AMENDMENT – 3

RFP No: **CANW-1/IWAI/JMV/16**

Assignment Title: Engineering Procurement and construction contract for New Navigational Lock at Farakka, West Bengal

This amendment forms an integral part of the Bid Document issued on 27th May, 2016.

The modifications to the original Bid Document are as under:

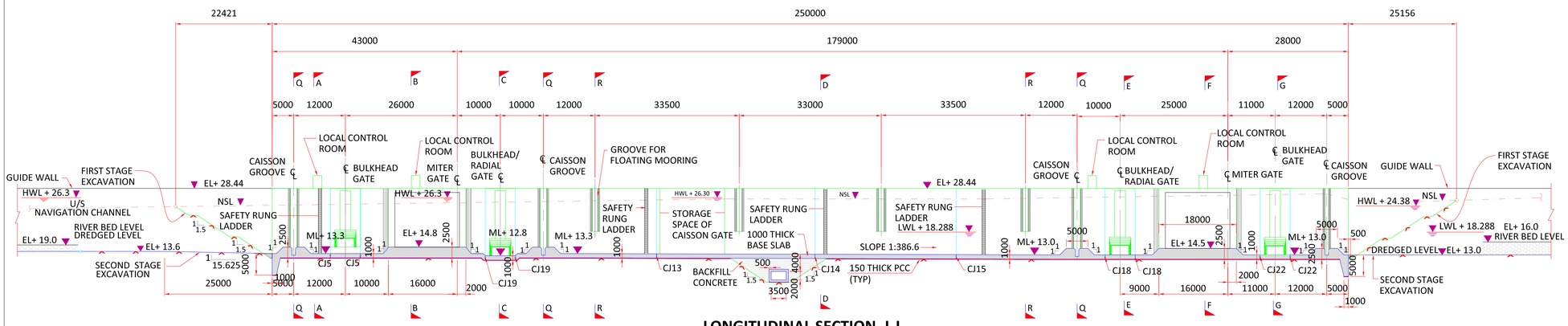
S. No	Vol., Section & Clause No. in Bid Document	Original Text	Replace with
1.	Vol-I, Schedule H	**Schedule H – Tests on Completion** 2.1 Visual and physical test: The Employer's Engineer shall conduct a visual and physical check of construction to determine that all works and equipment forming part thereof conform to the provisions of this Agreement. The physical tests shall include measurement of crack, rutting area, area of potholes, depressions, shoving and settlement and upheaval, shoulder drop, erosion of soil from embankment.	2.1 **Visual Test**: The Employer's Engineer shall conduct a visual and physical check of construction to determine that all works and equipment forming part thereof conform to the provisions of this Agreement. The physical tests shall include measurement of crack, rutting area, area of potholes, depressions, shoving and settlement and upheaval, shoulder drop, erosion of soil from embankment. **Physical Test** (Test for Leakage): The lock shall be tested for water tightness. The lock pit shall be filled with water upto maximum water level upstream for 7 days and after 7 days level of surface of water shall be noted and drop in water level after every 24 hours for 7 days shall be checked. The permissible drop shall be 20 mm over a period of 7 days (considering adjustments for evaporation loss and rainfall gain etc.). If structure does not satisfy the condition, remedial measures such as grouting etc. shall be taken up and retested as above. This shall be repeated till leakage is within the permissible limits.

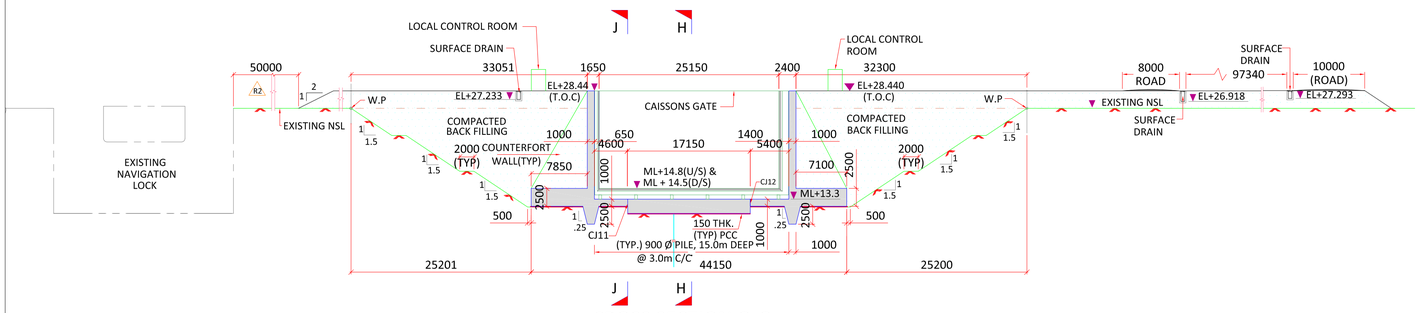
S. No	Vol., Section & Clause No. in Bid Document	Original Text	Replace with
2.	Vol. II , Cl. 1.2.4	b. Lock considered fully filled but no backfilling along the structure, i.e. testing condition.	b. Lock considered fully filled but backfill upto 2/3 height of wall from deepest base along the structure.
3.	Vol-2, Cl. 4.19.1 Pg. 214	4.19.1 General This specification covers the installation and commissioning of the complete water supply distribution system with in the lock area including the supply of potable water to ships and buildings and the supply of raw water for landscaping and greenery.	4.19.1 General This specification covers the installation and commissioning of the complete water supply distribution system with in the lock area including the supply of potable water to the buildings and the supply of raw water for landscaping and greenery.
4.	Vol-2, Cl. 7.1 Pg. 335	7.1 SCOPE OF WORK The Scope of Work is for the installation of Fire Fighting Systems in the Control Room of Farakka Navigational Lock. The firefighting system shall consist of dry powder stored pressure by nitrogen gas with inbuilt pressure gauge to indicate pressure.	7.1 SCOPE OF WORK The Scope of Work is for the installation of **Fire Detection / Alarm System as per IS: 2189 and also** Fire Fighting Systems in the Control Room of Farakka Navigational Lock. The firefighting system shall consist of dry powder stored pressure by nitrogen gas with inbuilt pressure gauge to indicate pressure.
5.	Vol-2, Cl. 2.1.4 Pg. 32	2.1.4 Fendering System Considering the level variation of the order of 8m between high water level and low water level in the lock and also the variation in the sizes of vessels to be handled, the fendering system is designed such that sufficient contact area between the hull of the vessel and the fender face is ensured at all water levels.	2.1.4 Fendering System Considering the level variation of the order of 8m between high water level and low water level in the lock and also the variation in the sizes of vessels to be handled, the fendering system is designed such that sufficient contact area between the hull of the vessel and the fender face is ensured at all water levels. It is required to provide a suitable fender system to keep the vessel's hull pressure below the limit of 20

S. No	Vol., Section & Clause No. in Bid Document	Original Text	Replace with
		It is required to provide a suitable fender system to keep the vessel's hull pressure below the limit of 20 T/m2. Based on these criteria, the fender of AN 800, grade E3.0 of Trellborg make or equivalent has been proposed.	T/m2.
6.	Vol-1 Schedule - L-Annex-1 Cl. 6 Pg. 202	6.2 Employer's Engineer shall: a) Within 10 (ten) days of receipt of the Stage Payment Statement from the Contractor pursuant to Clause 19.4, determine the amount due to the Contractor and recommend the release of 90 (ninety) percent of the amount so determined as part payment, pending issue of the Interim Payment Certificate; and	6.2 Employer's Engineer shall: a) Within 10 (ten) days of receipt of the Stage Payment Statement from the Contractor pursuant to Clause 19.4, determine the amount due to the Contractor and recommend the release of 75 (seventy-five) percent of the amount so determined as part payment, pending issue of the Interim Payment Certificate; and
7.	Vol-1, Schedule E, Annex – I, II and III, Pg. 180 -188	Not existing	NOTWITHSTANDING anything contained hereinabove: a) Our liability under this guarantee shall not exceed Rs…… /- (Rupees in Words). b) This Bank Guarantee shall be valid up to (Date), and c) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before (Date).
8.	Volume I Part 2 section VII,	Completion Schedule The Contractor shall construct the Navigational Lock	Completion Schedule The Contractor shall construct the Navigational Lock in

S. No	Vol., Section & Clause No. in Bid Document	Original Text	Replace with
	Cl. 10.3.2, Pg. 107	in accordance with the Project Completion Schedule set forth in Schedule-J	accordance with the Project Completion Schedule set forth in Schedule-G
9.	Volume I, Section VII, Cl. 26.3.1, Pg. 158 - 159	Any Dispute which is not resolved amicably by conciliation, as provided in Clause 26.2, shall be finally decided by reference to arbitration by a Board of Arbitrators appointed in accordance with Clause 26.3.2. Such arbitration shall be held in accordance with the Arbitration & Conciliation Act, 1996 of India. Provided, however, arbitration shall be held in accordance with UNCITRAL Rules in case Contractor is registered outside India. The venue of such arbitration shall be New Delhi. The language of arbitration proceedings shall be English.	Any Dispute which is not resolved amicably by conciliation, as provided in Clause 26.2, shall be finally decided by reference to arbitration by a Board of Arbitrators appointed in accordance with Clause 26.3.2. Such arbitration shall be held in accordance with the Arbitration & Conciliation Act, 1996 of India, in case the Contractor is an Indian firm. Provided, however, arbitration shall be held in accordance with UNCITRAL Rules in case Contractor is registered outside India. The venue of such arbitration shall be a neutral venue or as mutually agreed between the two parties at the time of signing of Contract Agreement. The language of arbitration proceedings shall be English.
10.	Volume I, Section VII, Cl. 26.3.2, Point 2, Pg. 158	Rules of Procedure. Arbitration proceedings shall be conducted in accordance with procedure of the Arbitration & Conciliation Act 1996, of India.	Rules of Procedure. Arbitration proceedings shall be conducted in accordance with procedure of the Arbitration & Conciliation Act 1996, of India if the Contractor is an Indian firm. If the Contractor is a Foreign firm then the Arbitration proceedings shall be in accordance with UNCITRAL Rules.
11.	Volume I, Section VII, Cl. 26.3.2, Point 5, Pg. 159	Miscellaneous. In any arbitration proceeding hereunder: a) Proceedings shall be held in New Delhi e) Court Jurisdiction: New Delhi	Miscellaneous. In any arbitration proceeding hereunder: a) Proceedings shall be held in a neutral venue or as mutually agreed by the two parties at the time of signing of contract agreement. e) Court Jurisdiction: New Delhi(for domestic)/any neutral

S. No	Vol., Section & Clause No. in Bid Document	Original Text	Replace with
			venue as mutually agreed (for foreign bidder)
12.	Volume-2	FI-004	Revised drawing is enclosed
13.	Volume-2	FI-005	Revised drawings are enclosed (SH 1 and 2)
14.	Volume-2	FI-014	Revised drawing is enclosed
15.	Volume-2	FI-015	Revised drawing is enclosed





NOTES : -

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. NO DIMENSIONS SHALL BE MEASURED FROM THE DRAWING.
3. SHEAR KEY WITH WATER STOP SHALL BE PROVIDED IN ALL CONTRACTION JOINT.

FOR TENDER PURPOSE ONLY

R2	27.07.16	MODIFICATION IN FORMATION LEVELS	KS	SKA	SD
R1	12.07.16	MINOR MODIFICATION	KS	SKA	SD
REV	DATE	DESCRIPTION	DRN	CHD	APD

INLAND WATERWAYS AUTHORITY OF INDIA

PROJECT: DETAILED FEASIBILITY STUDY FOR CAPACITY AUGMENTATION OF NATIONAL WATERWAY-1 AND DETAILED ENGINEERING FOR ITS ANCILLARY WORKS AND PROCESS BETWEEN HALDIA TO ALLAHABAD (JAL VIKAS PROJECT)

CONSULTANT: HOWE; PMC PROJECTS (INDIA)PRIVATE LIMITED from vision to reality...

