

← JAMMU

SRINAGAR →



LEGEND

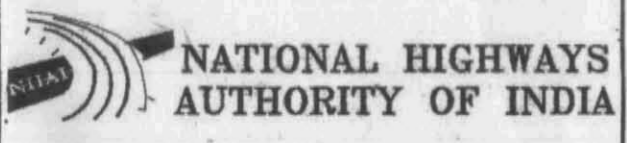
PLAN

- TS-Tangent to Spiral
- SC-Spiral to Curve
- CS-Curve to Spiral
- ST-Spiral to Tangent
- PC-Point of Circular Curve (With Transition)
- PT-Point of Tangent (Without Transition)
- Tangent point end(m)
- PS-Paved Shoulder
- SS-Soft Shoulder
- CBS-Crash Barrier space
- GPS
- Control Point
- Temporary Bench Mark
- Kilometer Stone
- Hectometer Stone
- Electric Pole
- Telephone Pole
- Lamp Post
- OFC Pillar
- RCW Pillar
- Tree-T3,T3,T4
- Tree-T3,T2,T1
- Well
- Hand Pump
- Control Point TS-148.2
- Identification
- Municipal Tap
- Manhole
- Sign Post
- Gate
- Temple
- Mosque
- Gurdwara
- Church
- Guard Post
- Flag Post
- Transformer
- High Tension Lines
- Low Tension Lines
- Telephone Line
- Right-of-Way
- Right-of-Way-New
- Boundary/Fencing
- Boundary Water Body
- Boundary River Bank
- Canal
- Top line
- Crash Barrier
- Building Permanent/Temporary
- Existing Road Paved/Unpaved
- Utility Buildings
- Pipe Line
- OFC Line
- Water Pipe Line
- Earth Retaining Wall
- Crash Barrier
- Existing Road Centre Line
- Designed Centre Line
- Designed Road/Median Edges
- Quvert/Bridge - Existing
- Quvert/Bridge - Designed



GOOD FOR CONSTRUCTION

RD	NOV-2008	Initial Drawing	I.S. GOEL
Revisions	Date	Description	Checked by



Horizontal Scale 1 : 2500
 0 20 40 60 80

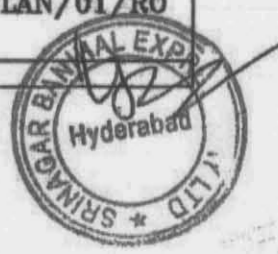
Feasibility Study and DPR for 4-Laning of
 Banihal to Srinagar Section (Km.188.00 to Km.296.00)
 of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN
 Km.187.000 to Km.188.000
 (PACKAGE IV)

SCETAVENITE FRANCE In joint venture with
 Intercontinental Consultants & Technocrats PVT.Ltd.
 4-B, Green Park, New Delhi - 110019
 Ph : 2626-3000, Fax: 2626-2082
 and
 CHINA HIGHWAY ENGINEERING CONSULTING
 AND SUPERVISION CORPORATION CHINA

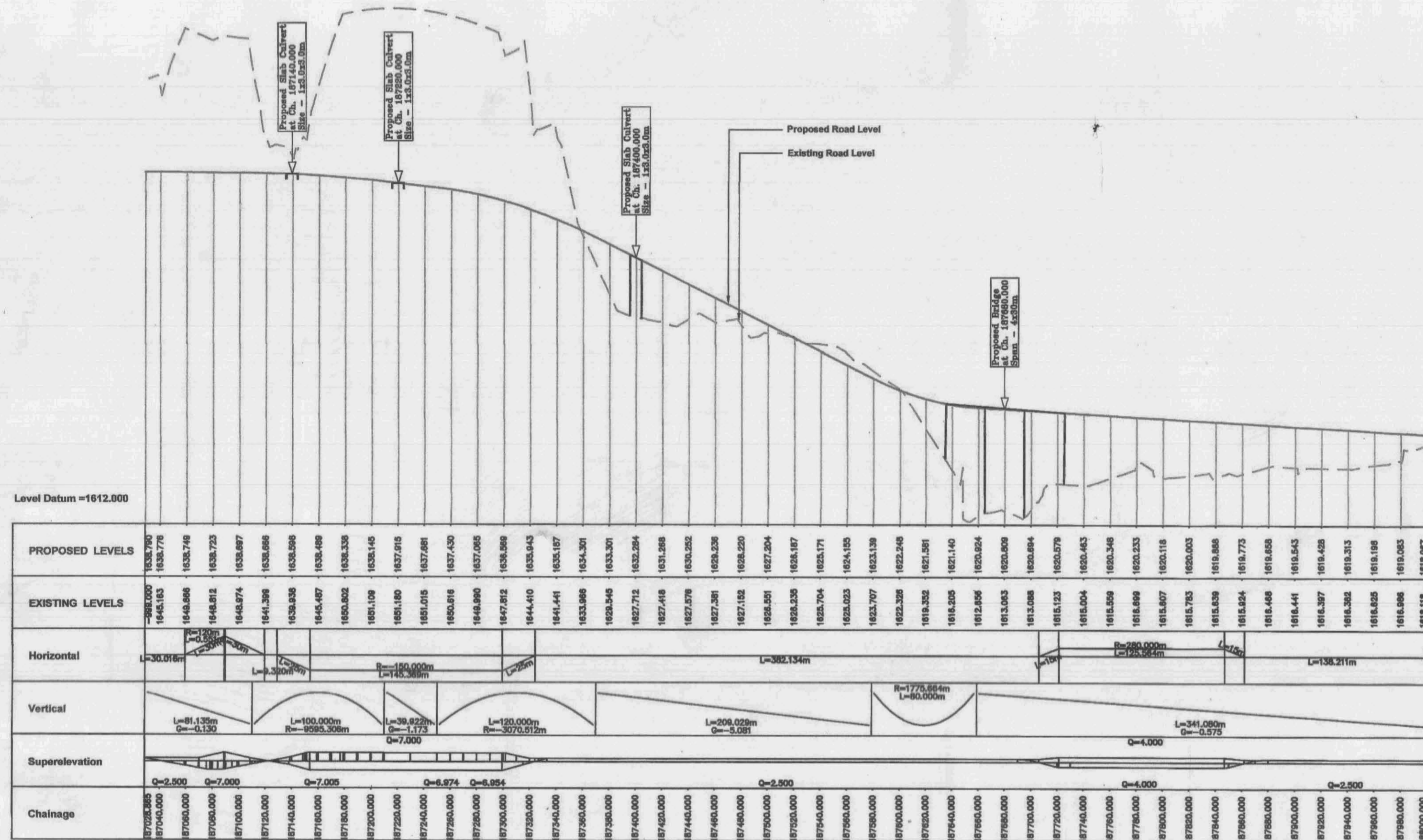
Anjali Verma Prepared by
 RAJEEV MARGHA Designed by
 Col.H.S.Cheema Checked by
 J.C.THEWY Approved by

Revisions	
DRAWING NO : NHAI/NH-1A/BAN-SRI/PLAN/01/RO	
File Name	



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SRINAGAR →

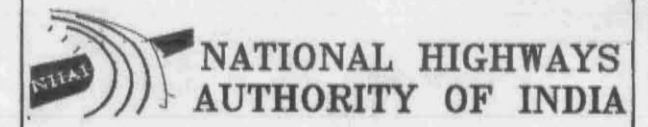


Level Datum = 1612.000

Legend For Profile

Proposed Road Level ———
Existing Ground Level - - - - -

Note :
Start Point of package - IV (ICT) Design Ch. 187100.000



Horizontal Scale 1 : 2500
Vertical Scale 1 : 250

Detailed Design for 4-Laning of
Banihal to Srinagar Section (Km.188.00 to Km.296.00)
of NH-1(A),(including Srinagar Bypass) in J & K State

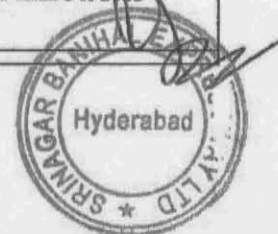
LONGITUDINAL PROFILE
Km.187.000 to Km.188.000
(PACKAGE IV)

SCETIAURITE FRANCE In joint venture with
Intercontinental Consultants & Technocrats Pvt.Ltd.
A-5, Green Park, New Delhi - 110016
Ph : 2886-3000, Fax 2685-5252
and
CHINA HIGHWAY ENGINEERING CONSULTING
AND SUPERVISION CORPORATION, CHINA

GOOD FOR CONSTRUCTION

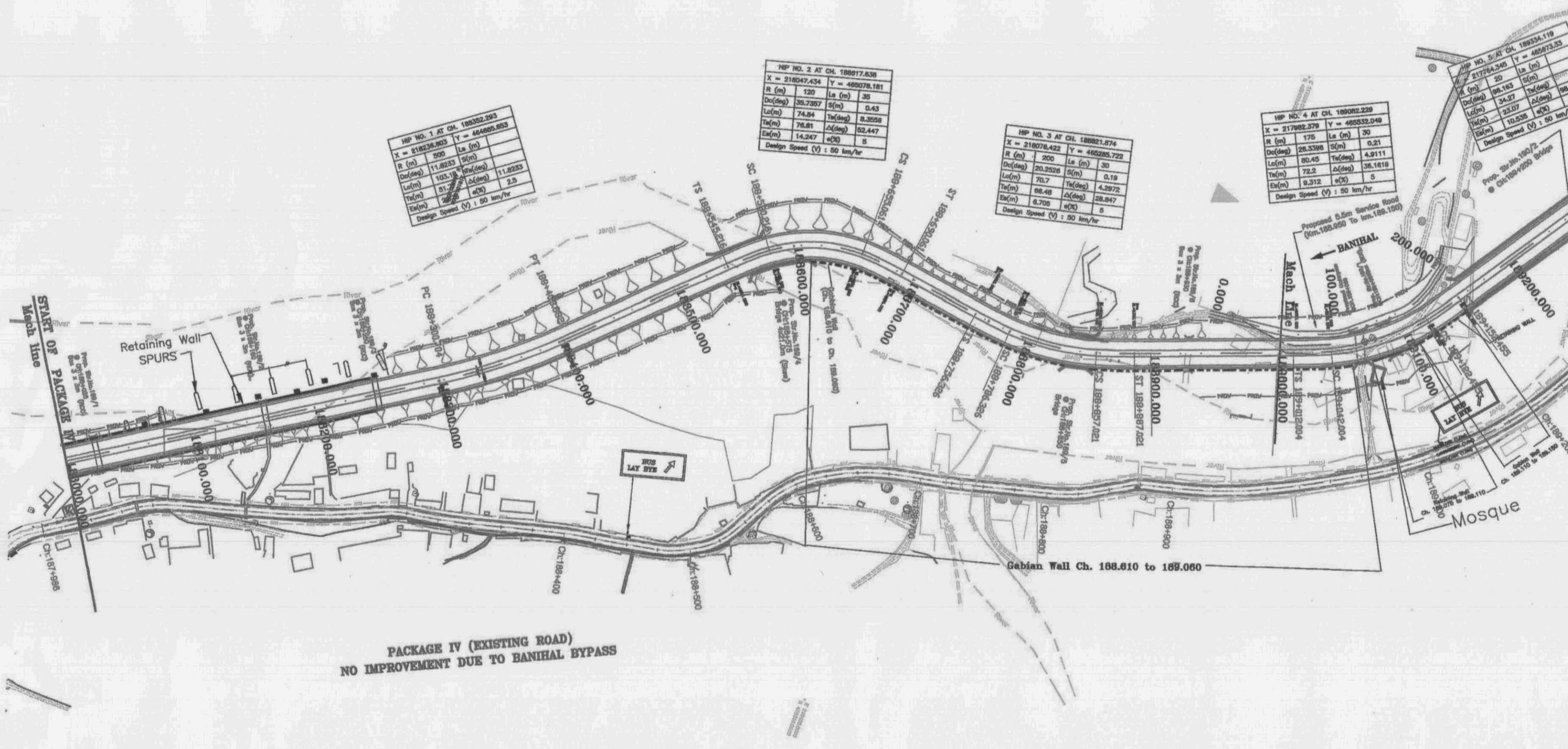
RO	Nov-2008	Initial Drawing	I.S. Goyal
Revisions	Date	Description	Checked by

Revisions	
DRAWING NUMBER	
NHAI/NH-1A/BAN-SRI/PROFILE/01A/R0	



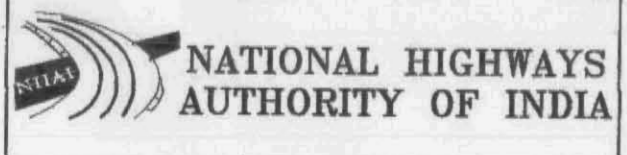
← JAMMU

SRINAGAR →



PACKAGE IV (EXISTING ROAD)
NO IMPROVEMENT DUE TO BANIHAL BYPASS

- LEGEND**
- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
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 - PC-Point of Circular Curve (With Transition)
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 - Tangent point end(km)
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- GPS Control Point
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 - Kilometer Stone
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 - Lamp Post
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 - Tree-T8,T5,T4
 - Tree-T3,T2,T1
 - Well
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 - Control Point TS-148.2
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
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 - Mosque
 - Gurdwara
 - Church
 - Flag Post
 - Transformer
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 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Toe line
 - Crash Barrier
- Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed
- L-PROFILE**
- P-Gradient(%)
 - L-Length of Grade(m)
 - R-Radius of Curve (m, '-' sign for summit vertical curve and for left hand side horizontal curve)
 - CL-Transition
 - D-Straight distance
 - e-Superelevation in percentage



SCALE :- 1:1000

Feasibility Study and DPR for 4-Laning of
Banihal to Srinagar Section (Km.188.00 to Km.296.00)
of NH-1(A),(including Srinagar Bypass) in J & K State

Longitudinal Plan
Km.188.000 To km.189.000
(PACKAGE IV)

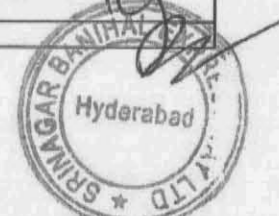
SCETARROUTE FRANCE
In joint venture with
Intercontinental Consultants & Technocrats Pvt.Ltd.
A-8, Green Park, New Delhi - 110016
Ph : 2686-3000, Fax 2685-5252
and
CHINA HIGHWAY ENGINEERING CONSULTING
AND SUPERVISION CORPORATION, CHINA

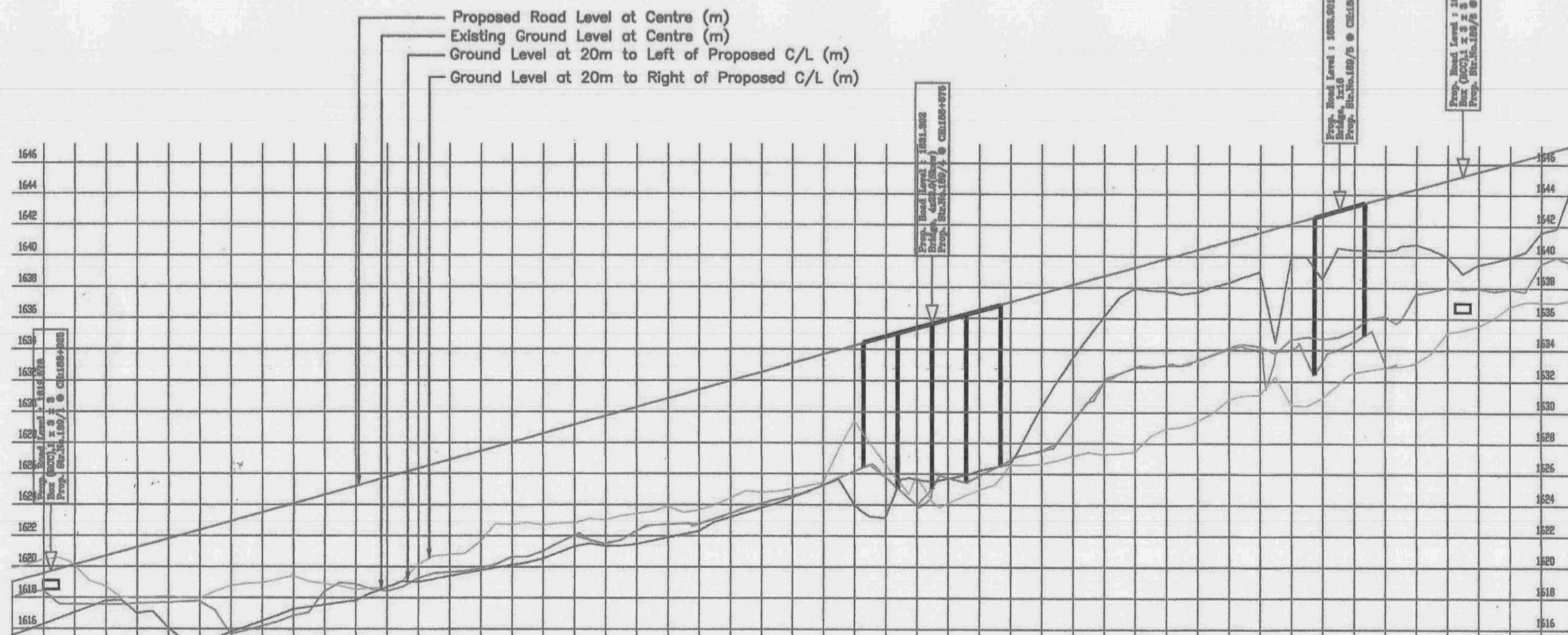
GOOD FOR CONSTRUCTION

Prepared by: ANU
Designed by: RAJEEV MAKHLIA
Checked by: J.VENUGOPAL
Approved by: J.C.THIRY

Revisions	Date	Description	Checked by
R2	Jan-2007	Modified Drawing	H.S.Cheema
R1	Aug-2006	Modified Drawing	H.S.Cheema
R0	JUN-2005	Initial Drawing	H.S.Cheema

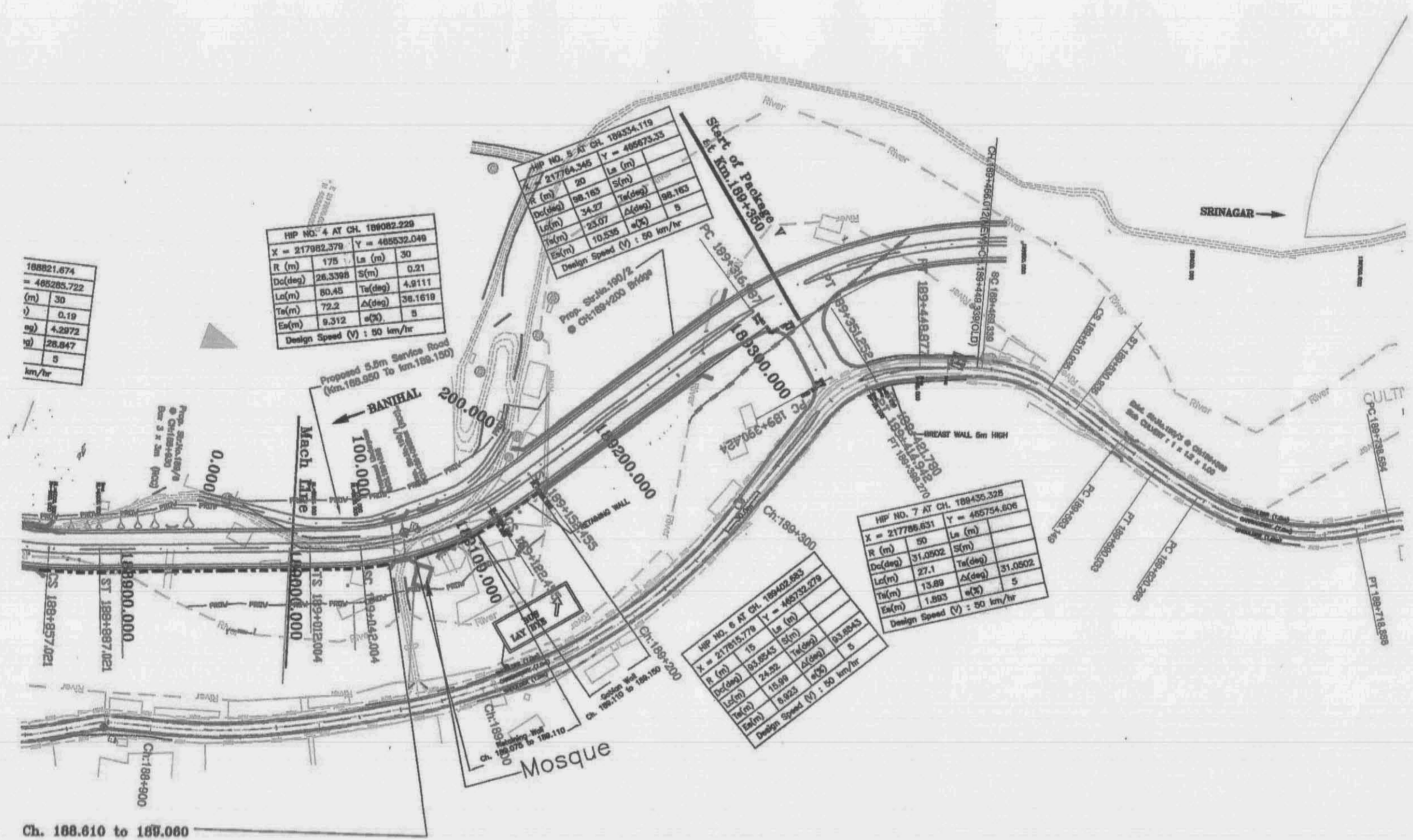
DRAWING NO :
NHAI/NH-1A/BAN-SRI/PLAN/02/R2





DATUM (m)=1615.000

Proposed Road Level at Centre (m)	1616.966	1617.322	1617.678	1618.034	1618.390	1618.746	1619.102	1619.458	1619.814	1620.170	1620.526	1620.882	1621.238	1621.594	1621.950	1622.306	1622.662	1623.018	1623.374	1623.730	1624.086	1624.442	1624.798	1625.154	1625.510	1625.866	1626.222	1626.578	1626.934	1627.290	1627.646	1628.002	1628.358	1628.714	1629.070	1629.426	1629.782	1630.138	1630.494	1630.850	1631.206	1631.562	1631.918	1632.274	1632.630	1632.986	1633.342	1633.698	1634.054	1634.410	1634.766	1635.122	1635.478	1635.834	1636.190	1636.546	1636.902	1637.258	1637.614	1637.970	1638.326	1638.682	1639.038	1639.394	1639.750	1640.106	1640.462	1640.818	1641.174	1641.530	1641.886	1642.242	1642.598	1642.954	1643.310	1643.666	1644.022	1644.378	1644.734	1645.090	1645.446	1645.802	1646.158	1646.514	1646.870	1647.226	1647.582	1647.938	1648.294	1648.650	1649.006	1649.362	1649.718	1650.074	1650.430	1650.786	1651.142	1651.498	1651.854	1652.210	1652.566	1652.922	1653.278	1653.634	1653.990	1654.346	1654.702	1655.058	1655.414	1655.770	1656.126	1656.482	1656.838	1657.194	1657.550	1657.906	1658.262	1658.618	1658.974	1659.330	1659.686	1660.042	1660.398	1660.754	1661.110	1661.466	1661.822	1662.178	1662.534	1662.890	1663.246	1663.602	1663.958	1664.314	1664.670	1665.026	1665.382	1665.738	1666.094	1666.450	1666.806	1667.162	1667.518	1667.874	1668.230	1668.586	1668.942	1669.298	1669.654	1670.010	1670.366	1670.722	1671.078	1671.434	1671.790	1672.146	1672.502	1672.858	1673.214	1673.570	1673.926	1674.282	1674.638	1674.994	1675.350	1675.706	1676.062	1676.418	1676.774	1677.130	1677.486	1677.842	1678.198	1678.554	1678.910	1679.266	1679.622	1679.978	1680.334	1680.690	1681.046	1681.402	1681.758	1682.114	1682.470	1682.826	1683.182	1683.538	1683.894	1684.250	1684.606	1684.962	1685.318	1685.674	1686.030	1686.386	1686.742	1687.098	1687.454	1687.810	1688.166	1688.522	1688.878	1689.234	1689.590	1689.946	1690.302	1690.658	1691.014	1691.370	1691.726	1692.082	1692.438	1692.794	1693.150	1693.506	1693.862	1694.218	1694.574	1694.930	1695.286	1695.642	1695.998	1696.354	1696.710	1697.066	1697.422	1697.778	1698.134	1698.490	1698.846	1699.202	1699.558	1699.914	1700.270	1700.626	1700.982	1701.338	1701.694	1702.050	1702.406	1702.762	1703.118	1703.474	1703.830	1704.186	1704.542	1704.898	1705.254	1705.610	1705.966	1706.322	1706.678	1707.034	1707.390	1707.746	1708.102	1708.458	1708.814	1709.170	1709.526	1709.882	1710.238	1710.594	1710.950	1711.306	1711.662	1712.018	1712.374	1712.730	1713.086	1713.442	1713.798	1714.154	1714.510	1714.866	1715.222	1715.578	1715.934	1716.290	1716.646	1717.002	1717.358	1717.714	1718.070	1718.426	1718.782	1719.138	1719.494	1719.850	1720.206	1720.562	1720.918	1721.274	1721.630	1721.986	1722.342	1722.698	1723.054	1723.410	1723.766	1724.122	1724.478	1724.834	1725.190	1725.546	1725.902	1726.258	1726.614	1726.970	1727.326	1727.682	1728.038	1728.394	1728.750	1729.106	1729.462	1729.818	1730.174	1730.530	1730.886	1731.242	1731.598	1731.954	1732.310	1732.666	1733.022	1733.378	1733.734	1734.090	1734.446	1734.802	1735.158	1735.514	1735.870	1736.226	1736.582	1736.938	1737.294	1737.650	1738.006	1738.362	1738.718	1739.074	1739.430	1739.786	1740.142	1740.498	1740.854	1741.210	1741.566	1741.922	1742.278	1742.634	1742.990	1743.346	1743.702	1744.058	1744.414	1744.770	1745.126	1745.482	1745.838	1746.194	1746.550	1746.906	1747.262	1747.618	1747.974	1748.330	1748.686	1749.042	1749.398	1749.754	1750.110	1750.466	1750.822	1751.178	1751.534	1751.890	1752.246	1752.602	1752.958	1753.314	1753.670	1754.026	1754.382	1754.738	1755.094	1755.450	1755.806	1756.162	1756.518	1756.874	1757.230	1757.586	1757.942	1758.298	1758.654	1759.010	1759.366	1759.722	1760.078	1760.434	1760.790	1761.146	1761.502	1761.858	1762.214	1762.570	1762.926	1763.282	1763.638	1763.994	1764.350	1764.706	1765.062	1765.418	1765.774	1766.130	1766.486	1766.842	1767.198	1767.554	1767.910	1768.266	1768.622	1768.978	1769.334	1769.690	1770.046	1770.402	1770.758	1771.114	1771.470	1771.826	1772.182	1772.538	1772.894	1773.250	1773.606	1773.962	1774.318	1774.674	1775.030	1775.386	1775.742	1776.098	1776.454	1776.810	1777.166	1777.522	1777.878	1778.234	1778.590	1778.946	1779.302	1779.658	1780.014	1780.370	1780.726	1781.082	1781.438	1781.794	1782.150	1782.506	1782.862	1783.218	1783.574	1783.930	1784.286	1784.642	1784.998	1785.354	1785.710	1786.066	1786.422	1786.778	1787.134	1787.490	1787.846	1788.202	1788.558	1788.914	1789.270	1789.626	1790.000	1790.356	1790.712	1791.068	1791.424	1791.780	1792.136	1792.492	1792.848	1793.204	1793.560	1793.916	1794.272	1794.628	1794.984	1795.340	1795.696	1796.052	1796.408	1796.764	1797.120	1797.476	1797.832	1798.188	1798.544	1798.900	1799.256	1799.612	1799.968	1800.324	1800.680	1801.036	1801.392	1801.748	1802.104	1802.460	1802.816	1803.172	1803.528	1803.884	1804.240	1804.596	1804.952	1805.308	1805.664	1806.020	1806.376	1806.732	1807.088	1807.444	1807.800	1808.156	1808.512	1808.868	1809.224	1809.580	1809.936	1810.292	1810.648	1811.004	1811.360	1811.716	1812.072	1812.428	1812.784	1813.140	1813.496	1813.852	1814.208	1814.564	1814.920	1815.276	1815.632	1815.988	1816.344	1816.700	1817.056	1817.412	1817.768	1818.124	1818.480	1818.836	1819.192	1819.548	1819.904	1820.260	1820.616	1820.972	1821.328	1821.684	1822.040	1822.396	1822.752	1823.108	1823.464	1823.820	1824.176	1824.532	1824.888	1825.244	1825.600	1825.956	1826.312	1826.668	1827.024	1827.380	1827.736	1828.092	1828.448	1828.804	1829.160	1829.516	1829.872	1830.228	1830.584	1830.940	1831.296	1831.652	1832.008	1832.364	1832.720	1833.076	1833.432	1833.788	1834.144	1834.500	1834.856	1835.212	1835.568	1835.924	1836.280	1836.636	1836.992	1837.348	1837.704	1838.060	1838.416	1838.772	1839.128	1839.484	1839.840	1840.196	1840.552	1840.908	1841.264	1841.620	1841.976	1842.332	1842.688	1843.044	1843.400	1843.756	1844.112	1844.468	1844.824	1845.180	1845.536	1845.892	1846.248	1846.604	1846.960	1847.316	1847.672	1848.028	1848.384	1848.740	1849.096	1849.452	1849.808	1850.164	1850.520	1850.876	1851.232	1851.588	1851.944	1852.300	1852.656	1853.012	1853.368	1853.724	1854.080	1854.436	1854.792	1855.148	1855.504	1855.860	1856.216	1856.572	1856.928	1857.284	1857.640	1857.996	1858.352	1858.708	1859.064	1859.420	1859.776	1860.132	1860.488	1860.844	1861.200	1861.556	1861.912	1862.268	1862.624	1862.980	1863.336	1863.692	1864.048	1864.404	1864.760	1865.116	1865.472	1865.828	1866.184	1866.540	1866.896	1867.252	1867.608	1867.964	1868.320	1868.676	1869.032	1869.388	1869.744	1870.100	1870.456	1870.812	1871.168	1871.524	1871.880	1872.236	1872.592	1872.948	1873.304	1873.660	1874.016	1874.372	1874.728	1875.084	1875.440	1875.796	1876.152	1876.508	1876.864	1877.220	1877.576	1877.932	1878.288	1878.644	1878.999	1879.355	1879.711	1880.067	1880.423	1880.779	1881.135	1881.491	1881.847	1882.203	1882.559	1882.915	1883.271	1883.627	1883.983	1884.339	1884.695	1885.051	1885.407	1885.763	1886.119	1886.475	1886.831	1887.187	1887.543	1887.899	1888.255	1888.611	1888.967	1889.323	1889.679	1890.035	1890.391	1890.747	1891.103	1891.459	1891.815	1892.171	1892.527	1892.883	1893.239	1893.595	1893.951	1894.307	1894.663	1895.019	1895.375	1895.731	1896.087	1896.443	1896.799	1897.155	1897.511	1897.867	1898.223	1898.579	1898.935	1899.291	1899.647	1900.003	1900.359	1900.715	1901.071	1901.427	1901.783	1902.139	1902.495	1902.851	1903.207	1903.563	1903.919	1904.275	1904.631	1904.987	1905.343	1905.699	1906.055	1906.411	1906.767	1907.123	1907.479	1907.835	1908.191	1908.547	1908.903	1909.259	1909.615	1909.971	1910.327	1910.683	1911.039	1911.395	1911.751	1912.107	1912.463	1912.819	1913.175	1913.531	1913.887	1914.243	1914.599	1914.955	1915.311	1915.667	1916.023	1916.379	1916.735	1917.091	1917.447	1917.803	1918.159	1918.515	1918.871	1919.227	1919.583	1919.939	1920.295	1920.651	1921.007	1921.363	1921.719	1922.075	1922.431	1922.787	1923.143	1923.499	1923.855	1924.211	1924.567	1924.923	1925.279	1925.635	1925.991	1926.347	1926.703	1927.059	1927.415	1927.771	1928.127	1928.483	1928.839	1929.195	1929.551	1929.907	1930.263	1930.619	1930.975	1931.331	1931.687	1932.043	1932.399	1932.755	1933.111	1933.467	1933.823	1934.179	1934.535	1934.891	1935.247	1935.603	1935.959	1936.315	1936.671	1937.027	1937.383	1937.739	1938.095	1938.451	1938.807	1939.163	1939.519	1939.875	1940.231	1940.587	1940.943	1941.299	1941.655	1942.011	1942.367	1942.723	1943.079	1943.435	1943.791	1944.147	1944.503	1944.859	1945.215	1945.571	1945.927	1946.283	1946.639	1946.995	1947.351	1947.707	1948.063	1948.419	1948.775	
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- LEGEND**
- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(1m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Pillar
 - ROW Pillar
 - Tree-7.5,15,14
 - Tree-13,12,11
 - Well
- Hand Pump**
- Control Point TS-148.2
- Identification**
- Municipal Top
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurudwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Lines**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Toe line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Building
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
- Existing Road Centre Line**
- Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed
- L-PROFILE**
- P-Gradient(%)
 - L-Length of Grade(m)
 - R-Radius of Curve (m, '-' sign for summit vertical curve and for left hand side horizontal curve)
 - CL-Transition
 - D-Straight distance
 - e-Superelevation in percentage



