td>Link 4</td> <td></td> <td></td> <td>0</td> <td></td> <td>0%</td> <td>100%</td> <td>0%</td> <td>100%</td> </tr> </tbody> </table>					Proposed Drainage Types and Renewal									A-CARRIAGEWAY	Start Chainage	End Chainage	Length (m)	Upgrade	% of Kerb & Gully Drainage Type	% of Kerb & Gully Renewed	% of Filter Drain Drainage Type	% of Filter Drain Renewed	Link 1			20000	D2M (rural)	15%	70%	10%	80%	Link 2			0		0%	100%	0%	100%	Link 3			0		0%	100%	0%	100%	Link 4			0		0%	100%	0%	100%
Proposed Drainage Types and Renewal																																																										
A-CARRIAGEWAY	Start Chainage	End Chainage	Length (m)	Upgrade	% of Kerb & Gully Drainage Type	% of Kerb & Gully Renewed	% of Filter Drain Drainage Type	% of Filter Drain Renewed																																																		
Link 1			20000	D2M (rural)	15%	70%	10%	80%																																																		
Link 2			0		0%	100%	0%	100%																																																		
Link 3			0		0%	100%	0%	100%																																																		
Link 4			0		0%	100%	0%	100%																																																		
<input type="button" value="Back"/> <input type="button" value="Next"/>																																																										

12. Select Next to continue proceeding to the next screens.
13. In the Full BQ tab, review all the details of the Bill of Quantities (BQ).

SMP - Drainage				
Options Parameters	Detailed Parameters	Series Parameters	Full BQ	Comments
			<input type="button" value="Submit"/>	
SeqNo	Description	Unit	Quantity	
301	575 mm internal diameter drain specified design group 2 to 6 in trench depth to invert not exceeding 2 metres, average depth t... m	292		
302	600 mm internal diameter drain specified design group 2 to 6 in trench depth to invert not exceeding 2 metres, average depth t... m	0		
303	600 mm internal diameter drain specified design group 2 to 6 in trench depth to invert exceeding 2m but not exceeding 4m m	0		
304	750 mm internal diameter drain specified design group 2 to 6 in trench depth to invert not exceeding 2 metres, average depth t... m	0		
305	750 mm internal diameter drain specified design group 2 to 6 in trench depth to invert exceeding 2m but not exceeding 4m m	265		
306	900 mm internal diameter drain specified design group 2 to 6 in trench depth to invert not exceeding 2 metres, average depth t... m	0		
307	900 mm internal diameter drain specified design group 2 to 6 in trench depth to invert exceeding 2m but not exceeding 4m m	205		
308	225 mm internal diameter drain by jacking or thrust boring depth to invert not exceeding 2 metres, average depth t... m	0		
309	225 mm internal diameter drain by jacking or thrust boring depth to invert exceeding 2 metres but not exceeding 4m m	0		
310	300 mm internal diameter drain by jacking or thrust boring depth to invert not exceeding 2 metres, average depth t... m	0		
311	375 mm internal diameter drain by jacking or thrust boring depth to invert not exceeding 2 metres, average depth t... m	0		
312	100mm Duct cast in verge/concrete infill item	0		
313	150 mm internal diameter filter drain in trench specified design group 2 to 6 depth to invert not exceeding 2 metres m	3000		

14. Select Submit.
- The following confirmation prompt displays:
- "No changes to the model are permissible once you submit the item list to Benchmark. Please press Confirm to continue."
15. Select Confirm.

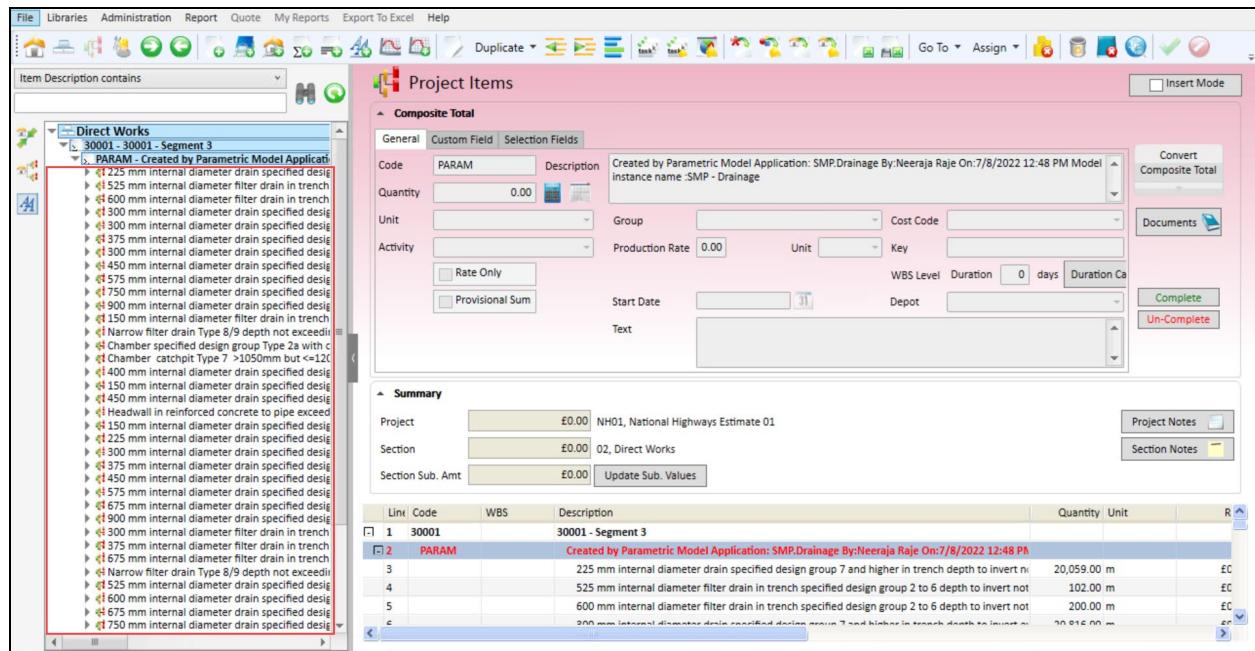
Viewing the BQ

To view the BQ created in Benchmark:

1. Open the Project for which you created the BQ.

2. Select the relevant Section > Composite Total.

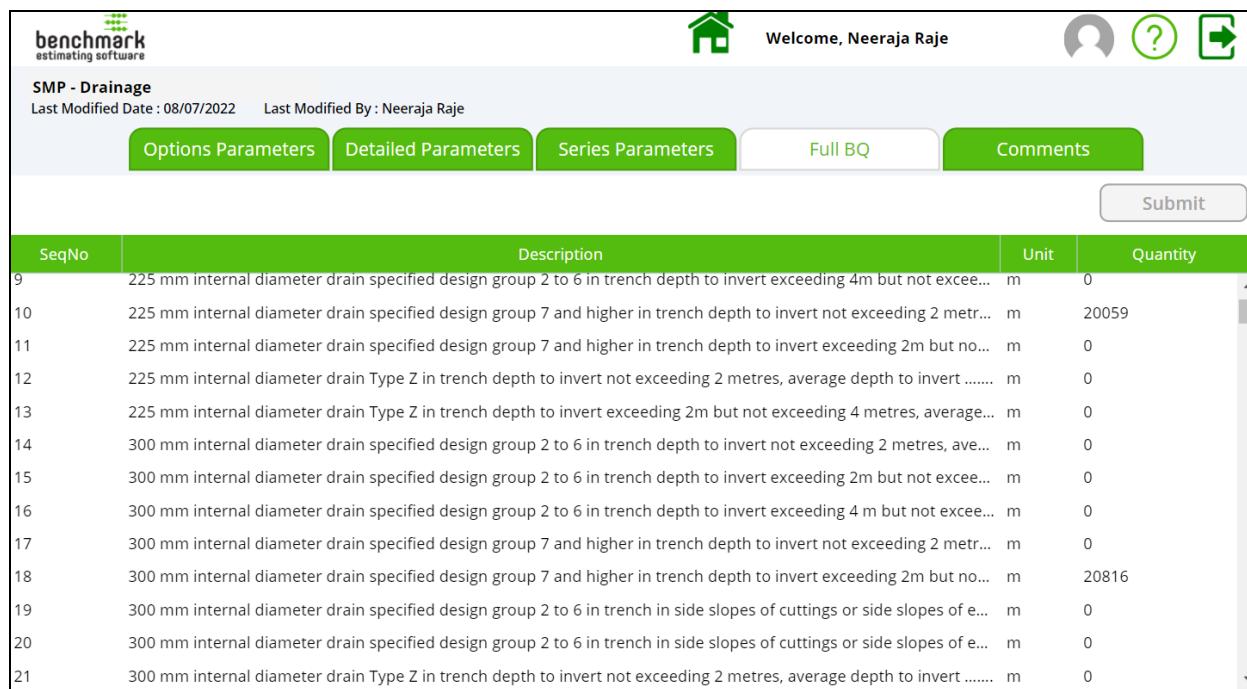
All the BQ line items are created as Project Items.



You can also view these items in the app using the **Full BQ** tab:



All the Items from the legacy Excel files will be displayed here. Only the non-zero quantity Items will be created in Benchmark.



SeqNo	Description	Unit	Quantity
9	225 mm internal diameter drain specified design group 2 to 6 in trench depth to invert exceeding 4m but not exceeding 2metres.....	m	0
10	225 mm internal diameter drain specified design group 7 and higher in trench depth to invert not exceeding 2 metr...	m	20059
11	225 mm internal diameter drain specified design group 7 and higher in trench depth to invert exceeding 2m but no...	m	0
12	225 mm internal diameter drain Type Z in trench depth to invert not exceeding 2 metres, average depth to invert	m	0
13	225 mm internal diameter drain Type Z in trench depth to invert exceeding 2m but not exceeding 4 metres, average...	m	0
14	300 mm internal diameter drain specified design group 2 to 6 in trench depth to invert not exceeding 2 metres, ave...	m	0
15	300 mm internal diameter drain specified design group 2 to 6 in trench depth to invert exceeding 2m but not exceed...	m	0
16	300 mm internal diameter drain specified design group 2 to 6 in trench depth to invert exceeding 4 m but not exceed...	m	0
17	300 mm internal diameter drain specified design group 7 and higher in trench depth to invert not exceeding 2 metr...	m	0
18	300 mm internal diameter drain specified design group 7 and higher in trench depth to invert exceeding 2m but no...	m	20816
19	300 mm internal diameter drain specified design group 2 to 6 in trench in side slopes of cuttings or side slopes of e...	m	0
20	300 mm internal diameter drain specified design group 2 to 6 in trench in side slopes of cuttings or side slopes of e...	m	0
21	300 mm internal diameter drain Type Z in trench depth to invert not exceeding 2 metres, average depth to invert	m	0

Other Functions

Searching Model Instances

You can search the model instances by the following search criteria:

- Model name
- Estimate name
- Creation date
- Scheme name
- Project manager
- User who created the model instance

In the example below, we will search the model instances by Estimate name:

1. [Open](#) the Parametric Models app.
2. Select the relevant model type.
For example, **Indirect Works**.
3. In the Search bar, enter the search term.
For example, Highway.
4. This displays the list of model instances containing the search term.

The screenshot shows the Benchmark estimating software interface. At the top, there is a navigation bar with a house icon, a welcome message 'Welcome, Neeraja Raje', and user profile icons. Below the navigation bar, there are three buttons: 'Saved' (highlighted in green), 'Submitted', and 'Archived'. To the right of these buttons is a search bar containing the text 'highway'. A green button labeled 'Create New Model Instance' is located to the right of the search bar. Below the search bar is a table header with columns: 'Model Instance', 'Estimate', 'Date Created', 'Status', 'Scheme Name', 'Project Manager', 'Created By', and 'Action'. Under the 'Model Instance' column, it lists 'New Preliminaries Model v1.0'. Under the 'Estimate' column, it shows 'Highway Upgrade' (which is highlighted with a red border). Under the 'Date Created' column, it shows '02/12/2021'. Under the 'Status' column, it shows 'Saved'. Under the 'Scheme Name' column, it shows 'Junction Improvement'. Under the 'Project Manager' column, it shows 'PM'. Under the 'Created By' column, it shows 'Shailendra Mishra'. Under the 'Action' column, there is a blue link labeled 'View'.

Clear the search term to view the unfiltered list of model instances again.

