Works & Accounts Management Information System

(WAMIS Bihar)



Introduction



WAMIS is a generic public Infrastructure project Management and Monitoring framework—which has been designed and developed with a view to aid the line departments involved in the creation and maintenance of public infrastructure assets towards enhancing their planning & operational efficiency leading to effective service delivery. The solutions encompass the entire lifecycle management of a typical construction project from its inception to its final completion in the form of various modules and tools.



WAMIS Targeted Governance Aspects



- Generate electronically Contractors Bills, measurement book, deviation and extra item statements as per the statutory governmental procedures.
- Reduce burden on operations by adopting streamlined and automated processes and Increase the efficiency of individual functional wings of the department
- Assess Physical progress of various projects undertaken by Departments with regards to the financial's
- Achieve integration with the systems of other line departments/Nodal Agencies such as the AG
 and the treasuries. Share information and integrate data where appropriate and possible
- Define measures of success and regularly monitor and measure performance.
- Mobile App for On-Site inspection of Works with facility to upload Geo Tagged Photographs which works in Online as well as Offline mode
- Monitoring the Progress based on per-defined stages/deliverable s as per the agreement for EPC and OPRMC specific projects
- Conceptualization of paper less office by e-sign and SMS alert mechanism

Core Modules in WAMIS



01	SoR
02	User Management Module
03	Works Management System
04	Billing Management System
05	Mobile Based Quality Inspection

WAMIS Stake Holders

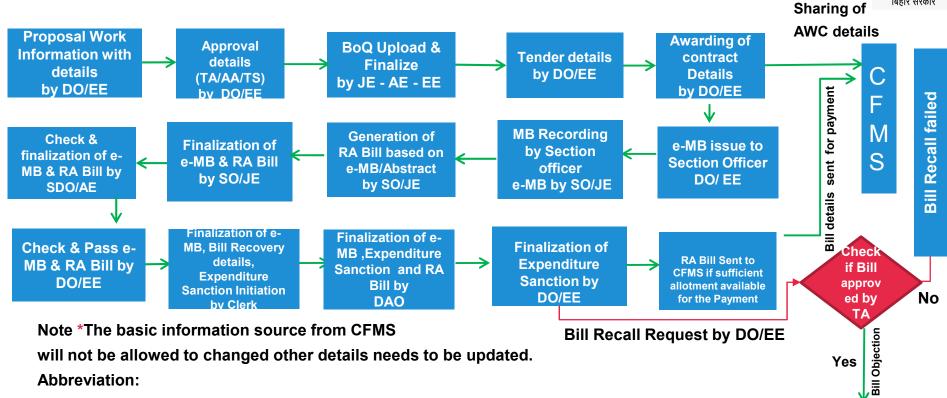


Department Name	Total no. of divisions
Road Construction Department (RCD)	49
Building Construction Department (BCD)	75
Water Resources Department (WRD)	170
Minor Water Resources Department (MWRD)	38
Local Area Engineering Organisation (LAEO)	57
Public Health Engineering Department (PHED)	51
Rural Works Department (RWD)	108
Environment, Forest & Climate Change Department (FD)	29
Urban Development & Housing Department (UD&HD)	66

End User Details

- Office Users (Executive engineer, DAO, Sub division officer, Section officer, Bill Clerk)
- Finance department
- Treasury
- AG

WAMIS Work Flow



Bill Re-Submission or Bill Cancelation

JE : Junior Engineer AE : Assistant Engineer

SO: Section Engineer SDO: Sub-divisional Officer

DO: Divisional Officer

1 , 2/12/2022

WAMIS INPUT and OUTPUT



Inputs	Outputs
Inputs Work Information Details, Splitting of Works Administrative Approval Details Technical Approval Details Technical Sanction Details BOQ (JE,AE,EE) Tender Details Schedule H, Component details as per EPC and OPRMC Award of Contract details	Outputs - Customized Reports Based on Work Data - Administrative Approval (AA) Register - Technical Sanction (TS) Register - Agreement Register - Running Account (RA), First & Final (F&F) Bills - Royalty, Deviation, Extra Item Statements - Measurement Book report
e-Measurements based on Measurement Book (e-MB)	
Work Flow for Bill Finalization (AE, AE, Bill Clerk, DAO & EE) Mobile APP for geo tagged work photograph	

Challenges



Organizational Structure

- No of Road Divisions 49
 No. Of Road Sub Division 141
 No. Of Road Sections 643
- ■A.E & J.E Offices are not equipped with Computer Peripherals, High Speed Internet & Computer Operator.
- ❖ Multiple J.E / A.E / E.E Provisions
- ❖ In EPC Project Schedule H & its revision, need to be incorporated.
- ❖ In OPRMC & CMBD Project there is no provision to Add Provisional amount.