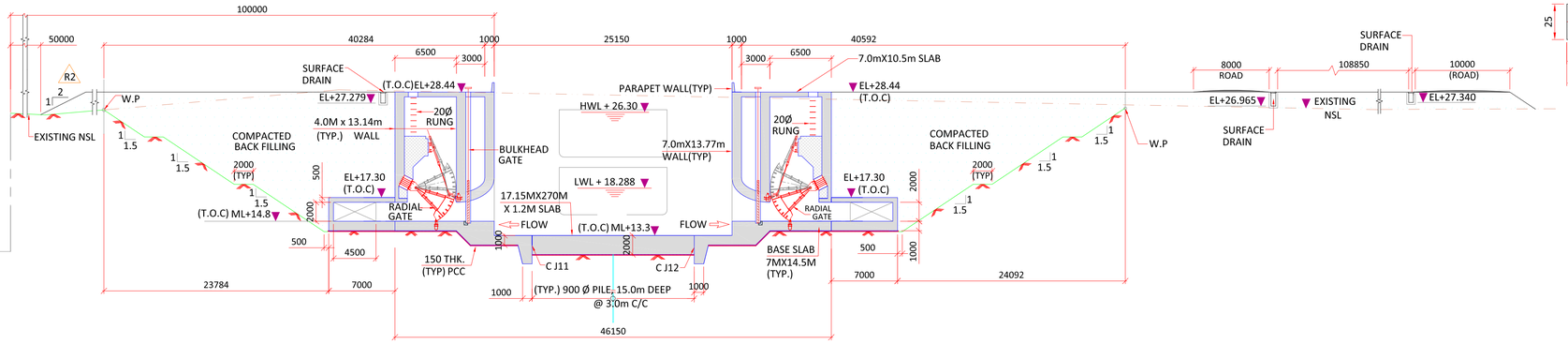
	NAME	SIGN	DATE
DRN	KS		01/03/2016
CHD	HM/SKA		01/03/2016
APD	SD		01/03/2016

TITLE: GENERAL ARRANGEMENT
L-SECTIONS J, H & CROSS SECTIONS Q, R
NEW NAVIGATION LOCK, FARAKKA

JOB. NO. I-525 | DRG. NO. FL-004

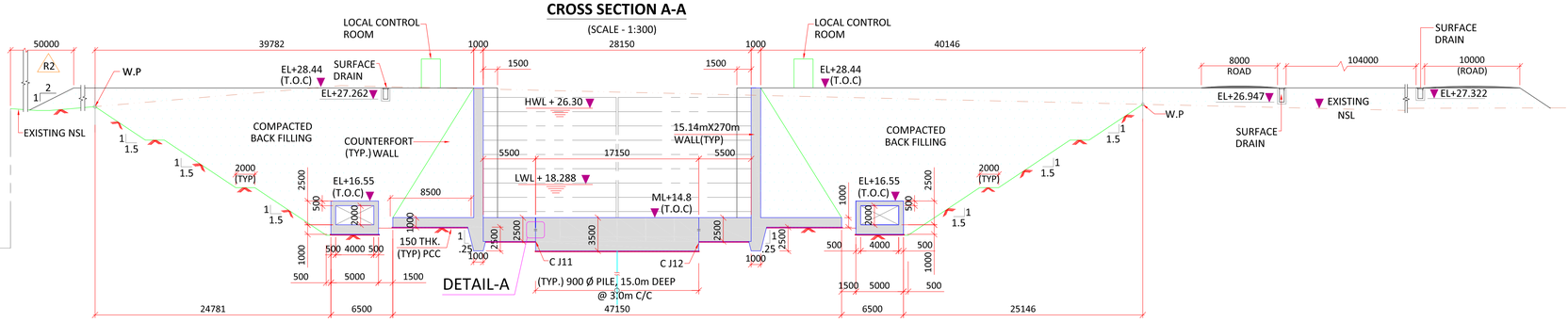
COORDINATE SYSTEM USED: ENTER CO-ORD SYSTEM HERE

UNIT | DWG SCALE | Size : A0 | REV. R2



CROSS SECTION A-A

(SCALE - 1:300)



CROSS SECTION B-B

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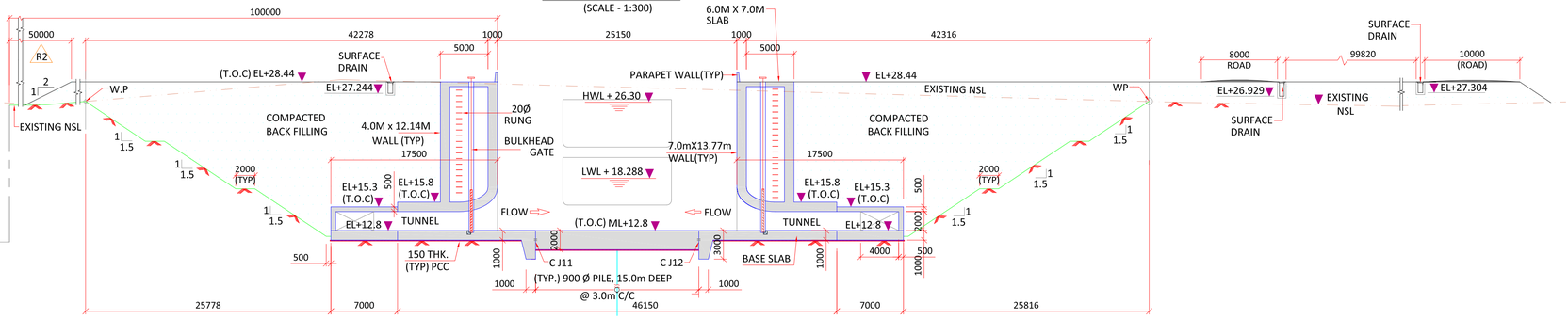

CROSS SECTION C-C

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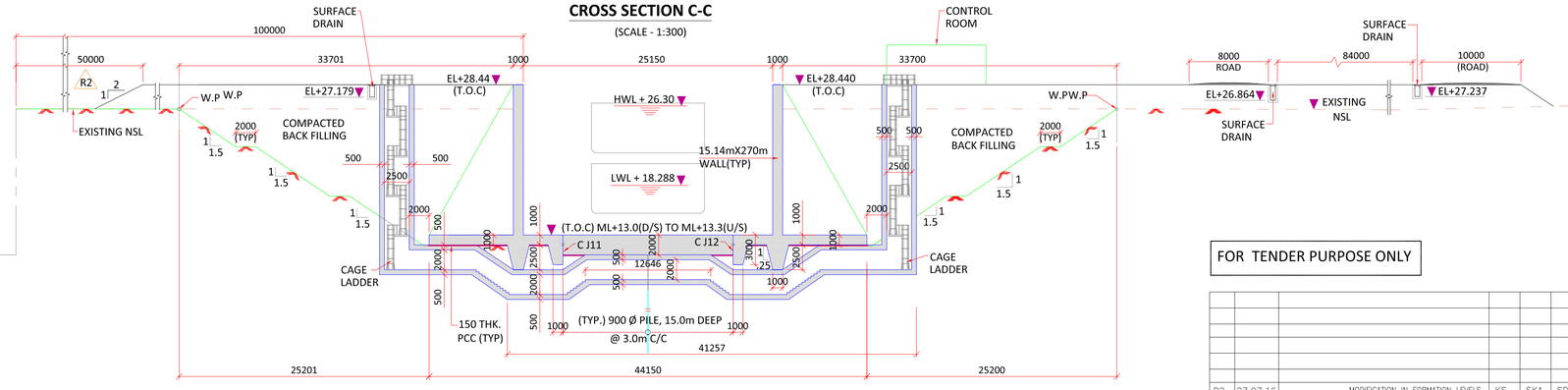
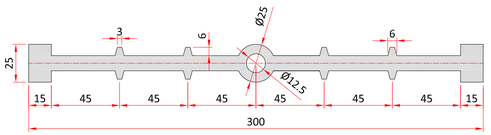


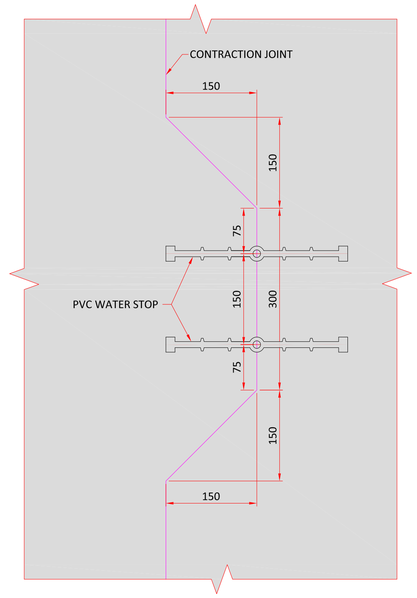
CROSS SECTION D-D

(SCALE - 1:300)



DETAILS OF PVC WATER STOP

SCALE 1:2



DETAIL-A (TYPICAL DETAILS OF SHEAR KEY AND WATER STOP AT CONTRACTION JOINT)

(SCALE - 1:5)

LEGEND :-

U/S –UP STREAM
D/S – DOWN STREAM
HWL – HIGH WATER LEVEL
LWL – LOW WATER LEVEL
EL – ELEVATION LEVEL
C. J – CONTRACTION JOINT
T.O.C – TOP OF CONCRETE
FIRST STAGE CONCRETE
SECOND STAGE CONCRETE
EXCAVATION/COMPACTED BACK FILLING

NOTES : -

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. NO DIMENSIONS SHALL BE MEASURED FROM THE DRAWING.
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FOR TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DRN	CHD	APD
R2	27.07.16	MODIFICATION IN FORMATION LEVELS	KS	SKA	SD
R1	12.07.16	MINOR MODIFICATION	KS	SKA	SD

INLAND WATERWAYS AUTHORITY OF INDIA

PROJECT: DETAILED FEASIBILITY STUDY FOR CAPACITY AUGMENTATION OF NATIONAL WATERWAY-1 AND DETAILED ENGINEERING FOR ITS ANCILLARY WORKS AND PROCESS BETWEEN HALDIA TO ALLAHABAD (JAL VIKAS PROJECT)

CONSULTANT: HOWE; PMC PROJECTS (INDIA)PRIVATE LIMITED from vision to reality...