Saving Model Instances

When working on a model instance, you can choose to save the details and submit it later.

1. Select **Save As Draft** to save the entered details.

New Preliminaries Model v1.4
Last Modified Date : 08/04/2022 Last Modified By : Neeraja Raje

Primary Input **TTM Input** **Scaffold Input** **Temp Retaining Input** **Report** **Comments**

STAFF

SUPPLIER STAFF PCF STAGE 6 & 7

Adjusted Supplier Staff Percentage (if known) Default Value is 20% Is The Supplier Providing Permanent Work Design ? YES

DISCIPLINE APORTIONMENT	MODEL DEFAULT %	ADJUSTED %	ADOPTED %
NON OVERHEAD DIRECTORS	4%	4%	4%
PROJECT MANAGEMENT	32%	32%	32%

Back **Next**

2. These drafts display with a status of **Saved** in the list of model instances.
3. Select **View** to open the draft.
4. Select **Modify** to continue working on the model instance.



Modifying Model Instances

You can view but not modify the model instances created by other users.



Errors

A red circle denotes errors in the section. Go to the relevant section and rectify the error.



Adding Comments

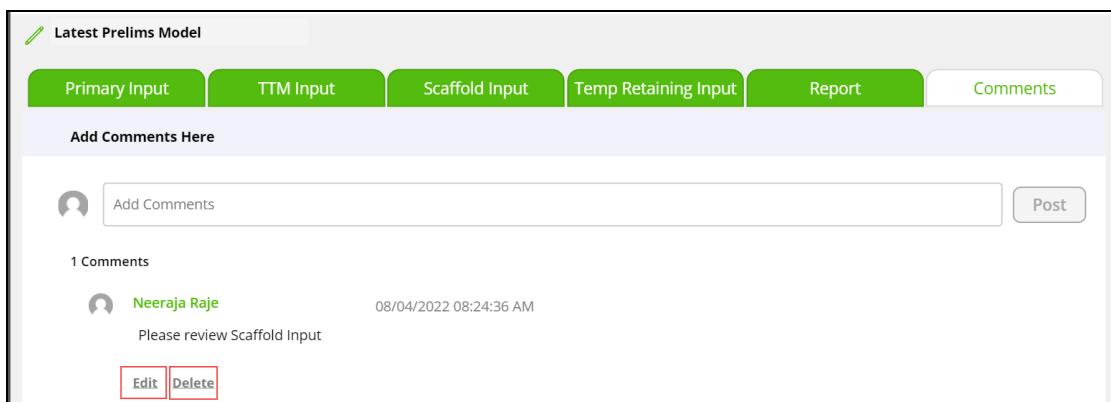
You can add comments to a model instance, when creating it or editing a saved draft. You can also add comments for the model instances created by other users.

To add comments:

1. Select the Comment tab for the relevant model instance.



2. Enter the comment and select Post.
3. Once posted, the comment will be listed in the tab.
4. Select:
 - a. Edit to modify and save your comment.
 - b. Delete to delete your comment.



Archiving Model Instances

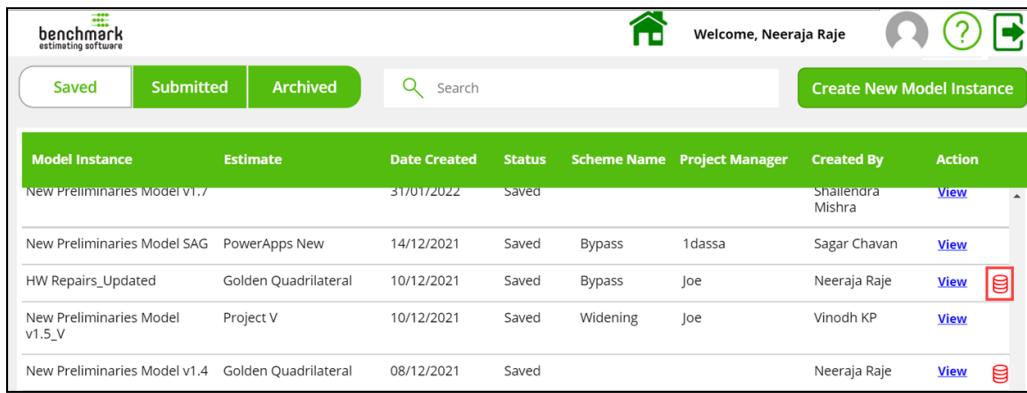
If you no longer need a model instance, you can archive it. This can be particularly useful when you need to manage a large list of model instances in the application.

You can only archive your saved model instances. You cannot archive:

- Your submitted model instances.
- The model instances created by other users.

To archive:

1. Go to the Saved tab.
2. Select the Archive Model icon for the relevant model instance.



Model Instance	Estimate	Date Created	Status	Scheme Name	Project Manager	Created By	Action
New Preliminaries Model v1.7		31/07/2022	Saved			Shailendra Mishra	View
New Preliminaries Model SAG	PowerApps New	14/12/2021	Saved	Bypass	1dassa	Sagar Chavan	View
HW Repairs_Updated	Golden Quadrilateral	10/12/2021	Saved	Bypass	Joe	Neeraja Raje	View 
New Preliminaries Model v1.5_V	Project V	10/12/2021	Saved	Widening	Joe	Vinodh KP	View
New Preliminaries Model v1.4	Golden Quadrilateral	08/12/2021	Saved			Neeraja Raje	View 

The following confirmation prompt displays:

“Are you sure you want to archive <model instance name>?”

3. Add a comment within the text area in the prompt, if required.
4. Select Yes.

The model instance will be removed from the Saved tab, and added to the Archived tab.

You can view or [copy](#) these archived model instances, but not submit them.

Copying Model Instances

This functionality facilitates:

- Easy reuse of the same model instance between different estimates.
- Creation of multiple versions of the same model instance within the same estimate. Each version may be different from the other. Users can then compare these versions and submit the relevant model instance.



You can only submit one version per model instance. The others can be archived.

To copy a model instance:

1. From the list of saved/submitted/archived model instances, select View to open the model instance you want to copy.
2. Select Copy.

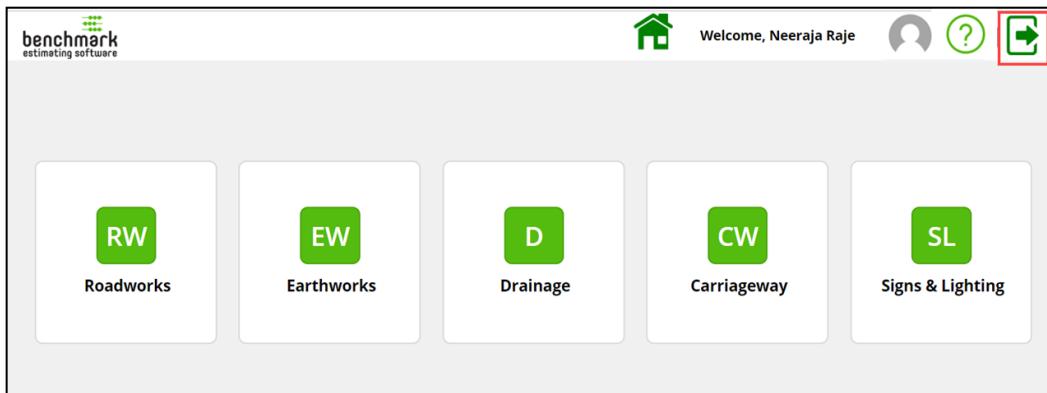
The screenshot shows the 'HW Repairs_Updated' model instance details. At the top right are 'Copy' (highlighted with a red box) and 'Modify' buttons. Below them is a grid of 24 items, each with a green circular checkbox. The items are numbered 1 through 24 and include categories like Primary Input, TTM Input, Scaffold Input, Temp Retaining Input, Report, and Comments. Under Primary Input, items 1, 2, and 3 are checked. Under TTM Input, items 4, 5, and 6 are checked. Under Scaffold Input, items 7 and 8 are checked. Under Temp Retaining Input, items 10, 11, and 12 are checked. Under Report, items 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22 are checked. Under Comments, items 23 and 24 are checked. Below the grid are fields for 'Estimate Name *' (Golden Quadrilateral), 'Section Name *' (Repairs), 'Estimate Completion Date' (10/12/2021), and three expandable sections: 'TIME/DURATION', 'LABOUR & SITE', and 'DIRECT WORKS PRICE'.

3. This creates a copy of the selected model instance.
4. Select the new Estimate Name and Section Name.
5. Enter/select details for the new model instance using standard functionality.

Logging Out

To log out of this application:

1. From any page within the application, select the Logout icon.



The following confirmation prompt displays:

"Are you sure you want to Logout?"

2. Select Yes.

Appendix

The sections below map the input screens in the app to the relevant worksheets.

Indirect Works

Forms in the app user interface map to their corresponding Parametric Model worksheets (MP Model v51.5).

Primary Input

New Preliminaries Model v1.0													
Last Modified Date : 06/12/2021						Last Modified By : Vinodh KP							
Primary Input			TTM Input		Scaffold Input		Temp Retaining Input			Report		Comments	
 1. Time/Duration  4. Staff 2. Labour & Site 3. Direct Works Price  5. Road Length  6. Security Gates  7. Vehicles  8. Haul Roads  9. Plant Platforms  10. Offices  11. Power  12. Emergency Traffic Management  13. Temporary Retaining Structures  14. Construction Shoring  15. Statutory Services  16. Water Management  17. Environment  18. Archaeology  19. Protected Species  20. External Parties Fees  21. Temporary De-Watering  22. Temporary Run-Off Surface  23. Temporary Roads  24. Temporary Screen													
Estimate Name *			<input type="text" value="Highway Upgrade"/> 			Section Name *			<input type="text" value="Excavation"/> 				
Estimate Completion Date						<input type="text" value="02/12/2021"/> 							
TIME/DURATION													
LABOUR & SITE													
DIRECT WORKS PRICE													

INDIRECT PRICE CALCULATOR / NEW PRELIMS MODEL

For use on schemes over £10,000,000

PROJECT / ESTIMATE TITLE		ESTIMATED COMPLETION DATE
TIME / DURATION		
<div style="border: 1px solid #ccc; padding: 5px;"> Select Scheme Definition from the Dropdown List → Brian Motorway PDF STAGES 6 AND 7 DURATIONS WEEKS MONTHS YEARS Occupied Construction Duration Stage 6 118 27 2 Adjusted Construction Duration 118 27 2 Default Defects Period Stage 7 52 12 1 Adjusted Defects Period 52 12 1 Default Aftercare Period 280 60 5 Adjusted Aftercare Period 280 60 5 </div>		
LABOUR & SITE <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> Enter Project Manager's Name: <input type="text"/> PM Email Address: <input type="text"/> Default Labour Costs £13,500,000.00 FTE LABOUR Actualised Labour Costs £13,500,000.00 100% Default Training Hours 45 Actualised Training Hours </div>		
<input checked="" type="checkbox"/> primary inputs <input type="checkbox"/> Summary <input type="checkbox"/> detailed summary <input type="checkbox"/> full list <input type="checkbox"/> ce change report <input type="checkbox"/> project management calls <input type="checkbox"/> project management b4q <input type="checkbox"/> client requirement b4q <input type="checkbox"/> other		

TTM Input

New Preliminaries Model V1.0

Last Modified Date : 06/12/2021 Last Modified By : Vinodh KP

Primary Input	TTM Input	Scaffold Input	Temp Retaining Input	Report	Comments																			
1. Project Information	2. Traffic Safety and Management	3. Installation of Temporary Traffic Management Arrangements	4. Maintenance of Temporary Traffic Management Arrangements	5. Taking Measures for or Construction, Maintenance, Removal of Controlflow Arrangements	6. Recovery Vehicles	7. Temporary Closed Circuit(CTO) System for the Monitoring of Traffic	8. Temporary Automatic Speed Camera System for the Monitoring of Traffic	9. Mandatory Speed Limits Roadworks																
<h3>Project Information</h3> <table border="1"> <tr> <td>Project Type</td> <td>Junction Improvement</td> <td>Road Type</td> <td>Permanent Speed Limit</td> </tr> <tr> <td>Primary Road-Length of the Works (km)</td> <td>0</td> <td><input type="button" value="▼"/></td> <td><input type="button" value="▼"/></td> </tr> <tr> <td>Secondary Road-Length of the Works (km)</td> <td>0</td> <td><input type="button" value="▼"/></td> <td><input type="button" value="▼"/></td> </tr> <tr> <td>Number of junctions (no)</td> <td><input type="text"/></td> <td></td> <td></td> </tr> </table> <h3>Traffic Safety and Management Reality Check</h3>									Project Type	Junction Improvement	Road Type	Permanent Speed Limit	Primary Road-Length of the Works (km)	0	<input type="button" value="▼"/>	<input type="button" value="▼"/>	Secondary Road-Length of the Works (km)	0	<input type="button" value="▼"/>	<input type="button" value="▼"/>	Number of junctions (no)	<input type="text"/>		
Project Type	Junction Improvement	Road Type	Permanent Speed Limit																					
Primary Road-Length of the Works (km)	0	<input type="button" value="▼"/>	<input type="button" value="▼"/>																					
Secondary Road-Length of the Works (km)	0	<input type="button" value="▼"/>	<input type="button" value="▼"/>																					
Number of junctions (no)	<input type="text"/>																							