Way Forward



- □ Running Scheme should be exempted from implementation of WAMIS.
- □ Pilot Project should be run on WAMIS by each Division.
- □ State PSU Should also start use of WAMIS.
- □ Cabinet Approval for use of WAMIS in light of correction in BIHAR PW Account Code & PWD Code



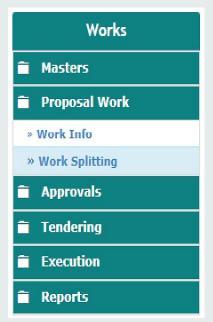


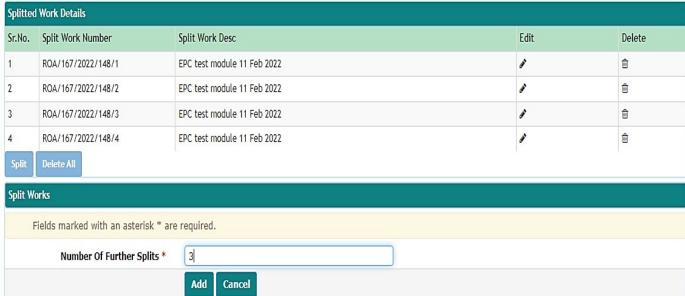
Add Proposal Work Details					
Fields marked with an aster	risk * are required.				
Work Category *	Regular				
Work Description *	Regression Testing in WAMIS Application				
a larre u w					
	Road Subdivision Paliganj	~	Section *	Road Section Pali 1 H.Q	~
District *	PATNA	•	Block *	PATNA SADAR	~
Panchayat	 □Select ☑ DIGHA EAST ☑ DIGHA WEST 	÷	Village	□Select □ Digha Diara □ Khas Mahal Dinha Diara	→ ▼
Proposer Type	Other	~			
Department *	Road Construction Department	~			
Demand No. *	37	~			
Select Tree Yiew	☐Tree View		Heads Classification :		
Major Head *	2245-[37]Relief on account of Natural Calamities	~	Sub Major Head *	02-Flood, Cyclone etc.	~
Minor Head *	106-REPAIRS AND RESTORATION OF DAMAGED ROADS AN	~	Sub Minor Head *	0003-[P]NA	~
Detail Head *	27-Minor Work	~	Object Head *	02-Maintenance and repair	~
Program Name	Select	~	Repair Type	Select	~
Work Category * R Work Description * Sub Division Name * District * Panchayat Proposer Type Department * Demand No. * Select Tree Yiew Major Head * Minor Head * Program Name Budget Year * F.	2020 F.Y 2020-2021	•			
Work Type	Other	~	Work Sub Type	Other	~
New/Upgrade	New O Upgrade O Maintainance Repairs				
Chainage From			Chainage To		
Remarks		10			
	Save Cancel				