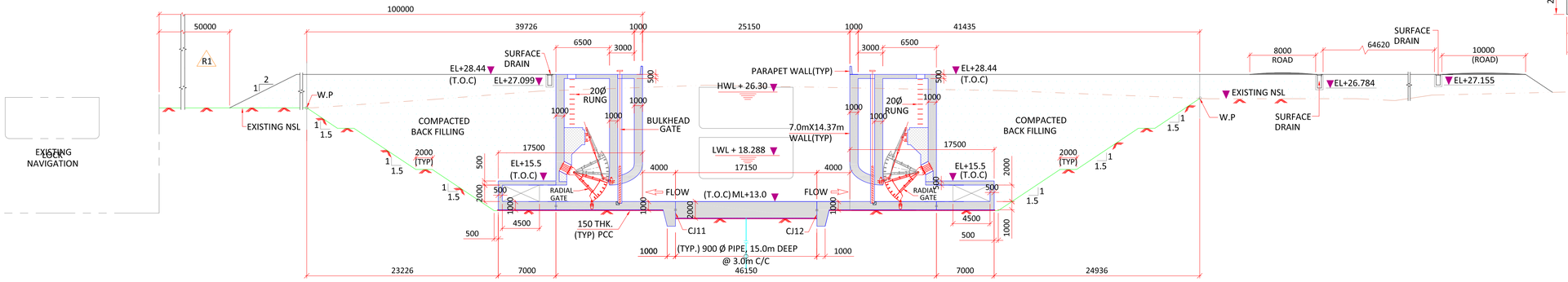
	NAME	SIGN	DATE
DRN	KS		01/03/2016
CHD	HM/SKA		01/03/2016
APD	SD		01/03/2016

TITLE: GENERAL ARRANGEMENT CROSS SECTIONS A TO D NEW NAVIGATION LOCK, FARAKKA

JOB. NO. I-525 | DRG. NO. FL-005 (SH: 1 OF 2)

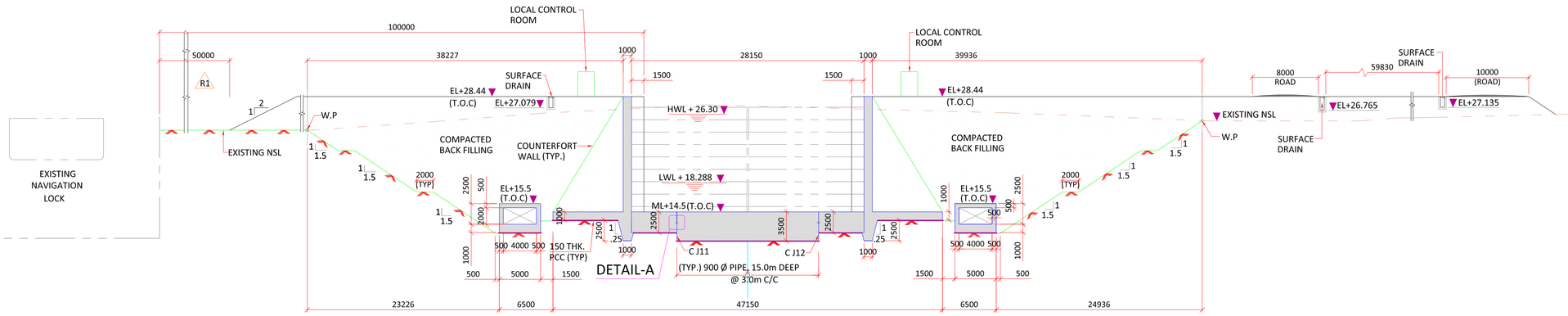
COORDINATE SYSTEM USED: ENTER CO-ORD SYSTEM HERE

UNIT | DWG SCALE | Size : A1 | REV. R2



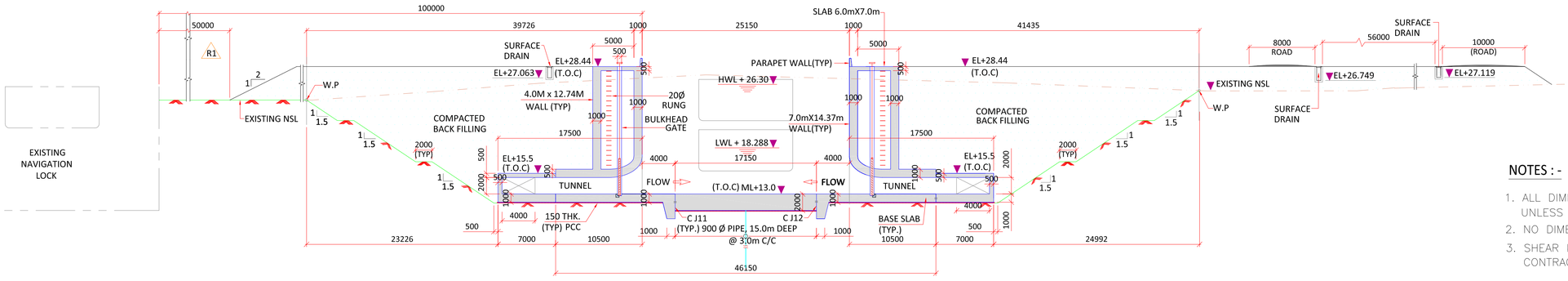
CROSS SECTION E-E

(SCALE - 1:300)



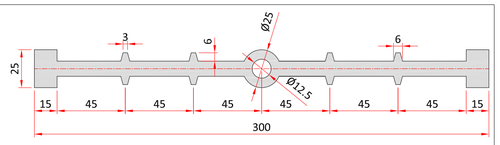
CROSS SECTION F-F

(SCALE - 1:300)



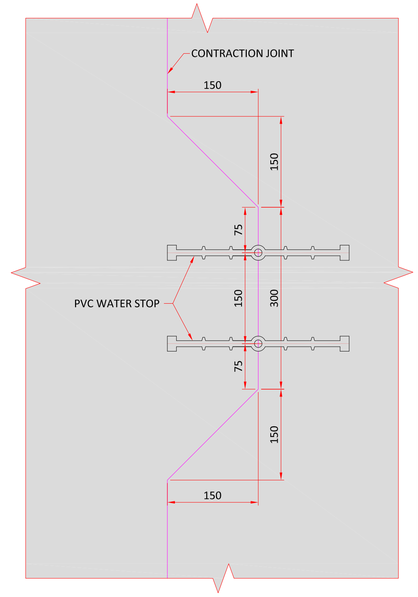
CROSS SECTION G-G

(SCALE - 1:300)



DETAILS OF PVC WATER STOP

SCALE 1:2



DETAIL-A (TYPICAL DETAILS OF SHEAR KEY AND WATER STOP AT CONTRACTION JOINT)

(SCALE - 1:5)

LEGEND :-

U/S – UP STREAM
D/S – DOWN STREAM
HWL – HIGH WATER LEVEL
LWL – LOW WATER LEVEL
EL – ELEVATION LEVEL
C. J – CONTRACTION JOINT
T.O.C – TOP OF CONCRETE
FIRST STAGE CONCRETE
SECOND STAGE CONCRETE
EXCAVATION/COMPACTED BACK FILLING

NOTES : -

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FOR TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DRN	CHD	APD
R1	27.07.16	MODIFICATION IN FORMATION LEVELS	KS	SKA	SD

INLAND WATERWAYS AUTHORITY OF INDIA

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CONSULTANT: HOWE; PMC PROJECTS (INDIA)PRIVATE LIMITED from vision to reality...

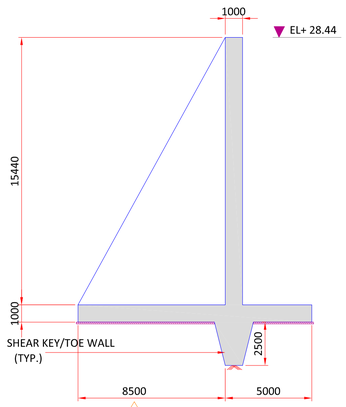
	NAME	SIGN	DATE
DRN	KS		01/03/2016
CHD	HM/SKA		01/03/2016
APD	SD		01/03/2016

TITLE: GENERAL ARRANGEMENT
CROSS SECTIONS E TO G
NEW NAVIGATION LOCK, FARAKKA

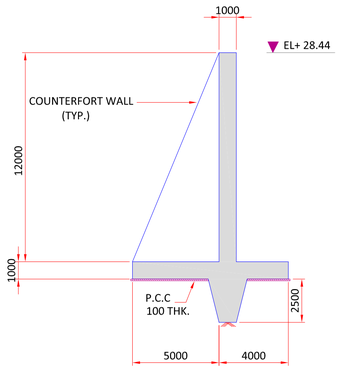
JOB. NO. I-525 | DRG. NO. FL-005 (SH: 2 OF 2)

