DEENDAYAL PORT AUTHORITY
(Erstwhile: DEENDAYAL PORT TRUST)

Administrative Office Building
Post Box NO. 50
GANDHIDHAM (Kutch).
Gujarat: 370 201.
Fax: (02836) 220050
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www.deendayalport.gov.in
EG/WK/5202 (D)/ Part/111

Date: 09/08/2024

To,
The Deputy Director General of Forests,
Ministry of Environment, Forest & Climate Change
Integrated Regional Office,
Gandhinagar, A wing-407 & 409
Aranya Bhavan Near CH-3 Circle
Sector 10A, Gandhinagar - 382010
Email: iro.gandhingr-mefcc@gov.in

Sub: Environment & CRZ Clearance for the Construction of Interchange cum Road Over Bridge (ROB) at LC-236 [Kutch salt junction] on N.H-141 to Nehru gate of Kandla port, Gandhidham, Kutch proposed by M/s Deendayal Port Trust – **Compliance of stipulated Conditions mentioned in the Environmental & CRZ Clearance reg.**

Ref.: 1) EC & CRZ Clearance accorded by the State Level Environment Impact Assessment Authority (SEIAA), Gujarat letter no. SEIAA/GUJ/EC&CRZ/8(b)/728/2020 dated 19.06.2020.
2) DPT letter no. EG/WK/5202 (D)/Part/32 dated 02/07/2021
3) DPT letter no. EG/WK/5202 (D)/Part/146 dated 08/02/2022
4) DPT letter no. EG/WK/5202 (D)/Part/124 dated 29/06/2022
5) DPT letter no. EG/WK/5202 (D)/Part/224 dated 01/02/2023

Sir,

It is requested to kindly refer above cited reference for the said subject.

In this connection, it is to state that, the SEIAA, Gujarat had accorded Environmental & CRZ Clearance for the subject proposal vide above referred letter dated 19.06.2020.

DPT had signed an MOU with M/s IPRCL vide Certificate no. IN-GJ95223355926842S dated 9/06/2020 wherein IPRCL was appointed as the Project Implementation Agency for the project

Accordingly, please find enclosed herewith point-wise compliance report of the stipulated conditions mentioned in the EC & CRZ Clearance letter dated 19.06.2020 **(Annexure 1)** & Monitoring Report in Data Sheet **(Annexure 2)** (Period up to June, 2024) submitted by M/s IPRCL for kind information and record please.

.....cont.....

Further, as per the MoEF&CC, Notification S.O.5845 (E) dated 26.11.2018, stated that ***"In the said notification, in paragraph 10, in sub-paragraph (ii), for the words "hard and soft copies" the words "soft copy" shall be substituted".*** Accordingly, we are submitting herewith soft copy of the same via e-mail ID iro.gandhingr-mefcc@gov.in

This has the approval of the Chief Engineer, Deendayal Port Authority.

Thanking You.

Yours faithfully,

09/8/24

Dy. Chief Engineer & EMC(I/c)
Deendayal Port Authority

Copy along with pointwise compliance of stipulated conditions, to:

1. Shri Amardeep Raju,
Scientist E, Ministry of Environment
forest & climate change,
& Member Secretary (EAC-Infra 1),
Indira Paryavaran Bhavan,
3rd floor, Vayu wing, Jor bhag Road,
Aliganj,
New Delhi - 110 003
E-mail: ad.raju@nic.in

2. Shri Prasoon Gargav,
Scientist E & Regional Director,
Central Pollution Control Board,
Parivesh Bhavan, Opp. VMC Ward
Office No.10, Subhanpura,
Vadodara - 390 023
E-mail: prasoon.cpcb@nic.in

3. Shri T. C. Patel,
Unit Head, Kachchh,
Gujarat Pollution Control Board,
Paryavaran Bhavan,
Sector 10 A, Gandhinagar - 382 010
E-mail: kut-uh-gpcb@gujarat.gov.in

4. The Regional Officer,
Gujarat Pollution Control Board,
Regional office (East Kutch),
Administrative Office Building,
Deendayal Port Trust, Gandhidham.
E-mail: ro-gpcb-kute@gujarat.gov.in

ANNEXURE- 1

Monthly Project Status Report

(To be submitted for each PPP and non-PPP projects by 10th of every month for the project's progress of previous month)

1	**Port Name**	*Deendayal Port Authority*				
2	**Project Name**	*Construction of Interchange cum Road Over Bridge (ROB) at LC-236 (Kutch Salt Junction) on NH-141 in the State of Gujarat under EPC mode.*				
3	**Period of this report**	*May' 2023*				
4	**Project Mode**	*EPC Mode*	**Project Cost (Port's Scope)**		Rs.254.92 Cr.	
5	**~~Concessionaire~~/EPC**	*M/s Niraj-Patel JV, Gandhidham, Kutch, Gujarat has been appointed by M/s IPRCL.*	**Project Cost (by PPP/Captive)**		N.A.	
6	**Ministry's Approval**	*i) Project approved by the SFC on 24.04.2017 (SFC Meeting held on 16.01.2017).* *ii) Ministry vide OM dtd: 26.6.2018 directed to DPT to transfer the project to IPRCL, accordingly Board of Deendayal Port vide R. No. 64, dtd: 07/08/2018 has transferred the project to IPRCL, Mumbai IPRCL on direct cost plus basis.*				
7	**Port's Nodal officer for project**	*Shri Srinivas Rao, Dy Chief Engineer, Deendayal Port Authority.*				
8	**Start Date of RFQ**	*N.A.*	**Completion Date of RFQ**		*N.A.*	
9	**Start Date of RFP**	*02.11.2018*	**Completion Date of RFP**		*24.07.2019*	
10	**~~LOI Date~~/LOA Date**	*25.02.2020*	**Date of Signing of Concession**		*23.03.2020*	
11	**Award Date of Concession/EPC**	*23.03.2020.*	**Start Date of Construction**		*01.10.2020*	
12	**Target COD date**	*29.05.2023*	**Implementation time (as per DPR)**		*32 Months*	
13	**Cumulative Project Progress achieved till date**	**Physical Progress (Port's Scope)**	*N.A.*	**Financial Progress (Port's Scope)**		*N.A.*
		Physical Progress (PPP/captive/EPC's Scope)	*100%*	**Financial Progress (PPP/captive/EPC's Scope)**		*98%*
14	**Delay in Overall Project, if any** (Provide updated Annexure-A and Annexure-B with this report)	**Shortfall in Physical Progress (Port's Scope)**	*N.A.*	**Shortfall in Financial Progress (Port's Scope)**		*N.A.*
			N.A.			*N.A.*
		Shortfall in Physical Progress (PPP/captive/EPC's Scope)	*N.A.*	**Shortfall in Financial Progress (PPP/captive/EPC's Scope)**		*N.A.*
			N.A.			*N.A.*
15	**Project Progress achieved in Last Month**	**Physical Progress (Port's Scope)**	*N.A.*	**Financial Progress (Port's Scope)**		*N.A.*
		Physical Progress (PPP/captive/EPC's Scope)	*1%.*	**Financial Progress (PPP/captive/EPC's Scope)**		*3%*
16	**Main Accomplishments in the Last Month (Port's Scope)**	1	*Nil*			
		2	*Nil*			
		3	*Nil*			
		4	*Nil*			
		5	*Nil*			
17	**Main Accomplishments in the Last Month (PPP/captive/EPC's Scope)**	1	DBM: 6.30 km - **Completed**			
		2	BC: 14.89 km - **Completed**			
		3	Miscellaneous: 1.0 - **Completed**			
18	**Scope Change, if any**	*N.A.*				
19	**Schedule Change, if any**	*N.A.*				
20	**Cost Change, if any**	*N.A.*				
21	**Issues/impediments, if any**	*N.A.*				
22	**Issue pending, with any central Govt ministry, causing delay**	*N.A.*				
23	**Safety Performance**	Number of Safe Man-hours	*N.A.*			
		Near Misses	*N.A.*	Lost Time Incidents		*N.A.*
		First Aid Cases	*N.A.*	Number of Fatalities		*N.A.*
24	**Employment Details**	Direct Employment (Port's Scope)	*N.A.*	Direct Employment (Port's Scope)		*N.A.*
		Direct Employment (PPP/captive/EPC's Scope)	*N.A.*	Direct Employment (PPP/captive/EPC's Scope)		*N.A.*

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IPRCL/GANDHIDHAM

25	**This Report Prepared by**	*Shri Srinivas Rao, Dy Chief Engineer, Deendayal Port Authority.*
26	**This Report Reviewed by**	*Shri Srinivas Rao Dy Chief Engineer,, kphdivision@gmaill.com*

6.6.2023

(S.Revanasiddappa)
Addl. General Manager(P)
IPRCL / Gandhidham.

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IPRCL/GANDHIDHAM

Note; Annexure-A and Annexure-B shall be provided along with this report

Annexure-A

Project Milestones (Port's Scope)

(All milestones to be planned and indicated below from **Ministry's approval date** to **COD of project**)

Month	Milestone Description	Target/Planned completion date	Actual Completion Date	Reason for Delay, if any
		A	B	C
October 2020 to March 2021	*Project Milestone I (10%)*	*31.03.2021*	31.01.2021	N.A.
April 2021 to September 2021	*Project Milestone II (20%)*	*30.09.2021*	28.02.2021	N.A.
October 2021 to March 2022	*Project Milestone III (45%)*	*31.03.2022*	31.03.2022	N.A.
April 2022 to September 2022	*Project Milestone IV (70%)*	*30.09.2022 (Extension granted upto 31.01.2023)*	*31.01.2023*	N.A.
October 2022 to March 2023	*Project Milestone V (100%)*	*31.03.2023 (Extension granted upto 29.05.2023)*	*29.05.2023*	*Work Completed in all respect.*

6.6.2023

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Notes:

1. Column 'A' above should be filled only once based on original project schedule
2. Only Column 'B' to be updated on monthly basis for respective row
3. Detailed reasoning to be provided in column 'Ç'

Annexure-B

Project Milestones (PPP/Captive/EPC's Scope)

(All milestones to be planned and indicated below from the **Ministry's approval date** to **COD of project**)

Month	Milestone Description	Target/Planned completion date	Actual Completion Date	Reason for Delay, if any
		A	B	C
October 2020 to March 2021	*Project Milestone I (10%)*	*31.03.2021*	31.01.2021	N.A.
April 2021 to September 2021	*Project Milestone II (20%)*	*30.09.2021*	28.02.2021	N.A.
October 2021 to March 2022	*Project Milestone III (45%)*	*31.03.2022*	31.03.2022	N.A.
April 2022 to September 2022	*Project Milestone IV (70%)*	*30.09.2022 (Extension granted upto 31.01.2023)*	*31.01.2023*	N.A.
October 2022 to March 2023	*Project Milestone V (100%)*	*31.03.2023 (Extension granted upto 29.05.2023)*	*29.05.2023*	*Work Completed in all respect.*

6.6.2023

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Notes:

1. Column 'A' above should be filled only once based on original project schedule
2. Only Column 'B' to be updated on monthly basis for respective row
3. Detailed reasoning to be provided in column 'Ç'

Subject: Point wise compliance of stipulated conditions of EC & CRZ Clearance for ***"Construction of Interchange cum Road Over Bridge (ROB) at LC-236 [Kutch Salt Junction] on NH-141 to Nehru gate of Kandla port, Gandhidham, Kutch by M/s Deendayal Port Trust".***

Reference: EC & CRZ Clearance issued by SEIAA, Gujarat vide EC Letter No. SEIAA/GUJ/EC&CRZ/8(b)/728/2020 dated 19th June, 2020

A. 1 Specific Conditions: -

Sl. No.	Stipulated Conditions	Compliance
1.	All the provisions of CRZ Notification -2011 shall be strictly adhered to and no activity in contradiction to the provisions of CRZ Notification - 2011 shall be carried by the project proponent.	It is hereby assured that IPRRCL (Executive agency) will adhere to all the provisions of CRZ Notification - 2011. Pointwise compliance to the CRZ recommendation issued by the GCZMA is attached as **Annexure I(in 3 pages).**
2.	The project proponent shall strictly ensure that no creeks or flow of water are blocked due to any activity at the project site.	It is hereby assured that IPRRCL (Executive agency) has ensured that no creeks or flow of water are blocked due to any activity at the project site. The pipe culverts were constructed at required location in creek for free flow of water.
3.	The project proponent shall obtain all other necessary clearances / permissions from concerned authorities / agencies required for undertaking the proposed project.	The Consent to Establish (CTE) from the GPCB had already been obtained vide CTE No. 89489 granted by the GPCB vide letter no. PC/CCA-KUTCH 1449/GPCB ID 56869 dated 03/10/2017 attached as **Copy Annexure II(in 4 pages).**
4.	It will be the responsibility of the project proponent to obtain prior clearances/approval & ensure compliances under all other relevant Acts/ Rules/ Regulations/ Guidelines/ instructions' Court orders/ Tribunal orders as applicable to this project as per the prescribed time limits. All the Terms & Conditions Stipulated in the clearances/ approvals shall be strictly adhered to.	The Consent to Establish (CTE) from the GPCB had already been obtained vide CTE No. 89489 granted by the GPCB vide letter no. PC/CCA-KUTCH 1449/GPCB ID 56869 dated 03/10/2017 attached as **Copy Annexure II.** Copy of approval of GAD enclosed as **Annexure III(in 2 pages).** Terms & Conditions Stipulated in the clearances/ approvals are being strictly adhered too.
5.	The approval of competent authority shall be obtained for structural safety of the bridge due to earthquake, including protection measures from lightening etc. Copy of approved structural drawings & certificate from the concerned competent authority shall be submitted to	The Structural design done by design consultant and checked by proof consultant and safety consultant. A third-party independent design audit is done by I.I.T, B.H.U, for the design of bridges and structure with a span of 15.0m or more. The audit report is attached as **Annexure IV(in 14 pages)(.**

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	SEAC/ SEIAA before commencement of work for the project.	
6.	Structural design of the project shall strictly adhere to the seismic zone norms for earthquake resistant structures.	The Structural design of the project is done considering seismic zone-V for earthquake resistant structure.
7.	Traffic study shall be carried out periodically to develop & implement the scheme to ensure smooth flow of traffic from & to the proposed ROB.	Traffic diversion plan has been prepared considering smooth flow of traffic and same is approved by NHAI. The approval letter is attached as **Annexure V(in 3 pages).**
8.	DPT shall ensure that there shall not be any blockage of creek and free-flow of water is maintained.	It was ensured that no creeks or flow of water are blocked during execution of the project work.
9.	The DPT shall construct settling ponds and the installation of the oil receptor to prevent the entry of the surface run-off from fuel and other contaminants into the wells and other surface water bodies along the corridor.	There are no wells in the project area and it is ensured that there is no spillage of fuel at project area.
10.	No vehicles or equipment shall be parked or refuelled near the water-body, so as to avoid contamination from fuel and lubricants.	There was no water body near the site office.
11.	The DPT shall implement all the suggestions/ recommendations given in the EIA report by their consultant M/S Mantec Consultant Pvt Ltd.	All the suggestions/ recommendations given in the EIA report by consultant are implemented by IPRRCL (Executive agency).

A.2 CONSTRUCTION PHASE:

12.	The traffic diversion plan shall be finalized in consultation with CE (NH), Gujarat & RO, Gandhinagar and get approved from the concerned competent authority before starting the construction activity for the proposed ROB. Copy of the same shall be submitted to SEAC/ SEIAA.	Traffic diversion plan approved by National highway Gujarat & RO Gandhinagar vide Letter dated: RW/GNR/NH/HA/NOC/03/782 dated 14.10.2020. The same is attached as **Annexure V(in 3 pages).**
13.	DPT shall ensure that adequate culvert/passages are provided during construction of road and there shall be no obstruction of free flow of water.	IPRCL has ensured that adequate culvert, Passages are provided provided during construction of road and there is no obstruction of free flow of water.

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14.	Hot-mix plants/Concrete mix plants shall be located and operated in such a way that there shall be no Air Pollution.	Only GPCB approved Hot-mix plants/Concrete mix plant was allowed to operate for the project.
15.	The DPT shall ensure that the quarry works, from which they will purchase raw materials, shall conform to the norms and having necessary clearances from the respective authorities.	IPRCL has ensured that the quarry works, from which raw materials are purchased, conforms to the norms and had necessary clearances from the respective authorities.
16.	The DPT shall make MOU with the raw material supplier quarry/hot mix plants etc., in such a way that they will comply with all the terms and conditions mentioned in the CCA/NOC issued by the Gujarat Pollution Control Board.	The raw materials are being purchased by the contractors directly hence M.O.U by DPT with supplier is not required. However, conditions mentioned in NOC by GPCB was complied too.
17.	Fresh water requirement during the construction phase shall be 95.0 KL/day and it shall be met through the water tankers for water supply from Gujarat water supply and sewerage board. No ground water shall be tapped during the construction phase.	Fresh water during the construction phase was met with Gujarat water supply and sewerage board. It was ensured that no ground water was tapped during the construction phase.
18.	There shall no discharge of any kind of wastewater/sewage/ effluent into the creek/sea or in the CRZ areas.	IPRCL was ensured that no discharge of any kind of wastewater/sewage/ effluent into the creek/sea or in the CRZ areas.
19.	Sewage generated during the construction phase shall be treated in septic tanks connected to water recycling chambers of adequate capacity & comprising of adequate treatment facilities as proposed. Treated water ~ 20.0 KL/day conforming to GPCB norms shall be used for greenbelt development and dust suppression.	Sewage generated during the construction phase was treated in septic tank.
20.	No construction debris and / or any other type of waste / wastewater shall be disposed of in CRZ areas.	No construction debris and / or any other type of waste / wastewater was disposed of in CRZ areas.

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21.	Construction materials and debris shall be properly stored and handled to avoid negative impacts such as air pollution and public nuisances by blocking the roads and public passages. The debris shall be removed from the construction site immediately after the construction is over.	The generated debris was removed from the site regularly to avoid any blocking the roads and public passages.
22.	It shall be ensured that there is no adverse impact on the drainage of the area due to the construction activities.	IPRCL was ensured that there was no adverse impact on the drainage of the area during construction activities.
23.	Solid waste likely to be generated from construction site and labour camps during construction phase will be collected and disposed of as per the Solid Waste Management Rules – 2016.	The EPC contractor has collected, handled & disposed off, the above substances as per GPCB guidelines regularly. Solid waste generated from construction site & labour camp was disposed off as per solid waste management Rules-2016.
24.	The construction camps shall be kept outside the CRZ areas and the construction labour shall be provided with adequate amenities like drinking water, fuel, sanitation, etc. to ensure that the existing environmental condition is not deteriorated by them.	EPC contractor has provided adequate amenities like drinking water, fuel, sanitation, etc. to the construction laborers.
25.	Ready Mix Concrete should be used so far as possible. Water demand during construction should be reduced by use of curing agents, plasticizers and other best practices.	Ready mix concrete plant was ensured in contractors premises to reduce use of water carrying agent and plasticizers used for works.

A. 3 OPERATION PHASE:

A. 3.1 WATER

26.	Total water requirement during the operation phase for dust suppression & greenbelt development shall be 15.0 KL/day which shall be met through water supply system of Gujarat Water Suppiy and Sewerage Board.	It is being ensured that during operation phase water is being purchased from GWSSB.
27.	No bore well shall be constructed and existing bore well/s, if any, shall be either sealed or converted into the recharge well.	It was ensured that no bore-well is being constructed in the project area.
28.	The storm water from the bridge shall be properly channelized.	The project site area has saline water and impervious soil strata. The

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	Provisions shall be made for ground water recharge through rain water harvesting as per the details submitted. Before recharging the run off pre-treatment must be done to remove suspended matter.	ground water recharge for rain water harvesting not required.
29.	Rainwater harvesting system shall be properly maintained & kept functional and periodical cleaning of the same shall be undertaken specifically including the period before onset of the monsoon.	The project site area has saline water and impervious soil strata. The ground water recharge for rain water harvesting not required.
30.	The water meter shall be installed and records of monthly water consumption shall be maintained regularly.	Not applicable

A. 3.2 AIR

31.	D. G. sets (3 x 500 KVA) proposed as backup power shall be of enclosed type and confirm to prescribe standards under EPA rules. Necessary acoustic enclosures shall be provided at diesel generator set to mitigate the impact of noise.	The D.G set conforming to emission limit prescribed under EPA rules was ensured.
32.	The gaseous emissions from the D.G. Sets shall conform to the emission limits prescribed under EPA rules as amended from time to time. At no time, the emission levels shall go beyond the stipulated standards.	The D.G set conforming to emission limit prescribed under EPA rules was ensured.
33.	The stack height of the D.G. sets shall be equal to the height needed for the combined capacity of all proposed D.G. sets.	It was ensured that the stack height of the DG sets equal to the height required for the DG set.

A. 3.3 SOLID / HAZARDOUS WASTE

34.	The project must strictly comply with the rules and regulations with regards to handling and disposal of hazardous waste in accordance with the Hazardous Waste (Management, Handling and Transboundary) Rules 2008. Authorization from the GPCB must be obtained for collection /	No hazardous waste was generated during the project construction.

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	treatment / storage / disposal of hazardous wastes.	
35.	Discarded Containers, /Carboys and Used/ Lubricating Oil shall be sold to the authorized recyclers.	IPRCL was ensured that Container/ Carboys and Used/Lubricating oil sold to the authorized recyclers only.
36.	The project proponent shall have to ensure that plastic waste is segregated and disposed of by selling it to the registered recyclers.	It was ensured that plastic waste was segregated and disposed off by selling it to the registered recyclers.
37.	Necessary arrangements shall be made for safe disposal of municipal solid wastes as per the provisions of the Solid Wastes Management Rules, 2016 as amended from time to time and solid wastes shall not be released in marine water / coastal area in any case.	It was ensured that the Solid wastes are disposed in compliance to the Solid Waste Management rules-2016.

A. 3.4 SAFETY:

38.	Dedicated power back up system shall be provided in the case of power failure & emergency of fire water pumps.	It was ensured that the Dedicated power back up system during construction of the Project.
39.	Compulsory training, for the first aid and firefighting along with regular mock drill shall be imparted to the Security personnel and D.G. Operator.	It was ensured that the training for the first aid to security person and DG operator.
40.	First Aid Boxes shall be provided in adequate quantity at strategic locations.	Sufficient First aid boxes was provided at site office during construction of Project.
41.	Transportation of materials shall be as per the Motor Vehicle Act & Rules.	It was ensured that the Transportation of materials are done as per Motor Vehicle Act & Rules.

A. 3.5 CLEANER PRODUCTION, ENERGY CONSERVATION AND WASTE MINIMISATION:

42.	Energy conservation measures like maximum use of natural light, wind & ventilation through architectural design, solar based LED lights in landscaped and drive way areas, LED/CFL light for walk way areas etc. shall be provided as proposed.	It was ensured that the LED lights are provided in all the offices & site for energy conservations during construction of the project.

A. 3.6 PARKING / TRAFFIC CONGESTION:

43.	No public space shall be used or blocked for the parking and the trained staff shall be deployed to	It was ensured that the Parking of equipment's are done at site office

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	guide the visitors for parking and helping the senior citizens and physically challenged people.	area and the visitors are guided by trained staff.

A. 3.7 GREEN BELT

44.	Green belt area of 25,000 m^2 shall be developed as proposed. Plantation along the bridge and road shall be done with native varieties.	It was ensured that the Green belt area was developed as per the tender provision.

B. GENERAL CONDITIONS:

1. PRE -CONSTRUCTION AND CONSTRUCTION

45.	Environment Management Cell shall be formed, which shall supervise and monitor the environment related aspects of the project during construction and operational phases in addition to observance of Gujarat Building and other Construction Workers' (Regulation of Employment & Conditions of Service} Rules 2003.	The environment related aspects of the project during construction and operational phase are supervised by project implementation agency. Also, a dedicated Environment Management Cell has been formed for day-to-day supervision and monitoring of the environment related aspects of the project during construction and operational phases.
46.	Prior permission from the competent authority shall be obtained for cutting of the existing trees before site preparation work is commenced.	The permission was obtained from the competent authority for cutting of the existing trees before the commencement of the project work.
47.	Water demand during construction shall be reduced by use of curing agents, super plasticizers and other best construction practices.	It was ensured that to reduce the water consumption, curing agents and super plasticizers was used for construction of the project work.
48.	Temporary wind shield shall be done to prevent dust emission spreading outside the project premises. Barricade of adequate height shall be provided on the periphery of the construction site with adequate signages, Individual building within the project site shall also be provided with barricades.	There was no building with in the project site area. However temporary wind shield was provided at required locations.

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49.	Regular water sprinkling shall be done in vulnerable areas for controlling fugitive emission.	Water sprinkling was done in vulnerable area on need basis.
50.	The roads inside the project area and roads connected to the main road shall be paved or shall be water sprinkled to avoid the fugitive emissions during vehicular movement.	Water sprinkling are done in diversion road to avoid the fugitive emissions during vehicular movement.
51.	Material shall be covered during transportation to avoid the fugitive emission.	Materials are covered by tarpaulin during transportation for particular items.
52.	Uniform piling and proper storage of sand to avoid fugitive emissions shall be ensured.	Sand was stored properly to avoid fugitive emission.
53.	Structural design of the project shall strictly adhere to the seismic zone norms for earthquake resistant structures.	Structural design considering seismic zone-V and checked by proof consultant and safety consultant. A third-party independent design audit is done by IIT, BHU, Varanasi for design of bridges, and structure with span of 15.00m or more.
54.	The planning, designs and construction of all buildings shall be such as to ensure safety from fire.	N/A as this is a road project.
55.	The project proponent shall ensure maximum employment to the local people.	It was ensured that the local people employed considering the nature of work.
56.	All required sanitary and hygienic measures shall be provided before starting the construction activities and to be maintained throughout the construction phase.	It was ensured that all required sanitary and hygienic measures were provided before starting the construction activities.
57.	Provision shall be made for housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical healthcare, créches, electricity & ventilation, canteen, rest rooms, safe disposal system for garbage, first aid, medical and emergency faciiities etc. to ensure that they do no ruin the existing environmental condition. The housing may be in the form of temporary structures to be	Temporary houses were constructed for labour at work site area with necessary infrastructure & facilities.

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	removed after completion of the project.	
58.	Adequate personal protective equipments shall be provided to the construction workers to ensure their safety and the project proponent shall ensure its usage by the labourers.	Sufficient PPE kits were provided to the workers for safety.
59.	First Aid Box shall be made readily available in adequate quantity at all the times.	Sufficient First aid boxes were provided at work site office.
60.	First Aid Box shall be made readily available in adequate quantity at all the times.	Sufficient First aid boxes were provided at work site office.
61.	The project proponent shall strictly comply with the Building and other Construction Workers' (Regulation of Employment & Conditions of Service) Act 1996 and Gujarat rules made there under and their subsequent amendments.	It was ensured that the Building and other Construction Workers' (Regulation of Employment & Conditions of Service) Act 1996 and Gujarat rules made there under and their subsequent amendments
62.	The overall noise level in and around the project area shall be kept well within the prescribed standards by providing noise control measures including acoustic insulation, hoods, silencers, enclosures vibration dampers etc. on all sources of noise generation.	All the necessary arrangements were adopted for regulating the noise generation even though the project site is far away from the residential area.
63.	Ambient noise levels shall conform to residential standards both during day and night. Incremental pollution load on the ambient air and noise quality shall be closely monitored during construction phase.	All the necessary arrangements were adopted for regulating the noise generation even though the project site is far away from the residential area.
64.	The noise generating equipments, machinery and vehicles shall not be operated during the night hours and shall be maintained properly to avoid generation of high noise due to wear and tear.	All the necessary arrangements were adopted for regulating the noise generation even though the project site is far away from the residential area.
65.	Use of diesel generator sets during construction phase shall be strictly with acoustic enclosure and shall conform to the EPA Rules for air and noise emission standards.	D.G set with acoustic enclosure was provided conforming to the EPA rules.
66.	Safe disposal of wastewater and municipal solid wastes generated during the construction phase shall be ensured.	Solid wastes and water waste were disposed properly by making soak pits.

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67.	All topsoil excavated during construction activity shall be used in horticultural / landscape development within the project site.	As excavated material is saline in nature, it cannot be used for horticulture/ Landscape.
68.	The municipal solid wastes shall be properly collected and segregated at source.	Solid wastes are segregated at source and then collected and disposed at designated places.
69.	Recyclable solid waste [paper, cartons, plastic, polythene bags, glass etc.] shall be sold to the scrap vendors.	Collected Solid waste were sold to the scrap vendors.
70.	Non-recyclable municipal solid waste shall be transferred to the nearest designated waste collection point of the concerned local authority.	Collected Solid waste were sold to the scrap vendors.
71.	Provisions of Solid Waste Management Rules-2016 shall be strictly adhered to.	Solid waste management Rules-2016 were strictly adhered.
72.	The project must strictly comply with the rules and regulations with regards to handling and disposal of hazardous waste in accordance with the Hazardous Waste (Management, Handling and Transboundary) Rules 2008. Authorization from the GPCB must be obtained for collection / treatment / storage / disposal of hazardous wastes.	It was ensured that the rules and regulations with regards to handling and disposal of hazardous waste in accordance with the Hazardous Waste (Management, Handling and Transboundary) Rules 2008. Authorization from the GPCB must be obtained for collection / treatment / storage / disposal of hazardous wastes
73.	Construction materials and debris shall be properly stored and handled to avoid negative impacts such as air pollution and public nuisances by blocking the roads and public passages.	Construction of project work is completed on 29.05.2023 and here is no construction materials and debris are available at work site.
74.	Construction debris shall be reused in construction of roads, levelling the site etc. Waste packaging material (like used cement bags, waste paper, cardboard packing material), metal scraps etc. shall be sold to recyclers or shall be sent to the nearest municipal solid waste landfill site.	Construction debris were removed from work site.
75.	The area temporarily used for storing the construction material and other activities shall be reclaimed by adequate Plantation.	Construction debris were removed from work site and reclaimed with plantation.
76.	Excavated earth to be generated during the construction phase shall be utilized within the premises to	The excavated earth debris were removed from work site.

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	the maximum extent possible and balance quantity of excavated earth shall be disposed of with the approval of the competent authority after taking the necessary precautions for general safety and health aspects. Disposal of the excavated earth during construction phase shall not create adverse effect on neighbouring communities.	
77.	Provisions of Construction & Demolition Waste Management Rules-2016 shall be strictly adhered to.	Noted please.
78.	Vehicles hired for bringing construction material at the site shall be in good conditions and conform to applicable air and noise emission standards and shall be operated only during day time and non-peak hours.	Noted please.
79.	Project proponent shall ensure use of eco-friendly building materials including fly ash bricks, fly ash paver blocks, Ready Mix Concrete [RMC] and lead-free paints in the project.	Fly ash was used for ready mix concrete work.
80.	Fly ash shall be used in construction wherever applicable as per provisions of Fly Ash Notification under the E.P. Act, 1986 and its subsequent amendments from time to time.	Fly ash was used for ground improvement work and RE wall construction work.
81.	Use of glass shall be minimal and only low emissive glass shall be used in the project to reduce the electricity consumption and load on air conditioning.	Used as per requirement.

B2. OPERATION PHASE AND LIFE TIME:

82.	Low water consuming devices shall be provided. Fixtures for showers, toilet, flushing and drinking shall be of low flow either by use of aerators/ diffusers or pressure reducing devices etc.	Low water consuming devices were provided at places whenever required.
83.	A water meter shall be installed on rain water harvesting & ground water recharge well system &	As the project site area is saline in nature rain water harvesting is not possible.