Break Chainage on package IV
 Ch.: 189.460(New)
 Ch.:189449.339(Old)

Revisions	Date	Description	Checked by
R2	Jan-2007	Modified Drawing	H.S.Cheema
R1	Aug-2006	Modified Drawing	H.S.Cheema
R0	JUN-2005	Initial Drawing	H.S.Cheema

GOOD FOR CONSTRUCTION

Prepared by	Designed by	Checked by	Approved by
ANJU	RAJEEV MAKHLIA	J.VENUGOPAL	J.C.THIRY

Revisions		Descriptions	
DRAWING NO :			
NHAI/NH-1A/BAN-SRI/PLAN/03/R2			
File Name :-			

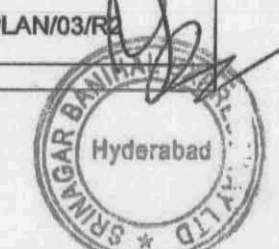


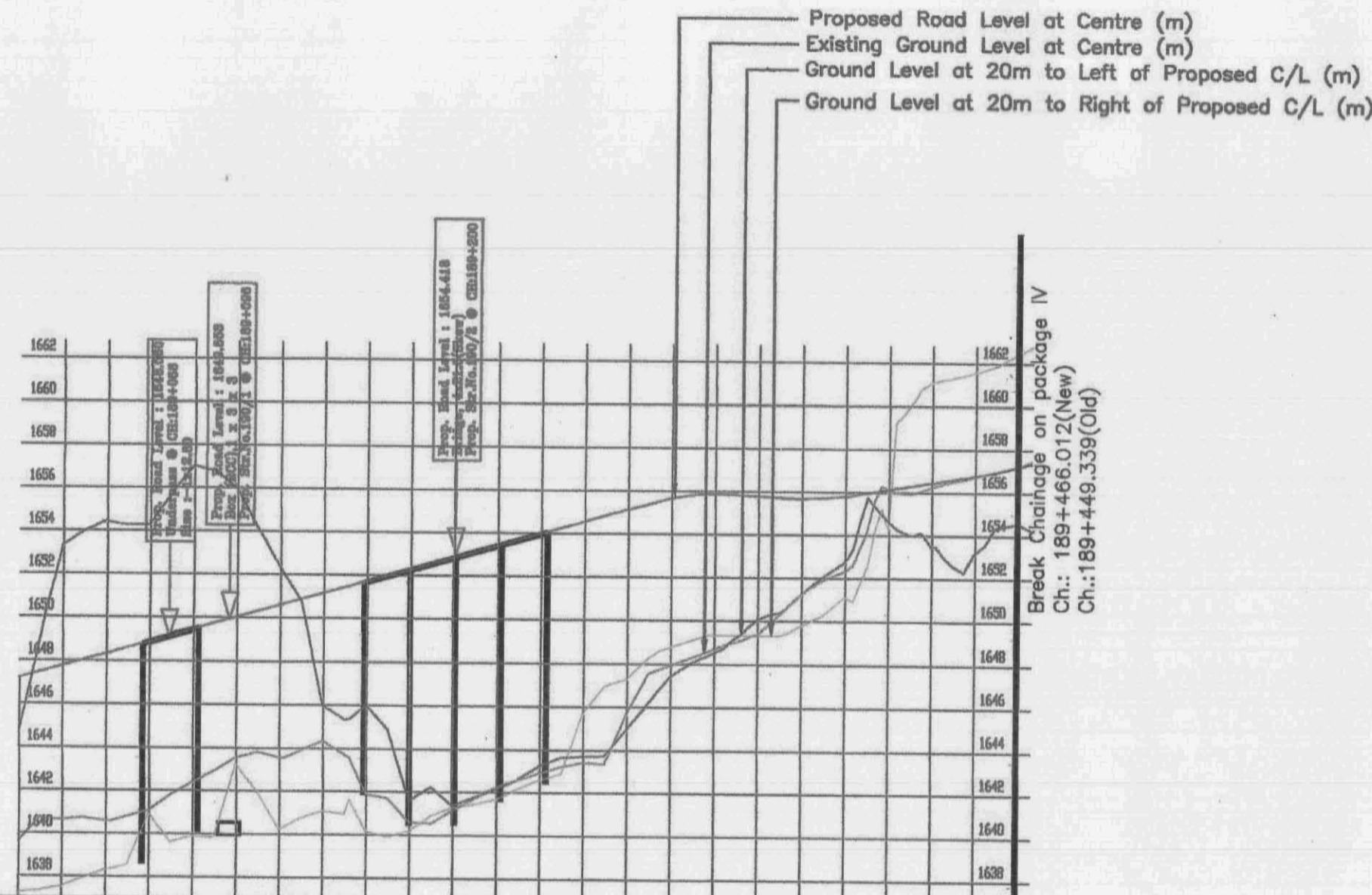
SCALE :- 1:1000

Feasibility Study and DPR for 4-Laning of
 Banihal to Srinagar Section (Km.188.00 to Km.296.00)
 of NH-1(A),(including Srinagar Bypass) in J & K State

Longitudinal Plan
 Km.189.000 To km.189.460
 (PACKAGE IV)

SCETAUROUTE FRANCE
 In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 A-5, Green Park, New Delhi - 110016
 Ph : 2686-3000, Fax 2686-5252
 and
 CHINA HIGHWAY ENGINEERING CONSULTING
 AND SUPERVISION CORPORATION, CHINA





DATUM (m)=1637.000

Proposed Road Level at Centre (m)	1638.199	1638.599	1639.147	1639.733	1640.354	1641.011	1641.703	1642.431	1643.195	1644.004	1644.858	1645.757	1646.691	1647.659	1648.671	1649.717	1650.800	1651.919	1653.074	1654.265	1655.491	1656.752	1658.049	1659.382	1660.751	1662.156		
Existing Ground Level at Centre (m)	1637.200	1637.330	1637.315	1637.285	1637.230	1637.150	1637.045	1636.915	1636.760	1636.580	1636.375	1636.145	1635.890	1635.610	1635.305	1634.975	1634.620	1634.240	1633.835	1633.405	1632.950	1632.470	1631.965	1631.435	1630.880	1630.300		
Ground Level at 20m to Left of Proposed C/L (m)	1637.200	1637.330	1637.315	1637.285	1637.230	1637.150	1637.045	1636.915	1636.760	1636.580	1636.375	1636.145	1635.890	1635.610	1635.305	1634.975	1634.620	1634.240	1633.835	1633.405	1632.950	1632.470	1631.965	1631.435	1630.880	1630.300		
Ground Level at 20m to Right of Proposed C/L (m)	1637.200	1637.330	1637.315	1637.285	1637.230	1637.150	1637.045	1636.915	1636.760	1636.580	1636.375	1636.145	1635.890	1635.610	1635.305	1634.975	1634.620	1634.240	1633.835	1633.405	1632.950	1632.470	1631.965	1631.435	1630.880	1630.300		
Proposed Vertical Alignment at C/L	L=1293.000n G=-2.822%																											
Proposed Horizontal Alignment at C/L	D=184.983n R=175.000n D=164.532n R=20.000n D=33.172n R=15.000n D=5.000n R=17.133n																											
Superelevation/Crossfall (%)	e=1.5% e=2.7% e=1.5% e=1.5%																											
CBR (%)	Subgrade/Borrow area CBR(7%)																											
Pavement	Strengthening Widening/New construction																											
Chainage (Km)	189+000	189+020	189+040	189+060	189+080	189+100	189+120	189+140	189+160	189+180	189+200	189+220	189+240	189+260	189+280	189+300	189+320	189+340	189+360	189+380	189+400	189+420	189+440	189+460	189+466.012			

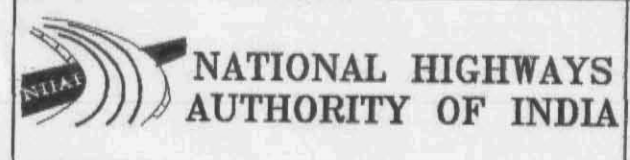
LEGEND

PLAN

- TS-Tangent to Spiral
- SC-Spiral to Curve
- CS-Curve to Spiral
- ST-Spiral to Tangent
- PC-Point of Circular Curve (With Transition)
- PT-Point of Tangent (Without Transition)
- Tangent point end(km)
- PS-Paved Shoulder
- SS-Soft Shoulder
- CBS-Crash Barrier space
- GPS
- Control Point
- Temporary Bench Mark
- Kilometer Stone
- Hectometer Stone
- Electric Pole
- Telephone Pole
- Lamp Post
- OPC Pillar
- ROW Pillar
- Tree-T6,T5,T4
- Tree-T3,T2,T1
- Well
- Hand Pump
- Control Point TS-148.2
- Identification
- Municipal Top
- Manhole
- Sign Post
- Gate
- Temple
- Mosque
- Gurudwara
- Church
- Guard Post
- Flag Post
- Transformer
- High Tension Lines
- Low Tension Lines
- Telephone Line
- Right-of-Way
- Right-of-Way-New
- Boundary/Fencing
- Boundary Water Body
- Boundary River Bank
- Canal
- Top line
- Crash Barrier
- Building Permanent/Temporary
- Existing Road Paved/Unpaved
- Utility Buildings
- Pipe Line
- OPC Line
- Water Pipe Line
- Earth Retaining Wall
- Crash Barrier
- Existing Road Centre Line
- Designed Centre Line
- Designed Road/Median Edges
- Culvert/Bridge - Existing
- Culvert/Bridge - Designed

L-PROFILE

- P-Gradient(%)
- L-Length of Grade(m)
- R-Radius of Curve (m), "-" sign for summit vertical curve and for left hand side horizontal curve
- CL-Transition
- D-Straight distance
- e-Superelevation in percentage



SCALE :- 1:1000

Feasibility Study and DPR for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

Longitudinal Profile Km.189.000 To km.189.460 (PACKAGE IV)

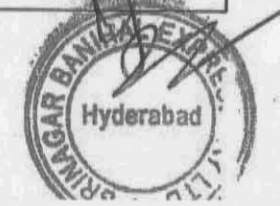
SCETAMROUTE FRANCE In joint venture with Intercontinental Consultants & Technocrats Pvt.Ltd. A-5, Green Park, New Delhi - 110016 Ph : 2616-3000, Fax 2616-0922 and CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

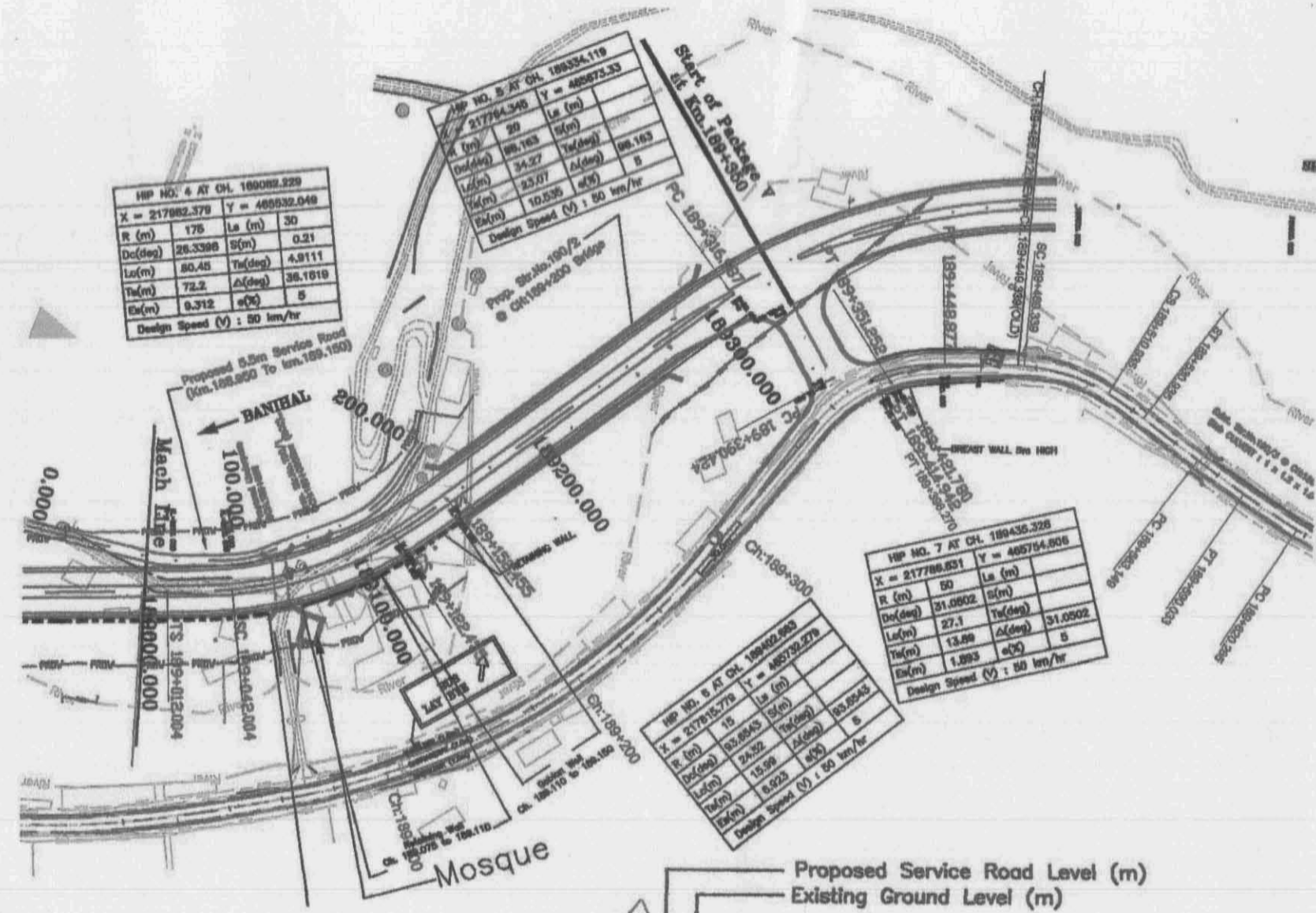
GOOD FOR CONSTRUCTION

Prepared by	ANU
Designed by	RAJESH MAHILIA
Checked by	J.VENUGOPAL
Approved by	J.C.THIRY

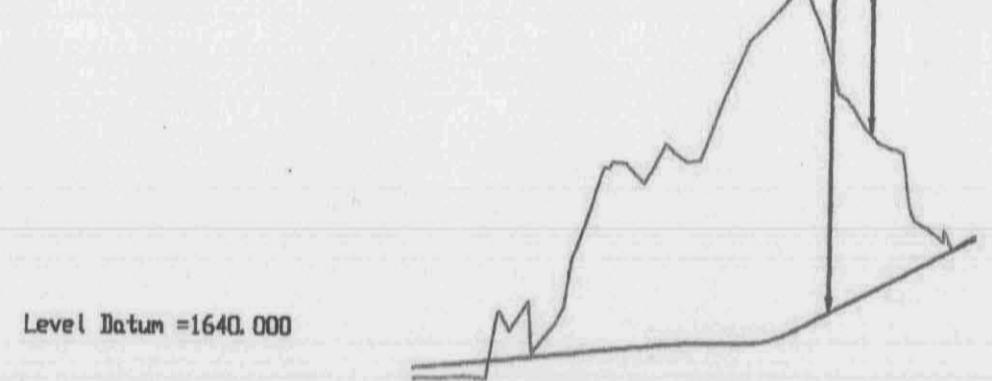
Revisions	Date	Description	Checked by
R2	Jan-2007	Modified Drawing	H.S.Cheema
R1	Aug-2005	Modified Drawing	H.S.Cheema
RO	JUN-2005	Initial Drawing	H.S.Cheema

DRAWING NO : NHAI/NH-1A/BAN-SRI/PROFILE/03A/R2





- LEGEND**
- PLAN**
- TS-Tangent to Spiral
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 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Pillar
 - R/W Filler
 - Tree-T1, T2, T4
 - Tree-T3, T2, T1
 - Well
 - Hand Pump
 - Control Point 10-14.52
 - Identification
 - Municipal Tap
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Lines**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tie line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed



Proposed Service Road Level (m)	Existing Ground Level (m)	Horizontal Alignment	Vertical Alignment	Chainage
1644.000	1640.625	L=39.426m	G=1.000	0+000
1641.200	1640.625	L=22.935m	L=92.500m	20+000
1641.400	1643.179	L=39.844m	L=92.500m	40+000
1641.600	1645.644	L=1.000m	L=92.500m	60+000
1641.800	1648.205	L=39.844m	L=92.500m	80+000
1641.900	1648.714	L=1.000m	L=92.500m	100+000
1642.000	1652.333	L=39.844m	L=92.500m	120+000
1642.318	1655.119	L=1.000m	L=92.500m	140+000
1643.354	1658.891	L=39.844m	L=92.500m	160+000
1644.389	1660.716	L=1.000m	L=92.500m	180+000
1645.625	1665.570	L=39.844m	L=92.500m	200+000



NATIONAL HIGHWAYS AUTHORITY OF INDIA

SCALE :- 1:1000

Feasibility Study and DPR for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

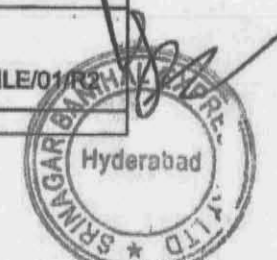
SERVICE ROAD PROFILE Km.188.950 To km.189.150(LHS) (PACKAGE IV)

SCETARQUE In joint venture with Intercontinental Consultants & Technocrats Pvt.Ltd. CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

GOOD FOR CONSTRUCTION

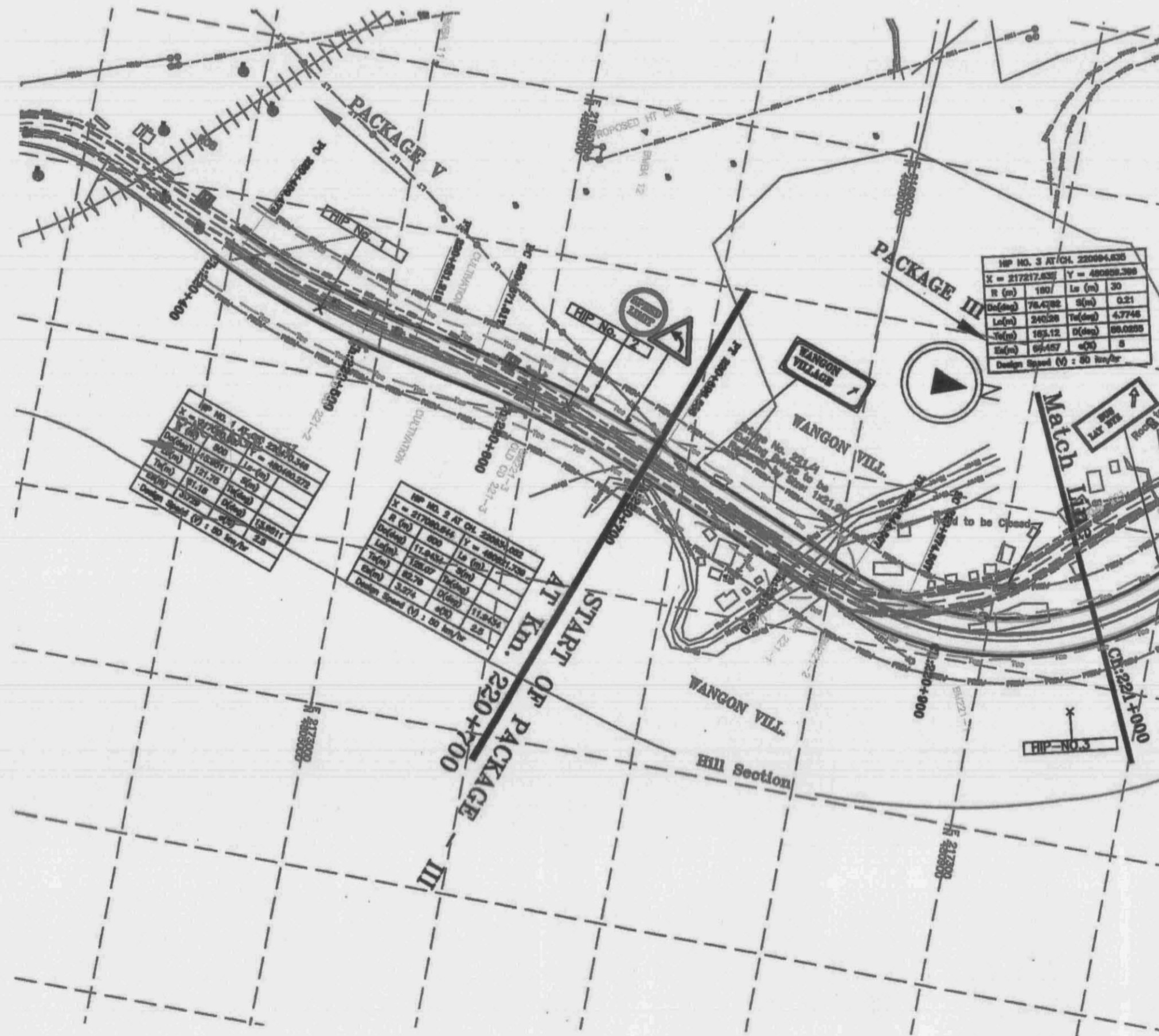
Revisions	Date	Description	Checked by
R2	Jan-2007	Modified Drawing	H.S.Cheema
R1	Aug-2006	Modified Drawing	H.S.Cheema
R0	JUN-2005	Initial Drawing	H.S.Cheema

Revisions
DRAWING NO :
NHA/NH-1A/BAN-SRI/PLAN_PROFILE/01



← JAMMU

SRINAGAR →



HP NO. 3 AT CH. 220994.630

X = 217217.828	Y = 489289.389
R (m) 180	Ls (m) 20
Da(deg) 78.438	Da(deg) 0.21
La(m) 340.58	Ta(deg) 4.7746
Ta(m) 162.12	Ca(deg) 88.8828
Ca(m) 81.07	Ca(m) 8
Design Speed (V) : 80 km/hr	

HP NO. 1 AT CH. 220711.546

X = 217217.828	Y = 489289.389
R (m) 180	Ls (m) 20
Da(deg) 78.438	Da(deg) 0.21
La(m) 340.58	Ta(deg) 4.7746
Ta(m) 162.12	Ca(deg) 88.8828
Ca(m) 81.07	Ca(m) 8
Design Speed (V) : 80 km/hr	

HP NO. 2 AT CH. 220801.000

X = 217217.828	Y = 489289.389
R (m) 180	Ls (m) 20
Da(deg) 78.438	Da(deg) 0.21
La(m) 340.58	Ta(deg) 4.7746
Ta(m) 162.12	Ca(deg) 88.8828
Ca(m) 81.07	Ca(m) 8
Design Speed (V) : 80 km/hr	

- LEGEND**
- PLAN**
- TS-Tangent to Spiral
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 - Tangent point and (m)
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 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Pillar
 - ROW Pillar
 - Tree-T3, T3.74
 - Tree-T3, T3.71
 - Well
- Hand Pump**
- Control Point TB-148.2
 - Identification
 - Manhole Top
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Line**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-Hor
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tie line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
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 - Pipe Line
 - OFC Line
 - Water Pipe Line
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 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed



NATIONAL HIGHWAYS AUTHORITY OF INDIA

Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

Plan
 Km.220+700 to Km.221+000
 NS-92/J&K

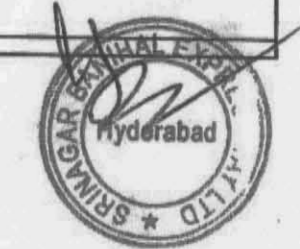
SCETAMBOURNE PVT. LTD. In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 4-B, Green Park, New Delhi - 110016
 Ph : 2686-3000, Fax 2686-8822
 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: Bobby Thomas
 Designed by: S.Bhatnagar
 Checked by: L.K.Sharma
 Approved by: J.C.Thiry

Revision	Date	Description	Checked by
R1	Nov,2006	Modified Drawing	
RD	April,2006	Initial Drawing	

Revisions

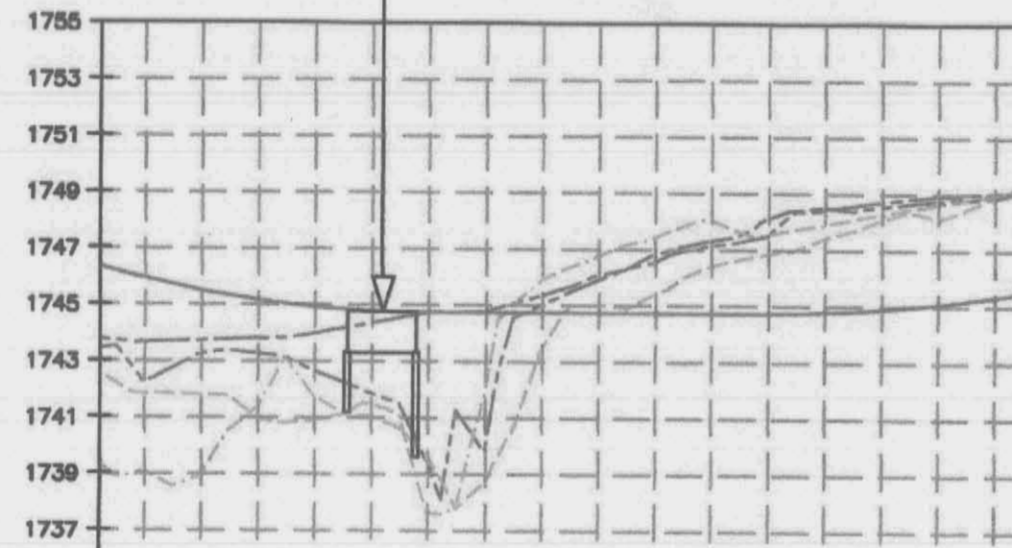
DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/01/R1



← JAMMU

SRINAGAR →

Bridge No.221/1, at km 226.784
Wagon Bridge
Span :- 1m x 21.9m



Datum Level =1735			
Ground Level at 20 m to Left of Proposed Median C/L			
Ground Level at 20 m to Right of Proposed Median C/L			
Existing Ground /Road level at Median Edge - Left Carriageway			
Existing Ground /Road level at Median Edge - Right Carriageway			
Proposed Road Level of Median Edge - Left Carriageway			
Proposed Road Level of Median Edge - Right Carriageway			
Proposed Vertical Alignment - Left Median Edge	L=125m	Q=0	L=100m
Proposed Vertical Alignment - Right Median Edge	L=125m	Q=0	L=100m
Proposed Horizontal Alignment of Centre line	Ls = 30.0m, R = 180.0m		
Superelevation/Crossfall (%)			
Chainage	220+700	220+720	220+740
	220+760	220+780	220+800
	220+820	220+840	220+860
	220+880	220+900	220+920
	220+940	220+960	220+980
	221+000		

LEGEND

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 - PT-Point of Tangent (Without Transition)
 - Tangent point end(m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Heckometer Stone
 - Electric Pole
 - Telephone Pole
 - Lamp Post
 - CFC Pillar
 - ROW Pillar
 - Tree-T6,T5,T4
 - Tree-T3,T2,T1
 - Well
 - Hand Pump
 - Control Point
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
 - Temple
 - Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way - New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Toe line
 - Crash Barrier
 - Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - CFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

Legend For Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level at Left Median Edge
- Existing Ground/Road Level at Right Median Edge
- Proposed Road Level at Left Median Edge
- Proposed Road Level at Right Median Edge



Horizontal Scale 1 : 2500
Vertical Scale 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.298.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Profile Km.220+700 to Km.221+000 NS-92/J&K

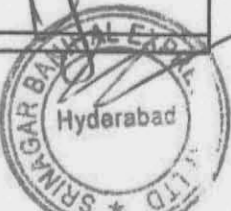
SCITAIROITE FRANCE In joint venture with Intercontinental Consultants & Technocrats Pvt.Ltd. A-8, Green Park, New Delhi - 110016 Ph : 2686-3000, Fax 2686-5282 and CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by Bobby Thomas, S.Bhattacharya
Designed by L.K. Sharma, J.C.Thiruv
Checked by

Revision	Date	Description	Checked by
R1	Nov,2006	Modified Drawing	
RD	April,2006	Initial Drawing	