COORDINATE SYSTEM USED: ENTER CO-ORD SYSTEM HERE

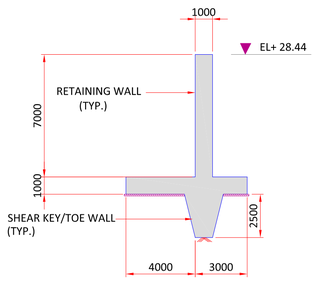
UNIT	DWG SCALE	Size : A1	REV. R1



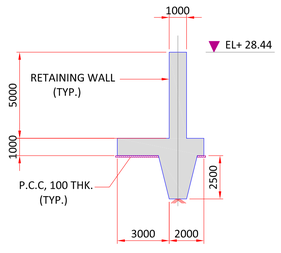
SECTION - P-P



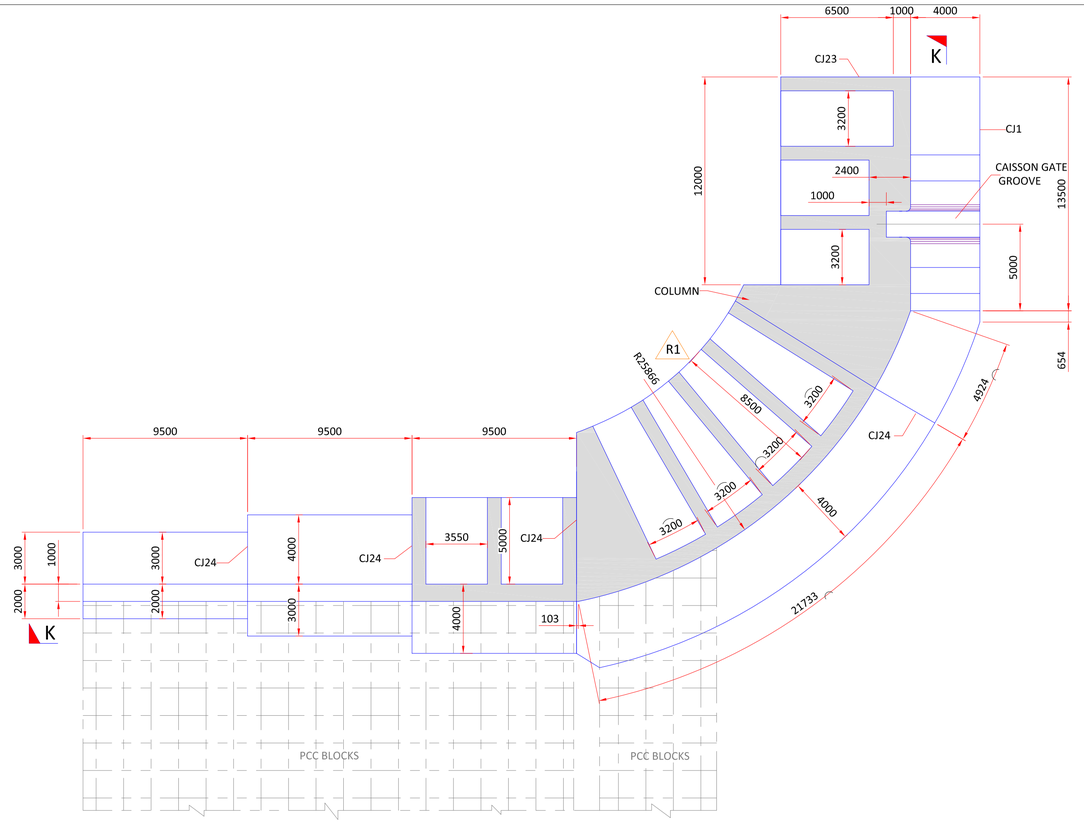
SECTION - N-N



SECTION - M-M

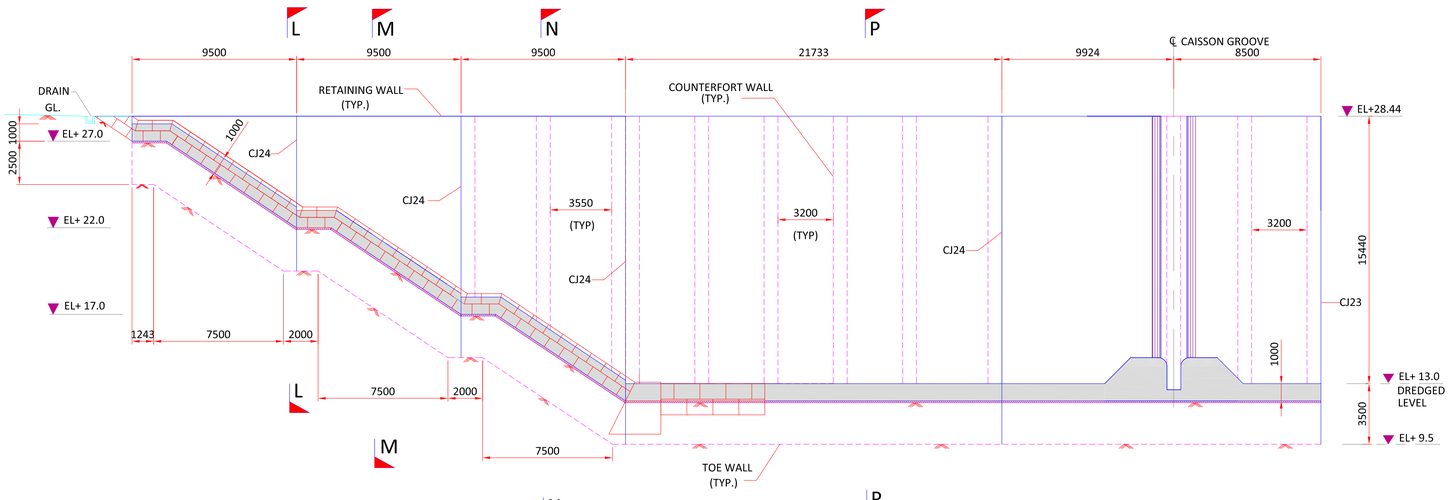


SECTION - L-L



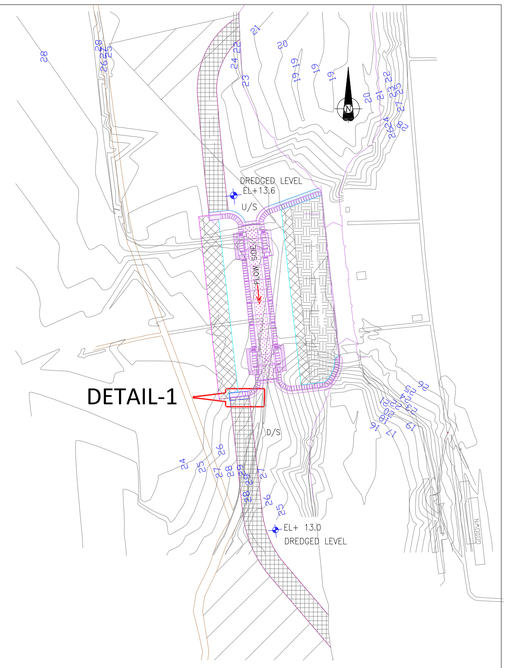
DETAIL 1

(SCALE - 1 : 175)



SECTION - K-K

(SCALE - 1 : 175)



LEGEND :-

U/S – UP STREAM

D/S – DOWN STREAM

EL – ELEVATION LEVEL

C. J – CONTRACTION JOINT

T.O.C – TOP OF CONCRETE

CONCRETE

NOTE : -

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

FOR TENDER PURPOSE ONLY

REV	DATE	DESCRIPTION	DRN	CHD	APD
R1	01.08.16	MINOR MODIFICATION	KS	SKA	SD

INLAND WATERWAYS AUTHORITY OF INDIA

PROJECT: DETAILED FEASIBILITY STUDY FOR CAPACITY AUGMENTATION OF NATIONAL WATERWAY-1 AND DETAILED ENGINEERING FOR ITS ANCILLARY WORKS AND PROCESS BETWEEN HALDIA TO ALLAHABAD (JAL VIKAS PROJECT)

CONSULTANT: HOWE; PMC PROJECTS (INDIA)PRIVATE LIMITED from vision to reality...; HR Wallingford Working with water

	NAME	SIGN	DATE
DRN	KANT		01/03/2016
CHD	HM/SKA		01/03/2016
APD	SD		01/03/2016

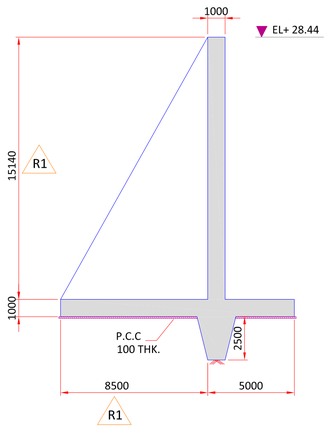
TITLE: D/S GUIDE WALL GENERAL ARRANGEMENT PLAN & SECTIONS NEW NAVIGATION LOCK , FARAKKA

JOB. NO. I-525

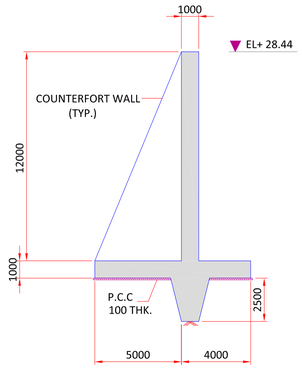
DRG. NO. FL-014

COORDINATE SYSTEM USED: ENTER CO-ORD SYSTEM HERE

UNIT | DWG SCALE | Size : A0 | REV. R1



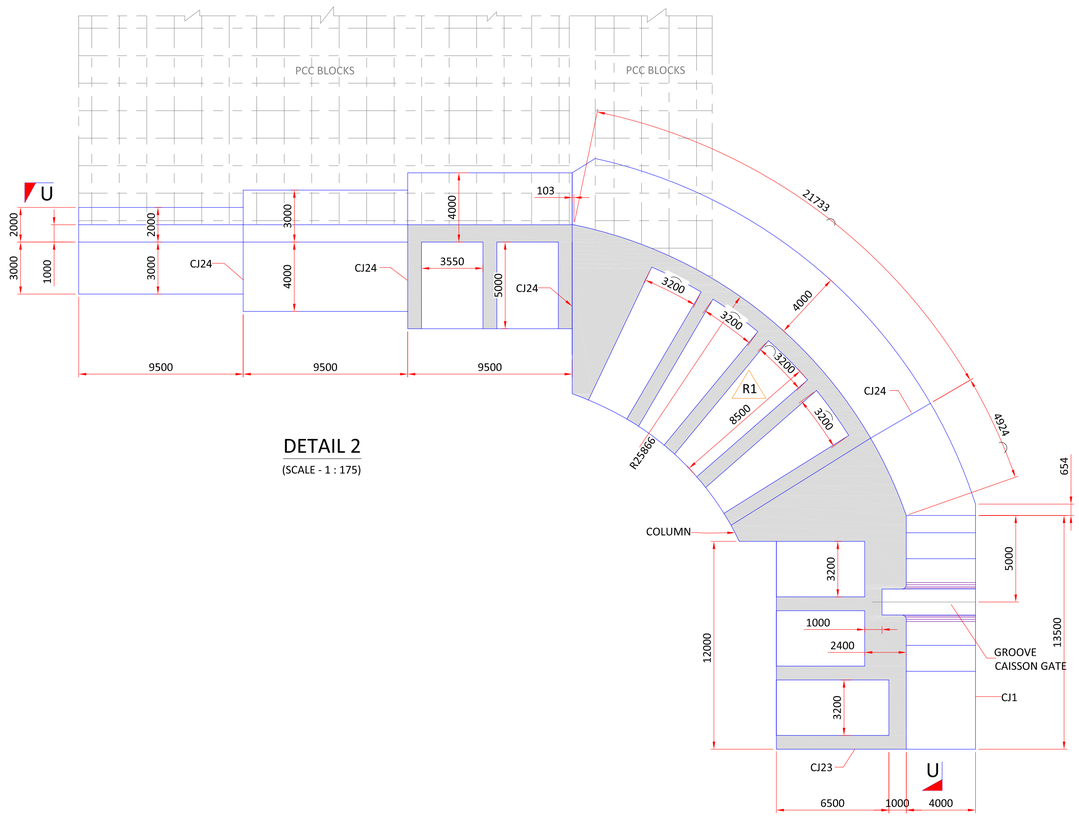
SECTION - P-P



SECTION - N-N

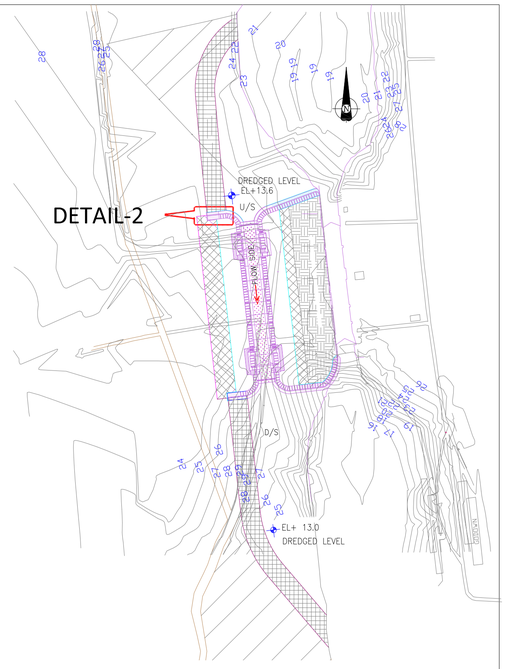
SECTION - M-M

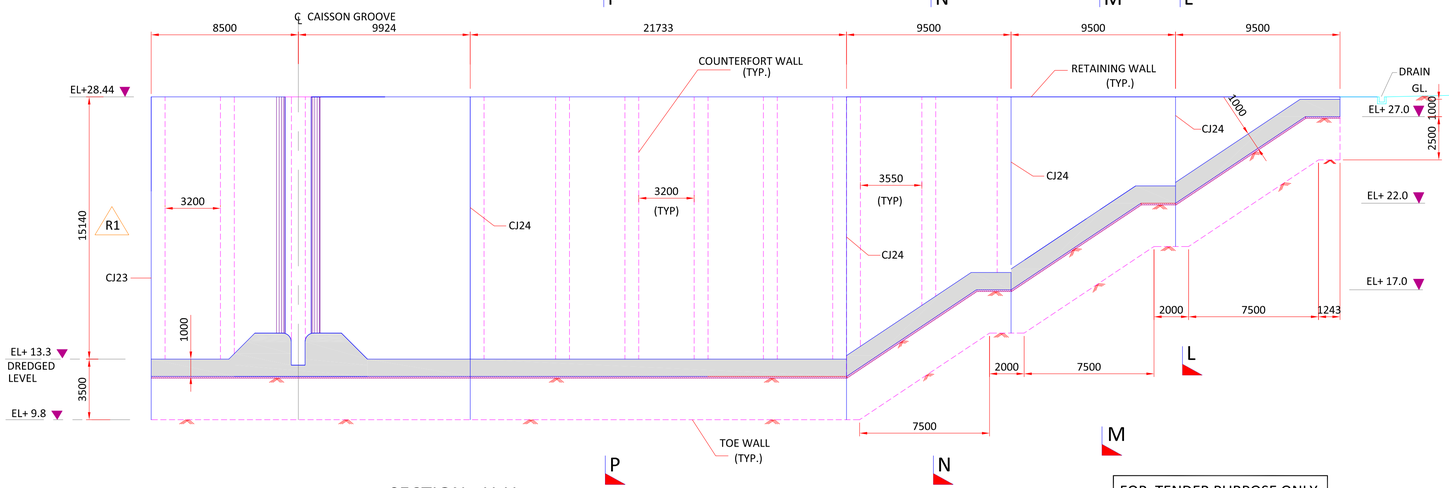
SECTION - L-L



DETAIL 2

(SCALE - 1 : 175)





