



BHARATMALA
ROAD TO PROSPERITY



सत्यमेव जयते

No. RO/UK/Chardham/HPC
Government of India

Ministry of Road Transport & Highways
(Chief Engineer-Regional Office)

46/1, Canal Road, Jakhan, Dehradun - 248001 (Uttarakhand)
Phone No. 0135-2738657, email:- romorthddn@gmail.com

Dated:- 25.09.2020

To,

1. The Director General (Borders Roads), Seema Sadak Bhawan, Ring Road, Naraina, New Delhi. (E-mail: bro-dirwest@nic.in, bro-direpc@bro.gov.in).
2. The Managing Director, NHIDCL, 3rd Floor PTI Building, 4, Parliament Street New Delhi. (E-mail:mdnhidcl@gmail.com).
3. Secretary, PWD, Government Uttarakhand Secretariat, 4, Subhash Road, Dehradun-248001. (E-mail: secy-rd-ua@nic.in).

Subject: Hon'ble Supreme Court's Order dated 08.09.2020 in the M.A. 1449/2020 and 08.08.2019 in the matter of Citizens for Green Doon & Ors. Vs. Union of India and Ors. - reg.

Ref: i. Sh. Ravi Chopra, Chairman, HPC letter dated 11.09.2020.
ii. This office letter dated 17.09.2020.

Sir,

This is in reference to letter cited above at (i) which was forwarded vide this office letter cited above at (ii) with request to submit the comments/ compliance report in the specified timeline in this office. The same are still awaited.

2. In compliance to letter dated 11.09.2020 of Chairman, HPC it is requested to put the details of vulnerable slopes & muck dumps which were submitted to HPC vide this office RO/UK/CHARDHAM/HPC dated 11.05.2020 (copy enclosed) in public domain on your respective websites. It is also requested to provide road signages as per IRC Specifications at these locations to warn the road users.

Encl.: As above

Yours faithfully


25/09/2020
(Ankit)

Assistant Executive Engineer
For Chief Engineer-Regional Officer

Copy for necessary action to:

1. The Chief Engineer (NH), PWD, Garhwal Mandal, Yamuna Colony, Dehradun. (E-mail: cenhddn@gmail.com).
2. The Chief Engineer (Project Shivalik), Border Road Organization, IDPL Complex, Virbhadara, Rishikesh. (E-mail: bro-svk@nic.in).
3. The Regional Officer, NHIDCL, C-24, Ajabpur Kalan, Near Bengali Kothi, THDCC, Dehradun. (E-mail: ro.dehradun@nhidcl.com).

Copy for information to:

1. Director General (RD) & Special Secretary, MoRTH, Transport Bhawan, New Delhi- 110001. (E-mail: indresh.pandey@nic.in).
2. Additional Director General (Zone-1), MoRTH, Transport Bhawan, New Delhi- 110001. (E-mail: d.sarangi@nic.in).
3. The Principal Secretary Forest, Govt. of Uttarakhand, Secretariat, 4 Subash Road, Dehradun -248001. (E-mail:secy-for-ua@nic.in).
4. The Chief Engineer (Zone-I), Transport Bhawan, New Delhi- 110001. (E-mail: rahul.gupta@nic.in).

Yours faithfully


(Ankit)

Assistant Executive Engineer
For Chief Engineer-Regional Officer



Regional Office <romorthddn@gmail.com>

Submission of details of vulnerable slopes and muck dump sites- reg.

2 messages

Regional Office <romorthddn@gmail.com>


Mon, May 11, 2020 at 12:45 PM


To: environment.spmguk@gmail.com, arvind singh hyanki hyanki <ahyanki@gmail.com>, ikp5@hotmail.com, "I. K. Pandey" <indresh.pandey@nic.in>, cenh ddn <cenhddn@gmail.com>, bro-svk <bro-svk@nic.in>, info@nhidcl.com
Cc: Virendra Singh Khaira <khairavs@gmail.com>

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Chief Engineer - Regional Officer
Ministry of Road Transport and Highways
Govt. of India
46/1, Canal Road Jakhn
Dehradun
Tel : 0135-2738657

2 attachments

 **submission of details of vulnerable slopes.pdf**
9851K

 **Vulnerable slopes and muck dump sites details.xlsx**
57K

Regional Office <romorthddn@gmail.com>


Mon, Jul 20, 2020 at 4:37 PM


To: rachop@gmail.com

Sir,
PFA the list of vulnerable slopes and muck dumps.

[Quoted text hidden]

2 attachments

 **submission of details of vulnerable slopes.pdf**
9851K

 **Vulnerable slopes and muck dump sites details.xlsx**
57K



No. RO/UK/Chardham/HPC
Government of India

Ministry of Road Transport & Highways
(Chief Engineer-Regional Office)

46/1, Canal Road, Jakhn, Dehradun - 248001 (Uttarakhand)

Dated:- 11.05.2020

To,

The Secretary, Forest & Environment,
Member Secretary, Forest (HPC),
Govt. of Uttarakhand,
4 Subash Raod, Uttarakhand
Secretariat,
Dehradun - 248001

Sub: - Submission of details of vulnerable slopes and muck dump sites- reg.

Sir,

Please refer to your letter no. 05/X-3/19/15(104)/2019 dated 06.03.2020, 12/X-3/19/15(104)/2019 dated 24.04.2020 and 20/X-3/19/15(104)/2019 dated 06.05.2020 vide which it was recommended to undertake survey to identify vulnerable slopes and muck dumping sites.

2. In this regard, the executing agencies has identified the vulnerable slopes and muck dump sites, the details of such vulnerable slopes and muck dumping sites package wise alongwith its chainages and GPS locations, are enclosed herewith of further necessary action. It is to mention that partial details are received from NHIDCL vide letter no. NHIDCL/PMUSRN/HPC/2019-20/CORR/D.2950 dated 13.04.2020 (Copy Enclosed).

Encl.: Excel sheet of details

Yours faithfully

(Kapil Singh)

Executive Engineer

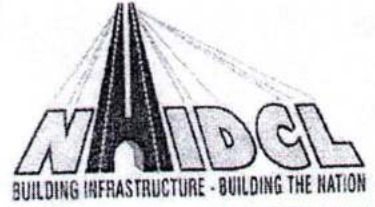
For Chief Engineer-Regional Officer

Copy to:

1. Director General (RD) & Special Secretary, MoRTH, Transport Bhawan, New Delhi-110001 - for information.
2. The Chief Engineer (NH & Bridge), Yamuna Colony Dehradun.
3. The Chief Engineer (Project Shivalik), BRO, Rishikesh.
4. The Director, NHIDCL, PTI Building, Parliament Street New Delhi- to submit complete details at earliest.

राष्ट्रीय राजमार्ग एवं अवसंरचना विकास निगम लिमिटेड

NATIONAL HIGHWAYS & INFRASTRUCTURE DEVELOPMENT CORPORATION LTD
Ministry of Road Transport & Highways, Government of India
PMU- Lane No. 1, ward No. 9, Upper Bhaktiyana, Pauri Road, Srinagar Garhwal,
Uttarakhand, Pin- 246174
E-mail :- nhidclddn2@gmail.com
Contact no :- 01346-253038



A PUBLIC SECTOR UNDERTAKING

Date: 13.04.2020

सामंजसिक क्षेत्र का उपक्रम
NHIDCL/PMUSRN/HPC/2019-20/CORR/D- 2950

To,

CE-RO, MoRT&H,
46/1 Canal Road, Jakhan,
Dehradun, Uttarakhand.

Sub: Construction and Up-gradation to 2-lane with paved shoulder from Km. 368.00 to 430.000 of Lameri to Chamoli of NH-07 on EPC basis in the State of Uttarakhand.
Submission of details of vulnerable slopes & muck dumping site.

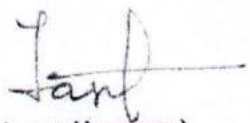
Ref:

- (i) CE-RO, MoRT&H, Dehradun letter no. RO/UK/Chardham/HPC dated 11.03.2020.
- (ii) M/s HEC letter no. 980014/Client/Pkg-I/281 dated 17.03.2020 (Copy enclosed).
- (iii) M/s HEC letter no. 980014/Client/Pkg-II/323 dated 17.03.2020 (Copy enclosed).

Sir,

With reference to your letter mentioned above at reference (i), the details of vulnerable slopes and muck dump sites, as submitted by Authority's Engineer, M/s HEC in Association with M/s L Telford Consulting Eng. Pvt. Ltd. under jurisdiction of this office (Km 360.000 to Km 430.000 of NH-58) is enclosed herewith.

Encl:- As Above.


(Jagat Narayan)
General Manager (P)

Copy to: -

1. NHIDCL, site office-Rudraprayag for information please.
2. Office copy.



Highway Engineering Consultant
in Association with
LTelford Consulting Engineers Pvt. Ltd.



Project Office: #Flat No. 301, FH-17, GTM Forest & Hills, Handwar Road, Mohkampur, Dehradun-248005
Hotel Holidays Home, Shakti Nagar, Main Badmash Road, Karanpryag-246444 (Email-hecitelford.chardham@gmail.com)

Ref: 980014/Client/Pkg-I/281

Date: 17/03/2020

To,
General Manager (Projects)
National Highways & Infrastructure Development Corporation Limited,
Lane no.1, Upper Bhaktiyana,
Opposite G.B.Pant Forestry Institute,
Pauri Road, Srinagar, Uttarakhand
Email ID: nhidclddn2@gmail.com , nhidclddn@gmail.com

Subject: Consultancy services for supervision of : Construction and up gradation of existing road to 2-lane with paved shoulder from Km 368.00 to km 399.00 of Lameri to Karanpryag (Excluding km 379.100 to km 380.275) of NH-07 under Chardham Priyojna of EPC basis in the state of Uttarakhand.

Regarding: submission of details of vulnerable slope and muck dump sites
Reference: 1. Your Letter No. NHIDCL/BOSRN/ALL PKG/2018-19/CORR/D-2908 Dated: 11-03-2020
2. Chief Engineer – RO, Dehradun Letter No. Nil Dated: 11-03-2020
3. Secretary, Forest & Environment Govt. UK DO No. 05/X-3/19/15(104)/2019 Dated: 06-03-2020


Sir,

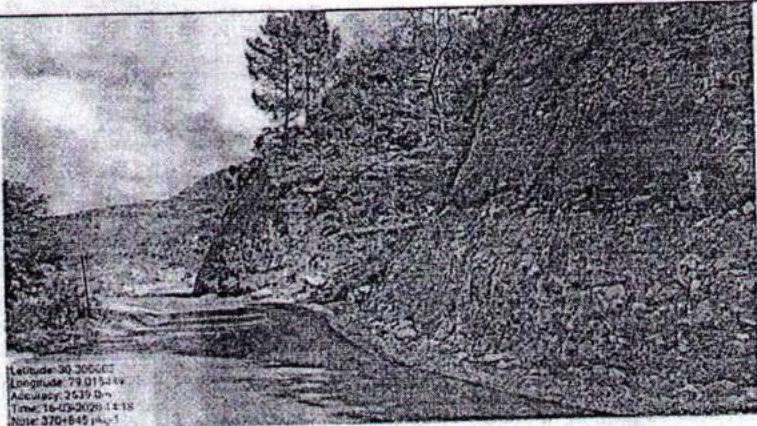
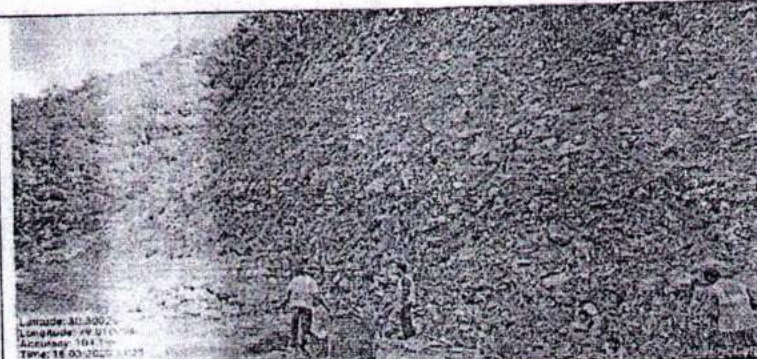

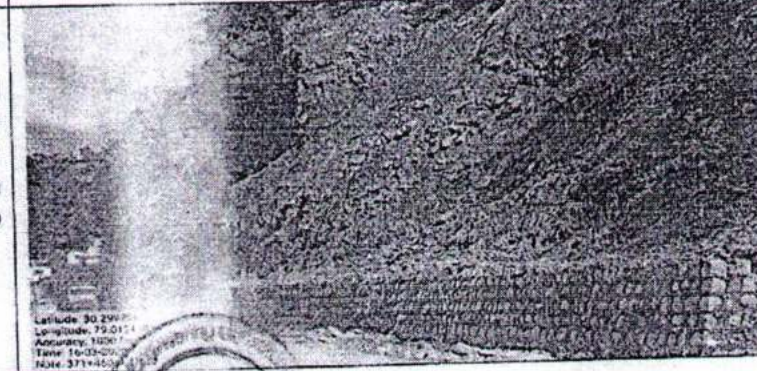
Kindly refer to your letter dated 11-03-2020 cited at serial (1) regarding the subject enclosing therewith letters dated 11-03-2020 and 06-03-2020 from RO, MORT&H, Dehradun and Secretary, Forest & Environment Department, Uttarakhand cited at serial (2) and (3) respectively wherein the information with regard to identification of vulnerable slopes and muck dumping sites are asked for by undertaking quick survey of the project road.