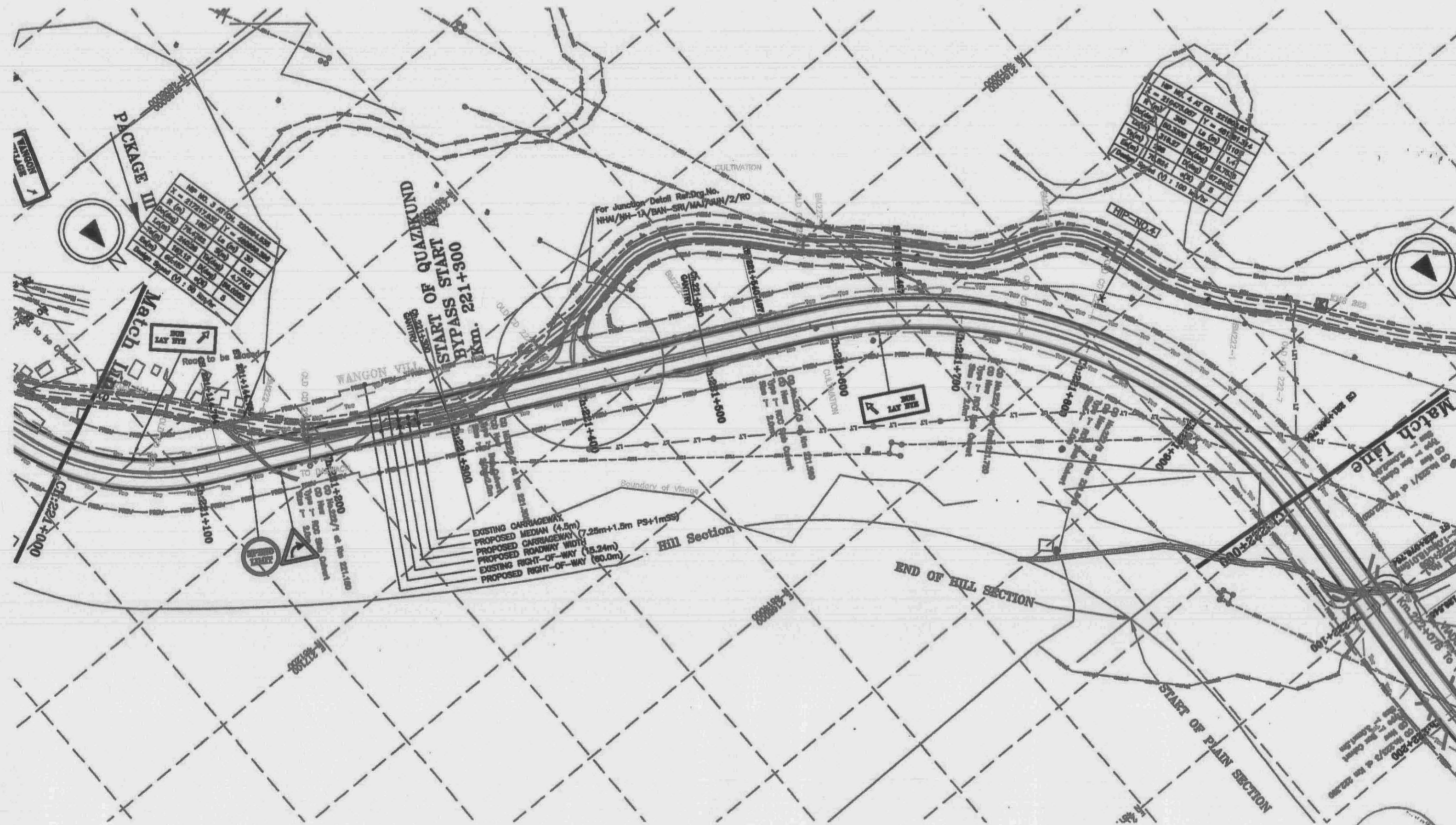
Revisions

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/01A/R1



← JAMMU

SRINAGAR →



LEGEND

PLAN

- TS-Tangent to Spiral
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 - Tangent point end(m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
-
- GPS
 - Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
-
- Telephone Pole
 - Lamp Post
 - OFC Piler
 - ROW Piler
 - Tree-10,15,14
 - Tree-15,12,11
 - Well
 - Hand Pump
 - Control Point TS-145.2
 - Identification
 - Marking Top
 - Manhole
 - Sign Post
 - Gate
-
- Temple
 - Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-Now
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tie line
 - Crash Barrier
-
- Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
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 - Existing Road Centre Line
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 - Culvert/Bridge - Existing
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Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Plan
 Km.221+000 to Km.222+000
 NS-92/J&K

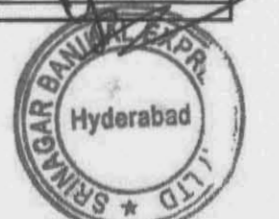
SCITAIBOITE INNS In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 A-8, Green Park, New Delhi - 110016
 Ph : 2664-3000, Fax 2665-8252

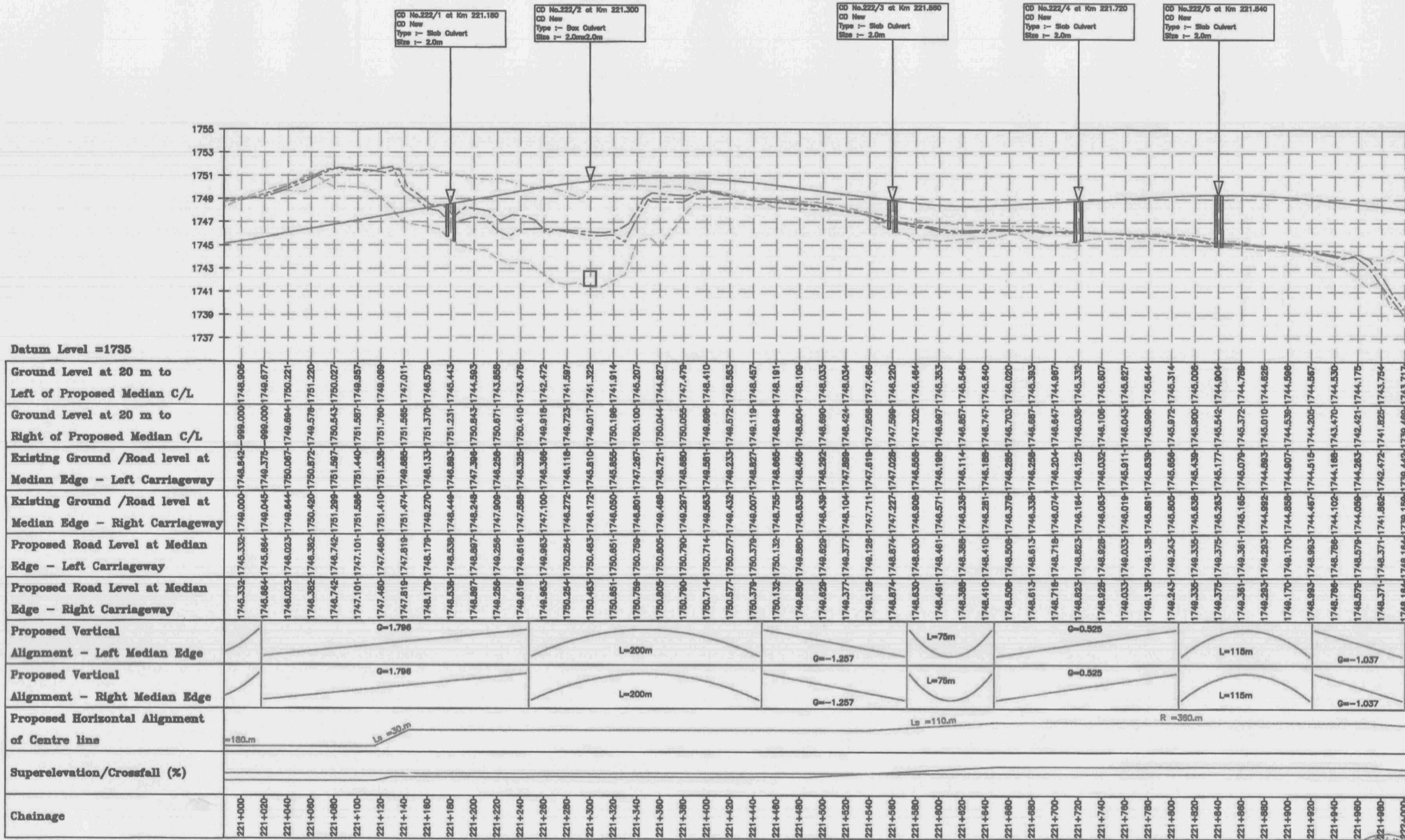
Bobby Thomas Prepared by
 S.Chattopadhyay Designed by
 L.K.Sharma Checked by
 J.C.Thiruv Approved by

Revisions	Date	Description	Checked by
R1	Nov,2006	Modified Drawing	
R0	April,2006	Initial Drawing	

Revisions

DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/02/R1





LEGEND

PLAN

- TS-Tangent to Spiral
- SC-Spiral to Curve
- CS-Curve to Spiral
- ST-Spiral to Tangent
- PC-Point of Curvature (with Transition)
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- Tangent point end(1m)
- PS-Paved Shoulder
- SS-Soft Shoulder
- CBS-Crash Barrier space

GPS

- Control Point
- Temporary Bench Mark
- Kilometer Stone
- Hectometer Stone
- Electric Pole

Telephone Pole
Lamp Post
OPC Pillar
R/W Pillar
Tree-T6,T8,T4
Tree-T5,T2,T1
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Hand Pump
Control Point
Identification

- Manhole Top
- Manhole
- Sign Post
- Gate

Temple
Mosque
Gurdwara
Church
Guard Post
Flag Post
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Right-of-Way-New
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Boundary Water Body
Boundary River Bank
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Building Permanent/Temporary
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Utility Building
Pipe Line
OPC Line
Water Pipe Line
Earth Retaining Wall
Crash Barrier

Existing Road Centre Line
Designed Centre Line
Designed Road/Median Edge
Culvert/Bridge - Existing
Culvert/Bridge - Designed

Legend For Profile

- Ground Level 20m to Left of Existing CL
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Horizontal Scale 1 : 2500
Vertical Scale 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Profile Km.221+000 to Km.222+000 NS-92/J&K

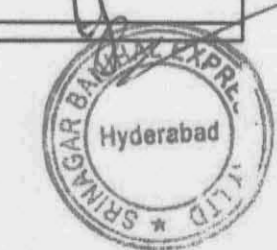
SCITEAMCORP FRANCE In joint venture with Intercontinental Consultants & Technocrats Pvt.Ltd. CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION CHINA

Prepared by: Bobby Thomas, S.Shanthasharan
Checked by: L.K.Sharma, J.C.Thiruv

Revision	Date	Description	Checked by
R1	Nov,2006	Modified Drawing	
R0	April,2006	Initial Drawing	

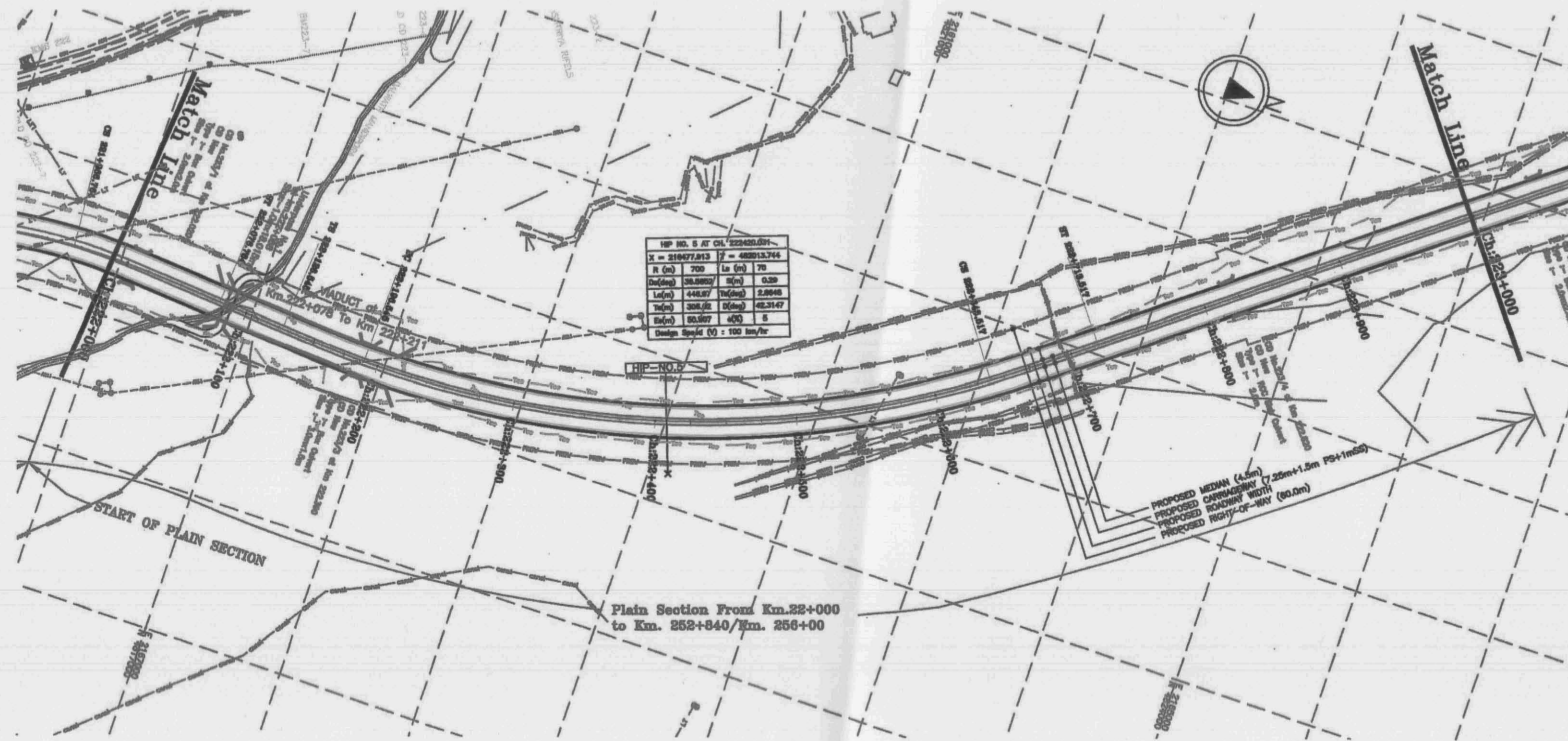
Revisions

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/02A/R1



← JAMMU

SRINAGAR →



LEGEND

PLAN

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- Hand Pump
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- Right-of-Way
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- Existing Road Centre Line
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Horizontal Scale 1 : 2500
 0 20 40 60 80
 Vertical Scale 1 : 250
 0 2 4 6 8 10m

Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

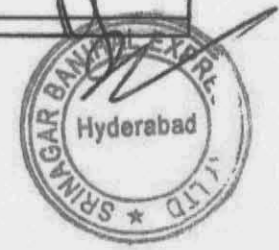
Plan
 Km.222+000 to Km.223+000
 NS-92/J&K

SCETANBOUITE INNOVEX In Joint venture with
 Intercontinental Consultants & Technocrats P.L.Ltd.
 A-4, Green Park, New Delhi - 110016
 Ph : 2886-3000, Fax 2885-8282
 CHINA HIGHWAY ENGINEERING CONSULTING
 AND SUPERVISION CORPORATION, CHINA

Prepared by Bobby Thomas
 Designed by S.Shattocharies
 Checked by L.K. Sharma
 Approved by J.C.Thiry

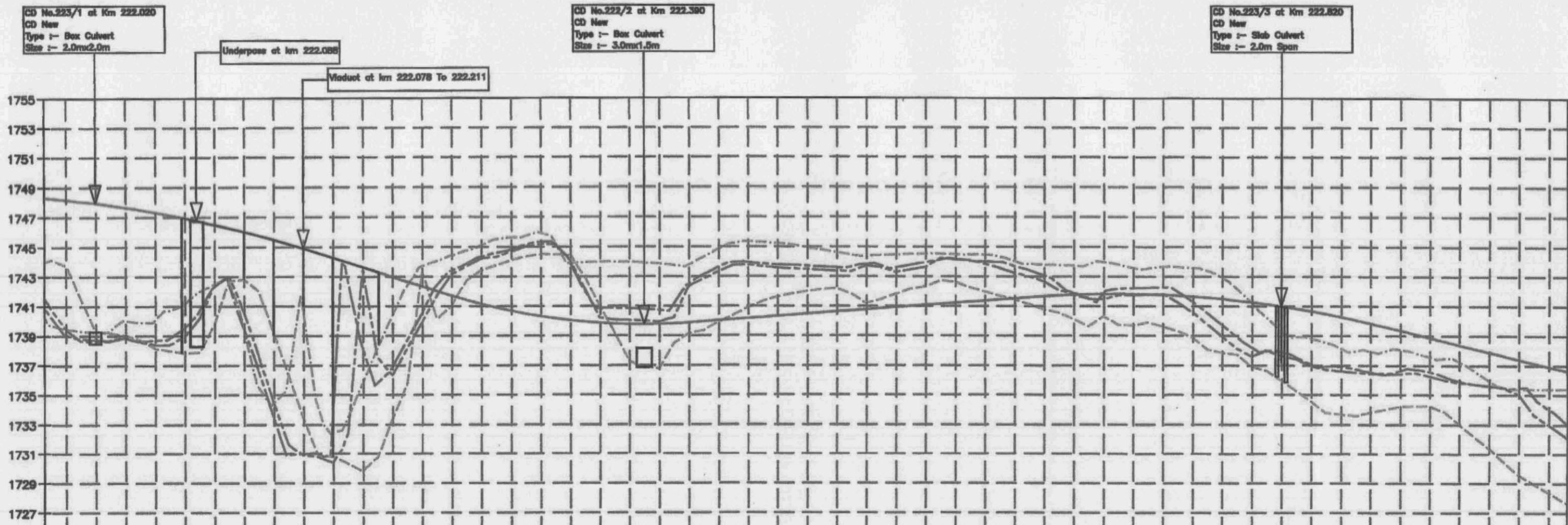
Revision	Date	Description	Checked by
R1	Nov,2006	Modified Drawing	
RD	April,2006	Initial Drawing	

DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/03/R1



← JAMMU

SRINAGAR →



Datum Level =1725

Ground Level at 20 m to Left of Proposed Median C/L	1743.717-1739.442-1739.468-1743.717-1739.270-1747.933-1747.933-1738.711-1738.572-1739.217-1739.020-1747.851-1747.851-1738.877-1738.864-1740.036-1739.020-1747.318-1747.319-1738.657-1738.394-1739.595-1738.135-1746.937-1746.937-1739.372-1738.928-1741.016-1737.807-1746.505-1746.505-1742.165-1742.394-1742.396-1739.753-1746.022-1746.022-1739.849-1740.553-1740.079-1742.803-1745.488-1745.488-1733.958-1734.484-1734.275-1739.219-1744.905-1744.905-1730.965-1730.876-1741.742-1733.400-1744.272-1744.272-1730.853-1730.364-1732.368-1730.790-1743.624-1743.624-1738.729-1743.458-1735.408-1729.784-1742.876-1742.876-1738.515-1736.317-1739.955-1733.383-1742.328-1742.328-1740.094-1738.802-1743.813-1743.344-1741.880-1741.880-1743.282-1743.180-1744.336-1741.025-1741.133-1741.133-1744.248-1744.208-1744.985-1743.414-1740.868-1740.868-1744.721-1744.665-1745.814-1744.089-1740.300-1740.300-1745.302-1745.183-1745.960-1744.486-1740.024-1740.024-1744.425-1744.087-1743.877-1744.432-1739.842-1739.842-1740.838-1740.194-1743.982-1741.028-1739.754-1739.754-1740.839-1740.034-1743.984-1737.281-1738.780-1738.780-1740.740-1738.918-1743.882-1738.777-1739.860-1739.860-1742.134-1742.340-1743.677-1739.132-1740.010-1740.010-1743.444-1743.319-1744.666-1739.883-1740.180-1740.180-1743.971-1743.788-1745.344-1740.867-1740.310-1740.310-1743.808-1743.586-1745.249-1741.816-1740.481-1740.481-1743.729-1743.474-1745.009-1741.992-1740.611-1740.611-1743.821-1743.381-1744.678-1742.185-1740.781-1740.781-1743.799-1743.713-1744.367-1741.200-1740.911-1740.911-1743.820-1743.289-1744.458-1741.806-1741.081-1741.081-1743.871-1743.634-1744.522-1742.325-1741.212-1741.212-1744.220-1744.128-1744.301-1742.633-1741.382-1741.382-1744.013-1743.863-1744.478-1741.980-1741.512-1741.512-1743.865-1743.239-1744.198-1741.459-1741.858-1741.858-1743.245-1742.667-1743.828-1740.777-1741.784-1741.784-1742.031-1741.781-1743.758-1740.111-1741.815-1741.815-1741.284-1741.446-1744.014-1740.283-1741.812-1741.812-1742.180-1741.742-1743.676-1739.899-1741.754-1741.754-1742.250-1741.816-1743.632-1739.828-1741.641-1741.641-1741.851-1740.581-1743.807-1738.865-1741.475-1741.475-1740.110-1738.945-1743.211-1737.829-1741.254-1741.254-1738.505-1737.809-1741.728-1738.904-1740.979-1740.979-1737.878-1737.600-1739.759-1735.953-1740.648-1740.648-1737.274-1736.942-1738.929-1734.544-1740.285-1740.285-1738.944-1738.594-1738.380-1733.888-1739.827-1739.827-1738.609-1738.431-1738.040-1733.806-1739.344-1739.344-1738.474-1738.408-1738.121-1734.189-1738.856-1738.856-1738.669-1738.281-1737.896-1734.244-1738.368-1738.368-1738.040-1738.829-1737.512-1733.003-1737.890-1737.890-1735.650-1735.594-1736.293-1731.370-1737.392-1737.392-1735.424-1735.041-1735.410-1729.580-1736.905-1736.905-1734.384-1732.968-1735.403-1728.371
Ground Level at 20 m to Right of Proposed Median C/L	
Existing Ground /Road level at Median Edge - Left Carriageway	
Existing Ground /Road level at Median Edge - Right Carriageway	
Proposed Road Level of Median Edge - Left Carriageway	
Proposed Road Level of Median Edge - Right Carriageway	
Proposed Vertical Alignment - Left Median Edge	
Proposed Vertical Alignment - Right Median Edge	
Proposed Horizontal Alignment of Centre Line	
Superelevation/Crossfall (%)	
Chainage	222+000-222+020-222+040-222+060-222+080-222+100-222+120-222+140-222+160-222+180-222+200-222+220-222+240-222+260-222+280-222+300-222+320-222+340-222+360-222+380-222+400-222+420-222+440-222+460-222+480-222+500-222+520-222+540-222+560-222+580-222+600-222+620-222+640-222+660-222+680-222+700-222+720-222+740-222+760-222+780-222+800-222+820-222+840-222+860-222+880-222+900-222+920-222+940-222+960-222+980-222+000

LEGEND

PLAN

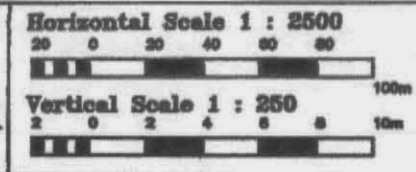
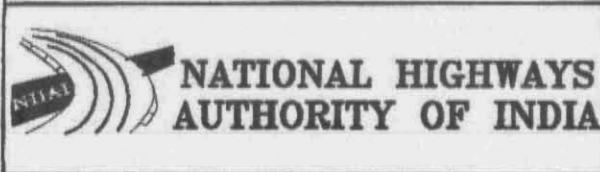
- TS-Tangent to Spiral
- SC-Spiral to Curve
- CS-Curve to Spiral
- ST-Spiral to Tangent
- PC-Point of Circular Curve (With Transition)
- PT-Point of Tangent (Without Transition)
- Tangent point end(m)
- PS-Paved Shoulder
- SS-Soft Shoulder
- CBS-Crash Barrier space

PLAN

- GPS Control Point
- Temporary Bench Mark
- Kilometer Stone
- Neckometer Stone
- Electric Pole
- Telephone Pole
- Lamp Post
- OTC Pillar
- ROW Pillar
- Tree-15,15,14
- Tree-7.5,7.5,7
- Wall
- Hand Pump
- Control Point
- Identification
- Municipal Top
- Manhole
- Sign Post
- Gate
- Temple
- Mosque
- Gurdwara
- Church
- Guard Post
- Flag Post
- Transformer
- High Tension Lines
- Low Tension Lines
- Telephone Lines
- Right-of-Way
- Right-of-Way-New
- Boundary/Fencing
- Boundary Water Body
- Boundary River Bank
- Canal
- Tie line
- Crash Barrier
- Building Permanent/Temporary
- Existing Road Paved/Unpaved
- Utility Buildings
- Pipe Line
- OFC Line
- Water Pipe Line
- Earth Retaining Wall
- Crash Barrier
- Existing Road Centre Line
- Designed Centre Line
- Designed Road/Median Edges
- Culvert/Bridge - Existing
- Culvert/Bridge - Designed

Legend For Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level at Left Median Edge
- Existing Ground/Road Level at Right Median Edge
- Proposed Road Level at Left Median Edge
- Proposed Road Level at Right Median Edge



Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Profile
Km.222+000 to Km.223+000
NS-92/J&K

SCETANROHITE IN JOINT VENTURE WITH

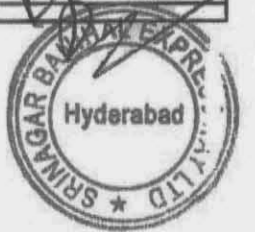
Intercontinental Consultants & Technocrats Pvt.Ltd.
A-8, Green Park, New Delhi - 110016
Ph : 2626-3000, Fax 2626-6222

CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: **Rajiv Thakur**
Designed by: **S.Srinivasarao**
Checked by: **L.K.Sharma**
Approved by: **J.C.Thiruv**

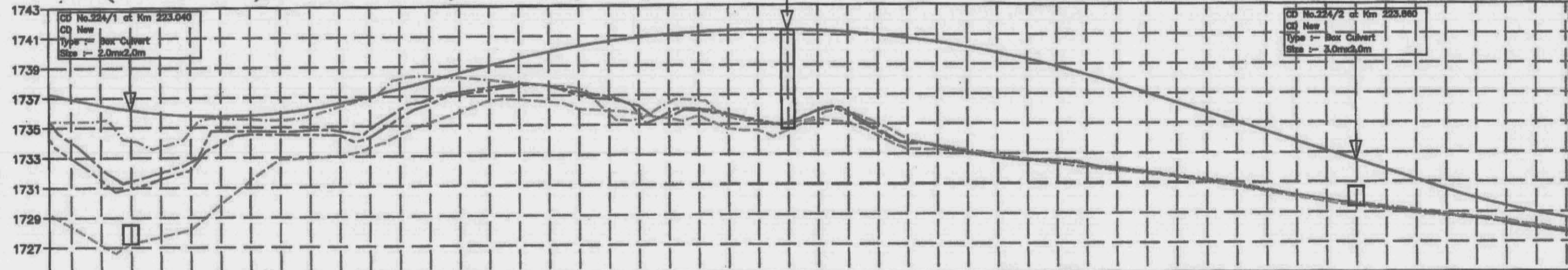
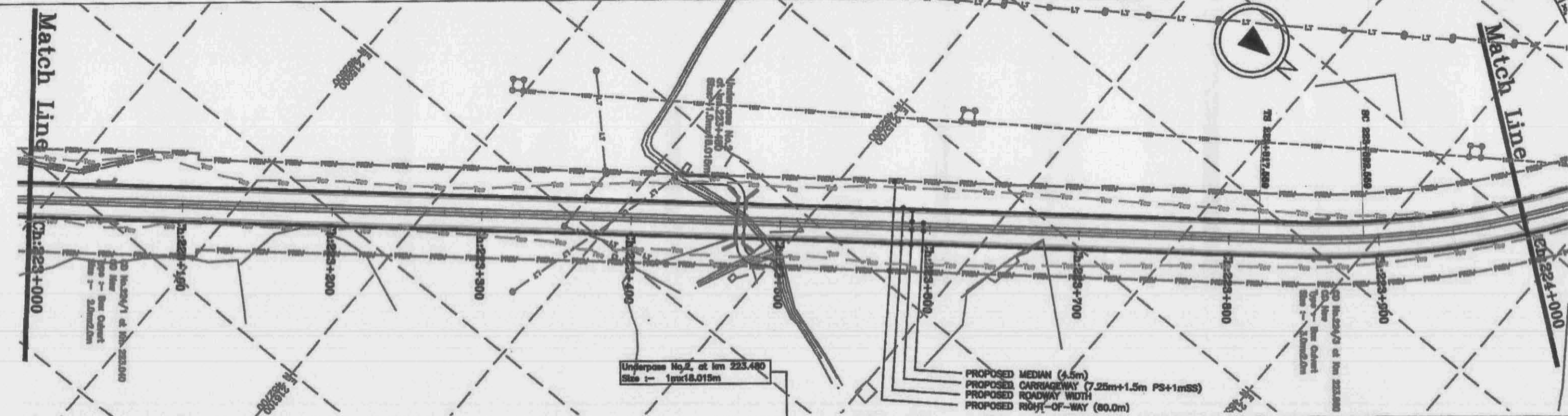
R1	Nov,2006	Modified Drawing	
R0	April,2006	Initial Drawing	
Revisions	Date	Description	Checked by

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/03A/R1



JAMMU ←

→ SRINAGAR



Datum Level =1725

Ground Level at 20 m to Left of Proposed Median C/L	1735.371-1735.403-1727.227
Ground Level at 20 m to Right of Proposed Median C/L	1735.403-1735.404-1727.150
Existing Ground/Road level at Median Edge - Left Carriageway	1732.968-1730.887-1729.849
Existing Ground/Road level at Median Edge - Right Carriageway	1732.783-1731.508-1729.849
Proposed Road Level at Median Edge - Left Carriageway	1736.905-1736.905-1736.905
Proposed Road Level at Median Edge - Right Carriageway	1736.905-1736.905-1736.905
Proposed Vertical Alignment - Left Median Edge	L=210m, G=2.561, L=430m
Proposed Vertical Alignment - Right Median Edge	L=210m, G=2.561, L=430m
Proposed Horizontal Alignment of Centre line	L=75m
Superelevation/Crossfall (%)	0.00
Chainage	223+000 to 223+680

LEGEND

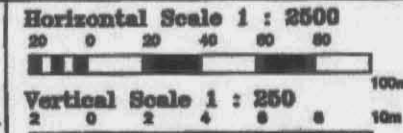
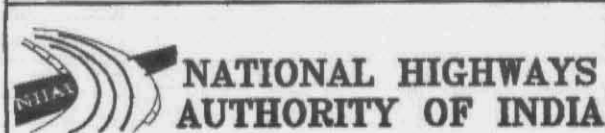
PLAN

- TS-Tangent to Spiral
- SC-Spiral to Curve
- CS-Curve to Spiral
- ST-Spiral to Tangent
- PC-Point of Circular Curve (With Transition)
- PT-Point of Tangent (Without Transition)
- Tangent point end(10m)
- PS-Paved Shoulder
- SS-Soft Shoulder
- CBS-Crash Barrier space
- GPS Control Point
- Temporary Bench Mark
- Kilometer Stone
- Hectometer Stone
- Electric Pole
- Telephone Pole
- Lamp Post
- GFC Pole
- ROW Pole
- Tree-T5,T5,T4
- Tree-T3,T2,T1
- Well
- Hand Pump
- Control Point TS-148.2
- Identification
- Municipal Top
- Manhole
- Sign Post
- Gate
- Temple
- Mosque
- Gurdwara
- Church
- Guard Post
- Flag Post
- Transformer
- High Tension Line
- Low Tension Line
- Telephone Line
- Right-of-Way
- Right-of-Way-New
- Boundary/Fencing
- Boundary Water Body
- Boundary River Bank
- Canal
- Tree Line
- Crash Barrier
- Building Permanent/Temporary
- Existing Road Paved/Unpaved
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- GFC Line
- Water Pipe Line
- Earth Retaining Wall
- Crash Barrier
- Existing Road Centre Line
- Designed Centre Line
- Designed Road/Median Edge
- Culvert/Bridge - Existing
- Culvert/Bridge - Designed

Legend For Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level at Left Median Edge
- Existing Ground/Road Level at Right Median Edge
- Proposed Road Level at Left Median Edge
- Proposed Road Level at Right Median Edge

RI	Nov.2006	Modified Drawing	
RO	April.2006	Initial Drawing	
Revision	Date	Description	Checked by



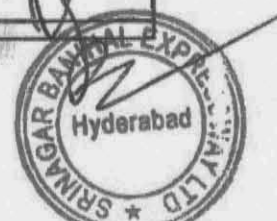
Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Plan & Profile Km.223+000 to Km.224+000 NS-92/J&K