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	compliance report of the same shall be submitted to concerned authorities.	
84.	Used oil shall be sold only to the registered recycler.	Used oil was sold to the registered recycler.
85.	Provisions of Solid Waste Management Rules-2016 shall be strictly adhered to.	Solid waste management Rules-2016 are strictly followed.
86.	Requisite firefighting facilities as per the requirement of NBC and Gujarat Fire Prevention and Life Safety Measures Act- 2013 along with the rules & regulations made there under shall be provided.	It was provided at site office as is a road project.
87.	First Aid Box shall be made readily available in adequate quantity at all the times.	Sufficient First aid boxes were provided at site office.
88.	Necessary emergency lighting system along with emergency power back up system shall be provided. Further, necessary auto glow signage at all appropriate places shall be provided to guide the people towards exits and assembly points during emergency.	Necessary sign boards were provided for vehicular traffic and stand by power supply was also provided wherever necessary.
89.	The overall noise level in and around the project area shall be kept well within the prescribed standards by providing noise control measures including acoustic insulation, hoods, silencers, enclosures vibrations dampers etc. on all sources of noise generation including D.G. Sets. The ambient noise levels shall confirm to the standards prescribed under the Environment (Protection) Act and Rules.	Stand by power supply arrangements were provided confirming to the standards prescribed under the Environment (Protection) Act and Rules.
90.	Traffic congestion near the entry and exit points from the roads. adjoining the proposed. project site shall be avoided. No public space including the service road shall be used or blocked for the parking.	Proper diversion road with signages as approved by NH Authorities are provided without parking space so that no blocking occurs.
91.	The project proponent shall install energy efficient devices, appliances, motors, and pumps	The same was provided wherever required.

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	conforming to the Bureau of Energy Efficiency norms.	
92.	The transformers and motors. shall have minimum efficiency of 85%.	The same was provided wherever required.
93.	Only variable frequency motor drives shall be used in project.	The same was provided wherever required.
94.	Application of solar energy shall be incorporated for illumination of common areas, lighting for gardens and street lighting: In addition, the provision for solar water heating system shall also be provided.	The same was provided wherever required.
95.	The area earmarked as green area shall be used only for plantation and shall not be altered for any other Purpose.	The area earmarked as green area were used only for the plantation purpose.
96.	Drip irrigation/flow volume, low angle sprinkler system shall be used for the lawns and other green area including tree plantation.	Sprinkler system is being used for the lawns and other area including tree plantation.
97.	The project proponent shall inform to SEAC. / SEIAA regarding the transfer of management responsibility to the Society/Association to be formed for the proposed Project with all the supporting documents. The Society Association formed for further management of the proposed project shall be responsible for compliance of all the conditions stipulated in the Environmental Clearance order.	N/A
98.	Environmental Clearance granted for the project on the basis of documents related to land possession submitted shall become invalid in case the actual land for the project site turns out to be different from the land considered at the time of appraisal of the project and mentioned in the EC.	The project is executed within the land already under possession of DPT, as submitted in the application for Environment Clearance.
99.	All other statutory clearances such as NLA. permission, approvals for storage of diesel from PESO, Fire Department, Airports Authority of India etc., if	N/A.

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	applicable, shall be obtained by the project proponent from the competent authorities.	
100.	All the conditions as may be stipulated in the NLA. order, Development permission, Building Use permission, NOC obtained from Fire Department etc. shall be strictly complied with.	N/A.
101.	The project management shall also comply with all the environment protection measures, risk mitigation measures and safeguards proposed by them.	The environment protection measures, risk mitigation measures and safeguards proposed are complied.
102.	All the commitments/ undertakings given to the SEAC during the appraisal process for the purpose of environmental protection and management shall be strictly adhered to.	Noted please.
103.	The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose for the environmental protection and management.	Noted please.
104.	At the terms & conditions prescribed in the amendment of EIA Notification – 2006 published by the MoEF&CC vide its Notification No, S.O. 3999(E) dated 9th December, 2016 shall be compiied with ietter & spirit.	Conditions prescribed in the EIA notification 2006 are compiled.
105.	The project proponent shall strictly comply with the Gujarat Building and other Construction Workers' (Regulation of Employment & Conditions of Service) Rules 2003 as well as Gujarat Lifts & Escalators Rules as amended from time to time.	Noted please.
106.	No further expansion or modifications in the project likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority.	Construction work is completed as per the approved environment clearance.
107.	The above conditions shall be enforced, inter-alia under the provisions of the water	As clarified in above points.

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	(Prevention & Control of Pollution} Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act 1986 and the Hazardous Wastes (Management Handling and Tran boundary) Rules, 2008, Building and Other Construction Workers' (Regulation of Employment & Conditions of Service) Act-1996, The Gujarat Lifts and Escalators Act-2000 along with their amendments and rules.	

B. OTHER CONDITIONS

108.	The project proponent shall allocate the separate fund for Corporate Environment Responsibility (CER) in accordance to the MoEF&CC's Office Memorandum No. F.No.22-65/2017-IA.IN dated 01/05/2018 to carry out the activities under CER in affected area around the project. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the regional office of MoEF&CC as a part of half-yearly compliance report and to district collector. The monitoring report shall be posted on the website of the project proponent.	An amount of Rs. 1.75 Cr, has been earmarked as the CER budget for the project. The same shall be spent in different phases and the same shall be notified.
109.	The project authorities shall earmark adequate funds to implement the conditions stipulated by Forest & Environment Department., GOG / SEIAA as well as GPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.	Noted please.
110.	The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the Website	Advertisement published in EXIM INDIA (in English) and Kutchuday (in Gujarati) newspapers on dated 26/06/2020 and newspaper cuttings already sent to Regional office, Bhopal, MoEF&CC vide letter No.: EG/WK/4847(D)/III/922 dated

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		of SEIAA/SEAC/GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarati language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry.	30/06/2020. The newspaper cuttings are attached as **Annexure – VIII(in 2 pages).**
	111.	It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in soft copies to the regulatory authority concerned and shall be uploaded on website of Gujarat Real Estate Regulatory Authority, on 1st June and 1st December of each calendar year.	Compliance report is being submitted periodically.
	112.	The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.	It is ensured that GPCB stipulations are adhered to.
	113.	The project authorities shall inform the GPCB, Regional Office of MoEF&CC and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	(a) Date of start of project 01/10/2020. (b) Schedule date of completion 30/03/2023. (c) Actual date of completion 29/05/2023.
	114.	The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory. This environmental clearance is valid for seven years from the date of issue.	It is hereby ensured that conditions provided in the clearance issued by SEIAA will be implemented properly.
	115.	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within 2 period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Point Please.
	116.	Submission of any false or misleading information or data which is material to screening or scoping or appraisal or decision	--

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	on the application makes this environment clearance cancelled.	

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ANNEXURE- I

DEENDAYAL PORT AUTHORITY
(Erstwhile: DEENDAYAL PORT TRUST)

Administrative Office Building
Post Box NO. 50
GANDHIDHAM (Kutch).
Gujarat: 370 201.
Fax: (02836) 220050
Ph.: (02836) 220038

www.deendayalport.gov.in
EG/WK/5202 (D)/ Part/112

Dated: 09/08/2024

To,
The Director (Env.) & Member Secretary,
Forest & Environment Department,
Govt. of Gujarat,
Gujarat Coastal Zone Management Authority,
Block No.14, 8th floor, Sachivalaya,
Gandhinagar – 382 010.

Sub: CRZ Clearence for the Construction of Interchange cum Road Over Bridge (ROB) at LC-236 [Kutch salt junction] on N.H-141 to Nehru gate of Kandla port, Gandhidham, Kutch proposed by M/s Deendayal Port Authority (Erstwhile: Deendayal Port Trust) – **Compliance of stipulated conditions mentioned in the CRZ recommendations reg.**

Ref.: 1) GCZMA CRZ recommendation vides Letter No- ENV-10-2017-74-E dated 21.01.2018
2) DPT letter no. EG/WK/5202 (D)/Part/34 dated 02/07/2021
3) DPT letter no. EG/WK/5202 (D)/Part/147 dated 08/02/2022
4) DPT letter no. EG/WK/5202 (D)/Part/124 dated 29/06/2022
5) DPT letter no. EG/WK/5202 (D)/Part/225 dated 01/02/2023

Sir,

It is requested to kindly refer the above cited reference for the said subject.

In this connection, it is to state that, the Gujarat Coastal Zone Management Authority vide above referred letter dated 21.01.2018 had recommended the subject project of Deendayal Port Authority. Subsequently, the SEIAA, Gujarat had accorded the Environmental & CRZ Clearance vide EC Letter No. SEIAA/GUJ/EC&CRZ/8(b)/728/2020 dated 19.06.2020 for the subject project.

DPT had signed an MOU with M/s IPRCL vide Certificate no. IN-GJ95223355926842S dated 9/06/2020 wherein IPRCL was appointed as the Project Implementation Agency for the project.

Accordingly, as directed under Specific Condition No. 17 mentioned in the CRZ Clearance letter dated 21.01.2018 i.e. A six monthly report on compliance of the conditions mentioned in this letter shall have to be furnished by the DPT on a regular basis to this Department and MoEF&CC, GoI, please find enclosed herewith compliance report of the stipulated conditions (period upto **May 2024**) along with necessary annexure submitted by M/s IPRCL, for kind information & record please **(Annexure I).**

...Cont.....

Further as per MoEF&CC, Notification S.O.5845 (E) dated 26.11.2018, stated that ***"In the said notification, in paragraph 10, in sub-paragraph (ii), for the words "soft copy" shall be substituted"***. Accordingly, we are submitting herewith soft copy of the same via e-mail ID gczma.crz@gmail.com & direnv@gujarat.gov.in

This has the approval of the Chief Engineer, Deendayal Port Authority.

Thanking You.

Yours faithfully,

09/6/24

Dy. Chief Engineer & EMC(I/c)
Deendayal Port Authority

Copy to:

Shri Amardeep Raju
Scientist E, Ministry of Environment Forests & Climate change,
& Member Secretary (EAC-Infra I),
Indira Paryavaran Bhavan,
3rd Floor, Vayu Wing, Jor Bagh Road, Aliganj,
New Delhi - 110 003
Email Id: ad.raju@nic

Subject: Point-wise Compliance Status Report for CRZ clearance for proposed project for Constrcution of Interchange cum Road Over bridge at N.H 141 to Nehru Gate of Deendayal Port Trust, Kandla, Dist: Kutch by Deendayal Port Trust-reg.

Ref No: - GCZMA CRZ recommendation vide Letter No- ENV-10-2017-74-E dated 21.01.2018

S. No.	CRZ Conditions	Compliance Status
	SPECIFIC CONDITIONS	
1.	The DPT shall strictly adhere to the provisions of the CRZ Notification, 2011	IPRRCL (Project Implementation Agency) was adhered to all the provisions of CRZ Notification -2011.
2.	Necessary permissions from different departments/ agencies under different laws/ acts shall be obtained before commencing any activity including the construction activities	The Consent to Establish (CTE) from the GPCB had already been obtained vide CTE No. 89489 granted by the GPCB vide letter no. PC/CCA-KUTCH 1449/GPCB ID 56869 dated 03/10/2017 attached as **Copy Annexure II(in 4 pages) of the EC Compliance.** Copy of approved GAD enclosed as **Annexure III(in 2 pages) of the EC Compliance.**
3.	The DPT shall ensure that adequate culvert/passages are provided during construction of road and there shall be no obstruction of free flow of water.	The Construction of the project has been completed on 29/05/2023. IPRCL Total 15 culverts has been constructed for the continuous free flow of water. **(Copy of GAD of Culverts attached as Annexure VI (in 16 pages)of the EC Compliance).**
4.	The DPT shall ensure that there shall not be any blockage of creek and free flow of water is maintained	The Construction of the project has been completed on 29/05/2023. IPRCL Total 15 culverts has been constructed for the continuous free flow of water.
5.	The DPT shall construct settling ponds and the installation of the oil receptor to prevent the entry of the surface run-off from fuel and other contaminants into the wells and other surface bodies along the corridor.	The Construction of the project has been completed on 29/05/2023. Also, there were no wells in the project area and no spillage of fuel occurred in past at project area. The same will also be ensured in Maintenance period of project i.e. 4 years.
6.	No vehicle or equipment shall be parked or re fuelled near the water-body, so as to avoid contamination from fuel and lubricants	The Construction of the project has been completed on 29/05/2023.

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S. No.	CRZ Conditions	Compliance Status
		Also, the Vehicles and equipment are parked and refuelled at the site office area during maintenance period, and there is no sweet water body near the site office.
7.	Hot mix plants/concrete mix plants shall be located and operated in such a way that there shall be no Air pollution.	The Construction of the project has been completed on 29/05/2023. The maintenance period is 4 years. Hot Mix Plant and Concrete mix plant is located 7 km away from project site and GPCB approval of same is enclosed as **Annexure VII (in 6 pages).**
8.	The DPT shall ensure that the quarry works, from which they will purchase raw materials, shall confirm to the norms and having necessary clearances from the respective authorities.	The Construction of the project has been completed on 29/05/2023. The maintenance period is 4 years. IPRCL has ensured that the quarry works, from which raw materials are purchased, conforms to the norms and had necessary clearances from the respective authorities.
9.	The DPT shall make MOU with raw material supplier quarry/hot mix plants etc.in such a way that they will comply with all the terms and conditions mentioned in the CCA/NOC issued by the Gujarat Pollution Control Board.	The Construction of the project has been completed on 29/05/2023. The maintenance period is 4 years. The raw materials are being purchased by the contractors directly hence M.O.U by DPT with supplier is not required. However, conditions mentioned in NOC by GPCB was compiled too.
10.	The DPT shall explore the possibility for using the fly ash @ 5%-10% to comply with the Fly Ash Notification.	The Construction of the project has been completed on 29/05/2023. The maintenance period is 4 years. Fly ash @ 5% to 10% was used in the Concrete as well as in Reinforced Earth Filling.
11.	The DPT shall make sure that all the wastes arising from the project shall be disposed of at identified sites in environmentally sound manner.	The Construction of the project has been completed on 29/05/2023. The maintenance period is 4 years. The solid waste generated from construction

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S. No.	CRZ Conditions	Compliance Status
		site & labour camp was disposed off as per solid waste management Rules-2016.
12.	There shall no discharge of any kind of wastewater/sewage/effluent into the creek/sea or in the CRZ areas.	The Construction of the project has been completed on 28/05/2023. The maintenance period is 4 years During construction phase there was no discharge of any kind of wastewater/sewage/effluent into the creek/sea or in the CRZ areas.
13.	The DPT shall implement all the suggestions/recommendations given in the EIA report by their consultant M/s. Mantech Consultant Pvt. Ltd.	All the suggestions/ recommendations given in the EIA report by consultant are implemented by IPRCL (Project Implementation Agency).
14.	No ground water shall be taped to meet with the water requirements during the construction and/or operation phases.	The Construction of the project has been completed on 29/05/2023. The maintenance period is 4 years. Fresh water requirement during the construction phase was fulfilled with Private Tanker supplying agency. It was ensured that no ground water was tapped in the construction phase.
15.	The DPT shall not discharge any kind of waste including the construction debris into the river/estuary or into the CRZ areas.	The Construction of the project has been completed on 29/05/2023. The maintenance period is 4 years. During construction phase there was no discharge of any kind of wastewater/sewage/ effluent into the creek/sea or in the CRZ areas.
16.	The DPT shall ensure that the construction camps are kept outside the CRZ areas and the construction labour are provided with adequate amnesties like drinking water, fuel, sanitation etc. to ensure that the existing environmental condition is not deteriorated by them.	The Construction of the project has been completed on 29/05/2023. The maintenance period is 4 years. It was provided adequate amenities like drinking water, fuel, sanitation, etc. to the construction labourers to ensure that the existing environmental condition is not deteriorated by them.

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S. No.	CRZ Conditions	Compliance Status
17.	The DPT shall regularly submit the half-yearly compliance report on the conditions stipulated by this department/SEIAA	IPRCL is being compiled the compliance report periodically.
18.	Any other conditions that may be stipulated by this department/SEIAA from time to time for environmental protection/management purpose.	Noted please.

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Annexure II
(In 4 Pages)

Subject:Point-wise Compliance status report for CTE for proposed project for construction of Interchange cum Road Over bridge at N.H. 141 to Nehru Gate of Deendayal Port Trust, Kandla, Dist: Kutch by Deendayal Port Trust-reg.

Ref No: - GPCB CTE-89489 vide letter No-PC/CCA-KUTCH-1449/GPCBID-56869 dated 03.10.2017.

DPT had signed an MOU with M/s IPRCL vide Certificate no. IN-GJ952233559268925 dated 09.06.2020 wherein it was IPRCL was appointed as the Project Implementation Agency for the project.

S.No.	CTE Conditions	Compliance Status
	SPECIFIC CONDITIONS	
1.	This CTE 89489 is granted subject to the condition that you shall not stall any construction activities prior to obtaining of EC and CRZ clearance from competent authority fort their interchange cum road over bridge at 14.892 km.	EC & CRZ Clearance has been issued by SEIAA, Gujarat vide EC letter No. SEIAA/GUJ/ EC&CRZ/ 8(b)/728/2020 dated 19/06/2020. Date of start of commencement of the project 01/10/2020 and completed by 29.05.2023
2.	No ground water to all condition of ToR issued by SEIAA vide order No. SEIAAGUJ/ToR/8(b)/471/2017 dated 29.04.2017.	It was ensured that no ground water was tapped during the construction phase.
3.	Unit Shall adhere to all condition of TOR issued by SEIAA vide order No. SEIAAGUJ/TOR/8(b)/471/2017 dated 29.04.2017.	IPRCL was adhere to all condition of ToR issued by SEIAA vide order No. SEIAAGUJ/ToR/8(b)/471/2017 dated 29.04.2017.
1.	**CONDITIONS UNDER WATER ACT 1974:**	
1.1	The generation of effluent construction operators shall not exceed of 16 kl/day and water shall be used for sprinkling purpose by dust suppression purpose.	IPRCL had used that the water sprinkling in vulnerable area on need basis.
1.2	The sewage shall be disposed through septic tank.	The Sewage generated during the construction phase was treated in septic tank.
2.	**CONDITIONS UNDER AIR ACT 1981:**	
4.1	There shall be no flue gas emission and process emission from construction activity and other ancillary emission.	There was no flue gas emission and process emission from construction activity and other ancillary emission.
4.2	The concentration of the following parameters in the ambient air within the premises of the industry shall not exceed the limits specified hereunder as per national Ambient Air Quality Emission Standards issues by Ministry of Environment, Forest and Climate change date 16th November, 2009.	The concentration of the various parameters in the ambient air within the premises of the construction camp was not exceeded the limits specified hereunder as per national Ambient Air Quality Emission Standards.

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		<table><tr><th>No.</th><th>Pollutant</th><th>Time Weight Average</th><th>Concentration in Ambient Air in Ug/M3</th></tr><tr><td>1.</td><td>SO2</td><td>Anuual 24 hrs</td><td>50 80</td></tr><tr><td>2.</td><td>NO2</td><td>Anuual 24 hrs</td><td>40 80</td></tr><tr><td>3.</td><td>PM10</td><td>Anuual 24 hrs</td><td>60 100</td></tr><tr><td>4.</td><td>PM2.5</td><td>Anuual 24 hrs</td><td>40 60</td></tr></table>	
a.		The applicant shall provide potholes, ladder , platform etc. at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney (s) attached to various source of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted / displayed to facilitate identification.	This segment is not applicable as it is a road project.
b.		The concentration of Noise in Ambient Air within the premises of industrial unit shall not exceed following levels: Between 6 A.M. and 10 P.M. :75 dB(A) Between10 P.M. and 6 A.M. :75 dB(A)	The concentration of noise in Ambient Air within the premises of construction camp was not exceeded the prescribed levels.
		CONDITIONS UNDER HAZARDOUS WASTE	
5.1		Applicant shall have to comply with provisions of Hazardous Waste (Management, handling & Trans-boundary Movement Rule-2016)	The provisions of Hazardous Waste (Management, Handling & Trans -boundary Movement Rule-2016) was adhered.
5.2		The applicant shall obtain membership of common TSDF site for disposal of Hazardous Waste (Management ,Handling & Trans-boundary Movement Rule-2016)	The necessary permission was obtained as and when required.
5.3		The applicant shall obtain membership of common Hazardous waste incinerator for disposal of incinerable waste.	The necessary permission was obtained as and when required.
5.4		The applicant shall provide temporary storage facilities for each type of hazardous waste as per Hazardous Waste (Management , Handling & Transboundary movement) Rule-2016.	Noted Please.
		GENERAL CONDITION	
6.1		Unit shall develop greenbelt on road side as per the GPCB guidelines. However if the adequate land is not available with the premises , the unit shall the up with local	The Horticulture is provided in the median and greenbelt development area.

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	agencies like gram panchayat, school , social forestry office etc. for the plantation at suitable open land in nearby locality and submit an action plan of plantation for next three years to GPCB.	
6.2	In case of change of ownership/management the name and address of the new owners/partners/directors/proprietor should immediately be intimated to the Board.	Noted Please.
6.3	The applicant shall however, not without the prior consent of the Board bring into use any new or altered outlet for the discharge effluent or gaseous emission or sewage waste from the proposed industrial plant. The applicant is required to make applications to the Board for this purpose in the prescribed forms under the provisions of the Water Act 1974, the Air Act 1981 and the Environment (Protection) Act,1986.	Noted Please.
6.4	The overall noise level in and around the plant area shall be kept well within the standards by providing noise control measures including engineering control like acoustic insulation hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under the Environment (Protection) Act, 1986 & Rules.	The overall noise level in and around the construction camp area was kept well within the standards by providing various noise control measures.
6.5	Applicant is required to comply with the manufacturing, storage and Import of Hazardous chemicals Rules -1989 formed under the Environment (Protection) Act 1986.	Noted Please.
6.6	If it is established by any competent authority that the damage is caused due to their industrial activities to any person or his property in that case they are obliged to pay the compensation as determined by the competent authority.	Noted Please.
6.7	Applicant shall have to comply with all guidelines , Directive issued/being issued by MoEF /CPCB/DoEF from time to time .	Noted Please.

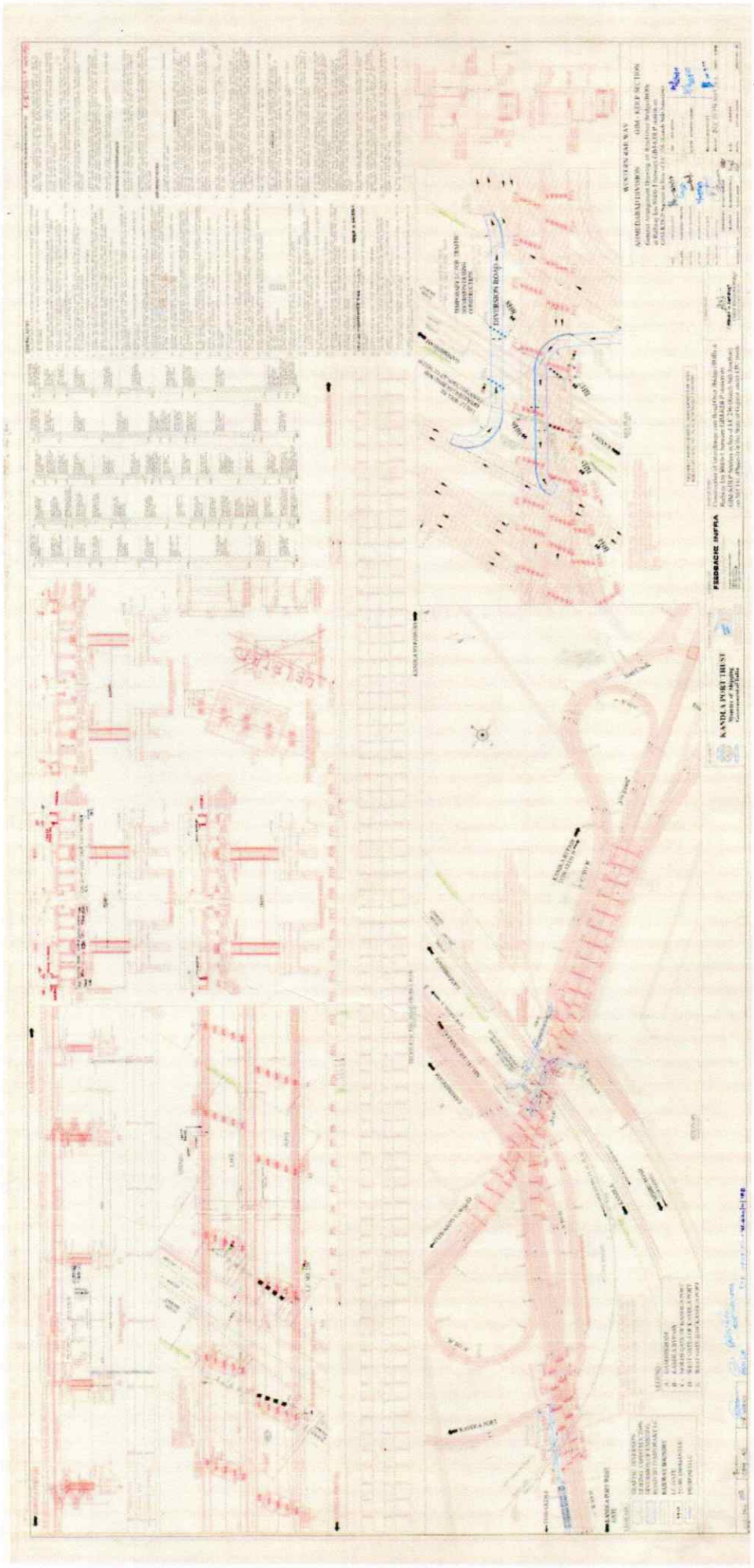
Addl. GENERAL MANAGER. (P)
IPRCL/GANDHIDHAM

6.8	Applicant shall not use/withdraw ground water either during construction and / operation phase.	Noted Please.
6.9	Environmental cell shall be setup and shall be responsible for the total Environmental management.	All the environment related aspects of the project during construction and operational phase was supervised by Project Implementation Agency. DPT has signed an MOU with M/s. IPRCL vide Certificate no. IN-GJ952233559268425 dated 09.06.2020 wherein IPRCL was appointed as the Project Implementation Agency for the project.
6.10	Monitoring in respect to Air, Water, Noise level shall be carried out and results shall be submitted to this Board on quarterly basis.	Noted Please.

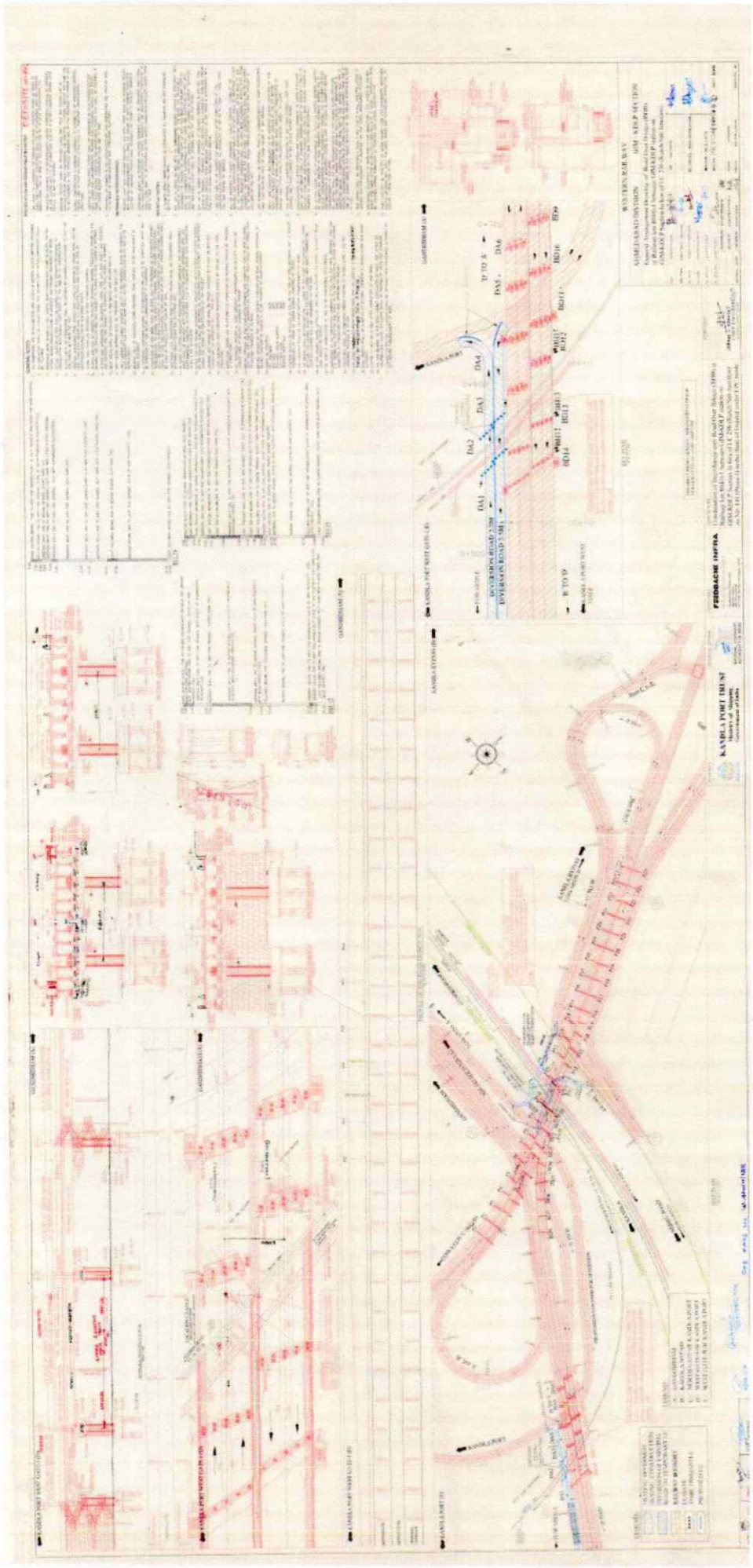
Addl. GENERAL MANAGER. (P)
IPRCL/GANDHIDHAM

Annexure III
(In 2 Pages)

Annexure III C.1)



Annexure III (C2)



Annexure IV
(In 14 Pages)

Annexure III (L)

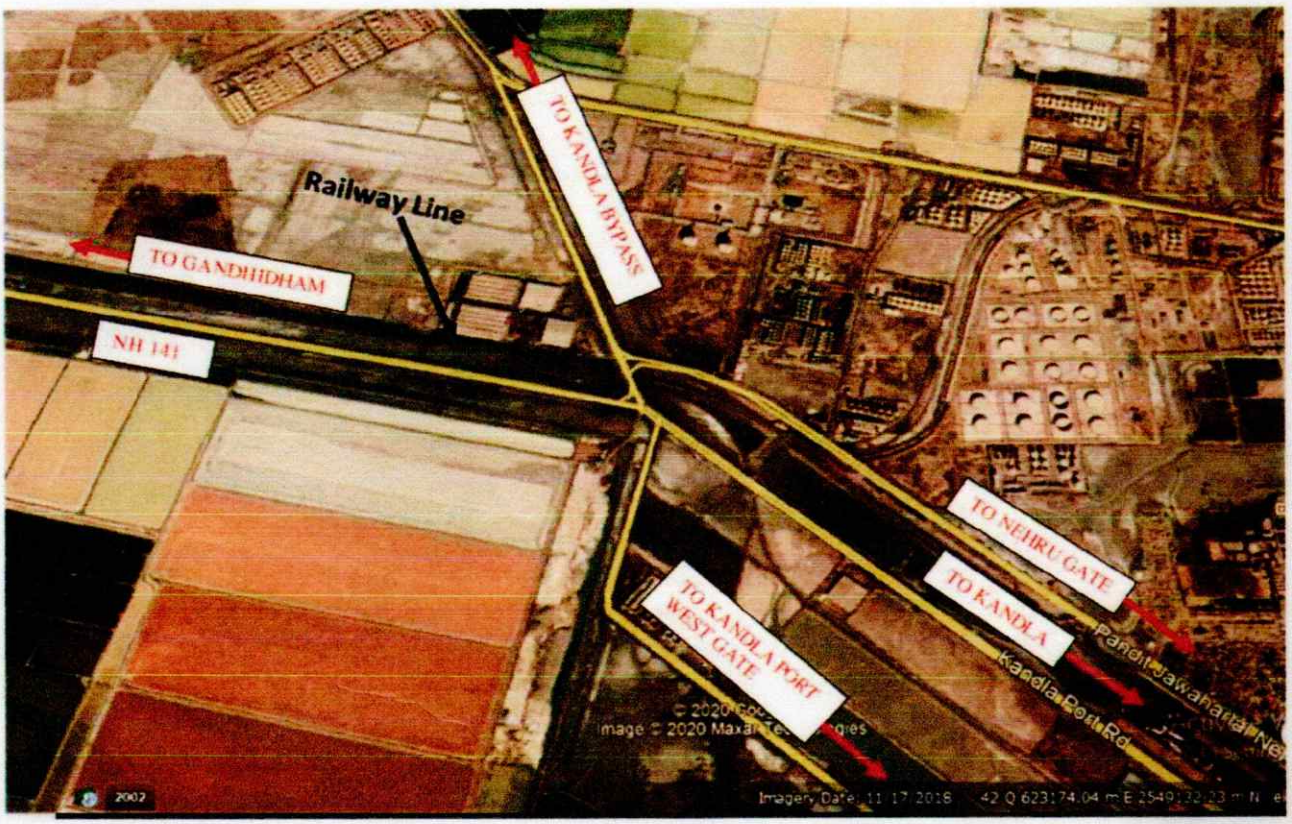
इंडियन पोर्ट रेल कारपोरेशन लिमिटेड
(भारत सरकार का उपक्रम)
Indian Port Rail Corporation Ltd.
(A Government of India Enterprise)
CIN No: U60300DL2015GOI282703

SAGARMALA

Construction of Interchange cum Road Over Bridge (ROB) at LC 236 (Kutch Salt - Junction) on NH 141 (Phase- I) in the State of Gujarat under EPC mode.