As a follow up action the inspection of above mentioned Contract Package from Km. 368+000 to Km. 399+000 was carried out on 16-03-2020 so as to see physically all such spots/locations which seem to be vulnerable from slide angle or the dump sites which come under the same bracket along with individual photographs.

Our observations and inferences are listed chainage wise as under seriatim: -

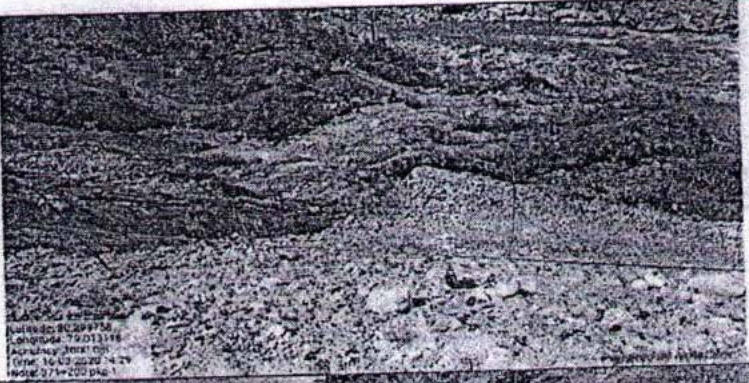
1) Vulnerable slope:- ch. 368+942 to 369+000

Sl. No.	Description	Photographs
1	Vulnerable slope (Ch. 368+942 to Ch. 369+000 & 369+000 to 369+180):- The hill slope face at these two locations is very steep in the range of 70 to 80°. The strata comprises of cobble/round stones intermixed with clay. The hill slope is in a fairly stable condition but requires treatment as per expert advise. Seeding mulching may also be an option keeping in view clayey medium where vegetation may	

grow.		
2	<p>Vulnerable slope (Ch. 370+845 to 370+890):- The hill cut face comprises of pebble/cobble & round stone in a matrix of clayey medium. The exposed slope face is at an angle of about 70° or more and seems to be in a fairly stable condition. Treatment as per the advise of expert is required. However seeding mulching may also be an option keeping in view clayey medium where vegetation can take roots.</p>	 <p>Latitude: 30.306627 Longitude: 79.015449 Accuracy: 2539 Dm Time: 16-03-2025 11:18 Note: 370+845 photo 1</p>
3	<p>Vulnerable slope (Ch. 371+070 to Ch. 371+100):- The slope comprises of rocks, debris intermixed with silty clay and requires treatment for it's stabilization. Height may range from 10-15 mts.</p>	 <p>Latitude: 30.306627 Longitude: 79.015449 Accuracy: 2539 Dm Time: 16-03-2025 11:18 Note: 371+070 photo 1</p>
4	<p>Dumping zone (Ch. 370+130 to Ch. 370+222):- Although toe gabions have been placed for holding the muck/mulba safely; yet raising of their height is required to create free board & restraint against roll over.</p>	
5	<p>Vulnerable Slope (Ch. 371+460 to Ch. 371+236):- The slope face comprises of soil mixed with debris and needs treatment to arrest any destabilization/ roll over of mulba in future & cause obstruction to project road.</p>	 <p>Latitude: 30.29977 Longitude: 79.01177 Accuracy: 3026 Dm Time: 16-03-2025 11:25 Note: 371+460 photo 1</p>

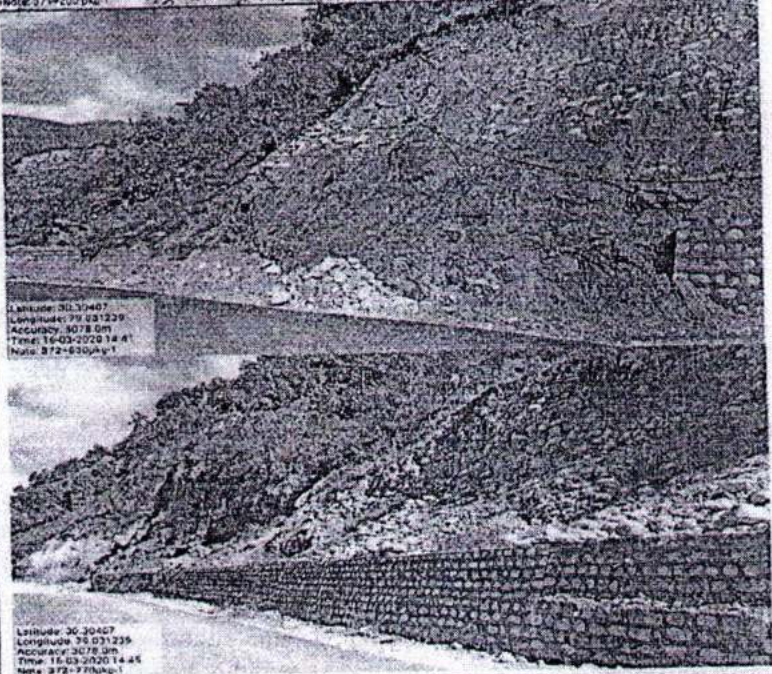


6 **Dumping Zone (Ch. 371+170 to Ch. 371+236):-**
 This dumping site is filled up to top of toe gabion and requires their strengthening and raising so that a free board is created as a restraint against rollover of muck/mulba beyond the bottom limit of the gabions.



Latitude: 30.599758
 Longitude: 75.013118
 Accuracy: 30m
 Time: 16-03-2020 14:29
 Note: 371+236.jpg-1

7 **Vulnerable Slope (a) Ch. 372+630 to Ch. 372+650**
(b) Ch. 372+770 to Ch. 372+810
 The cut faces of hill slopes at both these locations comprises of cobble stones/boulders in a clayey medium. Presently these slopes seem to be in a fairly stable condition but treatment with seeding mulching may be an option besides other stabilization measures as per expert advice.



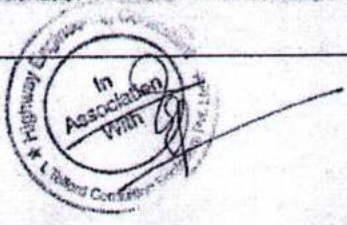
Latitude: 30.314407
 Longitude: 75.051229
 Accuracy: 30.78 m
 Time: 16-03-2020 14:41
 Note: 372+630.jpg-1


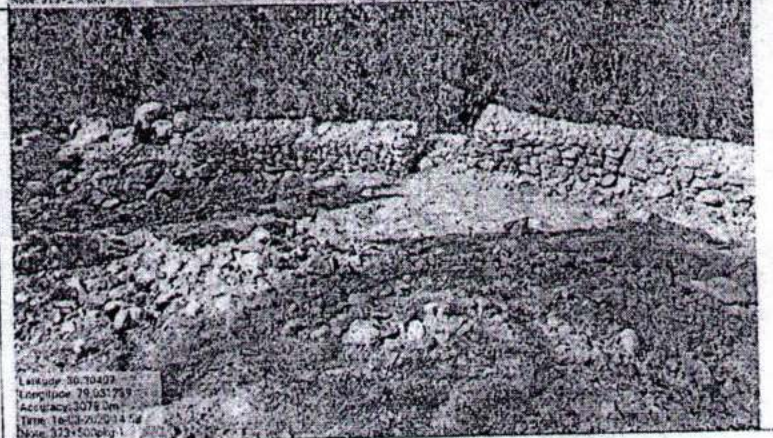
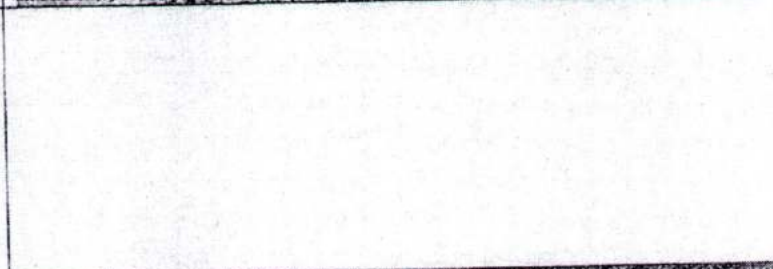
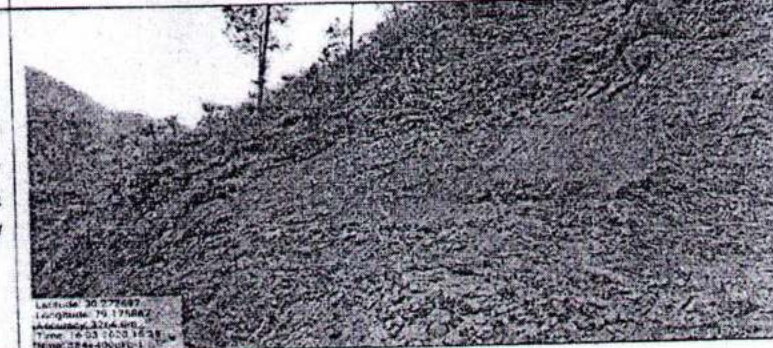
Latitude: 30.30407
 Longitude: 75.051235
 Accuracy: 30.78 m
 Time: 16-03-2020 14:45
 Note: 372+770.jpg-1

8 **Vulnerable Slope (Ch. 372+950 to Ch. 372+970):-**
 The cut face of hill slope comprises of big rocks/stones interspersed with soil & with a steep slope. Although the face slope seems stable at present yet some treatment needs to be visualized for its stability in future as per expert advise



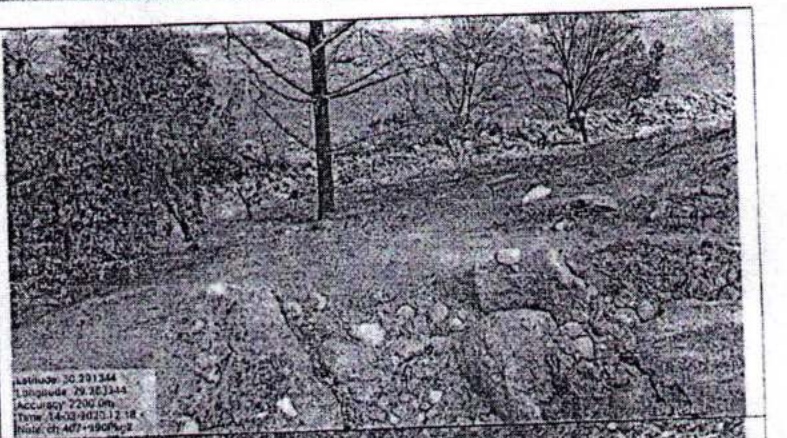


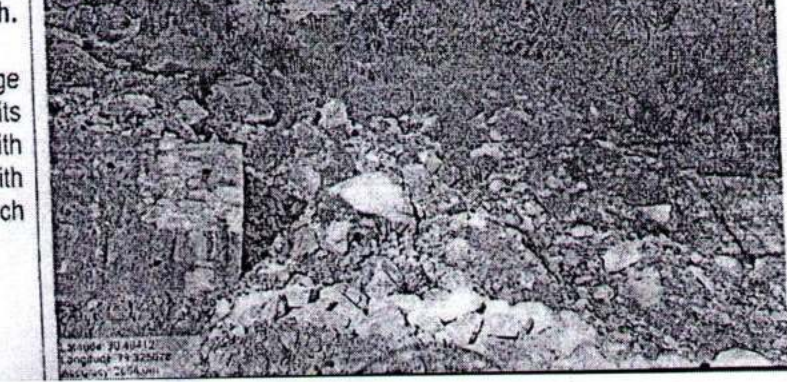
Latitude: 30.30407
 Longitude: 75.051235
 Accuracy: 30.78 m
 Time: 16-03-2020 14:46
 Note: 372+950.jpg-1





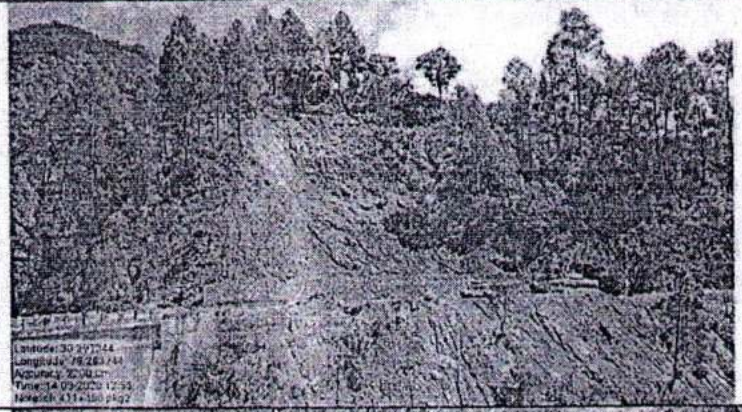

<p>9</p>	<p>Vulnerable Dumping Site (Ch. 373+250 to 373+290):- The slope as usual is in a parabolic shape comprising of big boulders and clay mixture slope is steep & seems fairly stable at present but requires treatment for its sustained stability to avoid road blocks in future.</p>	 <p>Latitude: 30.30407 Longitude: 78.28128 Accuracy: 10.71 Dm Time: 16-03-2020 14:55 Name: 373+250.jpg</p>
<p>10</p>	<p>Vulnerable Dumping Site (Ch. 374+000 to 374+080):- The dumped mulba/muck needs to be properly secured by toe/protection gabions as it seems to be vulnerable at present. This is essential to avoid any likely hazards on this account.</p>	 <p>Latitude: 30.30407 Longitude: 78.00175 Accuracy: 3076 Dm Time: 16-03-2020 14:56 Name: 374+50.jpg</p>
<p>11</p>	<p>Vulnerable Dumping Site (Ch. 375+000 to 375+065):- Although this dumping site seems to be in a fairly good condition yet it requires strengthening/raising of gabions to maintain this site in proper shape.</p>	
<p>12</p>	<p>Vulnerable Slope (Ch. 384+400 to Ch. 384+430):- The hill slope configuration is in the form of fractured/weathered rock with soil/silt mixture. The slope angle is fairly steep & requires treatment for its stability as per expert advise.</p>	 <p>Latitude: 30.27287 Longitude: 78.17582 Accuracy: 3264 Dm Time: 16-03-2020 16:28 Name: 384+400.jpg</p>