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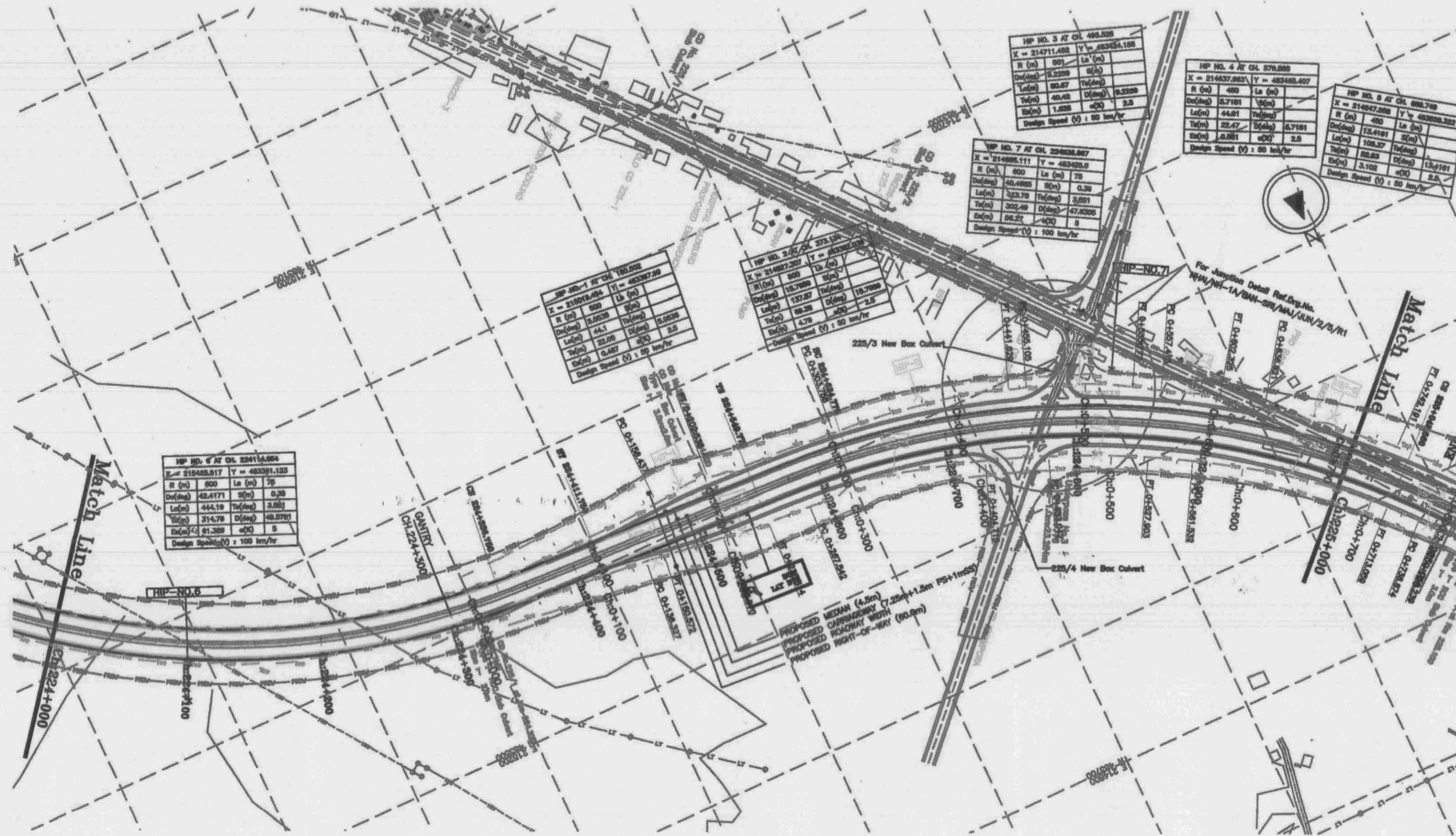
Prepared by: S. Shastri, L.K. Sharma, Checked by: J.C. Tripathy

Revisions DRAWING NUMBER NHAI/NH-1A/BAN-SRI/PP/04/R1



← JAMMU

SRINAGAR →



LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curves (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(tem)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier apses
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OPC Pillar
 - ROW Pillar
 - Tree-T5,T5,T4
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 - Municipal Top
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 - Sign Post
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- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- HighTension Lines**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tree Line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - CFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
- Existing Road Centre Line**
- Designed Centre Line
 - Designed Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

HP NO. 6 AT CH. 2241.000

X = 210425.517	Y = 483391.123
R (m)	600
La (m)	75
De(deg)	48.6171
Te(deg)	314.78
Di(deg)	48.8781
Design Speed (V)	100 km/hr

HP NO. 1 AT CH. 2257.250

X = 210219.484	Y = 483397.339
R (m)	600
La (m)	75
De(deg)	44.1
Te(deg)	22.08
Di(deg)	45.0
Design Speed (V)	100 km/hr

HP NO. 2 AT CH. 2257.500

X = 210219.484	Y = 483397.339
R (m)	600
La (m)	75
De(deg)	44.1
Te(deg)	22.08
Di(deg)	45.0
Design Speed (V)	100 km/hr

HP NO. 7 AT CH. 2263.887

X = 210488.111	Y = 483402.5
R (m)	600
La (m)	75
De(deg)	40.4888
Te(deg)	323.78
Di(deg)	47.8288
Design Speed (V)	100 km/hr

HP NO. 3 AT CH. 488.228

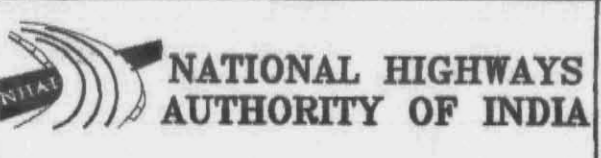
X = 214271.482	Y = 483484.128
R (m)	600
La (m)	75
De(deg)	42.2288
Te(deg)	40.48
Di(deg)	45.2288
Design Speed (V)	100 km/hr

HP NO. 4 AT CH. 578.888

X = 214837.883	Y = 483488.407
R (m)	600
La (m)	75
De(deg)	44.81
Te(deg)	22.47
Di(deg)	45.7181
Design Speed (V)	100 km/hr

HP NO. 5 AT CH. 688.748

X = 214987.288	Y = 483492.322
R (m)	600
La (m)	75
De(deg)	44.81
Te(deg)	22.47
Di(deg)	45.7181
Design Speed (V)	100 km/hr



Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

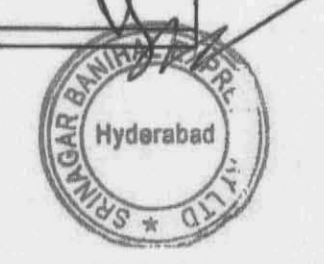
Plan
 Km.224+000 to Km.225+000
 NS-92/J&K

SCITEAM/ROU
 In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
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 Ph : 2882-3000, Fax 2882-3282

Prepared by: S. Bhattacharya
 Designed by: J.C. Thiry
 Checked by: L.K. Sharma
 Approved by: J.C. Thiry

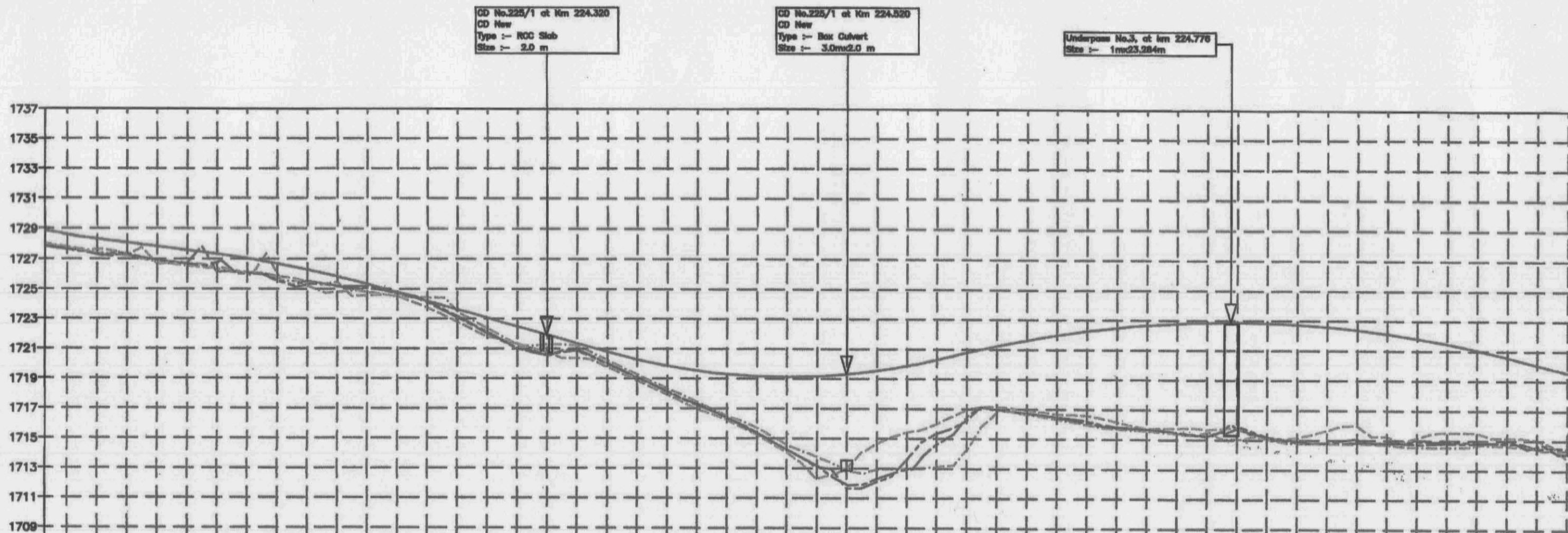
R1	Nov,2006	Modified Drawing	
R0	April,2006	Initial Drawing	
Revisions	Date	Description	Checked by

Revisions
 DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/05/R1



← JAMMU

SRINAGAR →



Datum Level = 1707

Ground Level at 20 m to Left of Proposed Median C/L	1727.711	1727.883	1727.988	1728.031	1728.089	1728.160	1728.254	1728.371	1728.511	1728.683	1728.888	1729.125	1729.494	1729.997	1730.634	1731.408	1732.319	1733.367	1734.552	1735.874	1737.333																														
Ground Level at 20 m to Right of Proposed Median C/L	1727.711	1727.883	1727.988	1728.031	1728.089	1728.160	1728.254	1728.371	1728.511	1728.683	1728.888	1729.125	1729.494	1729.997	1730.634	1731.408	1732.319	1733.367	1734.552	1735.874	1737.333																														
Existing Ground /Road level at Median Edge - Left Carriageway	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588																														
Existing Ground /Road level at Median Edge - Right Carriageway	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588																														
Proposed Road Level at Median Edge - Left Carriageway	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588																														
Proposed Road Level at Median Edge - Right Carriageway	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588	1728.588																														
Proposed Vertical Alignment - Left Median Edge	G=-1.241		L=120m		G=-2.833		L=230m		G=2.502		L=370m																																								
Proposed Vertical Alignment - Right Median Edge	G=-1.241		L=120m		G=-2.833		L=230m		G=2.502		L=370m																																								
Proposed Horizontal Alignment of Centre line	R=600m				Ls=75m				Ls=75m				R=600m																																						
Superelevation/Crossfall (%)	0.00																																																		
Chainage	224+000	224+020	224+040	224+060	224+080	224+100	224+120	224+140	224+160	224+180	224+200	224+220	224+240	224+260	224+280	224+300	224+320	224+340	224+360	224+380	224+400	224+420	224+440	224+460	224+480	224+500	224+520	224+540	224+560	224+580	224+600	224+620	224+640	224+660	224+680	224+700	224+720	224+740	224+760	224+780	224+800	224+820	224+840	224+860	224+880	224+900	224+920	224+940	224+960	224+980	225+000

LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
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 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point (m/100m)
 - PS-Point Shoulder
 - SS-Soft Shoulder
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 - Tree-18,15,14
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 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Lines**
- Low Tension Lines
 - Telephone Lines
 - Right-of-Way
 - Right-of-Way-Now
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tie line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Pavement/Unpaved
 - Utility Buildings
 - Pipe Line
 - OPC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

Legend for Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level at Left Median Edge
- Existing Ground/Road Level at Right Median Edge
- Proposed Road Level at Left Median Edge
- Proposed Road Level at Right Median Edge



Horizontal Scale 1 : 2500
Vertical Scale 1 : 200

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A), (including Srinagar Bypass) in J & K State

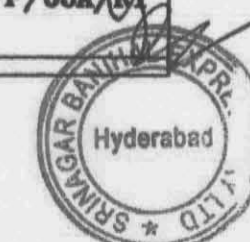
Profile Km.224+000 to Km.225+000 NS-92/J&K

SCET/ARQUITECTURA INRS In joint venture with Intercontinental Consultants & Technocrats Pvt.Ltd. A-8, Green Park, New Delhi - 110016 Ph : 2656-3000, Fax 2656-0232 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by Bobby Thomas S.Shottacharjee
Designed by L.K. Sharma J.C.Thiruv
Checked by J.C.Thiruv Approved by

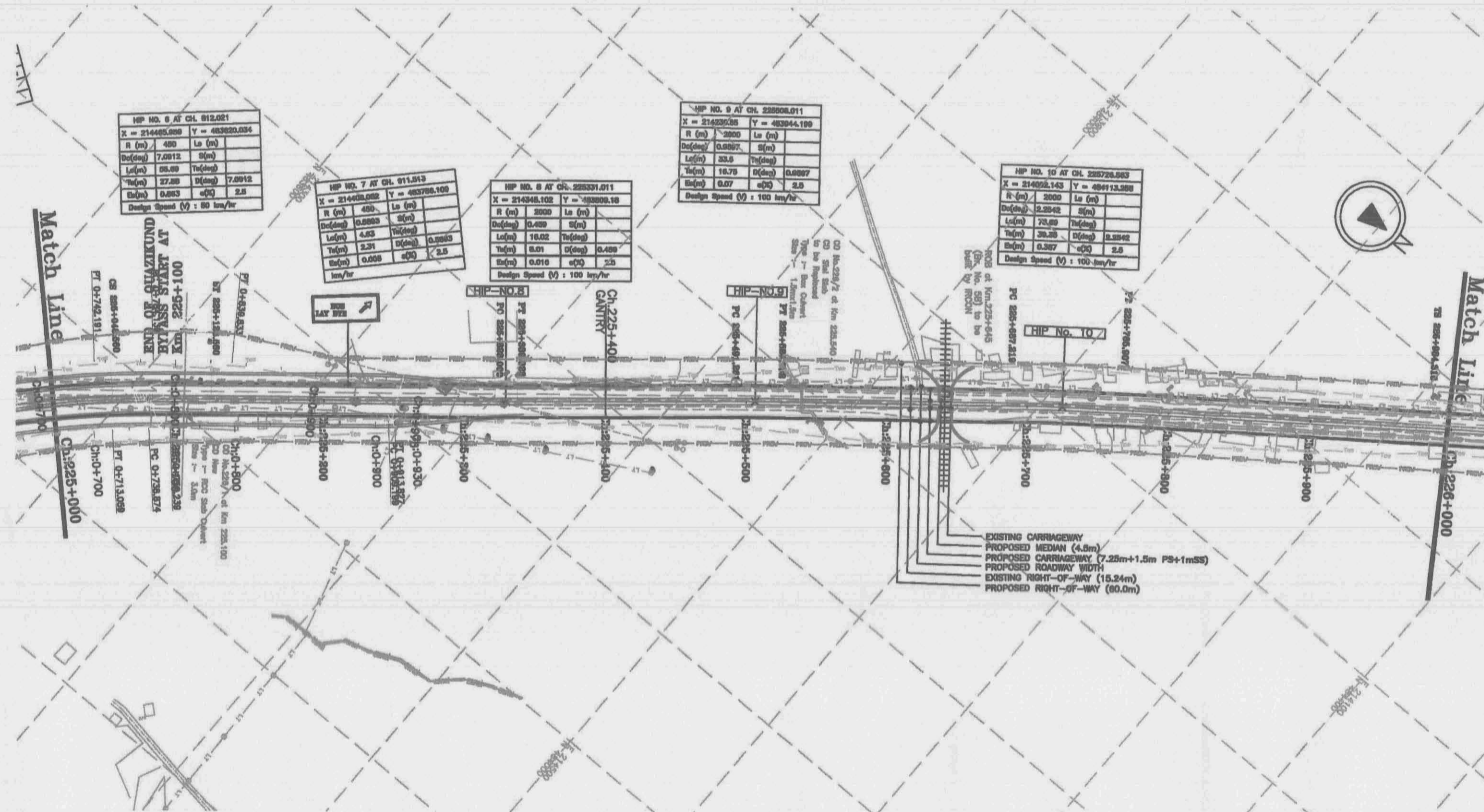
R1	Nov,2006	Modified Drawing	
R0	April,2006	Initial Drawing	
Revisions	Date	Description	Checked by

Revisions
DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/05A/13



← JAMMU

SRINAGAR →



LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Curvature (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point cur(m)
 - PS-Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Filter
 - R/W Filter
 - Tree-15,15,14
 - Tree-13,12,11
 - Well
- Hand Pump**
- Control Point
 - Identification
 - Municipal Tap
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Lines**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way - New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Toe line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

EXISTING CARRIAGEWAY
 PROPOSED MEDIAN (4.0m)
 PROPOSED CARRIAGEWAY (7.25m+1.5m PS+1mSS)
 PROPOSED ROADWAY WIDTH
 EXISTING RIGHT-OF-WAY (15.24m)
 PROPOSED RIGHT-OF-WAY (80.0m)

Revision	Date	Description	Checked by
R1	Nov, 2006	Modified Drawing	
R0	Apr 5, 2006	Initial Drawing	

Revisions

DRAWING NUMBER

NHAI/NH-1A/BAN-SRI/PP/06/R1



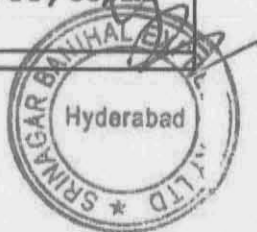
Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

**Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State**

Plan
 Km.225+000 to Km.226+000
 NS-92/J&K

SCETAPROQUE PVT. LTD. in joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 2-A, Green Park, New Delhi - 110016
 Ph : 2600-3000, Fax 2600-0202
 and
 CHINA HIGHWAY ENGINEERING CONSULTING
 AND SUPERVISION CORPORATION CHINA

Prepared by: **Roby Thomas**
 Designed by: **S.Bhattacharyya**
 Checked by: **L.K.Sharma**
 Approved by: **J.C.Thiruv**



JAMMU ←

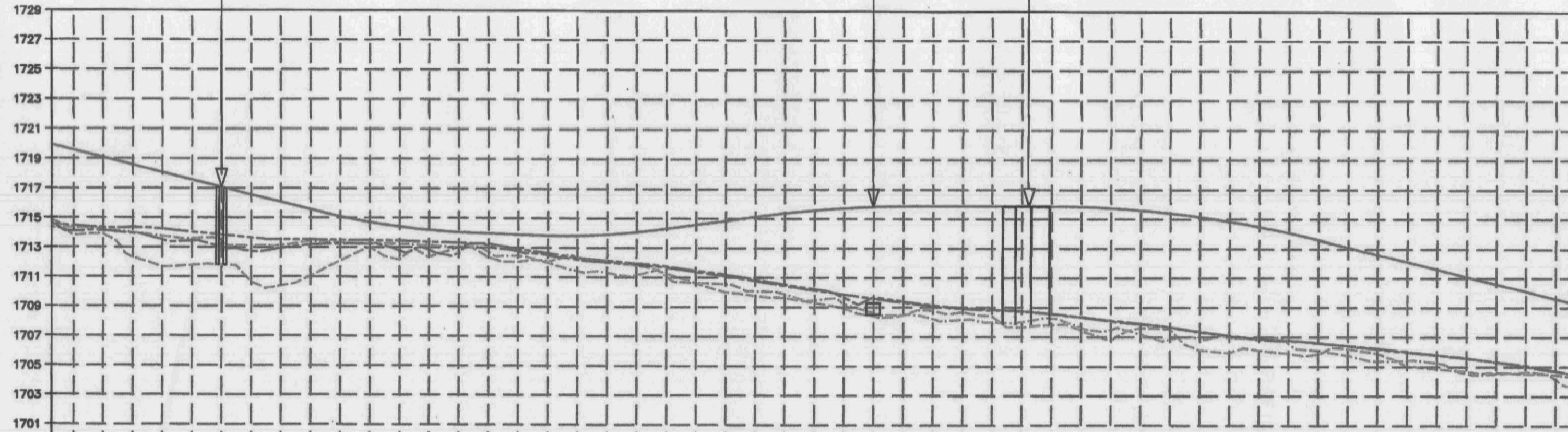
SRINAGAR →

Ch.225.340 to 226.480 ONE LANE OF CARRIAGEWAY & ROB TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

CD No.225/1 at Km 225.100
 CD New
 Type - RCC Slab
 Size - 3.0 m

CD No.225/2 at Km 225.540
 CD to be Replaced
 Type - Box Culvert
 Size - 1.5m x 1.5 m

ROB at Km.225+645
 (Revised at 2/22/2017-By Change)
 To be built by 1/6 RCC
 Size - 2.0x3.0x1.0m RCC Slab



Datum Level =1699	
Ground Level at 20 m to Left of Proposed Median C/L	1719.588-1714.100-1714.454-1714.343-1713.800-1718.088-1714.156-1714.319-1714.286-1713.918-1718.568-1718.568-1713.982-1714.331-1714.040-1712.321-1718.088-1718.088-1713.628-1714.211-1713.800-1711.845-1717.588-1717.588-1713.394-1714.021-1713.578-1711.767-1717.088-1717.088-1713.140-1713.827-1713.639-1711.797-1716.567-1716.567-1712.779-1713.632-1713.098-1710.670-1716.087-1716.087-1712.827-1713.524-1713.076-1710.374-1715.567-1715.567-1713.124-1713.605-1713.346-1711.046-1716.088-1716.088-1713.231-1713.485-1713.346-1712.041-1714.894-1714.894-1713.232-1713.485-1713.266-1713.038-1714.384-1714.384-1712.982-1713.419-1713.233-1712.142-1714.156-1714.156-1713.048-1713.362-1713.141-1712.311-1714.020-1714.020-1712.407-1713.304-1713.031-1713.015-1713.945-1713.945-1713.275-1713.246-1713.042-1712.333-1713.872-1713.872-1712.859-1712.884-1712.437-1712.018-1713.807-1713.807-1712.592-1712.813-1712.136-1712.037-1713.808-1713.808-1712.272-1712.300-1711.531-1712.340-1713.881-1713.881-1712.045-1712.117-1711.413-1712.123-1714.054-1714.054-1711.891-1711.943-1711.051-1711.812-1714.297-1714.297-1711.741-1711.751-1711.504-1711.273-1714.588-1714.588-1711.465-1711.476-1710.674-1710.638-1714.839-1714.839-1711.174-1711.205-1710.585-1709.989-1715.110-1715.110-1710.871-1710.884-1710.082-1709.748-1715.359-1715.359-1710.548-1710.547-1710.031-1709.832-1715.558-1715.558-1710.218-1710.230-1709.411-1709.301-1715.709-1715.709-1709.937-1709.889-1709.820-1709.936-1715.809-1715.809-1709.682-1709.683-1708.774-1708.408-1715.861-1715.861-1709.398-1709.403-1708.467-1708.453-1715.868-1715.868-1709.136-1709.134-1708.379-1708.776-1715.868-1715.868-1708.829-1708.548-1708.280-1707.800-1715.867-1715.867-1708.413-1708.413-1708.359-1707.839-1707.519-1715.741-1715.741-1708.141-1708.128-1707.384-1708.759-1715.596-1715.596-1707.910-1707.912-1707.353-1707.617-1715.398-1715.398-1707.737-1707.870-1708.738-1707.548-1715.148-1715.148-1707.449-1707.449-1707.350-1707.019-1708.127-1714.940-1714.940-1707.167-1707.048-1707.098-1708.930-1714.480-1714.480-1708.822-1708.839-1708.879-1708.099-1714.067-1714.067-1708.795-1708.795-1707.003-1708.896-1713.599-1713.599-1708.861-1708.861-1708.138-1708.826-1713.100-1713.100-1708.485-1708.403-1708.841-1708.206-1712.602-1712.602-1708.283-1708.189-1708.390-1708.904-1712.103-1712.103-1708.025-1708.993-1708.402-1708.061-1711.804-1711.804-1708.854-1708.786-1708.321-1704.859-1711.105-1711.105-1708.645-1708.576-1704.660-1704.882-1710.807-1710.807-1708.399-1708.339-1704.482-1704.619-1710.108-1710.108-1708.062-1708.094-1704.610-1704.518-1708.609-1708.609-1704.772-1704.718-1704.502-1704.448
Ground Level at 20 m to Right of Proposed Median C/L	
Existing Ground /Road level at Median Edge - Left Carriageway	
Existing Ground /Road level at Median Edge - Right Carriageway	
Proposed Road Level at Median Edge - Left Carriageway	
Proposed Road Level at Median Edge - Right Carriageway	
Proposed Vertical Alignment - Left Median Edge	G=-2.501, L=100m, G=-0.362, L=85m, G=1.355, L=110m, G=0, L=185m
Proposed Vertical Alignment - Right Median Edge	G=-2.501, L=100m, G=-0.362, L=85m, G=1.355, L=110m, G=0, L=185m
Proposed Horizontal Alignment of Centre line	La =75.m, R =2000.m, R =2000.m, R =2000.m
Superelevation/Crossfall (%)	0 = 2.0%
Chainage	225+000, 225+020, 225+040, 225+060, 225+080, 225+100, 225+120, 225+140, 225+160, 225+180, 225+200, 225+220, 225+240, 225+260, 225+280, 225+300, 225+320, 225+340, 225+360, 225+380, 225+400, 225+420, 225+440, 225+460, 225+480, 225+500, 225+520, 225+540, 225+560, 225+580, 225+600, 225+620, 225+640, 225+660, 225+680, 225+700, 225+720, 225+740, 225+760, 225+780, 225+800, 225+820, 225+840, 225+860, 225+880, 225+900, 225+920, 225+940, 225+960, 225+980, 226+000

LEGEND

PLAN
 TS-Tangent to Spiral
 SC-Spiral to Curve
 CS-Curve to Spiral
 ST-Spiral to Tangent
 PO-Point of Circular Curve (With Transition)
 PT-Point of Tangent (Without Transition)
 Tangent point end(m)
 PS-Paved Shoulder
 SS-Soft Shoulder
 CBS-Crash Barrier space

Legend For Profile
 Ground Level 20m to Left of Existing CL
 Ground Level 20m to Right of Existing CL
 Existing Ground/Road Level at Left Median Edge
 Existing Ground/Road Level at Right Median Edge
 Proposed Road Level at Left Median Edge
 Proposed Road Level at Right Median Edge



Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.298.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

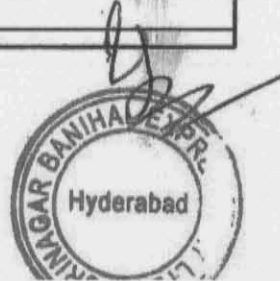
Profile
 Km.225+000 to Km.226+000
 NS-92/J&K

SCYLABORITE PVT.LTD. In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: S. Srinivas
 Designed by: S. Srinivas
 Checked by: L.K. Sharma
 Approved by: J.C. Thary

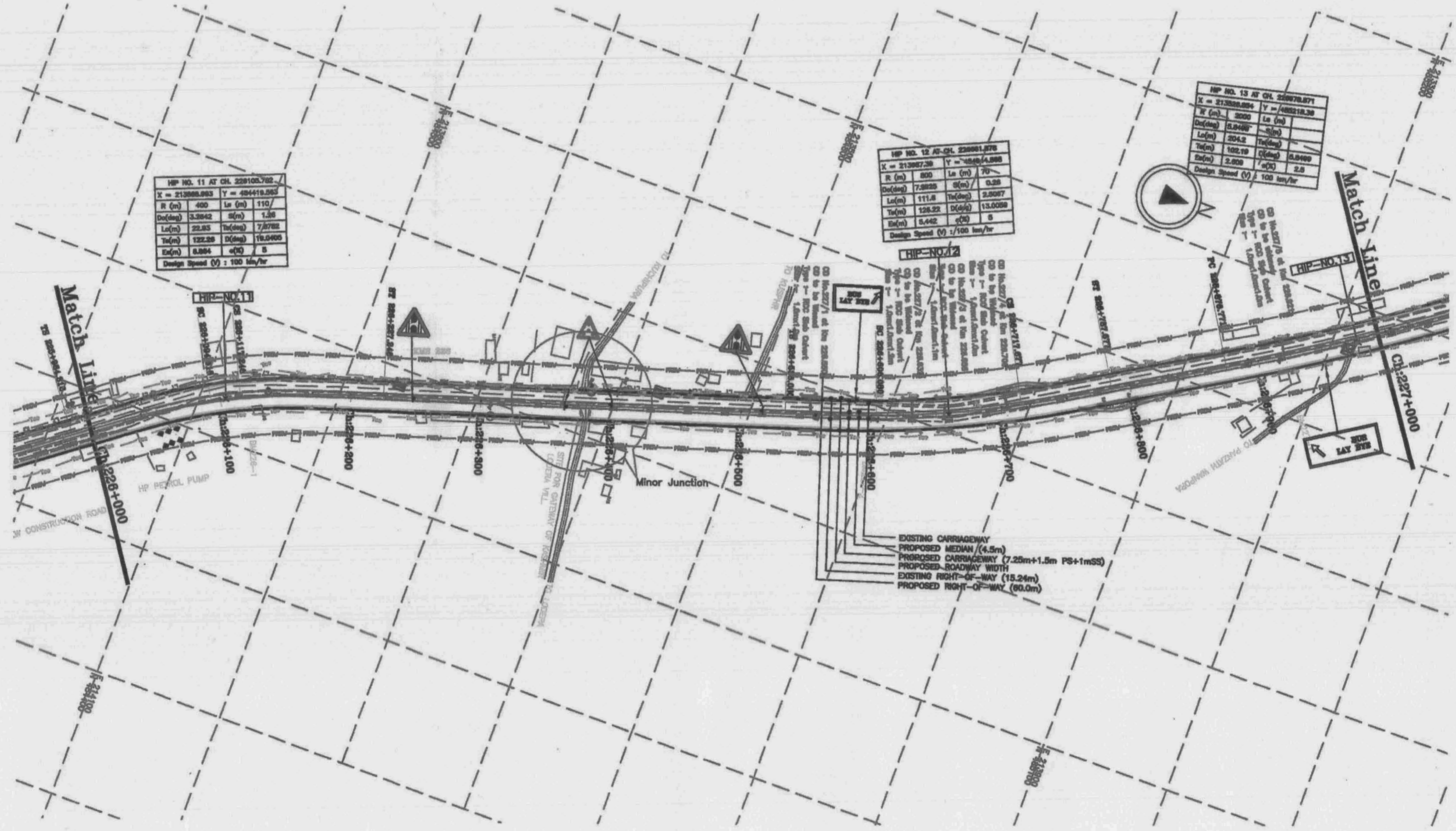
Revisions	Date	Description	Checked by
R1	Nov,2008	Modified Drawing	
R0	April,2008	Initial Drawing	

DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/06A/R1



← JAMMU

SRINAGAR →



HP NO. 11 AT CH. 226100.702

X (m)	213868.893	Y (m)	494419.983
R (m)	400	Ls (m)	110
Ds(deg)	3.5942	Ss(m)	1.38
Lo(m)	23.83	Ts(deg)	7.8792
To(m)	122.28	Ds(deg)	18.0408
Es(m)	8.884	e(%)	0

Design Speed (V) : 100 km/hr

HP NO. 12 AT CH. 226611.878

X (m)	213867.28	Y (m)	494419.988
R (m)	800	Ls (m)	20
Ds(deg)	7.2820	Ss(m)	3.507
Lo(m)	111.8	Ts(deg)	13.0088
To(m)	128.32	Ds(deg)	13.0088
Es(m)	5.442	e(%)	0