Work Splitting



Provision for work splitting is provided

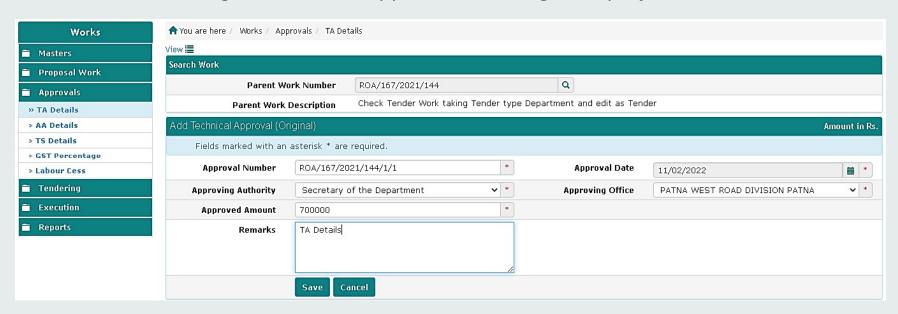








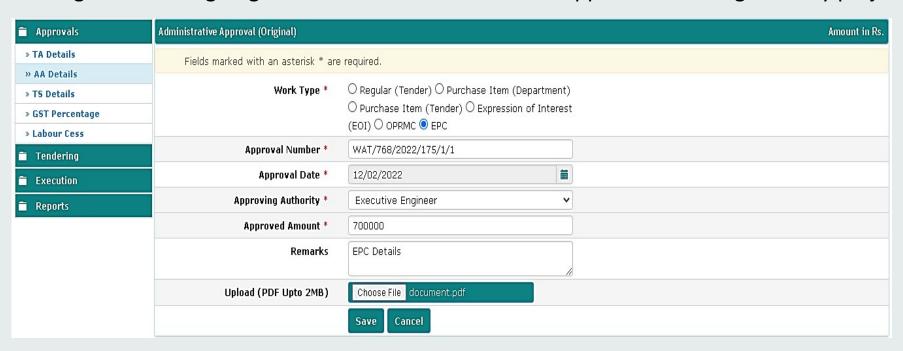
Provision of Recording for Technical Approval details against project



Administrative Approvals



Recording for recording original and revised administrative approval details against any project



Technical Sanction



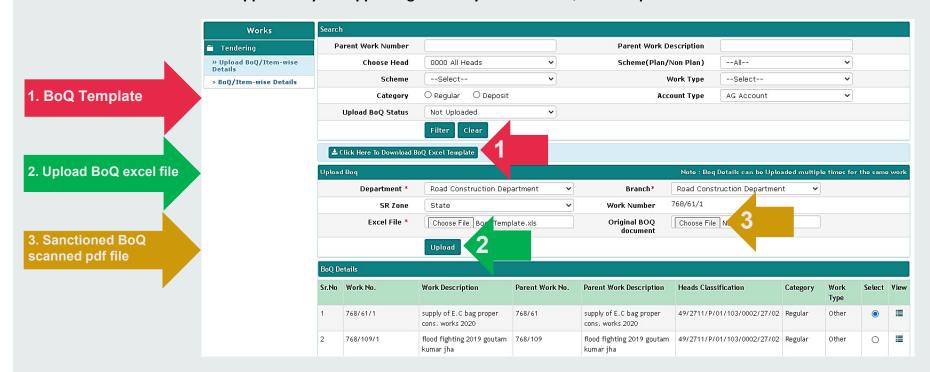
Provision for recording Original and Revised Technical sanction details .

Approvals	Technical Sanction Details (Revised)		
» TA Details	Fields marked with an asterisk * ar	e required.	
» AA Details » TS Details	Work Type *		
» GST Percentage	TS Number/Work Order Number *	ROA/167/2021/144/1/2	
» Labour Cess Tendering	TS Date *	11/02/2022	
Execution	TS Office *	PATNA WEST ROAD DIVISION PATNA	~
Reports	TS Authority *	Secretary of the Department	•
	SR Year *	2019	~
	Zone *	Zone 1 - State	~
	TS Amount *	700000	
	Remarks	TA details	
		Save Cancel	

Bill of Quantity



Once the Technical sanction is approved by the approving authority then the BOQ is to be uploaded from the section Officer.



Bill of Quantity



After JE finalization, BoQ will be finalized by AE and finally by EE

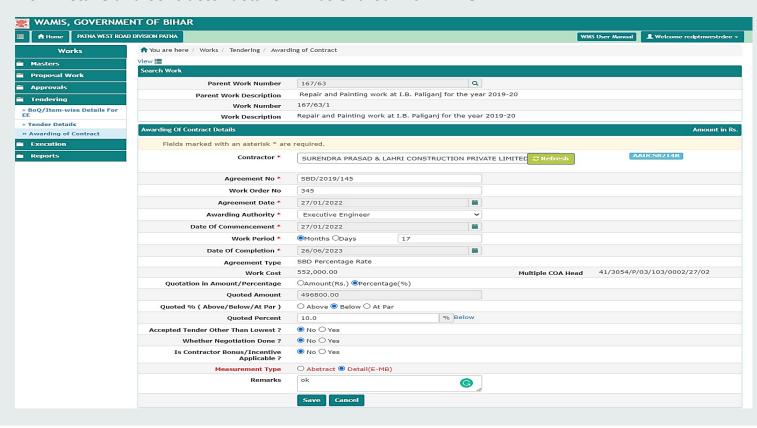
r. No.	Item Code	Item Description	Scope	Unit	Rate	Quantity	Amount	SR/Purchase/EOI Year	Edit	Delete	Sele
1	1	Earth work in ordinary soil 1		mtr	150.00	50.000000	7,500.00	2020	1	<u> </u>	~
2	2	Earth work in ordinary soil 2		mtr	200.00	100.000000	20,000.00	2020	1		
3	3	Earth work in ordinary soil 3		mtr	225.00	20.000000	4,500.00	2020	1	â	9
4	4	Earth work in ordinary soil 4		mtr	300.00	30.000000	9,000.00	2020	1		•
Total Ar	mount :	41,000.00									
SGST(6	.00 %) :	2,460.00									
CGST(6	5.00 %) :	2,460.00									
IGST(0	.00 %) :	0.00	Bo dringlite button	7.							
Total Ar	mount (Including (SST): 45,920.00	but								
Labour	Cess(1.00 %):	410.00	Nº I								
	rage Amount :	0.00	inal								
seignio		46,330.00	4								
seignio	Total :	10 300.00	G.								