<p>2</p>	<p>Vulnerable Dumping Site (Ch. 400+750 to 400+830):- This dumping site is observed to be vulnerable as mulba/dumped material is over shooting the toe gabions and as such raising of these protection gabions is required to arrest over shooting of mulba.</p>	<p>Latitude: 23.270631 Longitude: 78.42574 Elevation: 824.93m Accuracy: 4.6m Time: 03-17-2024 13:11 Note: dumping site Ch. 400+750 to 400+830</p>
<p>3</p>	<p>Vulnerable Slope (Ch. 401+920 to Ch. 401+970):- Within these limits the slope on hill side of road has formed a parabolic slide of about 40 mts. Height at apex enclosed by vegetation/trees on its outer periphery. The composition of material seems silty clay / rock debris.</p>	<p>Latitude: 23.269529 Longitude: 78.424299 Accuracy: 3.66m Time: 14-03-2024 11:30 Note: PV 003+920 to 970 P.02</p>
<p>4</p>	<p>Vulnerable Dumping Site (Ch. 405+520 to Ch. 405+603):- Here also the muck/mulba is over flowing the toe gabion on valley side atop the Kaleshwar village. A culvert is also located at ch. 405+550 raising of toe gabion is required to arrest over shooting of mulba.</p>	<p>Latitude: 23.265779 Longitude: 78.427229 Accuracy: 2.50m Time: 14-03-2024 11:32 Note: ch. Kaleshwar P.02</p>
<p>5</p>	<p>Vulnerable Slope (Ch. 406+320 to Ch. 406+350):- On the hill slope the exposed base rock can be observed with mulba/vegetation growth at its top end. However at times some shooting stone/debris rolls down the slope and could hit the shop of local resident across the other end of road on valley side causing public outcry.</p>	<p>Latitude: 23.266752 Longitude: 78.424252 Accuracy: 2.06m</p>

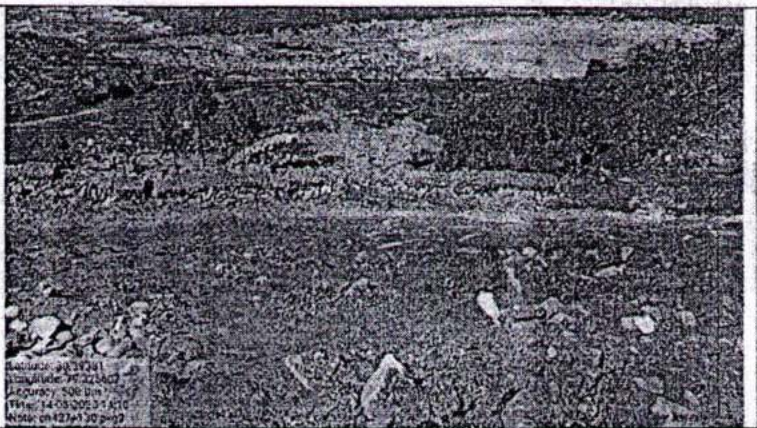
<p>6</p>	<p>Vulnerable Dumping Site (Ch. 407+950 to Ch. 408+100):- Here again the problem of over shooting of dumped mulba/debris is observed which can directly fall into river below and as such requires raising/strengthening of toe gabions to create headroom/restraint to debris flow beyond its limits.</p>	 <p>Latitude: 30.291344 Longitude: 79.282344 Accuracy: 2290.0m Time: 14/03/2012 12:18 Note: Ch.407+950Page 2</p>
<p>7</p>	<p>Vulnerable Dumping Site (Ch. 408+185 to Ch. 408+260):- Here the dump site management is observed to be in fairly better condition but still gabions require raising. A culvert is located within this dump site and cascading arrangement is required to regulate its out flow on valley site to arrest erosion.</p>	 <p>Latitude: 30.291344 Longitude: 79.282344 Accuracy: 2290.0m Time: 14/03/2012 12:24 Note: Ch.408+200 Page 2</p>
<p>8</p>	<p>Vulnerable Dumping Site (Ch. 409+160 to Ch. 409+260):- Presently no over shooting of mulba is taking place but it is filled up to brim and requires raising of gabion along with their extension as well where no protection has been done as yet so that the mulba does not drop into river below. Moreover culvert is also located within the dumping area and needs to be extended to take its outlet outside the dump site.</p>	 <p>Latitude: 30.291344 Longitude: 79.282344 Accuracy: 2290.0m Time: 14/03/2012 12:30 Note: Ch.409+260Page 2</p>
<p>9</p>	<p>Vulnerable Slope (Ch. 409+720 to Ch. 409+740):- This slide spot falls in village Sonla, Nandprayag and its composition is soil mixed with big boulders accompanied with seepage of water due to which its stability is aggravated.</p>	 <p>Latitude: 30.48412 Longitude: 79.325678 Accuracy: 2554.0m</p>



10	Vulnerable Slope (Ch. 410+540 to Ch. 410+580):- The slope apparently seems venerable and needs to be enlisted as such.	 <p>Latitude: 30.213038 Longitude: 79.202663 Elevation: 852.43m Accuracy: 3.5m Time: 17-03-2020 14:52 Note: Hill side at ch.410+540 to 580</p> <p>Powered by Navipoint</p>
11	Vulnerable Slope (Ch. 410+640 to Ch. 410+700):- The slope apparently seems venerable and needs to be enlisted as such.	 <p>Latitude: 30.213038 Longitude: 79.202663 Elevation: 852.43m Accuracy: 3.5m Time: 17-03-2020 14:52 Note: Hill side at ch.410+640 to 700</p>
12	Vulnerable Slope (Ch. 411+400 to Ch. 411+430):- This is a vulnerable slide reach where material composed of clay and round boulders has already slipped down. It is located just before the existing bridge. A village road taking off before this location passes over top of the slide and can threaten the stability of this link road as well.	 <p>Latitude: 30.213038 Longitude: 79.202663 Elevation: 852.43m Accuracy: 3.5m Time: 17-03-2020 14:52 Note: Hill side at ch.411+400 to 430</p>
13	Vulnerable Slope (Ch. 411+480 to Ch. 411+520):- The slope angle is 50°+ composed of exposed rock on bottom portion and clayey media with boulders and debris on its upper portion. An electric transmission tower is located just a few meters at top edge of this slide and may have safety concerns any time. This location is Devlibaagarh.	 <p>Latitude: 30.213038 Longitude: 79.202663 Elevation: 852.43m Accuracy: 3.5m Time: 17-03-2020 14:52 Note: Hill side at ch.411+480 to 520</p>



"The Infra Advisor"

20	Vulnerable Dumping Site (Ch. 427+130 to Ch. 427+265):- This dumping site is observed to be in good shape and no over shooting was observed.	 <p>Latitude: 98.37241 Longitude: 79.22347 Accuracy: 506.0m Elev: 14.0320531 AIG Name: ch427+130 to 265</p>
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The information with regard to vulnerable slopes and dumping sites as above is submitted for favor of further necessary action at your end.

Thanking you and assuring you of our best services always.


Yours faithfully,
Shadi Lal Bhat
Team Leader
HEC-LTCEPL

CC. 1. M/s SCCPL-HCCPL, Contract Package - 2

13 Vulnerable Slope (Ch. 386+500 to Ch. 3386+540):-

The hill slope comprises of sandy soil & rocks and requires treatment for stabilizing this slope for avoiding any rock fall/slip accumulation on project road



14 Vulnerable Slope (Ch. 387+270 to Ch. 387+310):-

The slope height up to its apex is approximately 15 mts. and comprises of soil, weathered rock, debris & is a naturally occurred slide. The spot requires treatment as per expert advise to avoid any interference with traffic on project road in future.



The information with regard to vulnerable slopes and dumping sites as above is submitted for favor further necessary action at your end.

Thanking you and assuring you our best services.



Shah
Team Leader
HEC-LTCEPL



Highway Engineering Consultant

in Association with

L Telford Consulting Engineers Pvt. Ltd.



Project Office: #Flat No. 301, FH-17, GTM Forest & Hills, Haridwar Road, Mohkampur, Dehradun-248005

Hotel Holidays Home, Shakti Nagar, Main Badrinath Road, Karanprayag-246444 (Email: hectelford.chardham@gmail.com)

Ref: 980014/Client/Pkg-II/323

Date: 17-03-2020

To,

The General Manager (Project)

National Highways & Infrastructure Development Corporation Limited,

Lane No.1, Upper Bhaktiyana, Opp. G.B. Pant Forestry Institute,

Pauri Road, Srinagar, Uttarakhand

Email: nhidclddn2@gmail.com

Subject: Construction and Upgradation of existing road to 2-lane with paved shoulder from Km.399.000 to Km.430.000 of Karanprayag to Chamoli (Excluding Km. 420.250 to Km.420.500 and Km.423.300 to Km.423.650) of NH-7(Old-58) under Chardham Pariyojna on EPC basis in the State of Uttarakhand (Regarding submission of details of vulnerable slope and muck dump sites)

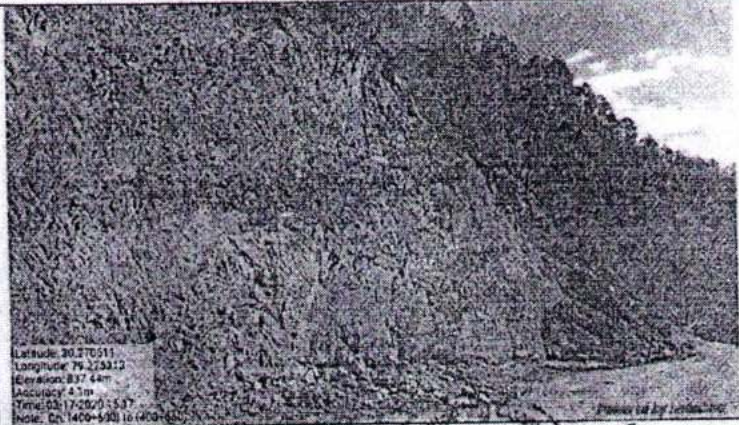
- Reference:**
- | | |
|---|-------------------|
| 1. Your Letter No. NHIDCL/BOSRN/ALL PKG/2018-19/CORR/D-2908 | Dated: 11-03-2020 |
| 2. Chief Engineer – RO, Deheradun Letter No. Nil | Dated: 11-03-2020 |
| 3. Secretary, Forest & Environment Govt. UK DO No. 05/X-3/19/15(104)/2019 | Dated: 06-03-2020 |

Sir,

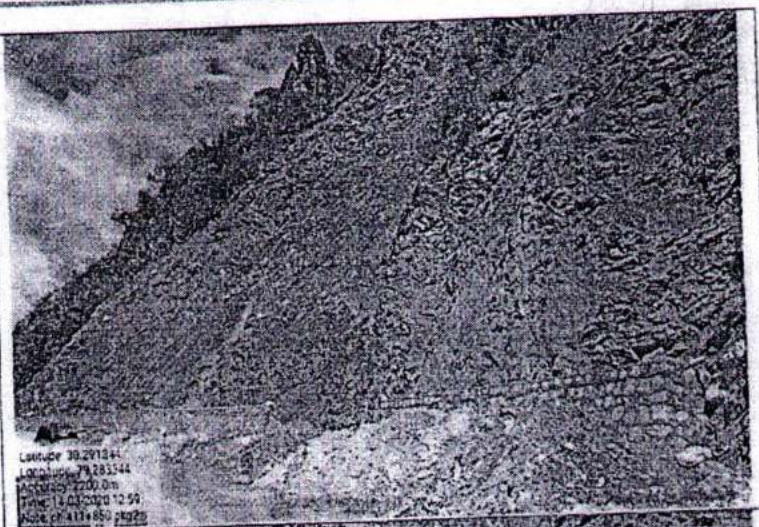
Kindly refer to your letter dated 11-03-2020 cited at serial (1) regarding the subject enclosing therewith letters dated 11-03-2020 and 06-03-2020 from RO, MORT&H, Deheradun and Secretary, Forest & Environment Department, Uttarakhand cited at serial (2) and (3) respectively wherein the information with regard to identification of vulnerable slopes and muck dumping sites are asked for by undertaking quick survey of the project road.