Temporary Traffic Management Input Sheet													
Project Information <table border="1"> <tr> <td style="width: 150px;"> Project ID: STP001 Primary Road - Length of the road: 5km Secondary Road - Length of the road: 2km Number of Junctions: 10 Project Duration: 10 weeks </td> <td style="width: 150px;"> Road type: Temporary Permanent speed limit: 50 mph </td> </tr> <tr> <td colspan="2"> Traffic Safety and Management Readiness Check This section is used to check traffic management and analysis 25% of the direct cost of construction. </td> </tr> <tr> <td colspan="2"> Direct Cost of Construction: £10,000,000 Direct Works/Labour Cost: £1,000,000 </td> </tr> </table>		Project ID: STP001 Primary Road - Length of the road: 5km Secondary Road - Length of the road: 2km Number of Junctions: 10 Project Duration: 10 weeks	Road type: Temporary Permanent speed limit: 50 mph	Traffic Safety and Management Readiness Check This section is used to check traffic management and analysis 25% of the direct cost of construction.		Direct Cost of Construction: £10,000,000 Direct Works/Labour Cost: £1,000,000							
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Traffic Safety and Management Readiness Check This section is used to check traffic management and analysis 25% of the direct cost of construction.													
Direct Cost of Construction: £10,000,000 Direct Works/Labour Cost: £1,000,000													
Traffic Safety and Management Readiness Check This section is used to check traffic management and analysis 25% of the direct cost of construction.													
Temporary Traffic Control (TTC) Requests <table border="1"> <tr> <td style="width: 150px;"> Request preference: Number: 0 Days per week: 0 % of project duration: 0% </td> <td style="width: 150px;"> Number of days per week: Standard allowance: 0 Adjusted allowance: 0 Adapted allowance: 0 </td> <td style="width: 150px;"> Number of days per week: Standard allowance: 0 Adjusted allowance: 0 Adapted allowance: 0 </td> <td style="width: 150px;"> Number of days per week: Standard allowance: 0 Adjusted allowance: 0 Adapted allowance: 0 </td> </tr> <tr> <td colspan="4"> Dedicated TTC Number: 0 Days per week: 0 % of project duration: 0% </td> </tr> </table>		Request preference: Number: 0 Days per week: 0 % of project duration: 0%	Number of days per week: Standard allowance: 0 Adjusted allowance: 0 Adapted allowance: 0	Number of days per week: Standard allowance: 0 Adjusted allowance: 0 Adapted allowance: 0	Number of days per week: Standard allowance: 0 Adjusted allowance: 0 Adapted allowance: 0	Dedicated TTC Number: 0 Days per week: 0 % of project duration: 0%							
Request preference: Number: 0 Days per week: 0 % of project duration: 0%	Number of days per week: Standard allowance: 0 Adjusted allowance: 0 Adapted allowance: 0	Number of days per week: Standard allowance: 0 Adjusted allowance: 0 Adapted allowance: 0	Number of days per week: Standard allowance: 0 Adjusted allowance: 0 Adapted allowance: 0										
Dedicated TTC Number: 0 Days per week: 0 % of project duration: 0%													
Number of days per week = total days per week Standard allowance = 1 day per week Adjusted allowance = 1 day per week Adapted allowance = 1 day per week Note: 1 day = 24 hours													
item10	item11	item12	item13	item14	item15	item16	item17	item18	item19	item20	item21	ttm summary	ttm input

Scaffold Input

New Preliminaries Model V1.0		Last Modified Date : 06/12/2021		Last Modified By : Vinod KP	
Primary Input	TTM Input	Scaffold Input	Temp Retaining Input	Report	Comments
 1. Overbridge Abutments	 2. Underbridge Abutments	 3. Wing Walls	 4. Pile-Cap And Foundation Access	 5. Wall Scaffolding	 6. Central Reserve Pier Scaffolding
				 7. Loading Bay Addition	 8. Suspended And Bent Scaffolding (minimum 8m)
				 9. Cost Engine Self Price Section	
OVERBRIDGE ABUTMENTS					
Number of Scaffolds of this Size		Scaffolding Number of Faces Front and Rear		Scaffold Length in Metres	
				Scaffold width in Boards	
				Scaffold Height in Metres	
				Number of Staircases	
				Scaffold Hire Period in weeks	
1 Access Scaffold to an Overbridge Abutment carrying 4 lanes x 2 carriageways plus hardstrips and verg					
Adjusted Allowance		<input type="text" value="2"/>	<input type="text" value="39"/>	<input type="text" value="5"/>	<input type="text" value="7"/>
		<input type="text" value="2"/>	<input type="text" value="26"/>		
2 Access Scaffold to an Overbridge Abutment carrying 3 lanes x 2 carriageways plus hardstrips and verg					
Adjusted Allowance		<input type="text" value="2"/>	<input type="text" value="32"/>	<input type="text" value="5"/>	<input type="text" value="7"/>
		<input type="text" value="1"/>			<input type="text" value="26"/>
3 Access Scaffold to an Overbridge Abutment carrying 2 lanes x 2 carriageways plus hardstrips and verg					

Task ID	Input Sheet	Scaffolding Input	Number of blocks of the task	Number of blocks per line				Scaffolding time period in seconds	Max	Total Price	Min
				First and fourth	Second and third	Height in blocks	Width in blocks				
Get the next experience scaffolding											
1	Access Stafford to an Overbridge	Attachment Lanning 4 lines x 2 cartridges plus headphones and verge	Default Allowance	1	2	20	1	20	-	€ 15.900,-	€ 15.900,-
			Adjusted Allowance	1	2	20	1	20	1	€ 20.20,-	€ 20.20,-
			Actual Allowance	1	2	20	1	20	1	€ 20.20,-	€ 20.20,-
2	Access Stafford to an Overbridge	Attachment Lanning 5 lines x 2 cartridges plus headphones and verge	Default Allowance	1	2	32	7	1	20	€ 20.40,-	€ 20.40,-
			Adjusted Allowance	1	2	32	7	1	20	€ 20.40,-	€ 20.40,-
			Actual Allowance	1	2	32	7	1	20	€ 20.40,-	€ 20.40,-
3	Access Stafford to an Overbridge	Attachment Lanning 5 lines x 2 cartridges plus headphones and verge	Default Allowance	1	2	20	7	1	20	€ 18.60,-	€ 18.60,-
			Adjusted Allowance	1	2	20	7	1	20	€ 18.60,-	€ 18.60,-
			Actual Allowance	1	2	20	7	1	20	€ 18.60,-	€ 18.60,-
4	Access Stafford to an Overbridge	Attachment Lanning 4 lines x 2 cartridges plus verge	Default Allowance	1	2	12	5	1	20	-	-
			Adjusted Allowance	1	2	12	5	1	20	-	-
			Actual Allowance	1	2	12	5	1	20	-	-
Underbridge											
5	Access Stafford to Underbridge	Attachment Lanning 4 lines x 2 cartridges plus headphones and verge	Default Allowance	1	2	20	5	1	20	-	-
			Adjusted Allowance	1	2	20	5	1	20	-	-
			Actual Allowance	1	2	20	5	1	20	-	-
6	Access Stafford to Underbridge	Attachment Lanning 5 lines x 2 cartridges plus headphones and verge	Default Allowance	1	2	32	5	1	20	-	-
			Adjusted Allowance	1	2	32	5	1	20	-	-
			Actual Allowance	1	2	32	5	1	20	-	-

Temp Retaining Input

New Preliminaries Model v1.0
Last Modified Date : 06/12/2021 Last Modified By : Vinodh KP

Primary Input TTM Input Scaffold Input **Temp Retaining Input** Report Comments

Sheet Piled Wall King Piled Wall Gabion Walls Cofferdam

Sheet Piled Wall

Select from here

Retaining Wall Constructed in: Select from here Sheet Piles Working in Cantilever

Number of Walls	Retained Height	Length of Wall	Calculated Pile length	Ground Conditions	Pre-auger	Buy Back / Removal Percentage
Adjusted Allowance	3	100	8	Unknown	50%	50%

Select from here

Back Next

Back to Input sheet

Retaining Solutions Input

Sheet Piled Wall

Length of Wall	Calculated Pile length	Ground Conditions	Pre-auger	Buy Back / Removal Percentage
100	6	unknown	50%	50%
100	6	unknown	50%	50%
100	8	unknown	50%	50%
100	8	unknown	50%	50%
100	9	unknown	50%	50%
100	9	unknown	50%	50%
100	10	unknown	50%	50%

temp retaining inputs scaffold input priced page data sheet piling summary dropdowns input power grid calculator 1 generator calculator 1 watt ...

Regional Investment Programme (RIP)

Roadworks

Forms in the app user interface map to their corresponding Parametric Model worksheets (DWCM – Roadworks General – RIP – V2.0).

Options Parameters

New Roadworks Model

Options Parameters Detailed Parameters Series Parameters Full BO Comments

1.Scheme Credentials 2.Site Information 3.Scheme Requirement 4.Site Clearance 5.Fencing 6.Landscaping & Ecology 7.Archaeology

Site Information

Existing Network Length (Kms) Standard Elevated Sections (Kms) Grade Separated Interchanges (No) At Grade Junctions (No) Side Roads (No)

Rural:	Primary				
	Secondary				
Urban:	Primary				
	Secondary				

Back Next

Scheme Credentials

Scheme name: Project Manager Lead Engineer Cost Engineer
PCF Stage of Scheme Estimate Reference Date of Estimate Scheme Type

Site Information

Existing Network Length (Kms) Standard Elevated Sections (Kms) Grade Separated Interchanges (No) At Grade Junctions (No) Side Roads (No)

Rural:	Primary	Secondary	Primary	Secondary	
Urban:	Primary	Secondary	Primary	Secondary	

Geography

Micrarelief Ground conditions (stability) Predominant land use

Scheme Requirements

New principal route: Version Control Grand Summary **Options Parameters** Length (kms) No. of Links Standard

Detailed Parameters

New Roadworks Model

Options Parameters **Detailed Parameters** Series Parameters Full BO Comments

1.Existing Infrastructure 2.Principal Routes 3.Grade Separated Interchanges 4.At Grade Junction 5.Side Roads 6.Off Line Tracks 8.Proposed Landscaping Bunds

Existing Infrastructure

Existing roads to be abandoned/upgraded RURAL URBAN TOTAL

Donut	no			0
Dumbell	no			0
Half Dumbell	no			0
Diamond	no			0

Grade Separated Interchanges:

At grade junctions:	Donut	no				
	Dumbell	no				
	Half Dumbell	no				
	Diamond	no				

Side roads (crossings):

Single	kms			
Dual	kms			

Off-line tracks: De-trunking

km			
----	--	--	--

Back Next

EXISTING INFRASTRUCTURE:

Existing roads to be abandoned/upgraded Grade separated interchanges:

Link	Donut	Dumbell	Half Dumbell	Diamond	TJunction	Roundabout	Crossroads	TJunction	Single	Dual
Link 1	no	no	no	no	no	no	no	no	no	no
Link 2	0	0	0	0	0	0	0	0	0	0
Link 3	0	0	0	0	0	0	0	0	0	0
Link 4	0	0	0	0	0	0	0	0	0	0
Link 5	0	0	0	0	0	0	0	0	0	0
Link 6	0	0	0	0	0	0	0	0	0	0
Link 7	0	0	0	0	0	0	0	0	0	0
Link 8	0	0	0	0	0	0	0	0	0	0
Link 9	0	0	0	0	0	0	0	0	0	0
Link 10	0	0	0	0	0	0	0	0	0	0

RURAL URBAN TOTAL

PRINCIPAL ROUTES:

Proposed Cross Connection

Link	Existing Section	Start Chainage	End Chainage	Length (m)	Alignment	New Road Type	Hardenipg(s)/shoulder (per carriage)	C/Res width	Verge width (per carriage)
Link 1	0	0	0	0					
Link 2	0	0	0	0					
Link 3	0	0	0	0					
Link 4	0	0	0	0					
Link 5	0	0	0	0					
Link 6	0	0	0	0					
Link 7	0	0	0	0					
Link 8	0	0	0	0					
Link 9	0	0	0	0					
Link 10	0	0	0	0					

Version Control Grand Summary Options Parameters Detailed Parameters Series Parameters Cost Plan BC ...