Design Speed (V) : 100 km/hr

HP NO. 13 AT CH. 226707.871

X (m)	213866.894	Y (m)	494419.981
R (m)	3000	Ls (m)	-
Ds(deg)	0.0487	Ss(m)	-
Lo(m)	204.5	Ts(deg)	-
To(m)	102.25	Ds(deg)	0.0487
Es(m)	2.809	e(%)	2.0

Design Speed (V) : 100 km/hr

- LEGEND**
- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole
 - Lamp Post
 - OFC Pylon
 - R/W Pylon
 - Tree-75,75,74
 - Tree-73,72,71
 - Well
 - Hand Pump
 - Control Point TS-148.2
 - Identification
 - Municipal Tap
 - Manhole
 - Sign Post
 - Gate
 - Temple
 - Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Toe line
 - Crash Barrier
 - Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

EXISTING CARRIAGEWAY
 PROPOSED MEDIAN/(4.5m)
 PROPOSED CARRIAGEWAY (7.20m+1.5m PS+1mSS)
 PROPOSED ROADWAY WIDTH
 EXISTING RIGHT-OF-WAY (15.24m)
 PROPOSED RIGHT-OF-WAY (60.0m)



Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

Plan
 Km.226+000 to Km.227+000
 NS-92/J&K

SCITANORQUE
 In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 A-8, Green Park, New Delhi - 110016
 Ph : 2605-3000, Fax 2605-5202

Prepared by: Bobby Thomas
 Designed by: S.Shathachari
 Checked by: L.K.Sharma
 Approved by: J.C.Thiry

No.	Date	Description	Checked by
1	Nov.2006	Modified Drawing	
2	April.2008	Initial Drawing	

Revisions
DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/07/R1



JAMMU ←

SRINAGAR →

Ch.225.340 to 226.480 ONE LANE OF CARRIAGEWAY ROB TO BE CONSTRUCTED UNDER SEPARATE CONTRACT

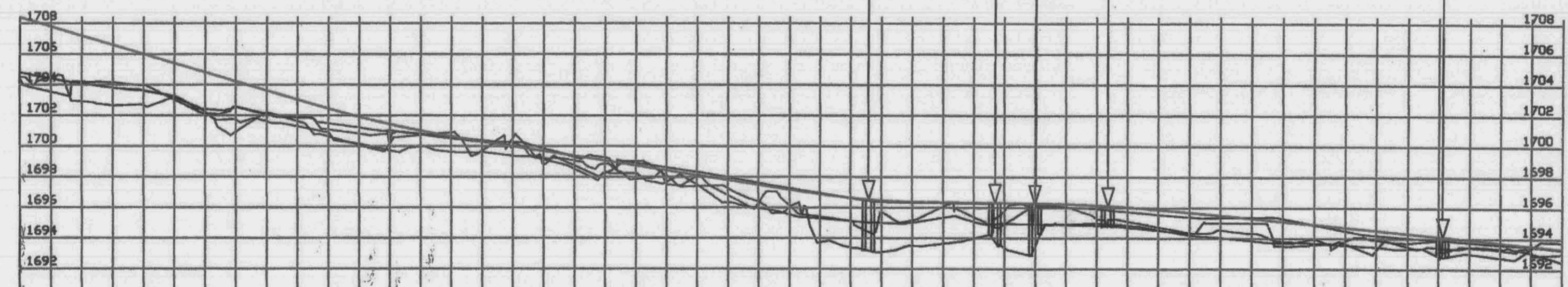
CD No.227/2 at Km 226.632
CD to be Widened
Type - RCC Slab
Size - 1.0m x 1.0m x 1.2m

CD No.227/4 at Km 226.821
CD to be Widened
Type - RCC Slab
Size - 1.0m x 1.0m x 1.0m

CD No.227/3 at Km 226.666
CD to be Widened
Type - RCC Slab
Size - 1.0m x 1.0m x 1.1m

CD No.227/1 at Km 226.600
CD to be Widened
Type - RCC Slab
Size - 1.0m x 1.0m

CD No.227/4 at Km 226.708
CD to be Widened
Type - RCC Slab
Size - 1.0m x 1.0m x 1.0m

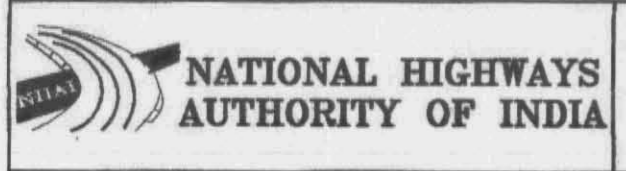


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Table with columns for Chainage (m) and rows for: Ground Level at 20m to Left of Proposed Median C/L, Ground Level at 20m to Right of Proposed Median C/L, Existing Ground/Road Level at Median Edge - Left Carriageway, Existing Ground/Road Level at Median Edge - Right Carriageway, Proposed Road Level of Median Edge - Left Carriageway, Proposed Road Level of Median Edge - Right Carriageway, Proposed Vertical Alignment - Left Carriageway, Proposed Vertical Alignment - Right Carriageway, Proposed Horizontal Alignment for Proposed Median C/L, Superelevation/Crossfall (%), and Chainage (m).

LEGEND

- PLAN
TS-Tangent to Spiral
SC-Spiral to Curve
CS-Curve to Spiral
ST-Spiral to Tangent
PC-Point of Circular Curve (With Transition)
PT-Point of Tangent (Without Transition)
Tangent point end(um)
PS-Paved Shoulder
SS-Soft Shoulder
CBS-Crash Barrier space
GPS
Control Point
Temporary Bench Mark
Kilometer Stone
Nectometer Stone
Electric Pole
Telephone Pole
Lamp Post
OPC Pillar
ROW Pillar
Tree-15,15,14
Tree-13,12,11
Well
Hand Pump
Control Point
Identification
Manhole Top
Manhole
Sign Post
Gate
Temple
Mosque
Gurdwara
Church
Guard Post
Flag Post
Transformer
HighTension Line
Low Tension Line
Telephone Line
Right-of-Way
Right-of-Way Near
Boundary/Fencing
Boundary Water Body
Boundary River Bank
Canal
Toe line
Crash Barrier
Building Permanent/Temporary
Existing Road Paved/Unpaved
Utility Buildings
Pipe Line
OPC Line
Water Pipe Line
Earth Retaining Wall
Crash Barrier
Existing Road Centre Line
Designed Centre Line
Designed Road/Median Edge
Culvert/Bridge - Existing
Culvert/Bridge - Designed



Horizontal Scale 1 : 2500
Vertical Scale 1 : 250

Detailed Design for 4-Laning of
Banihal to Srinagar Section (Km.188.000 to Km.296.000)
of NH-1(A),(including Srinagar Bypass) in J & K State.

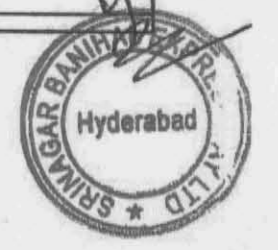
Profile
Km.226+000 to Km.227+000
NS-92/J&K

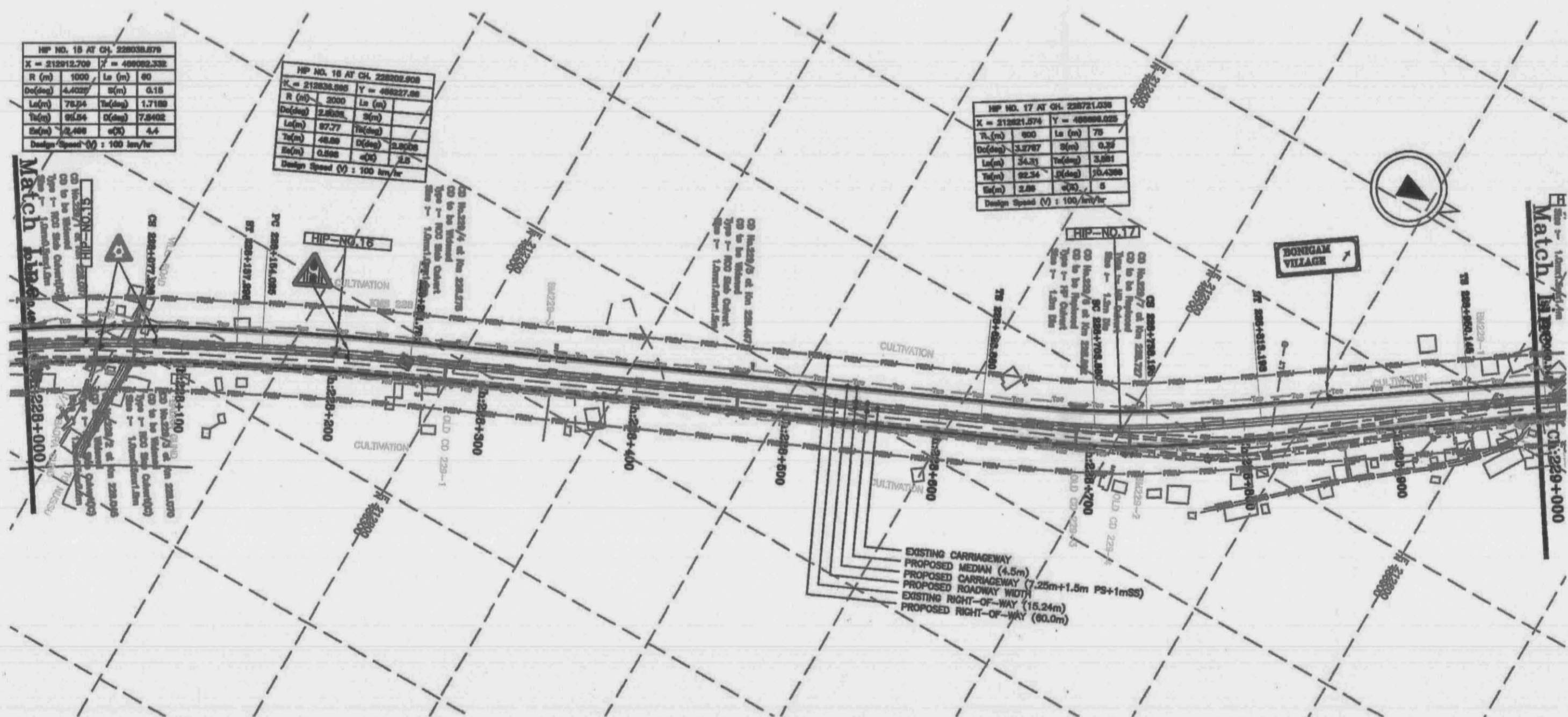
SCIENTIQUITE ENGINEERS
In joint venture with
Intercontinental Consultants & Technocrats Pvt.Ltd.
27-3, Green Park, New Delhi - 110016
Ph : 2606-3305, Fax 2606-6124

Bobby Thomas
S.Shatishchandra
Prepared by
Designed by
L.K. Sharma
J.C.Thirry
Checked by
Approved by

Table with columns: Revisions, Date, Description, Checked by. Includes entries for Nov.2008 Modified Drawing and April,2008 Initial Drawing.

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/07A/R1



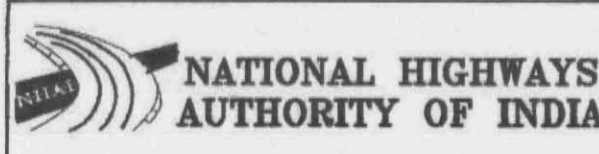


LEGEND

PLAN

- TS—Tangent to Spiral
 - SC—Spiral to Curve
 - CS—Curve to Spiral
 - ST—Spiral to Tangent
 - PC—Point of Circular Curve (With Transition)
 - PT—Point of Tangent (Without Transition)
 - Tangent point end(lm)
 - PS—Paved Shoulder
 - SS—Soft Shoulder
 - CBS—Crash Barrier space
- GPS Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole
 - Lamp Post
 - OFC Pillar
 - ROW Pillar
 - Tree-13,15,14
 - Tree-13,12,11
 - Well
 - Hand Pump
 - Control Point TS-148.2
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
- Temple
 - Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tie line
 - Crash Barrier
- Building Permanent/Temporary
 - Existing Road Paved/Unpaved
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 - Culvert/Bridge - Existing
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EXISTING CARRIAGEWAY
 PROPOSED MEDIAN (4.5m)
 PROPOSED CARRIAGEWAY (7.25m+1.5m PS+1mSS)
 PROPOSED ROADWAY WIDTH
 EXISTING RIGHT-OF-WAY (15.24m)
 PROPOSED RIGHT-OF-WAY (80.0m)



Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

Plan
 Km.228+000 to Km.229+000
 NS-92/J&K

SCITAURONTE ENGINEERS
 In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 CHINA HIGHWAY ENGINEERING CONSULTING
 AND SUPERVISION CORPORATION, CHINA

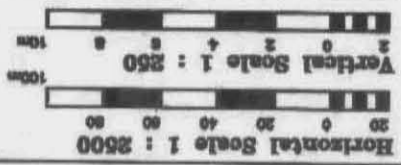
Prepared by: Bobby Thomas, S. Shastri
 Checked by: L.K. Sharma, J.C. Thiry

Revisions	Date	Description	Checked by
R1	Nov,2008	Modified Drawing	
R0	April,2008	Initial Drawing	

Revisions

DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/09/R1





Detailed Design for 4-Laning of Banhal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Plan
NS-92/J&K
Km.229+000 to Km.230+000

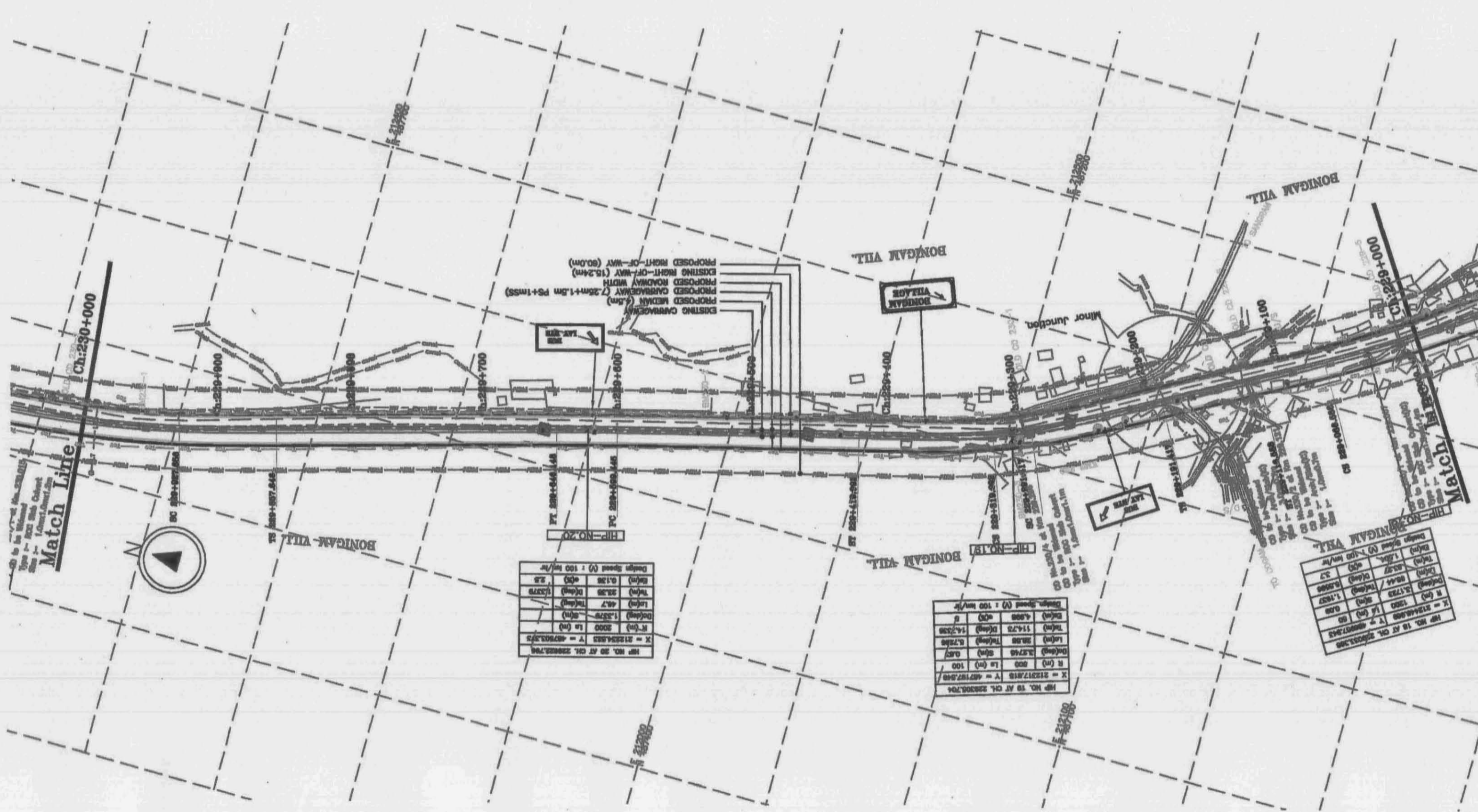
SCAVERDISSE ENGINEERS
In joint venture with
Bobby Thomas & S. Subramanian
Prepared by
L.C. Sharma
Checked by
A.C. Thiruv
DESIGN SUPERVISION CONSULTANTS AND SUPERVISION CONSULTANTS
CIVIL HIGHWAY ENGINEERING CONSULTANTS
A-8, Green Park, New Delhi - 110018
Ph : 2662-2020, Fax 2662-2222

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/10/R1

Revisions	Date	Description	Checked by
R1	Nov.2006	Modified Drawing	
R0	Apr.2006	Initial Drawing	



- LEGEND**
- TS-Tangent to spiral
 - CS-Curve to spiral
 - ST-Spiral to Tangent
 - PT-Point of Curvature (With Transition)
 - PF-Point of Tangent (Without Transition)
 - SP-Spiral Shoulder
 - CS-Crest Barrier space
 - GRS-Gravel
 - Control Point
 - Temporary Bench Mark
 - Retaining Stone
 - Electric Pole
 - Telephone Pole
 - RCC Pillar
 - OFC Pole
 - Tree-15.15.14
 - Tree-15.12.11
 - Hand Pump
 - Control Point 15-14.5
 - Manhole Top
 - Manhole
 - Sign Post
 - Temple
 - Structure
 - Church
 - Guard Post
 - Flag Post
 - Highway Line
 - Low Tension Line
 - High Tension Line
 - Right-of-Way-New
 - Boundary/Terrace
 - Boundary Water Bank
 - Boundary River Bank
 - Crest Barrier
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Shoulder Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed



HP NO. 20 AT CH. 22982.704

Design Speed (V) : 100 km/hr	
Radius (m)	41.28
Length (m)	12.278
Offset (m)	4.7
Design	1.278
R (m)	2000
X = 21234.523	Y = 48703.273

HP NO. 19 AT CH. 22950.704

Design Speed (V) : 100 km/hr	
Radius (m)	4.888
Length (m)	114.278
Offset (m)	14.278
Design	2.738
R (m)	200
X = 21237.818	Y = 48712.208

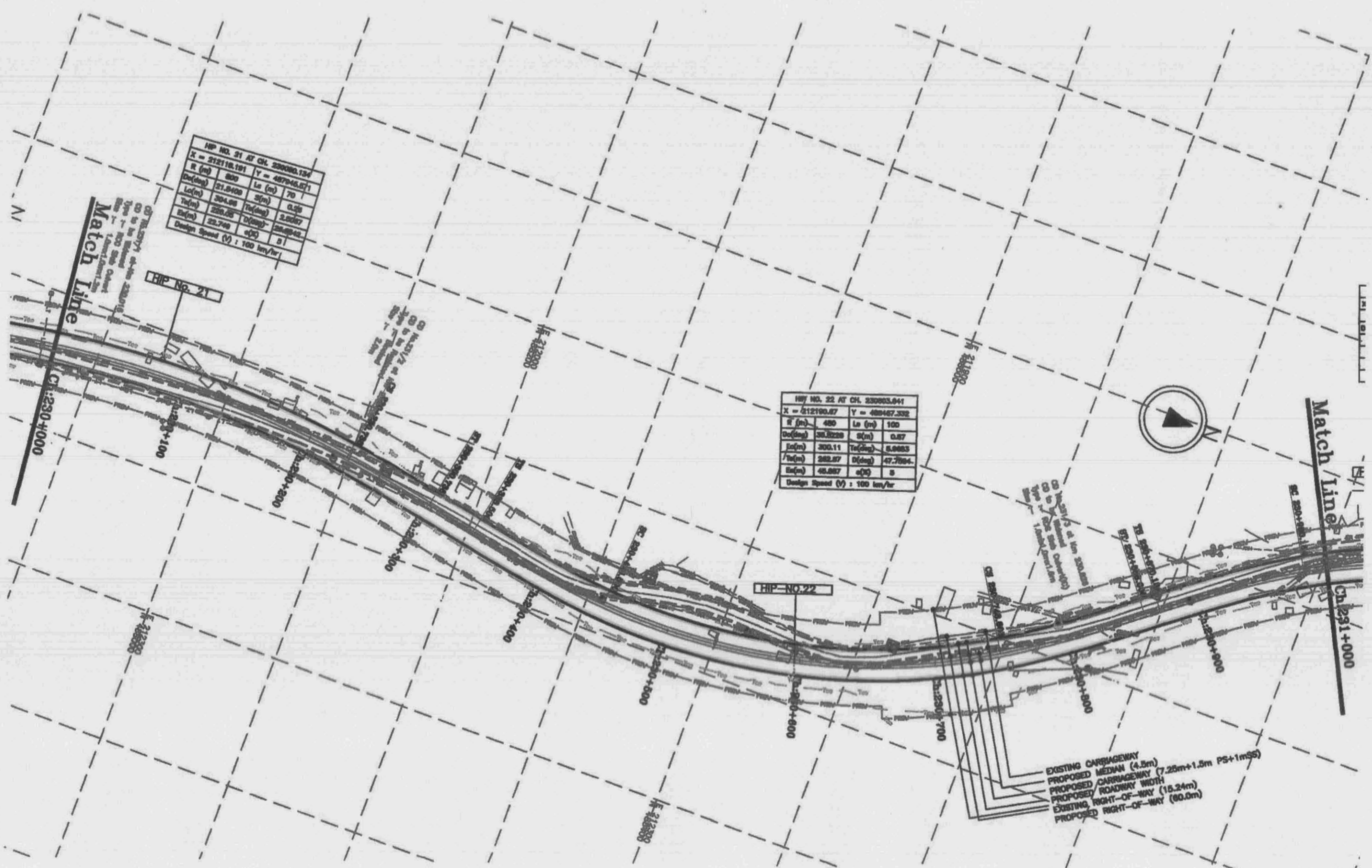
HP NO. 18 AT CH. 22912.704

Design Speed (V) : 100 km/hr	
Radius (m)	1.888
Length (m)	4.888
Offset (m)	2.738
Design	1.888
R (m)	100
X = 21234.523	Y = 48703.273



← JAMMU

SRINAGAR →



HP NO. 21 AT CH. 002+000

X = 25118.191	Y = 48704.671
E (m)	Lo (m)
Do(deg)	Q(m)
To(deg)	W(deg)
So(deg)	U(deg)
Design Speed (V)	100 km/hr

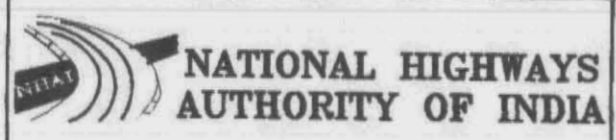
HP NO. 22 AT CH. 230+000

X = 212190.87	Y = 488467.332
E (m)	Lo (m)
Do(deg)	Q(m)
To(deg)	W(deg)
So(deg)	U(deg)
Design Speed (V)	100 km/hr

LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Curvature (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(1m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS Control Point
 Temporary Bench Mark
 Kilometer Stone
 Heckermeter Stone
 Electric Pole
- Telephone Pole
 Lamp Post
 O/C Pillar
 ROW Pillar
 Tree-75,75,14
 Tree-75,75,11
 Well
- Hand Pump
 Control Point
 Identification
 Municipal Top
 Manhole
 Sign Post
 Gata
- Temple
 Mosque
 Gurudwara
 Church
 Guard Post
 Flag Post
 Transformer
- High Tension Lines
 Low Tension Lines
 Telephone Lines
 Right-of-Way
 Right-of-Way-Now
 Boundary/Fencing
 Boundary Water Body
 Boundary River Bank
 Canal
 Fire Line
 Crash Barrier
- Building Permanent/Temporary
 Existing Road Paved/Unpaved
 Utility Buildings
 Pipe Line
 O/C Line
 Water Pipe Line
 Earth Retaining Wall
 Crash Barrier
- Existing Road Centre Line
 Designed Centre Line
 Designed Road/Median Edge
 Culvert/Bridge - Existing
 Culvert/Bridge - Designed

EXISTING CARRIAGEWAY
 PROPOSED MEDIAN (4.5m)
 PROPOSED CARRIAGEWAY (7.25m+1.5m PS+1mSS)
 PROPOSED ROADWAY WIDTH
 PROPOSED RIGHT-OF-WAY (18.34m)
 EXISTING RIGHT-OF-WAY (80.0m)
 PROPOSED RIGHT-OF-WAY (80.0m)



Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

Plan
 Km.230+000 to Km.231+000
 NS-92/J&K

SCETABROUTE INNES In joint venture with
 Intercontinental Consultants & Technocrats PVT.LTD.
 A-6, Green Park, New Delhi - 110016
 Ph : 2995-3000, Fax 2995-8288

Prepared by: Bobby Thomas
 Designed by: S.Shanthakrishna
 Checked by: L.K. Sharma
 Approved by: J.C.Thiruv

Revision	Date	Description	Checked by
R1	Nov,2006	Modified Drawing	
R0	April,2006	Initial Drawing	

Revisions
DRAWING NUMBER
 NHAI/NH-1A/BAN-SEI/PP/11/R1



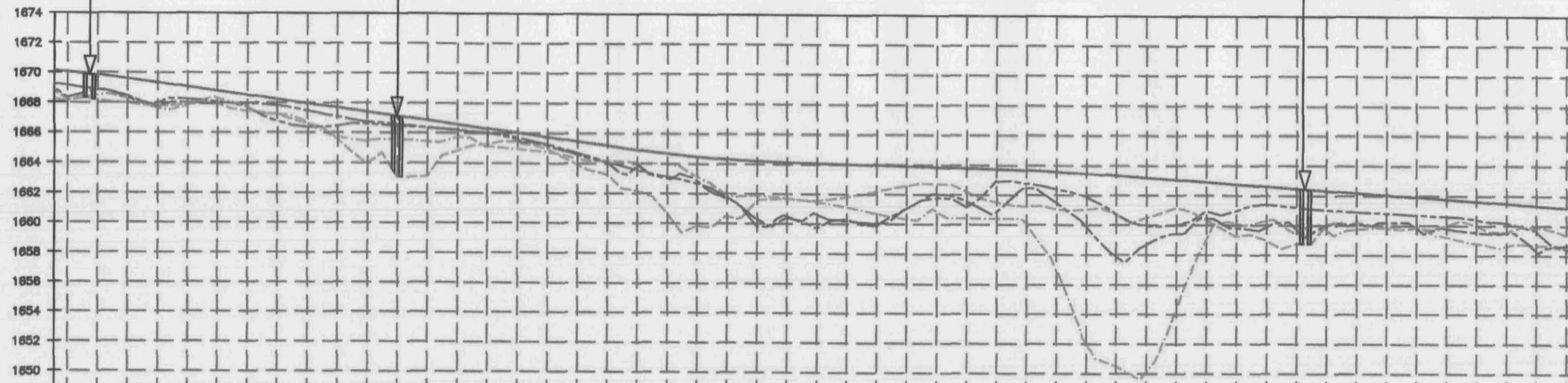
← JAMMU

SRINAGAR →

CD No.231/1 at Km 230.018
CD to be Replaced
Type :- RCC Slab
Size :- 1.0m x 1.0m x 1.2m

CD No.231/2 at Km 230.220
CD to be Replaced
Type :- RCC Slab
Size :- 2.0m

CD No.231/3 at Km 230.828
CD to be Replaced
Type :- RCC Slab(C)
Size :- 1.0m x 1.0m x 1.6



LEGEND

- PLAN
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PT-Point of Tangent (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point (m/ft)
 - PS-Point of Spiral
 - SS-Soft Shoulder
 - CBS-Cross Barrier space
- GPS
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole
- Lamp Post
 - OPC Pillar
 - R/W Piller
 - Tree - 75, 75, 74
 - Tree - 73, 72, 71
 - Well
- Hand Pump
- Control Point
 - Identification
 - Manhole Top
 - Manhole
 - Sign Post
 - Gate
- Temple
- Mosque
 - Guardians
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Line
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Retaining
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Toe line
 - Crash Barrier
- Building Permanent/Temporary
- Existing Road Pavement/Unpaved
 - Utility Buildings
 - Pipe Line
 - OPC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
- Existing Road Centre Line
- Designed Centre Line
 - Designed Road/Median Edge
 - Existing Road/Median Edge
 - Existing Road/Left Median Edge
 - Existing Road/Right Median Edge
 - Proposed Road Level at Left Median Edge
 - Proposed Road Level at Right Median Edge