As a follow up action the inspection of above mentioned Contract Package from Km. 399+000 to Km. 430+000 was carried out on 14-03-2020 so as to see physically all such spots/locations which seem to be vulnerable from slide angle or the dump sites which come under the same bracket along with individual photographs.

Our observations and inferences are listed chainage wise as under seriatem: -

Sl. No.	Description	Photographs
1	Vulnerable Slope (Ch. 400+600 to Ch. 400+660):- The slope at this spot is observed to be vulnerable on hill side of the project road between above mentioned limits. The composition of slope is characterized by fractured rock/debris which seemingly has slipped from height of about 50 mts.	 <small>Latitude: 30.270511 Longitude: 79.275312 Elevation: 837.44m Accuracy: 4.7m Time: 03/17/2020 15:53 Note: Ch. 1400+500 to 1400+600</small>

14 **Vulnerable Slope (Ch. 411+850 to Ch. 411+900):-**
 The slope material is composed of sandy malba with fractured debris. The slide area height shall be in the range of about 40 mtrs. and its periphery has vegetation and forest trees



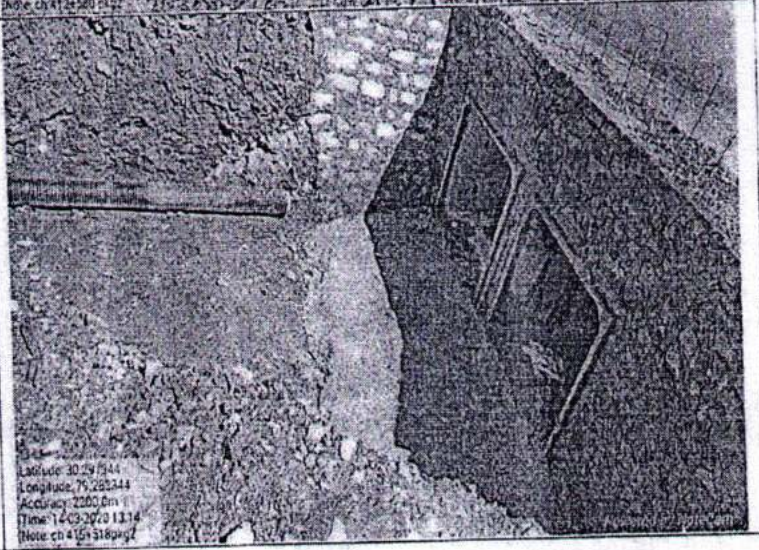
Latitude 30.291344
 Longitude 75.282344
 Accuracy: 2200.0m
 Time: 12-03-2020 12:59
 Note: ch 411+850 p1822

15 **Vulnerable Dumping Site (Ch. 412+550 to Ch. 412+730):-**
 The toe gabions are at present retaining the dumped mulba but require raising for creation of free board to arrest any roll over of muck. Three nos. of culverts fall within the dumping zone which require widening as well as cascading beyond their outlet on valley side to avoid erosion.



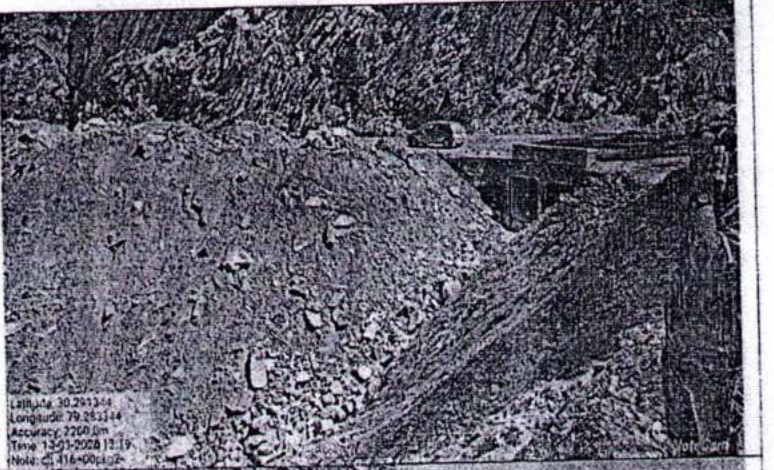
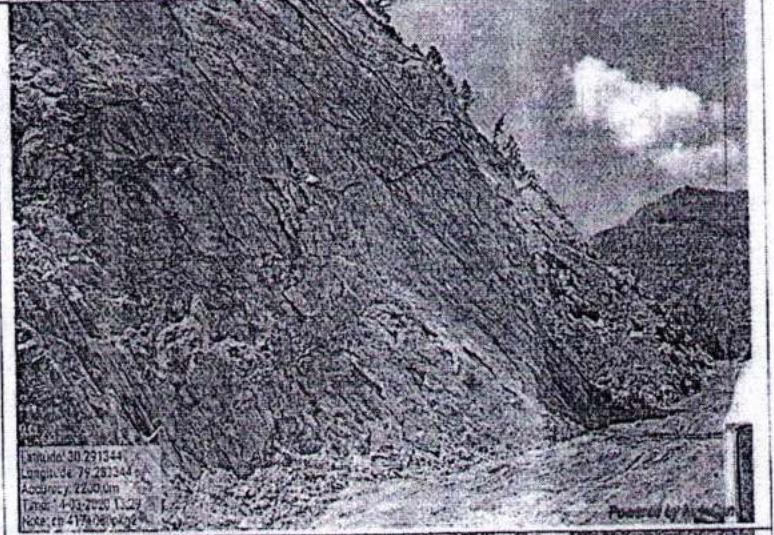
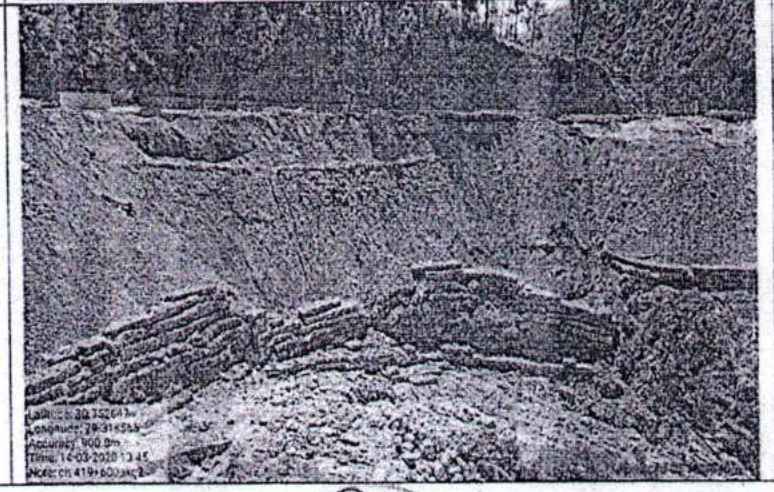
Latitude 30.291344
 Longitude 75.282344
 Accuracy: 2200.0m
 Time: 14-03-2020 13:01
 Note: ch 412+550 p1822

16 **Vulnerable Dumping Site**
 a) Ch. 415+085 to Ch. 415+110
 b) Ch. 415+140 to Ch. 415+194
 c) Ch. 415+330 to Ch. 415+420
 d) Ch. 415+500 to Ch. 415+600
 e) Ch. 415+880 to Ch. 415+977
 Five number dumping sites are included within these chainages close by. Both extending and raising of toe gabions are required for creation of free board to arrest roll over of muck. A culvert at chainage 415+558 is located within the dumping zone and cascading has to be done to regulate its out flow on valley side.



Latitude 30.291344
 Longitude 75.282344
 Accuracy: 2200.0m
 Time: 14-03-2020 13:14
 Note: ch 415+318 p1822



<p>17</p>	<p>Vulnerable Dumping Site (Ch. 415+980 to Ch. 416+110):- This dumping site is fairly well managed. Two nos. culverts at chainage 416+030 and chainage 416+000 shall require cascading on valley side to regulate its out flow discharge.</p>	 <p>Latitude: 30.291344 Longitude: 79.281344 Accuracy: 2200.0m Time: 14-09-2020 12:19 Note: ch 416+000 to 2</p>
<p>18</p>	<p>Vulnerable Slope (Ch. 417+000 to Ch. 417+100):- This disturbed slope on hill side is composed of layered rock with adverse dip of about 45° or more towards project road. However full road formation width has already been achieved up to sub-grade level. Although the configuration of slope face is vulnerable, yet at present the toe restraint is in place. An electric tower is located just on top of this exposed slope and is vulnerable.</p>	 <p>Latitude: 30.291344 Longitude: 79.281344 Accuracy: 2200.0m Time: 14-09-2020 12:29 Note: ch 417+000 to 2</p>
<p>19</p>	<p>Vulnerable Dumping Site (Ch. 419+500 to Ch. 419+600):- This dumping site is filled up/exhausted and is closed. Two nos. of culverts at Ch. 419+700 and Ch. 419+800 fall within this dump site and require cascading on valley side as anti-erosion measure for regulating out flow on valley side.</p>	 <p>Latitude: 30.132644 Longitude: 79.314554 Accuracy: 100.0m Time: 14-09-2020 12:45 Note: ch 419+600 to 2</p>



Package-1 : Rishikesh (km 228) to Rudraprayag (km 368) of NH- 58 (old)

Name of Project: Widening and Strengthening / Reconstruction of Existing 2-Lane to 2 Lane with Paved Shoulder Configuration from Existing Km 235+615 (Design Km 235+306) to Km 268+000(Design Chainage Km 266+100) of NH-58 in the State of Uttarakhand through an Engineering, Procurement and Construction (EPC) Mode.

Special Protection work Against Land Slide (Pkg-I)							
S. No	Chainage		Cordinate[Northing & Easting]		Length (in mtr.)	Nearst Dumping Zone	Remarks
	From	To	From	To			
1	246+020	246+120	30°07'59" N 78°24'57" E	30° 07'	100	247+170	Proposed
	246+140	246+190	30°07'57" N 78°25'00" E	30° 07'	40	247+170	Proposed
	257+080	257+180	30°04'07" N 78°27'35" E	30° 04'	100	265+010	
	259+740	259+880	30°03'40" N 78°28'55" E	30° 03'	140	265+010	
Total Length					380		

Name of Project: Widening and Strengthening / Reconstruction of Existing 2-Lane to 2 Lane with Paved Shoulder Configuration from Km 268.00 to Km 300.00 on NH-58 in the State of Uttarakhand (EPC) Mode.

Special Protection work Against Land Slide (Pkg-I)							
S. No	Chainage		Cordinate[Northing & Easting]		Length (in mtr.)	Nearst Dumping Zone	Remarks
	From	To	From	To			
2	266+200	266+800	30°03'39.37" N 78°03'13.85"E	30°03'31.85 " N	600	268+900	Proposed
	283+200	283+600	30°05'39.26" N 78°34'42.76" E	30°05'41.80 " N	400	287+720	
	284+900	285+100	30°06'4.81" N 78°34'30.80" E	30°06'13.47 " N	200	287+720	
	291+300	291+600	30°07'38.74" N 78°35'51.12" E	30°07'43.33 " N	300	291+100	
Total Length					1500		

Sinkig Zone (Pkg-ii)							
S. No	Chainage		Cordinate[Northing & Easting]		Length (in mtr.)	Nearst Dumping Zone	Remarks
	From	To	From	To			
3	283+200	283+600	30°03'39.26" N 78°34'42.76"E	30°03'41.80 " N	400	1	Proposed
Total Length					400		

Name of Project: Widening and Strengthening / Reconstruction of Existing 2-Lane to 2 Lane with Paved Shoulder Configuration from Km 300.00 to Km 338.00 on NH-58 in the State of Uttarakhand (EPC) Mode.

Special Protection work Against Land Slide (Pkg-I)							
S. No	Chainage		Cordinate[Northing & Easting]		Length (in mtr.)	Nearst Dumping Zone	Remarks
	From	To	From	To			
4	298+360	298+750	30°09'8.54" N 78°37'3.47"E	30°09'30.49 " N	390	301+400	Proposed
	304+100	304+370	30°11'31.47" N 78°38'21.29" E	30°11'38.00 " N	270	308+650	
	305+000	305+100	30°11'50.79" N 78°38'18.18" E	30°11'52.54 " N	100	309+900	
Total Length					760		

Sinkig Zone (Pkg-iii)							
S. No	Chainage		Cordinate[Northing & Easting]		Length (in mtr.)	Nearst Dumping Zone	Remarks
	From	To	From	To			
5	323+300	323+600	30°12'56.77" N 78°44'40.37"E	30°12'51.18 " N	300	327+000	Proposed
	323+800	324+100	30°12'45.61" N 78°44'48.40" E	30°12'44.70 " N	300		
Total Length					600		

Reconstruction with Geometric Improvement of existing 2 lane/intermediate lane to 2 lanes with paved shoulder configuration from km 338.000 to Km368.000 of NH-58 in the state of Uttara hand in EPC mode.