Work contract details required to be filled.

Work Details and contractor details will be shared with CFMS.



e-MB screen

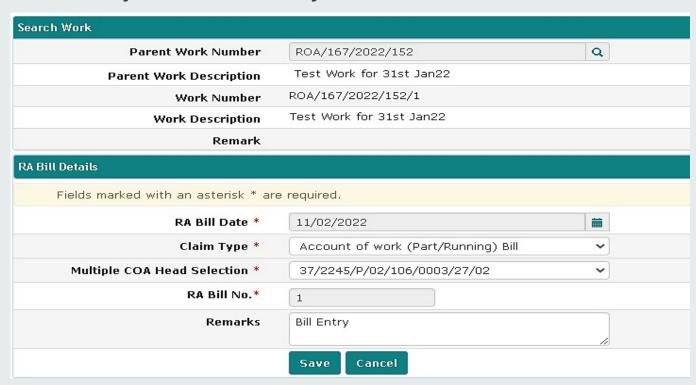


Searc	h Work										
		Parent Work Number	ROA/167/2021/14	3		Q					
	Pa	rent Work Description	Test New/Upgrade	radio	button selectior	1					
		Work Number	ROA/167/2021/143	/1							
		Work Description	Test New/Upgrade	radio b	utton selection						
Searc	h Items										
	Ite	m Code:		Item	Description:			Search Cle	ar		
BoQ/I	tem-wise Det	ails Items						□ s	elect All 🗖 Desel	ect All 🗏 Invert	Selection
Sr. No.	Item Code	Item Description	Agreement Quantity	Unit	Total Quantity as per Measurements	Rate	Total Amount	Enter Measurements	View Measurements	Edit Measurements	Finalize Item
1	10	Earth work in ordinary soil 1	0 9, 1	mtr	100.0000	500.00	50000.000000	+	≡	Œ	
2	11	Earth work in ordinary soil 1	00000000000000000000000000000000000000	mtr	0.0000	200.00	0.000000	+	≣		
3	12	Earth work in ordinary soi	.00000	mtr	0.0000	500.00	0.000000	+	=		
4	13	Earth work in or	200,000000	mtr	0.0000	500.00	0.000000	+	=		
5	14	Earth work in or	200,000000	mtr	0.0000	500.00	0.000000	+	=		
							'			Total Amount : 5	50000 00



Bill Entry Screen

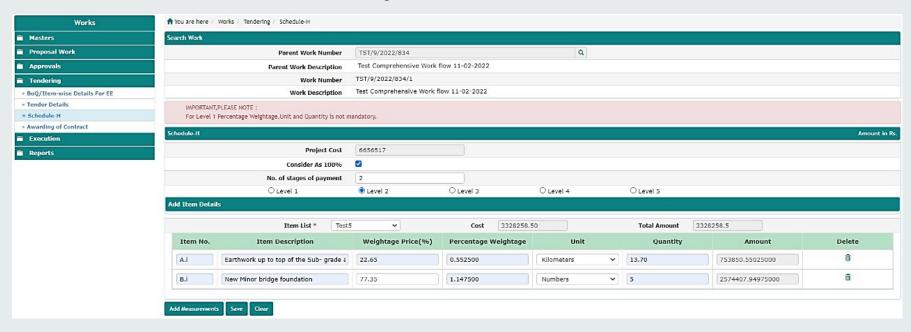
This Bill Entry details to be filled by user.