Series Parameters

New Roadworks Model

	Options Parameters	Detailed Parameters	Series Parameters	Full BQ	Comments
1. Proportion of heavily wooded areas requiring clearance	0.00%	0.00%	0.00%	0.00%	0.00%
2. Take down existing lighting columns	0.00%	0.00%	0.00%	0.00%	0.00%
3. Take up existing lighting columns and bring up existing kerbs and channels	0.00%	0.00%	0.00%	0.00%	0.00%
4. Take up existing lighting columns and bring up existing kerbs and channels	0.00%	0.00%	0.00%	0.00%	0.00%
5. Take up existing lighting columns and bring up existing kerbs and channels	0.00%	0.00%	0.00%	0.00%	0.00%
6. Take up existing lighting columns and bring up existing kerbs and channels	0.00%	0.00%	0.00%	0.00%	0.00%
7. Take down existing fencing (as specified and shown on the drawings)	0.00%	0.00%	0.00%	0.00%	0.00%
8. Post and rail boundary fencing (as specified and shown on the drawings)	0.00%	0.00%	0.00%	0.00%	0.00%
9. Environmental Barriers	0.00%	0.00%	0.00%	0.00%	0.00%
10. Fencing (as specified and shown on the drawings)	0.00%	0.00%	0.00%	0.00%	0.00%
11. Additional habitat creation	0.00%	0.00%	0.00%	0.00%	0.00%
12. Environmental ECOLOGY	0.00%	0.00%	0.00%	0.00%	0.00%
13. Temporary Regulating Areas	0.00%	0.00%	0.00%	0.00%	0.00%

Proportion of heavily wooded areas requiring clearance

Principal route	Link 1	Link 2	Link 3	Link 4	Link 5	Link 6	Link 7	Link 8	Link 9
Location									
Start Change									
End Change									
Extent of heavily wooded areas	✓	✓	✓	✓	✓	✓	✓	✓	✓

SITE CLEARANCE:

Principal route	Link 1	Link 2	Link 3	Link 4	Link 5	Link 6	Link 7	Link 8
Location								
Start Change								
End Change								
Extent of heavily wooded areas								
Name								
Mainline Change	0	0	0	0	0	0	0	0
Side Roads	0	0	0	0	0	0	0	0
Grade Separate Interchanges	0	0	0	0	0	0	0	0
End Change	0	0	0	0	0	0	0	0
Extent of wooded areas	0	0	0	0	0	0	0	0
Side Roads (cont'd)	0	0	0	0	0	0	0	0
Start Change	0	0	0	0	0	0	0	0
End Change	0	0	0	0	0	0	0	0
Extent of wooded areas	0	0	0	0	0	0	0	0

Take down existing fences:

Principal route	Link 1	Link 2	Link 3	Link 4	Link 5	Link 6	Link 7	Link 8	Link 9
Location									
Start Change									
End Change									
Extent of wooded areas									
Name									
Mainline Change	0	0	0	0	0	0	0	0	0
Side Roads	0	0	0	0	0	0	0	0	0
Grade Separate Interchanges	0	0	0	0	0	0	0	0	0
End Change	0	0	0	0	0	0	0	0	0
Extent of wooded areas	0	0	0	0	0	0	0	0	0
Side Roads (cont'd)	0	0	0	0	0	0	0	0	0
Start Change	0	0	0	0	0	0	0	0	0
End Change	0	0	0	0	0	0	0	0	0
Extent of wooded areas	0	0	0	0	0	0	0	0	0

Earthworks

Forms in the app user interface map to their corresponding Parametric Model worksheets (DWCM – Earthworks General – RIP – V2.0).

Options Parameters

Earthworks Model

	Options Parameters	Detailed Parameters	EWKS Parameters	Full BQ	Comments
1. Scheme Credentials	✓	0.00%	0.00%	0.00%	0.00%
2. Site Information	✓	0.00%	0.00%	0.00%	0.00%
3. Scheme Requirement	✓	0.00%	0.00%	0.00%	0.00%
4. Earthworks	✓	0.00%	0.00%	0.00%	0.00%

Site Information

Existing Network	Length (kms)	Standard	Elevated Sections (kms)	Grade Separated Interchanges (No)	At Grade Junctions (No)	Side Roads (No)
Rural:						
Primary						
Secondary						
Urban:						
Primary						
Secondary						

Scheme Credentials

Scheme Name	Project Manager	Cost Engineer	PCF Stage of Scheme	Delivery Reference	Date of Delivery	Scheme Type
Base Data						

Site Information

Existing Network	Length (kms)	Standard	Elevated Sections (kms)	Grade Separated Interchanges (No)	At Grade Junctions (No)	Side Roads (No)
Rural:						
Primary						
Secondary						
Urban:						
Primary						
Secondary						

Geography

Terrain	Ground conditions (stability)	Permanent land use
RURAL		
URBAN		

Scheme Requirements

New principal route:	Sheet 1	Subcontract Library	Options Parameters	Detailed Parameters	EWKS Parameters	Summary Links Schedule
Length (kms)						
No. of links						
Standard						

Detailed Parameters

New Earthworks Model

	Options Parameters	Detailed Parameters	EWKS Parameters	Full BQ	Comments
1. Existing Infrastructure	✓	0.00%	0.00%	0.00%	0.00%
2. Principal Routes	✓	0.00%	0.00%	0.00%	0.00%
3. Grade Separated Interchanges	✓	0.00%	0.00%	0.00%	0.00%
4. At Grade Junctions	✓	0.00%	0.00%	0.00%	0.00%
5. Side Roads	✓	0.00%	0.00%	0.00%	0.00%
6. Off-Road Tracks	✓	0.00%	0.00%	0.00%	0.00%
7. Proposed Landscaping Bunds	✓	0.00%	0.00%	0.00%	0.00%

Existing Infrastructure

Existing roads to be abandoned/upgraded	RURAL	URBAN	TOTAL
Donut	no		0
Dumbell	no		0
Half Dumbell	no		0
Diamond	no		0

EXISTING INFRASTRUCTURE:

Existing roads to be abandoned/upgraded	RURAL	URBAN	TOTAL
Grade separated interchanges:	Donut	no	0
	Dumbell	no	0
	Half Dumbell	no	0
	Diamond	no	0
	LDU	no	0
	Roundabout	no	0
At grade junctions:	Crossroads		
	Single	kms	
	Dual	kms	
	OR-Bin Tracks	kms	
	Or trucking	kms	

PRINCIPAL ROUTES

Existing Section	Start Change	End Change	Length (m)	Alignment	New Road Type	Hardscape/s/shoulder (per carriageway)	C/F'es width	Verge width (per carriage)
Link 1	0	0	0					
Link 2	0	0	0					
Link 3	0	0	0					
Link 4	0	0	0					
Link 5	0	0	0					
Link 6	0	0	0					
Link 7	0	0	0					
Link 8	0	0	0					
Link 9	0	0	0					
Link 10	0	0	0					

EWKS Parameters

New Earthworks Model

	Options Parameters	Detailed Parameters	EWKS Parameters	Full BQ	Comments
1. Topsoil Strip	✓	0.00%	0.00%	0.00%	0.00%
2. Excavation of unserviceable materials	✓	0.00%	0.00%	0.00%	0.00%
3. Excavation of hard material	✓	0.00%	0.00%	0.00%	0.00%
4. Balancing Ponds	✓	0.00%	0.00%	0.00%	0.00%
5. Starter layer	✓	0.00%	0.00%	0.00%	0.00%
6. Removal of existing drains	✓	0.00%	0.00%	0.00%	0.00%

Topsoil Strip

Principal Route	Link1	Link2	Link3	Link4
Location				
Start Change				
End Change				
Predominant Land Use	✓	✓	✓	✓
Average Depth of Topsoil Strip (mm)	✓	✓	✓	✓

BULK EARTHWORKS:

Topsoil Strip	Principal route	Link 1	Link 2	Link 3	Link 4	Link 5	Link 6	Link 7	Link 8
Locations									
Start Change	0	0	0	0	0	0	0	0	0
End Change	0	0	0	0	0	0	0	0	0
Predominant land use									
Average depth of topsoil strip (mm)									
Interchanges									
Names									
Mainline Change	0	0	0	0	0	0	0	0	0
Predominant land use									
Average depth of topsoil strip (mm)									
Side Roads									
Start Change	0	0	0	0	0	0	0	0	0
End Change	0	0	0	0	0	0	0	0	0
Predominant land use									
Average depth of topsoil strip (mm)									
Side Roads (cont'd)									
Start Change	0	0	0	0	0	0	0	0	0
End Change	0	0	0	0	0	0	0	0	0
Predominant land use									
Average depth of topsoil strip (mm)									

Drainage

Forms in the app user interface map to their corresponding Parametric Model worksheets (DWCM – Drainage – RIP – V2.0).

Options Parameters

New Drainage Model

- [Options Parameters](#)
- [Detailed Parameters](#)
- [Specifics Parameters](#)
- [Full BQ](#)
- [Comments](#)

Save As Draft

1.Scheme Credentials 2.Site Information 3.Scheme Requirement

Site Information

Existing Network	Length (Kms)	Standard	Elevated Sections (kms)	Grade Separated Interchanges (No)	At Grade Junctions (No)	Side Roads (No)
Rural:	Primary	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Secondary	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Urban:	Primary	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Secondary	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Back Next

Scheme Credentials

Scheme Manager	<input type="text"/>
Project Manager	<input type="text"/>
Cost Engineer	<input type="text"/>
PCF Stage of Scheme	<input type="text"/>
Estimated Date of Initiation	<input type="text"/>
Date of Estimate	<input type="text"/>
Scheme Type	<input type="text"/>

Site Information

Existing Network	Length (kms)	Standard	Elevated Sections (kms)	Grade Separated Interchanges (No)	At Grade Junctions (No)	Side Roads (No)
Rural:	Primary	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Secondary	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Urban:	Primary	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Secondary	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Geography

Terrain	<input type="text"/>	<input type="text"/>
Ground conditions (stability)	<input type="text"/>	<input type="text"/>

Scheme Requirements

New principal route:	Rural - Bypass junctions	<input type="text"/>	Length (kms)	No. of Links	Standard
	Wildland sections (A)	<input type="text"/>			
	Wildland sections (B)	<input type="text"/>			
Urban - Bypass junctions	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

... Subcontract Library **Option Parameters** Detailed Parameters Specifics Historic Key Items Tables Drainage Factors

Detailed Parameters

New Drainage Model

- [Options Parameters](#)
- [Detailed Parameters](#)
- [Specifics Parameters](#)
- [Full BQ](#)
- [Comments](#)

1.Existing Infrastructure 2.Principal Routes 3.Grade Separated Interchanges 4.At Grade Junctions 5.Side Roads 6.Side Road Junctions 7.OFF Line Tracks 8.Proposed Landscaping Bunds

Existing Infrastructure

Existing roads to be abandoned/upgraded	RURAL	URBAN	TOTAL
Donut	<input type="text"/>	<input type="text"/>	<input type="text"/>
Dumbell	<input type="text"/>	<input type="text"/>	<input type="text"/>
Grade Separated Interchanges:	Half Dumbell	<input type="text"/>	<input type="text"/>
	Diamond	<input type="text"/>	<input type="text"/>

Back Next

Existing roads to be abandoned/upgraded

Grade separated interchanges	Donut	<input type="text"/>
	Dumbell	<input type="text"/>
	Half Dumbell	<input type="text"/>
	Divide	<input type="text"/>
	U/U	<input type="text"/>
	Roundabout	<input type="text"/>
	Crossroads	<input type="text"/>
	Y-junction	<input type="text"/>
	Single	<input type="text"/>
	Dual	<input type="text"/>
Side roads (crossings)	kms	<input type="text"/>
Off-line tracks	kms	<input type="text"/>
On-travel	kms	<input type="text"/>