Special Protection work against Land slide (Pkg II)							
S.no.	Chainage		coordinate (Northing ,Easting)		length (mtr)	Nearest Dumpig Zone	Remark
	From	To	From	To			
6	335+350	335+450	78,50,29 E 30,14,02 N	78,50,45 E 30,14,06 N	100	341+250	
	350+750	350+850	78,55,49E 30,15,08N	78,55,52 E 30,15,11 N	100	351+100	
	356+200	356+800	78,57,53 E 30,16,25 N	78,58,08 E 30,16,34	600	357+300	

Vulnerable Slope Details

Construction of Kaliasaur Bypass having provision of 3 no bridges (182.10m, 250.00m & 162.10m) land 2 lane with paved shoulders configuration & strengthening of NH 58 from Km 349.800 to Km 355.495 (Total 3.22Km) in the State of Uttarakhand on EPC mode.

SL.No.	Vulnerable slope / sinking zone chainage		Length (m)	Co-ordinates		Action taken or needed	COS Notice has been issued to	Remarks /
	From	To		N	E			
	2	3		5	6			
7	345+400	345+600	200	30°14'40.96"	78°54'5.85"	Gabion Wall/Other protection measures needs to be taken.	YES	Contractor is already instructed to submit COS proposal after detail geotechnical investigation.

Package-2 : Rudraprayag (km 368) to Mana (km 528) of NH- 58 (old)

S/No	Name of road	Name of District	Stretch (Km)	Location	Latitude	Longitude	Remarks
8	Joshimath-Mana NH-58 PKG-2	Chamoli	Stabilization of landslide at Hatipahar including construction & upgradation of existing road to 2-lane with paved shoulder from existing chainage Km 489.350 to Km 491.600 (Design chainage Km 471.400 to km 473.675) (Shingdhar Bridge to Vishnuprayag Bridge) of NH-07, (Old NH-58) on EPC mode under improvement to NH connectivity to Chardham in the state of Uttarakhand. (Design length 2.275 Km) (Job No. NH-07(58)-UR-2017-18-531)	471.400 - 473.675	30°33'47"	79°34'01"	S/protection wks under progress.
9			Construction and upgradation of existing road to 2 lane with paved shoulder from existing chainage km 491.600 to km 504.475 (design chainage km 473.675 to km 486.100) of NH-07 (old NH-58) (Benakuli bend to Mana) Under Chardhgam Programme on EPC mode in the state of Uttarakhand (Package No -02)	473.810- 481.175- 485.630- 485.700	30°33'48" 30°37'19" 30°39'06"	79°33'31" 79°33'54" 79°31'24"	Proposal for specialized land slide treatment fwd to CE-RO on 25 Mar 2020. Approval awaited
10			Construction and upgradation of existing road to 2 lane with paved shoulder from existing chainage km 509.700 to km 528.00 (design chainage km 490.550 to km 507.850) of NH-07 (old NH-58) (Benakuli bend to Mana) Under Chardhgam Programme on EPC mode in the state of Uttarakhand	494.480- 501.100- 507.580- 510.200- 510.400 (Existing ch)	30°41'53" 30°43'42" 30°46'04" 30°41'54"	79°30'45" 79°29'48" 79°29'54" 79°30'37"	Proposal for specialized land slide treatment fwd to CE-RO on 09 Apr 2020. Approval awaited

Package-3: Rishikesh (Ch.1.90) to Dharashu Bend (km 144.00) of NH- 94(old)

S/No	Name of road	Name of District	Chainage From	Chainage To	Side	Length (m)	Height	Reference Chainage	Reference X	Reference Y	Remarks		
11	Reconstruction with geometric improvement of existing intermediate lane to 2 lane with paved shoulder configuration from km. 1.95 to 28.600m (excluding the stretch from km 13.800 to km 18.550 of NH-94 in the state of Uttarakhand (Job No. NH-94-UR-201-17-473)	Tehri	18+020	18+440	RHS	150+90	45-60	18020	239360.376	3340032.07	Required from- 18+020 to 18+170 & 18+350 to 18+440		
						240		18170	239423.062	3340165.473			
										18350		239526.983	3340303.673
										18440		239548.725	3340389.641
										20700		240224.263	3341397.562
										20900		240037.584	3341414.546
										21050		239928.832	3341475.473
										21180		239978.969	3341584.131
										22350		240870.839	3341921.441
										22550		241044.506	3342008.837
										23200		241376.238	3342395.333
										23300		241454.723	3342429.84
										23500		241562.04	3342577.756
										23600		241602.581	3342490.346
										24450		241946.068	3342857.429
										24550		241916.526	3342952.445
										25400		241957.729	3343741.989
										25700		241740.672	3343922.671
										26700		242412.324	3344240.698
										26780		242479.706	3344280.43
							27340	242669.971	3344695.704				
							27600	242579.333	3344929.769				
							28100	242698.823	3345349.591				
							28200	242744.321	3345424.046				
			Total Length (Lumsum)=			1810 M							

Sl. No.	Name of Road	Name of District	Name of Work	Chainage	Latitude	Longitude	Remarks
12	Rishikesh-Dharasu NH-94	New Tehri	Reconstruction with geometric improvement of existing intermediate lane to 2 lane with paved shoulder configuration from existing km 28.600 to km 59.420 (design chainage 28.320 to km 58.603) of NH-94 in the state of Uttarakhand (Job. No. NH-94-UR-201-17-491)	29.76 to 29.82	30°13'19.24"	78°19'53.05"	Proposal for specialized land slide treatment fwd to CE-RO on 19 Feb 2020. Approval awaited
				30.64 to 30.74	30°13'41.96"	78°20'04.84"	
				35.00 to 35.10	30°14'27.70"	78°21'12.52"	
				38.24 to 38.36	30°15'14.43"	78°22'08.71"	
				38.36 to 38.50	30°15'18.42"	78°22'08.69"	
				39.46 to 39.54	30°15'40.36"	78°21'51.80"	
				40.46 to 40.51	30°15'55.83"	78°21'53.08"	
				43.50 to 43.68	30°17'01.16"	78°22'05.52"	
13	New Tehri	Rehabilitation and upgradation of Rishikesh-Dharasu road (NH-94) with 2-lane with paved shoulders from design chainage km. 58.603 to km. 58.853 (existing Chainage km. 59.420 to km. 59.650), from Design Chainage km. 61.630 to km. 63.950 (existing chainage km. 62.630 to km. 65.000) and new construction of 2-lane with paved shoulders Chamba Bypass of design length 2.035 km. including 440m long tunnel on EPC Mode under improvement to NH Connectivity to Chardham in the State of Uttarakhand (Design length 4.605 km) (Job No. NH-94-UR-2017-18-533)	62.90 to 62.98	30°21'21.29"	78°23' 25.49"	Proposal for specialized land slide treatment fwd to CE-RO on 20 Feb 2020. Approval awaited	
			63.31 to 63.39	30°21'30.64"	78°23' 27.22"		
14	Rishikesh-Dharasu NH-94	New Tehri	Proposal of rehabilitation and upgradation of road Rishikesh-Dharasu (NH-94) with 2-lane with paved shoulders from km. 76.00 to km. 110.00 (Design chainage from km. 74.733 to km. 107.347 including construction of Kamand re-alignment from existing Chainage km. 105.200 to km. 108.600 (design chainage km. 103.436 to km. 105.949 - length 2.513 km) and land slide treatment work between design chainage km. 73.800 to km. 74.000 (200 m) on EPC mode under improvement to NH Connectivity to Chardham in the State of Uttarakhand for total project cost of Rs. 281.37 Cr. (Design Length 32.614 kms.) (Job No. NH-94-UR-2017-18-527)	75.20 to 75.40	30°40'49.29"	78°41'48.51"	Slope protection works in progress
				78.54 to 78.72	30°41'41.12"	78°41'61.93"	Proposal for specialized land slide treatment fwd to CE-RO on 18 Feb 2020. Approval awaited
				80.73 to 80.83	30°42'35.45"	78°40'68.83"	
				88.00 to 88.08	30°44'21.72"	78°38'28.21"	
			88.20 to 88.30	30°44'27.95"	78°38'41.11"		

15	Rishikesh-Dharasu NH-94	New Tehri	Proposal of rehabilitation and upgradation to 2 lane with paved shoulder configuration for design Chainage km. 107.347 to km. 129.208 & km. 133.878 to km. 138.570 (existing chainage km. 110.000 to km. 133.020 & km. 137.330 to km. 142.028) excluding Chiniyalisaur bypass and land slide treatment at existing km. 138.500 (Design chainage km. 134.970) on Rishikesh - Dharasu section of NH-94 on EPC mode under improvement to NH connectivity to Chardham in the State of Uttarakhand for total project cost of Rs. 356.13 Crore (Length -26.553 km.) (Job No. NH-94-UR-2017-18-526)	121.340 to	30°53'31.6"	78°34'35.2"	Proposal of specialized land slide treatment fwd to CE-RO on 08 Apr 2020. Approval awaited
				122.15 to	30°53'31.8"	78°34'02.5"	
				125.32 to	30°55'34.3"	78°33'61.9"	
	126.50 to	30°55'57.7"		78°32'82.7"			
	128.230 to	30°55'56.7"		78°32'34.3"			
	135.67 to 135.87	30°61'20.7"		78°31'48.2"	Slope protection works in progress		
	Rishikesh-Dharasu NH-94	Uttarkashi		138.320 to 138.520	30°37'43"	78°19'48"	Proposal of CoS for shifting alignment on valley side to prevent hill cutting and triggering of land slide submitted to CE-RO on 31 Mar 2020

Package-4: Dharasu (Ch.124.00) to Gangotri (km 0.00) of NH- 108(old)

Sl. No.	Name of Road	Name of District	Name of Work	Chainage	Latitude	Longitude	Remarks
			Rehabilitation and upgradation of Gangotri-Dharasu (NH-108) to 2-lane with paved shoulders from Km 101.06 to Km 110.860 (Design chainage from Km 87.730 to Km 97.400) on EPC mode under improvement to NH connectivity to Chardham in the state of Uttarakhand. (Job No. NH-94-UR-2017-18-535)	108.063 to 108.255	30°43'23"	78°21'19"	Proposal of specialized land slide treatment fwd to CE-RO on 31 Mar 2020. Approval awaited
			REHABILITATION AND UPGRADATION OF GANGOTRI-DHARASU	120.800 to	30°38'41.45"	78°19'39.78"	Proposal of

Package-4: Dharasu (Ch.124.00) to Gangotri (km 0.00) of NH- 108(old)

Sl. No.	Name of Road	Name of District	Name of Work	Chainage	Latitude	Longitude	Remarks
15	Gangotri-Dharasu NH-108	Uttarkashi	Rehabilitation and upgradation of Gangotri-Dharasu (NH-108) to 2-lane with paved shoulders from Km 101.06 to Km 110.860 (Design chainage from Km 87.730 to Km 97.400) on EPC mode under improvement to NH connectivity to Chardham in the state of Uttarakhand. (Job No. NH-94-UR-2017-18-535)	108.063 to 108.255	30°43'23"	78°21'19"	Proposal of specialized land slide treatment fwd to CE-RO on 31 Mar 2020. Approval awaited
			REHABILITATION AND UPGRADATION OF GANGOTRI-DHARASU (NH-108) TO 2-LANE WITH PAVED SHOULDERS FROM KM 110.86 TO KM 124.00 (DESIGN CHAINAGE FROM KM 97.400 TO KM 109.400) ON EPC MODE UNDER IMPROVEMENT TO NH CONNECTIVITY TO CHARDHAM IN THE STATE OF UTTARAKHAND (Package No -04)	120.830 to 122.140 to 122.260	30°38'41.45"	78°19'39.78"	Proposal of specialized land slide treatment fwd to CE-RO on 30 Mar 2020. Approval awaited
			Land slide treatment of Nalupani from km. 123.080 to km. 123.970 on NH-108 under Chardham Pariyojna in State of Uttarakhand on EPC mode under improvement to NH Connectivity to Chardham.	-	30°38'30.53"	78°19'37.92"	Area .28 Ha dumping Zone 1
				-	30°38'28.95"	78°19'40.58"	Area .375 Ha dumping Zone 2
			Land slide treatment of Barethi from km. 100.300 to km. 101.060 on NH-108 under Chardham Pariyojna in State of Uttarakhand on EPC mode under improvement to NH Connectivity to Chardham.	-	30°43'57.50"	78°24'33.73"	Area .28 Ha dumping Zone 2
				-	30°44'05.77"	78°24'37.80"	Area .678 Ha dumping Zone 3
-	30°44'16.21"	78°24'30.21"	Area .027 Ha dumping Zone 3				

Package-5: Dharashu Bend (km 144) to Yamunotri (km 220) of NH- 94(Existing/old chainages)

Sl. No.	Name of Road	Name of District	Name of Work	Chainage	Latitude	Longitude	Remarks
16	Dharasu bend to Yamunotri	Uttarkashi	Construction, Operation and Maintenance of 2- lane Bi-Directional Silkyara Bend- Barkot Tunnel with escape passage including approaches on Dharasu- Yamunotri Section Between ch. 25.400 km and Ch. 51.00 km falling along NH-134 (old NH-94) in the State of Uttarakhand	-	30°44'28.040"	78°15'28.380"	
				-	30°47'55.900"	78°14'20.380"	
				-	30°44'55.810"	78°13'50.360"	

Name of the work: Rehabilitation and up-gradation to 2-Lane with paved shoulder configuration from existing Km. 122.00 (Dharasu Bend) to Km. 147.23 (Silkyara Bend) (Design Chainage Km 0.00 to Km 24.30) of NH-94 in the state of Uttarakhand on EPC mode under improvement of NH connectivity to Chardham