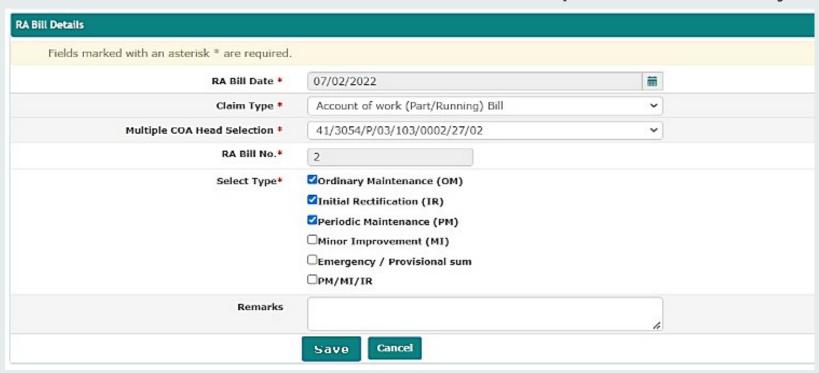
EPC Schedule H details to be filled by user.







This Screen shows the **OPRMC** RA Bill details for components to be filled by user.







This Screen shows the **OPRMC** Non Compliance deduction to be filled by user.

ALC: SAME	pliance Deduction List			■ Select All ■ Deselect All ■ Invert Selection (OM Bill Amount: 92600.
Sr. No.	Compliance Description	Select		Deduction Amount
1	Carrlageway		2	5000
2	Shoulders and Embankmarks			10000
3	Cross Drainage including culverts and bridges			0.0
4	Safety and Signage		0	0.0
5	Vegetation		0	0.0
6	IRI		☑	12506
Save	Delete All			Total Deduction Amount: 27506

Bill finalization and submit to CFMS



Billing
Measurement Info
≘ Bill Info
» Check List Before Check And Pass
» Check list before Finalization Of Bill
» Bill Recoveries
» Deviation / Extra Item Approval
» Price Adjustment
» Check & Pass
» Royalty Calculation Details
» MB Record
» Finalize/Cancel Bill For Payment
» Bill Recall
» Bill Objection
» Bill Tracker
» Bill Search
» Payment Info
» CFMS Bill Details
» Expenditure Sanction Finalize (EE)

View RA	A Bill Details												
Sr. No.	Work No	Work Description	Measurement Type	RA Bill No	RA Bill Date	Remark BY DAO	Work Type	Bill Amount	Payee Details	Details	Cancel	Check Bill Amount Validation	Finalize
1	ROA/167/2021/133/1	Test Work for 7 Points Testing on 29th Nov	Detail (E-MB)	1	29/11/2021	ok	Regular	51736.00			*	Finalization	•
2	ROA/167/2021/125/1	Test MB Book Report	Detail (E-MB)	3	09/11/2021	ok	Regular	0.00				cinaliz	<u> </u>
3	167/63/1	Repair and Painting work at I.B. Paliganj for the year 2019- 20	Detail (E-MB)	1	27/01/2022	ok	Regular	18967.00			Bill		•
4	167/13/1	W/S and Improvement of Naubatpur- Shaharrampur- Dulhin Bazar Road in km 0.00 to 11.487 under CRF for the year 2018-19	Abstract	5	20/05/2020	ok	Regular	5105314.00			41	8	•
5	167/13/1	W/S and Improvement of Naubatpur- Shaharrampur- Dulhin Bazar Road in km 0.00 to 11.487	Abstract	4	17/03/2020	ok	Regular	110190137.00			*	8	•

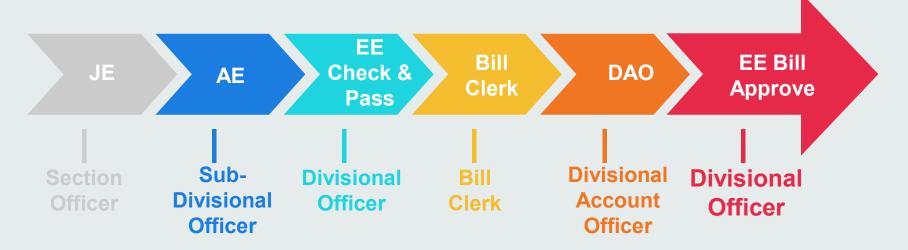
PROCESS FLOW OF MB BOOK &



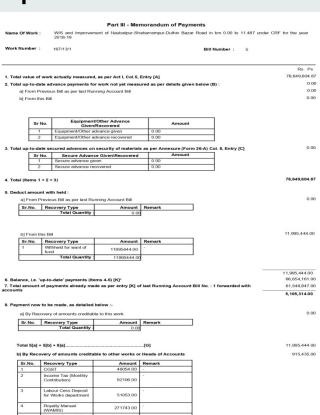
BILL FINALISATION TO OTHER AUTHORITIES

After agreement Divisional officer will issue e-MB to the concerned Section officer and after taking e-measurement the bill is initiated and it is scrutinized at the appropriate level before finalizing at Divisional officer and submitted to CFMS portal for payment.