EPC Contractor:

Niraj – Patel JV
BBZ S 60, "NEELKANTH", ZANDA CHOWK, GANDHIDHAM, KUTCH, GUJARAT - 370201.



Design of ROB Super Structure @ Ch.0+639

Sep 2020

Design Consultants:

Nivedita Consultants
B – 98, Sector – A, Sanik Vihar Colony, Nandanagar, Kunraghat, Gorakhpur – 273008 (UP) Phone: +91-0124-4054562; email: nivcons@gmail.com

Annexure IV C2)

AUTHORITY:

इंडियन पोर्ट रेल कारपोरेशन लिमिटेड
(भारत सरकार का उपक्रम)
Indian Port Rail Corporation Ltd.
(A Government of India Enterprise)
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SAGARMALA

PROJECT: **Construction of Interchange cum ROB**

Construction of Interchange cum Road Over Bridge (ROB) at LC 236 (Kutch salt junctio) on NH 141 (Phase-1) in the state of Gujrath under EPC mode.

EPC CONTRACTOR:

M/S NIRAJ-PATEL JV

BBZ S 60, "Neelkanth" Zanda chowl, Gandhidhsm, Kutch,Gujrat- 370201

THIRD PARTY PROOF CONSULTANT:

Indian Institute of Technology (BHU) Varanasi

IIT-BHU, Banaras Hindu University Campus,
Uttar Pradesh 221005

PROOF CONSULTANT:

M/s Nitya Nayra Civil Solution PVT. LTD

1/70, TF-1, MIG SEC-1, Vasundhra, Ghaziabad - 201 012, Uttar Pradesh, India

TITLE OF DOCUMENT:	**Design of ROB Super structure at CH:0+639.1**

Doc. Number:	KUT-SUP STR-ROB-RLY-CH"0+639.1-DN-01	Prepared By:	CN
Rev. No:	R0	Checked By:	NK
Date:	29/8/2020	Approved By:	NK

Date:	Rev No.	Revision	By
29/8/2020	R0	For Review and Approval	CN

DESIGN CONSULTANT:

email: nivcons@gmail.com

Nivedita Consultants

Nivedita Consulting

B – 98, Sector – A, Sanik Vihar Colony, Nandanagar, Kunraghat, Gorakhpur – 273008 (UP) Phone: +91-0124-4054562;

Annexure IV (C3)

Project:	Construction of Interchange cum ROB	Nivedita Consultants	
Doc. Title	Design of ROB Super structure at CH:0+639.1		
Doc. no.	KUT-SUP STR-ROB-RLY-CH"0+639.1-DN-01	Rev.	R0

Design of Super Structure

Table of Contents

Annexure III (C4)

Design of PSC I - Girder

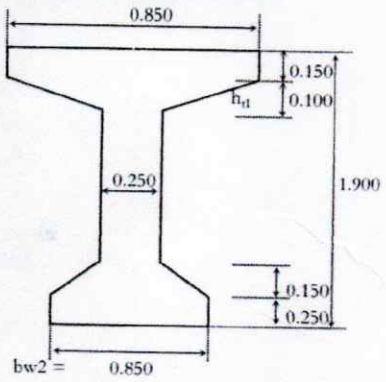
Annexure-A(4)

Project:	Construction of Interchange cum ROB	Nivedita Consultants		
Doc. Title	Design of ROB Super structure at CH:0+639.1			
Doc. no.	KUT-SUP STR-ROB-RLY-CH"0+639.1-DN-01	Rev.	-	R0

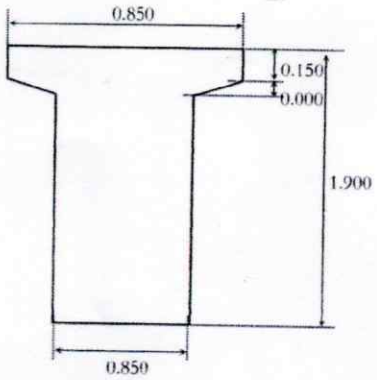
SALIENT FEATURES OF THE BRIDGE DECK:

Skew angle	=	20 deg.	
Span c/c of Exp. J.	=	30.0 m	
Exp. Gap	=	42.6 mm	
c/L of brg. to c/L of exp. J	=	0.69 m	
Span c/c of brg.	=	28.617 m	(SK)
Overall span	=	29.957 m	(SK)
Overhang beyond c/L brg.	=	0.670 m	(SK)
Thickness of End Cross-Girder	=	0.851 m	(SK)
Thickness of Intermidate Cross-Girder	=	0.319 m	(SK)
Girder overhang beyond c/l brg,	=	0.000 m	
Overall Length of Girder	=	28.10 m	(SK)
c/L of temporary brg. from face of girder	=	0.65 m	
c/L of permanent brg. to face of end cross girder	=	0.426 m	
Overall carriageway width	=	13.4 m	
Wearing Coat Thickness	=	65 mm	
Depth of Precast Beam	=	1.900 m	
Thickness of Cast-in-situ deck	=	0.230 m	
Overall depth Beam +slab	=	2.130 m	
c/c of girder (transvers direction)	=	3.5 m	
Nos. of Girder	=	4 Nos.	
Deck cantilever in transverse direction	=	1.45 m	
Density of Concrete	=	2.5 t/m^3	
Size of bearing	=	0.600 (Long) x 0.600 (Trans)	m

PROPORTINING OF PRECAST BEAM



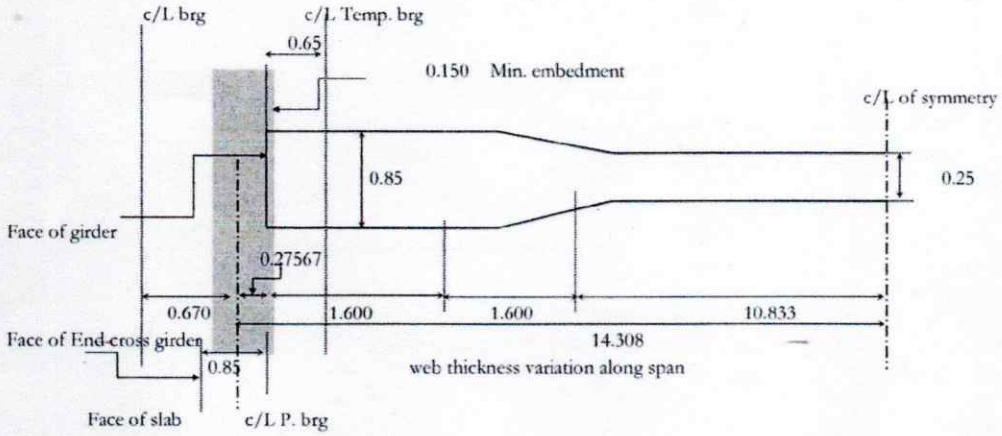
Section at Mid Span



Section at Support

Annexure IV (6).

Project:	Construction of Interchange cum ROB	Sivedita Consultants		
Doc. Title	Design of ROB Super structure at CH:0+639.1			
Doc. no.	KUT-SUP STR-ROB-RLY-CH"0+639.1-DN-01	Rev.		R0



Web Thickening

Section At	Face	Jacking	c/L brg.	c/L brg.	Te	deff	L/8	TS	2L/8	3L/8	4L/8
Dist. From c/L Permanent brg. (m)	0.00	0.15	0.00	0.00	1.60	1.81	3.58	3.20	7.15	10.73	14.31
Dist. From face of girder (m)	0.00	0.15	0.00	0.00	1.60	1.81	3.51	3.20	7.02	10.54	14.05
Dist. From jacking point (m)	-0.15	0.00	0.28	0.28	1.45	1.66	3.36	3.05	6.87	10.39	13.90
Dist. From c/L temp. brg. (m)	0.00	0.15	-0.65	-0.65	0.95	1.16	2.86	2.55	6.37	9.89	13.40
bw m	0.85	0.85	0.85	0.85	0.85	0.78266	0.250	0.3381832	0.25	0.25	0.25

Overall depth of composite girder = 2.130 m

d_{eff} = 1.811 */Assumed 0.85 times of overall depth

MATERIAL USED :

Grade of Reinforcement = Fe 500

fyk = 500 Mpa

Modulus of Elasticity Es = 200000 Mpa

Cast insitu deck = M 40

fck = 40 Mpa

fcm = 50 MPa

Ecm = 33000 MPa

Precast Beam = M 45

fck = 45

fcm = 55 MPa

Ecm = 34000 MPa

fctk,0.05 = Characteristic axial tensile strength of concrete

= 2.3 MPa

ANALYSES ASSUMPTION

Enviromental parameters

Relative humidity = 57 %

Exposure condition = SEVERE

Design Director
Niraj Patel JV

FORGIVING ROADS LLP Safety Consultant GURUGRAM

NITYA NAYRA CIVIL SOLUTIONS Proof Consultant BHOPAL

MANAGER (P) IPRCL
GANDHIDHAM

Proof Checked
Prof. K. K. Pathak
Department of Civil Engineering
Indian Institute of Technology
Banaras Hindu University
Varanasi-221005

Annexure IV (7)

TEMPERATURE

Coefficent of thermal expansion = 1.2E-05 /°C

FOR PRECAST BEAM

Modulus of Elasticity

For short Term loading **Ecm** = **34000 Mpa**

For long Term loading Ecm' = Ecm/ (1+ϕ)

ϕ = Creep coefficent

Creep

Cross-sectional Area	Ac	=	1.51 m^2	*(Composite Outer Girder at mid span considered)*
Perimeter in contact with atmosphere u		=	8.56 m	
Notational size ho	2Ac/u	=	352 mm	
ϕ (∞)		=	1.53 (Refer Appendix B)	
		≅	1.68 *(Increased by 10% on the conservative side)	
	Ecm'	=	**12682.7 N/mm^2**	

SERVICEABILITY LIMIT STATE :

Rare Combination

Max permissible Stress in Concrete = 0.48*fck(t)

Max permissible tensile Stress in Concrete

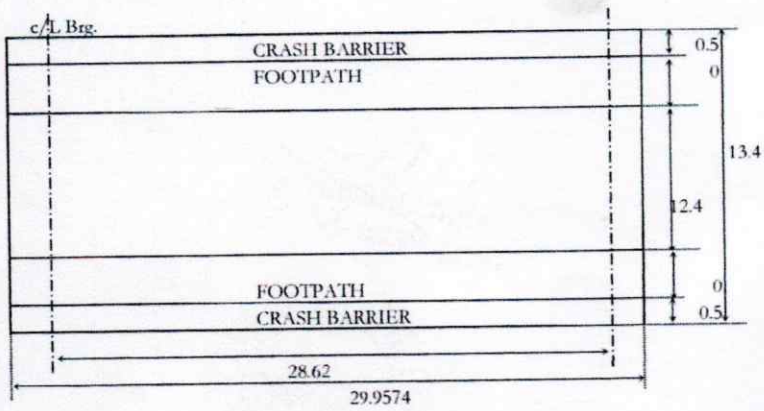
fctm = -3.3 Mpa =fctm (mean tensile strength)

Quasi permanent Combination

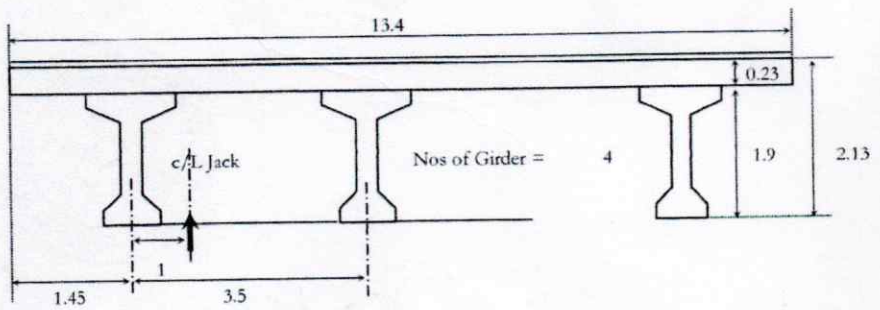
Max permissible Stress in Concrete = 0.36*fck(t)

Max permissible Stress in Steel = 0.8*fyk = 400 Mpa

Permissible crack width $w_{k,max}$ = 0.2 mm



PLAN



Super-structure Cross-section

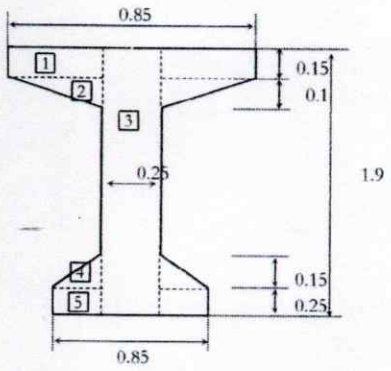
Annexure VI (8)

Project:	Construction of Interchange cum ROB	Nivedita Consultants		
Doc. Title	Design of ROB Super structure at CH:0+639.1			
Doc. no.	KUT-SUP STR-ROB-RLY-CH"0+639.1-DN-01	Rev.	-	R0

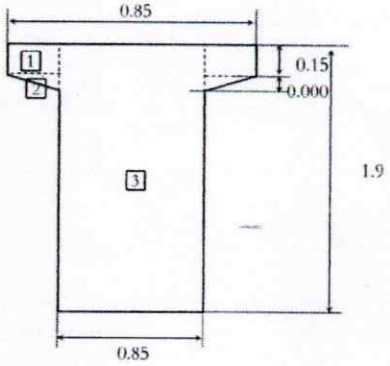
PROPERTY CALCULATION OF PRECAST BEAM:-

Density of concrete = 2.5 t/m^3

A) INNER/ OUTER GIRDER :



Section at Mid Span



Section at Support

Section Property At Mid Span

Element No.	Factor	B	D	Nos.	A	$cg_{y'}$	I_{zz}	$cg_{z'}$	I_{yy}
		m	m		m^2	m	m^4	m	m^4
1	1	0.300	0.15	2	0.0900	0.075	0.080	0.275	0.00748
2	0.5	0.300	0.1	2	0.0300	0.18333	0.021	0.225	0.00167
3	1	0.25	1.9	1	0.475	0.95	0.145	0	0.00247
4	0.5	0.3	0.15	2	0.045	1.60	0.015	0.275	0.00363
5	1	0.3	0.25	2	0.150	1.78	0.087	0.225	0.00872
Total					***0.7900***	***1.015***	***0.348***		***0.0240***

UDL = 0.790 x 2.5 = 1.98 t/m

Design Director
Niraj Patel JV

NITYA NAYRA CIVIL SOLUTIONS * BHOPAL * Proof Consultant

Section Property At Support Section

Element No.	Factor	B	D	Nos.	A	$cg_{y'}$	I_{zz}	$cg_{z'}$	I_{yy}
		m	m		m^2	m	m^4	m	m^4
1	1	0.000	0.15	2	0.000	0.075	0.000	0.425	0
2	0.5	0.000	0.00	2	0.0000	0.15	0.000	0.425	0
3	1	0.85	1.9	1	1.615	0.95	0.486	0	0.09724
Total					***1.615***	***0.950***	***0.486***		***0.0972***

UDL = 1.615 x 2.5 = 4.04 t/m

FORGIVING ROADS LLP * GURUGRAM * Safety Consultant

Section At	unit	Face	Jacking	c/L brg.	c/L brg.	deff	Te	L/8	TS	2L/8	3L/8	4L/8
Dist. From c/L brg.	m	0	0.15	0	0	1.8105	1.600	3.577	3.200	7.154	10.731	14.308
web width bw	m	0.85	0.85	0.85	0.85	0.78266	0.85	0.25	0.33818	0.25	0.25	0.25
Area A	m^2	1.615	1.615	1.615	1.615	1.522	1.615	0.790	0.911	0.790	0.790	0.790
I_{zz}	m^4	0.486	0.486	0.486	0.486	0.470	0.486	0.348	0.368	0.348	0.348	0.348
Iyy	m^4	0.097	0.097	0.097	0.097	0.089	0.097	0.024	0.035	0.024	0.024	0.024
yb	m	0.950	0.950	0.950	0.950	0.943	0.950	0.885	0.895	0.885	0.885	0.885
yt	m	0.950	0.950	0.950	0.950	0.957	0.950	1.015	1.005	1.015	1.015	1.015

MANAGER (P) / IPRCL
GANDHIDHAM

Proof Checked
Prof. K. K. Pathak
Department of Civil Engineering
Indian Institute of Technology
Banaras Hindu University
Varanasi-221005

Annexure IV (9)

Project:	Construction of Interchange cum ROB	Nivedita Consultants		
Doc. Title	Design of ROB Super structure at CH:0+639.1	Rev.	-	R0
Doc. no.	KUT-SUP STR-ROB-RLY-CH"0+639.1-DN-01			

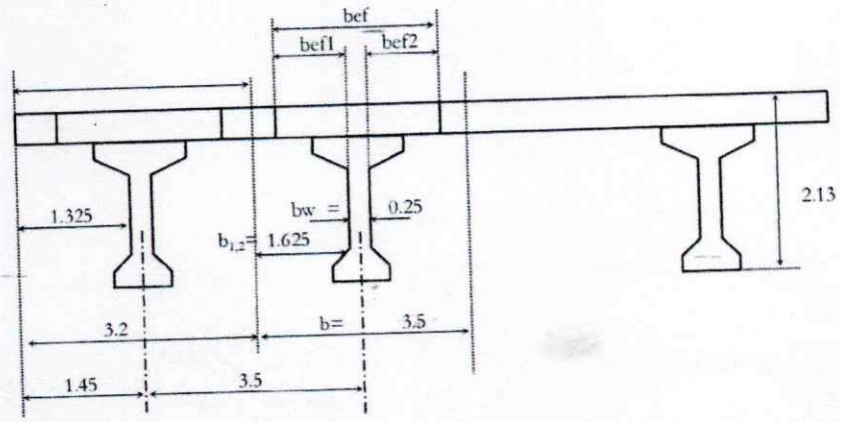
EFFECTIVE WIDTH CALCULATION :

Effective Span l_o = Min { Distance from bearing to bearing ; Clear distance b/w supports + Effetive depth

Bearing Size in Longitudinal dir.^{n} = 0.6 m

l_o = Min { 28.6166 ; 28.0166 + 1.8105 } */ (Effective depth assumed 0.85 times of Overall depth)

l_o = 28.617 m



beff. CALCULATION FOR INNER GIRDER :

$b_{1,2}$ = 1.625

$beff_{1,2}$ = Min { 0.2 bi + 0.1 l_o = 3.2 m ; 0.2 l_o = 5.72331 m }

$beff_{1,2}$ = 3.18666 m

beff = Min { $\sum beff_{,i}$ + bw = 6.62331 m ; b = 3.5 m }

beff = 3.5 m

beff. CALCULATION FOR OUTER GIRDER :

b_1 = 1.325 m b_2 = 1.63 m

$beff_1$ = Min { 0.2 bi + 0.1 l_o = 3.1 m ; 0.2 l_o = 5.72331 m }

$beff_1$ = 3.12666 m

$beff_2$ = Min { 0.2 bi + 0.1 l_o = 3.2 m ; 0.2 l_o = 5.7 m }

$beff_2$ = 3.18666 m

beff = Min { $\sum beff_{,i}$ + bw = 6.56331 m ; b = 3.2 m }

beff = 3.2 m

Project	Construction of Interchange cum ROB	Nivedita Consultants		
Doc. Title	Design of ROB Super structure at CH:0+639.1	Rev.	-	R0
Doc. no.	KUT-SUP STR-ROB-RLY-CH"0+639.1-DN-01			

D) CHECK FOR SHEAR : *(IRC 112 / clause 10.3.2 (2))*

Check of Shear Reinforcement Requirement

Load comb.	V_{ED}	β	βV_{ED}	d	bw	k= Min [1 + √200/d , 2]	Asl	ρ1 = Min [Asl/bw d , 0.02]	$v_{min} = 0.031\ k^{3/2}\ fck^{1/2}$	σ_{cp}	V_{Rdc} =Max [(0.12 k (80 ρ1 fck)$^{0.33}$ + 0.15 σ_{cp}) bw d , (v_{min} +0.15σ_{cp}) bw d]	Check
	T		T	mm	mm		mm^2			Mpa	Tonne	
Cantilever Portion												
Cantilever (Girder Top Flange Face)	10.06	1	10.06	179	1000	2.000	1330.557	0.0074	0.555	0	12.2251	No Shear reinf. Required
Cantilever (Girder Web Face)	13.98	1	13.98	429	1000	1.683	1330.557	0.0031	0.428	0	18.4751	No Shear reinf. Required
Intermediate supports												
Girder Top Flage Face	11.17	1	11.17	179	1000	2.000	1330.557	0.0074	0.555	0	12.2251	No Shear reinf. Required
Girder web Face	17.41	1	17.41	429	1000	1.683	1330.557	0.0031	0.428	0	18.4751	No Shear reinf. Required
Intermediate span												
Intermediate Mid Span	8.55	1	8.55	179	1000	2.000	1330.557	0.0074	0.555	0	12.2251	No Shear reinf. Required

MANAGER (P) RRCL
GANDHIDHAM

Proof Checked
Prof. K. K. Pathak
Department of Civil Engineering
Indian Institute of Technology
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Varanasi-221005

NITYA NAYRA CIVIL SOLUTION
Proof Consultant
BHOPAL

FORGIVING ROADS
Safety Consultant
GURUGRAM

Design Director
Niraj Patel JV

Annexure R(1)

Annexure II (11)

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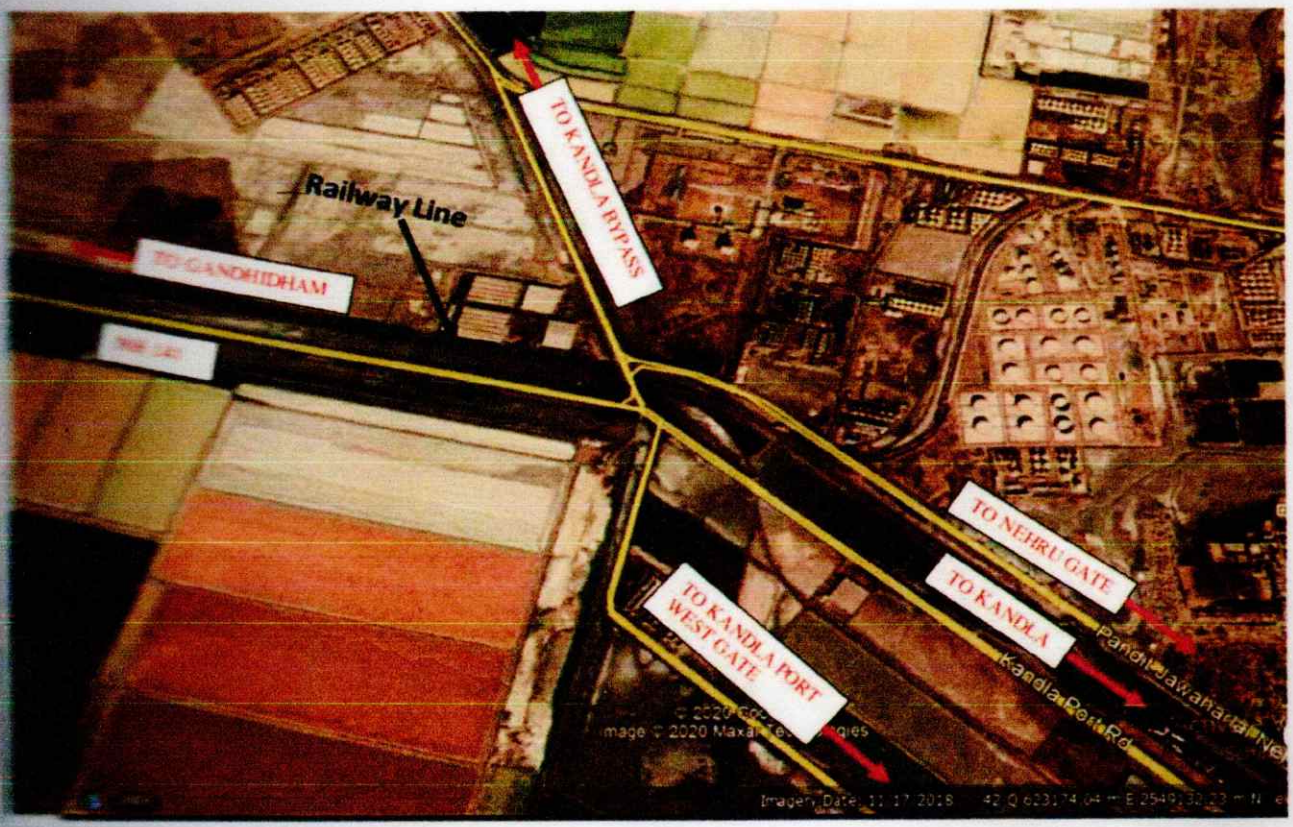

Design of ROB Test Pile @ Ch.0+639

Sep 2020

Design Consultants:

Nivedita Consultants
B – 98, Sector – A, Sanik Vihar Colony, Nandanagar, Kunraghat, Gorakhpur – 273008 (UP) Phone: +91-0124-4054562; email: nivcons@gmail.com

Annexure-IC(12)

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Indian Port Rail Corporation Ltd.
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CIN No: U60300DL2015GOI282703

SAGARMALA

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THIRD PARTY PROOF CONSULTANT:

Indian Institute of Technology (BHU) Varanasi
IIT-BHU, Banaras Hindu University Campus,
Uttar Pradesh 221005

PROOF CONSULTANT:

M/s Nitya Nayra Civil Solution PVT. LTD

1/70, TF-1, MIG SEC-1, Vasundhra, Ghaziabad - 201 012, Uttar Pradesh, India

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Doc. Number:	KUT-TEST PILE-ROB-RLY-CH"0+639.1-DN-01	Prepared By:	CN
Rev. No:	R0	Checked By:	NK
Date:	8/9/2020	Approved By:	NK

Date:	Rev No.	Revision	By
8/9/2020	R0	For Review and Approval	CN

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email: nivcons@gmail.com

Nivedita Consultants

Nivedita Consulting
B – 98, Sector – A, Sanik Vihar Colony, Nandanagar, Kunraghat,
Gorakhpur – 273008 (UP) Phone: +91-0124-4054562;

Annexure IV (13)

Project:	Construction of Interchange cum ROB	Nivedita Consultants	
Doc. Title	Design of ROB TEST PILE at CH:0+639.1		
Doc. no.	KUT-TEST PILE-ROB-RLY-CH"0+639.1-DN-01	Rev	R0

DESIGN OF TEST PILE :

Vertical Test Load

Vertical Load Capacity for test pile = 400 T

Test Load for test Pile = 400 x 2.5

= **1000 Ton**

Calculation of latteral load

*/Non-seismic & submerged condition is considered

*/Calculating depth of fixity

Dia of pile		=		1200 mm
Grade of concrete	fck	=	M	35 Mpa
E		=		320000 kg/cm^2
I		=		1E+07 cm^4
Stiffness factor for P.C. Cohesive soil	R	=		$\sqrt[4]{(EI/K\,B)}$
		=		460.00 cm
Total Length of Pile		=		24 m
Free Length of Pile , L_1		=		0.0 m
Embedded length of pile , L_e		=		24.0 m
L_1/T		=		0.000
Corresponding value of L_f/T		=		1.95
Depth of fixity, L_f		=		8.97 m
Total free length	$L_1 + L_f$	=		8.97 m
Design Load	Q	=		10 Tonne */ For fixed head pile
Deflection at pile head top	$y = Q*(L1 + Lf)^3 / 12\,EI$	=		1.85 mm

*/ Calculation for equivalent force for free head pile

Lf/T for free head pile	=		1.6
L_f for free head pile	=		7.36 m
$L_1 + L_f$ for free head pile	=		7.36 m

Design Director
Niraj Patel JV

NITYANAYRA CIVIL SOLUTIONS * BHOPAL * Proof Consultant

FORGIVI ROADS L... Safety Consultant ... GUJARAT

MANAGER (P) / IPRCL
GANDHIDHAM

Proof Checked

Prof. K. K. Pathak
Department of Civil Engineering
Indian Institute of Technology
Banaras Hindu University
Varanasi-221005

Annexure IV C (14)

Project:	Construction of Interchange cum ROB	Nivedita Consultants	
Doc. Title	Design of ROB TEST PILE at CH:0+639.1		
Doc. no.	KUT-TEST PILE-ROB-RLY-CH"0+639.1-DN-01	Rev	R0

Equaivalent load for free head pile $Q_{free} = y^*3\ EI\ /(L1+Lf)^3$ = 4.53 Tonne

Say = 5.00 Tonne

Factored design load = 5 x 2.5 = 12.5 Tonne

Free Head moment M = Q_{free} *(L_1+L_f) = 92.0 Tm

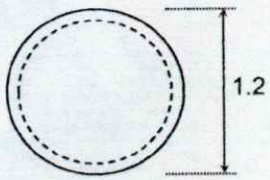
Moment reduction factor m = 0.400 Tm

Modified design Bending Moment M_d = 36.8 Tm

ULS Modified design Bending Moment M_d = 55.2 Tm

Design Director Niraj Patel JV

R/F Calculation of test Pile



Pile Dia D	=	1200 mm		
Clear cover	=	75 mm		
Dia of bar	=	16 mm		
Nos. of Bars	=	24 Nos		
Effective cover	=	83 mm		
Reinf Circular dia	=	1034 mm		
Spacing	=	135.4 mm		
Area of steel provided	=	4825 mm^2		
% steel provided	=	0.43 %		
Minimum % steel	=	0.4 %	OK	

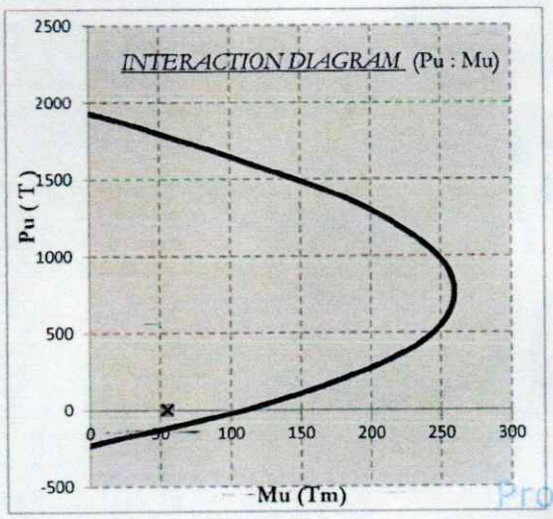
Material Properties:

fck = 35 N/mm^2

fyk = 550 N/mm^2

Es = 200000 N/mm^2

xu/D	Pu	Mu
	T	Tm
1E-27	-229.8	0.7
0.2	65.2	136.0
0.4	457.8	239.6
0.6	892.8	256.4
0.8	1305.0	198.3
1	1624.3	106.1
1.2	1775.7	56.4
1.4	1854.9	29.0
1.6	1899.8	11.8
1.8	1925.2	1.1
2	1938.4	-5.0