List of Vulnerable slopes(Land Slide sites)							
S. No.	Location	Chainage		Length (m)	GPS Location		Remarks
		From	To		North	East	
Provision in Contract							
17	Near km 0+750	0+520	0+720	200	30° 37' 35.35"	78° 19' 36.45"	
	Near km 1+500	1+450	1+700	250	30° 36' 18.88"	78° 17' 45.07"	
	Near km3+000	3+030	3+280	250	30° 37' 34.31"	78° 18' 56.74"	
				700			
New Land slide sites							
	Upper Primary School, Bindhula near Sila Gaon	5+700	5+800	100	30° 38' 41.35"	78° 18' 25.5"	Proposals to be submitted
	Kalyani Market	7+000	7+300	300	30° 39' 3.69"	78° 18' 4.89"	Proposals to be submitted
	Near Harethi Village	8+875	8+975	100	30° 39' 38.21"	78° 18' 10.49"	Proposals to be submitted
	Talag Village	16+900	17+050	150	30° 42' 28.8"	78° 17' 34.22"	Proposals to be submitted
	Shivgufa	20+020	20+100	80	30° 43' 45.97"	78° 16' 47.62"	Proposals to be submitted
Total Length (m)				730			

Package No	S. No.	Name of Project	Description of Vulnerable Items	Chainage	Coordinates	Remark
18	1	Rehabilitation and up gradation of 2 lane with paved shoulder from existing km. 172.900 (Paulgaon) to km. 194.150 (Paligaad) (Design Chainage km. 49.300 to km. 70.300) on Dharasu to Yamunotri Road of NH-134 (Old NH- 94) in the state of Uttarakhand under EPC mode under improvement to NH connectivity to Chardham	Slope	Km 50.830	30° 47' 57" N 78° 13' 47" E	Adjoining to our ROW affected due to hill cutting
	2		Slope	Km 55.130	30° 48' 53" N 78° 13' 24" E	Adjoining to our ROW affected due to hill cutting
	3		Muck Dumping Zone	Km 66.330 to Km 66.450	30° 51' 48" N 78° 17' 46" E	Sinking zone due to erosion at the bottom of the slope. It is already
	4		Slope	Km 68.075 to Km 68.175	30° 52' 26" N 78° 18' 06" E	-----Do-----
	5		Slope	Km 68.750 to Km 68.850	30° 52' 16" N 78° 18' 11" E	Existing Road Sinkage towards Yamuna river side

4	Slope	Km 68.075 to Km 68.175	30° 52' 26" N 78° 18' 06" E	-----Do-----
5	Slope	Km 68.750 to Km 68.850	30° 52' 16" N 78° 18' 11" E	Existing Road Sinkage towards Yamuna river side

Package-6: Rudraprayag (km 0.00) to Gaurikund (km 76.00) of NH-109 (old)

Widening and strengthening of exiting intermediate/ 2 lane with paved shoulder configuration From Km 0.000 (Design Km 0.000) to Km 16.440 (Design Km 18.700) including existing 3.470 Km Rudraprayag Bypass of NH 109 in the State of Uttarakhand on EPC mode.

SL.No.	Vulnerable slope / sinking zone chainage		Length (m)	Co-ordinates		Action taken or needed	COS Notice has been issued to	Remarks /
	From	To		N	E			
19	0+180	0+300 (R/H Hill Side)	120	30°16'56.69"	78°58'7.99"	Special treatment is required after detailed study	YES	For immediate measures gabion wall is done up to 12 mtr height.
	2+130	2+260 (B/S DFO)	130	30°17'15.14"	78°58'25.19"	Special treatment is required after detailed study	YES	1. At Hill side gabionprotection work is completed. 2. At Velly side partially gabion work is done.
	13+000	13+450 (R/H Hill Side)	450	30°21'46.12"	78°58'45.84"	Under Observation	YES	After removing loose mass/scaling no further landslide observed it is still under observation.

Reconstruction with Geometric Improvement of existing single/Intermediate lane to 2 lane with earthen shoulder configuration from existing km. 16.545 to km. 33.130 & Km. 41.260 to km. 57.975 (Design chainage 18.700 to km 35.130 & km 47.700 to 63.700) excluding khat village from km. 53.425 to 55.530 (Design chainage 59.390 to km 61.150) of NH-109 in the state of Uttarakhand on EPC Mode under improveinent of NH connectivity to Chardham.

SL.No.	Vulnerable slope / sinking zone chainage		Length (m)	Co-ordinates		Action taken or needed	COS Notice has been issued to	Remarks /
	From	To		N	E			
1	2	3	4	5	6	7	8	9
1	28+900	29+300	400	30°15'57.24"	79°2'36.60"	Special treatment is required after detailed study	YES	Sliding zone at Banswada. Height of embankment & steep slope upto 60 mtr is there For immediate measures gabion wall work is in progress up to 8 mtr height.
2	30+100	30+500	400	30°16'22.08"	79°2'36.96"	Special treatment is required after detailed study	YES	Sliding zone at Banswada. Height of embankment & steep slope upto 65 mtr is there For immediate measures gabion wall work is in progress up to 4 mtr height.
3	34+000	34+200	200	30°17'29.04"	79°3'2.52"	Special treatment is required after detailed study	YES	Sinking zone at Kakdagad. For immediate measure vulnerable slope has been protected by providing gabion wall upto 8 ntr height.
Si.No.	Vulnerable slope / sinking zone chainage		Length (m)	Co-ordinates		Action taken or needed	COS Notice has been issued to	Remarks /
1	2	3		4	5			
4	48+940	49+020	80	30°19'9.48"	79°3'0.12"	Special treatment is required after detailed study	YES	Sinking zone at Nala.
5	53+290	53+600	310	30°19'57.36"	79°2'17.16"	Special treatment is required after detailed study	YES	Sinking zone at Devidhar.
6	54+630	55+300	670	30°19'57.72"	79°1'59.28"	Special treatment is required after detailed study	YES	Sinking zone at Byungad, Khumera.

7	55+100	55+300	200	30°19'53.76"	79°1'53.34"	Special treatment is required after detailed study	YES	Sliding zone at Khumra. Height of embankment & steep slope upto 45 mtr is there For immediate measures gabion wall work is completed up to 8 mtr height.
8	63+010	63+040	30	30°21'3.24"	79°0'55.08"	Special treatment is required after detailed study	YES	Sliding zone at Janu. Height of embankment & steep slope upto 20 mtr is there Land slide continue and uner observation.

Construction of Kund Bypass from Existing Chainage Km. 33+130 to Km. 41+260 (Existing Length - 8.130 Km.), Design Chainage Km. 35+130 to Km. 47+700 (Design Length - 12.570 Km.) of NH-109 (New NH - 107) in the State of Uttarakhand on EPC Mode.

SL.No.	Vulnerable slope / sinking zone chainage		Length (m)	Co-ordinates		Action taken or needed	COS Notice has been issued to	Remarks /
	From	To		N	E			
1	42+490	42+550	60	30°30'29.91"	79°03'23.62"	Design Required	YES	Sinking Zone at Lwara.
1	2	3	4	5	6	7	8	9

Reconstruction with Geometric Improvement of existing single/Intermediate lane to 2 lane with earthen shoulder configuration from existing Km. 57.975 to km. 68.600(Fata to Sitapur) on NH-109 (New no 107) in the state Uttarakhand under EPC Mode.

SL.No.	Vulnerable slope / sinking zone chainage		Length (m)	Co-ordinates		Action taken or needed	COS Notice has been issued to	Remarks /
	From	To		N	E			
1	65+410	65+460	50	30°35'28.87793"	79°1'47.86903"	Special slope protection Treatment for Sliding	YES	Sliding zone at Chandkadhara. Height of embankment & steep slope upto 50 mtr is there For immediate measures gabion wall work is completed up to 8 mtr height.
2	65+520	65+560	40	30°35'30.23236"	79°1'46.02263"	Special slope protection Treatment for Sliding	YES	Sliding zone at Chandkadhara. Height of embankment & steep slope upto 45 mtr is there For immediate measures gabion wall work is completed up to 8 mtr height.
3	69+850	69+980	130	30°36'42.69337"	79°0'55.43161"	Special slope protection Treatment for Sliding	YES	Sliding zone at Sesi. Height of embankment & steep slope upto 45 mtr is there Land sliding continue.
4	71+400	71+520	120	30°37'8.2794"	79°0'34.92806"	Special treatment for Sinking zone	YES	Sinking zone at Rampur.
1	2	3	4	5	6	7	8	9

Package-7/ Tanakpur (km 52.00) to Pithoragarh (km 202.00) of NH-125 (old)

DETAILS OF VULNERABLE SLOPES AND MUCK DUMP SITE

Reconstruction with geometric improvement of existing 2 lane/intermediate lane to 2lane with paved shoulder configuration from existing km. 52.240 to km 92.880 of NH-125 in the State of Uttarakhand under EPC mode under improvement of NH connectivity to Chardham (Job No. NH-125-UR-2016-17-484)

Sl. No.	Project No. NH, Struck (Name) and Challenge	Challenge	Length in (Metre)	Slopes		GPS Location of Vulnerable slopes/Muck dump (Latitude & Longitude)						Remarks		
				Vulnerable Slopes Location	Slope	Latitude		Longitude		Easting			Northing	
						deg.	min.	sec.	deg.	min.	sec.		deg.	min.
1	K34 49+125 TO 49+135	100	c/s 52.50	27	8	18.25	80	3	29.34	323454.425	411643.088	102 Side As per Agreement		
18.28						80	3	29.80	323716.414	411728.753	102 Side As per Agreement			
2	K34 49+150 TO 49+200	300	65+370	29	8	30.53	80	3	33.85	323480.749	411754.384	102 Side As per Agreement		
33.14						80	3	33.14	323418.034	411724.573	102 Side As per Agreement			
3	K34 49+160 TO 70+115	130	66+200	29	9	31.83	80	4	31.83	323436.915	411661.145	102 Side As per Agreement		
30.50						80	4	48.22	323483.978	411529.450	102 Side As per Agreement			
4	K34 74+420 TO 74+500	300	70+115	29	10	27.60	80	3	31.14	323756.717	411433.303	102 Side As per Agreement		
27.60						80	3	14.2	323777.491	411428.218	102 Side As per Agreement			
5	7-1, 9, Tanakpur To Sahuar and 52+260 to 92+800	100	81+500	27	11	14.31	80	3	46.16	322908.188	411990.707	102 Side As per Agreement		
14.31						80	3	46.16	322941.772	411864.301	102 Side As per Agreement			
6	K34 83+800 TO 83+730	130	82+700	29	11	30.50	80	3	47.63	322846.833	411659.131	102 Side As per Agreement		
43.81						80	3	45.77	322994.311	411716.466	102 Side As per Agreement			
7	K34 90+420 TO 91+400	400	90+420	29	11	31.48	80	3	30.24	323410.893	408464.801	102 Side As per Agreement		
4.03						80	3	32.83	323667.528	408243.543	102 Side Additional Required			
8	K34 47+420 TO 47+540	120	47+420	29	9	24.52	80	3	5.84	323274.763	411113.667	102 Side Additional Required		
3.98						80	3	7.41	323256.314	411073.871	102 Side Additional Required			
9	K34 78+400 TO 78+400	130	78+400	27	11	3.92	80	3	7.84	322871.709	411864.308	1300 Metre		
3.92						80	3	7.84	322871.709	411864.308	240 Metre			
Total Length As per Agreement			Additional Required			1300 Metre						240 Metre		

Reconstruction with geometric improvement of existing single/intermediate lane to 2lane with paved shoulder configuration from existing km. 92.880 to km 121.550 (design chainage km 91.550 to km 120.455) of NH-125 in the State of Uttarakhand under EPC mode under improvement of NH connectivity to Chardham (Job No. NH-125-UR-2016-17-492)

Sl. No.	Project No. NH, Struck (Name) and Challenge	As per Agreement Challenge	Length in (Metre)	Location	GPS location of Vulnerable slopes/Muck dump (Latitude & Longitude) (From)					Additional Required Challenge	Length in (Metre)	Location	GPS location of Vulnerable slopes/Muck dump (Latitude & Longitude) (To)					Address of Required Challenge	GPS location of Vulnerable slopes/Muck dump (Latitude & Longitude) (To)				
					Northward		Eastward		To				Northward		Eastward		From			Northward		Eastward	
					Lat.	Long.	Lat.	Long.	Lat.				Lat.	Long.	Lat.	Long.	Lat.			Long.	Lat.	Long.	
1	7-2, 9, BELKHET TO CHARDHAM AT and 83+80-880 TO 131+550 (DESIGN CH 91+930 TO 130+445)	From	130	Bilkheta	323281.561	80716.728	92+500	323207.532	40797.883	111+500	Dhoni	412131.898	111+700	322822.278	412162.479	Additional Required							
2		102+470	323281.561		80716.728	92+500	323207.532	40797.883	111+500	322822.278		412162.479	Additional Required										
3		102+470	130	Jwala	322785.524	498386.46	110+270	322825.510	498493.136	104+300	Jwala	412002.002	104+300	322283.248	412088.243	Additional Required							
4		110+200	322785.524		498386.46	110+270	322825.510	498493.136	104+300	322283.248		412088.243	Additional Required										
5		110+200	50	Dhoni	322786.652	412361.462	111+500	323784.491	412427.217	102+500	Dhoni	412078.104	102+500	322582.264	409106.462	Additional Required							
6		111+200	322786.652		412361.462	111+500	323784.491	412427.217	102+500	322582.264		409106.462	Additional Required										
7		102+470	130	102+470	29	11	13.13	80	3	32.81	323510.893	408464.801	102 Side Additional Required										
4.03							80	3	32.83	323667.528	408243.543	102 Side Additional Required											
8		102+470	130	102+470	29	9	24.52	80	3	5.84	323274.763	411113.667	102 Side Additional Required										
3.98							80	3	7.41	323256.314	411073.871	102 Side Additional Required											
9		102+470	130	102+470	27	11	3.92	80	3	7.84	322871.709	411864.308	1300 Metre										
3.92							80	3	7.84	322871.709	411864.308	240 Metre											
Total Length As per Agreement			Additional Required			1300 Metre						240 Metre											