SECTION - U-U

(SCALE - 1 : 175)

LEGEND :-

U/S – UP STREAM

D/S – DOWN STREAM

EL – ELEVATION LEVEL

C. J – CONTRACTION JOINT

T.O.C – TOP OF CONCRETE

CONCRETE

NOTE : -

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FOR TENDER PURPOSE ONLY

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R1	01.08.16	MINOR MODIFICATION	KS	SKA	SD

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CONSULTANT: HOWE; PMC PROJECTS (INDIA)PRIVATE LIMITED from vision to reality...; HR Wallingford Working with water

	NAME	SIGN	DATE
DRN	KANT		01/03/2016
CHD	HM/SKA		01/03/2016
APD	SD		01/03/2016

TITLE: U/S GUIDE WALL GENERAL ARRANGEMENT PLAN & SECTIONS NEW NAVIGATION LOCK , FARAKKA

JOB. NO. I-525 | DRG. NO. FL-015

COORDINATE SYSTEM USED: ENTER CO-ORD SYSTEM HERE

UNIT | DWG SCALE | Size : A0 | REV. R1

Pre-Bid Queries for ''Engineering Procurement and Construction Contract for New Navigational Lock at Farakka, West Bengal"

S. No	Document Ref	Reference Clause No.	Existing Provision	Bidder's Query	Reply
1.	Volume 2 - Drawings	Drawing No. FL-003	Cassion Gates Plan shows 4 position for caisson gates. But Total No of caisson gates required is 2. The gate grooves shown in the dwg indicates that the gate can only be raised and lowered within the groove.	Plan shows 4 position for caisson gates. But Total No of caisson gates required is 2. Please confirm. The gate grooves shown in the dwg indicates that the gate can only be raised and lowered within the groove .In order to remove out of the groove it has to be lifted by crane. IT cannot be moved out of the groove while floating. Please clarify.	There are only two caisson gates but four grooves are provided so that U/S and D/S Mitre gates can be isolated individually for repairing. The caisson gate can be slipped into the grooves without lifting the gate.
2.	Volume 2 - Drawings	Drawing No. FL-003	Control Rooms Connection of Guide walls and lock walls are on hold	What is the size of 8 local control rooms and its purpose?	Local control Panel rooms shown at various locations shall house the RIO Panels & Hydraulic power pack cylinders. Size of the room shown in the drawing FL-003 is indicative and EPC Contractor is required to determine size and finalise size and details of the buildings depending on the equipment to be accommodated and get those approved by the Engineer-in-Charge.
3.	Volume 2 - Drawings	Drawing No. FL-003	Guide Walls Connection of Guide walls and lock walls are on hold	The connection of the guide walls with the existing lock walls are kept on HOLD. Please clarify.	The structural details of existing lock are not available. U/S and D/S guide walls on the left side of the lock are to be tied to ends of the right guide walls of the existing lock to prevent flooding in the area between the two locks. The sections of guide walls at the ends will have to be increase suitably to enclose the ends of guide walls of the existing lock. The details should be worked out before submitting detailed construction drawings for approved by the

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					Engineer-in-Charge.
4.	Volume 2 - Drawings	Drawing No. FL-002	Bank Protection works	Please clarify the extent of the bank protection works. The length shown extends beyond the boundary. Whether the portion beyond boundary in scope.	The lengths of the bank projection works as given in the mentioned drawing are correct. The bank protection can marginally extend beyond the project boundary to provide smooth transition to the existing banks in the U/S and D/S.
5.	Volume 2 - Drawings	Drawing No. FL-004	Backfill Material	Please provide the specifications of granular back fill material (f value) behind the lock counterfort walls.	The Granular backfill shall be as per Vol. 2 Technical Specification Clause no. 4.7.8.2, pg. 147.
6.	Volume 2 - Drawings	Drawing No. FL-019	Storm water drainage Discharge of storm water	The discharge of storm water drainage system from collection pit into the river on the left bank is not shown in the dwg.	The discharge structure of the drainage system from collection pit should be suitably designed and detailed by the contractor and got approved by approved by the Engineer-in-Charge before execution.
7.	Volume 2	Cl. 1.2.7	Water Supply The Contractor shall do design, installation and commissioning of the complete water supply distribution system including the supply of potable water to the buildings.	Please clarify from where the portable water is to be sourced and what is the capacity of pump house required? Please provide the Portable and raw Water supply and distribution layout dwg.	The potable water should be obtained from the local Water Supply Authorities as per Volume 1 – Schedule D. The contractor should assess the capacity of the pump house and develop water supply distribution layout and designs and get approved by the Engineer-in-Charge before execution.
8.	Volume 2	Cl. 4.19.1	Water Supply Potable water for ships	Please confirm whether supply of portable water for ships is required? Please specify demand.	The supply of potable water for ships is not required. The clause amended.
9.	Volume 2	Cl. 2.1.4	Vessel size Size of vessels are not mentioned in the bid document	Please specify the vessel sizes (max and min), laden and unladed draft, freeboard & velocity of vessels in the lock	300-3000 DWT vessel is to be considered. Please refer Clause

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				for berthing energy calculations. Providing fenders on both sides of the lock will reduce the clear width between the side walls. Please specify the max outstand of fenders permissible from the face of walls and spacing of fenders required?	4.22.2.2 Vo. 2 of Tender Document for berthing velocity and other technical specifications. The maximum outstand of fenders shall be 300 mm. Clause 2.4.2 amended.
10.	Volume 2	Cl. 2.1.5	Bollards	Please clarify whether all bollards i.e. Floating Type and fixed type are of 30T capacity.	Yes, all the bollards shall be of 30T capacity.
11.	Volume 2	Cl. 1.2.4	Inlet and outlet structures	It is mentioned that Inlet Outlet structures are to be designed with lock fully filled and no backfilling on outside. Does it mean the main lock also should be checked for same condition? This will cause the walls to be designed for reverse water pressure. Also specify the max differential water pressure to be considered between inside and outside the lock.	The inlet/outlet structures shall be designed with lock fully filled and backfill upto 2/3 height of the retaining wall from the deepest base. The walls of main lock should also be designed similarly. The maximum differential pressure shall be maximum water level in the lock and no water level outside. However, the lock shall be tested for water tightness as per Clause 2.1 Schedule H Volume 1. Clause 1.2.4 amended, also the "The test on Completion" in Schedule H of volume 1 amended.
12.	General			Please provide the AutoCAD dwgs of all layouts	Please use the PDF drawings already provided with tender.
13.	General			Please provide the AutoCAD Bathymetry and Topography dwgs	Please use the PDF drawings already provided with tender.
14.	Volume - 2, Technical specification and	Cl. 1.2.4	Inlet and Outlet Structures	It is mentioned that Inlet Outlet structures are to be designed with lock fully filled and no backfilling on outside then it implies that the main lock also should be checked for same condition. This will cause the walls to be designed for reverse water	The inlet/outlet structures shall be designed with lock fully filled and backfill upto 2/3 height of the retaining wall from the deepest base. The

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	drawings			pressure. Also specify the max differential water pressure to be considered between inside and outside the lock. If the lock is to be checked for reverse water pressure with no backfill then the alternative of Diaphragm wall will not work.	walls of main lock should also be designed similarly. The maximum differential pressure shall be maximum water level in the lock and no water level outside. However, the lock shall be tested for water tightness as per Clause 2.1 Schedule H Volume 1. Clause 1.2.4 amended, also the "The test on Completion" in Schedule H of volume 1 amended.
15.	Volume-2, Technical specification and drawings	FL 002 dwg	Length of shore protection	The length of bank protection on D/S side is marked as 2502799. Please provide the correct dimension	The dimension of 2502799 in the drawing is correct.
16.	Volume-2, Technical specification and drawings	General	Water current velocity	Provide the current velocity in the approach channels of U/S and D/S side	U/S approach channel draws water from Farakka Barrage Pond. In normal condition velocity depends upon rate of drawl of water for filling of lock. This can be estimated by the bidder from design of filling / emptying culverts. Similarly, downstream channel is backwater of feeder canal and velocity depends on rate of rise

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					/ fall in the discharge in feeder canal.
17.	Volume-2, Technical specification and drawings	FL 005 dwg	Utility cable and trenches	The utility trench for cables and providing access is provided under the base slab. Is It acceptable to carry the utilities and cables from over the lock structure.	Tender condition prevails.
18.	Volume-2, Technical specification and drawings	1.2.6	Existing Roads	As a scope of the work, we need to design and construct the road as a replacement of existing road before the existing road is demolished to make way for construction of the Lock. We request you to provide the cross-sectional details of the existing road	The cross section of the road to be built as replacement of existing road is given in drawing no. FL-020. The same dimensions can be taken for estimating quantity involved in demolition of existing road.
19.	Volume - 3, Bill of Quantities		Utility Culverts Drawing no.FL-004 & Fl-005	Section J-J in dwg Fl-004 shows the clear height of the utility culvert as 2.0m where as in dwg. FL-005 the clear height is mentioned as 2.5m in Section D-D	The utility culvert shall be 2m(w) x 3.5m(h). The drawing FL-005 amendment is attached.
20.	Volume - 2, Technical specification and drawings	Cl. 2.1.14	FOS	FOS against Overturning in Seismic Case is mentioned as 1.2 and also 1.5.Please clarify	This is a typographical error FOS for overturning in Seismic Case is 1.5 and FOS for sliding in Seismic Case is 1.2.
21.	Volume 1	Part IV - Financial Covenants Cl. 19.5 Pg. 132	Within 10 (ten) days of receipt of the Stage Payment Statement from the Contractor pursuant to Clause 19.4, the Employer's Engineer shall broadly determine the amount due to the Contractor and recommend the release of 75 (seventy five) percent of the amount so	As per volume no.1, clause no.19.5 states that the stage payment release 75% of amount whereas clause no.6 reads stage payment release 90 % of amount. Kindly clarify and advise on the same.	The clause defined under 19.5 pg. 132 is correct.

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		And Schedule - L-Annex-1 Cl. 6 Pg. 202	determined as part payment against the Stage Payment Statement, pending issue of the Interim Payment Certificate by the Employer's Engineer. Within 10 (ten) days of the receipt of recommendation of the Employer's Engineer, the Employer shall make electronic payment directly to the Contractor's bank account AND Within 10 (ten) days of receipt of the Stage Payment Statement from the Contractor pursuant to Clause 19.4, determine the amount due to the Contractor and recommend the release of 90 (ninety) percent of the amount so determined as part payment, pending issue of the Interim Payment Certificate; and		The clause 6.2 is revised in attached amendment.
22.	Volume 2 – Electrical Works	Cl. 2.2	Lighting protection system	Please clarify whether individual lighting protection system for each building is to be considered or a common lighting protection system for all buildings	Individual lightning protection system for each building shall be considered.
23.			D.G. Set	Please clarify Duty of the DG set such as prime intermediate or prime continuous.	The duty of the DG set shall be Prime continuous.
24.			Building	Wherever heights of the buildings are not specified, we have estimated based on the overall layout provided in the tender. Please advise and clarify.	The details of control room building, security room, store & toilet is given in drawing no. FL-016 & FL-026 respectively. However for the local control panel room the adequate size of the room shall be taken by the bidder as per their design & approval for the same shall be taken from the engineer-in-charge before execution of work.
25.			Gas supersession system	We have not considered Gas Suppression System in our scope for buildings (technical specifications and requirements are not mentioned in the tender.	Shall be provided as per NIT clause no. 7.1.