Pu = 0 T

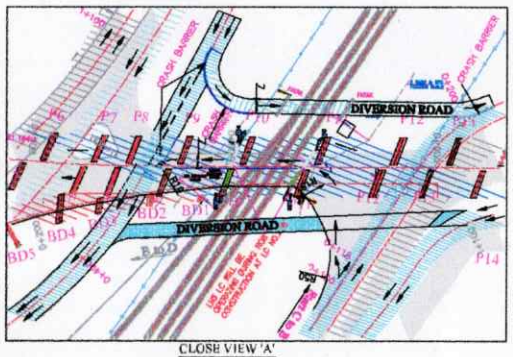
Mu = 55.2 Tm

Mu capacity = 106 Tm > 55.2 Tonne OK

MANAGER (P) / IPRCL
GANDHIDHAM

Proof Checked
Prof. K. K. Path
Department of Civ
Indian Institute o
Banaras Hindu U
Varanasi-221005

Annexure V
(In 3 Pages)



CLOSE VIEW 'A'
PROPOSED ROB–L.C. NO. 236
(SCALE 1:750)

TRAFFIC DIVERSION PLAN

LEGEND:-

- ADDITIONAL DIVERSION ROAD DURING CONSTRUCTION
- PROPOSED ROAD TO BE USED FOR DIVERSION DURING CONSTRUCTION
- RAILWAY BOUNDRY
- LC GATE TO BE DISMANTLE
- PROPOSED LC

A- GANDHIDHAM
B- KANDLA BYPASS
C- NORTH GATE OF KANDLA PORT
D- WEST GATE-I OF KANDLA PORT
E- WEST GATE-II OF KANDLA PORT

STAGE OF CONSTRUCTION

STAGE - I : PROPOSED DIVERSION ROAD (A to E, E to A, C to B & D to B WILL BE CONSTRUCTED.
STAGE - II : PROPOSED 2 VUP's WILL BE CONSTRUCTED WITH TRAFFIC MOVING ON DIVERSION ROAD.
STAGE -III : REMAINING DIVERSION ROAD WILL BE CONSTRUCTED AS PER SITE AVAILABILITY.
STAGE - IV : CONSTRUCTION OF ROB FOR LOOP LINE ON ROAD D to A & B to D. WITH TRAFFIC MOVING ON DIVERSION ROAD.
STAGE - V : DIVERSION ROAD WILL BE CONSTRUCTED) **AND PROPOSED 2 Nos. TEMPORARY LC WILL BE CONSTRUCTED**
STAGE -VI : CONSTRUCTION OF INTERCHANGE **CUM ROB WITH TRAFFIC MOVING ON DIVERSION ROAD**

DEENDAYAL PORT TRUST P.O Box 50, Administrative Office Building, Gandhidham, Kutch, Gujarat, India – 370201	CLIENT:- INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPROL) BUILDING, M. P. NIRMAN BHAVAN, CORPORATE OFFICE: 4TH, MUMBAI PORT TRUST, MAZGAON, EAST, MAHARASHTRA 400010	EPC CONTRACTOR:- M/s. NIRAJ-PATEL JV BBZ S 60, "NEELKANTH" ZANDA CHOWK, GANDHIDHAM, KUTCH, GUJARAT- 370201	PROJECT:- CONSTRUCTION OF INTERCHANGE CUM ROAD OVER BRIDGE (ROB) AT LC 236 (KUTCH SALT JUNCTION) ON NH 141 (PHASE-I) IN THE STATE OF GUJARAT UNDER EPC MODE.	TITLE: TRAFFIC DIVERSION PLAN SCALE: SIZE: DRG. NO: NPJV/ROB/KANDLA/TD/008 SHEET:	DATE: 02/07/2020 REV: R0

Annexure F (1)

Annexure R/C 2)

URGENT/ BY EMAIL

भारत सरकार
सड़क परिवहन एव राजमार्ग मन्त्रालय

कार्यालय, क्षेत्रिय अधिकारी,
न्यू सचिवालय, ब्लॉक नं0–14
चतुर्थ तल, गाँधीनगर–382010
गुजरात
फोन/फैक्स–079–23220705

सत्यमेव जयते

GOVERNMENT OF INDIA
Ministry of Road Transport & Highways

Office of the Regional Officer
New Sachivalaya, Block No.14,
4th floor, Gandhinagar 382010
Gujarat.
Phone/Fax No. 079-23220705

Dated : October 14, 2020

RW/GNR/NH/HA/NOC/03/782

To,

The Under Secretary
Roads & Building Department
Sachivalaya
Gandhinagar, Gujarat

SUB: Construction of Interchange cum Road Over Bridge (ROB) at km 367.924, LC 236 (Kutchh Salt Junction) on NH-141 in the State of Gujarat – Approval of Revised Temporary Traffic Diversion Plan Reg.

Sir,

Please refer to your letter no. RLY-13-2016-2631-M dated 16/09/2020, submitting therewith the revised proposal for Temporary Traffic Diversion for the work cited under subject above, to this office for approval.

2. The proposal has been examined and the same is found to be in order. Accordingly, in supersession of this office letter no. RW/GNR/Works/529/GJ/2017/393 dated 08/12/2017, the Revised Temporary Traffic /Diversion Plan for Construction of Interchange cum Road Over Bridge (ROB) at km 367.924, LC 236 (Kutchh Salt Junction) on NH-141 in the State of Gujarat, is hereby granted by the Competent Authority, subject to the following conditions.

2.1 M/s IPRCL will follow the provisions for the approved revised traffic diversion plan as per IRC SP:55.

2.2 During construction and operation of the diversion road, traffic safety provisions as per IRC SP:88 shall be strictly followed, under the supervision of concerned Executive Engineer, National Highway Division, Gujarat.

2.3 There shall be no restriction on NH ROW by M/s IPRCL and future development of the National Highway.

2.4 There shall be sufficient provision for drainage arrangement made by M/s IRPCL on the diversion road and restored existing National Highway, so that no water stagnation occurs.

2.5 The diversion road shall be constructed and maintained operational by M/s IRPCL under the direct supervision of concerned Executive Engineer, National Highway Division, Gujarat. Further restoration of existing NH road shall be done under the direct supervision of concerned Executive Engineer, National Highway Division, Gujarat. Failure to adhere stipulation will warrant action against M/s IRPCL by concerned Executive Engineer, National Highway Division, Gujarat under Section 36 of The Control of National Highway (Land and Traffic) Act, 2002.

HARSHPRABHAKAR
EXECUTIVE ENGINEER
EE & OFFICE, GANDHINAGAR
Ministry of Road Transport & Highways
GOVT OF INDIA

Annexure V (3)

URGENT/ BY EMAIL

2.6 Any deviation to the instant approval shall be approved by MoRTH prior to execution at site.

2.7 All order related to Temporary closure of traffic on Highway for construction of instant ROB along with diversion of traffic on diversion road shall be issued by the concerned Executive Engineer, National Highway Division, Gujarat under Section 30 and Section 33 of The Control of National Highway (Land and Traffic) Act, 2002.

2.8 Three copies of 'as laid drawings' of work (hard and soft copies) with geotagged photographs and geo-tagged video recordings of work executed (with respect to the NH) and after complete restoration shall be submitted to the Authority for verification.

2.9 Properly designed direction sign boards as per IRC guidelines should be fixed at appropriate locations for safety of road users.

2.10 24x7 deployment of trained manpower for traffic regulation at desired locations to avoid the conflict of traffic and for ensuring smooth flow of traffic as per approved diversion plan, should be ensured by M/s IPRCL.

2.11 A detailed pamphlet should be prepared in Hindi/ Gujarati language indicating origin and destination along with route as per approved diversion plan. The same should be circulated during the execution of project to all road users for proper traffic management.

30 and

Encl: Approved Revised Temporary Traffic Diversion Plan.

Yours Sincerely,

HARSH PRABHAKAR
EXECUTIVE ENGINEER
FOR HIGHWAY ADMINISTRATION

Copy To:

1. The Executive Engineer, National Highway Division, Gandhidham., for information and necessary action.
2. The Addl. General Manager (P), Ahmedabad, Indian Port Rail & Ropeway Corporation Ltd., Nirman Bhawan, Mumbai Port Trust Building, Mazgaon, Mumbai., for information and necessary action.

HARSH PRABHAKAR
EXECUTIVE ENGINEER
FOR HIGHWAY ADMINISTRATION

Annexure VI
(In 16 Pages)

Annexure VI (C1)

INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)

BUILDING, M. P, NIRMAN BHAVAN, CORPORATE OFFICE: 4TH, MUMBAI PORT TRUST, MAZGAON, EAST, MAHARASHTRA 400010

CONSTRUCTION OF INTERCHANGE CUM ROAD OVER BRIDGE (ROB) AT LC 236 (KUTCH SALT JUNCTION) ON NH 141 (PHASE-I) IN THE STATE OF GUJARAT UNDER EPC MODE.

DRAWINGS
PIPE CULVERT

DESIGN CONSULTANT:-
M/s. NIVEDITA CONULTANTS
ARCHITECTURAL, CIVIL AND STRUCTURAL ENGINEERING CONSULTANTS

PROOF CONSULTANT:-
M/S NITYA NAYRA CIVIL SOLUTIONS PVT. LTD.
BHOPAL

CLIENT :-
INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)
BUILDING, M. P, NIRMAN BHAVAN, CORPORATE OFFICE: 4TH, MUMBAI PORT TRUST, MAZGAON, EAST, MAHARASHTRA 400010

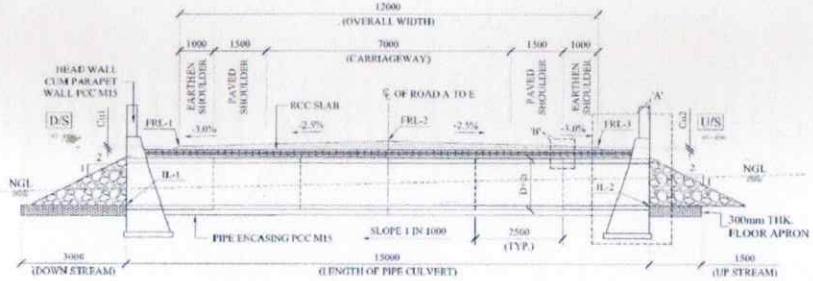
EMPLOYER :-
DEENDAYAL PORT TRUST
P.O. BOX NO - 50, ADMIN. OFFICE BUILDING, TAGORE ROAD, GANDHIDHAM (KUTCH) GUJARAT-370201

EPC CONTRACTOR:-
M/s. NIRAJ-PATEL JV
BBZ S 60, "NEELKANTH" ZANDA CHOWK, GANDHIDHAM, KUTCH, GUJRAT- 370201

SAFETY CONSULTANT:-
M/S FORGIVING ROADS LLP
GURUGRAM

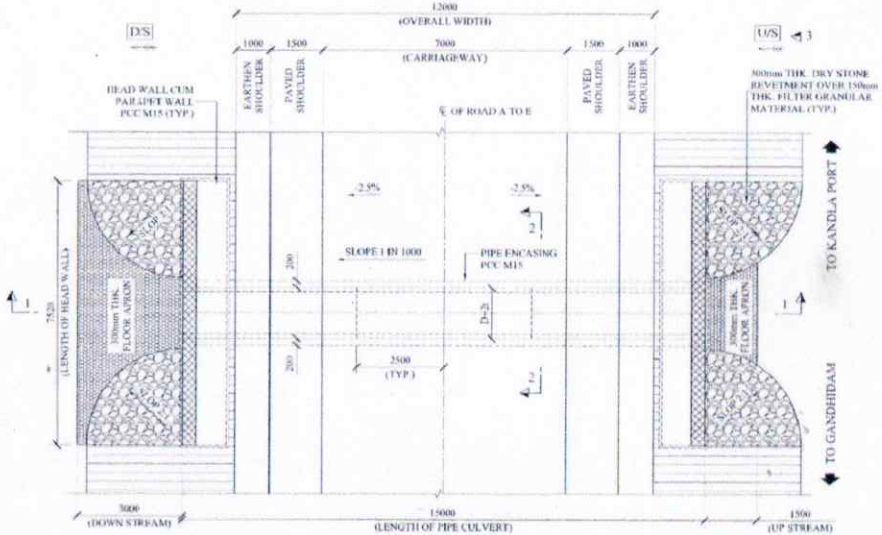
THIRD PARTY PROOF CONSULTANT:
Indian Institute of Technology (BHU) Varanasi
IIT-BHU, Banaras Hindu University Campus, Uttar Pradesh 221005

Annexure VI C2)



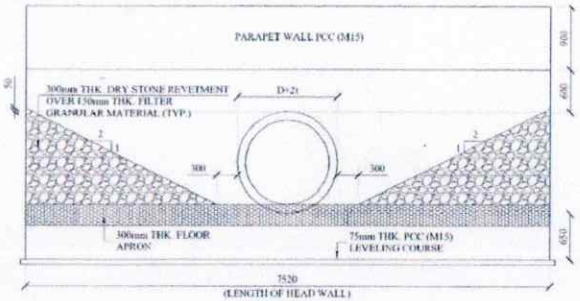
SECTION 1-1

(SCALE 1:100)



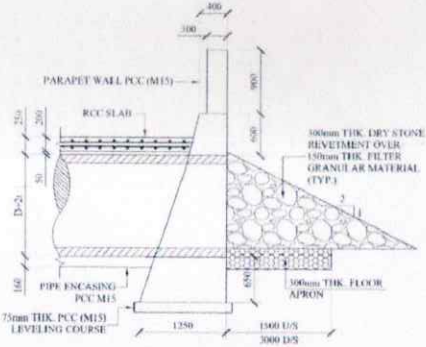
PLAN

(SCALE 1:100)



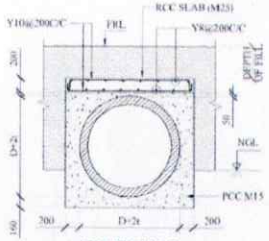
VIEW 3-3

(SCALE 1:50)



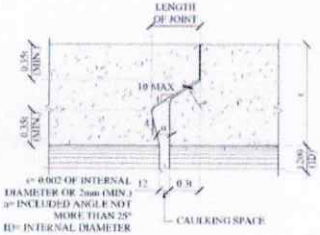
DETAIL-A

(SCALE 1:50)



SECTION 2-2

(SCALE 1:50)



DETAIL-B
INTERNAL FLUSH JOINT

(SCALE 1:4)

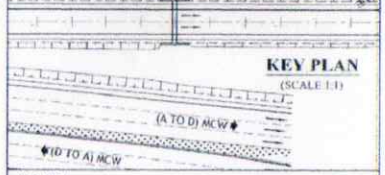
SCHEDULE OF PIPE CULVERT

S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											Col (LHS)	Co2 (RHS)
01	0+260	1	1.200	0.120	9.165	9.320	9.165	7.970	7.494	7.509	0.160	0.088

TO GANDHIDHAM TO KANDLA PORT

KEY PLAN

(SCALE 1:1)



NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. THIS DRAWING SHOULD NOT BE SCALED, ONLY WRITTEN DIMENSION TO BE FOLLOWED.
3. LONGITUDINAL SLOPE OF PIPE SHOULD BE MINIMUM OF 1 IN 1000
4. PITCHING AND REVETMENT SHALL BE DONE AS PER IRC SP 13
5. ALL RCC PIPES TO BE OF GRADE NP4 CONFORMING TO IS 458.
6. 150mm FILTER MEDIA SHALL BE PLACED BENEATH STONE PITCHING.
7. CULVERT HEADWALLS ARE AS PER SP-13 OF IRC
8. THE BEDDING BELOW THE PIPE AND FOUNDATION FOR HEADWALL SHALL BE PLACED OVER A FIRM STRATA.
9. IN BLACKCOTTON REGION PROVIDE 500mm THICK BOULDER FILLING BELOW PIPE BEDDING AND BELOW HEADWALL. BOULDER FILLING CONSIST OF QUARRY DUST (6mm DOWN IS SEIVE) AND BOULDERS WITH 95% COMPACTION.
10. PIPE LAYING AND PIPE SHALL BE JOINED BY INTERNAL FLUSH JOINT AS PER I.S.458 & MORTH SPECIFICATIONS CL.2900
11. THE LENGTH OF PIPE IS MENTIONED 2500 (TYP.) BUT IN CASE IF LENGTH REQUIRED IS LESS THAN 2500 THEN LENGTH OF CULVERT ADJUSTED ACCORDINGLY.
12. THIS DRAWING SHALL BE READ IN CONJUCTION WITH RELEVANT HIGHWAY DRAWINGS FRL & CAMBER,SUPER ELEVATION AT PARTICULAR LOCATION SHALL BE VERIFIED WITH THE HIGHWAY DRAWING.
13. ENCASING SHALL BE PROVIDED AS MENTIONED IN DRAWING. IN CASE CUSHION OVER PIPE IS LESS THAN 600mm EXCLUDING ROAD CRUST AS PER IRC:SP-84:2014.
14. AFTER INSTALLATION OF PIPES, THE GAPS IN BETWEEN THE PIPES SHALL BE FILLED WITH CEMENT SAND MORTAR.
15. DISCREPANCY IF ANY IS TO BE IMMEDIATELY BROUGHT IN TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
16. SEISMIC ZONE - V
17. AT THE ENDS OF CULVERT ADQUATE CUTOFF WALL SHOULD BE PROVIDE IN FOLLOWING CASES.
    A) WHERE INVERT LEVEL IS HIGHER THAN GROUND LEVEL AT ENDS OF CULVERTS
    B) WHERE UNSUITABLE SOIL IS REPLACE BY GRANULAR MATERIAL
18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS:1786
19. CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
20. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION

NITYA NAVRA CIVIL SOLUTIONS Proof Consultants BHOPAL

SAFETY CONSULTANT FORESIGHTING ROADS LLP GURUGRAM

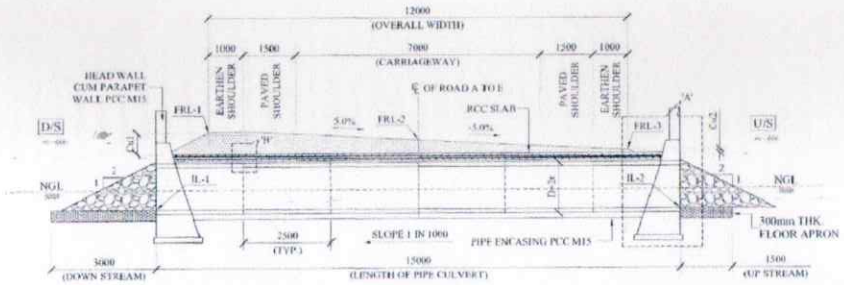
JR. GENERAL MANAGER. (P) IPRCL/GANDHIDHAM

Design Director Niraj Patel JV

FOR REVIEW & APPROVAL

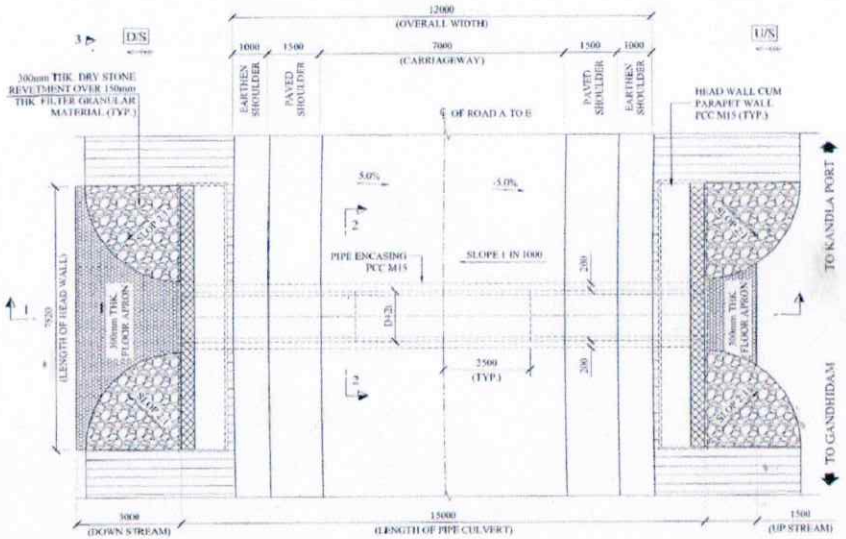
EMPLOYER	DEENDAYAL PORT TRUST
CLIENT	INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)
EPC CONTRACTOR	M/s. NIRAJ-PATEL JV
DESIGN CONSULTANT	M/s. NIVEDITA CONSULTANTS
PROOF CONSULTANT	M/S NITYA NAVRA CIVIL SOLUTIONS PVT. LTD BHOPAL
SAFETY CONSULTANT	M/S. FORESIGHTING ROADS LLP GURUGRAM
THIRD PARTY PROOF CONSULTANT	Indian Institute of Technology (BHU) Varanasi
PROJECT	CONSTRUCTION OF INTERCHANGE ON ROAD OVER BRIDGE (ROB) AT LC 236 (KUTCH JCT. JUNCTION) ON NH-141 (BYPASS) IN THE STATE OF GUJARAT UNDER EPC MODE
PREPARED	NIHIT
DESIGNED	NITIN
CHECKED	A.C.
APPROVED	
TITLE	GAD OF PIPE CULVERT AT CH:- 0+260 (A TO E)
DATE	16-09-2024
SCALE	AS SHOWN
SIZE	A2
DRG. NO	LC236-KUTCH-JUN-NH-141-ST-PC-101
SHEET	1 OF 1
REV	R0

Annexure III(3)



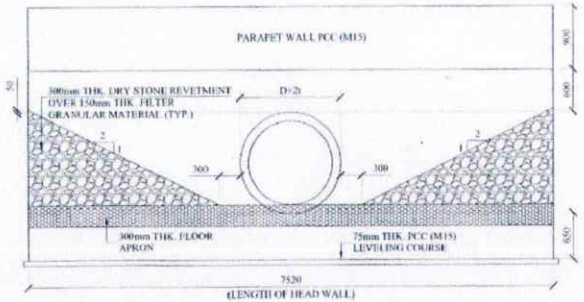
SECTION 1-1

(SCALE 1:100)



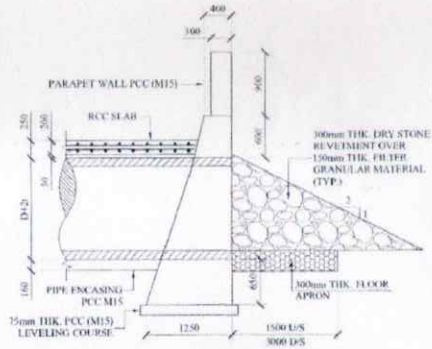
PLAN

(SCALE 1:100)



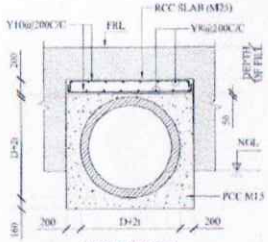
VIEW 3-3

(SCALE 1:50)



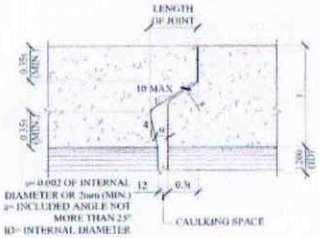
DETAIL-A

(SCALE 1:50)



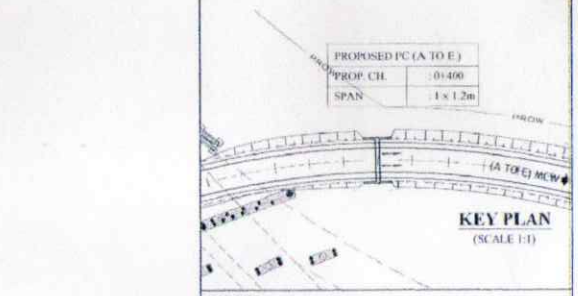
SECTION 2-2

(SCALE 1:50)



DETAIL-B
INTERNAL FLUSH JOINT

(SCALE 1:4)



KEY PLAN

(SCALE 1:1)

SCHEDULE OF PIPE CULVERT

S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											Ca1 (LHS)	Ca2 (RHS)
01	0+400	1	1.200	0.120	9.332	9.112	8.832	7.690	7.148	7.163	0.612	0.100

NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. THIS DRAWING SHOULD NOT BE SCALED, ONLY WRITTEN DIMENSION TO BE FOLLOWED.
3. LONGITUDINAL SLOPE OF PIPE SHOULD BE MINIMUM OF 1 IN 1000
4. PITCHING AND REVETMENT SHALL BE DONE AS PER IRC SP-13
5. ALL RCC PIPES TO BE OF GRADE NP4 CONFORMING TO IS 458.
6. 150mm FILTER MEDIA SHALL BE PLACED BENEATH STONE PITCHING.
7. CULVERT HEADWALLS ARE AS PER SP-13 OF IRC
8. THE BEDDING BELOW THE PIPE AND FOUNDATION FOR HEADWALL SHALL BE PLACED OVER A FIRM STRATA.
9. IN BLACKCOTTON REGION PROVIDE 500mm THICK BOULDER FILLING BELOW PIPE BEDDING AND BELOW HEADWALL. BOULDER FILLING CONSISIT OF QUARRY DUST (6mm DOWN IS SEIVE) AND BOULDERS WITH 95% COMPACTION.
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13. ENCASING SHALL BE PROVIDED AS MENTIONED IN DRAWING .IN CASE CUSHION OVER PIPE IS LESS THAN 600mm EXCLUDING ROAD CRUST AS PER IRC:SP:84:2014.
14. AFTER INSTALLATION OF PIPES, THE GAPS IN BETWEEN THE PIPES SHALL BE FILLED WITH CEMENT SAND MORTAR.
15. DISCREPANCY IF ANY IS TO BE IMMEDIATELY BROUGHT IN TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
16. SEISMIC ZONE - V
17. AT THE ENDS OF CULVERT ADQUATE CUTOFF WALL SHOULD BE PROVIDE IN FOLLOWING CASES.

A) WHERE INVERT LEVEL IS HIGHER THAN GROUND LEVEL AT ENDS OF CULVERTS

B) WHERE UNSUITABLE SOIL IS REPLACE BY GRANULAR MATERIAL

18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS:1786
19. CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
20. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION.

Jr. GENERAL MANAGER. (P) IPRCL, GANDHIDAM

Design Director Niraj Patel JV

FOR REVIEW & APPROVAL

EMPLOYER:-	DEENDAYAL PORT TRUST	PREPARED	MKM
CLIENT:-	INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)	DESIGNED	MKM
EPC CONTRACTOR:-	M/S. NIRAJ PATEL JV	CHECKED	A.C.
DESIGN CONSULTANT:-	M/S. NIVEDITA CONSULTANTS	APPROVED	
PROOF CONSULTANT:-	M/S MITTA NAYRA (CIVIL SOLUTIONS) PVT. LTD. BHOPAL		
SAFETY CONSULTANT:-	M/S FORGIVING ROADS LLP GURUGRAM		
THIRD PARTY PROOF CONSULTANT:-	Indian Institute of Technology (BHU) Varanasi		
PROJECT:-	CONSTRUCTION OF INTERCHANGE (3D) ROAD OVER BRIDGE WORK AT LC 236 SHATCH CALT. KIM TOWN ON NH-141 STAGE-II IN THE STATE OF GUJARAT UNDER EPC MODE		

TITLE: **GAD OF PIPE CULVERT AT CH:- 0+400 (A TO E)**

DATE: 10-09-2020

SCALE: AS SHOWN

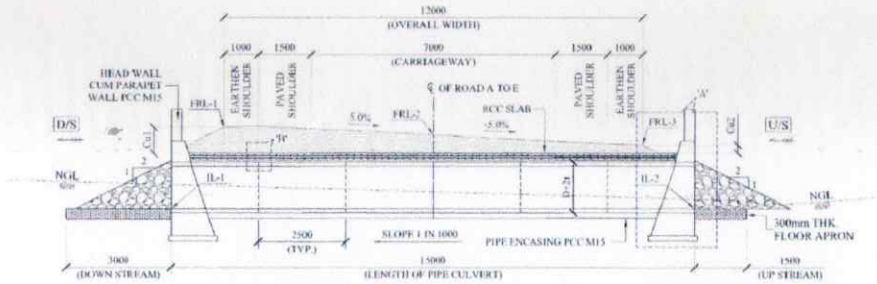
SIZE: A2

DRG. NO: **LC236-KUTCH-JUN-NH-141-ST-PC-102**

SHEET: **1 OF 1**

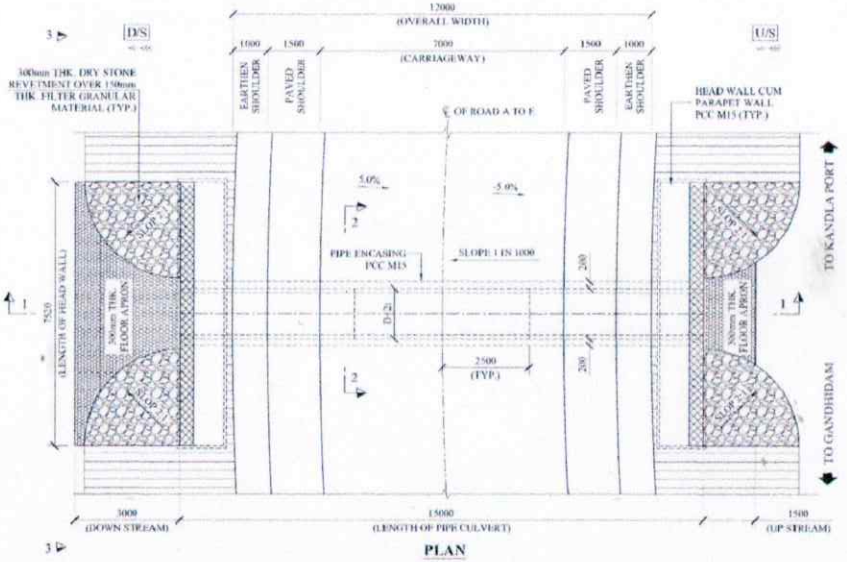
REV: R0

Annexure VI (4)



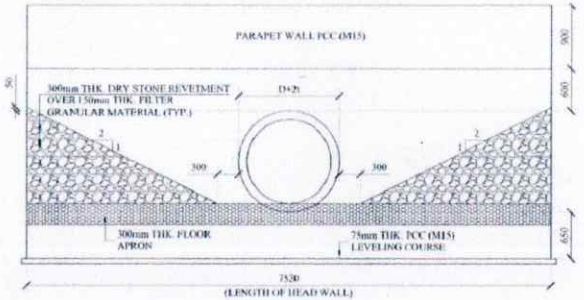
SECTION 1-1

(SCALE 1:100)



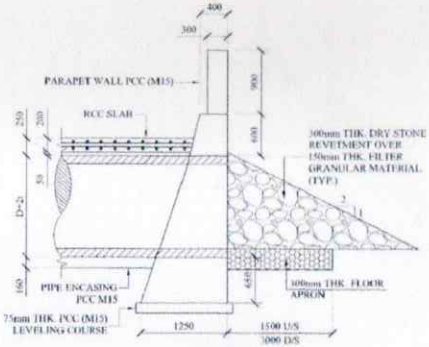
PLAN

(SCALE 1:100)



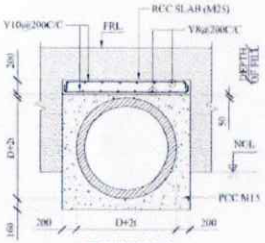
VIEW 3-3

(SCALE 1:50)



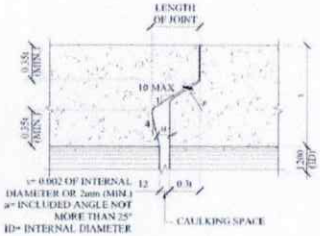
DETAIL-A

(SCALE 1:50)



SECTION 2-2

(SCALE 1:50)



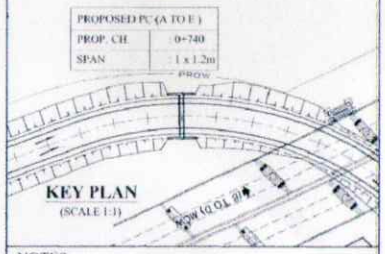
DETAIL-B
INTERNAL FLUSH JOINT

(SCALE 1:4)

Jt. GENERAL MANAGER (P)
IPRCL/GANDHIDHAM

Design Director
Niraj Patel JV

TO GANDHIDAM TO KANDLA PORT



NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. THIS DRAWING SHOULD NOT BE SCALED, ONLY WRITTEN DIMENSION TO BE FOLLOWED.
3. LONGITUDINAL SLOPE OF PIPE SHOULD BE MINIMUM OF 1 IN 1000
4. PITCHING AND REVETMENT SHALL BE DONE AS PER IRC SP:13
5. ALL RCC PIPES TO BE OF GRADE NP4 CONFORMING TO IS 458.
6. 150mm FILTER MEDIA SHALL BE PLACED BENEATH STONE PITCHING
7. CULVERT HEADWALLS ARE AS PER SP-13 OF IRC
8. THE BEDDING BELOW THE PIPE AND FOUNDATION FOR HEADWALL SHALL BE PLACED OVER A FIRM STRATA.
9. IN BLACKCOTTON REGION PROVIDE 500mm THICK BOULDER FILLING BELOW PIPE BEDDING AND BELOW HEADWALL, BOULDER FILLING CONSIST OF QUARRY DUST (6mm DOWN IS SIEVE) AND BOULDERS WITH 95% COMPACTION.
10. PIPE LAYING AND PIPE SHALL BE JOINED BY INTERNAL FLUSH JOINT AS PER I.S.458 & MORTH SPECIFICATIONS CL.2900
11. THE LENGTH OF PIPE IS MENTIONED 2500 (TYP.) BUT IN CASE IF LENGTH REQUIRED IS LESS THAN 2500 THEN LENGTH OF CULVERT ADJUSTED ACCORDINGLY.
12. THIS DRAWING SHALL BE READ IN CONJUCTION WITH RELEVANT HIGHWAY DRAWINGS FRL & CAMBER,SUPER ELEVATION AT PARTICULAR LOCATION SHALL BE VERIFIED WITH THE HIGHWAY DRAWING.
13. ENCASING SHALL BE PROVIDED AS MENTIONED IN DRAWING. IN CASE CUSHION OVER PIPE IS LESS THAN 600mm EXCLUDING ROAD CRUST AS PER IRC:SP-84:2014
14. AFTER INSTALLATION OF PIPES, THE GAPS IN BETWEEN THE PIPES SHALL BE FILLED WITH CEMENT SAND MORTAR.
15. DISCREPANCY IF ANY IS TO BE IMMEDIATELY BROUGHT IN TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
16. SEISMIC ZONE - V
17. AT THE ENDS OF CULVERT ADQUATE CUTOFF WALL SHOULD BE PROVIDE IN FOLLOWING CASES.
    A) WHERE INVERT LEVEL IS HIGHER THAN GROUND LEVEL AT ENDS OF CULVERTS
    B) WHERE UNSUITABLE SOIL IS REPLACE BY GRANULAR MATERIAL
18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS.1786 CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
19. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION.