Datum Level = 1648	
Ground Level at 20 m to Left of Proposed Median C/L	1668.193, 1668.102, 1668.437, 1668.159, 1668.327, 1667.985, 1667.773, 1667.989, 1667.725, 1667.948, 1668.327, 1668.076, 1667.915, 1667.421, 1668.213, 1667.900, 1667.744, 1667.199, 1667.222, 1667.939, 1667.339, 1667.490, 1666.356, 1666.797, 1668.001, 1667.963, 1667.083, 1668.429, 1666.739, 1666.599, 1666.435, 1663.957, 1667.113, 1667.113, 1668.571, 1668.460, 1666.574, 1663.080, 1668.339, 1668.339, 1668.339, 1666.346, 1665.440, 1663.086, 1666.563, 1666.563, 1666.212, 1668.160, 1666.692, 1668.796, 1666.289, 1666.289, 1666.015, 1666.965, 1665.125, 1665.258, 1668.012, 1666.012, 1666.625, 1666.704, 1664.947, 1666.468, 1668.737, 1665.737, 1668.231, 1665.260, 1668.707, 1668.984, 1665.462, 1665.462, 1668.823, 1668.699, 1668.353, 1663.924, 1665.187, 1665.187, 1668.112, 1668.132, 1668.197, 1663.270, 1668.914, 1668.914, 1668.709, 1663.599, 1668.087, 1662.165, 1668.671, 1668.671, 1663.003, 1663.129, 1663.975, 1660.985, 1668.472, 1668.472, 1663.011, 1662.994, 1663.200, 1668.913, 1668.316, 1668.316, 1661.757, 1661.759, 1661.984, 1660.924, 1668.205, 1668.205, 1660.205, 1660.390, 1669.909, 1661.890, 1661.985, 1668.135, 1668.135, 1660.577, 1660.396, 1661.730, 1661.999, 1668.079, 1668.079, 1660.719, 1660.713, 1661.491, 1661.581, 1668.022, 1668.022, 1660.213, 1660.315, 1661.194, 1661.812, 1663.985, 1663.985, 1660.031, 1660.749, 1660.174, 1663.909, 1663.909, 1660.909, 1661.053, 1660.375, 1662.593, 1663.852, 1663.852, 1662.039, 1661.761, 1661.030, 1662.709, 1663.799, 1663.799, 1661.869, 1661.151, 1660.424, 1662.221, 1663.739, 1663.739, 1660.703, 1662.941, 1660.414, 1661.499, 1663.670, 1663.670, 1662.395, 1662.784, 1660.417, 1661.241, 1663.574, 1663.574, 1661.718, 1662.398, 1661.842, 1661.028, 1663.450, 1663.450, 1660.310, 1661.897, 1663.020, 1661.031, 1663.309, 1663.309, 1666.172, 1660.737, 1660.994, 1660.889, 1663.169, 1663.169, 1660.417, 1660.920, 1649.599, 1660.473, 1663.029, 1663.029, 1669.395, 1669.985, 1663.099, 1661.170, 1662.889, 1662.889, 1660.442, 1660.949, 1660.067, 1660.341, 1662.747, 1662.747, 1660.813, 1660.857, 1660.227, 1660.265, 1662.807, 1662.807, 1660.777, 1660.911, 1660.899, 1660.232, 1662.045, 1662.045, 1660.153, 1660.819, 1660.847, 1660.817, 1661.904, 1661.904, 1660.210, 1660.709, 1660.999, 1660.837, 1661.794, 1661.794, 1660.815, 1660.599, 1660.279, 1660.973, 1661.824, 1661.824, 1660.909, 1660.399, 1660.853, 1660.015, 1661.463, 1661.463, 1660.450, 1660.179, 1660.459, 1660.543, 1661.343, 1661.343, 1668.749, 1669.656, 1668.728, 1669.882, 1661.202, 1661.202, 1668.906, 1668.437, 1669.479, 1669.403
Ground Level at 20 m to Right of Proposed Median C/L	
Existing Ground /Road level at Median Edge - Left Carriageway	
Existing Ground /Road level at Median Edge - Right Carriageway	
Proposed Road Level of Median Edge - Left Carriageway	
Proposed Road Level of Median Edge - Right Carriageway	
Proposed Vertical Alignment - Left Median Edge	$G = -1.375$
Proposed Vertical Alignment - Right Median Edge	$G = -1.375$
Proposed Horizontal Alignment of Centre line	$R = 800.0m$, $L_s = 70.0m$, $L_s = 100.0m$, $R = 480.0m$, $L_s = 100.0m$, $L_s = 110.0m$
Superelevation/Crossfall (%)	$e = 5\%$, $e = 2.5\%$, $e = 5\%$, $e = 2.5\%$
Chainage	230+000, 230+020, 230+040, 230+060, 230+080, 230+100, 230+120, 230+140, 230+160, 230+180, 230+200, 230+220, 230+240, 230+260, 230+280, 230+300, 230+320, 230+340, 230+360, 230+380, 230+400, 230+420, 230+440, 230+460, 230+480, 230+500, 230+520, 230+540, 230+560, 230+580, 230+600, 230+620, 230+640, 230+660, 230+680, 230+700, 230+720, 230+740, 230+760, 230+780, 230+800, 230+820, 230+840, 230+860, 230+880, 230+900, 230+920, 230+940, 230+960, 230+980, 231+000

Legend For Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level at Left Median Edge
- Existing Ground/Road Level at Right Median Edge
- Proposed Road Level at Left Median Edge
- Proposed Road Level at Right Median Edge

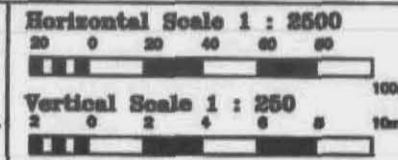
Revised No	Date	Description	Checked by
R1	Nov, 2008	Modified Drawing	
R2	April, 2008	Initial Drawing	

Revisions

DRAWING NUMBER

NHAI/NH-1A/BAN-SRI/PP/11A/R1

NATIONAL HIGHWAYS
AUTHORITY OF INDIA



Detailed Design for 4-Laning of
Banihal to Srinagar Section (Km.188.000 to Km.296.000)
of NH-1(A), (including Srinagar Bypass) in J & K State

Profile
Km.230+000 to Km.231+000
NS-92/J&K

SCIENTIQUES

Intercontinental Consultants & Technocrats Pvt.Ltd.,
A-8, Green Park, New Delhi - 110016
Ph : 2895-3000, Fax 2895-3382

CHINA HIGHWAY ENGINEERING CONSULTING
AND SUPERVISION CORPORATION, CHINA

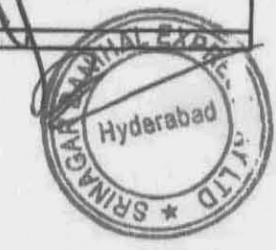
In joint venture with

Bobby Thomas
Prepared by

S.Shakti Chari
Designed by

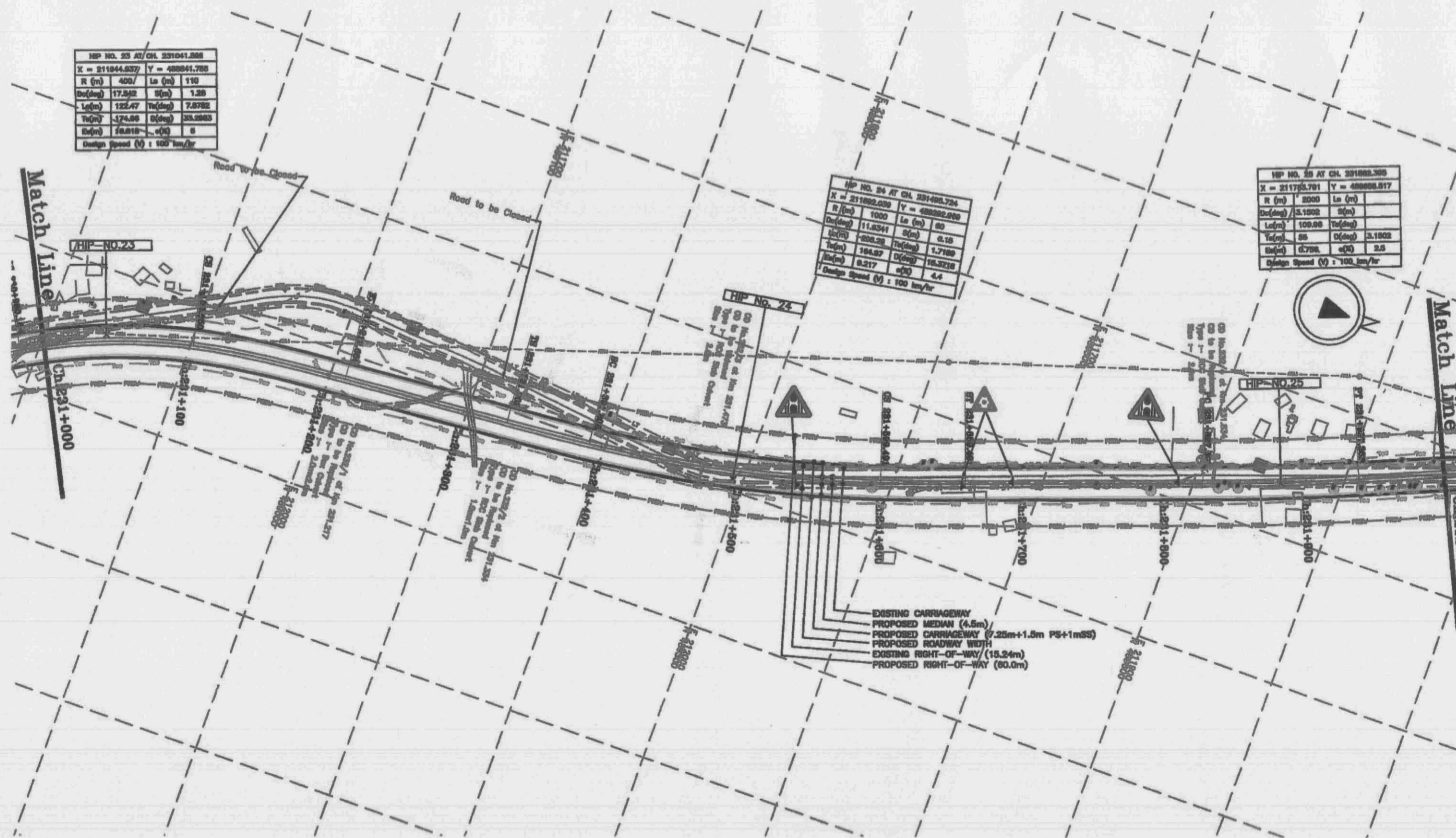
L.K.Sharma
Checked by

J.C.Thary
Approved by



← JAMMU

SRINAGAR →



- LEGEND**
- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Heuometer Stone
 - Electric Pole
- Telephone Poles**
- Lamp Post
 - OFC Pillar
 - ROW Pillar
 - Tree-10,15,14
 - Tree-13,12,11
 - Well
- Hand Pump**
- Control Point
 - Identification
 - Municipal Tap
 - Milestone
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Lines**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Toe line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
- Existing Road Centre Line**
- Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

NATIONAL HIGHWAYS AUTHORITY OF INDIA

Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

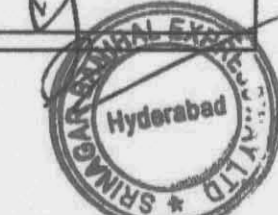
Plan
 Km.231+000 to Km.232+000
 NS-92/J&K

SCAURQUE IN JOINT VENTURE WITH
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 A-8, Green Park, New Delhi - 110016
 Ph : 2686-3000, Fax 2686-2882

Prepared by: **Rohit Sharma**
 Checked by: **L.K. Sharma**
 Designed by: **S. Ghosh**
 Approved by: **J.C. Thiry**

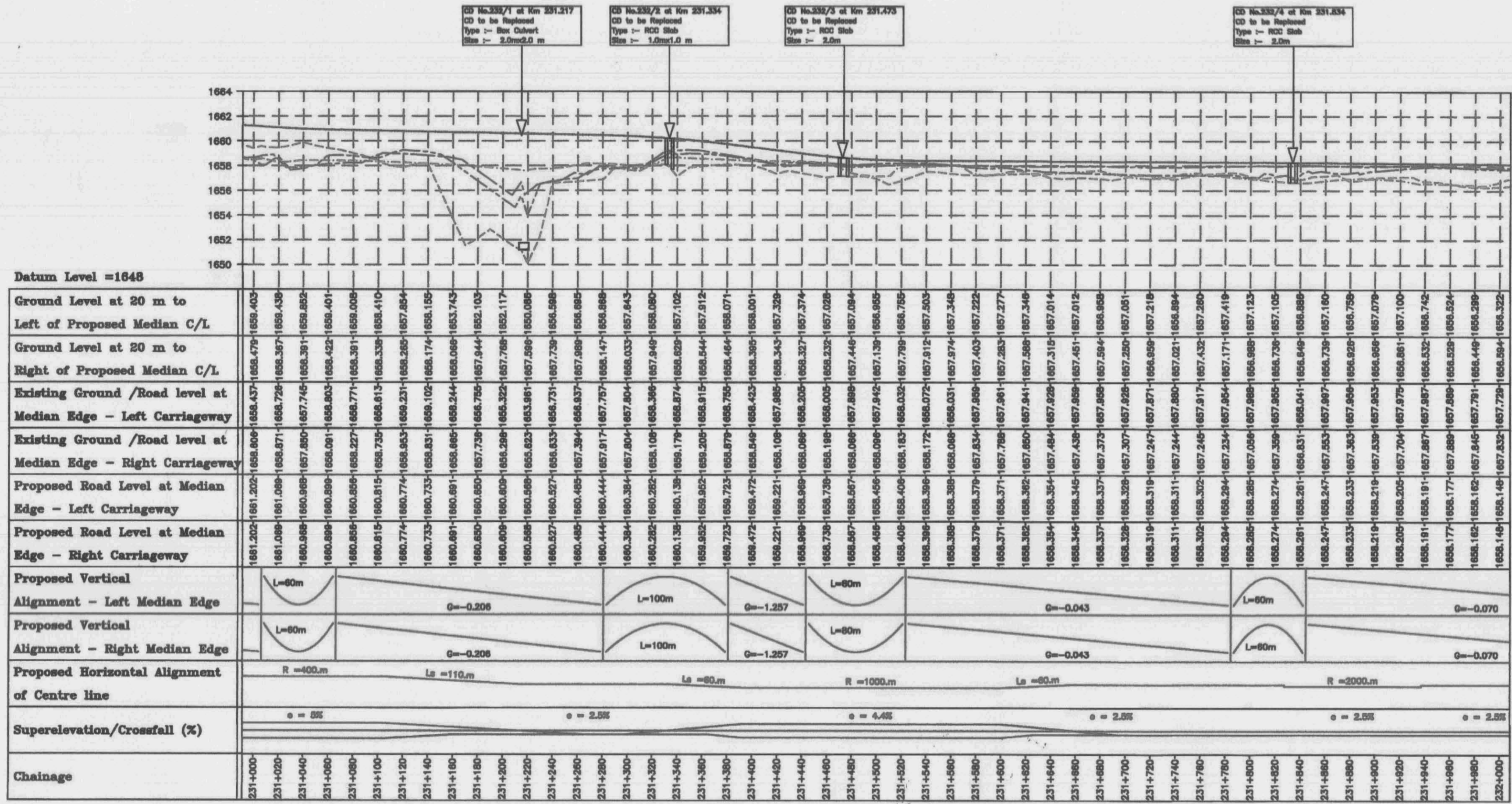
Revisions	Date	Description	Checked by
R1	Nov,2005	Modified Drawing	
RD	April,2005	Initial Drawing	

DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/12/R1



JAMMU ←

SRINAGAR →



- LEGEND**
- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point and (m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Heckometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Pillar
 - ROW Pillar
 - Tree-7.5,14
 - Tree-13,12,11
 - Well
- Head Pump**
- Control Point
 - Identification
 - Municipal Top
 - Ministry
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- HighTension Lines**
- Low Tension Lines
 - Telephone Lines
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tie Line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
- Existing Road Centre Line**
- Designed Centre Line
 - Designed Road/Median Edge
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 - Culvert/Bridge - Designed

Legend For Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level at Left Median Edge
- Existing Ground/Road Level at Right Median Edge
- Proposed Road Level at Left Median Edge
- Proposed Road Level at Right Median Edge



Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

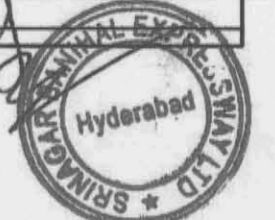
Profile
 Km.231+000 to Km.232+000
 NS-92/J&K

SCETANQUINE FRANCE In joint venture with
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 2-5, Deep Park, New Delhi - 110016
 Ph : 2606-3000, Fax 2606-5522
 CHINA HIGHWAY ENGINEERING CONSULTING
 AND SUPERVISION CORPORATION, CHINA

Prepared by: Bobby Thomas, S.Shastri
 Checked by: L.K.Sharma, J.C.Thiry

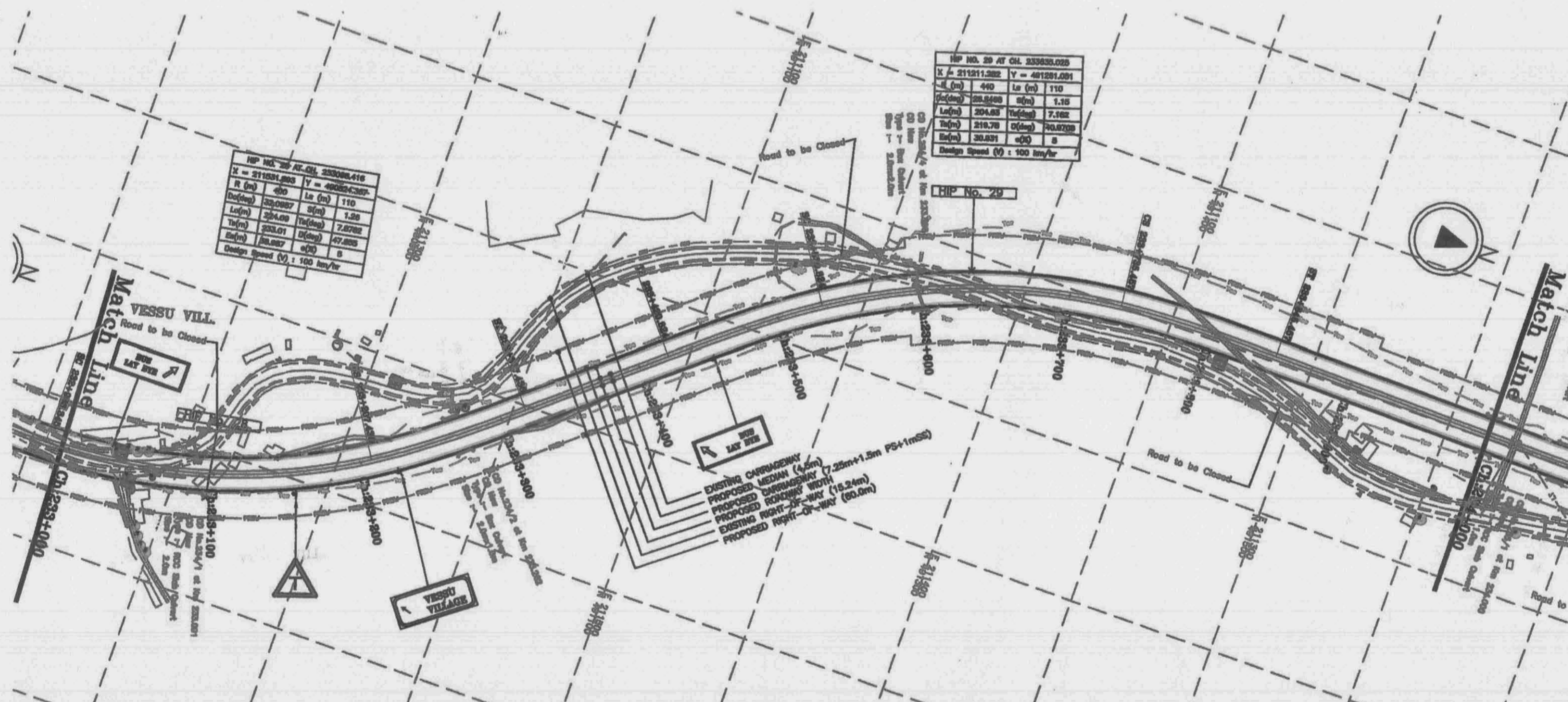
Revision	Date	Description	Checked by
R1	Nov,2008	Modified Drawing	
R0	April,2008	Initial Drawing	

DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/12A/R1



← JAMMU

SRINAGAR →



HP No. 29 AT CH. 233385.000

X = 211921.582	Y = 491261.091
R (m)	460
L (m)	110
Def(°)	39.087
Lo(°)	294.60
To(°)	255.51
So(°)	263.87
Design Speed (V)	100 km/hr

HP No. 29 AT CH. 233385.000

X = 211921.582	Y = 491261.091
R (m)	460
L (m)	110
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- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hydrometer Stone
 - Electric Pole
- Telephone Pole
 - Lamp Post
 - OTC Piler
 - ROW Piler
 - Tree-T8,T8,T4
 - Tree-T2,T2,T1
 - Well
- Hand Pump
 - Control Point TS-148.2
 - Identification
 - Manhole Top
 - Manhole
 - Sign Post
 - Gate
- Temple
 - Mosque
 - Garudwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Lines
 - Low Tension Lines
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 - Boundary/Fencing
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 - OPC Line
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- Existing Road Centre Line
 - Designed Centre Line
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Revisions	Date	Description	Checked by
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RD	April,2006	Initial Drawing	

NATIONAL HIGHWAYS AUTHORITY OF INDIA

Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

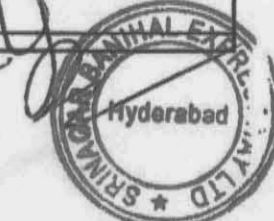
Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Plan Km.233+000 to Km.234+000 NS-92/J&K

SCETAMBOINE ENGINEERS In joint venture with Intercontinental Consultants & Technocrats Pvt.Ltd.

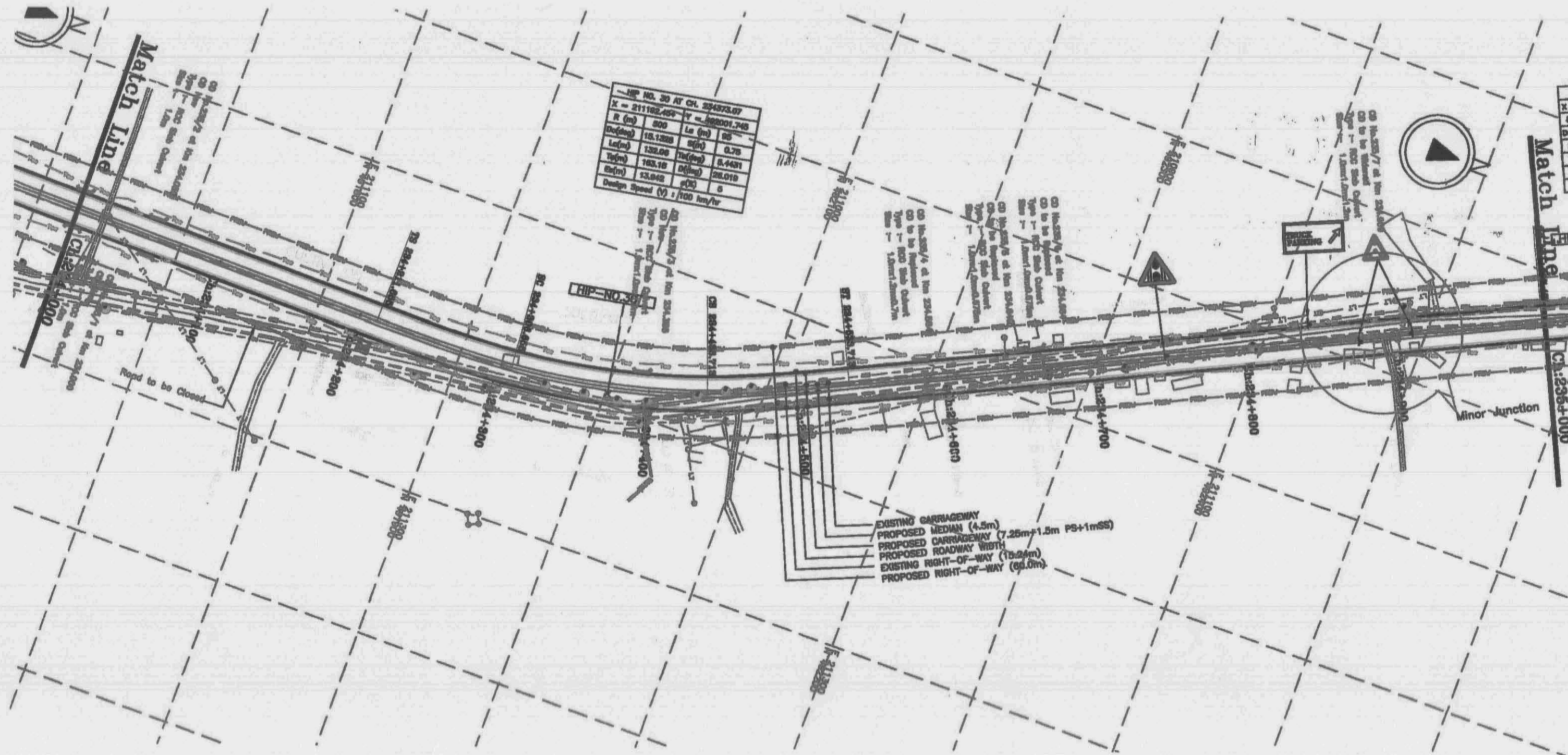
Prepared by: Bobby Thomas, S.Bhattacharya
 Checked by: L.K.Sharma, J.C.Thiruv

DRAWING NUMBER NHAI/NE-1A/BAN-SRI/PP/14/R1



← JAMMU

SRINAGAR →



- LEGEND**
- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Curvature (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(len)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
 - GPS
 - Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
 - Telephone Pole
 - Lamp Post
 - GFC Piler
 - ROW Piler
 - Tree-TS,TS,T4
 - Tree-TS,T2,T1
 - Well
 - Hand Pump
 - Control Point TS-148.2
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
 - Temple
 - Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - Hightension Lines
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Toe line
 - Crash Barrier
 - Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - GFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

EXISTING CARRIAGEWAY
 PROPOSED MEDIAN (4.5m)
 PROPOSED CARRIAGEWAY (7.25m+1.5m PS+1mSS)
 PROPOSED ROADWAY WIDTH
 EXISTING RIGHT-OF-WAY (19.24m)
 PROPOSED RIGHT-OF-WAY (69.0m)



Revisions	Date	Description	Checked by
R1	Nov,2006	Modified Drawing	
RD	Apr,2006	Initial Drawing	

Revisions

DRAWING NUMBER

NHAI/NH-1A/BAN-SRI/PP/15/R1

NATIONAL HIGHWAYS AUTHORITY OF INDIA

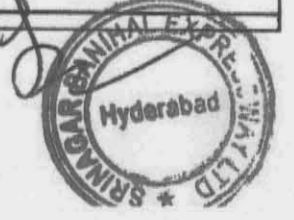
Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Plan
 Km.234+000 to Km.235+000
 NS-92/J&K

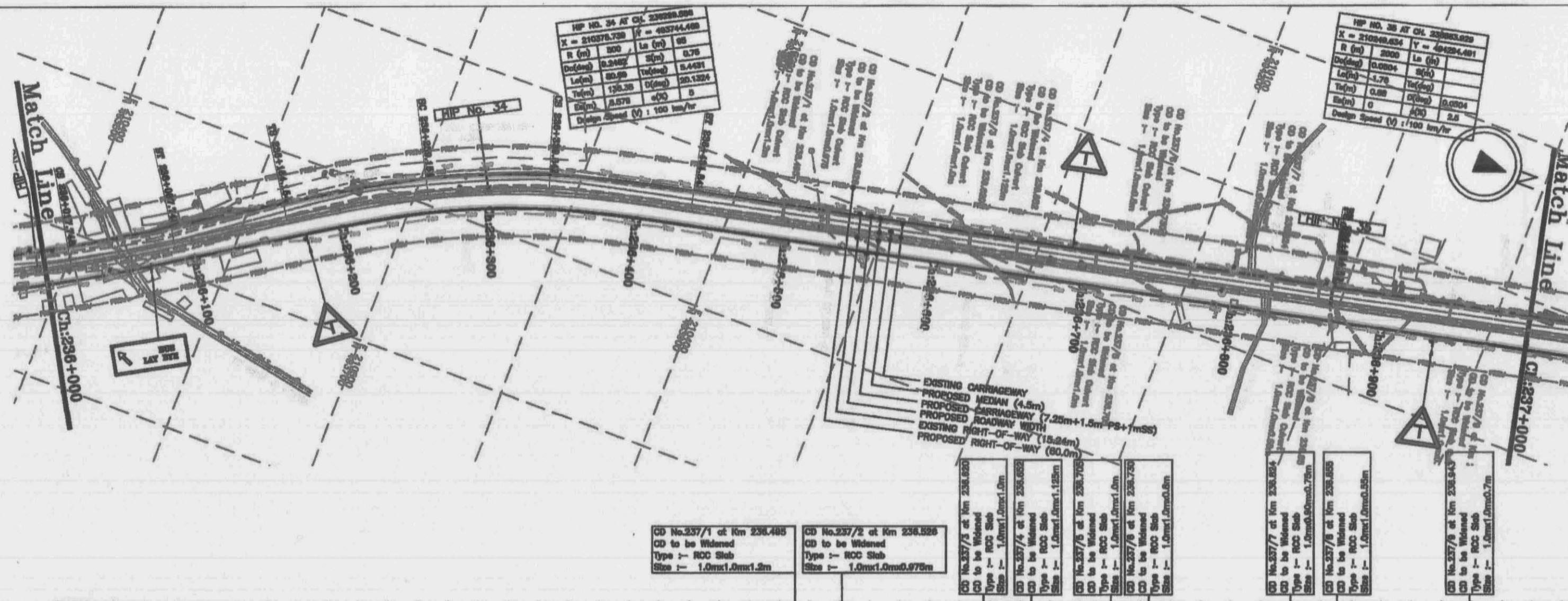
SCITAOURIE ENGINEERS In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 A-8, Great Park, New Delhi - 110016
 Ph : 2606-3050, Fax 2606-2222
 and
 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: **Roby Thomas**
 Designed by: **S.Shatishwarjee**
 Checked by: **L.K.Sharma**
 Approved by: **J.C.Thiry**



JAMMU

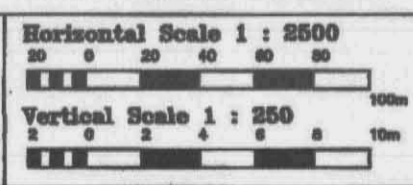
SRINAGAR



DATUM=1600.000

Ground Level at 20m to Left of Proposed Median C/L	Ground Level at 20m to Right of Proposed Median C/L	Existing Ground/Road Level at Median Edge - Left Carriageway	Existing Ground/Road Level at Median Edge - Right Carriageway	Proposed Road Level of Median Edge - Left Carriageway	Proposed Road Level of Median Edge - Right Carriageway	Proposed Vertical Alignment - Left Carriageway	Proposed Vertical Alignment - Right Carriageway	Proposed Horizontal Alignment for Proposed Median C/L	Superelevation/Crossfall (%)	Chainage (m)
1507.538	1507.538	1507.133	1507.133	1507.538	1507.538	L=187.092 P=-0.553%	L=187.092 P=-0.553%	R	e=4%	236+000

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- PLAN**
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 - Tangent point end(1m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Half-Kilometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Pillar
 - RDW Pillar
 - Tree-10,15,14
 - Tree-7,12,11
 - Well
- Hand Pump**
- Control Point
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Line**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Body
 - Canal
 - Too line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designated Centre Line
 - Designated Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed



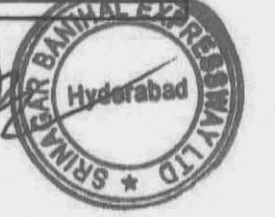
Detailed Design for 4-Laning of
Banihal to Srinagar Section (Km.188.000 to Km.296.000)
of NH-1(A),(including Srinagar Bypass) in J & K State

Plan & Profile
Km.236+000 to Km.237+000
NS-92/J&K

Prepared by: S. Srinivasan
Designed by: S. Srinivasan
Checked by: L.K. Sharma
Approved by: J.C. Thiruv