PRINCIPAL ROUTES

Proposed cross-section	Existing Section	Start Change	End Change	Length (m)	Alignment	New Road Type	Abutments/shoulder (per carriage)	Curb width	Carriageway width (per carriage)	Berm width (per carriage)
Link 1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>						
Link 2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>						
Link 3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>						
Link 4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>						
Link 5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>						
Link 6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>						
Link 7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>						
Link 8	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>						
Link 9	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>						
Link 10	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>						

In cutting

Total length	<input type="text"/>
Length (m)	<input type="text"/>
Termin (max depth of cut) (m)	<input type="text"/>
Side slope gradient (1:m)	<input type="text"/>
Length of retaining wall (m)	<input type="text"/>
Length (m)	<input type="text"/>
Termin (max depth of fill) (m)	<input type="text"/>
Side slope gradient (1:m)	<input type="text"/>
Length of retaining wall (m)	<input type="text"/>

... Option Parameters **Detailed Parameters** Specifics Historic Key Items Tables Drainage Factors Calc Table Historic Data Data Import

Specifics Parameters

New Drainage Model

- [Options Parameters](#)
- [Detailed Parameters](#)
- [Specifics Parameters](#)
- [Full BQ](#)
- [Comments](#)

1.Proposed Highway Geometry 2.Grade Separated Interchanges 3.At Grade Junctions 4.Side Roads

Proposed Highway Geometry

Principal Route	New Road Type	Length(m)	Kerb & Gully	Filter Drain	Combined Drainage	Channel
Link1	<input type="text"/>					
Link2	<input type="text"/>					
Link3	<input type="text"/>					
Link4	<input type="text"/>					
Link5	<input type="text"/>					

Back Next

PROPOSED HIGHWAY GEOMETRY:

Principal route	New Road Type	Length (m)	Kerb & Gully	Filter Drain	Combined Drainage	Channel
1	Link 1	<input type="text"/>				
2	Link 2	<input type="text"/>				
3	Link 3	<input type="text"/>				
4	Link 4	<input type="text"/>				
5	Link 5	<input type="text"/>				
6	Link 6	<input type="text"/>				
7	Link 7	<input type="text"/>				
8	Link 8	<input type="text"/>				
9	Link 9	<input type="text"/>				
10	Link 10	<input type="text"/>				

INTERCHANGES

Grade Separated Interchanges	New Road Type	Length (m)	Kerb & Gully	Filter Drain	Combined Drainage	Channel
1 (Expand to wider parameters)	Divide A	<input type="text"/>				
2	Divide B	<input type="text"/>				
3	Merge A	<input type="text"/>				
4	Merge B	<input type="text"/>				

... Option Parameters **Specifics** Historic Key Items Tables Drainage Factors Calc Table Historic Data Data Import

Carriageway

Forms in the app user interface map to their corresponding Parametric Model worksheets (DWCM – Carriageway – RIP – V2.0).

Options Parameters

New Carriageway Model

- [Options Parameters](#)
- [Detailed Parameters](#)
- [Pavement Parameters](#)
- [Full BQ](#)
- [Comments](#)

Save As Draft

1 Scheme Credentials 2 Site Information 3 Scheme Requirement 4 Road Restraints 5 Pavements 6 Kerb/Footway/Paved Areas

Site Information

Existing Network	Length (Kms)	Standard	Elevated Sections (kms)	Grade Separated Interchanges (No)	At Grade Junctions (No)	Side Roads (No)
Rural:	Primary					
	Secondary					
Urban:	Primary					
	Secondary					

[Back](#) [Next](#)

Scheme Credentials

Project Manager
PCT Stage of Scheme
Estimate Reference
Date of Estimate
Scheme Type

Site Information

Existing Network	Length (Kms)	Standard	Elevated Sections (kms)	Grade Separated Interchanges (No)	At Grade Junctions (No)	Side Roads (No)
Rural:	Primary					
	Secondary					
Urban:	Primary					
	Secondary					

Geography

Terrain	Ground conditions (ability)	Predominant land use
RURAL	Primary	Secondary
URBAN	Primary	Secondary

Scheme Requirements

New principal route:

Rural - bypass sections	Widthened sections (A)	Widthened sections (B)
Rural - bypass sections		
Urban - bypass sections		

[Other Cost Library](#) [Subcontract Library](#) [Options Parameters](#) [Detailed Parameters](#) [Pavement Parameters](#) [Historic Key Items](#) [Historic Data](#) [Tables](#)

Detailed Parameters

New Carriageway Model

- [Options Parameters](#)
- [Detailed Parameters](#)
- [Pavement Parameters](#)
- [Full BQ](#)
- [Comments](#)

1 Existing Infrastructure 2 Principal Routes 3 Grade Separated Interchanges 4 At Grade Junctions 5 Side Roads 6 Off-line Tracks 7 On-line Tracks 8 Proposed Landscaping Bunds

Existing Infrastructure

Existing roads to be abandoned/upgraded	RURAL	URBAN	TOTAL
Donut	no		0
Dumbell	no		0
Half Dumbell	no		0
Diamond	no		0

Proposed Infrastructure

Existing roads to be abandoned/upgraded	RURAL	URBAN	TOTAL
Donut	no		0
Dumbell	no		0
Half Dumbell	no		0
Diamond	no		0

[Back](#) [Next](#)

EXISTING INFRASTRUCTURE:

Existing roads to be abandoned/upgraded	RURAL	URBAN	TOTAL
Donut	no		0
Dumbell	no		0
Half Dumbell	no		0
Diamond	no		0

At grade junctions:

RURAL	URBAN
ILD	
Roundabout	
Crossroads	
T-junction	
Single	kms
Dual	kms
Off-line Tracks	
On embankment	

PRINCIPAL ROUTES

Existing Section	Start Change	End Change	Length (m)	Alignment	New Road Type	Hard shoulder/shoulder (per carriageway)	Cycles width	Verge width (per carriageway)
Link 1	0	0	0					
Link 2	0	0	0					
Link 3	0	0	0					
Link 4	0	0	0					
Link 5	0	0	0					
Link 6	0	0	0					
Link 7	0	0	0					
Link 8	0	0	0					
Link 9	0	0	0					
Link 10	0	0	0					

[Back](#) [Next](#)

[Options Parameters](#) [Detailed Parameters](#) [Pavement Parameters](#) [Historic Key Items](#) [Historic Data](#) [Tables](#) [Calc Table](#) [Data Import](#) [Historic metrics](#)

Pavement Parameters

New Carriageway Model

- [Options Parameters](#)
- [Detailed Parameters](#)
- [Pavement Parameters](#)
- [Full BQ](#)
- [Comments](#)

1 Principal Routes 2 Grade Separated Interchanges 3 At Grade Junctions 4 Side Roads

Principal Routes

Proposed Cross-section	Existing Section	Start Chainage	End Chainage	Length (m)	New Road Type	Kerb	Channel	Edging	Combined Drain	Paved Area
Link1		0		0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link2		0		0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link3		0		0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

[Back](#) [Next](#)

PRINCIPAL ROUTES

Existing section	Start Change	End Change	Length (m)	New road type	Kerb	Apt length	Chanel	Channel length	Edging	Edging length	Combined drain
Link 1	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 2	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 3	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 4	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 5	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 6	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 7	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 8	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 9	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 10	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

Base materials details

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10
0	0	0	0	0	0	0	0	0	0
Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Base material type	Sub-base material type	Base thickness (mm)	Base thickness (mm)	Lower base material type	Lower base thickness (mm)	Upper base material type	Upper base thickness (mm)	Upper base material type	Upper base thickness (mm)

[Back](#) [Next](#)

[Options Parameters](#) [Detailed Parameters](#) [Pavement Parameters](#) [Historic Key Items](#) [Historic Data](#) [Tables](#) [Calc Table](#) [Data Import](#) [Historic metrics](#)

Signs & Lighting

Forms in the app user interface map to their corresponding Parametric Model worksheets (DWCM – Signs Lighting – RIP – V2.0).

Options Parameters

Signs & Lighting Model

- [Options Parameters](#)
- [Detailed Parameters](#)
- [Signs Parameters](#)
- [Road Marking Parameters](#)
- [Full BQ](#)
- [Comments](#)

1 Scheme Credentials 2 Site Information 3 Scheme Requirement 4 Signs 5 Roadmarkings

Site Information

Existing Network	Length (Kms)	Standard	Elevated Sections (kms)	Grade Separated Interchanges (No)	At Grade Junctions (No)	Side Roads (No)
Rural:	Primary					
	Secondary					
Urban:	Primary					
	Secondary					

[Back](#) [Next](#)

Scheme Credentials

Project Manager
Cost Engineer
PCT Stage of Scheme
Estimate Reference
Date of Estimate
Scheme Type

Site Information

Existing Network	Length (Kms)	Standard	Elevated Sections (kms)	Grade Separated Interchanges (No)	At Grade Junctions (No)	Side Roads (No)
Rural:	Primary					
	Secondary					
Urban:	Primary					
	Secondary					

Geography

Terrain	Ground conditions (ability)	Predominant land use
RURAL	Primary	Secondary
URBAN	Primary	Secondary

Scheme Requirements

New principal route:

Rural - bypass sections	Widthened sections (A)	Widthened sections (B)
Rural - bypass sections		
Urban - bypass sections		

[Subcontract Library](#) [Option Parameters](#) [Detailed Parameters](#) [Sign Parameters](#) [Road Marking Parameters](#) [Historic Key Items](#) [Historic Data](#)

Detailed Parameters

New Signs & Lighting Model

- Options Parameters
- Detailed Parameters**
- Signs Parameters
- Road Marking Parameters
- Full BQ
- Comments

Existing Infrastructure

Existing roads to be abandoned/upgraded			RURAL	URBAN	TOTAL
Grade Separated Interchanges:	Donut	no			0
	Dumbell	no			0
	Half Dumbell	no			0
	Diamond	no			0

Back Next

EXISTING INFRASTRUCTURE

Existing roads to be abandoned/upgraded		RURAL			URBAN			TOTAL		
		Grade separated interchanges:	Donut	Dumbell	Half-dumbell	Diamond	ILO	Roundabout	Crossroads	Total
At grade junctions:		no	no	no	no	no	no	no	no	0
Side roads (crossings)										0
Off-line tracks		Single	kms	Single	kms	Single	kms	Single	kms	0
Bi-junction		Dual	kms	Dual	kms	Dual	kms	Dual	kms	0

PRINCIPAL ROUTES

Proposed Cross-section		Existing Section	Start Chainage	End Chainage	Length (m)	Alignment	New Road Type	Handbarrier(s) shoulder (per carriageway)	C/R/R width	Verge width (per carriageway)
Link 1	0	0	0	0						
Link 2	0	0	0	0						
Link 3	0	0	0	0						
Link 4	0	0	0	0						
Link 5	0	0	0	0						
Link 6	0	0	0	0						
Link 7	0	0	0	0						
Link 8	0	0	0	0						
Link 9	0	0	0	0						
Link 10	0	0	0	0						

Option Parameters Detailed Parameters Sign Parameters Road Marking Parameters Historic Key Items Historic Data Tables Calc Table Historic me ... Back Next

SigNS Parameters

New Signs & Lighting Model

- Options Parameters
- Detailed Parameters**
- Signs Parameters
- Road Marking Parameters
- Full BQ
- Comments

Principal Routes

Proposed Cross-section		Existing Section	Start Chainage	End Chainage	Length (m)	New Road Type	Unit ne 1m2	Unit 1-5m2	Unit Over 10m2
Link 1	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown
Link 2	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown
Link 3	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown
Link 4	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown
Link 5	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown

Back Next

PRINCIPAL ROUTES

Proposed Cross-section		Existing Section	Start Chainage	End Chainage	Length (m)	New Road Type	Unit ne 1m2	Unit 1-5m2
Link 1	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown
Link 2	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown
Link 3	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown
Link 4	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown
Link 5	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown
Link 6	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown
Link 7	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown
Link 8	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown
Link 9	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown
Link 10	0	0	0	0	✓ Unknown	✓ Unknown	✓ Unknown	✓ Unknown