SCHEDULE OF PIPE CULVERT

S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											CuI (LHS)	CuC (RHS)
01	0+740	1	1.200	0.120	9.902	9.682	9.402	7.870	7.584	7.599	0.746	0.234

FOR REVIEW & APPROVAL

EMPLOYER	CLIENT	EPC CONTRACTOR	DESIGN CONSULTANT	PROOF CONSULTANT	SAFETY CONSULTANT	THIRD PARTY PROOF CONSULTANT	PROJECT
DEENDAYAL PORT TRUST	INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)	M/s. NIRAJ-PATEL JV	M/S NIVEDITA CONSULTANTS	M/S NITYA NAYRA CIVIL SOLUTIONS PVT. LTD. BHOPAL	M/S FORGIVING ROADS LLP GURUGRAM	Indian Institute of Technology (BHU) Varanasi	CONSTRUCTION OF INTERchange FOR ROAD OVER BRIDGE WORK AT LC 156 SOUTH SALT JUNCTION ON NH-8A (PHASE-I) IN THE STATE OF GUJARAT UNDER EPC MODE

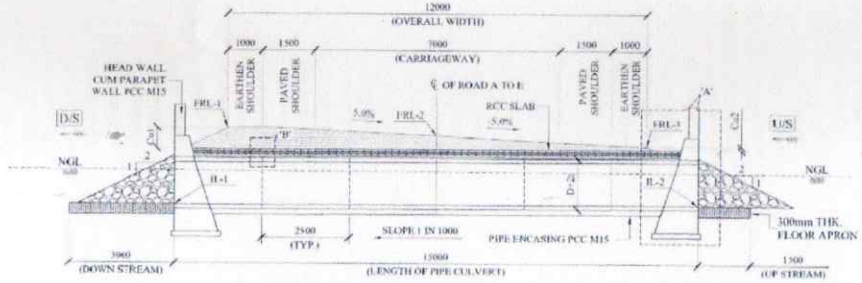
PREPARED	MOHIT
DESIGNED	NITIN
CHECKED	A.C.
APPROVED	

TITLE: **GAD OF PIPE CULVERT AT CH:- 0+740 (A TO E)**

DATE: 10-09-2020

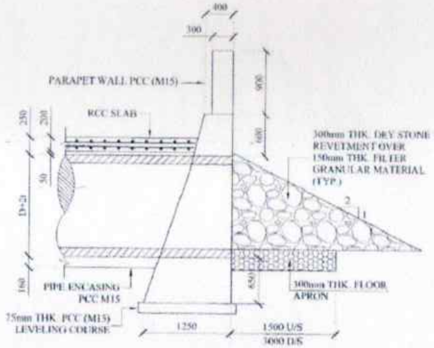
SCALE: AS SHOWN | SIZE: A2 | DRG. NO: LC236-KUTCH-JUN-NH-141-ST-PC-103 | SHEET: 1 OF 1 | REV: 00

Annexure VI (5)



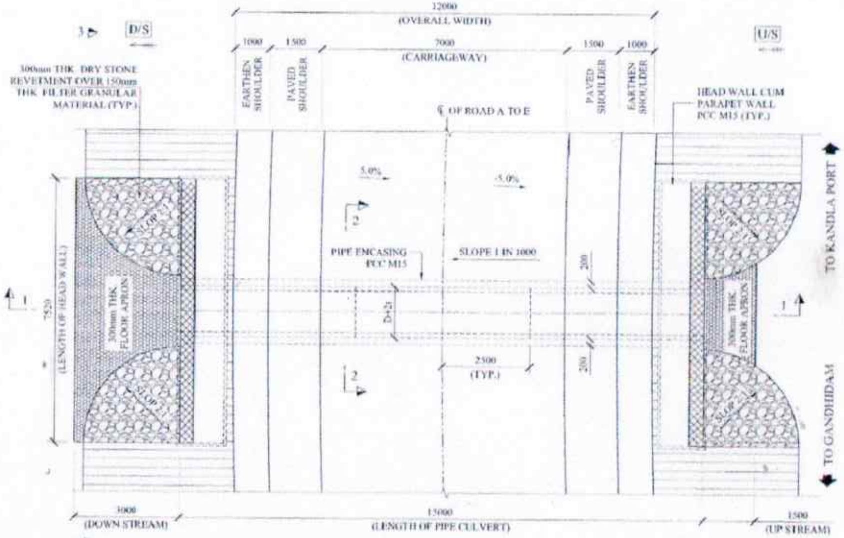
SECTION 1-1

(SCALE 1:100)



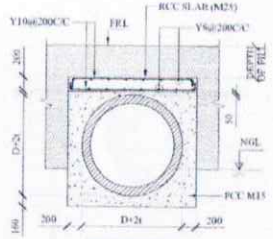
DETAIL-A

(SCALE 1:50)



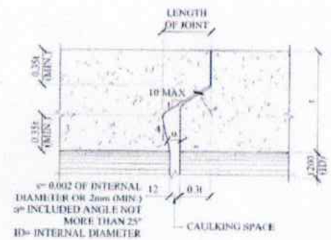
PLAN

(SCALE 1:100)



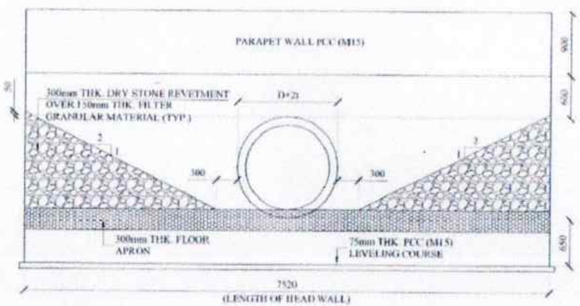
SECTION 2-2

(SCALE 1:50)



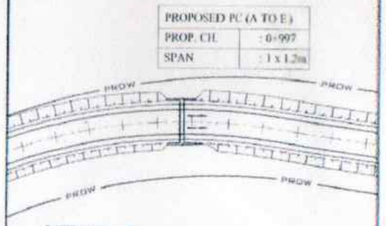
DETAIL-B INTERNAL FLUSH JOINT

(SCALE 1:4)



VIEW 3-3

(SCALE 1:50)



KEY PLAN

(SCALE 1:1)

PROPOSED PC (A TO E)	
PROP. CH.	: 0+997
SPAN	: 1 x 1.2m

NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. THIS DRAWING SHOULD NOT BE SCALED, ONLY WRITTEN DIMENSION TO BE FOLLOWED.
3. LONGITUDINAL SLOPE OF PIPE SHOULD BE MINIMUM OF 1 IN 1000
4. PITCHING AND REVETMENT SHALL BE DONE AS PER IRC SP:13
5. ALL RCC PIPES TO BE OF GRADE NP4 CONFORMING TO IS 458.
6. 150mm FILTER MEDIA SHALL BE PLACED BENEATH STONE PITCHING.
7. CULVERT HEADWALLS ARE AS PER SP-13 OF IRC
8. THE BEDDING BELOW THE PIPE AND FOUNDATION FOR HEADWALL SHALL BE PLACED OVER A FIRM STRATA.
9. IN BLACKCOTTON REGION PROVIDE 500mm THICK BOULDER FILLING BELOW PIPE BEDDING AND BELOW HEADWALL. BOULDER FILLING CONSISIT OF QUARRY DUST (6mm DOWN IS SEIVE) AND BOULDERS WITH 95% COMPACTION.
10. PIPE LAYING AND PIPE SHALL BE JOINED BY INTERNAL FLUSH JOINT AS PER I.S.458 & MORTH SPECIFICATIONS CL 2900
11. THE LENGTH OF PIPE IS MENTIONED 2500 (TYP.) BUT IN CASE IF LENGTH REQUIRED IS LESS THAN 2500 THEN LENGTH OF CULVERT ADJUSTED ACCORDINGLY.
12. THIS DRAWING SHALL BE READ IN CONJUCTION WITH RELEVANT HIGHWAY DRAWINGS FRL & CAMBER,SUPER ELEVATION AT PARTICULAR LOCATION SHALL BE VERIFIED WITH THE HIGHWAY DRAWING.
13. ENCASING SHALL BE PROVIDED AS MENTIONED IN DRAWING. IN CASE CUSHION OVER PIPE IS LESS THAN 600mm EXCLUDING ROAD CRUST AS PER IRC SP-84:2014.
14. AFTER INSTALLATION OF PIPES, THE GAPS IN BETWEEN THE PIPES SHALL BE FILLED WITH CEMENT SAND MORTAR.
15. DISCREPANCY IF ANY IS TO BE IMMEDIATELY BROUGHT IN TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
16. SEISMIC ZONE - V
17. AT THE ENDS OF CULVERT ADQUATE CUTOFF WALL SHOULD BE PROVIDE IN FOLLOWING CASES.
    A) WHERE INVERT LEVEL IS HIGHER THAN GROUND LEVEL AT ENDS OF CULVERTS
    B) WHERE UNSUITABLE SOIL IS REPLACE BY GRANULAR MATERIAL
18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS:1786 CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
19. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION.

SCHEDULE OF PIPE CULVERT

S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											Cu1 (LHS)	Cu2 (RHS)
01	0+997	1	1.200	0.120	9.402	9.182	8.902	8.140	7.219	7.234	0.612	0.100

Jt. GENERAL MANAGER (P) IPRCL, GANDHIDHAM

Design Director Niraj Patel JV

FOR REVIEW & APPROVAL

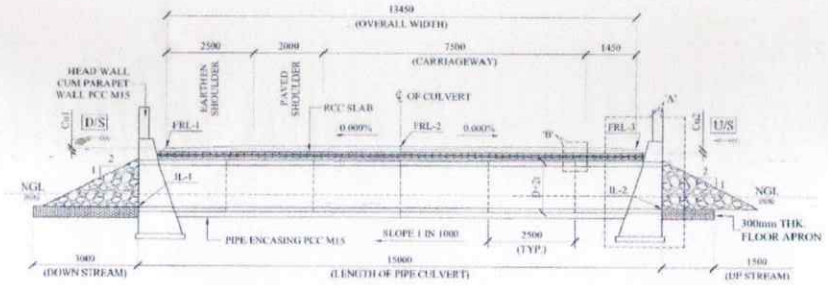
EMPLOYER	CLIENT	EPC CONTRACTOR	DESIGN CONSULTANT	PROOF CONSULTANT	SAFETY CONSULTANT	THIRD PARTY PROOF CONSULTANT	PROJECT
DEENDAYAL PORT TRUST	INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)	M/s. NIRAJ PATEL JV	M/s. NIVEDITA CONSULTANTS	M/S NITYA NAYRA CIVIL SOLUTIONS PVT. LTD. BHOPAL	M/S FORGIVING ROADS LLP GURUGRAM	Indian Institute of Technology (BHU) Varanasi	CONSTRUCTION OF INTERCHANGE CUM ROAD OVER BRIDGE (ROB) AT LC 7/A ... NH 141 (PHASE-II) IN THE STATE OF GUJARAT UNDER EPC MODE

PREPARED: MOHIT — DESIGNED: NITIN — CHECKED: A.C. — APPROVED:

TITLE: **GAD OF PIPE CULVERT AT CH:- 0+997 (A TO E)**

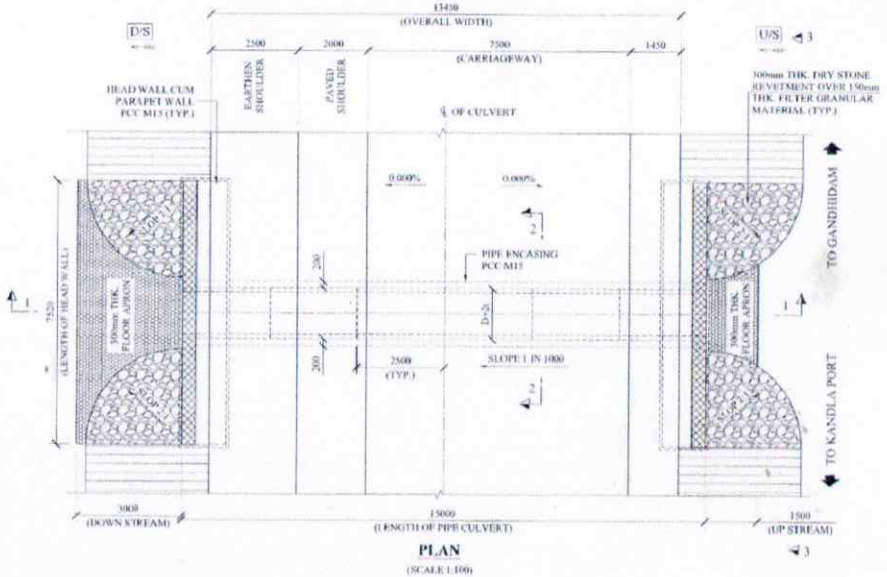
DATE: 18-09-2020 — SCALE: AS SHOWN — SIZE: A2 — DRG. NO.: LC236-KUTCH-JUN-NH-141-ST-PC-104 — SHEET: 1 OF 1 — REV: R0

Annexure VI (6)



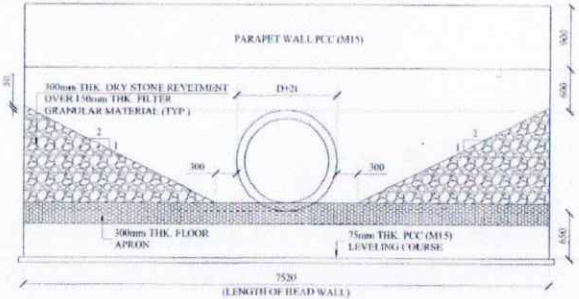
SECTION 1-1

(SCALE 1:100)



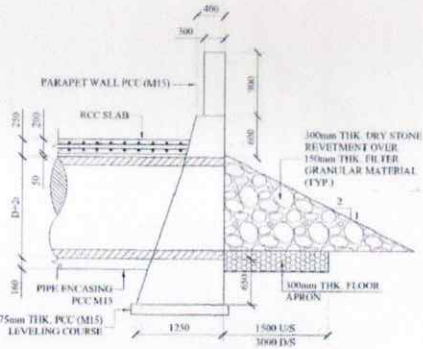
PLAN

(SCALE 1:100)



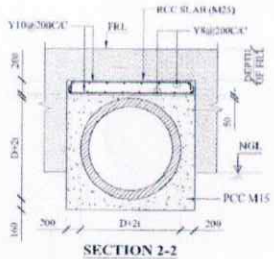
VIEW 3-3

(SCALE 1:50)



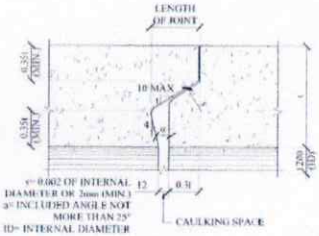
DETAIL-A

(SCALE 1:50)



SECTION 2-2

(SCALE 1:50)



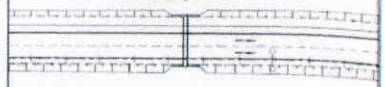
DETAIL-B
INTERNAL FLUSH JOINT

(SCALE 1:4)

TO GANDHIDAM — TO KANDLA PORT

ROW

PROPOSED PC (E TO A)	
PROP. CH.	: 0+185
SPAN	: 1 x 1.2m



KEY PLAN

(SCALE 1:1)

NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. THIS DRAWING SHOULD NOT BE SCALED, ONLY WRITTEN DIMENSION TO BE FOLLOWED.
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4. PITCHING AND REVETMENT SHALL BE DONE AS PER IRC SP:13
5. ALL RCC PIPES TO BE OF GRADE NP4 CONFORMING TO IS 458.
6. 150mm FILTER MEDIA SHALL BE PLACED BENEATH STONE PITCHING.
7. CULVERT HEADWALLS ARE AS PER SP-13 OF IRC
8. THE BEDDING BELOW THE PIPE AND FOUNDATION FOR HEADWALL SHALL BE PLACED OVER A FIRM STRATA.
9. IN BLACKCOTTON REGION PROVIDE 500mm THICK BOULDER FILLING BELOW PIPE BEDDING AND BELOW HEADWALL. BOULDER FILLING CONSIST OF QUARRY DUST (6mm DOWN IS SEIVE) AND BOULDERS WITH 95% COMPACTION.
10. PIPE LAYING AND PIPE SHALL BE JOINED BY INTERNAL FLUSH JOINT AS PER I.S.458 & MORTH SPECIFICATIONS CL.2900
11. THE LENGTH OF PIPE IS MENTIONED 2500 (TYP.) BUT IN CASE IF LENGTH REQUIRED IS LESS THAN 2500 THEN LENGTH OF CULVERT ADJUSTED ACCORDINGLY.
12. THIS DRAWING SHALL BE READ IN CONJUCTION WITH RELEVANT HIGHWAY DRAWINGS FRL & CAMBER,SUPER ELEVATION AT PARTICULAR LOCATION SHALL BE VERIFIED WITH THE HIGHWAY DRAWING.
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14. AFTER INSTALLATION OF PIPES, THE GAPS IN BETWEEN THE PIPES SHALL BE FILLED WITH CEMENT SAND MORTAR.
15. DISCREPANCY IF ANY IS TO BE IMMEDIATELY BROUGHT IN TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
16. SEISMIC ZONE - V
17. AT THE ENDS OF CULVERT ADQUATE CUTOFF WALL SHOULD BE PROVIDE IN FOLLOWING CASES.

A) WHERE INVERT LEVEL IS HIGHER THAN GROUND LEVEL AT ENDS OF CULVERTS

B) WHERE UNSUITABLE SOIL IS REPLACE BY GRANULAR MATERIAL

18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS:1786
19. CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
20. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION

Jr. GENERAL MANAGER. (P)
IPRCL/GANDHIDHAM

Design Director
Niraj Patel JV

SCHEDULE OF PIPE CULVERT

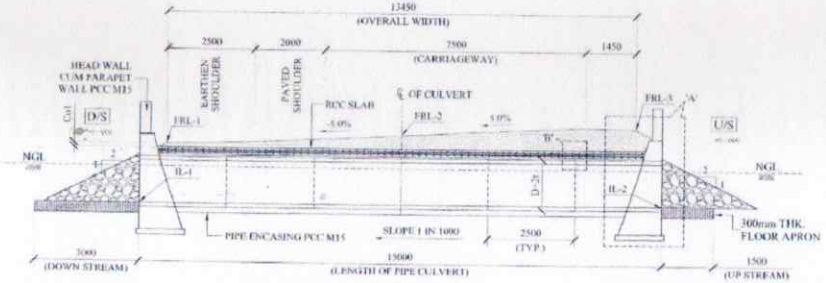
S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											Col (LHS)	Col (RHS)
01	0+185	1	1.200	0.120	9.554	9.630	9.589	8.240	7.882	7.897	0.101	0.123

FOR REVIEW & APPROVAL

EMPLOYER: DEENDAYAL PORT TRUST, PO. BOX 50 – 52 ADMN. OFFICE BUILDING, LEASE ROAD, GANDHIDHAM (KUTCH), GUJARAT, 370201	CLIENT: INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL), BUILDING "A" 3rd, NIRMAN BHAVAN, CORPORATE OFFICE, 4TH, MAHADA POST TRUST, NAZDAUK, EAST, MAHARASHTRA 400051	EPC CONTRACTOR: M/S. NIRAJ-PATEL JV, 602 & 603, MELKANTH, ZAVERI CHOWK, GANDHIDHAM (KUTCH), GUJARAT - 370201	DESIGN CONSULTANT: Siddhatechnocrats, M/S. NIVEDITA CONSULTANTS, ARCHITECTURAL, CIVIL AND STRUCTURAL ENGINEERING CONSULTANTS	PROOF CONSULTANT: M/S NITYA NAYRA CIVIL SOLUTIONS PVT. LTD. BHOPAL	SAFETY CONSULTANT: M/S FORGIVING ROADS LLP GURUGRAM	THIRD PARTY PROOF CONSULTANT: Indian Institute of Technology (BHU) Varanasi, IIT-BHU, Banaras Hindu University, Campus, Uttar Pradesh 221005	PROJECT:- CONSTRUCTION OF INTERCHANGE CUM ROAD OVER BRIDGE (ROB) AT LC 236 (KUTCH SALT JUNCTION) ON NH 141 (PART-I) IN THE STATE OF GUJARAT UNDER EPC MODE

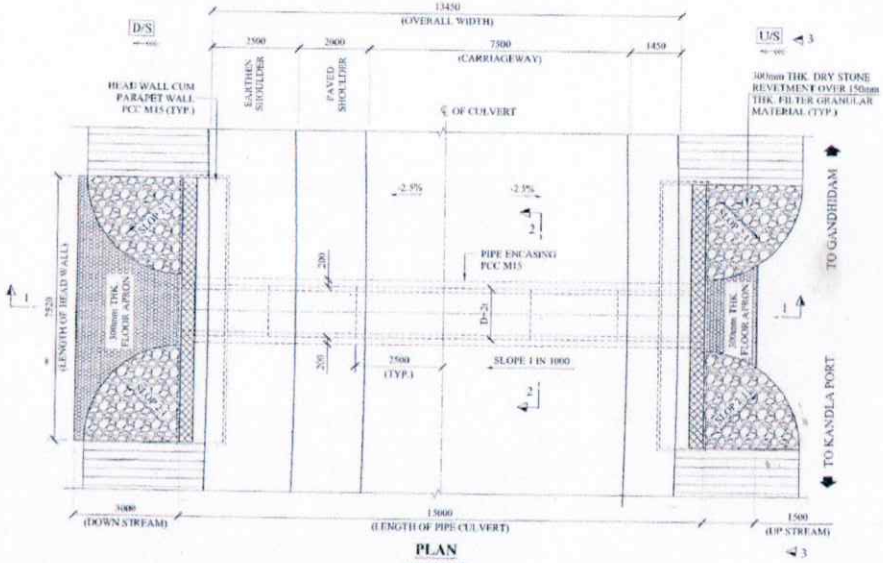
PREPARED	NIRAJ	TITLE: GAD OF PIPE CULVERT AT CH:- 0+185 (E TO A)		DATE: 10.05.2020	
DESIGNED	NITIN				
CHECKED	A.C.	SCALE: AS SHOWN	DRG. NO: LC236-KUTCH-JUN-NH-141-ST-PC-105	SHEET: 1 OF 1	REV: R0
APPROVED		SIZE: A2			

Annexure D (7)



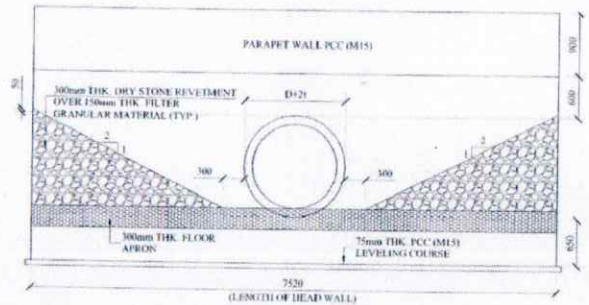
SECTION 1-1

(SCALE 1:100)



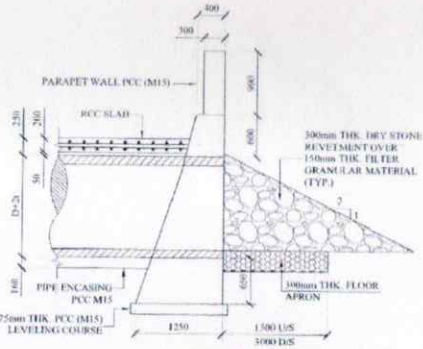
PLAN

(SCALE 1:100)



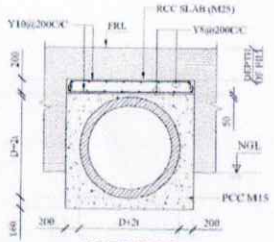
VIEW 3-3

(SCALE 1:50)



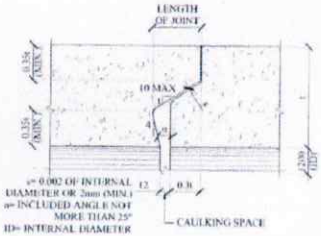
DETAIL-A

(SCALE 1:50)



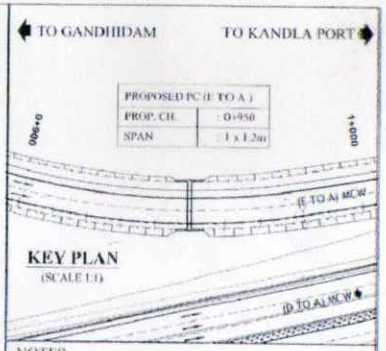
SECTION 2-2

(SCALE 1:50)



DETAIL-B
INTERNAL FLUSH JOINT

(SCALE 1:1)



KEY PLAN

(SCALE 1:1)

SCHEDULE OF PIPE CULVERT

S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											Cu1 (LHS)	Cu2 (RHS)
01	0+950	1	1.200	0.120	8.867	9.153	9.374	8.220	7.183	7.198	0.114	0.606

NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. THIS DRAWING SHOULD NOT BE SCALED, ONLY WRITTEN DIMENSION TO BE FOLLOWED.
3. LONGITUDINAL SLOPE OF PIPE SHOULD BE MINIMUM OF 1 IN 1000.
4. PITCHING AND REVETMENT SHALL BE DONE AS PER IRC SP:13.
5. ALL RCC PIPES TO BE OF GRADE NP4 CONFORMING TO IS 458.
6. 150mm FILTER MEDIA SHALL BE PLACED BENEATH STONE PITCHING.
7. CULVERT HEADWALLS ARE AS PER SP-13 OF IRC.
8. THE BEDDING BELOW THE PIPE AND FOUNDATION FOR HEADWALL SHALL BE PLACED OVER A FIRM STRATA.
9. IN BLACKCOTTON REGION PROVIDE 500mm THICK BOULDER FILLING BELOW PIPE BEDDING AND BELOW HEADWALL. BOULDER FILLING CONSISIT OF QUARRY DUST (6mm DOWN IS SEIVE) AND BOULDERS WITH 95% COMPACTION.
10. PIPE LAYING AND PIPE SHALL BE JOINED BY INTERNAL FLUSH JOINT AS PER I.S.458 & MORTH SPECIFICATIONS CL.2900
11. THE LENGTH OF PIPE IS MENTIONED 2500 (TYP.) BUT IN CASE IF LENGTH REQUIRED IS LESS THAN 2500 THEN LENGTH OF CULVERT ADJUSTED ACCORDINGLY.
12. THIS DRAWING SHALL BE READ IN CONJUCTION WITH RELEVANT HIGHWAY DRAWINGS FRL & CAMBER,SUPER ELEVATION AT PARTICULAR LOCATION SHALL BE VERIFIED WITH THE HIGHWAY DRAWING.
13. ENCASING SHALL BE PROVIDED AS MENTIONED IN DRAWING. IN CASE CUSHION OVER PIPE IS LESS THAN 600mm EXCLUDING ROAD CRUST AS PER IRC:SP:84:2014.
14. AFTER INSTALLATION OF PIPES, THE GAPS IN BETWEEN THE PIPES SHALL BE FILLED WITH CEMENT SAND MORTAR.
15. DISCREPANCY IF ANY IS TO BE IMMEDIATELY BROUGHT IN TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
16. SEISMIC ZONE - V
17. AT THE ENDS OF CULVERT ADQUATE CUTOFF WALL SHOULD BE PROVIDE IN FOLLOWING CASES.

A) WHERE INVERT LEVEL IS HIGHER THAN GROUND LEVEL AT ENDS OF CULVERTS

B) WHERE UNSUITABLE SOIL IS REPLACE BY GRANULAR MATERIAL

18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS:1786 CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
19. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION.