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				Kindly advise and clarify.	
26.			Lighting System	For Lighting System we have considered ceiling, wall & floor reflectance factors as mentioned below: a) 70%, 50% & 20% respectively for substation and other buildings b) 50%, 30% & 20% respectively for transfer towers, towers & conveyors Kindly advise and clarify.	Ceiling & Wall reflectance factor is OK for substation & other buildings & also for transfer towers, towers & conveyors however the floor reflectance factor to be taken as 10% instead of 20% for all the buildings as well as for conveyors & transfer towers.
27.			Breaker rating	We assume that the breaker ratings indicated in SLD is considering the deration factor for ambient temperature. (as per requirement SLD). Kindly Confirm and clarify.	Confirmed the same.
28.			Spare	We have considered 20% spare with at least one number of each type of feeder which shall be equally distributed on either side of the BUS for LT Panels. Kindly Confirm and clarify.	Confirmed the same.
29.			Earth resistivity	As the earth resistivity details are not specified in the tender documents, we have assumed 100 ohm-meter. Kindly Confirm and clarify.	The earth resistivity data shall be suitably assumed by the Contractor as per his previous experience of working in that area. However No variation shall be allowed in case of change in data at a future date.
30.			Power socket	We have considered IP-66 degree of protection for power sockets & IP-67 degree of protection for welding sockets. Kindly Confirm and clarify.	IP-67 is required for both power socket & welding socket as per clause 5.2.7
31.			High mast	We have considered 2x400W HPSV twin lamps in high mast lighting system. Kindly confirm and clarify.	Confirmed the same.
3			EPABX system	As the number of instruments connected to the EPABX	As this an EPC bid the bidder shall

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2.				system are not specified, we have considered 50 no. of instruments for the system. Kindly Confirm and clarify.	consider the same as per their design & previous experience.
33.			Rubber mast	Rubber mats shall be provided only in front of 11kV Switchboard, LT Switchboard, MLDB & ACDB which are in consider in our scope of supply. Kindly Confirm and clarify.	Shall be as per clause 1.2.10.2, S. No. 29(d) for all the Electrical panels.
34.			Server	We have considered commercial grade servers as the makes specified in approved make list do not offer industrial grade servers. Kindly Confirm and clarify.	Servers shall be as per clause 5.3.2.1 & approved make list provided.
35.			Server	We have considered commercial grade data terminal computers as the makes specified in approved make list do not offer industrial grade servers. Kindly Confirm and clarify.	Data terminal computers shall be as per clause 5.3.2.3 & approved make list provided.
36.			CCTV	We have considered CCTV UTP Cable in Cat-5e cables. Kindly Confirm and clarify.	Cat-5e cables shall be as per clause 5.3.2.10
37.			UPS System	We have considered SMF VRLA 12V battery in UPS system. Kindly Confirm and clarify.	UPS system battery shall be taken as per clause 5.3.2.8.
38.	Volume 2	Cl. 1.2.4; Page 20	The Stability of both Inlet and Outlet Structures shall be done separately considering following cases. A) Lock considered empty, i.e. Maintenance condition B). Lock considered fully filled but no backfilling along the structure, i.e. testing condition.	Clause 1.2.4 requires the bidder to check the stability of the Inlet Outlet structure considering lock fully filled with water and no backfilling along the structure. For testing it will be required to fill the lock with water before backfilling which may not be practically possible. The contract allows the bidder to consider Dwell as an option but how does the Diaphragm wall work without backfill? Please also clarify the following with respect to testing of the lock – 1) From where and how the water will be sourced and what is the methodology for filling the lock with water?	The inlet/outlet structures shall be designed with lock fully filled and backfilled upto 2/3 height of the retaining wall from the deepest base. The walls of main lock should also be designed similarly. The maximum differential pressure shall be for maximum water level in the lock and no water level outside. However, the lock shall be tested for water tightness as per Clause

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				2) What is the procedure for testing? 3) Please clarify the reason for not having backfill during testing? 4) If the Inlet Outlet structure is to be checked considering no backfill along the structure then the lock too need to be checked for the same condition. What water level is to be considered outside the lock during testing condition? It is to be noted that in operation condition the lock is always subjected to external earth and hydrostatic pressures. Testing is one time operation and testing the lock without backfill is not understood. To satisfy the requirement of clause 1.2.4 the structure will have to be designed for reverse hydrostatic loading which is an imposed condition and will result in uneconomical design and incur higher costs. Also IS 3370 Part-1 (1965), reaffirmed 1999, clause 10.1.2 page 25, specifies the method for testing Underground tanks by measuring the water loss in tank and comparing with evaporation losses without removing the backfill. This procedure should be adopted for testing the lock structure. As per the tender document if, removing the backfill is required to test the leakage from side walls then with the same analogy for testing the leakage from base slab the soil below the base slab should be removed which is absurd.	2.1 Schedule H Volume 1. Clause 1.2.4 amended, also the "The test on Completion" in Schedule H of Volume 1 amended.
39.	Volume 2	Cl. 2.3.5; Page 60	Hydro-mechanical Accidental Impact from 3000DWT Vessel fully loaded barge on Caisson and Mitre Gate	It is understood that only the Gate and its connections with the main lock is required to be designed for the accidental impact. The main lock structure however need not be designed for the impact loading of barge on gate. Please confirm	The main lock structure, should also be designed for the impact loading of barge.
40.	Volume 2	Cl. 4.22.5 Page 229	Wooden/Stainless Steel rubbing strip complete in all respects shall be provided as instructed by Employer at relevant locations of the lock suitably	Please provide the locations where rubbing strip is to be provided	Rubbing strips shall be provided for the protection of lock wall edges from rubbing of mooring

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					ropes. The suitable locations shall be finalized before execution and get those approved by the engineer-in-charge.
41.	Volume 2	Cl. 4.22.8 Page 229	Mooring rings at suitable locations on lock face shall be made with 20mm dia stainless steel to AISI 304 or equivalent with outer diameter of 150mm.	Please provide the locations and Nos of mooring rings required.	Around 22 nos. of mooring rings should be provided in the lock. The suitable locations shall be finalized before execution and get those approved by the engineer-in-charge.
42.	Volume 2	Cl. 2.1.4 Page 32	Fendering system Considering the level variation of the order of 8m between high water level and low water level in the lock and also the variation in the sizes of vessels to be handled.	Please provide the range of vessel sizes along with the dimensions and light & loaded drafts. Furnish the detail of Approach Velocity of vessels.	300-3000 DWT vessel is to be considered. Please refer Clause 4.22.2.2 Vo. 2 of Tender Document for berthing velocity and other technical specifications.
43.	Volume 2	Cl. 2.1.5 Page 32	Mooring Load Mooring force of 30 T, as per Table-4, IS: 4651- Part III, shall be applied at any of the bollard location.	Please provide the general arrangement details showing the bollards and its spacing. If possible request you to share the details of Existing lock arrangement of Fender and Bollard system. Specify is there any special requirement of Fixed and floating arrangement of bollard as exists at existing Farakka lock.	There should be around 22 nos. of bollards and 30 nos. fenders in the lock. The suitable locations shall be finalised before execution and get those approved by engineer-in-charge.
44.	Volume 2	Cl. 2.3.5 Page 60	Load considered for Structural Design Accidental impact from 3000 DWT fully loaded barge on Caisson and Mitre gate.	Please clarify whether accidental impact is required to be consider for lock structure (i.e. Impact on walls?).Request you to furnish the following details: 1) Provide the range of vessels and Draft details. 2). Specify the barge impact speed. 3) Specific requirement of underkeel clearance.	The civil structure (retaining walls of navigation lock shall be designed for the berthing load for 300-3000 DWT fully loaded vessels and shall be checked for the accidental impact loading of barge.
45.	Volume 2	Cl. 3.6.5 Page 76	Model Studies The Mathematical/Physical model studies for the whole structure to access the filling/emptying time of the lock chamber, sedimentation in the hydraulic system, check for air entrapment in the hydraulic system, waves, currents and turbulence generation in the lock chamber.	Please specify requirement of either mathematical or physical or both model studies.	Physical Model Study is not mandatory. However, mathematical model studies as per cl. 3.6.5, pg. 76, volume 2, tender documents are required to be carried out before submission of construction drawings for approval

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					by engineer-in-charge.
46.	Volume 1	Cl. 10.2.2 Page 105	Design and Drawings Within 20 (twenty) days of appointment date, the Contractor shall appoint a proof check consultant (the "Proof Consultant")	Please specify list of preferred consultants, if any or special qualification requirement of proof consultant	There is no specific preferred list of proof consultants. However, the proof consultant shall also fulfill the specific experience requirements as given in Cl.2.4.2 Volume I.
47.	Volume 2	Cl. 6.3.3 & 6.3.5 Page 326	The sinking and raising operation of the gate shall be carried out through suitable valve arrangement without requiring any external assistance	Operation of Caisson Gate not possible with operation of valves alone. Some external assistance (pumping arrangement) will be needed to lift water against the water head in the lock.	In normal conditions raising and sinking operation is carried out by using valves without pumping. Only in emergency condition pumping is required, provision for which has already been made in the specifications.
48.	Volume 2	Cl. 6.2.3 & 6.2.14 Page 323 & 331	**Mitre and Caisson gate** The control system shall be PLC based	A PLC system is used when an automatic control of sequential activities is required, in that, one activity autonomously follows a preceding activity based on fulfilment of certain criteria. Please clarify to what extent automation is required. We foresee, automation to be limited only to opening and closing of radial gates on equalising of levels followed by opening of the mitre gate. Closing the mitre gate will have to be carried out manually. It is not clear how the capstans for the caisson gate and the submersible pump operation can be PLC based. Further clarification is requested.	The operational requirements shall be as per Clause no. 5.3.1 Vol. 2 Tender Document.
49.			Fire main/ fire detection and alarm system	Fire main/ fire detection and alarm system has not been provisioned in the tender. Please confirm if such a requirement is to be catered to.	Fire main/ fire detection and alarm system has to be provided for the main and local control room buildings as well as per IS:2189. Cl. 7.1 Vol-2 of Tender Document amended.
50.	Volume 2	Cl. 2.3.2 Page 59	Lock gate size and Nos	The height of caisson gate is mentioned as 13.94m. However, with 13.94m the top of the caisson gate will not match with the lock top level of 28.44m as the caisson	The size (Width and height) of gate is generally considered from the clear opening. The size of

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				gate is seated in a groove going down to 13.3m. With a height of 13.94m the caisson gate will be sitting approximately 1.2m below the finished level of the lock top. Further clarification requested.	grooves will depend on the detail design of the gate which has to be approved by engineer-in-charge. The tender condition prevails.
51.	Volume I Part 2 section VII	Cl. 10.3.2 Pg. 107	Completion Schedule The Contractor shall construct the Navigational Lock in accordance with the Project Completion Schedule set forth in Schedule-J	Schedule J refers to completion certificate whereas Schedule G refers to completion schedule. Kindly confirm whether which schedule to be referred.	Accepted, Schedule-J should be read as Schedule-G.
52.	Volume I, section VII	Cl. 19.17.1 Pg. 136	Changes in Law or subsequent legislation If as a result of Change in Law, the Contractor suffers any additional costs in the execution of the Works or in relation to the performance of its other obligations under this Agreement, the Contractor shall, within 15 (fifteen) days from the date it becomes reasonably aware of such addition in cost, notify the Employer with a copy to the Employer's Engineer of such additional cost due to Change in Law.	1.Please add the following before "costs in execution" in second line in 19.17.1 "Time and" 2.We presume that contractor shall be eligible for time along with cost due to delays resulting from such change in law, please confirm.	Yes, the time extension, if required, due to change in law is covered under Clause 21.4 (Force Majeure).
53.	Clause, Article -21 of condition of contract section VII, Volume I	Cl. 21.6 Pg. 144	Effect of Force Majeure Event on the Agreement 21.6 Effect of Force Majeure Event on the Agreement 21.6.1 Upon the occurrence of any Force Majeure after the Appointed Date, the costs incurred and attributable to such event and directly relating to this Agreement (the "Force Majeure costs") shall be allocated and paid as follows: a) Upon occurrence of a Non-Political Event, the Parties shall bear their respective Force Majeure costs and neither Party shall be required to pay to the other Party any costs thereof;	We presume that contractor shall be eligible for time along with cost due to the effect of force Majeure event, please confirm.	The contractor is eligible for time extension under Force Majeure clause. Please refer clause 10.5.1 (extension of time for completion).
54.	Volume I, Section VII	Cl. 23.6.4 Pg. 151	Termination Payment 23.6.4 The Contractor expressly agrees that Termination Payment under this Article 23 shall constitute a full and final settlement of all claims of the Contractor on account of Termination of this Agreement and that it shall not	Request to Please delete clause 23.6.4	Tender conditions prevail.