INTERCHANGES

Grade Separated Interchanges		Ref/Name	Chainage	Section	Type
1	[Optional - enter parameters]	E_1200_001	0	0	E_1200_002
2	Diverge A	0	0	Unit ne 1m2	
3	Merge A	0	0	Unit 1-5m2	
4	Diverge B	0	0	Unknown	
5	Merge B	0	0	Unknown	
6	Wye A	0	0	Unknown	
7	Wye B	0	0	Unknown	
8	Link 1	0	0	Unknown	
9	Link 2	0	0	Unknown	
10	Link 3	0	0	Unknown	

Option Parameters Detailed Parameters Sign Parameters Road Marking Parameters Historic Key Items Historic Data Tables Calc Table Historic me ... Back Next

Road Marking Parameters

New Signs & Lighting Model

- Options Parameters
- Detailed Parameters**
- Signs Parameters
- Road Marking Parameters**
- Full BQ
- Comments

Principal Routes

Proposed Cross-section		Existing Section	Start Chainage	End Chainage	Length (m)	New Road Type
Link1	0	0	0	0	✓ Unknown	✓ Unknown
Link2	0	0	0	0	✓ Unknown	✓ Unknown
Link3	0	0	0	0	✓ Unknown	✓ Unknown

Back Next

PRINCIPAL ROUTES

Proposed Cross-section		Existing Section	Start Chainage	End Chainage	Length (m)	New Road Type
Link 1	0	0	0	0	✓ Unknown	✓ Unknown
Link 2	0	0	0	0	✓ Unknown	✓ Unknown
Link 3	0	0	0	0	✓ Unknown	✓ Unknown
Link 4	0	0	0	0	✓ Unknown	✓ Unknown
Link 5	0	0	0	0	✓ Unknown	✓ Unknown
Link 6	0	0	0	0	✓ Unknown	✓ Unknown
Link 7	0	0	0	0	✓ Unknown	✓ Unknown
Link 8	0	0	0	0	✓ Unknown	✓ Unknown
Link 9	0	0	0	0	✓ Unknown	✓ Unknown
Link 10	0	0	0	0	✓ Unknown	✓ Unknown

INTERCHANGES

Grade Separated Interchanges		Ref/Name	Chainage	Section	Type
1	[Optional - enter parameters]	E_1200_001	0	0	E_1200_002
2	Diverge A	0	0	Unit ne 1m2	
3	Merge A	0	0	Unit 1-5m2	
4	Diverge B	0	0	Unknown	
5	Merge B	0	0	Unknown	
6	Wye A	0	0	Unknown	
7	Wye B	0	0	Unknown	
8	Link 1	0	0	Unknown	
9	Link 2	0	0	Unknown	
10	Link 3	0	0	Unknown	

Option Parameters Detailed Parameters Sign Parameters Road Marking Parameters Historic Key Items Historic Data Tables Calc Table Historic me ... Back Next

Smart Motorway Program (SMP)

Roadworks

Forms in the app user interface map to their corresponding Parametric Model worksheets (DWCM – Roadworks General – SMP – V2.0).

Options Parameters

SMP - Roadworks

- [Options Parameters](#)
- [Detailed Parameters](#)
- [Series Parameters](#)
- [Full BQ](#)
- [Comments](#)

Save As Draft

1 Scheme Credentials 2 Site Information 3 Scheme Requirements 4 Site clearance 5 Fencing 6 Landscaping and Ecology

Site Information

Existing motorway	Length (kms)	Elevated Sections (m)	Standard (A-side)	Standard (B-side)	Length of Central Reserve existing VCB (kms)	Link?
Link 1			✓	✓		✓
Link 2			✓	✓		✓
Link 3			✓	✓		✓
Link 4			✓	✓		✓

Back Next

Scheme Credentials

Project Manager	Cost Engineer	PCF Stage of Scheme	Estimate Reference	Date of Estimate	Base Date
-----------------	---------------	---------------------	--------------------	------------------	-----------

Site Information

Existing motorway	Length (kms)	Elevated Sections (m)	Standard (A-side)	Standard (B-side)	Length of Central Reserve existing VCB (kms)	Link?
Link 1	10.00	750.00	D4M (rural)	D3M (rural)	3.00	No
Link 2	10.00					No
Link 3						
Link 4						
Link 5						
Link 6						
Link 7						
Link 8						
Link 9						
Link 10						

Interchanges

Grade separated	No.	Other	A-side	B-side
1		Service areas	1	1

Version Control | Grand Summary | Cost Plan | BQ | Base Rate Build-ups | Options Parameters

Detailed Parameters

SMP - Roadworks

- [Options Parameters](#)
- [Detailed Parameters](#)
- [Series Parameters](#)
- [Full BQ](#)
- [Comments](#)

Save As Draft

1 Existing Infrastructure 2 Proposed Mainline 3 Emergency Refuge Areas 4 Interchanges 5 Service Areas, Work Depots And Turnaround Facilities 6 Side Roads

Existing Infrastructure

A-side		B-side					
Start Chainage	End Chainage	Length (m)	Existing carriageway width	Existing verge width (ave)	Existing Central Reserve width (ave)	Existing carriageway width	Existing verge width (ave)
Link 1		0	✓	✓	✓	✓	✓
Link 2		0	✓	✓	✓	✓	✓

Back Next

EXISTING INFRASTRUCTURE

Principal route	Start Change	End Change	Length (m)	Existing carriageway width		Existing verge width (ave)		Existing Central Reserve width (ave)		Existing carriageway width		Existing verge width (ave)	
				Specify	Specify	Specify	Specify	Specify	Specify				
Link 1	0	20,000	20,000	0	0	0	0	0	0	0	0	0	0
Link 2	0	0	0	0	0	0	0	0	0	0	0	0	0
Link 3	0	0	0	0	0	0	0	0	0	0	0	0	0
Link 4	0	0	0	0	0	0	0	0	0	0	0	0	0
Link 5	0	0	0	0	0	0	0	0	0	0	0	0	0
Link 6	0	0	0	0	0	0	0	0	0	0	0	0	0
Link 7	0	0	0	0	0	0	0	0	0	0	0	0	0
Link 8	0	0	0	0	0	0	0	0	0	0	0	0	0
Link 9	0	0	0	0	0	0	0	0	0	0	0	0	0
Link 10	0	0	0	0	0	0	0	0	0	0	0	0	0

SPANNING A-CARRIAGEWAY ONLY TOTAL

Removing/Demolish	Retain	Link 1	Link 2	Link 3	Link 4	Link 5	Link 6	Link 7	Link 8	Link 9	Link 10
Spanning b-carrigeway only	Remove	0	0	0	0	0	0	0	0	0	0
Spanning a&b-carrigeways	Total	0	0	0	0	0	0	0	0	0	0
Modifying	Retain	0	0	0	0	0	0	0	0	0	0
Modifying	Demolish	0	0	0	0	0	0	0	0	0	0
Modifying	Demolish	0	0	0	0	0	0	0	0	0	0

PROPOSED MAINLINE

Principal route	Link	Start Change	End Change	Length (m)	Proposed carriageway width		Proposed Central Reserve width (ave)		Proposed carriageway width		Proposed Central Reserve width (ave)	
					A-side	B-side	Specify	Specify	Specify	Specify		
Link 1	0	0	0	0	0	0	0	0	0	0	0	0

Options Parameters | Detailed Parameters | Series Parameters | Dimensions | Calc Sheet | Risk | Data Import | Help | Back | Next

Series Parameters

SMP - Roadworks

- [Options Parameters](#)
- [Detailed Parameters](#)
- [Series Parameters](#)
- [Full BQ](#)
- [Comments](#)

Save As Draft

1 Take down environmental / noise barriers 2 Take down existing safety barriers 3 Take up existing kerbs and drainage channels 4 Take up existing lighting columns 5 Take down existing traffic signs 6 Fencing 7 Improve noise barriers & LANDSCAPE & ECOLOGY

Take Down Environmental/Noise Barriers

Principal Route	Link 1	Link 2	Link 3	Link 4	Link 5	Link 6	Link 7
Start Chainage							
End Chainage							
A-Carriageway	✓	✓	✓	✓	✓	✓	✓
B-Carriageway	✓	✓	✓	✓	✓	✓	✓

Back Next

TAKE DOWN ENVIRONMENTAL / NOISE BARRIERS

Principal route	Link 1	Link 2	Link 3	Link 4	Link 5	Link 6	Link 7	Link 8	Link 9	Link 10
Start Change	0	0	0	0	0	0	0	0	0	0
End Change	35,000	0	0	0	0	0	0	0	0	0
Overall Link Length	35,000	0	0	0	0	0	0	0	0	0
Central Reserve barrier removal - single sided	Unknown	100%								
Double-sided	200	20%								
Verge barrier removal - A-carrigeway	Unknown	100%								
Verge barrier removal - B-carrigeway	Unknown	100%								
Interchanges	0	0	0	0	0	0	0	0	0	0
Diverge A	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify
Merge A	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify
Diverge B	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify
Merge B	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify	Specify
Link 1	Not required									

Options Parameters | Detailed Parameters | Series Parameters | Dimensions | Calc Sheet | Risk | Data Import | Help | Back | Next

Earthworks

Forms in the app user interface map to their corresponding Parametric Model worksheets (DWCM – Earthworks General – SMP – V2.0).

Options Parameters

SMP - Earthworks Model

[Save As Draft](#)

Options Parameters **Detailed Parameters** **Series Parameters** **Full BQ** **Comments**

1 Scheme Credentials 2 Site Information 3 Scheme Requirements 4 Earthworks

Site Information

Existing motorway	Length (kms)	Elevated Sections (m)	Standard (A-side)	Standard (B-side)	Length of Central Reserve existing VCB (kms)	Lit?
Link 1			✓	✓		✓
Link 2			✓	✓		✓
Link 3			✓	✓		✓
Link 4			✓	✓		✓

[Back](#) [Next](#)

Scheme Credentials							
Scheme name							
Project Manager							
Contractor							
PCT Stage of Scheme							
Estimate Reference			Base Date				
Date of Estimate							
Scheme Type							
Site Information							
Existing motorway	Length (kms)	Elevated Sections (m)	Standard (A-side)	Standard (B-side)	Length of Central Reserve	existing VCB (kms)	LIT?
	Link 1	10.00	750.00	D4M (rural)	D3M (rural)	1.00	No
	Link 2	10.00		D3M (rural)	D3M (rural)		No
	Link 3						
	Link 4						
	Link 5						
	Link 6						
	Link 7						
	Link 8						
	Link 9						
	Link 10						
Interchanges		No.	Other	A-side	B-side		
Grade separators	1			1	1		
Subcontract Library	Options Parameters	Detailed Parameters	Series Parameters	Dimensions	Calc Sheet	... []	

Detailed Parameters

SMP - Earthworks Model

[Save As Draft](#)

Options Parameters **Detailed Parameters** Series Parameters Full BQ Comments

1.Existing Infrastructure 2.Proposed Mainline 3.Emergency Refuge Areas 4.Interchanges 5.Service Areas, Work Depots And Turnaround Facilities 6.Side Roads/Roadworks Details

Existing Infrastructure

A-side				B-side			
Start Chainage	End Chainage	Length (m)	Existing carriageway width	Existing verge width (metres)	Existing Central Reserve width (metres)	Existing carriageway width	Existing verge width (metres)
Link 1		0	▼	▼	▼	▼	▼
Link 2		0	▼	▼	▼	▼	▼
...		