Jt. GENERAL MANAGER (P)
IPRCL/GANDHIDHAM

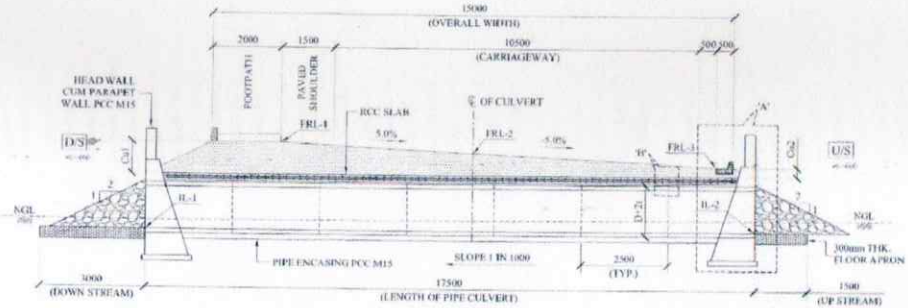
Design Director
Niraj Patel JV

FOR REVIEW & APPROVAL

EMPLOYER	DEENDAYAL PORT TRUST
CLIENT	INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)
EPC CONTRACTOR	M/s. NIRAJ PATEL JV
DESIGN CONSULTANT	M/s. NIVEDITA CONSULTANTS
PROOF CONSULTANT	M/S NITYA NAYRA CIVIL SOLUTIONS PVT. LTD. BHOPAL
SAFETY CONSULTANT	M/S FORGIVING ROADS LLP GURUGRAM
THIRD PARTY PROOF CONSULTANT	Indian Institute of Technology (BHU) Varanasi
PROJECT	CONSTRUCTION OF INTERCHANGE CUM ROAD OVER BRIDGE (ROB) AT LC 236 (KUTCH SALT JUNCTION) ON NH 947 (PHASE-I) IN THE STATE OF GUJARAT UNDER EPC MODE

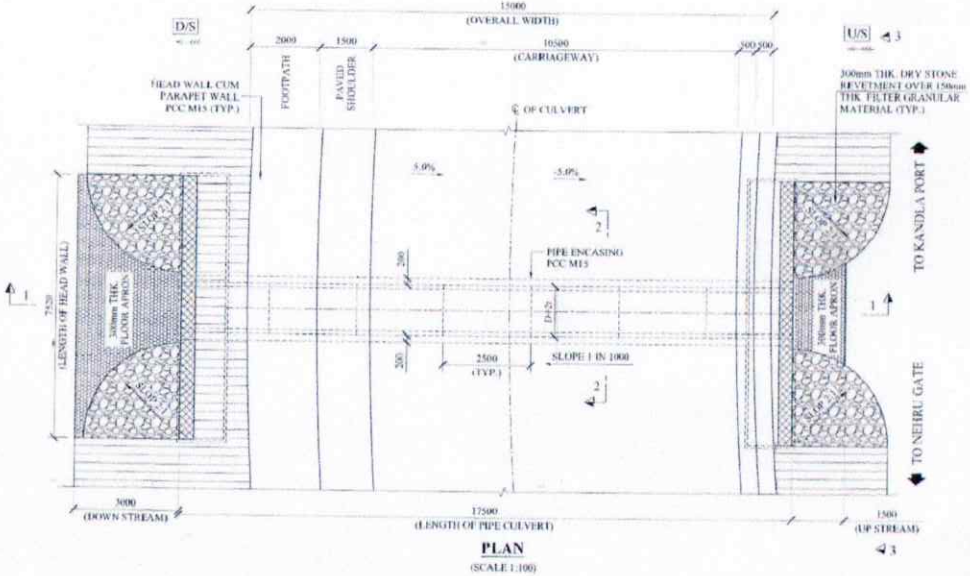
PREPARED	HEMAT	TITLE	GAD OF PIPE CULVERT AT CH:- 0+950 (E TO A)
DESIGNED	NITIN		
CHECKED	A.C.	SCALE	AS SHOWN
APPROVED		SIZE	A2
		DRG. NO.	LC236-KUTCH-JUN-NH-141-ST-PC-106
		SHEET	1 OF 1
		DATE	16-09-2020
		REV.	R0

Annexure D (8)



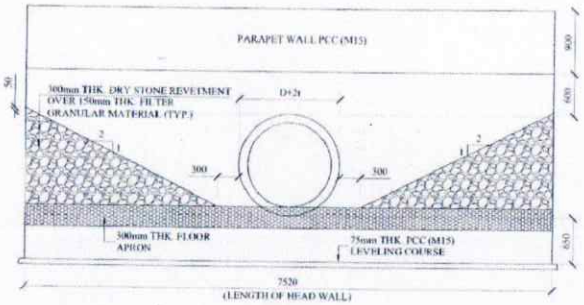
SECTION 1-1

(SCALE 1:100)



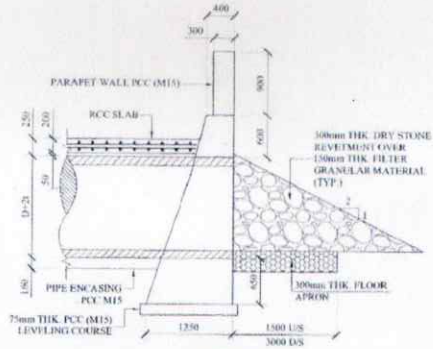
PLAN

(SCALE 1:100)



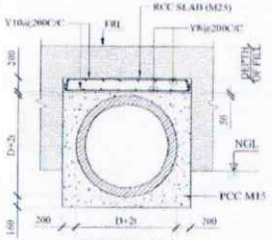
VIEW 3-3

(SCALE 1:50)



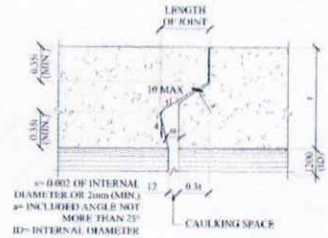
DETAIL-A

(SCALE 1:50)



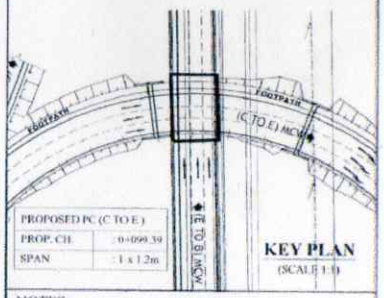
SECTION 2-2

(SCALE 1:50)



DETAIL-B
INTERNAL FLUSH JOINT

(SCALE 1:4)



SCHEDULE OF PIPE CULVERT

S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											Col (LHS)	Co2 (RHS)
01	0+099.39	1	1.200	0.120	10.158	9.883	9.533	7.960	7.672	7.690	0.912	0.274

NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. THIS DRAWING SHOULD NOT BE SCALED, ONLY WRITTEN DIMENSION TO BE FOLLOWED.
3. LONGITUDINAL SLOPE OF PIPE SHOULD BE MINIMUM OF 1 IN 1000
4. PITCHING AND REVETMENT SHALL BE DONE AS PER IRC SP-13
5. ALL RCC PIPES TO BE OF GRADE NP4 CONFORMING TO IS 458.
6. 150mm FILTER MEDIA SHALL BE PLACED BENEATH STONE PITCHING.
7. CULVERT HEADWALLS ARE AS PER SP-13 OF IRC
8. THE BEDDING BELOW THE PIPE AND FOUNDATION FOR HEADWALL SHALL BE PLACED OVER A FIRM STRATA.
9. IN BLACKCOTTON REGION PROVIDE 500mm THICK BOULDER FILLING BELOW PIPE BEDDING AND BELOW HEADWALL. BOULDER FILLING CONSISIT OF QUARRY DUST (6mm DOWN IS SEIVE) AND BOULDERS WITH 95% COMPACTION.
10. PIPE LAYING AND PIPE SHALL BE JOINED BY INTERNAL FLUSH JOINT AS PER I.S.458 & MORTH SPECIFICATIONS CL.2906
11. THE LENGTH OF PIPE IS MENTIONED 2500 (TYP.) BUT IN CASE IF LENGTH REQUIRED IS LESS THAN 2500 THEN LENGTH OF CULVERT ADJUSTED ACCORDINGLY.
12. THIS DRAWING SHALL BE READ IN CONJUCTION WITH RELEVANT HIGHWAY DRAWINGS FRL & CAMBER,SUPER ELEVATION AT PARTICULAR LOCATION SHALL BE VERIFIED WITH THE HIGHWAY DRAWING.
13. ENCASING SHALL BE PROVIDED AS MENTIONED IN DRAWING. IN CASE CUSHION OVER PIPE IS LESS THAN 600mm EXCLUDING ROAD CRUST AS PER IRC:SP-84:2014.
14. AFTER INSTALLATION OF PIPES, THE GAPS IN BETWEEN THE PIPES SHALL BE FILLED WITH CEMENT SAND MORTAR.
15. DISCREPANCY IF ANY IS TO BE IMMEDIATELY BROUGHT IN TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
16. SEISMIC ZONE - V
17. AT THE ENDS OF CULVERT ADQUATE CUTOFF WALL SHOULD BE PROVIDE IN FOLLOWING CASES.
A) WHERE INVERT LEVEL IS HIGHER THAN GROUND LEVEL AT ENDS OF CULVERTS
B) WHERE UNSUITABLE SOIL IS REPLACE BY GRANULAR MATERIAL
18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS:1786
CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
19. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION

Sr. GENERAL MANAGER. (P)
IPRCL/GANDHIDHAM

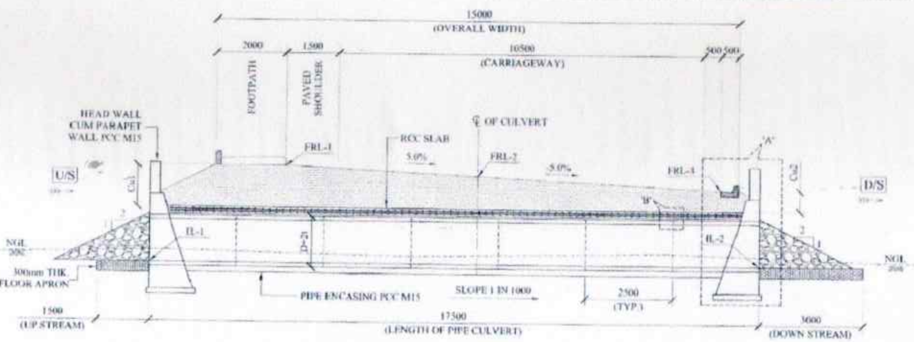
Design Director
Niraj Patel JV

FOR REVIEW & APPROVAL

EMPLOYER	CLIENT	EPC CONTRACTOR	DESIGN CONSULTANT	PROOF CONSULTANT	SAFETY CONSULTANT	THIRD PARTY PROOF CONSULTANT	PROJECT
DEENDAYAL PORT TRUST	INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)	M/s. NIRAJ-PATEL JV	M/s. Nivedita Consultants	M/S NITYA NAYRA CIVIL SOLUTIONS PVT. LTD. BHOPAL	M/S FORGIVING ROADS LLP GURUGRAM	Indian Institute of Technology (BHU) Varanasi	CONSTRUCTION OF INTERCHANGE CUM ROAD OVER BRIDGE (ROB) AS LC 226 (PATCH 1&2) JUNCTION ON NH 141 (PHASE-I) IN THE STATE OF GUJARAT UNDER EPC MODE

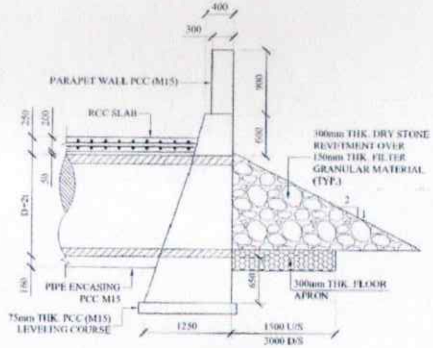
PREPARED	NSM	TITLE	GAD OF PIPE CULVERT AT CH:- 0+099.39(C TO E)	DATE	08-09-2025
DESIGNED	NSM				
CHECKED	A.C.	SCALE	AS SHOWN	DRG NO.	LC236-KUTCH-JUN-NH-141-ST-PC-107
APPROVED		SIZE	A2	SHEET	1 OF 1
				REV.	R0

Annexure VI (9)



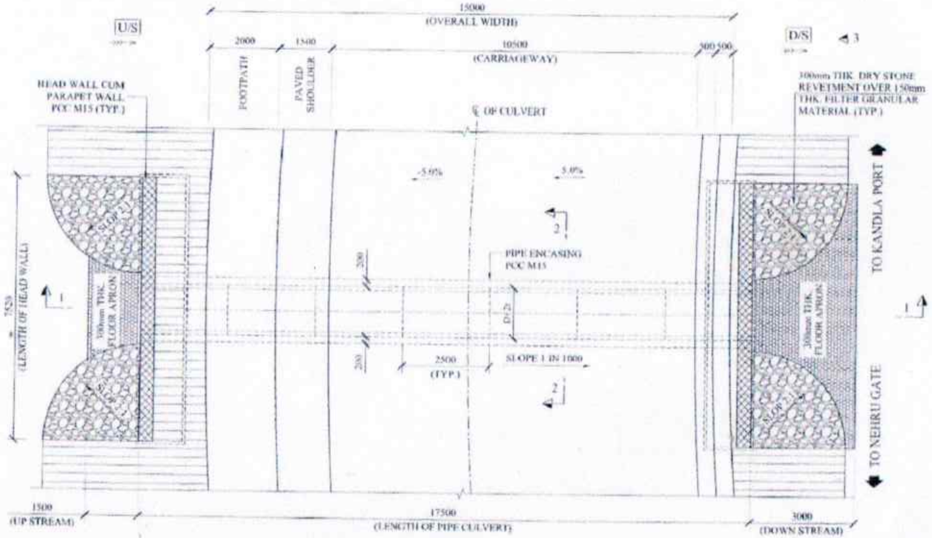
SECTION 1-1

(SCALE 1:100)



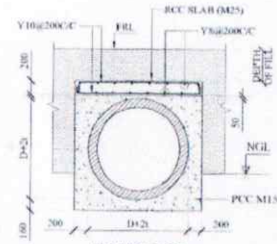
DETAIL-A

(SCALE 1:50)



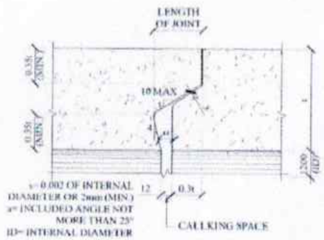
PLAN

(SCALE 1:100)



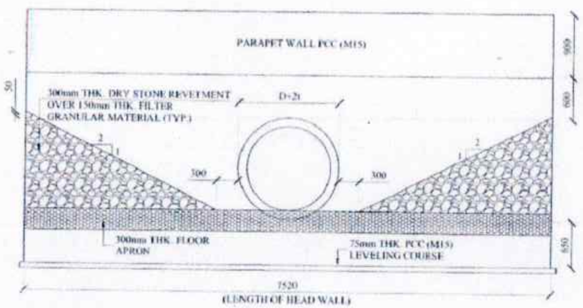
SECTION 2-2

(SCALE 1:50)



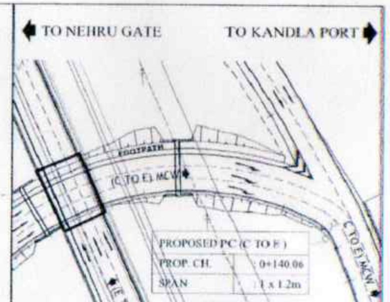
DETAIL-B
INTERNAL FLUSH JOINT

(SCALE 1:4)



VIEW 3-3

(SCALE 1:50)



KEY PLAN

(SCALE 1:1)

NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. THIS DRAWING SHOULD NOT BE SCALED, ONLY WRITTEN DIMENSION TO BE FOLLOWED.
3. LONGITUDINAL SLOPE OF PIPE SHOULD BE MINIMUM OF 1 IN 1000.
4. PITCHING AND REVETMENT SHALL BE DONE AS PER IRC SP:13.
5. ALL RCC PIPES TO BE OF GRADE NP4 CONFORMING TO IS 458.
6. 150mm FILTER MEDIA SHALL BE PLACED BENEATH STONE PITCHING.
7. CULVERT HEADWALLS ARE AS PER SP-13 OF IRC.
8. THE BEDDING BELOW THE PIPE AND FOUNDATION FOR HEADWALL SHALL BE PLACED OVER A FIRM STRATA.
9. IN BLACKCOTTON REGION PROVIDE 500mm THICK BOULDER FILLING BELOW PIPE BEDDING AND BELOW HEADWALL, BOULDER FILLING CONSISIT OF QUARRY DUST (6mm DOWN IS SEIVE) AND BOULDERS WITH 95% COMPACTION.
10. PIPE LAYING AND PIPE SHALL BE JOINED BY INTERNAL FLUSH JOINT AS PER I.S.458 & MORTH SPECIFICATIONS CL.2900.
11. THE LENGTH OF PIPE IS MENTIONED 2500 (TYP.) BUT IN CASE IF LENGTH REQUIRED IS LESS THAN 2500 THEN LENGTH OF CULVERT ADJUSTED ACCORDINGLY.
12. THIS DRAWING SHALL BE READ IN CONJUCTION WITH RELEVANT HIGHWAY DRAWINGS FRL & CAMBER,SUPER ELEVATION AT PARTICULAR LOCATION SHALL BE VERIFIED WITH THE HIGHWAY DRAWING.
13. ENCASING SHALL BE PROVIDED AS MENTIONED IN DRAWING. IN CASE CUSHION OVER PIPE IS LESS THAN 600mm EXCLUDING ROAD CRUST AS PER IRC:SP-84:2014.
14. AFTER INSTALLATION OF PIPES, THE GAPS IN BETWEEN THE PIPES SHALL BE FILLED WITH CEMENT SAND MORTAR.
15. DISCREPANCY IF ANY IS TO BE IMMEDIATLY BROUGHT IN TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
16. SEISMIC ZONE - V
17. AT THE ENDS OF CULVERT ADQUATE CUTOFF WALL SHOULD BE PROVIDE IN FOLLOWING CASES.
A) WHERE INVERT LEVEL IS HIGHER THAN GROUND LEVEL AT ENDS OF CULVERTS
B) WHERE UNSUITABLE SOIL IS REPLACE BY GRANULAR MATERIAL
18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS 1786 CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
19. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION.

Jt. GENERAL MANAGER. (P)
IPRCL/GANDHIDHAM

Design Director
Niraj Patel JV

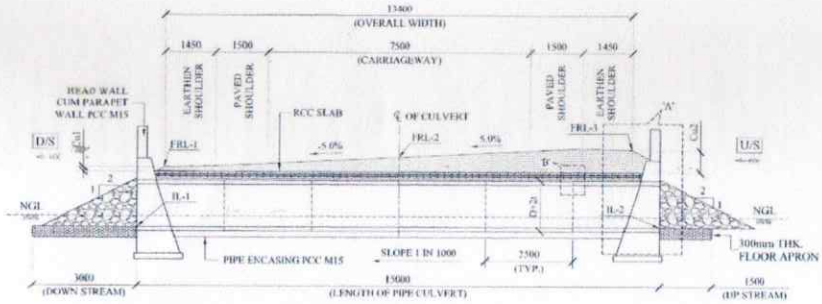
SCHEDULE OF PIPE CULVERT

S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											Cu1 (LHS)	Cu2 (RHS)
01	0+140.06	1	1.200	0.120	10.323	10.048	9.698	7.770	7.560	7.342	1.197	0.185

FOR REVIEW & APPROVAL

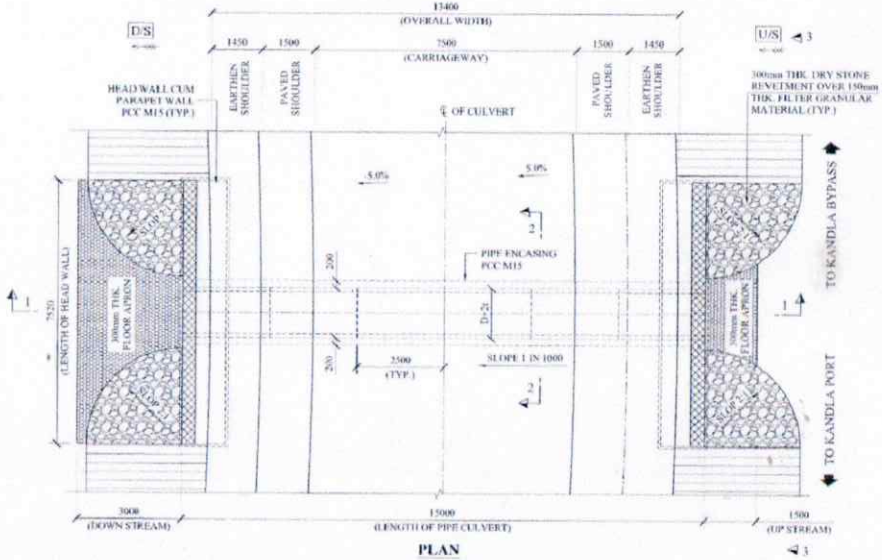
EMPLOYER :-	DEENDAYAL PORT TRUST, P.O. BOX NO - 50, ADMN. OFFICE BUILDING, TAGORE ROAD, GANDHIDHAM (KUTCH), GUJARAT-370201
CLIENT :-	INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)
EPC CONTRACTOR :-	M/s. NIRAJ-PATEL JV
DESIGN CONSULTANT	M/s. NIVEDITA CONSULTANTS, ARCHITECTURAL, CIVIL AND STRUCTURAL ENGINEERING CONSULTANTS
PROOF CONSULTANT	M/S NITYA NAYRA CIVIL SOLUTIONS PVT. LTD. BHOPAL
SAFETY CONSULTANT	M/S FORGIVING ROADS LLP GURUGRAM
THIRD PARTY PROOF CONSULTANT	Indian Institute of Technology (BHU) Varanasi
PROJECT :-	CONSTRUCTION OF INTERCHANGE CUM ROAD OVER BRIDGE FROM AT KM 2.30 (KUTCH SALT JUNCTION) ON NH 141 (PHASE-II) IN THE STATE OF GUJARAT UNDER EPC MODE
PREPARED	MOHIT
DESIGNED	NITIN
CHECKED	A.C.
APPROVED	
TITLE	GAD OF PIPE CULVERT AT CH:- 0+140.06 (C TO E)
DATE	28-09-2020
SCALE	AS SHOWN
SIZE	A2
DRG. NO.	LC236-KUTCH-JUN-NH-141-ST-PC-108
SHEET	1 OF 1
REV.	R0

Annexure-I (10)



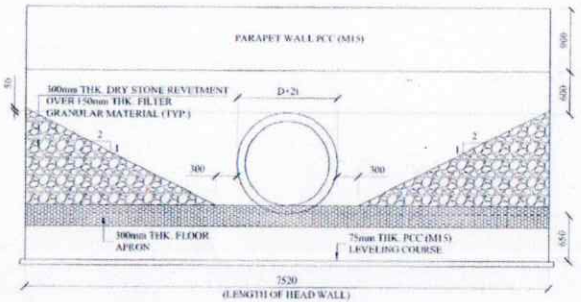
SECTION 1-1

(SCALE 1:100)



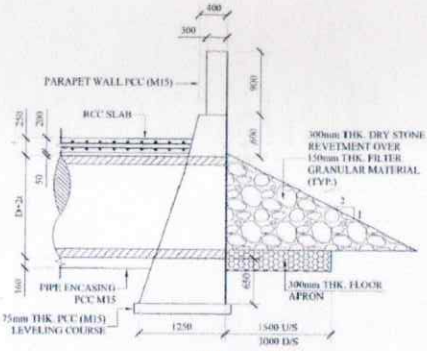
PLAN

(SCALE 1:100)



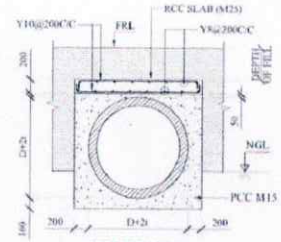
VIEW 3-3

(SCALE 1:50)



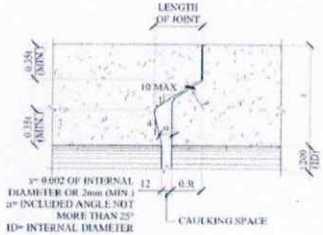
DETAIL-A

(SCALE 1:50)



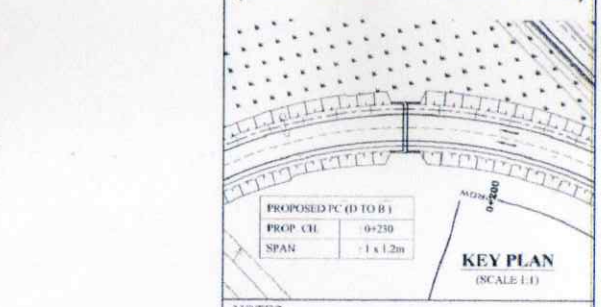
SECTION 2-2

(SCALE 1:50)



DETAIL-B
INTERNAL FLUSH JOINT

(SCALE 1:4)



KEY PLAN

(SCALE 1:1)

NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. THIS DRAWING SHOULD NOT BE SCALED, ONLY WRITTEN DIMENSION TO BE FOLLOWED.
3. LONGITUDINAL SLOPE OF PIPE SHOULD BE MINIMUM OF 1 IN 1000
4. PITCHING AND REVETMENT SHALL BE DONE AS PER IRC SP:13
5. ALL RCC PIPES TO BE OF GRADE NP4 CONFORMING TO IS 458.
6. 150mm FILTER MEDIA SHALL BE PLACED BENEATH STONE PITCHING
7. CULVERT HEADWALLS ARE AS PER SP-13 OF IRC
8. THE BEDDING BELOW THE PIPE AND FOUNDATION FOR HEADWALL SHALL BE PLACED OVER A FIRM STRATA
9. IN BLACKCOTTON REGION PROVIDE 500mm THICK BOULDER FILLING BELOW PIPE BEDDING AND BELOW HEADWALL, BOULDER FILLING CONSIST OF QUARRY DUST (6mm DOWN IS SEIVE) AND BOULDERS WITH 95% COMPACTION.
10. PIPE LAYING AND PIPE SHALL BE JOINED BY INTERNAL FLUSH JOINT AS PER I.S.458 & MORTH SPECIFICATIONS CL 2900
11. THE LENGTH OF PIPE IS MENTIONED 2500 (TYP.) BUT IN CASE IF LENGTH REQUIRED IS LESS THAN 2500 THEN LENGTH OF CULVERT ADJUSTED ACCORDINGLY.
12. THIS DRAWING SHALL BE READ IN CONJUCTION WITH RELEVANT HIGHWAY DRAWINGS FRL & CAMBER,SUPER ELEVATION AT PARTICULAR LOCATION SHALL BE VERIFIED WITH THE HIGHWAY DRAWING.
13. ENCASING SHALL BE PROVIDED AS MENTIONED IN DRAWING IN CASE CUSHION OVER PIPE IS LESS THAN 600mm EXCLUDING ROAD CRUST AS PER IRC SP-84:2014.
14. AFTER INSTALLATION OF PIPES, THE GAPS IN BETWEEN THE PIPES SHALL BE FILLED WITH CEMENT SAND MORTAR.
15. DISCREPANCY IF ANY IS TO BE IMMEDIATELY BROUGHT IN TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
16. SEISMIC ZONE - V
17. AT THE ENDS OF CULVERT ADQUATE CUTOFF WALL SHOULD BE PROVIDE IN FOLLOWING CASES.

A) WHERE INVERT LEVEL IS HIGHER THAN GROUND LEVEL AT ENDS OF CULVERTS

B) WHERE UNSUITABLE SOIL IS REPLACE BY GRANULAR MATERIAL

18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS 4786
19. CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
20. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION

SCHEDULE OF PIPE CULVERT

S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											Cu1 (LHS)	Cu2 (RHS)
01	0+230.00	1	1.200	0.120	9.575	9.869	10.160	8.220	7.891	7.906	0.113	0.625

FOR REVIEW & APPROVAL

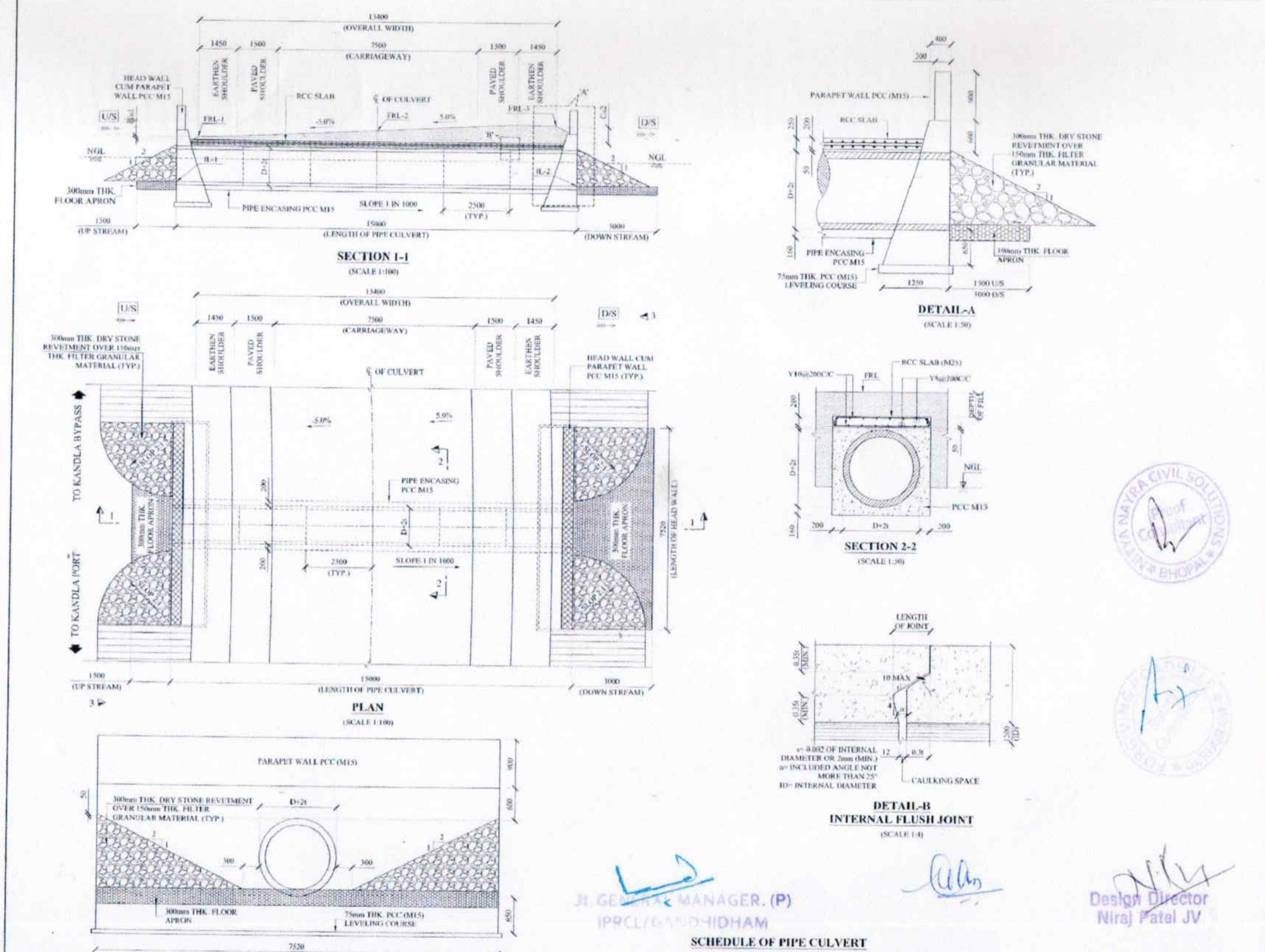
EMPLOYER:- DEENDAYAL PORT TRUST	CLIENT:- INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)	EPC CONTRACTOR:- M/s. NIRAJ PATEL JV	DESIGN CONSULTANT:- M/s. NIVEDITA CONSULTANTS	PROOF CONSULTANT:- M/S SATYA NAYRA (I)PL SOLUTIONS PVT. LTD BHOPAL	SAFETY CONSULTANT:- M/S FORGIVING ROADS LLP GURUGRAM	THIRD PARTY PROOF CONSULTANT:- Indian Institute of Technology (BHU) Varanasi	PROJECT:- CONSTRUCTION OF INTERCHANGE (DN ROAD OVER BRIDGE FROM AT CH. 270 (KUTCH SALT JUNCTION ON NH 15) BYPASS) & IN THE STATE OF GUJARAT UNDER EPC MODE

PREPARED	NKRT	TITLE: GAD OF PIPE CULVERT AT CH:- 0+230 (D TO B)		DATE: 16-09-2020	
DESIGNED	NITIN				
CHECKED	A.C.	SCALE: AS SHOWN	DRG. NO: LC236-KUTCH-JUN-NH-141-ST-PC-109	SHEET: 1 OF 1	REV: R0
APPROVED		SIZE: A2			

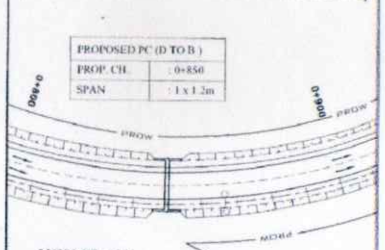
Sr. GENERAL MANAGER (P)
IPRCL/GANDHIDHAM

Design Director
Niraj Patel JV

Annexure VI (11)



◆ TO KANDLA PORT TO KANDLA BYPASS ◆



KEY PLAN
(SCALE 1:1)

SCHEDULE OF PIPE CULVERT

S.NO	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											Cu1 (LHS)	Cu2 (RHS)
01	0+850.00	1	1.200	0.120	9.090	9.396	9.615	8.290	7.421	7.406	0.100	0.638

NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. THIS DRAWING SHOULD NOT BE SCALED, ONLY WRITTEN DIMENSION TO BE FOLLOWED.
3. LONGITUDINAL SLOPE OF PIPE SHOULD BE MINIMUM OF 1 IN 1000
4. PITCHING AND REVETMENT SHALL BE DONE AS PER IRC SP:13
5. ALL RCC PIPES TO BE OF GRADE NP4 CONFORMING TO IS 458.
6. 150mm FILTER MEDIA SHALL BE PLACED BENEATH STONE PITCHING.
7. CULVERT HEADWALLS ARE AS PER SP-13 OF IRC
8. THE BEDDING BELOW THE PIPE AND FOUNDATION FOR HEADWALL SHALL BE PLACED OVER A FIRM STRATA.
9. IN BLACKCOTTON REGION PROVIDE 500mm THICK BOULDER FILLING BELOW PIPE BEDDING AND BELOW HEADWALL. BOULDER FILLING CONSISIT OF QUARRY DUST (6mm DOWN IS SEIVE) AND BOULDERS WITH 95% COMPACTION.
10. PIPE LAYING AND PIPE SHALL BE JOINED BY INTERNAL FLUSH JOINT AS PER I.S.458 & MORTH SPECIFICATIONS CL.2900
11. THE LENGTH OF PIPE IS MENTIONED 2500 (TYP.) BUT IN CASE IF LENGTH REQUIRED IS LESS THAN 2500 THEN LENGTH OF CULVERT ADJUSTED ACCORDINGLY.
12. THIS DRAWING SHALL BE READ IN CONJUCTION WITH RELEVANT HIGHWAY DRAWINGS FRL & CAMBER,SUPER ELEVATION AT PARTICULAR LOCATION SHALL BE VERIFIED WITH THE HIGHWAY DRAWING.
13. ENCASING SHALL BE PROVIDED AS MENTIONED IN DRAWING. IN CASE CUSHION OVER PIPE IS LESS THAN 600mm EXCLUDING ROAD CRUST AS PER IRC SP-84:2014.
14. AFTER INSTALLATION OF PIPES, THE GAPS IN BETWEEN THE PIPES SHALL BE FILLED WITH CEMENT SAND MORTAR.
15. DISCREPANCY IF ANY IS TO BE IMMEDIATELY BROUGHT IN TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
16. SEISMIC ZONE - V
17. AT THE ENDS OF CULVERT ADQUATE CUTOFF WALL SHOULD BE PROVIDE IN FOLLOWING CASES.
A) WHERE INVERT LEVEL IS HIGHER THAN GROUND LEVEL AT ENDS OF CULVERTS
B) WHERE UNSUITABLE SOIL IS REPLACE BY GRANULAR MATERIAL
18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS:1786 CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
19. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION.

