

**TYPICAL CROSS-SECTION**  
**M 1:50**

**SECTION 1-1**

rock bolts according to support category

theoretical excavation line

shotcrete with wire mesh according to support category

water proofing system

1

rock bolts according to support category

concrete lining C25/30 according to structural requirement

rock bolts according to support category

empty conduits

shaft axis

intermediate concrete wall C25/30 according to structural requirement

drilling for dewatering (as required)

groundwater collecting pipe Steel pipe Ø200

drilling for dewatering (as required)

circular collecting pipe PVC pipe Ø 50, perforated

0.40

R6.00

exhaust air duct  
A = 54.74 m²

fresh air duct  
A = 54.74 m²

# ATOMIC LONGITUDINAL SECTION

## 000

shaft 2 head building

exhaust air

fresh air

app. 3500

ventilation shaft

intermediate concrete walls

contact area for inner lining

382

M 1:50

M 1:1000

0 1 2 3 4 5 m

0 50 100 150 m

CLIENT

Executive Director, Ill

**SECTION T-1**  
1:50

empty conduits

water proofing system

concrete lining C25/30 according to structural requirement

intermediate concrete walls C25/30

shotcrete with wire mesh according to support category

theoretical excavation line

rock bolts according to support category

contact area for inner lining

drilling for dewatering (as required)

rock bolts according to support category

exhaust air duct  
 $A = 54.74 \text{ m}^2$

shaft axis

fresh air duct  
 $A = 54.74 \text{ m}^2$

groundwater collecting  
Steel pipe Ø200 with niches for revision

drilling for dewatering (as required)

circular collecting pipe  
PVC pipe Ø50, perforated

0.40 5.88 0.25 3.98 0.20 1.70 0.40


0.40 6.00 6.00 0.40

0.40 12.00 0.40

12.80


[illegible]

M 1:50



0 1 2 3 4 5 m

M 1:1000



0 50 100 150 m

<p>CLIENT</p>  <p><b>National Highways &amp; Infrastructure Development Corporation Ltd.</b> (Ministry of Road Transport &amp; Highways, Govt. of India)</p>	<p><b>Executive Director - III</b> 3rd Floor, PTI Building, 4 - Parliament Street, New Delhi – 110001, India</p>
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PROJECT

Construction of (i) 14.150 km long bi-directional tunnel across Zojila Pass on the Jammu-Baramulla section of NH-01 on EPC mode in the Union Territories of J&K and Ladakh

ZOJILA TUNNEL

CONTENT

TYPICAL CROSS SECTION SHAFT 1&2

00	2013-03-31	MBU	CFI	AGo	PRELIMINARY TUNNEL DESIGN PHASE II
REV	DATE	DESIG.	DRAWN	APPROVED	MODIFICATION

**3G GRUPPE GEOTECHNIK GRAZ**  
Engineering Consultants

Triester Straße 478a, 8055 Graz-Seiersberg  
Tel.: ++43 / 316 / 337799, Fax: ++43 / 316 / 337799-11  
e-mail: office@3-g.at, Internet: <http://www.3-g.at>

**3G**  
GRUPPE  
GEOTECHNIK  
GRAZ ZT GmbH

**vayamtech**  
THE POWER OF W

**Vayam Technologies Ltd**  
(Formerly iBilt Technologies Limited)  
Thapar House, 124-Janpath, New Delhi-110 001

	DATE	NAME	
DESIGNED	2013-03-31	BURGSTALLER	
DRAWN	2013-03-31	FIMBINGER	
CHECKED	2013-03-31	GORICKI	
PROJECT NO.:	8482B	REV.:	00
DRAWING NO.:	T8482B IL-ZOT VEN-01-12-00	SCALE:	1:50, 1:10