Reconstruction with geometric improvement of existing 2 lane to 2lane with paved shoulder configuration from existing km. 126.730 to km 135.075 & existing km 143.750 to km 163.000 (Tanakpur-Pithoragarh project road) on NH-125 in the State of Uttarakhand under EPC mode under improvement of NH connectivity to Chardham (Job No. NH-125-UR-2016-17-485)

Sl. No.	Project No. NH, Struck (Name) and Challenge	As per Agreement Challenge	Length	Vulnerable Slopes Location	Slope	GPS Location of Vulnerable slopes/Muck dump (Latitude & Longitude)						Remarks	Additional Required Challenge	Length	Vulnerable Slopes	Slope	GPS Location of Vulnerable slopes/Muck dump (Latitude & Longitude)						Remarks									
						Latitude		Longitude		Latitude							Longitude		Latitude		Longitude											
						Deg.	Min.	Sec.	Deg.	Min.	Sec.						Deg.	Min.	Sec.	Deg.	Min.	Sec.		Deg.	Min.	Sec.						
1	Package No. 7-13, Reconstruction with geometric improvement of existing 2 lane to 2lane with paved shoulder configuration from existing km. 126.730 to km 135.075 & existing km 143.750 to km 163.000 (Tanakpur-Pithoragarh project road) on NH-125 in the State of Uttarakhand under EPC mode under improvement of NH connectivity to Chardham (Job No. NH-125-UR-2016-17-485)	145+100 to 145+130	30	near/old	72	29	24	9.80	80	3	46.47	As per Agreement	138+420 to 138+470	50	Tilted	42	29	21	16.80	80	3	36.80	Additional Required									
2		148+400 to 148+480	40	Near URM/CD	78	29	28	46.63	80	3	26.60	As per Agreement	138+510 to 138+570	60	Tilted	57	29	21	16.80	80	3	21.70	Additional Required									
3		153+980 to 154+010	30	Normal road bridge	82	27	27	42.63	80	4	40.77	As per Agreement	138+640 to 138+680	40	Tilted	65	29	21	16.80	80	3	23.60	Additional Required									
4		158+640 to 158+680	40	Bharali	73	29	28	55.78	80	3	18.14	As per Agreement	139+720 to 139+780	60	Tilted	73	29	21	16.80	80	3	26.60	Additional Required									
5		162+100 to 162+130	30	landpo	74	29	29	53.02	80	3	37.13	As per Agreement	144+120 to 144+150	30	near/old	53	29	23	55.90	80	3	49.70	Additional Required									
6		148+470 to 148+580	100	near URM/CD	39	26	36.61	80	3	26.60	As per Agreement	148+670 to 148+770	100	near URM/CD	39	26	36.61	80	3	26.60	Additional Required											
7																						152+260 to 152+320	60	Khalika	57	29	27	8.61	80	4	14.83	Additional Required
8																						152+480 to 152+530	50	Khalika	46	29	27	11.78	80	4	23.70	Additional Required
9																						152+570 to 152+730	160	Khalika	58	29	27	13.11	80	4	28.02	Additional Required
10																						152+920 to 152+980	60	Khalika	49	29	27	19.77	80	4	35.21	Additional Required
11																						154+390 to 154+410	20	Normal road bridge	50	29	27	41.65	80	4	49.32	Additional Required
12																						155+000 to 155+090	90	Bharali	61	29	27	33.86	80	3	4.97	Additional Required
13																						155+630 to 155+740	110	Bharali	65	29	27	47.46	80	3	16.52	Additional Required
14																						155+840 to 156+010	170	Bharali	67	29	27	30.21	80	3	16.92	Additional Required
15																						157+920 to 157+950	30	Bharali	48	29	28	43.39	80	3	30.63	Additional Required
16																						158+580 to 159+610	1030	Cham near side	65	29	29	8.74	80	3	21.13	Additional Required
17																						162+200 to 162+300	100	landpo	47	29	29	51.69	80	3	33.38	Additional Required
18																						162+420 to 162+480	60	landpo	43	29	29	57.43	80	3	49.83	Additional Required
19	162+640 to 162+680	40	landpo	43	29	29	57.43	80	3	32.74	Additional Required																					
Total Length As per Agreement			Additional Required			930						930																				

Reconstruction with geometric improvement of existing single lane to 2lane with paved shoulder configuration from existing km 163.000 to 194.800 (design chainage 160.880 to km 192.320) of NH-125 in the State of Uttarakhand under EPC mode under improvement of NH connectivity to Chardham (Job No. NH-125-UR-2016-17-490)

S.N.	CHAINAGE	LOCATION NAME	LENGTH	PROJECT NO./NH/STRETCH	CHAINAGE	LOCATION NAME	LENGTH	VULNERABLE SLOPE LOCATION	SLOPE	GPS LOCATION OF VULNERABLE SLOPE / EASTING		GPS LOCATION OF VULNERABLE SLOPE / NORTHING		REMARK
										EASTING	NORTHING	EASTING	NORTHING	
1	161500 to 161600	Near Charani	100	CHURANI to Pithoragarh (160+880 TO 162+420)	191-920 TO 191-876	Toli Road near Dhameshra	63.624	191.920	57° 14' 19"	3270408.679	423157.79	3270393.806	423134.676	VILLY SIDE
								191.898	41° 22' 48"	3270404.916	423167.978	3270388.607	423155.609	VILLY SIDE
								191.876	16° 29' 19"	3270345.31	423169.953	3270335.665	423175.734	VILLY SIDE
2	165410 to 165510	near Timta bend	100	CHURANI to Pithoragarh (160+880 TO 163+420)	191-920 TO 191-988	near petrol pump	100.227	191.920	58° 40' 24"	3270445.568	423138.004	3270448.325	423133.474	Hill side
								191.954	50° 17' 17.4"	3270436.537	423146.715	3270418.204	423168.413	Hill side
								191.988	1° 17' 25"	3270419.537	423174.095	3270352.677	423173.442	Hill side
3	170400 to 170500	Near Mana Rajar	100	CHURANI to Pithoragarh (160+880 TO 163+420)	190-800 TO 190-776	manjula House	34.94	190.800	27° 44' 39.73"	3270203.971	422689.459	3270223.282	422679.089	Hill side
								190.788	34° 36' 20.43"	3270212.584	422677.875	3270227.485	422666.936	Hill side
								190.776	2° 58' 36.12"	3270180.019	422657.467	3270221.303	422657.639	Hill side
4	179850 to 179950	Near tapper	100	CHURANI to Pithoragarh (160+880 TO 163+420)	190-150 TO 190-198	Hamman Mandir Lampata	71.94	190.150	76° 14' 40.62"	3269904.334	422268.121	3269897.532	422240.252	Hill side
								190.174	86° 44' 3"	3269869.372	422250.613	3269868.599	422237.066	Hill side
								190.198	57° 17' 20.25"	3269837.714	422242.544	3269843.094	422234.168	Hill side
5				CHURANI to Pithoragarh (160+880 TO 192+320)	186+050 TO 186-188	simons	136.486	186.050	28° 0' 46.72"	3268318.737	419748.133	3268334.109	419730.95	Hill side
								186.096	63° 30' 20.92"	3268266.73	419721.879	3268272.825	419709.595	Hill side
								186.142	75° 40' 20.99"	3268243.132	419674.371	3268249.025	419697.611	Hill side
								186.188	55° 20' 40.6"	3268193.17	419694.642	3268188.981	419688.561	Hill side
6				CHURANI to Pithoragarh (160+880 TO 163+420)	185+917 TO 185-847	simons	105.565	185.917	80° 30' 36.46"	3268064.376	419684.208	3268061.727	419667.774	Hill side
								185.882	53° 18' 29.25"	3267994.147	419678.621	3267982.182	419663.76	Hill side
								185.847	59° 34' 42.9"	3267958.833	419682.075	3267953.363	419672.76	Hill side
7				CHURANI to Pithoragarh (160+880 TO 163+420)	185+620 TO 185-576	Igardevi Navam pandey Hume	63.899	185.576	21° 21' 19.79"	3267712.504	419696.807	3267713.721	419697.426	Hill side
								185.520	77° 27' 56.87"	3267742.038	419691.237	3267742.482	419693.234	Hill side
								185.576	2° 17' 44.59"	3267778.411	419686.78	3267764.572	419687.571	Hill side
8				CHURANI to Pithoragarh (160+880 TO 163+420)	185+520 TO 185-422	Igardevi	145.281	185.520	14° 50' 32.02"	3267554.741	419694.472	3267540.529	419698.486	Hill side
								185.471	88° 3' 58.21"	3267622.427	419708.48	3267623.452	419729.039	Hill side
								185.422	84° 34' 6.73"	3267687.013	419693.057	3267686.207	419700.585	Hill side
								179.100	78° 23' 26.39"	3265715.07	416343.888	3265711.078	416324.399	Hill side
9				CHURANI to Pithoragarh (160+880 TO 163+420)	179-078 TO 179-056	dhanla	66.447	179.078	80° 41' 51.18"	3265679.252	416348.675	3265683.984	416319.788	Hill side
								179.056	68° 32' 28.02"	3265649.402	416354.035	3265658.42	416331.097	Hill side
								176.550	51° 37' 44.5"	3265371.797	415848.271	3265360.162	415808.012	Hill side
10				CHURANI to Pithoragarh (160+880 TO 163+420)	176-550 TO 176-518	chopkot	46.97	176.534	68° 32' 28.02"	3265392.947	415848.826	3265367.582	415907.334	Hill side
								176.518	62° 23' 23.53"	3265419.018	415866.66	3265385.555	415930.638	Hill side
								170.290	30° 40' 45.9"	3263686.702	415645.094	3263660.935	415660.586	Hill side
11				CHURANI to Pithoragarh (160+880 TO 192+320)	170-252 TO 170-176	DSE bend	113.984	170.252	18° 40' 30.91"	3263704.18	415682.11	3263660.711	415696.801	Hill side
								170.214	18° 40' 30.91"	3263722.982	415717.937	3263714.322	415719.715	Hill side
								170.176	19° 44' 53.3"	3263744.095	415743.575	3263710.625	415735.577	Hill side
								168.580	33° 47' 11.84"	3262647.967	415965.838	3262658.841	415973.203	Hill side
12				CHURANI to Pithoragarh (160+880 TO 163+420)	168-626 TO 168-626	Ghat Band	67.657	168.603	3° 56' 49.73"	3262670.243	415942.105	3262687.564	415943.304	Hill side
								168.626	15° 0' 9.78"	3262683.283	415908.13	3262700.261	415963.574	Hill side
								167.350	76° 50' 56.89"	3263341.661	415262.195	3263332.871	415308.742	Hill side
13				CHURANI to Pithoragarh (160+880 TO 163+420)	167-350 TO 167-355	Ghat Pal	5.103	167.355	76° 40' 49.75"	3263378.844	415267.298	3263371.341	415299.237	Hill side
								165.090	49° 14' 11.02"	3263074.808	414301.184	3263094.252	414323.73	Hill side
								165.138	41° 12' 7.77"	3263101.855	414215.445	3263135.14	414244.421	Hill side
14				CHURANI to Pithoragarh (160+880 TO 163+420)	165-090 TO 165-186	Timta Bend	142.318	165.186	43° 28' 15.27"	3263125.289	414168.12	3263170.41	414210.879	Hill side
								164.275	70° 18' 2.24"	3262846.09	414890.224	3262860.653	414891.89	Hill side
								164.293	18° 40' 40.92"	3262855.748	414868.599	3262899.274	414869.799	Hill side
								164.311	3° 8' 53.15"	3262877.644	414868.599	3262899.274	414869.799	Hill side
15				CHURANI to Pithoragarh (160+880 TO 163+420)	164+275 TO 164+311	Madan Hotel	53.268	163.900	41° 55' 25.82"	3263036.408	414657.799	3263024.941	414678.345	Hill side
								163.937	27° 44' 39.73"	3263018.461	414707.96	3263024.941	414711.369	Hill side
								163.974	72° 30' 44.83"	3262986.081	414736.194	3262987.501	414741.977	Hill side
16				CHURANI to Pithoragarh (160+880 TO 163+420)	185-059 TO 185-059	Igardevi near toll road	14.839	185.059	84° 34' 21.05"	3262750.259	419667.739	3262752.151	419627.673	Hill side
								185.074	65° 0' 18.16"	3262763.008	419615.353	3262767.873	419625.79	Hill side

Sanctioned length 400 mtr
 CCS 361.867 mtr
 Additional 582.833 mtr

1344.663

E-Mail

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Headquarters
Chief Engineer
Project Shivalik
Pin 931 718
C/O 56 APO

85000/HPC/ 36 /EPC Cell

24 Sep 2020

HQ DGBR/EPC Cell
Seema Sadak Bhawan
Ring road, Delhi Cantt
New Delhi -- 110010

Subject: Hon'ble Supreme Court's order dated 08.09.2020 in the M.A. 1449/2020 and 08.08.2019 in the matter of Citizens for Green Doon & Ors. Vs. Union of India and Ors.- reg

1. Please refer CE-RO, MoRT&H, Dehradun letter No.RO/UK/Chardham/HPC dated 17 Sep 2020.
2. Replies Para wise are as under:-
 - (i) May be submitted by O/o the CE-RO, MoRT&H, Dehradun.
 - (ii) Full inventory of vulnerable slopes and muck dumps along the Rishikesh-Dharasu Road and Joshimath- Mana Road being executed by BRO are enclosed as Annexure- I & II.
 - (iii) Presently all the approved restoration/protection of landslide zones are in progress. CoS proposals/Power Point Presentation for sustainable restoration of vulnerable slopes of balance locations have been initiated to O/o the CE-RO, MoRT&H, Dehradun. On approval of same, restoration can be taken up.