[Back](#) [Next](#)

EXISTING INFRASTRUCTURE:		A-side						B-side	
Principal route		Start Change	End Change	Length (m)	Existing carriageway width	Existing verge width (m)	Existing Central Reserve width (m)	Existing carriageway width	Existing verge width
Link 1		0	20,000	10,000	Standard	Specify	3.00	Standard	Standard
Link 2		0	10,000	10,000	Standard	Specify	3.00	Standard	Standard
Link 3		0	0	0	Standard	Specify	3.00	Standard	Standard
Link 4		0	0	0	Standard	Specify	3.00	Standard	Standard
Link 5		0	0	0	Standard	Specify	3.00	Standard	Standard
Link 6		0	0	0	Standard	Specify	3.00	Standard	Standard
Link 7		0	0	0	Standard	Specify	3.00	Standard	Standard
Link 8		0	0	0	Standard	Specify	3.00	Standard	Standard
Link 9		0	0	0	Standard	Specify	3.00	Standard	Standard
Link 10		0	0	0	Standard	Specify	3.00	Standard	Standard
Existing junctions									
Spanning A-carriageway only									
Remove/Demolish	Link 1								
Retain	Link 2								
Remove/Demolish	Link 3	0	0	0	0	0	0	0	0
Retain	Link 4	0	0	0	0	0	0	0	0
Remove/Demolish	Link 5	0	0	0	0	0	0	0	0
Retain	Link 6	0	0	0	0	0	0	0	0
Remove/Demolish	Link 7	0	0	0	0	0	0	0	0
Retain	Link 8	0	0	0	0	0	0	0	0
Remove/Demolish	Link 9	0	0	0	0	0	0	0	0
Retain	Link 10	0	0	0	0	0	0	0	0
Spanning B-carriageway only									
Remove/Demolish	Link 1								
Retain	Link 2								
Remove/Demolish	Link 3	0	0	0	0	0	0	0	0
Retain	Link 4	0	0	0	0	0	0	0	0
Remove/Demolish	Link 5	0	0	0	0	0	0	0	0
Retain	Link 6	0	0	0	0	0	0	0	0
Remove/Demolish	Link 7	0	0	0	0	0	0	0	0
Retain	Link 8	0	0	0	0	0	0	0	0
Remove/Demolish	Link 9	0	0	0	0	0	0	0	0
Retain	Link 10	0	0	0	0	0	0	0	0
Spanning A&B carriageways									
Remove/Demolish	Link 1								
Retain	Link 2								
Remove/Demolish	Link 3	0	0	0	0	0	0	0	0
Retain	Link 4	0	0	0	0	0	0	0	0
Remove/Demolish	Link 5	0	0	0	0	0	0	0	0
Retain	Link 6	0	0	0	0	0	0	0	0
Remove/Demolish	Link 7	0	0	0	0	0	0	0	0
Retain	Link 8	0	0	0	0	0	0	0	0
Remove/Demolish	Link 9	0	0	0	0	0	0	0	0
Retain	Link 10	0	0	0	0	0	0	0	0
PROPOSED MAINLINE:		A-side						B-side	
Principal route		Start Change	End Change	Length (m)	Proposed carriageway width	Proposed verge width (m)	Proposed Central Reserve width (m)	Proposed carriageway width	Proposed verge width
Principal route		Start Change	End Change	Length (m)	Proposed carriageway width	Proposed verge width (m)	Proposed Central Reserve width (m)	Proposed carriageway width	Proposed verge width
Ex-Charterhouse Library		Options	Parameters	Value	Specify	3.00	0.00	Specify	Specify

Series Parameters

SMP - Earthworks Model

[Save As Draft](#)

Options Parameters Detailed Parameters **Series Parameters** Full BQ Comments

1.Existing Infrastructure 2.Removal Of Existing Drainage & Ducts

ROADWORKS

Proposed Verge Details

A-CARRIAGEWAY	Start Chainage	End Chainage	Length (m)	Kerb	Channel	Combined Drain	Paved Areas
Link 1			0	Unknown	Unknown	Unknown	Unknown
Link 2			0	Unknown	Unknown	Unknown	Unknown
Link 3			0	Unknown	Unknown	Unknown	Unknown

[Back](#) [Next](#)

Carriageway

Forms in the app user interface map to their corresponding Parametric Model worksheets (DWCM – Carriageway – SMP – V2.0).

Options Parameters

Scheme Credentials					
Scheme name	Project Manager	Cost Engineer	PCF Stage of Scheme	Base Date	
Estimate Reference	Date Estimate	Date Estimate	Scheme Type		
Site Information					
Existing motorway	Length (kms)	Elevated Sections (m)	Standard (A-side)	Standard (B-side)	Length of Central Reserve existing VCB (m)
Link 1			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	LR7
Link 2			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	LR7
Link 3			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	LR7
Link 4			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	LR7

Detailed Parameters

EXISTING INFRASTRUCTURE:						
Proposed route		Start Change	End Change	Length (m)	A-side	B-side
Link 1	0	0	0	0	Existing carriageway width	Existing Central Reserve width (aw)
Link 2	0	0	0	0	Existing carriageway width	Existing Central Reserve width (aw)
Link 3	0	0	0	0	Existing carriageway width	Existing Central Reserve width (aw)
Link 4	0	0	0	0	Existing carriageway width	Existing Central Reserve width (aw)
Link 5	0	0	0	0	Existing carriageway width	Existing Central Reserve width (aw)
Link 6	0	0	0	0	Existing carriageway width	Existing Central Reserve width (aw)
Link 7	0	0	0	0	Existing carriageway width	Existing Central Reserve width (aw)
Link 8	0	0	0	0	Existing carriageway width	Existing Central Reserve width (aw)
Link 9	0	0	0	0	Existing carriageway width	Existing Central Reserve width (aw)
Link 10	0	0	0	0	Existing carriageway width	Existing Central Reserve width (aw)

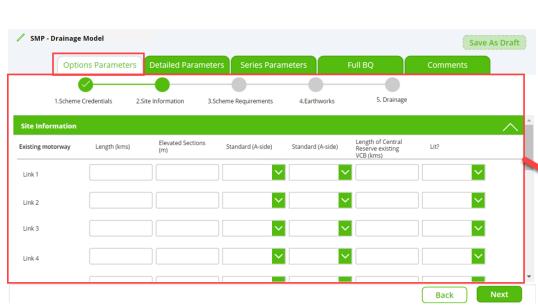
Series Parameters

ROADWORKS:					
Proposed Pavement Details					
A-CARRIAGEWAY		Start Change	End Change	Length (m)	Sub-base thickness (mm)
Link 1	0	0	0	Unknown	<input checked="" type="checkbox"/>
Link 2	0	0	0	Unknown	<input checked="" type="checkbox"/>
Link 3	0	0	0	Unknown	<input checked="" type="checkbox"/>
Link 4	0	0	0	Unknown	<input checked="" type="checkbox"/>
Link 5	0	0	0	Unknown	<input checked="" type="checkbox"/>

Drainage

Forms in the app user interface map to their corresponding Parametric Model worksheets (DWCM – Drainage – SMP – V2.0).

Options Parameters



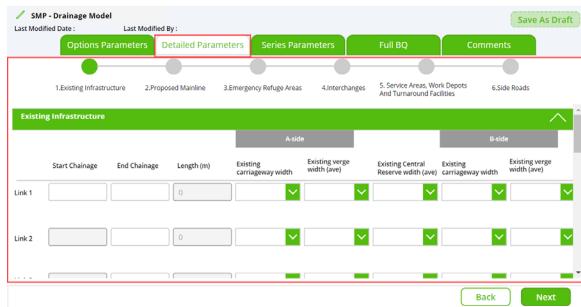
Site Information					
	Existing motorway	Length (kms)	Elevated Sections (m)	Standard (A-side)	Standard (B-side)
Link 1				✓	✓
Link 2				✓	✓
Link 3				✓	✓
Link 4				✓	✓
Interchanges					

Save As Draft | Back | Next

Scheme Credentials					
Scheme name					
Project Manager					
Cost Engineer					
PCF Status Scheme					
External Reference					
Date of Estimate					
Scheme Type					
Site Information					
Existing motorway					
Link 1	Length (kms)	Elevated Sections (m)	Standard (A-side)	Standard (B-side)	Length of Central Reserve existing VCB (mtrs)
Link 2			✓	✓	
Link 3			✓	✓	
Link 4			✓	✓	
Link 5					
Link 6					
Link 7					
Link 8					
Link 9					
Link 10					
Interchanges					
Grade separated					
No.					
Other					
Service areas					
A-side					
B-side					

Save As Draft | Back | Next | Subcontract Library | Options Parameters | Detailed Parameters | Series Parameters | Data Collection | DF | Dimensions | Calc Sheet | Risk | Data Import | ... | < | >

Detailed Parameters



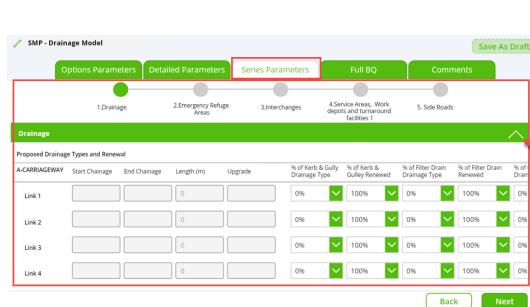
Existing Infrastructure					
	A-side	B-side			
Link 1	Start Change	End Change	Length (m)	Existing carriageway width	Existing Central Reserve width (ave)
			0	✓	✓
			0	✓	✓
Link 2				✓	✓
			0	✓	✓
			0	✓	✓

Save As Draft | Back | Next

EXISTING INFRASTRUCTURE									
Principal route		Start Change	End Change	Length (m)	A-side	Existing carriageway width	Existing verge width (ave)	Existing Central Reserve width (ave)	B-side
Link 1	0	0	0	0					
Link 2	0	0	0	0					
Link 3	0	0	0	0					
Link 4	0	0	0	0					
Link 5	0	0	0	0					
Link 6	0	0	0	0					
Link 7	0	0	0	0					
Link 8	0	0	0	0					
Link 9	0	0	0	0					
Link 10	0	0	0	0					
EXISTING GATES									
Spanning A-carriageway only		Total	Remove/Demolish	Initial					
Spanning B-carriageway only		Total	Remove/Demolish	Initial					
Spanning A+B-carriageway		Total	Remove/Demolish	Initial					
PROPOSED MAINLINE									
Principal route		Start Change	End Change	Length (m)	A-side	Proposed carriageway width	Proposed verge width (ave)	Proposed Central Reserve width (ave)	B-side
Link 1	0	0	0	0					

Save As Draft | Back | Next | Subcontract Library | Options Parameters | Detailed Parameters | Series Parameters | Data Collection | DF | Dimensions | Calc Sheet | Risk | Data Import | ... | < | >

Series Parameters



Drainage						
Proposed Drainage Types and Renewal						
A-CARRIAGEWAY		Start Change	End Change	Length (m)	Upgrade	% of Kerb & Gully Drainage Type
Link 1	0	0	0	0	0%	✓ 100% ✓ 0%
Link 2	0	0	0	0	0%	✓ 100% ✓ 0%
Link 3	0	0	0	0	0%	✓ 100% ✓ 0%
Link 4	0	0	0	0	0%	✓ 100% ✓ 0%

Save As Draft | Back | Next

EXISTING INFRASTRUCTURE									
Principal route		Start Change	End Change	Length (m)	A-side	Existing carriageway width	Existing verge width (ave)	Existing Central Reserve width (ave)	B-side
Link 1	0	0	0	0					
Link 2	0	0	0	0					
Link 3	0	0	0	0					
Link 4	0	0	0	0					
Link 5	0	0	0	0					
Link 6	0	0	0	0					
Link 7	0	0	0	0					
Link 8	0	0	0	0					
Link 9	0	0	0	0					
Link 10	0	0	0	0					
EXISTING GATES									
Spanning A-carriageway only		Total	Remove/Demolish	Initial					
Spanning B-carriageway only		Total	Remove/Demolish	Initial					
Spanning A+B-carriageway		Total	Remove/Demolish	Initial					
PROPOSED MAINLINE									
Principal route		Start Change	End Change	Length (m)	A-side	Proposed carriageway width	Proposed verge width (ave)	Proposed Central Reserve width (ave)	B-side
Link 1	0	0	0	0					

Save As Draft | Back | Next | Subcontract Library | Options Parameters | Detailed Parameters | Series Parameters | Data Collection | DF | Dimensions | Calc Sheet | Risk | Data Import | ... | < | >

Signs & Lighting

Forms in the app user interface map to their corresponding Parametric Model worksheets (DWCM – Signs & Lighting – SMP – V2.0).

Options Parameters

Options Parameters	Detailed Parameters	Signs Parameters	Markings Parameters	Lighting Parameters	Full BQ	Comments
1.Scheme Credentials	2.Site Information	3.Scheme Requirements	4.Earthworks	5.Drainage		

Site Information

Existing motorway	Length (km)	Elevated Sections (m)	Standard (A-side)	Standard (B-side)	Length of Central Reserve existing VCB (km)	LR?
Link 1			✓	✓		✓
Link 2			✓	✓		✓
Link 3			✓	✓		✓
Link 4			✓	✓		✓

Back Next

Scheme Credentials

Scheme name	Project Manager	Cost Engineer	PCF Lead of Scheme	Estimate Lead of Scheme	Date of Estimate	Scheme Type	Site Information	Base Date

Existing motorway

Link 1	Length (km)	Elevated Sections (m)	Standard (A-side)	Standard (B-side)	Length of Central Reserve existing VCB	LR?
Link 2						
Link 3						
Link 4						
Link 5						
Link 6						
Link 7						
Link 8						
Link 9						
Link 10						

Interchanges

No.	Other	Service areas	A-side	B-side

Subcontract Library Options Parameters Detailed Parameters Signs Parameters Markings Parameters Lighting Parameters Data Collection Done ...