Measurement can be taken through e-MB as well Abstract measurement is allowed whenever required.



Bill Report





Sr.No	Unit	Quantity Executed Upto	Item of Work or Supilies (grouped under "sub-head" and "sub-works" of Estimate)	Rate	Amou	nt(Rs)	Quantity	Rema
		Date as per measurement book	,		Upto Date	Since Previous Bill	Since Last Certificate	
	1	2	3	4	6	6	7	8
1	hoctaro	8.500000	grass, bushes, shrubs, seglings and trees gifting to \$00 mm, removal of sturgs trees out certier and disposal of unserviceable materials and stacking of serviceab material to be used or sectioned, upto a lead of 1000 metres including removal and disposal of tips organic scal not exceeding 150 mm in thickness.		635,294.54	0.00	0.000000	*
2	cum	54,091,450000	Hern No.2. Construction of embankment with approved materials obtained from borrow pits with all lifts and loads upto 1000 m transporting to site, spreading, grading to required slope and compacting.	237.35	12,838,605.66	6,418,157.62	27,040 900000	
3	cum	18,202,500000	Item No.3. Providing CSB dose graded grading 4. Construction of granular sub-base by providing close graded Material, Grading 1 more; in a place method carriery of mixed Reterial to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller is a christen the desired density, complete as per clause 461.	2974.63	54,145,702.58	12,582,684.90	4230.000000	
4	cum	355.680000	Item No.22 Plain / Reinforced coment concrete M15 in Open Foundation complete as per drawing and technical specifications	5763.60	2,049,997.25	0.00	0.000000	* /
5	cum	3,493,203000	Hen fa 27 Earthwest Earthroot in countrion of structures (Box cutting) by mechanicis means as per develop and leafmont specification, including selling coul, construction of shoring and bearing, removed of suttings and other deleterious matter, dressing of soften and bottom, beadding the secondaries with to the existing conjunction and soften and bottom, beadding the secondaries with to the work proported and challings the remarking cash foodly for read set of any inconstruction machine and exercise and completic (e) as per specification and direction of E-IL with 1% CSS.	67.54	235,930 93	0.00	0.000000	
6	cum	1,770.200000	Hom Filo 24. Reinforced Cerment Concrete M20 grade in sub-structure complete as per Disming and Technical Specifications.	6084.95	10,771,578.49	0.00	0.000000	2/
7	mt.	98.538000	Hem No.29. Prouding IPSD/TMT Reinforcement in RCC worksalt complete as per drawing & technical specification and direction of Ell.	68109.18	6,711,340.41	0.00	0.000000	*7
				Total:	87,388,449.85	19,000,842.52		
			Contrctor Profit Amou	unt(0.00 %):	0.00	0.00		
			Total Amount After CP	Deduction:	87 388 449 85	19.000.842.52		-

IGST(0.0 %)

Total (including/Excluding GST):

Labour Cess (0.00 %)

87,388,449,85

19.000,842.52

I - Account of work excecuted

Name of Work: W/S and Improvement of Naubalpur-Shahamampur-Duthin Bazar Road in km 0.00 to 11.487 under CRF for the year 2015-19

I - Account of work excecuted

Figures (F) in Words Rs. One Crore Seventy One Lakhs Seven Hundred Fifty Eight Only.

11-02-2022 19:09:17

Work Number: 167/13/1 Bill Number: 5

Name of Work: W/S and Improvement of Naubatpur-Shahamampur-Dulhin Bazar Road in km 0.00 to 11.487 under CRF for the year 2018-19

Sr.No	Unit	Quantity Executed Upto	Item of Work or Supilies (grouped under "sub-head" and "sub-works" of Estimate)	Rate	Amour	nt(Rs)	Quantity Executed	Remarks
		Date as per measurement book			Upto Date	Since Previous Bill	Since Last Certificate	
ı	1	2	3	4	5	6	7	8
				Grand Total:	87,388,449.85	19,000,842.52		
			Deduct -10.00 % As	Per Tender :	-8,738,844.99	-1,900,084.25		
			Total Value of	Work Done:	78,649,604.87	17,100,758.26		
			Deduct-value of work shown in previous Bill: 61,548,848.61 0		0.00			
			Net Value of work since previ	ious Bill (F) :	17,100,768.26	17,100,758.26		