(Vivek Srivastava)
EE (Civil) SG
SO-1 (EPC)
For Chief Engineer

Encls: As above

NOO

Copy to:

Office of the Chief Engineer - For information please.
Regional Office MoRT&H
46/1 Canal Road, Jakhan
Dehradun-248001
Uttarakhand
E-Mail : romorthddn@gmail.com

HQ 21 BRTF
C/O 56 APO
Pin-930021

HQ 36 BRTF
C/O 56 APO
Pin-930036

For information and necessary action please.
Following information may also be checked at your
end and confirm correctness.

DETAILS OF VULNERABLE SLOPES

S/No	Name of road	Name of District	Stretch (Km)	Location (Designed Ch) in (Km)	Remarks
(i)	Joshimath-Mana NH-58	Chamoli	489.350 to KM 491.600 (design ch Km 471.400 to Km 473.675)	471.400 - 473.675	Slope protection wks under progress at Hatipahar as standalone landslide treatment project.
(ii)			491.600 to	481.056	CoS initiated for increase in Bridge span.
(iii)			504.371 (Design Ch	481.44 & 481.770	CoS for chute drain to prevent damages to hill slope on d/s side initiated.
(iv)			473.675 - 486.060)	485.630-485.700	
(v)			509.725-528	494.480-494.520	Proposal for specialized land slide treatment fwd to CE-RO on 25 Mar 2020. Approval awaited.
(vi)			(Design ch	501.100-501.280	
(vii)			490.550	- 507.580-507.850	In view of delay in approval of DPR of Benakuli rehabilitation, proposal of CoS for specialized land slide treatment initiated to CE-RO on 09 Apr 2020. Approval awaited.
(viii)			507.850	510.200-510.400 (Existing ch)	
(ix)				493.970-494.070	
(x)				494.350-494.450	Proposal to be forwarded to GSI for detailed geological study and recommendation of mitigative measures.
(xi)				495.340-495.440	
(xii)	Rishikesh- Dharasu NH-94	New Tehri	28.600 - 59.42	29.76 to 29.82	Proposal for specialized land slide treatment fwd to CE-RO on 19 Feb 2020. Approval awaited
(xiii)				30.64 to 30.74	
(xiv)				34.865-34.965	
(xv)				35.00 to 35.10	
(xvi)				38.24 to 38.36	Slope protection wks under progress.

S/No	Name of road	Name of District	Stretch (Km)	Location (Designed Ch) in (Km)	Remarks			
(xvii)				38.36 to 38.50	Proposal for specialized land slide treatment fwd to CE-RO on 19 Feb 2020. Approval awaited			
(xviii)				39.46 to 39.54				
(xix)				40.46 to 40.51				
(xx)				43.50 to 43.68				
(xxi)				44.22 to 44.26				
(xxii)				45.90 to 46.10				
(xxiii)				52.615 to 52.70				
(xxiv)				New Tehri		59.42 - 65.00	63.31 to 63.39	Proposal to be approved by CE-RO (Forwarded on 20 Feb 2020). CoS approval awaited.
(xxv)							75.20 to 75.40	Slope protection works in progress
(xxvi)							78.54 to 78.72	Proposal for specialized land slide treatment fwd to CE-RO on 18 Feb 2020. Approval awaited
(xxvii)			80.73 to 80.83					
(xxviii)			88.00 to 88.08					
(xxviii)			88.20 to 88.30					
(xxix)	Rishikesh-Dharasu NH-94	New Tehri	110.00 - 132.00	121.340 to 121.510	Proposal of specialized land slide treatment fwd to CE-RO on 08 Apr 2020. Approval awaited			
(xxx)				122.15 to 122.25				
(xxxi)				125.32 to 125.85				
(xxxii)				126.50 to 126.90				
(xxxiii)				128.230 to 128.510				
(xxxiv)	Rishikesh-Dharasu NH-94	Uttarkashi	132.00 -142.00	135.67 to 135.87	Slope protection works in progress at Dharasu landslide. Proposal of CoS for shifting alignment on valley side to prevent hill cutting and triggering of land slide approved under CoS.			
(xxxv)				138.320 to 138.520				
(xxxvi)	Rishikesh-Dharasu NH-94	Uttarkashi	Km 133.020-137.330 (Chinyalisour Bypass)	133.760-133.830	CoS proposal initiated.			
(xxxvii)	Gangotri-Dharasu NH-108	Uttarkashi	Km 101-110	108.063 to 108.255	Proposal of specialized land slide treatment fwd to CE-RO on 31 Mar 2020. Approval awaited			
(xxxviii)				110.86 - 124.00		120.830 to 120.960		
(xxxix)						122.140 to 122.260	Proposal of specialized land slide treatment fwd to CE-RO on 30 Mar 2020. Approval awaited	

DETAILS OF MUCK DUMPING SITES (MDSs)

S/No.	Name of road	Name of District	Stretch (Km)	Location	Latitude	Longitude	Details of land transfer	Remarks	
1	Joshimath-Mana NH-07	Chamoli	471.400-473.675	488.200	30°40'50"	79°30'33.90"	Forest land transferred to BRO. Forest proposal No. 3036/FP/UK/ROAD/39348/2019. Forest proposal approval (Vidhivat Swikriti) Addl Secy, Dehradun letter No 462(1)/X-4-19/01(26)/2019 dt 20 Jun 2019.		
2	Joshimath-Mana NH-07		473.675-486.060	475.800 476.750 477.200 479.240	30°34'46.086" 30°35'15.995" 30°35'31.344" 30°36'26.1"	79°34'13.11" 79°34'10.957" 79°34'7.206" 79°34'8.706"			
3	Joshimath-Mana NH-07		490.550-507.850	495.650 497.310	30°41'56.682" 30°42'34.71"	79°30'28.65" 79°30'1.098"			
1	Rishikesh-Dharasu Road (NH-94)	Tehri Garhwal	28.600 to 59.420	30.720	30.22834	78.33375		Forest land transfer under proposal No. FP/UK/ROAD/20521/2016	
2				31.615	30.22731	78.33871		-do-	
3				36.400	30.24089	78.36253		-do-	
4				37.080	30.24470	78.36557	-do-		
5				37.410	30.24783	78.36730	-do-		
6				37.860	30.25018	78.36522	-do-		
7				38.070	30.25182	78.36475	-do-		
8				39.350	30.25934	78.36726	-do-		
9				39.430	30.25964	78.36702	-do-		
10				39.630	30.26030	78.36584	-do-		
11				40.120	30.26223	78.36317	-do-		
12				46.275	30.29785	78.34904	Govt/Private land		
13				46.830	30.30233	78.34722	Private/Govt Land (land acquired under NH-Act)		
14				47.380	30.30643	78.34463	Govt/Private land		
15				47.610	30.30817	78.34369	Govt/Private land		
16				48.050	30.31105	78.34481	Govt/Private land		
17				52.250	30.33045	78.36733	Forest land transfer under proposal No. FP/UK/ROAD/20521/2016		
18				52.110	30.32997	78.36972	Govt/Private land		
19				52.600	30.32954	78.37299	Govt/Private land		
20				54.750	30.23278	78.39198	Govt/Private land		
21				55.710	30.32503	78.39389	Govt/Private land		
1	Rishikesh-Dharasu Road (NH-94)	Tehri Garhwal	59.420 to 65.000	63.520	30.35560	78.39391	Forest land transfer under proposal No. FP/UK/ROAD/ 29381/2017		
2				63.980	30.35605	78.39045	Private/Govt (Govt land approved by DM Tehri Garhwal and pvt land acquired under NH-Act)		

S/No.	Name of road	Name of District	Stretch (Km)	Location	Latitude	Longitude	Details of land transfer	Remarks
1	Rishikesh-Dharasu Road (NH-94)	Tehri Garhwal	76.000 to 110.000	76.840	30.405322	78.415206	Land aquired under NH-Act	
2				78.700	30.408920	78.422147	Forest land transfer under proposal No.FP/UK/ROAD/29916/2017	
3				79.420	30.416134	78.419341	-do-	
4				79.880	30.414291	78.414542	-do-	
5				80.150	30.414133	78.409628	-do-	
6				88.140	30.445909	78.389681	Pvt Land acquisition progress under NH-Act and Govt land Approved by DM Tehri	
7				90.270	30.445410	78.385099	Pvt Land acquisition progress under NH-Act and Govt land Approved by DM Tehri	
8				90.920	30.450977	78.386625	Land aquired under NH-Act	
9				91.360	30.453335	78.390473	Pvt Land acquisition progress under NH-Act and Govt land Approved by DM Tehri	
10				94.400	30.464731	78.393125	Forest land transfer under proposal No.FP/UK/ROAD/29916/2017	
11				94.555	30.463986	78.392192	-do-	
12				94.620	30.463895	78.390690	-do-	
13				95.525	30.464661	78.386198	-do-	
14				95.720	30.463825	78.384679	-do-	
15				98.030	30.471518	78.378705	-do-	
16				98.920	30.467434	78.376871	-do-	
17				103.800	30.472636	78.358985	-do-	
18				108.000	30.478810	78.354804	Land aquired under NH-Act	
1		Tehri Garhwal	110.000 to 142.000	111.200	30.48751	78.37368	Forest land transfer under proposal No.FP/UK/ROAD/29916/2017	
2				112.100	30.48852	78.38304	-do-	
3				112.500	30.48885	78.38723	-do-	
4				117.150	30.50356	78.37284	Forest land transfer under proposal No.FP/UK/ROAD/45194/2020	
5				117.530	30.50385	78.36955	Govt Land (Approved by DM Tehri) and Pvt land aquired under NH-Act	
6				121.750	30.52145	78.35114	Forest land transfer under proposal No.FP/UK/ROAD/29916/2017 & extension under proposal No.FP/UK/ROAD/45194/2020	
7				121.930	30.52042	78.35030	-do-	
8				122.850	30.52073	78.34824	-do-	
9				123.230	30.52360	78.34888	-do-	Abandoned due to very steep slope
10				125.650	30.53381	78.34025	-do-	
11				125.980	30.53606	78.34040	Land aquired under NH-Act	
12				127.430	30.54377	78.33730	Govt land and Pvt land (Govt land approved by DM Tehri Garhwal and Pvt land acquisition under progress)	

S/No.	Name of road	Name of District	Stretch (Km)	Location	Latitude	Longitude	Details of land transfer	Remarks
13				127.520	30.54451	78.33762	Land acquired under NH-Act	
14				128.200	30.54873	78.34040	Land acquired under NH-Act	
15				131.620	30.55305	78.32118	Govt land and Pvt land (Govt land approved by DM Tehri Garhwal and Pvt land acquired under NH-Act)	
16	Rishikesh-Dharasu Road (NH-94)	Uttarkashi		138.000	30.61647	78.32286	Govt land acquired by DM Uttarkashi	Dumping yard located on Dharasu-Rauntal Motor road at Km 1 near ITI Dharasu.
17				140.650	30.61865	78.32635	Forest land transfer under proposal No.FP/UK/DEF/40343/2019	
18				140.730	30.61908	78.32684	Forest land transfer under proposal No.FP/UK/DEF/40343/2019	
1	Rishikesh-Dharasu Road (NH-94)	Uttarkashi	133.020 to 137.330	132.020	30.55722	78.32498	Forest land transfer under proposal No.FP/UK/DEF/40343/2019	
2				133.020	30.56664	78.32766	Govt land Approved by DM Uttarkashi	
1	Gangotri-Dharasu Road (NH-34)	Uttarkashi	101.060 to 110.860	106.400	30.74227	78.36170	Forest land transfer under proposal No.FP/UK/DEF/40343/2019	
2				107.555	30.74201	78.35909	Forest land transfer under proposal No.FP/UK/DEF/40343/2019	
3				109.185	30.73553	78.35021	Forest land transfer under proposal No.FP/UK/DEF/40343/2019	