FOR REVIEW & APPROVAL

EMPLOYER -	CLIENT -	EPC CONTRACTOR -	DESIGN CONSULTANT	PROOF CONSULTANT	SAFETY CONSULTANT	THIRD PARTY PROOF CONSULTANT	PROJECT -
DEENDAYAL PORT TRUST	INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)	M/s. NIRAJ-PATEL JV	M/s. NIVEDITA CONSULTANTS	M/S NITYA NAYRA CIVIL SOLUTIONS PVT. LTD. BHOPAL	M/S FORGIVING ROADS LLP GURUGRAM	Indian Institute of Technology (BHU) Varanasi	CONSTRUCTION OF INTERCHANGE CUM ROAD OVER BRIDGE ... NH 141 (PHASE-I) IN THE STATE OF GUJARAT UNDER EPC MODE

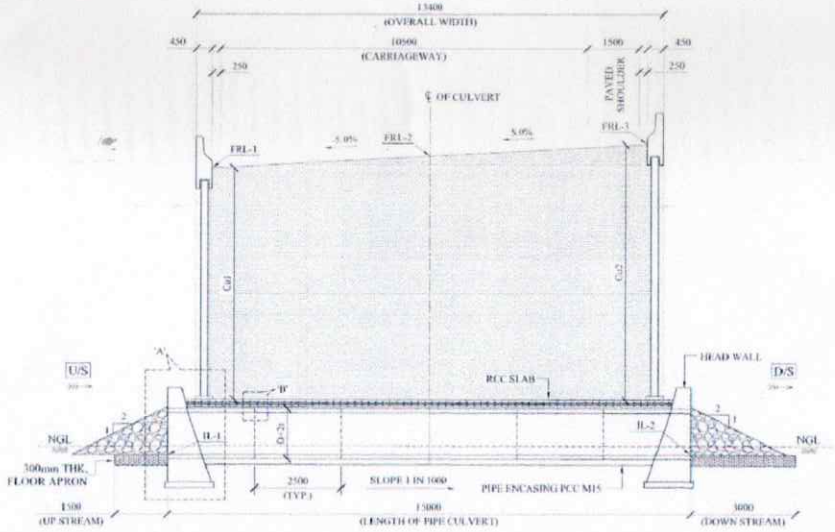
PREPARED	NOHIT
DESIGNED	NITIN
CHECKED	A.C.
APPROVED	

TITLE: **GAD OF PIPE CULVERT AT CH:- 0+850 (D TO B)**

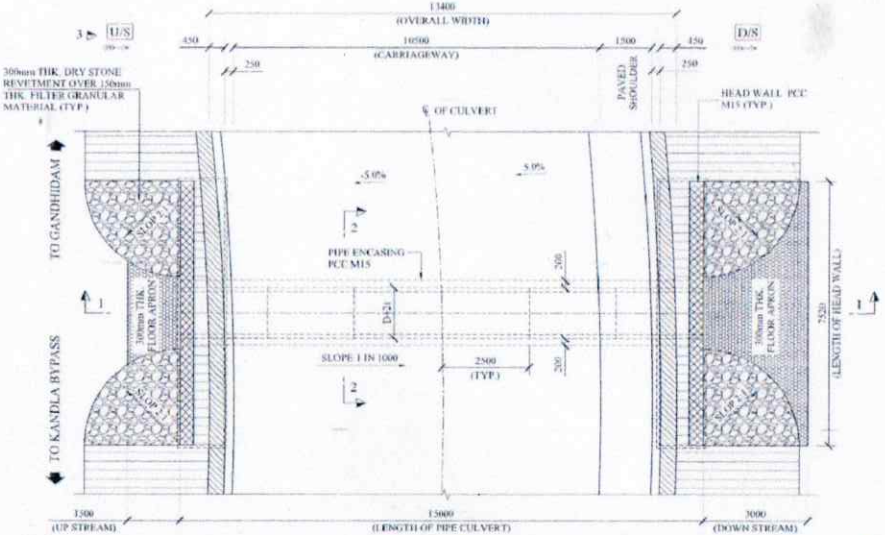
DATE: 18-09-2020

SCALE: AS SHOWN | SIZE: A2 | DRG. NO: LC236-KUTCH-JUN-NH-141-ST-PC-109A | SHEET: 1 OF 1 | REV: R0

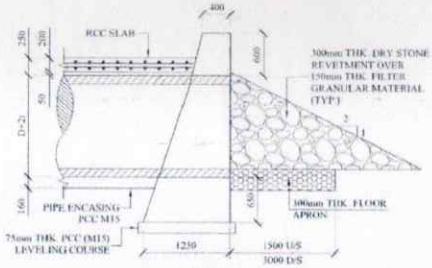
Annexure VI C12)



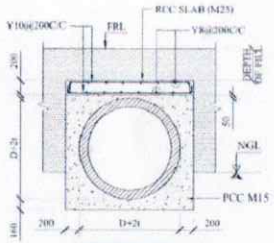
SECTION 1-1
(SCALE 1:100)



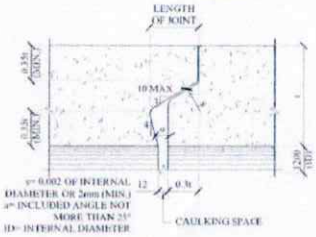
PLAN
(SCALE 1:100)



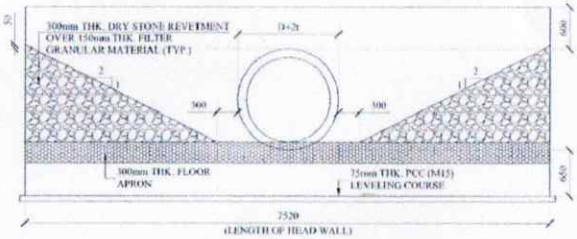
DETAIL-A
(SCALE 1:50)



SECTION 2-2
(SCALE 1:50)



DETAIL-B
INTERNAL FLUSH JOINT
(SCALE 1:4)

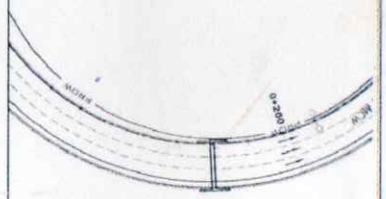


VIEW 3-3
(SCALE 1:50)

SCHEDULE OF PIPE CULVERT

S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											Cu1 (LHS)	Cu2 (RHS)
01	0+180.00	1	1.200	0.120	15.707	16.045	16.382	7.500	7.556	7.341	6.595	7.258

TO KANDLA BYPASS — TO GANDHIDAM



PROPOSED PC (B TO A)	
PROP. CH.	: 0+180
SPAN	: 1 x 1.2m

KEY PLAN
(SCALE 1:1)

NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. THIS DRAWING SHOULD NOT BE SCALED, ONLY WRITTEN DIMENSION TO BE FOLLOWED.
3. LONGITUDINAL SLOPE OF PIPE SHOULD BE MINIMUM OF 1 IN 1000
4. PITCHING AND REVETMENT SHALL BE DONE AS PER IRC SP-13
5. ALL RCC PIPES TO BE OF GRADE NP4 CONFORMING TO IS 458.
6. 150mm FILTER MEDIA SHALL BE PLACED BENEATH STONE PITCHING.
7. CULVERT HEADWALLS ARE AS PER SP-13 OF IRC.
8. THE BEDDING BELOW THE PIPE AND FOUNDATION FOR HEADWALL SHALL BE PLACED OVER A FIRM STRATA.
9. IN BLACKCOTTON REGION PROVIDE 500mm THICK BOULDER FILLING BELOW PIPE BEDDING AND BELOW HEADWALL, BOULDER FILLING CONSISIT OF QUARRY DUST (6mm DOWN IS SEIVE) AND BOULDERS WITH 95% COMPACTION.
10. PIPE LAYING AND PIPE SHALL BE JOINED BY INTERNAL FLUSH JOINT AS PER I.S.458 & MORTH SPECIFICATIONS CL.2900
11. THE LENGTH OF PIPE IS MENTIONED 2500 (TYP.) BUT IN CASE IF LENGTH REQUIRED IS LESS THAN 2500 THEN LENGTH OF CULVERT ADJUSTED ACCORDINGLY.
12. THIS DRAWING SHALL BE READ IN CONJUCTION WITH RELEVANT HIGHWAY DRAWINGS FRL & CAMBER,SUPER ELEVATION AT PARTICULAR LOCATION SHALL BE VERIFIED WITH THE HIGHWAY DRAWING.
13. ENCASING SHALL BE PROVIDED AS MENTIONED IN DRAWING IN CASE CUSHION OVER PIPE IS LESS THAN 600mm EXCLUDING ROAD CRUST AS PER IRC:SP-84:2014.
14. AFTER INSTALLATION OF PIPES, THE GAPS IN BETWEEN THE PIPES SHALL BE FILLED WITH CEMENT SAND MORTAR.
15. DISCREPANCY IF ANY IS TO BE IMMEDIATELY BROUGHT IN TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
16. SEISMIC ZONE - V
17. AT THE ENDS OF CULVERT ADQUATE CUTOFF WALL SHOULD BE PROVIDE IN FOLLOWING CASES.

A) WHERE INVERT LEVEL IS HIGHER THAN GROUND LEVEL AT ENDS OF CULVERTS

B) WHERE UNSUITABLE SOIL IS REPLACE BY GRANULAR MATERIAL

18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS 1786
19. CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
20. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION.

NITYA NAYRA CIVIL SOLUTIONS Proof Consultant BHOPAL

FORGIVING ROADS LLP Safety Audit GURUGRAM

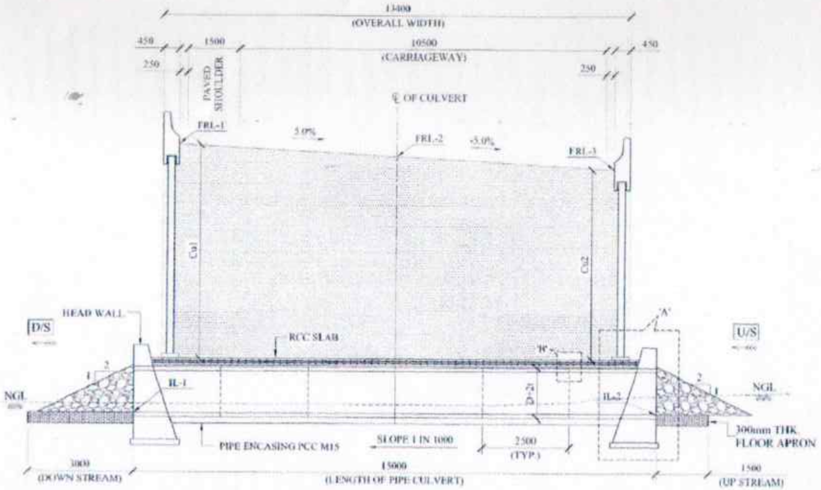
Dy. GENERAL MANAGER. (P) IPRCL

Design Director Niraj Patel JV

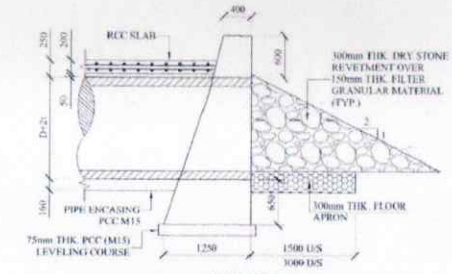
FOR REVIEW & APPROVAL

EMPLOYER	DEENDAYAL PORT TRUST
CLIENT	INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)
EPC CONTRACTOR	M/s. NIRAJ-PATEL JV
DESIGN CONSULTANT	M/s. NIVEDTA CONSULTANTS
PROOF CONSULTANT	M/S NITYA NAYRA CIVIL SOLUTIONS PVT. LTD. BHOPAL
SAFETY CONSULTANT	M/S. FORGIVING ROADS LLP GURUGRAM
THIRD PARTY PROOF CONSULTANT	Indian Institute of Technology (BHU) Varanasi
PROJECT	CONSTRUCTION OF NEW FLYOVER CUM ROAD OVER RAILWAY BRIDGE AT LC 236 (KUTCH SALT JUNCTION) ON NH 141 (NH 8A) & IN THE STATE OF GUJARAT UNDER EPC MODE
PREPARED	PK/MT
DESIGNED	MT/PK
CHECKED	S.C.
APPROVED	
TITLE	GAD OF PIPE CULVERT AT CH:- 0+180 (B TO A)
DATE	03-10-2020
SCALE	AS SHOWN
SIZE	A2
DRG. NO	LC236-KUTCH-JUN-NH-141-ST-PC-110
SHEET	1 OF 1
REV	R0

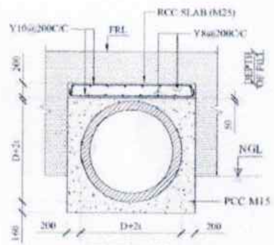
Annexure VII (13)



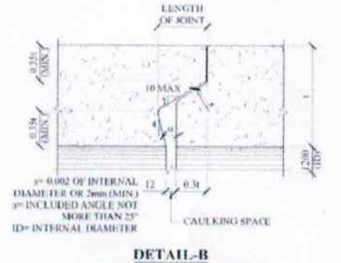
SECTION 1-1
(SCALE 1:100)



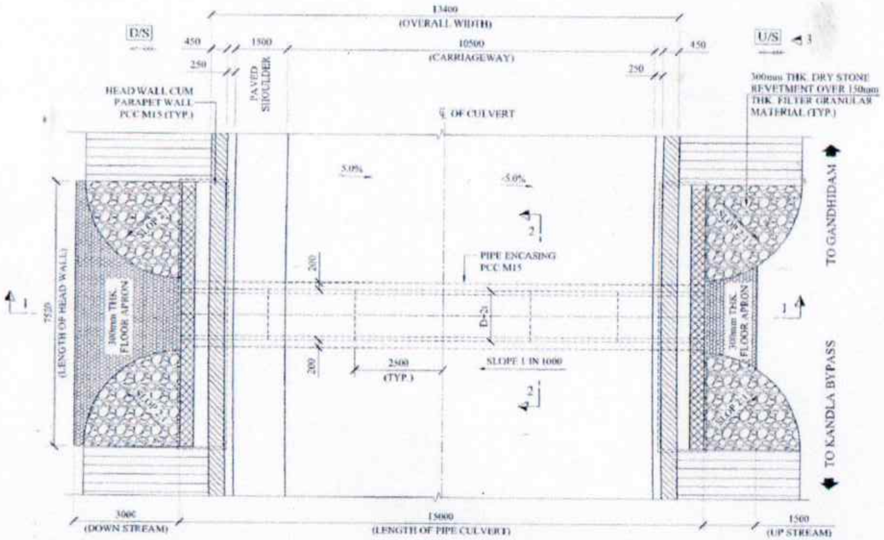
DETAIL-A
(SCALE 1:50)



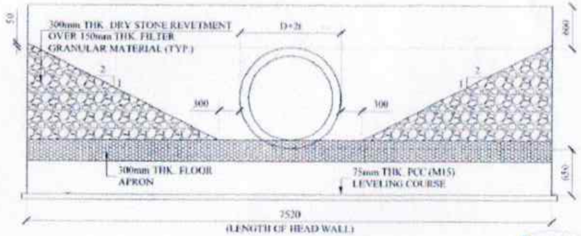
SECTION 2-2
(SCALE 1:50)



DETAIL-B
INTERNAL FLUSH JOINT
(SCALE 1:4)



PLAN
(SCALE 1:100)



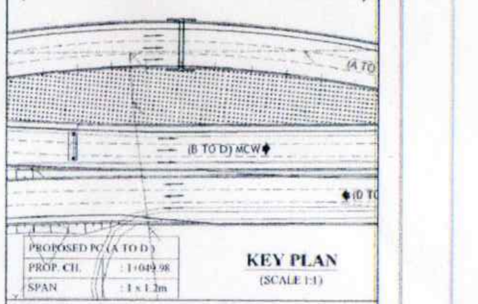
VIEW 3-3
(SCALE 1:50)

Design Director
Niraj Patel JV

SCHEDULE OF PIPE CULVERT

S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											Cu1 (LHS)	Cu2 (RHS)
01	1+049.98	1	1.200	0.120	15.021	14.708	14.396	7.650	7.379	7.394	6.070	5.433

Jt. GENERAL MANAGER. (P)
IPRCL, GANDHIDHAM



KEY PLAN
(SCALE 1:1)

NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. THIS DRAWING SHOULD NOT BE SCALED, ONLY WRITTEN DIMENSION TO BE FOLLOWED.
3. LONGITUDINAL SLOPE OF PIPE SHOULD BE MINIMUM OF 1 IN 1000
4. PITCHING AND REVETMENT SHALL BE DONE AS PER IRC SP:13
5. ALL RCC PIPES TO BE OF GRADE NP4 CONFORMING TO IS 458.
6. 150mm FILTER MEDIA SHALL BE PLACED BENEATH STONE PITCHING.
7. CULVERT HEADWALLS ARE AS PER SP-13 OF IRC
8. THE BEDDING BELOW THE PIPE AND FOUNDATION FOR HEADWALL SHALL BE PLACED OVER A FIRM STRATA.
9. IN BLACKCOTTON REGION PROVIDE 500mm THICK BOULDER FILLING BELOW PIPE BEDDING AND BELOW HEADWALL, BOULDER FILLING CONSISIT OF QUARRY DUST (6mm DOWN IS SEIVE) AND BOULDERS WITH 95% COMPACTION.
10. PIPE LAYING AND PIPE SHALL BE JOINED BY INTERNAL FLUSH JOINT AS PER I.S.458 & MORTH SPECIFICATIONS CL.2900
11. THE LENGTH OF PIPE IS MENTIONED 2500 (TYP.) BUT IN CASE IF LENGTH REQUIRED IS LESS THAN 2500 THEN LENGTH OF CULVERT ADJUSTED ACCORDINGLY.
12. THIS DRAWING SHALL BE READ IN CONJUCTION WITH RELEVANT HIGHWAY DRAWINGS FRL & CAMBER,SUPER ELEVATION AT PARTICULAR LOCATION SHALL BE VERIFIED WITH THE HIGHWAY DRAWING.
13. ENCASING SHALL BE PROVIDED AS MENTIONED IN DRAWING. IN CASE CUSHION OVER PIPE IS LESS THAN 600mm EXCLUDING ROAD CRUST AS PER IRC:SP-84:2014.
14. AFTER INSTALLATION OF PIPES, THE GAPS IN BETWEEN THE PIPES SHALL BE FILLED WITH CEMENT SAND MORTAR.
15. DISCREPANCY IF ANY IS TO BE IMMEDIATELY BROUGHT IN TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
16. SEISMIC ZONE - V
17. AT THE ENDS OF CULVERT ADQUATE CUTOFF WALL SHOULD BE PROVIDE IN FOLLOWING CASES.
A) WHERE INVERT LEVEL IS HIGHER THAN GROUND LEVEL AT ENDS OF CULVERTS
B) WHERE UNSUITABLE SOIL IS REPLACE BY GRANULAR MATERIAL
18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS:1786 CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
19. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION.

FOR REVIEW & APPROVAL

EMPLOYER:- DEENDAYAL PORT TRUST

CLIENT:- INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)

EPC CONTRACTOR:- M/s. NIRAJ-PATEL JV

DESIGN CONSULTANT: M/s. NIVEDITA CONSULTANTS, ARCHITECTURAL, CIVIL AND STRUCTURAL ENGINEERING CONSULTANTS

PROOF CONSULTANT: M/S NITYA NAYRA CIVIL SOLUTIONS PVT. LTD. BHOPAL

SAFETY CONSULTANT: M/S FORGIVING ROADS LLP GURUGRAM

THIRD PARTY PROOF CONSULTANT: Indian Institute of Technology (BHU) Varanasi

PROJECT:- CONSTRUCTION OF INTERCHANGE CUM ROAD OVER BRIDGE ... IN THE STATE OF GUJARAT UNDER EPC MODE

PREPARED	MOHIT
DESIGNED	NITIN
CHECKED	A.C.
APPROVED	

TITLE: **GAD OF PIPE CULVERT AT CH:- 1+049.98 (A TO D)**

DATE: 18-09-2020

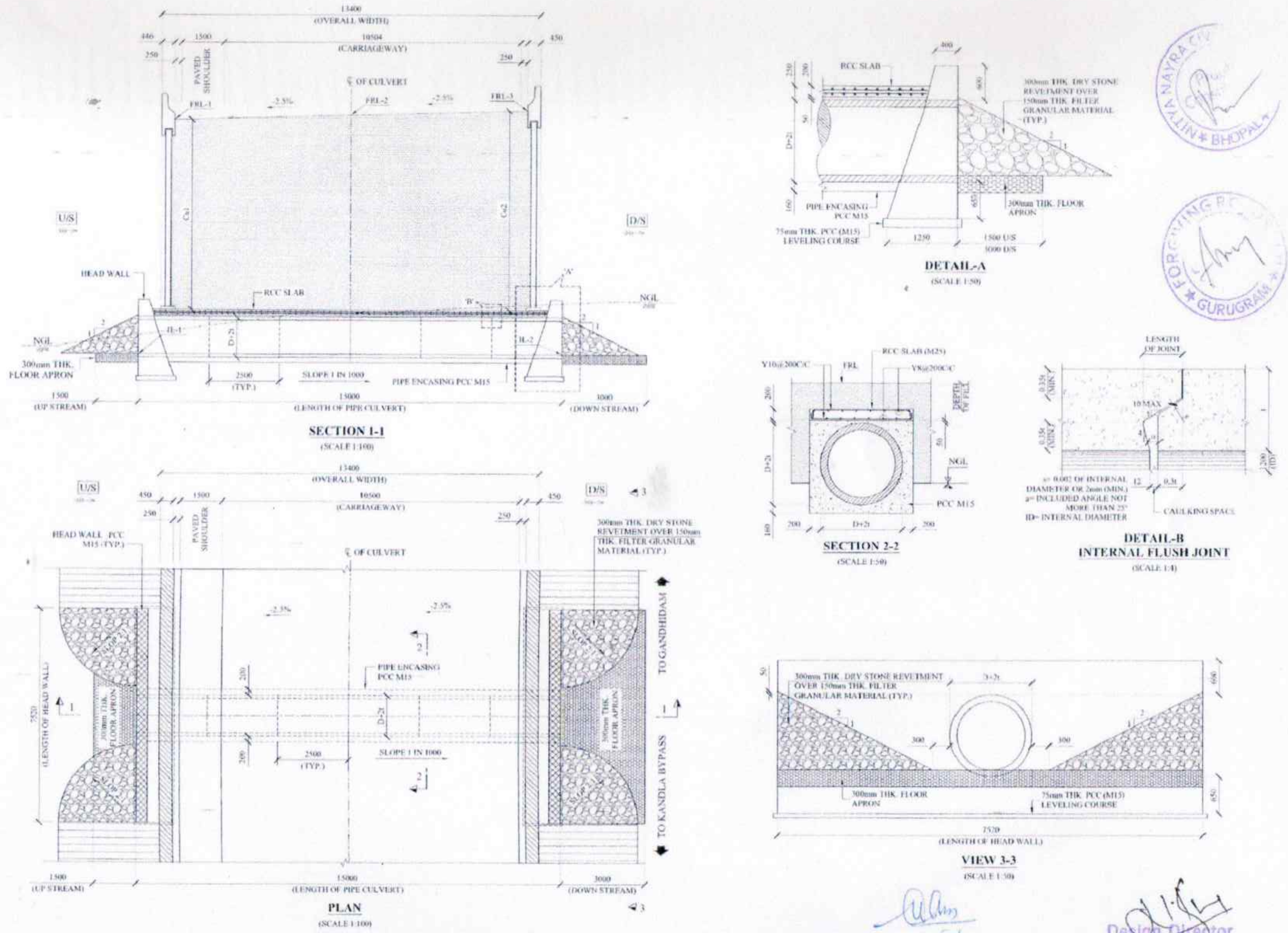
SCALE: AS SHOWN | SIZE: A2

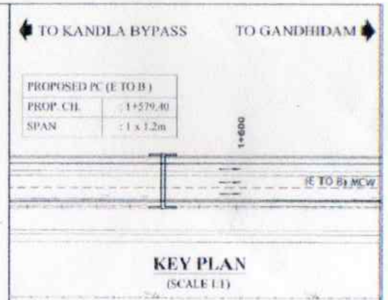
DRG. NO: LC236-KUTCH-JUN-NH-141-ST-PC-111

SHEET: 1 OF 1

REV: R0

Annexure VI C (14)





KEY PLAN
(SCALE 1:1)

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18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS 1786 CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
19. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION

Design Director
Niraj Patel JV

SCHEDULE OF PIPE CULVERT

S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											Cu1 (LHS)	Cu2 (RHS)
01	1+579.40	1	1.200	0.120	15.853	16.009	16.166	8.340	7.606	7.591	6.678	7.003

Jt. GENERAL MANAGER (P)
IPRCL/GANDHIDHAM

FOR REVIEW & APPROVAL

EMPLOYER	CLIENT	EPC CONTRACTOR	DESIGN CONSULTANT	PROOF CONSULTANT	SAFETY CONSULTANT	THIRD PARTY PROOF CONSULTANT	PROJECT
DEENDAYAL PORT TRUST, P.O. BOX NO. - 50, ADMIN OFFICE BUILDING, TAGORE ROAD, GANDHIDHAM (KUTCH), GUJARAT- 370201	INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)	M/s. NIRAJ-PATEL JV	M/s. NIVEDITA CONSULTANTS, ARCHITECTURAL, CIVIL AND STRUCTURAL ENGINEERING CONSULTANTS	M/S NITYA NAYRA CIVIL SOLUTIONS PVT. LTD. BHOPAL	M/S FORGIVING ROADS LLP GURUGRAM	Indian Institute of Technology (BHU) Varanasi	CONSTRUCTION OF INTERCHANGE CUM ROAD OVER BRIDGE (ROB) AT LC 236 (KUTCH SALT JUNCTION) ON NH 141 (PHASE II) IN THE STATE OF GUJARAT UNDER EPC MODE

PREPARED	MOHIT
DESIGNED	NITIN
CHECKED	A.C.
APPROVED	

TITLE: **GAD OF PIPE CULVERT AT CH:- 1+579.4 (E TO B)**

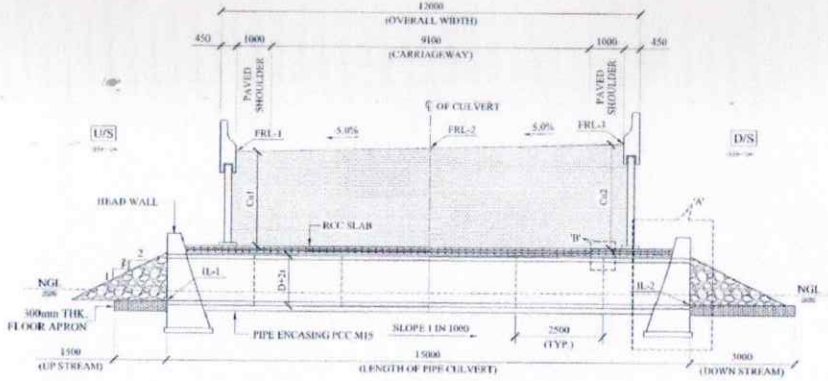
DATE: 03-10-2020

SCALE: AS SHOWN — SIZE: A2

DRG. NO.: LC236-KUTCH-JUN-NH-141-ST-PC-112

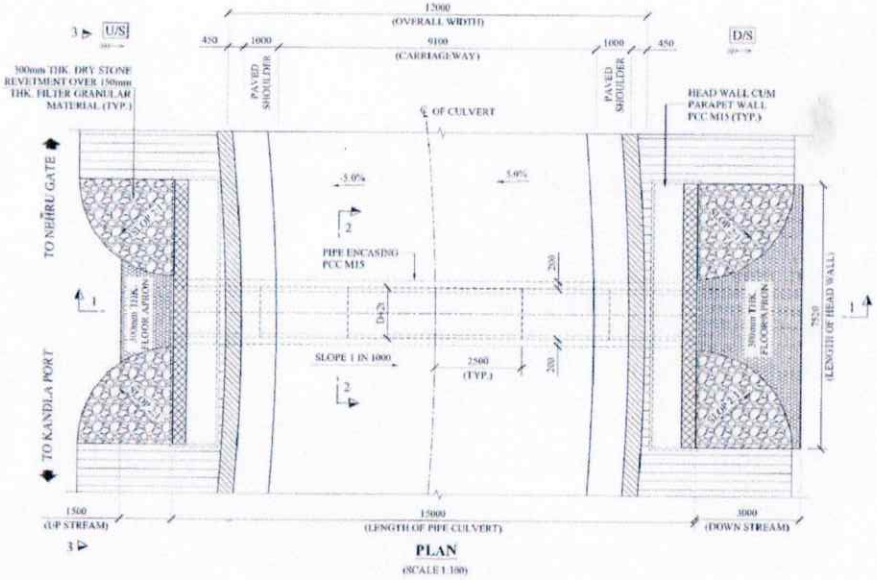
SHEET: 1 OF 1 — REV: R0

Annexure D1 C 157



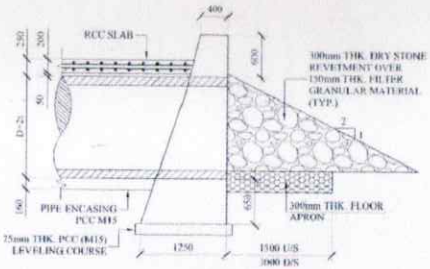
SECTION 1-1

(SCALE 1:100)



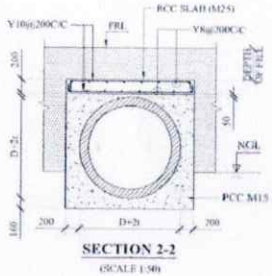
PLAN

(SCALE 1:100)



DETAIL-A

(SCALE 1:50)



SECTION 2-2

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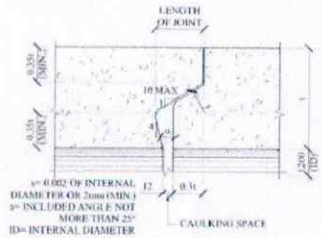
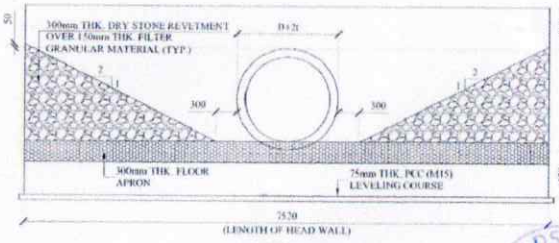


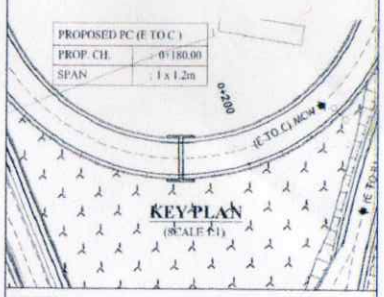
DETAIL-B
INTERNAL FLUSH JOINT

(SCALE 1:4)



VIEW 3-3

(SCALE 1:50)



KEY PLAN

(SCALE N.T.)