11-02-2022 19:06:33

Designed & Developed by C-DAC , Pune

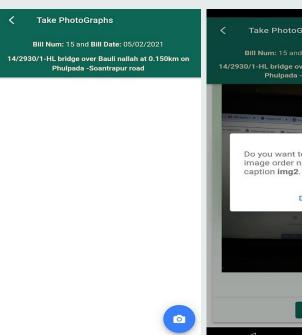
Page 1 of 2

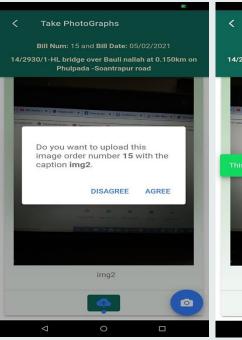
408425.00 46054.00 915435.00

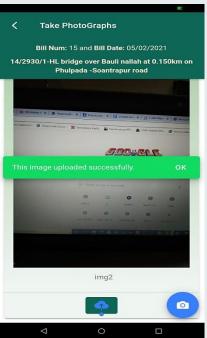
WAMIS Mobile App



Capture Geo-tagged photographs along with date and time on the field. Facility to work in Online / Offline mode. Data is uploaded onto Central Server in real time. Integrated with MIS Mini Dashboard regarding Work status



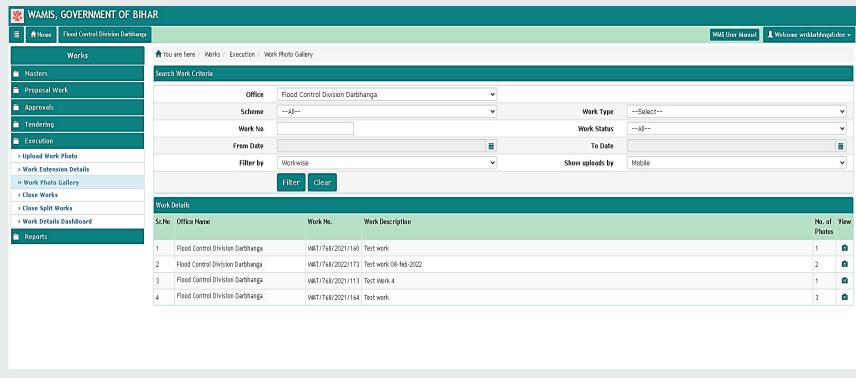






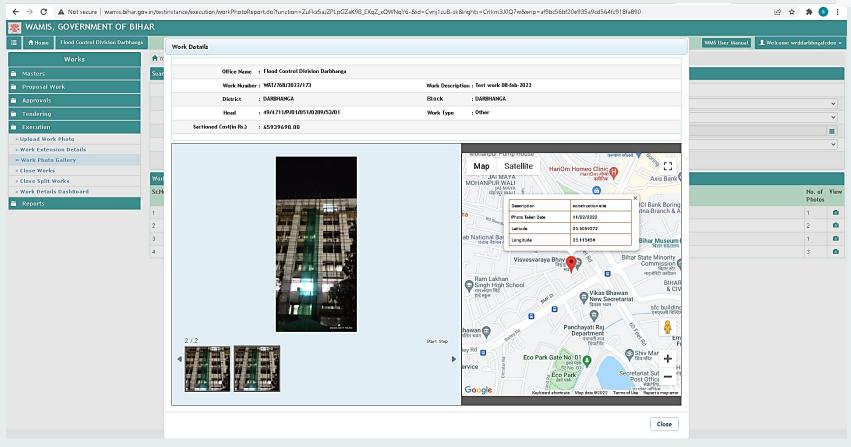
Geo-tagged photographs project details





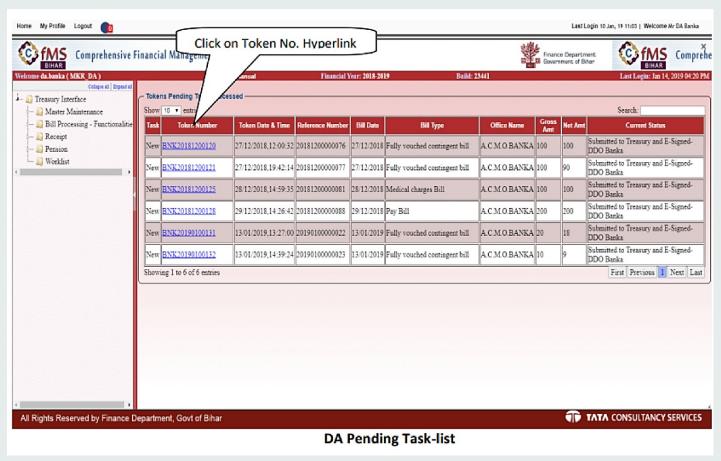
Geo-tagged photographs with project information