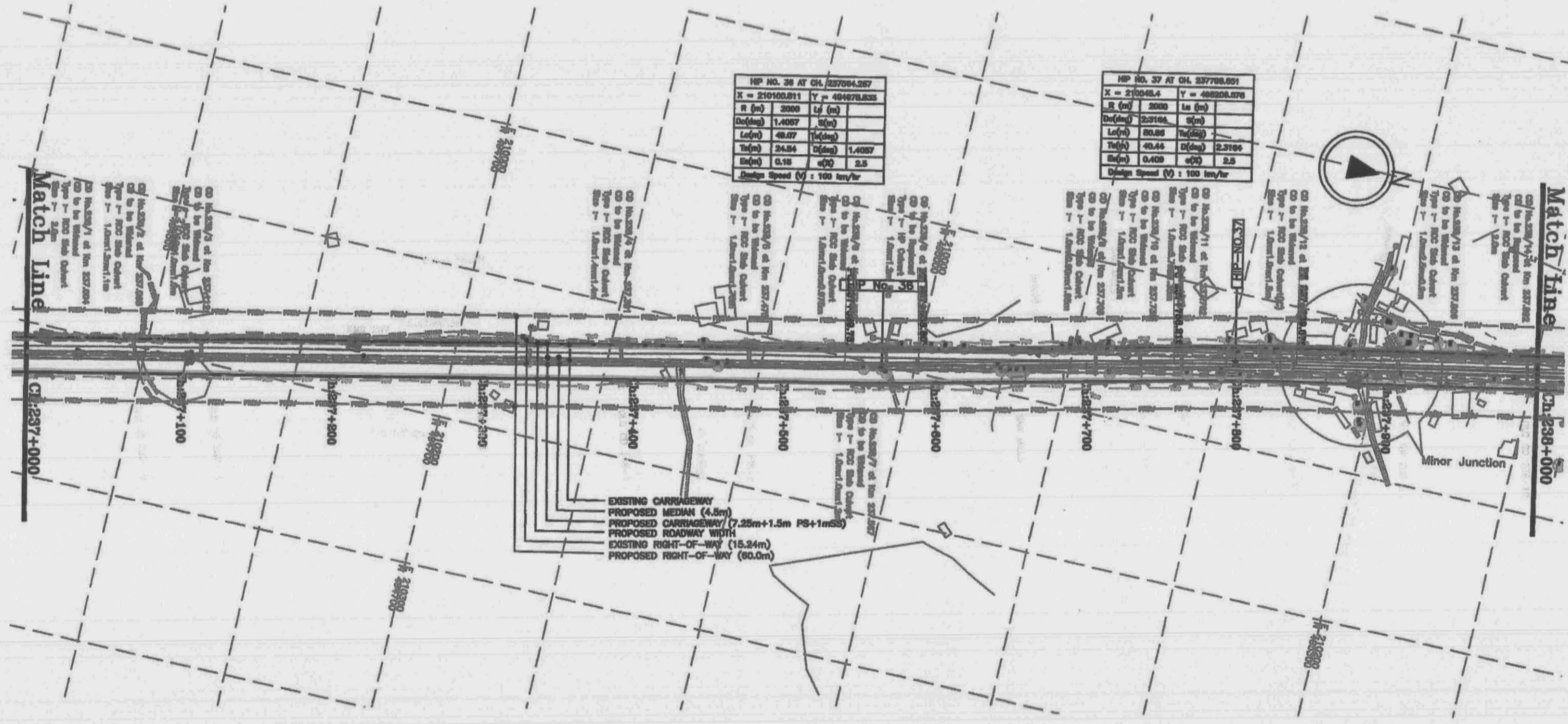
Rev No.	Date	Description	Checked by
R1	Nov,2006	Modified Drawing	
R2	Apr,2008	Initial Drawing	

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/17/R1



← JAMMU

SRINAGAR →



HP No. 36 AT CH. 237064.237

X = 210160.911	Y = 484678.825
R (m)	2000
De(deg)	1.4057
Lo(deg)	48.07
Ta(deg)	24.84
Sp(deg)	0.15
Design Speed (V)	100 km/hr

HP No. 37 AT CH. 237766.891

X = 210045.4	Y = 482608.876
R (m)	2000
De(deg)	2.9104
Lo(deg)	28.28
Ta(deg)	14.14
Sp(deg)	0.409
Design Speed (V)	100 km/hr

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 - PT-Point of Tangent (Without Transition)
 - Tangent point end(1m)
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 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole
 - Lamp Post
 - OFC Filter
 - ROW Filter
 - Tree-T8,T5,T4
 - Tree-T3,T2,T1
 - Well
 - Hand Pump
 - Control Point TB-146.2
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
 - Temple
 - Mosque
 - Gurudwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Top Line
 - Crash Barrier
 - Building Permanent/Temporary
 - Existing Road Paved/Impaved
 - Utility Building
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed



Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

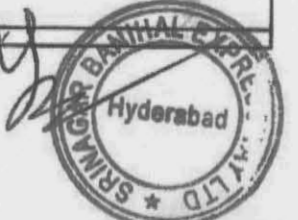
Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

Plan
 Km.237+000 to Km.238+000
 NS-92/J&K

SCETABOURE FRAMES In Joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 A-8, Green Park, New Delhi - 110016
 Ph : 2688-3000, Fax 2688-2222
 and
 CHMA HIGHWAY ENGINEERING CONSULTING
 AND SUPERVISION CORPORATION CHMA

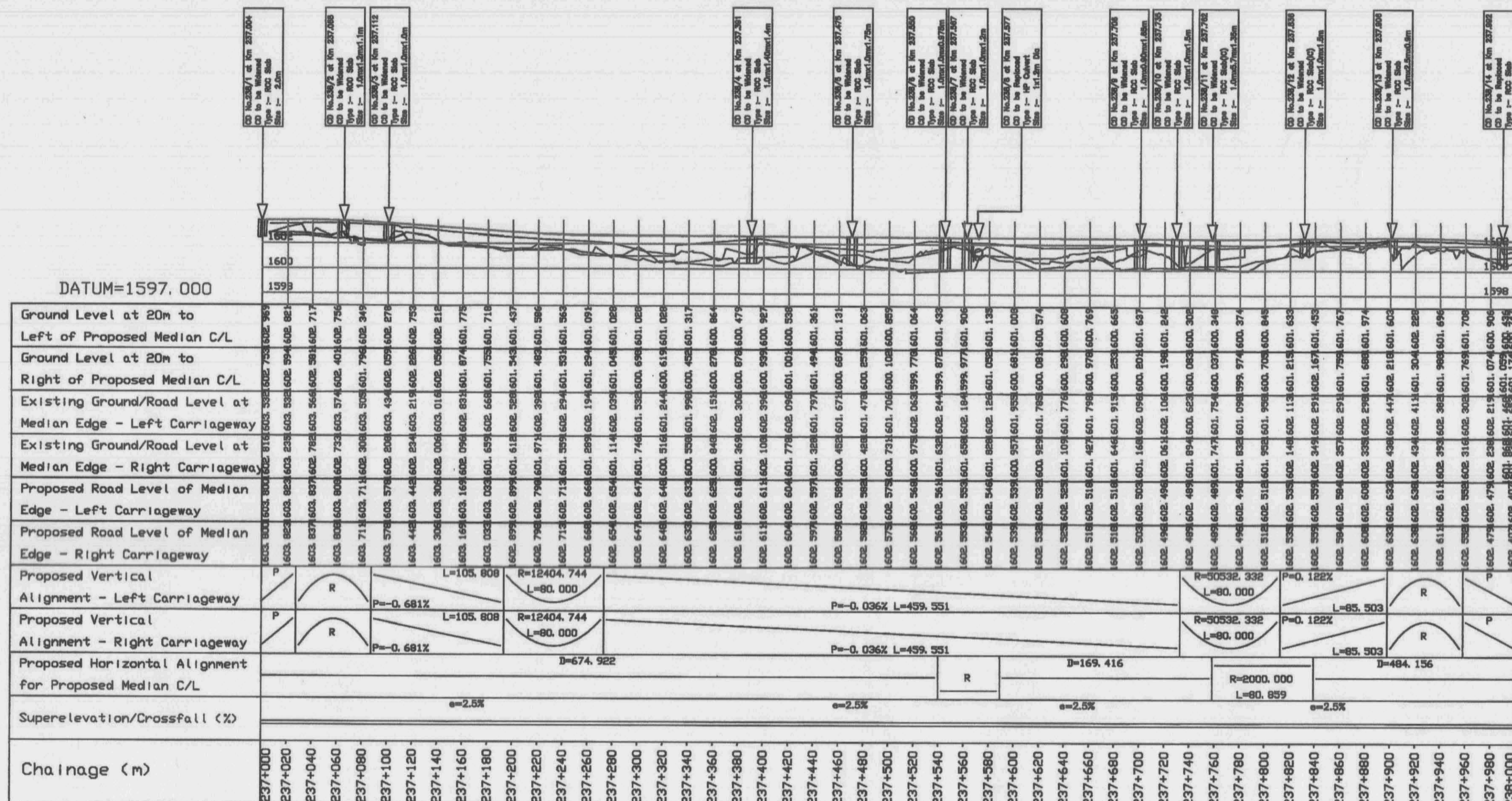
Prepared by: Bobby Thomas
 Designed by: S.Shanthanarayana
 Checked by: L.K.Sharma
 Approved by: J.C.Thiruv

R1	Nov,2008	Modified Drawing	
R0	April,2008	Initial Drawing	
Revisions	Date	Description	Checked by
Revisions			
DRAWING NUMBER			
NHAI/NH-1A/BAN-SRI/PP/18/R1			

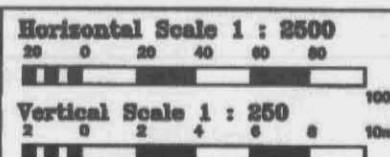


← JAMMU

SRINAGAR →



- LEGEND**
- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Curvature (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(0m)
 - PS-Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole
Lamp Post
OFC Pillar
ROW Pillar
Tree-TS,12,14
Tree-TS,12,11
Well
- Hand Pump
Control Point TS-146.2
Identification
Manhole Top
Manhole
Sign Post
Gate
- Temple
Mosque
Church
Church
Guard Post
Flag Post
Transformer
Highway Line
Lay Transition Line
Telephone Line
Right-of-Way
Right-of-Way-New
Boundary/Fencing
Boundary Water Body
Boundary River Bank
Canal
Tie line
Crash Barrier
- Building Permanent/Temporary
Existing Road Pavement/Unpaved
Utility Building
Pipe Line
OFC Line
Water Pipe Line
Earth Retaining Wall
Crash Barrier
- Existing Road Centre Line
Designed Centre Line
Designed Road/Median Edge
Culvert/Bridge - Existing
Culvert/Bridge - Designed



Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A), (including Srinagar Bypass) in J & K State

Profile Km.237+000 to Km.238+000 NS-92/J&K

SCIENTIQUO In joint venture with
Intercontinental Consultants & Technocrats Pvt.Ltd.
2-3, Green Park, New Delhi - 110016
Ph : 2610-3000, Fax : 2610-3004
and
CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

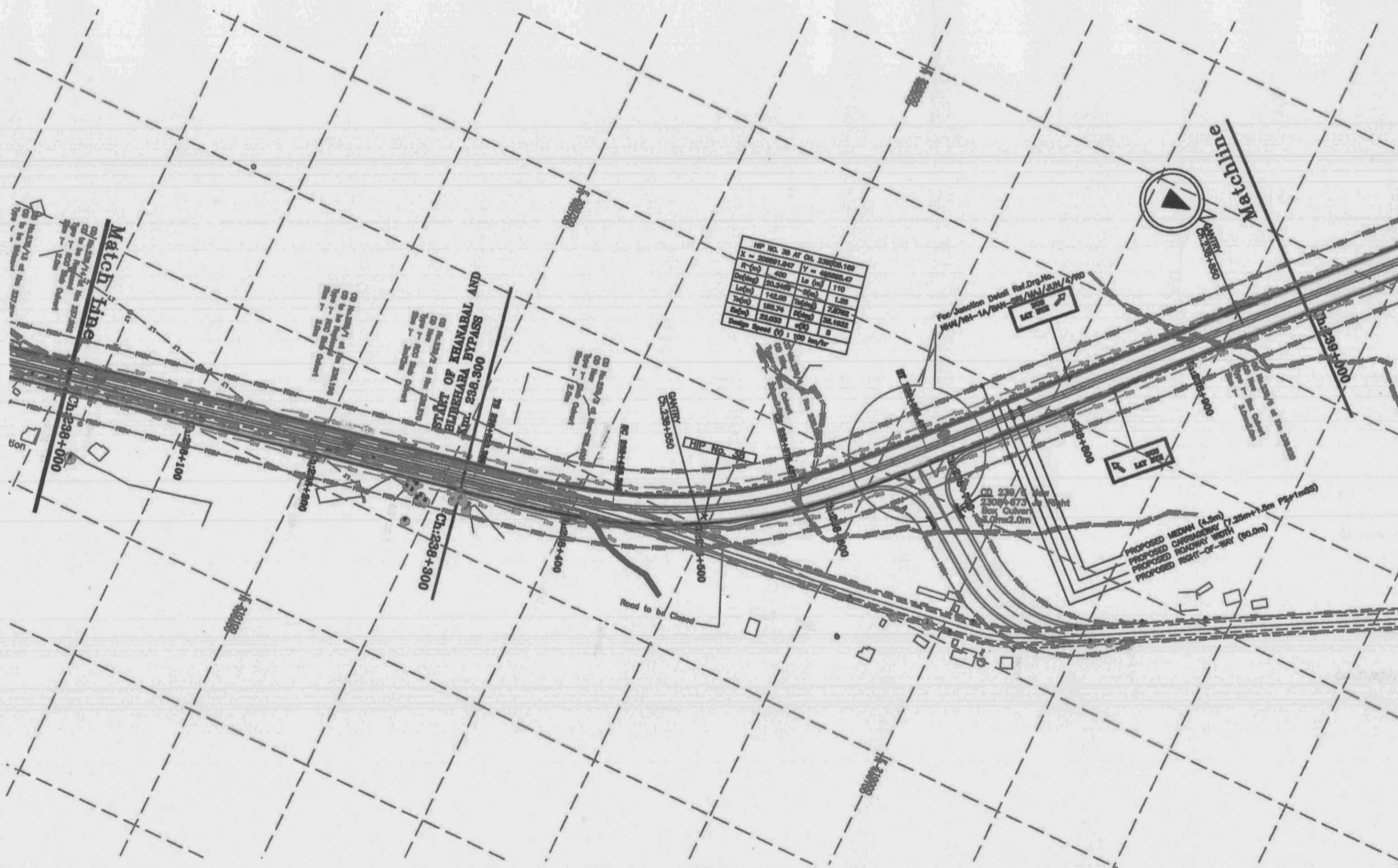
Prepared by: Bobby Thomas, S. Bhattacharya
Designed by: Bobby Thomas, S. Bhattacharya
Checked by: L.K. Sharma, J.C. Thiry
Approved by: L.K. Sharma, J.C. Thiry

R1	Nov, 2008	Modified Drawing	
RD	April, 2008	Initial Drawing	
Revisions	Date	Description	Checked by
Revisions			
DRAWING NUMBER			
NHAI/NH-1A/BAN-SRI/PP/18A			



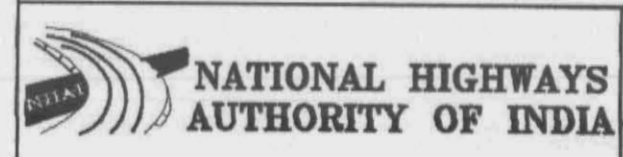
← JAMMU

SRINAGAR →



LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Curvature (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end (m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS
 - Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Horizontal Stone
 - Electric Pole
- Telephone Pole
 - Letter Post
 - OFC Piler
 - ROW Piler
 - Tree-T8,T5,T4
 - Tree-T3,T2,T1
 - Well
 - Hand Pump
 - Control Point T8-148.2
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
 - Temple
 - Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Top Line
 - Crash Barrier
 - Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Building
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed



Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

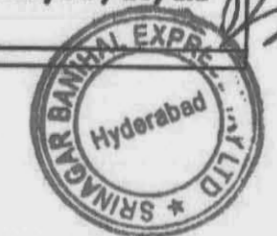
Plan
 Km.236+000 to Km.239+000
 NS-92/J&K

SCETANROUTE FRANCE In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd
 A-8, Green Park, New Delhi - 110016
 Ph : 2666-3000, Fax : 2666-3222
 CHINA HIGHWAY ENGINEERING CONSULTING
 AND SUPERVISION CORPORATION CHINA

Prepared by: S.Bhattacharjee
 Designed by: S.Bhattacharjee
 Checked by: L.K.Sharma
 Approved by: J.C.Thirry

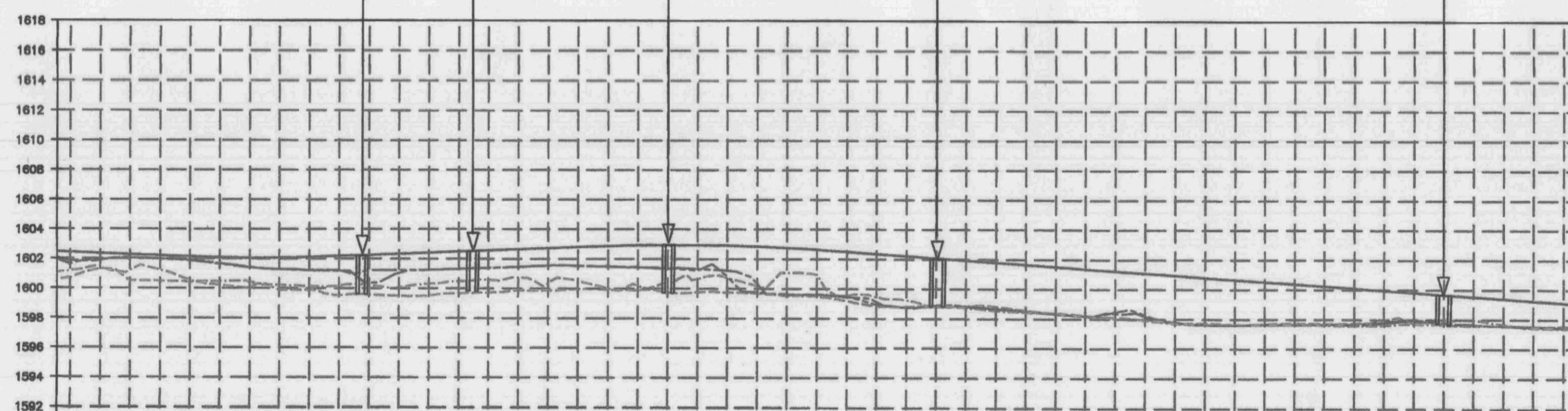
Revision	Date	Description	Checked by
R1	Nov,2006	Modified Drawing	
RD	April,2006	Initial Drawing	

Revisions
DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/19/R1



← JAMMU

SRINAGAR →



Datum Level =1590

Ground Level at 20 m to Left of Proposed Median C/L	1600.878	1601.120	1601.303	1601.473	1601.612	1601.723	1601.803	1601.854	1601.884	1601.894	1601.884	1601.854	1601.803	1601.723	1601.612	1601.473	1601.303	1601.120	1600.878																																
Ground Level at 20 m to Right of Proposed Median C/L	1601.120	1601.303	1601.473	1601.612	1601.723	1601.803	1601.854	1601.884	1601.894	1601.884	1601.854	1601.803	1601.723	1601.612	1601.473	1601.303	1601.120	1600.878	1600.616																																
Existing Ground /Road level at Median Edge - Left Carriageway	1601.855	1601.828	1601.785	1601.728	1601.656	1601.572	1601.478	1601.375	1601.264	1601.146	1601.024	1600.903	1600.784	1600.666	1600.551	1600.440	1600.333	1600.230	1600.131																																
Existing Ground /Road level at Median Edge - Right Carriageway	1601.855	1601.828	1601.785	1601.728	1601.656	1601.572	1601.478	1601.375	1601.264	1601.146	1601.024	1600.903	1600.784	1600.666	1600.551	1600.440	1600.333	1600.230	1600.131																																
Proposed Road Level of Median Edge - Left Carriageway	1602.407	1602.334	1602.261	1602.189	1602.118	1602.048	1601.978	1601.909	1601.841	1601.774	1601.709	1601.645	1601.583	1601.523	1601.464	1601.407	1601.352	1601.299	1601.248																																
Proposed Road Level of Median Edge - Right Carriageway	1602.407	1602.334	1602.261	1602.189	1602.118	1602.048	1601.978	1601.909	1601.841	1601.774	1601.709	1601.645	1601.583	1601.523	1601.464	1601.407	1601.352	1601.299	1601.248																																
Proposed Vertical Alignment - Left Median Edge	G=-0.363		L=80m			G=0.385			L=150m			G=-0.705																																							
Proposed Vertical Alignment - Right Median Edge	G=-0.363		L=80m			G=0.385			L=150m			G=-0.705																																							
Proposed Horizontal Alignment of Centre line			L _a = 110m			R = 400m			L _a = 110m																																										
Superelevation/Crossfall (%)	e = 2.5%		e = 5%			e = 5%			e = 5%			e = 2.5%																																							
Chainage	238+000	238+020	238+040	238+060	238+080	238+100	238+120	238+140	238+160	238+180	238+200	238+220	238+240	238+260	238+280	238+300	238+320	238+340	238+360	238+380	238+400	238+420	238+440	238+460	238+480	238+500	238+520	238+540	238+560	238+580	238+600	238+620	238+640	238+660	238+680	238+700	238+720	238+740	238+760	238+780	238+800	238+820	238+840	238+860	238+880	238+900	238+920	238+940	238+960	238+980	239+000

LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
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 - Tangent point end(m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- Profile**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hachometer Stone
 - Electric Pole
 - Telephone Pole
 - Lamp Post
 - CPC Pillar
 - ROW Pillar
 - Tree-75,75,74
 - Tree-73,72,71
 - Well
 - Hand Pump
 - Control Point
 - Identification
 - Municipal Tap
 - Manhole
 - Sign Post
 - Gate
 - Temple
 - Masque
 - Gurdwara
 - Church
 - Guard Post
 - Ping Post
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 - Crash Barrier
 - Existing Road Centre Line
 - Designated Centre Line
 - Designated Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

Legend For Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level at Left Median Edge
- Existing Ground/Road Level at Right Median Edge
- Proposed Road Level at Left Median Edge
- Proposed Road Level at Right Median Edge

R1	20/08/2006	Approved Drawing	
R0	Apr 2006	Initial Drawing	
Revision	Date	Description	Checked by

Revisions

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/19A/R1



Horizontal Scale 1 : 2500
Vertical Scale 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Profile
Km.238+000 to Km.239+000
NS-92/J&K

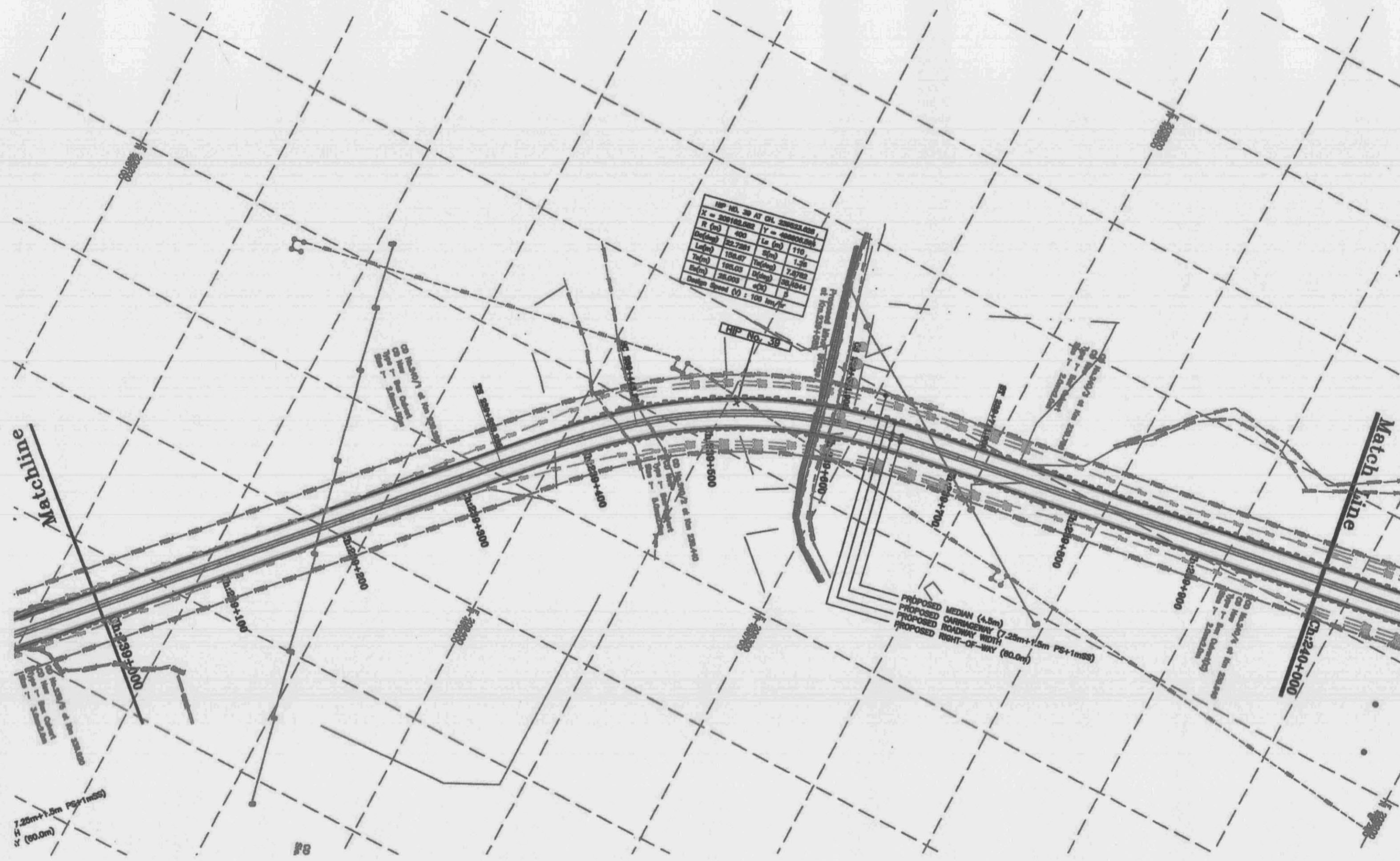
SCETARBOURNE INNS
In joint venture with
Intercontinental Consultants & Technocrats Pvt.Ltd.
A-8, Green Park, New Delhi - 110016
Ph : 2650-3000, Fax 2650-3282
CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION CHINA

Prepared by: **Robert Thomas**
Designed by: **S.Sharadachari**
Checked by: **L.K.Sharma**
Approved by: **J.C.Thingy**



← JAMMU

SRINAGAR →



HIP NO. 39 AT CH. 239824.000

X (m)	400	Y (m)	4000.000
Defn (m)	32.7281	Le (m)	110
Trn (m)	186.67	Trn (deg)	7.2788
Inf (m)	186.63	Inf (deg)	33.8364
Design Speed (V)	100 km/hr		

LEGEND

PLAN

- TS-Tangent to Spiral
 - SC-Spiral to Curve
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 - Tree-T3,T2,T1
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 - Church
 - Guard Post
 - Flag Post
 - Transformer
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 - Right-of-Way-New
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 - Boundary Water Body
 - Boundary River Bank
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 - Top line
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 - Existing Road Paved/Unpaved
 - Utility Buildings
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 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed



Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

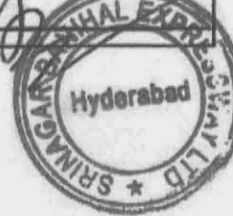
Plan
 Km.239+000 to Km.240+000
 NS-92/J&K

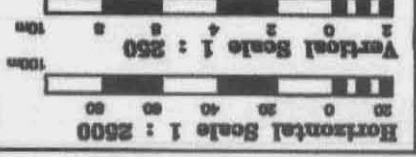
SCYTAIRROUTE FRANCE In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 A-8, Green Park, New Delhi - 110019
 Ph : 2688-3000, Fax: 2688-0282
 and
 CHINA HIGHWAY ENGINEERING CONSULTING
 AND SUPERVISION CORPORATION CHINA

Prepared by: *Bobby Thomas*
 Designed by: *S.Shatishchories*
 Checked by: *L.K.Sharma*
 Approved by: *J.C.Thiruv*

Revisions	Date	Description	Checked by
R1	Nov,2006	Modified Drawing	
RD	April,2006	Initial Drawing	

DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/20/R1





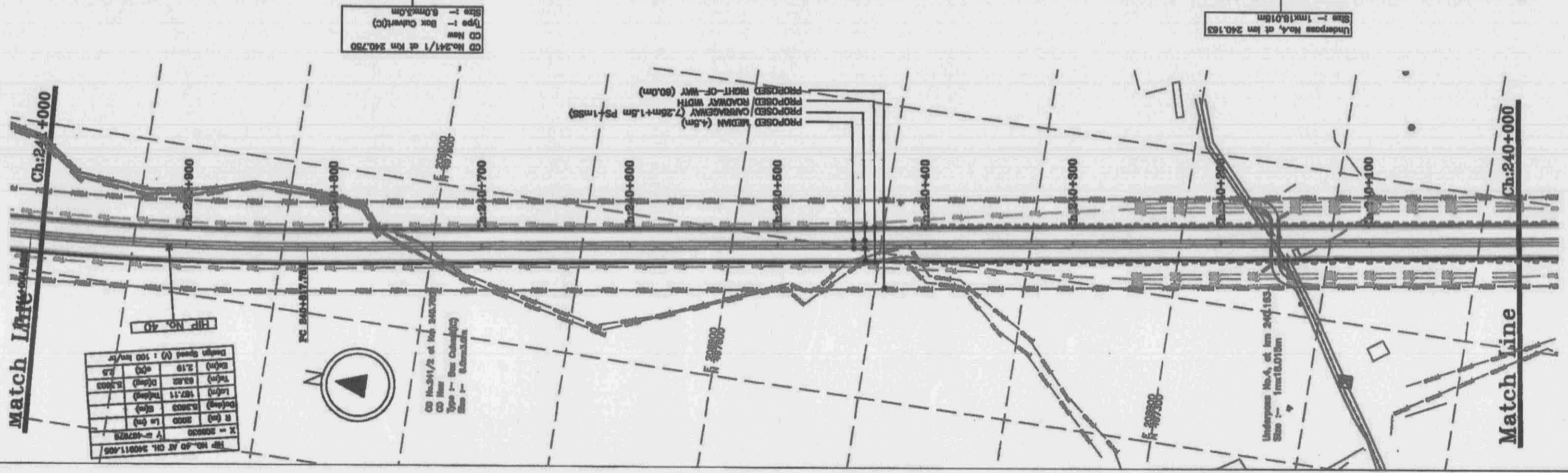
Detailed Design for 4-Laning of NH-1(A), (including Srinagar Bypass) in J & K State
Banihal to Srinagar Section (Km.188,000 to Km.296,000)

Plan & Profile
NS-92/J&K
Km.240+000 to Km.241+000

Checked by J.C. Thery	Approved by [Signature]
Prepared by [Signature]	Designed by [Signature]
In joint venture with Srinagar Engineers & Technocrats Pvt. Ltd. Inter-Regional Consultants & Technocrats Pvt. Ltd. A-6, Green Park, New Delhi - 110016 Ph : 2626-2000, Fax : 2626-2002	