SCHEDULE OF PIPE CULVERT

S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF SILL (m) AT OUTER EDGE	
											Col (LHS)	Co2 (RHS)
01	0+180.00	1	1.200	0.120	11.977	12.116	12.255	7.960	3.718	3.703	2.691	2.979

NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
2. THIS DRAWING SHOULD NOT BE SCALED, ONLY WRITTEN DIMENSION TO BE FOLLOWED.
3. LONGITUDINAL SLOPE OF PIPE SHOULD BE MINIMUM OF 1 IN 1000.
4. PITCHING AND REVETMENT SHALL BE DONE AS PER IRC SP:13
5. ALL RCC PIPES TO BE OF GRADE NP4 CONFORMING TO IS 458.
6. 150mm FILTER MEDIA SHALL BE PLACED BENEATH STONE PITCHING.
7. CULVERT HEADWALLS ARE AS PER SP-13 OF IRC.
8. THE BEDDING BELOW THE PIPE AND FOUNDATION FOR HEADWALL SHALL BE PLACED OVER A FIRM STRATA.
9. IN BLACKCOTTON REGION PROVIDE 500mm THICK BOULDER FILLING BELOW PIPE BEDDING AND BELOW HEADWALL., BOULDER FILLING CONSISIT OF QUARRY DUST (6mm DOWN IS SEIVE) AND BOULDERS WITH 95% COMPACTION.
10. PIPE LAYING AND PIPE SHALL BE JOINED BY INTERNAL FLUSH JOINT AS PER I.S.458 & MORTH SPECIFICATIONS CL.2900
11. THE LENGTH OF PIPE IS MENTIONED 2500 (TYP.) BUT IN CASE IF LENGTH REQUIRED IS LESS THAN 2500 THEN LENGTH OF CULVERT ADJUSTED ACCORDINGLY.
12. THIS DRAWING SHALL BE READ IN CONJUCTION WITH RELEVANT HIGHWAY DRAWINGS FRL & CAMBER,SUPER ELEVATION AT PARTICULAR LOCATION SHALL BE VERIFIED WITH THE HIGHWAY DRAWING.
13. ENCASING SHALL BE PROVIDED AS MENTIONED IN DRAWING. IN CASE CUSHION OVER PIPE IS LESS THAN 600mm EXCLUDING ROAD CRUST AS PER IRC:SP-84:2014.
14. AFTER INSTALLATION OF PIPES, THE GAPS IN BETWEEN THE PIPES SHALL BE FILLED WITH CEMENT SAND MORTAR.
15. DISCREPANCY IF ANY IS TO BE IMMEDIATELY BROUGHT IN TO THE NOTICE OF ENGINEER FOR NECESSARY MODIFICATION IN THE DRAWING.
16. SEISMIC ZONE - V
17. AT THE ENDS OF CULVERT ADQUATE CUTOFF WALL SHOULD BE PROVIDE IN FOLLOWING CASES.

A) WHERE INVERT LEVEL IS HIGHER THAN GROUND LEVEL AT ENDS OF CULVERTS

B) WHERE UNSUITABLE SOIL IS REPLACE BY GRANULAR MATERIAL

18. GRADE OF STEEL SHALL BE Fe-500D CONFORMING TO IS:1786 CLEAR COVER TO ENCASING SLAB SHALL BE 25mm
19. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION.

NIRYA NAYRA CIVIL SOLUTIONS PVT. LTD. BHOPAL

FORCE FOR LIVING ROADS LLP GURUGRAM

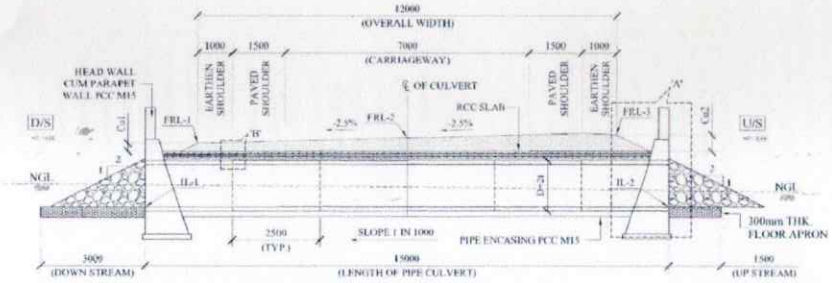
Design by Nirav Patel JV

JT. GENERAL MANAGER (P)

FOR REVIEW & APPROVAL

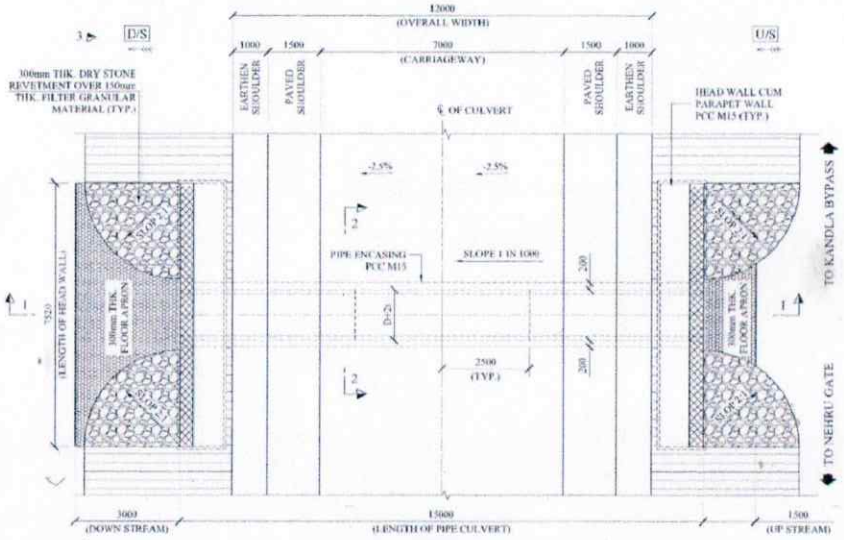
EMPLOYER:-	DEENDAYAL PORT TRUST		
CLIENT:-	INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)		
EPC CONTRACTOR:-	M/s. NIRAJ PATEL JV		
DESIGN CONSULTANT:-	M/S. NIVEDITA CONSULTANTS		
PROOF CONSULTANT:-	M/S NIRYA NAYRA CIVIL SOLUTIONS PVT. LTD. BHOPAL		
SAFETY CONSULTANT:-	M/S FORGIVING ROADS LLP GURUGRAM		
THIRD PARTY PROOF CONSULTANT:-	Indian Institute of Technology (BHU) Varanasi		
PROJECT:-	CONSTRUCTION OF INTERCHANGE ON ROAD OVER BRIDGE (ROB) AT LC 236 (KUTCH SALT JUNCTION) ON NH-341 SPARSH @ KM THE STATE OF GUJARAT UNDER EPC MODE		
PREPARED	NIHIT	TITLE	GAD OF PIPE CULVERT AT CH:- 0+180 (E TO C)
DESIGNED	NITIN	DATE	18-09-2020
CHECKED	A.K.	SCALE	AS SHOWN
APPROVED		SIZE	A2
		DRG. NO.	LC236-KUTCH-JUN-NH-141-ST-PC-113
		SHEET	1 OF 1
		REV.	R0

Annexure VI (16)



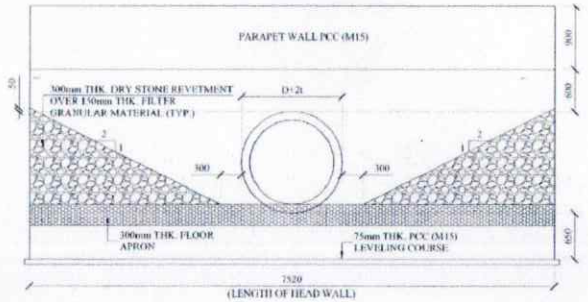
SECTION 1-1

(SCALE 1:100)



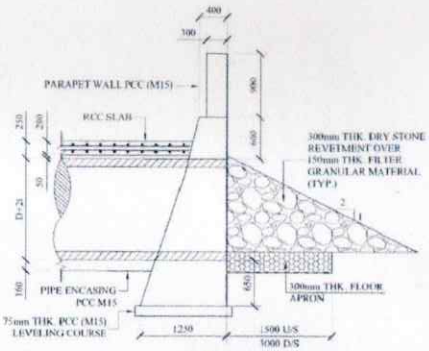
PLAN

(SCALE 1:100)



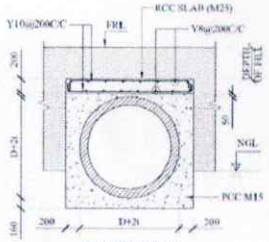
VIEW 3-3

(SCALE 1:50)



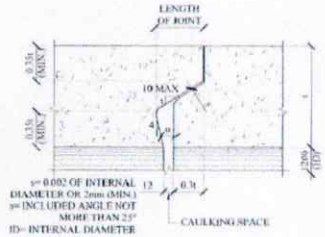
DETAIL-A

(SCALE 1:50)



SECTION 2-2

(SCALE 1:50)

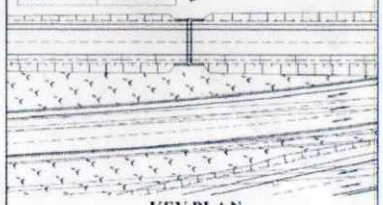


DETAIL-B
INTERNAL FLUSH JOINT

(SCALE 1:4)

TO NEHRU GATE — TO KANDLA BYPASS

PROPOSED PC (C TO B)	
PROP. CH.	: 1+100.00
SPAN	: 1 x 3.2m



KEY PLAN

(SCALE 1:1)

NOTES:-

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE MENTIONED.
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19. LAP LENGTH TO BE PROVIDED AS PER CODEL PROVISION.

SCHEDULE OF PIPE CULVERT

S.NO.	DESIGN CHAINAGE IN "Km"	NO. OF PIPES	DIA. OF PIPE (D) (m)	THK. OF PIPE (t) (m)	FRL-1 (LHS)	FRL-2 (CEN)	FRL-3 (RHS)	NGL (MIN.)	IL-1 (LHS) (m)	IL-2 (RHS) (m)	DEPTH OF FILL (m) AT OUTER EDGE	
											Co1 (LHS)	Co2 (RHS)
01	1+100.00	1	1.200	0.120	9.397	9.552	9.647	8.070	7.589	7.604	0.237	0.475

FOR REVIEW & APPROVAL

EMPLOYER:- DEENDAYAL PORT TRUST	CLIENT:- INDIAN PORT RAIL & ROPEWAY CORPORATION LTD. (IPRCL)	EPC CONTRACTOR:- M/s. NIRAJ-PATEL JV	DESIGN CONSULTANT:- M/S. NIVEDITA CONSULTANTS	PROOF CONSULTANT:- M/S NITYA NAYRA CIVIL SOLUTIONS PVT. LTD. BHOPAL	SAFETY CONSULTANT:- M/S. FORGIVING ROADS LLP GURUGRAM	THIRD PARTY PROOF CONSULTANT:- Indian Institute of Technology (BHU) Varanasi	PROJECT:- CONSTRUCTION OF INTERCHANGE (3D) ROAD OVER RAILWAY BRIDGE AT LC 236 (NORTH SIDE) ALONG NH 141 BYPASS R.W. IN THE STATE OF GUJARAT UNDER EPC MODE

PREPARED	PURVI
DESIGNED	NITIN
CHECKED	A.K
APPROVED	

TITLE: **GAD OF PIPE CULVERT AT CH:- 1+100 (C TO B)**

DATE: 16-09-2020

SCALE: AS SHOWN | SIZE: A2

DRG. NO: LC236-KUTCH-JUN-NH-141-ST-PC-114

SHEET: 1 OF 1 | REV: R0

Jt. GENERAL MANAGER (P) IPRCL SANDHIDHAM

Design Director Niraj Patel JV

NITYA NAYRA CIVIL SOLUTIONS * BHOPAL *

Annexure VII
(In 6 Pages)

Annexure VII C 1)

GPCB

GUJARAT POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN
Sector-10-A, Gandhinagar 382 010
Phone : (079) 23222425
(079) 23232152
Fax : (079) 23232156
Website : www.gpcb.gov.in

By R.P.A.D.

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)-1981 and Authorization under rule 6(2) of the Hazardous & Other Waste (Management & Transboundary Movement) Rules-2016, framed under the Environmental (Protection) Act-1986.

And whereas Board has received application inward No.**118092** dated **23/03/2017** for the **Consolidated Consent and Authorization** (CC&A) of the Board under the provisions / rules of the aforesaid Acts. Consents & Authorization are hereby granted as under:

CONSENTS AND AUTHORISATION:
(Under the provisions /rules of the aforesaid environmental acts)

To
M/s Patel Construction Co,
Plot No:- S.No:- 932,,
Tal:- Anjar,
Dist: Kutch-370 410.

1. **Consent Order No. AWH- 85951 Date of Issue: 11/05/2017**

2. The consent shall be valid up to 22/03/2022 for manufacturing of the following product:

Sr. No.	PRODUCT	QUANTITY MT/ MONTH
1.	Road Paving Material (Hot mix plant)	2500 MT/Month

3. **SUBJECT TO THE FOLLOWING SPECIFIC CONDITIONS:**

3.1 No ground water shall be withdrawal without obtaining prior permission from competent authority.

4. **CONDITIONS UNDER WATER ACT 1974:**

4.1 Industrial effluent generation from manufacturing process and other ancillary operations shall be Nil, as generated waste water shall be recycled & there shall not be waste water discharge.

4.2 The quantity of the Sewage effluent from the factory shall not exceed **0.5 KL/day.**

4.3 The quality of the sewage shall conform to the following standards:

PARAMETER	PERMISSIBLE LIMIT
BOD (3 days at 27° C)	20 mg/L
Suspended Solid	30 mg/L
Residual Chlorine	Minimum 0.5 mg/L

4.4 Unit shall provide sprinkling system to mitigate dusting and also provide pacca road in premises to prevent dusting.

4.5 Sewage shall be disposed off through septic tank / soak pit system.

5. CONDITIONS UNDER AIR ACT 1981:

5.1 The following shall be used as fuel in D.G. Set.

Sr.No.	Fuel	Quantity
1.	LDO	45 ltr/hr

5.2 The flue gas emission through various stack / Vent of DG sets / Boiler / Furnace Heater shall conform the following standards

Sr. no.	Stack attached to	Stack height in Meters	APCM	Parameter	Permissible limit
1.	D. G. Set-500 KVA (stand by)	11	----	PM SO_2 NOx	150 mg/Nm^3 100 ppm 50 ppm

5.3 The process gas emission from the manufacturing process as well as other ancillary operations shall be as following:-

Sr. no.	Stack attached to	Stack height in meters	Air Pollution Control System	Parameter	Permissible limit
1.	Dryer	11	Dust collector & circulation scrubber	SPM SO_2 NOx	150 mg/NM^3 100 ppm 50 ppm

5.4 The concentration of the following parameters in the ambient air within the premises of the industry shall not exceed the limits specified hereunder as per National Ambient Air Quality Standards issued by MOEF & CC dated 16th November-2009.

Sr. No.	Pollutant	Time Weighted Average	Concentration in Ambient air in µg/M^3
1.	Sulphur Dioxide (SO_2)	Annual 24 Hours	50 80
2.	Nitrogen Dioxide (NO_2)	Annual 24 Hours	40 80
3.	Particulate Matter (Size less than 10 µm) OR PM_{10}	Annual 24 Hours	60 100
4.	Particulate Matter (Size less than 2.5 µm) OR $PM_{2.5}$	Annual 24 Hours	40 60

Annexure VII (3)

GUJARAT POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN
Sector-10-A, Gandhinagar 382 010
Phone : (079) 23222425
(079) 23232152
Fax : (079) 23232156
Website : www.gpcb.gov.in

5.5 The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted / displayed to facilitate identification.

5.6 The concentration of Noise in ambient air within the premises of industrial unit shall not exceed following levels:

Between 6 A.M. to 10 P.M.: 75 dB (A)
Between 10 P.M. to 6 A.M.: 70 dB (A)

6. Authorization under Hazardous and other waste [Management, Transboundary Movement] Rules, 2016 & amended.

6.1 **Authorization Number: AWH – 85951 and shall valid up to 22/03/2022.**

6.2 **M/s Patel Construction Co,**is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at, **Plot No:- S.No:- 932, Tal:- Anjar, Dist: Kutch-370 410.**

Sr. No.	Waste	Quantity per Annum	Category	Mode of Disposal
1.	Used Oil	0.2 T	5.1	Collection, storage, Transportation, Disposal by selling out to registered recyclers/re-processer

6.3 The 4.authorization is granted to operate a facility for collection, storage, within factory premises, transportation, and ultimate disposal of Hazardous wastes at TSDF.

6.4 The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

6.5 GENERAL CONDITIONS OF AUTHORIZATION:

1. The authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.

4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
5. Hazardous Waste generated shall be disposed off in accordance with the Hazardous Waste & other waste(Management & Transboundary Movement) Rules, 2016 as amended and unit shall have to obtain authorization of the Board for all applicable categories of Hazardous wastes.
   (a) Used oil / spent oil shall be disposed off by selling it to registered re-refiner units only.
   (b) Oily sludge from separators shall be dispose or of selling it to registered re- refiners unit only.
   (c) ETP sludge shall be disposed of at TSDF approved by the Board.
   (d) Used batteries shall be sold to the GPCB authorized dealers.
6. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
7. It is the duty of the authorized person to take prior permission of the State Pollution Control Board to close down the facility.
8. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
9. The record of consumption of hazardous and other wastes shall be maintained.
10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
11. An application for the renewal of an authorization shall be made as laid down under these Rules.
12. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
13. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.

7. GENERAL CONDITIONS

7.1 Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.

Annexure II (5)

GUJARAT POLLUTION CONTROL BOARD
PARYAVARAN BHAVAN
Sector-10-A, Gandhinagar 382 010
Phone : (079) 23222425
(079) 23232152
Fax : (079) 23232156
Website : www.gpcb.gov.in

7.2 The waste generator shall be totally responsible for (i.e. Collection, storage, transportation and ultimate disposal) of the wastes generated.

7.3 Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form – 4 by 31st January of every year.

7.4 In case of any accident, details of the same shall be submitted in Form – 5 to Gujarat Pollution Control Board.

7.5 Applicant shall comply relevant provision of "Public Liability Insurance Act – 91".

7.6 Empty drums and containers of toxic and hazards material shall be treated as per guideline published for "management & handling of discarded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.

7.7 In no case any kind of hazardous waste shall be imported without prior approval of appropriate authority.

7.8 Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of 10 meters width is developed.

7.9 The applicant shall however, not without the prior consent of the Board bring into use any new or altered outlet for the discharge of effluent or gaseous emission or sewage waste from the proposed industrial plant. The applicant is required to make applications to this Board for this purpose in the prescribed forms under the provisions of the Water Act-1974, the Air Act-1981 and the Environment (Protection) Act-1986.

7.10 The over all noise level in and around the plant area shall be kept well within the standards by providing noise control measures including engineering control like acoustic insulation hoods, silencers, enclosures etc on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under the Environment (Protection) Act, 1986 & Rules.

7.11 The concentration of Noise in ambient air within the premises of industrial unit shall not exceed following levels:

Between 6 A.M. and 10 P.M.: 75 dB (A)
Between 10 P.M. and 6 A.M.: 70 dB (A)

7.12 In case of transport of hazardous waste to a facility for (i.e. Treatment, Storage and disposal) existing in a state other than the state where hazardous waste are generated, the occupier shall obtain "No Objection certificate" from the state pollution Control Board, the Committee of the concerned state or Union territory Administration where the facility exists.

Annexure VII (6)

7.13 Unit shall take all concrete measures to show tangible results in waste generation reduction, voidance, reuse and recycle. Action taken in this regards shall be submitted within 03 months and also along with Form 4.

7.14 You shall have to display the relevant information with regard to hazardous waste as indicated in the Hon. Supreme Court's order in W.P. No.657 of 1995 dated 14th October 2003.

7.15 Industry shall have to display on-line data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous waste generated within the factory premises.

For and on behalf of
GUJARAT POLLUTION CONTROL BOARD

(Sushil Vegda)
Senior Environment Engineer

NO: PC/ CCA- KUTCH- 1273/GPCB ID: 46211/ 41500 Date: 15/6/17

ISSUED TO:
M/s Patel Construction Co,
Plot No:- S.No:- 932,,
Tal:- Anjar,
Dist: Kutch-370 410.

Annexure VIII
(In 2 Pages)

Annexure VIII (A)

EXIM Gujarat, Friday, June 26, 2020

DEENDAYAL PORT TRUST

N.I.T No. 04 / S.E. (DESIGN)

The State Level Environment Impact Assessment Authority, Goverment of Gujarat has accorded Enviromental and CRZ Clearance for the Deendayal Port Trust Project "Construction of Interchange cum Road Over Bridge (ROB) at LC236 (Kutch Salt Junction) on NH 141 to Nehru Gate of Kandla Port, Gandhidham, Kutch and copies of the clearance letters are available with the Gujarat Pollution Control Board and may also be seen on the Website of the SEIAA / SEAC / GPCB

Sd/-
Chief Engineer
Deendayal Port Trust

NOTICES

NOTICE TO CONSIGNEES

Annexure VIII (2)

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કે અન્ય વાહનમાં મુસાફરી કરતા પ્રવાસીઓ માસ્ક, સેનિટાઈઝરનો ઉપયોગ ન કરતા હોવા છતાં આસાનીથી મુસાફરી કરે છે. કચ્છમાં ફરી કોરોનાનો ડંખ તિક્ષણ બન્યો છે, ત્યારે જો તકેદારી નહીં રાખવામાં આવે તો સ્થિતિ બેકાબૂ બનતા વાર નહીં લાગે.

કે, લોકડાઉન-૪થી એસટી વિભાગ દ્વારા પ્રાયોગીક ધોરણે ડેપો ટુ ડેપોના રૂટ શરૂ કરવામાં આવ્યા હતા અને હવે જિલ્લામાં ૧૭ પીકઅપ સ્ટેન્ડ પણ બનાવામાં આવ્યા છે. જયાં પ્રવાસીઓ બસમાં ચડી શકે છે. તો હવે કચ્છમાં જનજીવન સામાન્ય બની રહ્યું છે. ત્યારે કચ્છમાં એસટીની સેવા રાબેતા મુજબ શરૂ કરવાની

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માંગ ઉઠી
પણ મા
સેવા શરૂ
ગ્રામ્ય
જવા માટે
ન હોવાથ
હજુ શહે
જેના કા
વિસ્તારમ
આવી ત
આશ લગ
એસટી બ
શરૂ કરવા
સરકાર દ્વ
તે અંગે
આવી ન
જ સરકાર
આવશે.
આપવામ
મીટ મંડા

દીનદયાલ પોર્ટ ટ્રસ્ટ

ગુજરાત સરકારના સ્ટેટ લેવલ એનવાયરમેન્ટ ઇમ્પેકટ એસેસમેન્ટ ઓથોરીટી દ્વારા દીનદયાલ પોર્ટ ટ્રસ્ટની પરિયોજના "કન્સ્ટ્રકશન ઓફ ઇંટરચેંજ કમ રોડ ઓવરબ્રિજ (આર.ઓ.બી.) એટ એલસી-૨૩૬ (કચ્છ સોલ્ટ જંકશન) ઓન એન.એચ. ૧૪૧ ટુ નેહરૂ ગેટ ઓફ કંડલા પોર્ટ ગાંધીધામ, કચ્છને પર્યાવરણ અને સી.આર.ઝેડની મંજૂરી આપવામાં આવેલ છે. આ મંજૂરી સંદર્ભેના પત્રોની નકલો રાજય પોલ્યુશન કંટ્રોલ બોર્ડ પાસેથી મળી શકશે. તેમજ એસ.ઇ.આઇ.એ.એ./એસ.ઇ.એસી./ જી.પી.સી.બી.ની વેબસાઇટ પર જોઇ શકાશે.

મુખ્ય ઇજનેર
દીનદયાલ પોર્ટ ટ્રસ્ટ

ANNEXURE- 2

Monitoring the implemental Safe guards Ministry of Environment & Forests
Regional office (WZ), Bhopal.
Monitoring Report (Up to May 2024)
DATA SHEET

Sr. No.	**Particulars**	**Reply**
1.	Project type: River valley/ Mining/Industry/ thermal/nuclear/Other (specify)	Infrastructure and Miscellaneous Projects + CRZ
2.	Name of the project	Construction of Interchange cum Road over Bridge (ROB) at LC-236 (Kutch Salt Junction) On NH-141 in the State of Gujarat under EPC Mode
3.	Clearance Letter (s). OM no and date	SEIAA/GUJ/EC&CRZ/8(b)/728/2020 dated 19/06/2020
4.	Location a) District (s) b) State (s) c) Location/latitude/longitude	 a) Kutch b) Gujarat c) Longitude70°13”Eand Latitude 23°01N
5.	Address for Correspondence a) address of Concerned Project Chief Engineer (with pin code & telephone/telex/fax numbers b) Address of Executive project Engineer/manager/ (with pin code fax numbers)	 a) Chief Engineer, Deendayal Port Authority, Administrative Office Building Annexe Building, First Floor, Post Box No.50 Gandhidham – 370201 b) Superintending Engineer (Harbour), Deendayal Port Authority, A.O. Building, Annex, Post Box No.-50, Gandhidham-Kutch. Gujarat Pin – 370201

<table>
<tr>
<td>6.</td>
<td>Salient features
a) Of the Project

b) Of the Environmental Management Plan</td>
<td>Salient feature of the project

<table>
<tr><th>Sr. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>1.</td><td>Project Name</td><td>Construction Of Interchange Cum Road Over Bridge(ROB) at LC-236 (KUTCH SALT JUNCTION) On NH-141 in the State of Gujarat under EPC Mode</td></tr>
<tr><td>2.</td><td>Activity at the site</td><td>Road over Bridge over railway crossings and a barren stretch</td></tr>
<tr><td>3.</td><td>Length of the Stretch</td><td>14.892 Kms</td></tr>
<tr><td>4.</td><td>Built-up Area</td><td>255148.5 m^2</td></tr>
<tr><td>5.</td><td>Cost of the project</td><td>Rs. 284 Crores</td></tr>
</table>

• Commitment & Policy: The management will strive to provide and implement the Environmental Management Plan that incorporates all issues related to air, water, land and noise.
•Planning: This includes identification of environmental impacts, legal requirements and setting environmental objectives.
•Implementation: This comprises of resources available to the developers, accountability of contractors, training of operational staff associated with environmental control facilities and documentation of measures to be taken.
•Measurement & Evaluation: This includes monitoring, counteractive actions and record keeping</td>
</tr>
<tr>
<td>7.</td>
<td>Production Details during compliance period and (or) during the previous financial year</td>
<td>Not applicable</td>
</tr>
<tr>
<td>8.</td>
<td>Breakup of the project area
a) Submergence area: forest & non-forest</td>
<td>Length of the Stretch: 14.89 kms
Build up Area: 255148.5 m2</td>
</tr>
</table>

	b) Others	No forest land is involved in the project
9.	Breakup of the project affected population with enumeration of those losing houses/dwelling units only agricultural land & landless laborer/artisen a) SC. ST/Adivasis b) Others (please indicate whether these figures are based on any scientific and systematic survey carried out of only provisional figures, if a survey is carried out give details and years of survey).	The habitation and households are near to the proposed project site as the area already falls under the property of port. The villages fall in the 2-10 km. range from the proposed site and hence there will not be much impact to the people.
10.	Financial details a) Project cost as originally planned and subsequent revised estimates and the year of prices reference b) Allocation made for environmental management plans with item wise and year wise break-up c) Benefit cost ratio/Internal rate of Return and the year of assessment Whether (c) includes the cost of environmental management plans so far. d) Actual expenditure incurred on the project e) Actual expenditure incurred on the environmental management plans so	a) Planned Cost: Rs. 232.62 Crores Revised Cost: Rs. 284 Crores b) Allocation made for Environmental Management plan: 15 lakhs c) Not applicable d) 284 Crores

	far.	e) -
11.	Forest land requirement a) The status of approval for diversion of forest land for non-forestry use b) The status of clear felling c) The status of compensatory a forestation, if any d) Comments on the viability & sustainability of compensatory a forestation programmed in the light of actual field experience so far	No forest land is involved in the project
12.	The status of clear felling in non-forestareas (such as submergence area of reservoir, approach roads), if any with quantitative information.	Not applicable.
13.	Status of construction a) Date of commencement (Actual and/orplanned) b) Date of completion (Actual and/or planned)	(a) Date of start of project 01/10/2020. (b) Schedule date of completion 31/03/2023. Actual date of completion 29/05/2023.
14.	Reasons for the delay if the Project is yet to start	Not applicable
15.	Date of site visited a) The dates on which the project was monitored by the regional office on pervious occasion. if any b) The date site visit for this monitoring report	Not applicable
16.	Details of the correspondence with project authorities for obtaining action plans/information on status of compliance to safeguard other than the routine letters for logistic support for site visit. (The first monitoring report may contain the details of all the letters issued so far but the later reports may cover only the letters issued subsequently.)	a) Chief Engineer, Deendayal Port Authority, Administrative Office Building Annexe Building, First Floor, Post Box No.50 Gandhidham – 370201 b) Dy. Chief Engineer, EMC (I/c) Deendayal Port Authority, A.O. Building, Annex, Post Box No.-50, Gandhidham-Kutch. Gujarat Pin – 370201