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			have any further right or claim under any law, treaty, convention, contract or otherwise.		
55.	Volume I, Section VII	Cl. 23.7 Pg. 151	Termination for Employer Default 23.2.1 In the event that any of the defaults specified below shall have occurred, and the Employer fails to cure such default within a Cure Period of 90 (ninety) days or such longer period as has been expressly provided in this Agreement, the Employer shall be deemed to be in default of this Agreement (the "Employer Default")	What is the provision of compensation to the contractor if Terminated by contractor due to default of Employer as per clause 23.2, please clarify?	Upon termination of contract on account of Employer's default under clause 23.2, the liabilities of employer are covered under clause 23.6.2.
56.	Volume I, Section VII	Cl. 22.4.2 Pg. 146	Termination 22.4.2 Notwithstanding anything to the contrary contained in this Agreement, in the event that Suspension is not revoked within 90 (ninety) days from the date of Suspension hereunder, the Agreement shall, upon expiry of the aforesaid period, be deemed to have been terminated by mutual agreement of the Parties and all the provisions of this Agreement shall apply, mutatis mutandis, to such Termination as if a Termination Notice had been issued by the Employer upon occurrence of a Contractor Default.	What is the provision of compensation in terms of cost to contractor by Employer if termination is done under clause 22.4.2, please clarify.	The clause 23.6 applies for the payment to the contractor on termination of the contract under this clause.
57.	Volume I, Section VII	Cl. 11.17.1 Pg. 113	Suspension of Unsafe Construction Works 11.17.1 Upon recommendation of the Employer's Engineer to this effect, the Employer may by notice require the Contractor to suspend forthwith the whole or any part of the Works if, in the reasonable opinion of the Employer's Engineer, such work threatens the safety of the Users and pedestrians.	We presume that contractor shall be entitled for time and cost due to suspension not attributable to the contractor, please confirm.	The time extension is as per clause 10.5 and the additional cost shall be claimed under price adjustment clause 19.10.
58.	Volume I, Section VII	11.17.4	Suspension of Unsafe Construction Works 11.17.4 If suspension of Works is for reasons not attributable to the Contractor, the Employer's Engineer shall determine any Time Extension to which the Contractor is reasonably entitled.	Please add the following after 'Time extension' in cl no 11.17.4 'and cost'	No changes, tender conditions prevail.

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59.	Volume I, Section VII	26.3	Arbitration Arbitration & Conciliation Act, 1996 of India. Provided, however, arbitration shall be held in accordance with UNCITRAL Rules in case Contractor is registered outside India. The venue of such arbitration shall be New Delhi.	Arbitration as per Arbitration & Conciliation Act, 1996 of India Seat of Arbitration – New Delhi, please confirm.	Arbitration as per Arbitration & Conciliation Act, 1996 of India The Seat of Arbitration for domestic contractor is New Delhi. Please refer amendment sheet for details.
60.			Environmental clearances	During site visit, we have seen the site area is covered by few trees and vegetation and require to clean prior to excavation and filling work. Bidder want to know the environmental permission in place for cutting the trees within site premises, please clarify.	Though no environmental clearance is required for the project the contractor shall comply with Environmental Protection Provisions and shall take necessary permissions from environment authorities for cutting of trees.
61.	Volume 2 - Drawings	Drawing no: FL-002	Filling between existing lock and new lock	Drawing no. FL-002 showing that FFL is +28.44 between existing and new lock whereas the existing wall level is at +26.00. Considering the level differences between new and existing lock bidder need following details for better understanding: 1. Please provide drawing showing cross section for existing to new lock at three different location, i.e. at U/S side and at intermediate and at D/S side. 2. Presently existing lock wall level is +26.00m and require to elevate for filling, please let us provide design stability of wall against earth pressure.	The 50 m from the existing lock has been kept free from the construction zone of new lock to maintain uninterrupted operation of the existing lock. The formation level of 28.44m should be maintained in the area beyond 50m and edge of the land adjoining 50m wide land of existing lock is to be provided with a slope of 2H:1V to connect with existing ground levels prevailing in the area near the existing lock. The drawings FL-004 & FL-005 are amended and attached. The attached drawings are showing the cross section for existing and new lock at different locations. As we are not filling the area near

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					the existing lock, the stability of the existing wall remains undisturbed.
62.			Local Farmer Encroachment in acquired land of IWAI	During site visit, we have observed that local farmers are cultivated land acquired by IWAI from past 20 to 25 years; Bidder request to clarify who will be cleared encroachment of local farmer	Encroachment free land with temporary fencing at boundary will be provided by IWAI for the project.
63.			Land for labour colony	Please provide land for labour colony on lease from Farakka barrage. Also provide lease charges per year.	The contractor is advised to take accommodation or land on lease for labour colony in the nearby village outside the protected area of FBP / site.
64.	Volume-1	Cl. 4.3, Pg. 91	Environmental Clearances The Employer represents and warrants that the environmental clearances are not required for construction of the Project but the proposed EMP is to be implemented by the Contractor.	1. From the relevant clause, we understand that there is no need of environment clearances to the project however if required will be undertaken by IWAI, please confirm whether our understanding is correct. 2. During site visit we had seen site clearances activity needs to cutting of trees, please confirm there is no need of any permission for the same from any concern authority. 3. Please elaborate EMP for better understanding.	Though no environmental clearance is required for the project the contractor shall comply with Environmental Protection Provisions and shall take necessary permissions from environment authorities for cutting of trees. EMP has already been uploaded on site as Amendment 2.
65.	Volume-1	Article-8 Cl. 8.2, Pg. 98	Right of way The Employer shall provide the Right of Way to the Contractor in respect of all land included in the Appendix by the date specified in Schedule-A for those parts of the Site referred to therein, or no later than 90 (ninety) days of the Appointed Date for those parts of the Site which have not been specified in Schedule-A,	Bidder request that if any delay in handover of site portion or parts of sites will be compensated suitably in cost and time, please confirm and clarify.	The entire site is already in possession of the Employer, and it can be handed over to the contractor on his request soon after signing the agreement.
66.	Volume-1	Article-9 Cl. 9.1	Utilities & trees Existing utilities	Please provide drawing showing identification of existing utilities for better and understanding.	Following utilities fall within the project area and need to be

S. No	Document Ref	Reference Clause No.	Existing Provision	Bidder's Query	Reply
		Pg. 101			shifted: i) Road ii) Boundary Wall These are already shown in FL-020.
67.	Volume-1	Article-10 Cl. 10.2.3 Pg. 105	Proof consultant	Bidder request to provide approved list of proof check consultant.	There is no specific preferred list of proof consultants. However, the proof consultant shall also fulfill the specific experience requirements as given in Cl.2.4.2 Volume I.
68.	Volume-1	Article-13 Cl. 13.3 Pg. 120	Payment for change in scope	1. Bidder request to provide payment mechanism for change in scope. 2. Bidder request to provide basis of rate analysis for change in scope work items.	Please refer to clause 13.2, 13.3 and 13.4 which gives the modalities for execution of items under change in scope and payment to the contractor. No change to the clauses are required. Tender conditions Prevail.
69.	Volume-1	Schedule A Cl. 3.4 Pg. 178	The water levels U/S and D/S with reference to Operation/ maintenance Manual for existing Navigational Lock are as given in Table below:- High Water Level U/S RL +26.30 m Low Water Level U/S RL +18.288 m High Water Level D/S RL +24.38 m Low Water Level D/S RL +18.288 m AND During site visit, we observed the following water levels at U/S and D/S side: High Water Level U/S RL +21.635 m High Water Level D/S RL +19.69 m	1. Kindly advice on water levels on U/S and D/S of feeder canal. 2. Please provide feeder Canal bed level and water depth on U/S and D/S Side. 3. Please advise on the draft available on U/S & D/S side of the feeder canal throughout the year in canal	1. Details of Feeder Canal are irrelevant, U/S and D/S approach channels are connected to U/S and D/S approach channels of existing navigation lock respectively. Maximum/ minimum Water Levels in the U/S and D/S of lock have already been given in Schedule A Clause 3.4, Page 178. 2. Bed levels in U/S and D/S approach channels have been given in Drawing no. FL-002.

S. No	Document Ref	Reference Clause No.	Existing Provision	Bidder's Query	Reply
					3. Irrelevant for the navigation lock.
70.	Volume-1	Schedule H Pg. 194	Test on completion	We presume that all kind of test on completion will be conducted by employer or IWAI including relevant cost of the test, please confirm.	The arrangement for carrying out the tests listed therein will be made by the Contractor and the cost there of including the charges of External Agency shall also be borne by contractor.
71.	Volume-3	Bill No. 13 Pg. 24	Temporary Buildings Construction of temporary buildings such as site office, laboratory, stores, workshop, toilet block separate for ladies and gents for construction workers and office staff, as per approved designs, drawings and specifications including testing, inspection, commissioning and defect rectifications, complete in all respects and removal of these buildings after completion of work to restore site to the original condition	We presume that the construction of the temporary building will be used by contractor for his establishment and will be removed after completion of work, please confirm and clarify.	Refer Cl. 3.2, Pg. 64 Vol.2 of Tender Document. All the temporary buildings shall be removed on completion of the work.
72.	Volume-2	Cl. 2.3.2 Pg. 59	Volume -2, technical specification, clause no.2.3.2, states that Cassion gate - 2 nos. AND Drawing no.FL-004	As per drawing no. FL004, section - HH, showing Cassion gates 4 nos. whereas technical specification and BOQ reads Cassion gates 2 nos., please confirm and clarify the quantity of gates.	There are only two caisson gates but four grooves are provided so that U/S and D/S Mitre gates can be isolated individually for repairing.
73.	Volume-2		Drawing No. FL- 017 Drawing No. FL - 018 and Drawing No: FL- 027	1. Drawing no. FL-17 and FL-018 showing bank protection by PCC block whereas drawing no. FL-027 showing bank protection by stone/ boulders, please confirm and clarify type of bank protection. 2. Please provide U/S and D/S - canal drawing showing cross section and water depth and canal bed level. 3. Drawing no. FL-002 shows that U/S bank protection length is 180m + 145.77m, i.e. 325.77m, please confirm and clarify 4. Drawing no. FL -002 shows that U/S bank protection length is 250.2799m, please confirm and clarify	1. The bank protection is to be done using PCC block. 2. Details of Feeder Canal are irrelevant, U/S and D/S approach channels are connected to U/S and D/S approach channels of existing navigation lock respectively. Maximum/ minimum Water Levels in the U/S and D/S of lock have already been given in Schedule A Clause 3.4, Page