Detailed Parameters

SMP - Signs & Lighting Model

Options Parameters	Detailed Parameters	Signs Parameters	Markings Parameters	Lighting Parameters	Full BQ	Comments
1.Existing Infrastructure	2.Proposed Mainline	3.Emergency Refuge Areas	4.Interchanges	5.Service Areas, Work Depots And Turnaround Facilities	6.Side Roads/Roadworks Details	

Existing Infrastructure

A-side		B-side					
Start Chainage	End Chainage	Length (m)	Existing carriageway width	Existing verge width (ave)	Existing Central Reserve width (ave)	Existing carriageway width	Existing verge width (ave)
Link 1		0	✓	✓	✓	✓	✓
Link 2		0	✓	✓	✓	✓	✓

Back Next

EXISTING INFRASTRUCTURE:

Principal route	Start Change	End Change	Length (m)	Existing carriageway width	Existing verge width (ave)	Existing Central Reserve width (ave)	Existing carriageway width	Existing verge width (ave)
Link 1	0	0						
Link 2	0	0						
Link 3	0	0						
Link 4	0	0						
Link 5	0	0						
Link 6	0	0						
Link 7	0	0						
Link 8	0	0						
Link 9	0	0						
Link 10	0	0						

Existing parapets

Spanning A-carriageway only Total		Remove/Demolish	Retain						
Link 1	Link 2	Link 3	Link 4	Link 5	Link 6	Link 7	Link 8	Link 9	Link 10
0	0	0	0	0	0	0	0	0	0

Spanning B-carriageway only Total

Spanning B-carriageway only Total		Remove/Demolish	Modify	Leave	Retain				
Link 1	Link 2	Link 3	Link 4	Link 5	Link 6	Link 7	Link 8	Link 9	Link 10
0	0	0	0	0	0	0	0	0	0

Spanning A+carriageway Total

Spanning A+carriageway Total		Remove/Demolish	Modify	Leave	Retain				
Link 1	Link 2	Link 3	Link 4	Link 5	Link 6	Link 7	Link 8	Link 9	Link 10
0	0	0	0	0	0	0	0	0	0

PROPOSED MAINLINE:

Principal route	Start Change	End Change	Length (m)	Proposed carriageway width	Proposed verge width (ave)	Proposed Central Reserve width (ave)	Proposed carriageway width	Proposed verge width (ave)
Link 1	0	0						

Subcontract Library Options Parameters Detailed Parameters Signs Parameters Markings Parameters Lighting Parameters Data Collection Dimensions Calc Sheet ...

Signs Parameters

SMP - Signs & Lighting Model

Options Parameters	Detailed Parameters	Signs Parameters	Markings Parameters	Lighting Parameters	Full BQ	Comments
1.Roadworks	2.Emergency Refuge Areas	3.Interchanges	4.Service Areas, Work Depots And Turnaround Facilities	5.Side Roads		

Main Carriageway

A-CARRIAGEWAY		B-CARRIAGEWAY								
Proposed Drainage Types and Renewal	Start Change	End Change	Length (m)	Upgrade	Unit ne 1m2	Unit 1.5m2	Unit 5-10m2	Unit Over 10m2	Unit ne	
Link 1		0		Unknown	✓	Unknown	✓	Unknown	✓	Link 1
Link 2		0		Unknown	✓	Unknown	✓	Unknown	✓	Link 2
Link 3		0		Unknown	✓	Unknown	✓	Unknown	✓	Link 3
Link 4		0		Unknown	✓	Unknown	✓	Unknown	✓	Link 4

Back Next

MAIN CARRIAGEWAY:

Link	Ref	Start Change	End Change	Length (m)	Upgrade	Unit ne	Unit 1.5m2	Unit 5-10m2	Unit Over 10m2	Unit 1.5m2	Unit 5-10m2	Unit Over 10m2
Link 1	1	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 2	2	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 3	3	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 4	4	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 5	5	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 6	6	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 7	7	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 8	8	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 9	9	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Link 10	10	0	0	0	0	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

EMERGENCY REFUGE AREA:

A-CARRIAGEWAY	Start Change	End Change	Length (m)	Unit ne	Unit 1.5m2	Unit 5-10m2	Unit Over 10m2
Link 1	0	0	0	Unknown	Unknown	Unknown	Unknown
Link 2	0	0	0	Unknown	Unknown	Unknown	Unknown
Link 3	0	0	0	Unknown	Unknown	Unknown	Unknown
Link 4	0	0	0	Unknown	Unknown	Unknown	Unknown

... Options Parameters Detailed Parameters Signs Parameters Markings Parameters Lighting Parameters Data Collection Dimensions Calc Sheet ...

Markings Parameters

SMP - Signs & Lighting Model

Options Parameters	Detailed Parameters	Signs Parameters	Markings Parameters	Lighting Parameters	Full BQ	Comments
1.Proposed drainage types and renewal	2.Emergency Refuge Areas	3.Interchanges	4.Service Areas, Work Depots And Turnaround Facilities	5.Side Roads		

Proposed Drainage Types and Renewal

A-CARRIAGEWAY		B-CARRIAGEWAY									
StartChainage	EndChainage	Length(m)	Upgrade	Continuous line in white thermoplastic screed with applied solid glass beads 150 mm wide	Intermittent line in white thermoplastic screed with applied solid glass beads 150 mm wide	Ancillary line in white thermoplastic screed with applied solid glass beads 150 mm wide	StartChange	EndChange	Length(m)	Upgrade	
Link 1	0	0	Unknown	Unknown	Unknown	Unknown	Link 1	0	0	0	0
Link 2	0	0	Unknown	Unknown	Unknown	Unknown	Link 2	0	0	0	0

Back Next

DRAINAGE:

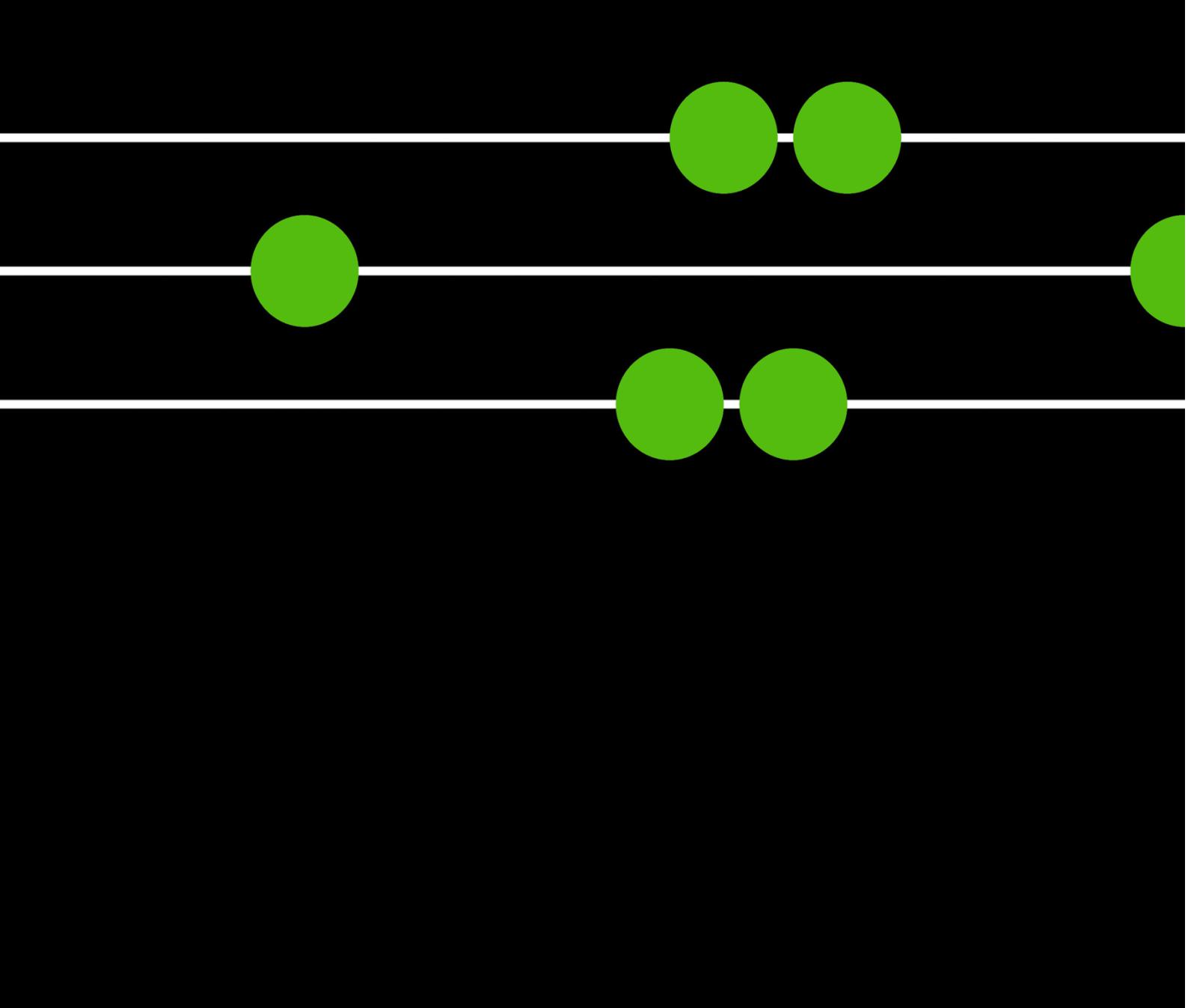
A-CARRIAGEWAY		B-CARRIAGEWAY												
Start Change	End Change	Length (m)		Continuous line in white thermoplastic screed with applied solid glass beads 150 mm wide	Intermittent line in white thermoplastic screed with applied solid glass beads 150 mm wide	Ancillary line in white thermoplastic screed with applied solid glass beads 150 mm wide	Start Change	End Change	Length (m)		Continuous line in white thermoplastic screed with applied solid glass beads 150 mm wide	Intermittent line in white thermoplastic screed with applied solid glass beads 150 mm wide	Ancillary line in white thermoplastic screed with applied solid glass beads 150 mm wide	
Link 1	0	0	0	0	0	0	Link 1	0	0	0	0	0	0	0
Link 2	0	0	0	0	0	0	Link 2	0	0	0	0	0	0	0
Link 3	0	0	0	0	0	0	Link 3	0	0	0	0	0	0	0
Link 4	0	0	0	0	0	0	Link 4	0	0	0	0	0	0	0
Link 5	0	0	0	0	0	0	Link 5	0	0	0	0	0	0	0
Link 6	0	0	0	0	0	0	Link 6	0	0	0	0	0	0	0
Link 7	0	0	0	0	0	0	Link 7	0	0	0	0	0	0	0
Link 8	0	0	0	0	0	0	Link 8	0	0	0	0	0	0	0
Link 9	0	0	0	0	0	0	Link 9	0	0	0	0	0	0	0
Link 10	0	0	0	0	0	0	Link 10	0	0	0	0	0	0	0

... Options Parameters Detailed Parameters Signs Parameters Markings Parameters Lighting Parameters Data Collection Dimensions Calc Sheet ...

Lighting Parameters

SMP - Signs & Lighting Model

Options Parameters	Detailed Parameters	Signs Parameters	Markings Parameters	Lighting Parameters	Full BQ	Comments	Save As Draft																																																																																																			
Main Carriageway																																																																																																										
Proposed Drainage Types and Renewal																																																																																																										
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A-CARRIAGEWAY	Start Change	End Change	Length (m)	Upgrade	Steel Lighting Columns	Aluminium Lighting Columns	Raise and Lower Lighting Columns	CCTV Mats																																																																																																		
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B-CARRIAGEWAY	Start Change	End Change	Length (m)	Upgrade	Steel Lighting Columns	Aluminium Lighting Columns	Raise and Lower Lighting Columns	CCTV Mats																																																																																																		
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