Treasury Bill at CFMS





Treasury Bill at CFMS

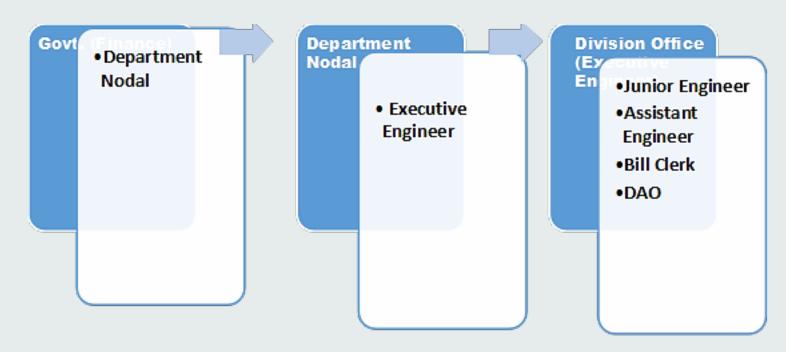


Comprehensive Financial Management System						inance Department lovernment of Biher	CO fMS	Comprehen	sive Financial Ma
Velcome da banka (MKR_DA)		User Manual	Financial Year: 201		Build: 23441		Distant.		igin: Jan 14, 2019 04:20
			Currently Processing Token Nur	nber BNK20190100132					
Common Bill Details									
Expd Sanction Based *	[Yes +]		Expd Sanction No. 18010	27960					
Employee * Non Employee	Objected By Treasury 0			ted to Treasury and E-Signer	1				
Bill Description	Fully vouched contingent bill					_			
Claim Type * Payment Mode *	Contract employee bill	d hai			Budgefed				
Reference Number	e-Payment 200% Book Trans	ister/ Nil	Bill No. & Date DBG1	07 13010	1019				
Head of Account *	20 2210 01 001	ri 0002 28 V							
Department Code Gross Amount	HEA Health Department			9					-
Grass Amount	10		Net Payment	*			BT An	nount	3
Expd. sanction Details									
Sanction N	a .	Date S	ianction Amount			anctioning Authority			
1601027960	13/01/20		Accordance - Accor	I O BANKA					Details
- Allotment Details -									
Sub Detail Head	Description		Gross Amount	Progressive Expenditure			Allotrent		
75					Expolin this Bill	Total		Available At Office	Available At Treasury
02	Contract services		10	400	10	410	10,000	9,590	9,590
		Payee/PL Detail Fully vouched conf	tingent BT Detail	Addi. Certificate	Attachment	CheckList			
			Allotment. Objections	Validate & Forwar	d				
All Rights Reserved by Fi	inance Department, Gov	t of Bihar					TA TA	TA CONSULT	ANCY SERVICES
			Treasury bil						



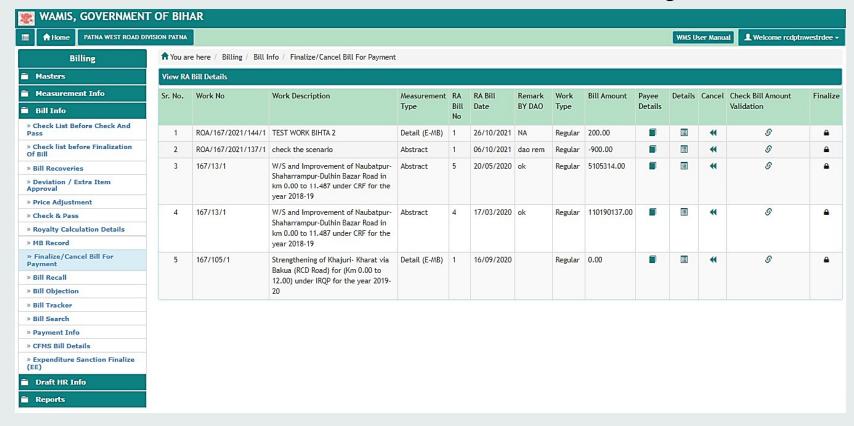


- ☐ Hierarchy based employee registration process using SMS notifications and OTP
- ☐ Registration of employees under the different hierarchy will be as per the followings:



Finalization of bill for Payment











Mapping of Screen-Role Privilege





Works & Accounts Management Information System (WAMIS Bihar)



Thank you