<table>
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<tr><td></td><td></td><td></td><td></td><td>5. Canal having two bank i.e. U/S and D/S left bank, U/S and D/S right bank however the drawing no. Fl-017 and FL-018 showing Bank protection work on U/S and D/S only one side, please clarify and confirm whether other bank protection also scope of contractor work.</td><td>178. Existing Bed levels are given in Drawing No. FL-002.
3. Length of bank protection as shown in Drawing No. FL-002 is correct. However, the length can slightly vary based on ground levels at the time of execution in consultation. The drawings should be got approved by engineer-in-charge.
4. Length of bank protection as shown in Drawing No. FL-002 is correct. However, the length can slightly vary based on ground levels at the time of execution in consultation. The drawings should be got approved by engineer-in-charge.
5. Bank protection is only on the right bank.</td></tr>
<tr><td>74.</td><td>Volume-1</td><td>Cl. 2,
2.3.1, 2.3.2, 2.4.1, 2.4.2</td><td>Qualification</td><td>A statement showing PQ requirements as per tender document and PQ requirements proposed to be modified is enclosed for consideration please.</td><td>No Changes, tender conditions prevail.</td></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><th rowspan="2">Sub-Factor</th><th rowspan="2">Requirement</th><th colspan="4">Bidder</th></tr>
<tr><th>Single Entity</th><th colspan="3">Joint Venture</th></tr>
<tr><th></th><th></th><th></th><th>All partners combined</th><th>Each partner</th><th>At least one partner (This shall be the Lead Partner)</th></tr>
<tr><td>2.3.1 Financial Capabilities</td><td>(i) The Bidder shall demonstrate that it has</td><td>Must meet requirement</td><td>Must meet requirement</td><td>N/A</td><td>N / A</td></tr>
</table>
</td><td>
<table>
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<tr><td>2.3.1 Financial</td><td>(i) The Bidder shall</td><td>Must meet</td><td>Must meet</td><td>N/A</td><td>N / A</td></tr>
</table>
</td><td></td></tr>
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S. No	Document Ref	Reference Clause No.	Existing Provision						Bidder's Query						Reply
				access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as INR 1000 Million/USD 15 *Million* for the subject contract(s) net of the Bidders other commitments						**Capabilities**	demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as INR 1000 Million/USD 15 *Million* for the subject contract(s) net of the Bidders other commitments	requirement	requirement		
			2.3.2. Average Annual Turnover	Minimum average annual turnover of **INR 8000 Million / USD 133 Million** or an equivalent amount in a freely convertible currency, calculated as total certified payments received for contracts in progress or completed, within the last three (3) years **from 1st April 2012 to 31st March 2015**	Must meet requirement	Must meet requirement	Must meet sixty percent (60 %) of the requirement	Must meet Seventy percent (70%) of the requirement		**2.3.2. Average Annual Turnover**	Minimum average annual turnover of **INR 8000 Million / USD 133 Million** or an equivalent amount in a freely convertible currency, calculated as total certified payments received for contracts in progress or completed, within the last three (3) years **from 1st April 2012 to 31st March 2015**	Must meet requirement	Must meet requirement	Must meet sixty percent (60 %) of the requirement	Must meet Seventy percent (70%) of the requirement	
			2.4.2 Specific Experience	a) Participation as contractor, joint venture member, management contractor, or subcontractor, in at least one (1) contracts within the last	Must meet requirement	Must meet requirements	Must meet 30 % of the requirement	Must meet 60 % of the requirement		**2.4.2 Specific Experience**	a) Participation as contractor, joint venture member, management contractor, or subcontractor, in at least one	Must meet requirement	Must meet requirements	NA	NA	

S. No	Document Ref	Reference Clause No.	Existing Provision	Bidder's Query	Reply
			ten (10) years **from 1st April 2005 to 31st March 2015.** With a value of at least one contract of at least **INR 800 Million or USD 133 Million** / two contracts each with the value of at least **INR 4000 Million or USD 67 Million** / three contracts each with the value of at least **INR 1500 Million or USD 25 Million** or an equivalent amount in a freely convertible currency that have been successfully and substantially completed and that are similar to the proposed Works within last ten (10) years. The similarity shall be based on the physical size, complexity, methods/technology or other characteristics as described in Part 2, Employer's Requirements. Harbour with pile foundation / diaphragm wall / retaining wall in river/sea with executed under BOQ contracts shall also be	(1) contracts within the last ten (10) years **from 1st April 2005 to 31st March 2015.** With a value of at least one contract of at least **INR 800 Million or USD 133 Million** / two contracts each with the value of at least **INR 4000 Million or USD 67 Million** / three contracts each with the value of at least **INR 1500 Million or USD 25 Million** or an equivalent amount in a freely convertible currency that have been successfully and substantially completed and that are similar to the proposed Works within last ten (10) years. The similarity shall be based on the physical size, complexity, methods/technology or other characteristics as described in Part 2, Employer's Requirements. Harbour with pile foundation / diaphragm wall / retaining wall in river/sea with executed under	

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<tr><td></td><td></td><td></td><td></td><td>considered as similar works. Fabrication / installation / commissioning of caisson gates / mitre gate requires a special skills. Either a member of JV or sub-contractor should have necessary experience in construction / installation / commissioning of atleast one of each gate. *Cost of works of previous years shall be increased by 7% per year based on Rupee value to bring them to 2014-15 price level.</td><td></td><td></td><td></td><td></td><td></td><td>BOQ contracts shall also be considered as similar works. Fabrication / installation / commissioning of caisson gates / mitre gate requires a special skills. Either a member of JV or sub-contractor should have necessary experience in construction / installation / commissioning of atleast one of each gate. *Cost of works of previous years shall be increased by 7% per year based on Rupee value to bring them to 2014-15 price level.</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td>2.4.2 Specific Experience</td><td>b) For the above or other contracts executed during the period stipulated in 2.4.2(a) above, a minimum experience in one of the following key activities: •Design of a navigation lock of size 200m (length) x 25 m (width). •Design of dry dock of size 250 m x 20 m. •Design of hydropower project having pit type power house / Irrigation structure with gates of size</td><td>Must meet requirement</td><td>Must meet requirements</td><td>Must meet 30 % of the requirement</td><td>Must meet 60 % of the requirement</td><td></td><td>2.4.2 Specific Experience</td><td>To be deleted</td><td>To be deleted</td><td>To be deleted</td><td>To be deleted</td><td>To be deleted</td><td></td></tr>
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<table>
<tr><td></td><td>15 m x 14 m remote control system with hydraulic operation.
•Underground metro station constructed by cut and cover method
•He should have either in-house design capability or associate with reputed design consultant for authentication of survey and investigation details and complete design of various components of the lock. Details to be furnished in Form 2C.</td><td></td><td></td><td></td><td></td></tr>
</table>
</td><td></td><td></td></tr>
<tr><td>75.</td><td>Volume-1</td><td>Cl. 2.6</td><td>
<table>
<tr><th rowspan="2">Sl. No.</th><th colspan="3">Equipment Type and Characteristics</th><th rowspan="2">Minimum Number required</th></tr>
<tr><th>Equipment</th><th>Minimum Capacity</th><th>Max. age (years)</th></tr>
<tr><td>1</td><td>Crane (Tyre mounted)</td><td>100 T</td><td>5</td><td>1 No.</td></tr>
<tr><td>2</td><td>Crane (Tyre mounted)</td><td>50 T</td><td>5</td><td>1 No.</td></tr>
<tr><td>3*</td><td>Pile Driving Rigs with minimum 10T winch complete with DMC/Bailor/Chiesel etc.</td><td>-</td><td>5</td><td>2 Nos.</td></tr>
<tr><td>4*</td><td>Hydra</td><td>10 to 12 T</td><td>5</td><td>4 nos.</td></tr>
<tr><td>5*</td><td>Trailer</td><td>-</td><td>5</td><td>2 Nos.</td></tr>
<tr><td>6*</td><td>Winches</td><td>10 to 12 T</td><td></td><td>2 Nos.</td></tr>
<tr><td>7</td><td>Concrete Batching Plant</td><td>30 cum</td><td></td><td></td></tr>
<tr><td>8</td><td>Transit Mixer</td><td>5 cum</td><td></td><td></td></tr>
<tr><td>9</td><td>Concrete pump with adequate pipelines</td><td>30 cum</td><td></td><td></td></tr>
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*These equipment must be owned by bidder and by lead member in case of JV
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</td><td>The Clause has been modified as follows:
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					<table><tr><td>6*</td><td>Winches</td><td>7.5 T</td><td></td><td>2 Nos.</td></tr><tr><td>7</td><td>Concrete Batching Plant</td><td>30 cum</td><td></td><td></td></tr><tr><td>8</td><td>Transit Mixer</td><td>5 cum</td><td></td><td></td></tr><tr><td>9</td><td>Concrete pump with adequate pipelines</td><td>30 cum</td><td></td><td></td></tr></table> *These equipment must be owned /hired by bidder and by lead member in case of JV
76.	Volume-1	Cl. 7.1	Performance Security The Contractor shall, for the performance of its obligations hereunder during the Construction Period, provide to the Employer, within 28 (twenty eight) days of the date of LOA, an irrevocable and unconditional guarantee from a Scheduled / Nationalized Bank in the form set forth in Schedule-G (the “Performance Security”) for an amount equal to 10% (ten percent) of the Contract Price. The Contractor has the option of submitting two guarantees of equal amount towards Performance Security totaling to 10% (ten percent) of the Contract Price.	Kindly consider: Total Performance Security in the shape of an irrevocable and unconditional guarantee from a Scheduled 1 Nationalized Bank in the form set forth in Schedule-G (the "Performance Security") for an amount equal to 5% (Five percent) of the Contract Price.	No changes, tender conditions prevail.
77.	Volume-1	Cl. 7.5	Retention Money From every payment for Works due to the Contractor in accordance with the provisions of Clause 19.5, the Employer shall deduct 6% (six per cent) thereof as guarantee money for performance of the obligations of the Contractor during the Construction Period (the “Retention Money”) subject to the condition that the maximum amount of Retention Money shall not exceed 5% (five per cent) of the Contract Price	Kindly consider: From every payment for Works due to the Contractor in accordance with the provisions of Clause 19.5, the Employer shall deduct 4% (Four percent) thereof as guarantee money for performance of the obligations of the Contractor during the Construction Period (the "Retention Money") subject to the condition that the maximum amount of Retention Money shall not exceed 2% (Two per cent) of the Contract Price.	No changes, tender conditions prevail.
78.	1) EPC draft agreement	1) Schedule E page 182 to 190 2) S. No 21 of consolidated		Bidder requests the Employer to incorporate the following NWC Clause under the referred Bank Guarantee formats which is a mandatory clause to be incorporated at the end of Bank Guarantee as per the procedural requirement of Indian Banking Institutions/RBI	Accepted, please refer amendment sheet.

Pre-Bid Queries for ''Engineering Procurement and Construction Contract for New Navigational Lock at Farakka, West Bengal"

S. No	Document Ref	Reference Clause No.	Existing Provision	Bidder's Query	Reply
	2) Consolidated pre bid query S. No 21	pre bid query regarding NOTWITHSTANDING clause		Guidelines:- The same question were raised during pre-bid meeting also and it was agreed by IWAI that since it is mandatory clause by RBI for all bank guarantee. However, in reply from IWT it is mentioned that " Tender condition prevail" Hence we request you to allow us to add the following NWC clause at the end of BG and issue amendment for the same NOTWITHSTANDING anything contained hereinabove: a) Our liability under this guarantee shall not exceed Rs…… /- (Rupees in Words). b) This Bank Guarantee shall be valid up to (Date), and c) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before (Date).	