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/21/R1

Chainage	Superlevation/Crossfall (%)	Proposed Horizontal Alignment of Centre Line	Proposed Vertical Alignment - Right Median Edge	Proposed Vertical Alignment - Left Median Edge	Proposed Road Level of Median Edge - Right Carriageway	Proposed Road Level of Median Edge - Left Carriageway	Existing Ground/Road level at Median Edge - Right Carriageway	Existing Ground/Road level at Median Edge - Left Carriageway	Right of Proposed Median C/L at 20 m to	Left of Proposed Median C/L at 20 m to
240+000					1801.945	1801.940	1801.938	1801.937	1801.938	1801.937
240+020					1802.198	1802.198	1802.198	1802.198	1802.198	1802.198
240+040					1802.400	1802.400	1802.398	1802.398	1802.398	1802.398
240+060					1802.558	1802.558	1802.558	1802.558	1802.558	1802.558
240+080					1802.682	1802.682	1802.682	1802.682	1802.682	1802.682
240+100					1802.720	1802.720	1802.720	1802.720	1802.720	1802.720
240+120					1802.729	1802.729	1802.729	1802.729	1802.729	1802.729
240+140					1802.690	1802.690	1802.690	1802.690	1802.690	1802.690
240+160					1802.601	1802.601	1802.601	1802.601	1802.601	1802.601
240+180					1802.484	1802.484	1802.484	1802.484	1802.484	1802.484
240+200					1802.278	1802.278	1802.278	1802.278	1802.278	1802.278
240+220					1802.044	1802.044	1802.044	1802.044	1802.044	1802.044
240+240					1801.780	1801.780	1801.780	1801.780	1801.780	1801.780
240+260					1801.428	1801.428	1801.428	1801.428	1801.428	1801.428
240+280					1801.047	1801.047	1801.047	1801.047	1801.047	1801.047
240+300					1800.618	1800.618	1800.618	1800.618	1800.618	1800.618
240+320					1800.140	1800.140	1800.140	1800.140	1800.140	1800.140
240+340					1800.638	1800.638	1800.638	1800.638	1800.638	1800.638
240+360					1800.132	1800.132	1800.132	1800.132	1800.132	1800.132
240+380					1800.629	1800.629	1800.629	1800.629	1800.629	1800.629
240+400					1800.124	1800.124	1800.124	1800.124	1800.124	1800.124
240+420					1800.651	1800.651	1800.651	1800.651	1800.651	1800.651
240+440					1800.237	1800.237	1800.237	1800.237	1800.237	1800.237
240+460					1800.673	1800.673	1800.673	1800.673	1800.673	1800.673
240+480					1800.271	1800.271	1800.271	1800.271	1800.271	1800.271
240+500					1800.659	1800.659	1800.659	1800.659	1800.659	1800.659
240+520					1800.634	1800.634	1800.634	1800.634	1800.634	1800.634
240+540					1800.629	1800.629	1800.629	1800.629	1800.629	1800.629
240+560					1800.625	1800.625	1800.625	1800.625	1800.625	1800.625
240+580					1800.621	1800.621	1800.621	1800.621	1800.621	1800.621
240+600					1800.618	1800.618	1800.618	1800.618	1800.618	1800.618
240+620					1800.612	1800.612	1800.612	1800.612	1800.612	1800.612
240+640					1800.608	1800.608	1800.608	1800.608	1800.608	1800.608
240+660					1800.603	1800.603	1800.603	1800.603	1800.603	1800.603
240+680					1800.599	1800.599	1800.599	1800.599	1800.599	1800.599
240+700					1800.594	1800.594	1800.594	1800.594	1800.594	1800.594
240+720					1800.590	1800.590	1800.590	1800.590	1800.590	1800.590
240+740					1800.588	1800.588	1800.588	1800.588	1800.588	1800.588
240+760					1800.581	1800.581	1800.581	1800.581	1800.581	1800.581
240+780					1800.577	1800.577	1800.577	1800.577	1800.577	1800.577
240+800					1800.573	1800.573	1800.573	1800.573	1800.573	1800.573
240+820					1800.568	1800.568	1800.568	1800.568	1800.568	1800.568
240+840					1800.564	1800.564	1800.564	1800.564	1800.564	1800.564
240+860					1800.559	1800.559	1800.559	1800.559	1800.559	1800.559
240+880					1800.555	1800.555	1800.555	1800.555	1800.555	1800.555
240+900					1800.551	1800.551	1800.551	1800.551	1800.551	1800.551
240+920					1800.546	1800.546	1800.546	1800.546	1800.546	1800.546
240+940					1800.542	1800.542	1800.542	1800.542	1800.542	1800.542
240+960					1800.538	1800.538	1800.538	1800.538	1800.538	1800.538
240+980					1800.533	1800.533	1800.533	1800.533	1800.533	1800.533
241+000					1800.529	1800.529	1800.529	1800.529	1800.529	1800.529



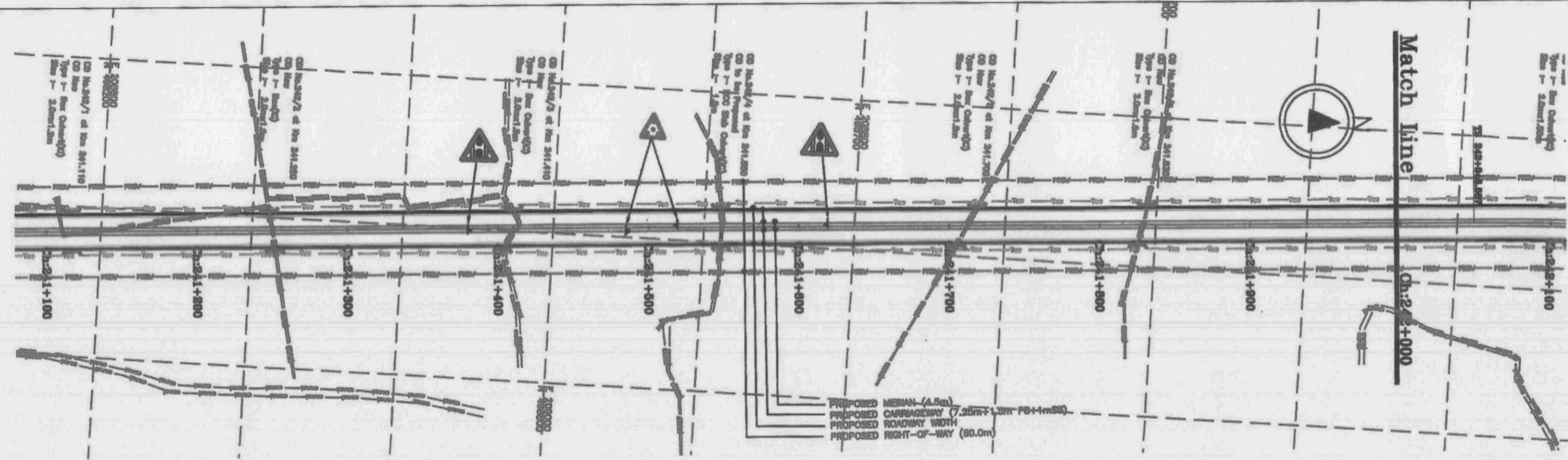
LEGEND

SRINAGAR ←

→ JAMMU

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SRINAGAR →



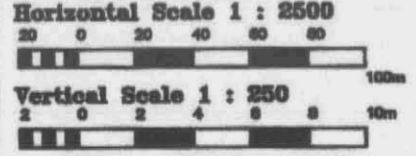
- LEGEND**
- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(1m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole
 - Lamp Post
 - QFC Pillar
 - Road Pillar
 - Tree-15.25,14
 - Tree-13.72,11
 - Well
 - Head Pump
 - Control Point
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
- Temple
 - Mosque
 - Sanctuary
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tree Line
 - Crash Barrier
 - Building Permanent/Temporary
 - Existing Road Power/Unpaved
 - Utility Building
 - Pipe Line
 - QFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

Chainage	Ground Level at 20 m to Left of Proposed Median C/L	Ground Level at 20 m to Right of Proposed Median C/L	Existing Ground /Road level at Median Edge - Left Carriageway	Existing Ground /Road level at Median Edge - Right Carriageway	Proposed Road Level of Median Edge - Left Carriageway	Proposed Road Level of Median Edge - Right Carriageway	Proposed Vertical Alignment - Left Median Edge	Proposed Vertical Alignment - Right Median Edge	Proposed Horizontal Alignment of Centre line	Superelevation/Crossfall (%)
241+000	1594.598	1594.679	1594.598	1594.679	1594.529	1594.529				
241+020	1594.607	1594.679	1594.563	1594.679	1596.524	1596.524				
241+040	1594.739	1594.609	1594.618	1594.609	1596.520	1596.520				
241+060	1594.700	1594.545	1594.597	1594.545	1596.516	1596.516				
241+080	1594.667	1594.504	1594.544	1594.504	1596.511	1596.511				
241+100	1594.680	1594.481	1594.569	1594.481	1596.507	1596.507				
241+120	1594.488	1594.458	1594.482	1594.458	1596.503	1596.503				
241+140	1594.502	1594.544	1594.635	1594.544	1596.498	1596.498				
241+160	1594.494	1594.466	1594.653	1594.466	1596.494	1596.494				
241+180	1594.507	1594.450	1594.621	1594.450	1596.489	1596.489				
241+200	1594.610	1594.411	1594.570	1594.411	1596.485	1596.485				
241+220	1594.598	1594.378	1594.594	1594.378	1596.481	1596.481				
241+240	1594.729	1594.481	1594.563	1594.481	1596.478	1596.478				
241+260	1594.715	1594.608	1594.507	1594.608	1596.472	1596.472				
241+280	1594.593	1594.414	1594.411	1594.414	1596.468	1596.468				
241+300	1594.549	1594.374	1594.443	1594.374	1596.463	1596.463				
241+320	1594.548	1594.334	1594.393	1594.334	1596.459	1596.459				
241+340	1594.594	1594.348	1594.370	1594.348	1596.454	1596.454				
241+360	1594.581	1594.382	1594.369	1594.382	1596.450	1596.450				
241+380	1594.580	1594.312	1594.351	1594.312	1596.446	1596.446				
241+400	1594.611	1594.215	1594.359	1594.215	1596.441	1596.441				
241+420	1594.385	1594.283	1594.274	1594.283	1596.437	1596.437				
241+440	1594.315	1594.253	1594.315	1594.253	1596.432	1596.432				
241+460	1594.353	1594.274	1594.347	1594.274	1596.428	1596.428				
241+480	1594.338	1594.288	1594.347	1594.288	1596.424	1596.424				
241+500	1594.325	1594.235	1594.330	1594.235	1596.419	1596.419				
241+520	1594.311	1594.202	1594.314	1594.202	1596.415	1596.415				
241+540	1594.376	1594.358	1594.390	1594.358	1596.411	1596.411				
241+560	1594.340	1594.352	1594.301	1594.352	1596.406	1596.406				
241+580	1594.280	1594.175	1594.223	1594.175	1596.402	1596.402				
241+600	1594.285	1594.181	1594.182	1594.181	1596.397	1596.397				
241+620	1594.245	1594.153	1594.189	1594.153	1596.393	1596.393				
241+640	1594.234	1594.164	1594.177	1594.164	1596.389	1596.389				
241+660	1594.224	1594.168	1594.184	1594.168	1596.384	1596.384				
241+680	1594.222	1594.214	1594.208	1594.214	1596.380	1596.380				
241+700	1594.281	1594.281	1594.283	1594.281	1596.376	1596.376				
241+720	1594.284	1594.119	1594.115	1594.119	1596.371	1596.371				
241+740	1594.119	1594.109	1594.083	1594.109	1596.367	1596.367				
241+760	1594.119	1594.100	1594.097	1594.100	1596.362	1596.362				
241+780	1594.102	1594.081	1594.078	1594.081	1596.358	1596.358				
241+800	1594.079	1594.089	1594.042	1594.089	1596.354	1596.354				
241+820	1594.076	1594.066	1594.027	1594.066	1596.349	1596.349				
241+840	1594.087	1594.150	1594.207	1594.150	1596.345	1596.345				
241+860	1594.174	1594.039	1594.039	1594.174	1596.341	1596.341				
241+880	1594.074	1594.009	1594.015	1594.009	1596.336	1596.336				
241+900	1594.043	1594.035	1594.035	1594.043	1596.332	1596.332				
241+920	1594.046	1594.046	1594.046	1594.046	1596.327	1596.327				
241+940	1594.005	1594.030	1594.028	1594.030	1596.323	1596.323				
241+960	1594.983	1594.031	1594.027	1594.031	1596.319	1596.319				
241+980	1594.005	1594.031	1594.078	1594.031	1596.314	1596.314				
242+000	1594.054	1594.013	1594.110	1594.013	1596.310	1596.310				

Legend For Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level at Left Median Edge
- Existing Ground/Road Level at Right Median Edge
- Proposed Road Level at Left Median Edge
- Proposed Road Level at Right Median Edge

Revision	Date	Description	Checked by
R1	Nov, 2008	Issued Drawing	
R2	April, 2009	Initial Drawing	



Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Plan & Profile
Km.241+000 to Km.242+000
NS-92/J&K

SCITALBOURNE FRANCE In joint venture with Intercontinental Consultants & Technocrats Pvt.Ltd. A-4, Green Park, New Delhi - 110016 Ph : 2606-3005, Fax 2606-0822

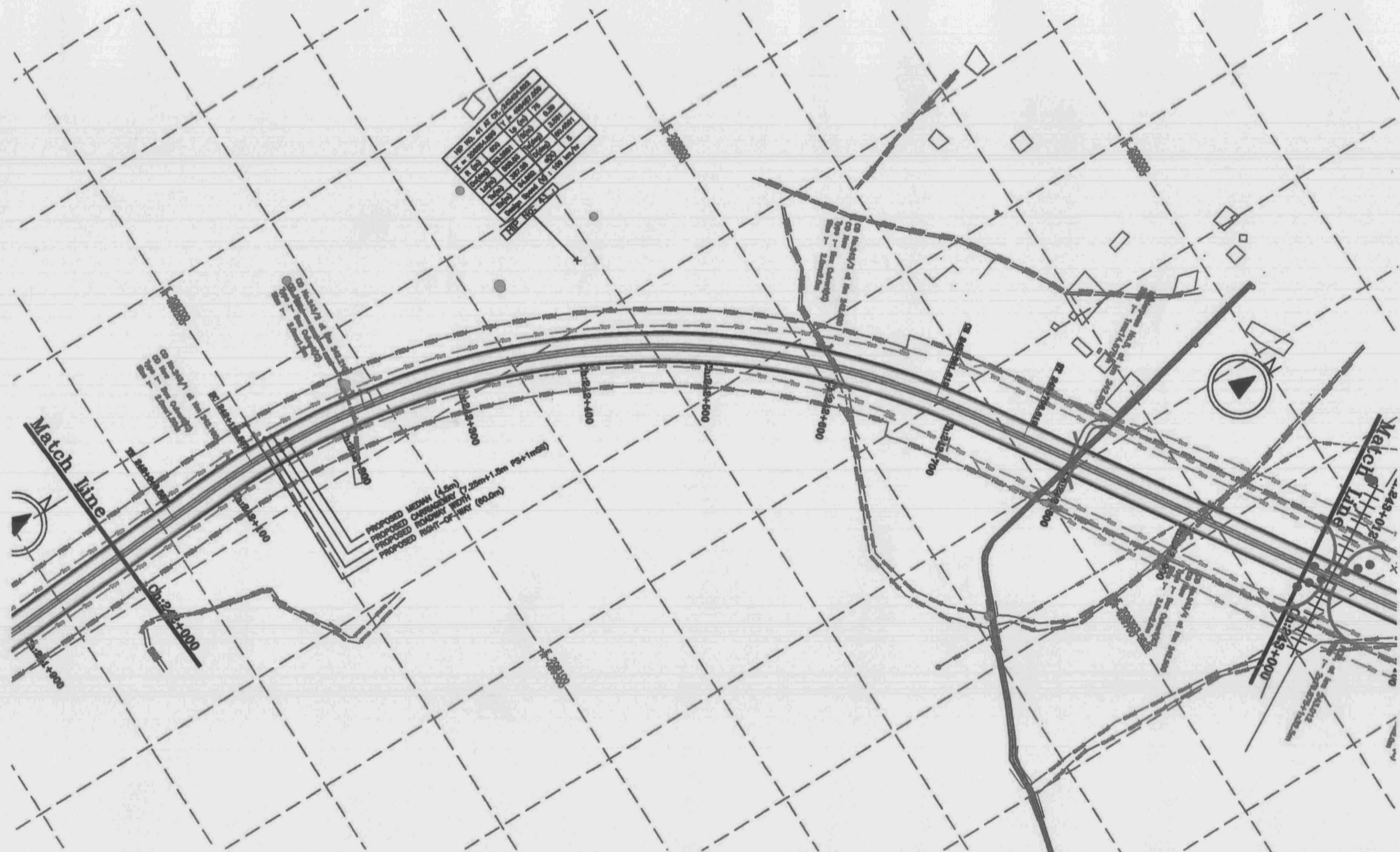
Prepared by: R. Thirumalaiah, S. Sathyanarayanan
Checked by: L.K. Sharma, J.C. Thiry

Revisions
DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/22/R1



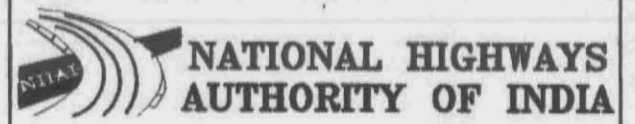
← JAMMU

SRINAGAR →



Station	Curve	Radius (m)	Length (m)	PC	PT	PI	TS	SC
242+000	CS	1000	100	242+000	242+100	242+050	242+000	242+000
242+100	CS	1000	100	242+100	242+200	242+150	242+100	242+100
242+200	CS	1000	100	242+200	242+300	242+250	242+200	242+200
242+300	CS	1000	100	242+300	242+400	242+350	242+300	242+300
242+400	CS	1000	100	242+400	242+500	242+450	242+400	242+400
242+500	CS	1000	100	242+500	242+600	242+550	242+500	242+500
242+600	CS	1000	100	242+600	242+700	242+650	242+600	242+600
242+700	CS	1000	100	242+700	242+800	242+750	242+700	242+700
242+800	CS	1000	100	242+800	242+900	242+850	242+800	242+800
242+900	CS	1000	100	242+900	243+000	242+950	242+900	242+900

- LEGEND**
- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(tem)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
 - Telephone Pole
 - Lamp Post
 - OFC Piller
 - ROW Piller
 - Tree-T6,T5,T4
 - Tree-T3,T2,T1
 - Well
 - Hand Pump
 - Control Point TS-148.2
 - Manhole Top
 - Manhole
 - Sign Post
 - Gate
 - Temple
 - Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tie line
 - Crash Barrier
 - Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Building
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed



Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

Plan
 Km.242+000 to Km.243+000
 NS-92/J&K

SCETAMBOUR ENGINEERS In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 and
 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Bobby Thomas Prepared by
 S.Shobharajee Designed by
 L.K.Sharma Checked by
 J.G.Thiry Approved by

Revision	Date	Description	Checked by
R1	Nov,2006	Modified Drawing	
R0	April,2006	Initial Drawing	

Revisions
 DRAWING NUMBER
 NHAI/NE-1A/BAN-SRI/PP/23/R1



← JAMMU

SRINAGAR →

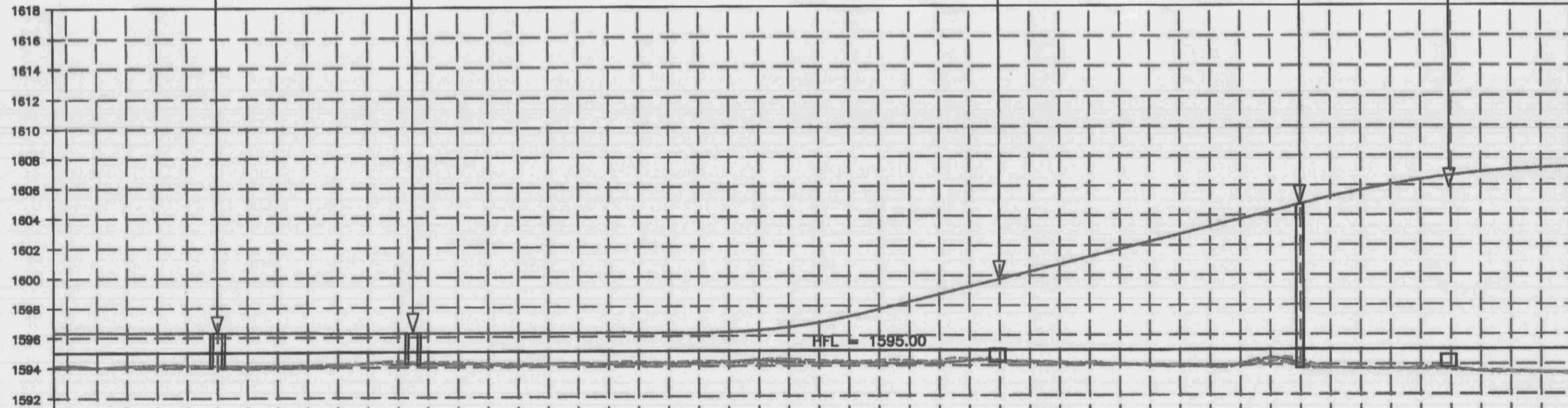
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CD New
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Size - 2.0m x 1.50m

CD No.243/2 at Km 242.210
CD New
Type - Box(C)
Size - 2.0m x 1.5m

CD No.243/3 at Km 242.800
CD New
Type - Box Culvert(C)
Size - 2.0m x 2.0m

Underpass No.8, at km 242.800
Size - 1m x 14.675m

CD No.243/4 at Km 242.900
CD New
Type - Box Culvert(C)
Size - 3.0m x 2.0m

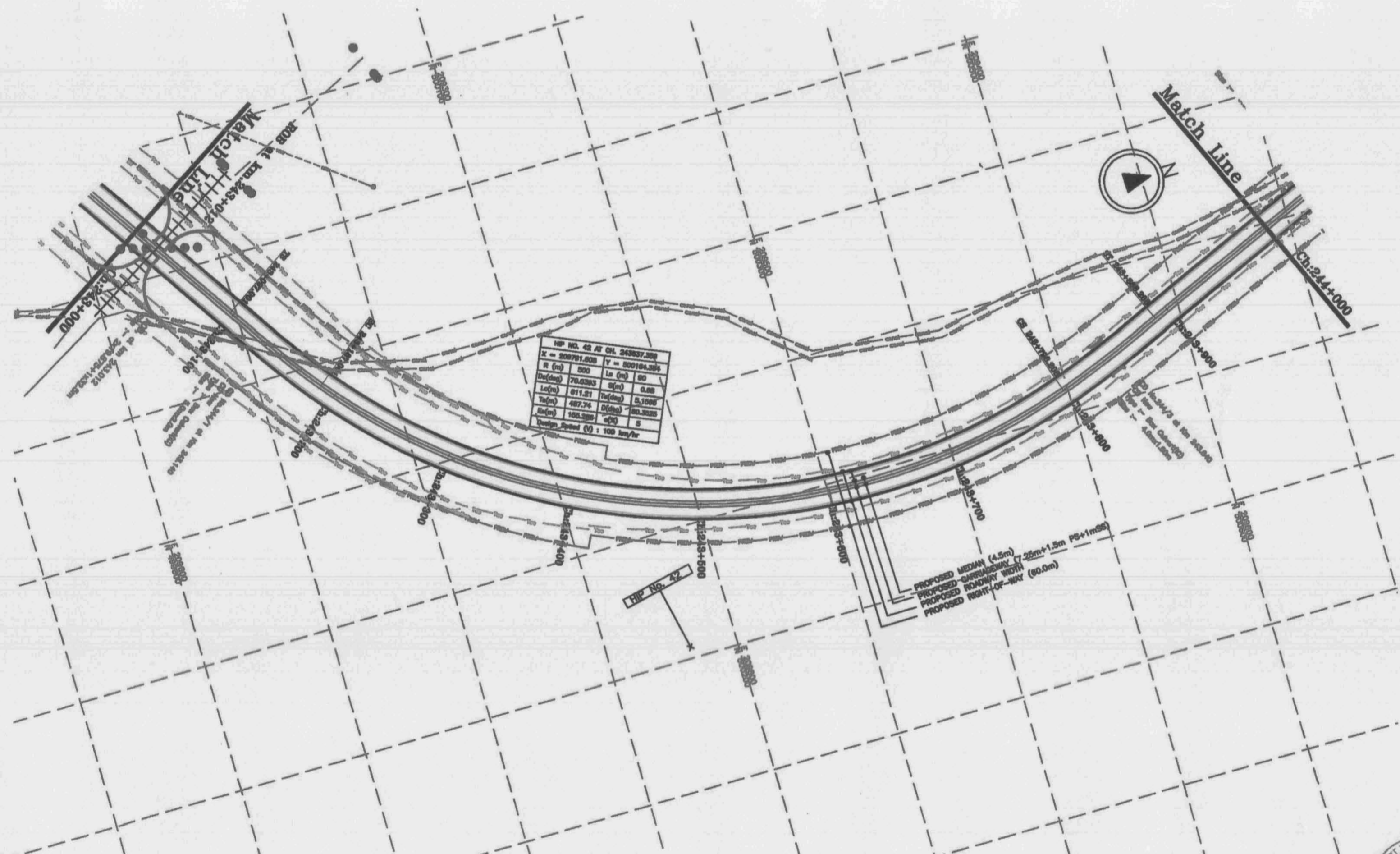


Datum Level = 1590

Ground Level at 20 m to Left of Proposed Median C/L	1598.054	1598.015	1598.029	1598.054	1598.080	1598.106	1598.132	1598.158	1598.184	1598.210	1598.236	1598.262	1598.288	1598.314	1598.340	1598.366	1598.392	1598.418	1598.444	1598.470	1598.496	1598.522	1598.548	1598.574	1598.600	1598.626	1598.652	1598.678	1598.704	1598.730	1598.756	1598.782	1598.808	1598.834	1598.860	1598.886	1598.912	1598.938	1598.964	1598.990	1599.016	1599.042	1599.068	1599.094	1599.120	1599.146	1599.172	1599.198	1599.224	1599.250	1599.276	1599.302	1599.328	1599.354	1599.380	1599.406	1599.432	1599.458	1599.484	1599.510	1599.536	1599.562	1599.588	1599.614	1599.640	1599.666	1599.692	1599.718	1599.744	1599.770	1599.796	1599.822	1599.848	1599.874	1599.900	1599.926	1599.952	1599.978	1600.004	1600.030	1600.056	1600.082	1600.108	1600.134	1600.160	1600.186	1600.212	1600.238	1600.264	1600.290	1600.316	1600.342	1600.368	1600.394	1600.420	1600.446	1600.472	1600.498	1600.524	1600.550	1600.576	1600.602	1600.628	1600.654	1600.680	1600.706	1600.732	1600.758	1600.784	1600.810	1600.836	1600.862	1600.888	1600.914	1600.940	1600.966	1600.992	1601.018	1601.044	1601.070	1601.096	1601.122	1601.148	1601.174	1601.200	1601.226	1601.252	1601.278	1601.304	1601.330	1601.356	1601.382	1601.408	1601.434	1601.460	1601.486	1601.512	1601.538	1601.564	1601.590	1601.616	1601.642	1601.668	1601.694	1601.720	1601.746	1601.772	1601.798	1601.824	1601.850	1601.876	1601.902	1601.928	1601.954	1601.980	1602.006	1602.032	1602.058	1602.084	1602.110	1602.136	1602.162	1602.188	1602.214	1602.240	1602.266	1602.292	1602.318	1602.344	1602.370	1602.396	1602.422	1602.448	1602.474	1602.500	1602.526	1602.552	1602.578	1602.604	1602.630	1602.656	1602.682	1602.708	1602.734	1602.760	1602.786	1602.812	1602.838	1602.864	1602.890	1602.916	1602.942	1602.968	1602.994	1603.020	1603.046	1603.072	1603.098	1603.124	1603.150	1603.176	1603.202	1603.228	1603.254	1603.280	1603.306	1603.332	1603.358	1603.384	1603.410	1603.436	1603.462	1603.488	1603.514	1603.540	1603.566	1603.592	1603.618	1603.644	1603.670	1603.696	1603.722	1603.748	1603.774	1603.800	1603.826	1603.852	1603.878	1603.904	1603.930	1603.956	1603.982	1604.008	1604.034	1604.060	1604.086	1604.112	1604.138	1604.164	1604.190	1604.216	1604.242	1604.268	1604.294	1604.320	1604.346	1604.372	1604.398	1604.424	1604.450	1604.476	1604.502	1604.528	1604.554	1604.580	1604.606	1604.632	1604.658	1604.684	1604.710	1604.736	1604.762	1604.788	1604.814	1604.840	1604.866	1604.892	1604.918	1604.944	1604.970	1604.996	1605.022	1605.048	1605.074	1605.100	1605.126	1605.152	1605.178	1605.204	1605.230	1605.256	1605.282	1605.308	1605.334	1605.360	1605.386	1605.412	1605.438	1605.464	1605.490	1605.516	1605.542	1605.568	1605.594	1605.620	1605.646	1605.672	1605.698	1605.724	1605.750	1605.776	1605.802	1605.828	1605.854	1605.880	1605.906	1605.932	1605.958	1605.984	1606.010	1606.036	1606.062	1606.088	1606.114	1606.140	1606.166	1606.192	1606.218	1606.244	1606.270	1606.296	1606.322	1606.348	1606.374	1606.400	1606.426	1606.452	1606.478	1606.504	1606.530	1606.556	1606.582	1606.608	1606.634	1606.660	1606.686	1606.712	1606.738	1606.764	1606.790	1606.816	1606.842	1606.868	1606.894	1606.920	1606.946	1606.972	1607.000	1607.026	1607.052	1607.078	1607.104	1607.130	1607.156	1607.182	1607.208	1607.234	1607.260	1607.286	1607.312	1607.338	1607.364	1607.390	1607.416	1607.442	1607.468	1607.494	1607.520	1607.546	1607.572	1607.598	1607.624	1607.650	1607.676	1607.702	1607.728	1607.754	1607.780	1607.806	1607.832	1607.858	1607.884	1607.910	1607.936	1607.962	1607.988	1608.014	1608.040	1608.066	1608.092	1608.118	1608.144	1608.170	1608.196	1608.222	1608.248	1608.274	1608.300	1608.326	1608.352	1608.378	1608.404	1608.430	1608.456	1608.482	1608.508	1608.534	1608.560	1608.586	1608.612	1608.638	1608.664	1608.690	1608.716	1608.742	1608.768	1608.794	1608.820	1608.846	1608.872	1608.898	1608.924	1608.950	1608.976	1609.002	1609.028	1609.054	1609.080	1609.106	1609.132	1609.158	1609.184	1609.210	1609.236	1609.262	1609.288	1609.314	1609.340	1609.366	1609.392	1609.418	1609.444	1609.470	1609.496	1609.522	1609.548	1609.574	1609.600	1609.626	1609.652	1609.678	1609.704	1609.730	1609.756	1609.782	1609.808	1609.834	1609.860	1609.886	1609.912	1609.938	1609.964	1609.990	1610.016	1610.042	1610.068	1610.094	1610.120	1610.146	1610.172	1610.198	1610.224	1610.250	1610.276	1610.302	1610.328	1610.354	1610.380	1610.406	1610.432	1610.458	1610.484	1610.510	1610.536	1610.562	1610.588	1610.614	1610.640	1610.666	1610.692	1610.718	1610.744	1610.770	1610.796	1610.822	1610.848	1610.874	1610.900	1610.926	1610.952	1610.978	1611.004	1611.030	1611.056	1611.082	1611.108	1611.134	1611.160	1611.186	1611.212	1611.238	1611.264	1611.290	1611.316	1611.342	1611.368	1611.394	1611.420	1611.446	1611.472	1611.498	1611.524	1611.550	1611.576	1611.602	1611.628	1611.654	1611.680	1611.706	1611.732	1611.758	1611.784	1611.810	1611.836	1611.862	1611.888	1611.914	1611.940	1611.966	1611.992	1612.018	1612.044	1612.070	1612.096	1612.122	1612.148	1612.174	1612.200	1612.226	1612.252	1612.278	1612.304	1612.330	1612.356	1612.382	1612.408	1612.434	1612.460	1612.486	1612.512	1612.538	1612.564	1612.590	1612.616	1612.642	1612.668	1612.694	1612.720	1612.746	1612.772	1612.798	1612.824	1612.850	1612.876	1612.902	1612.928	1612.954	1612.980	1613.006	1613.032	1613.058	1613.084	1613.110	1613.136	1613.162	1613.188	1613.214	1613.240	1613.266	1613.292	1613.318	1613.344	1613.370	1613.396	1613.422	1613.448	1613.474	1613.500	1613.526	1613.552	1613.578	1613.604	1613.630	1613.656	1613.682	1613.708	1613.734	1613.760	1613.786	1613.812	1613.838	1613.864	1613.890	1613.916	1613.942	1613.968	1613.994	1614.020	1614.046	1614.072	1614.098	1614.124	1614.150	1614.176	1614.202	1614.228	1614.254	1614.280	1614.306	1614.332	1614.358	1614.384	1614.410	1614.436	1614.462	1614.488	1614.514	1614.540	1614.566	1614.592	1614.618	1614.644	1614.670	1614.696	1614.722	1614.748	1614.774	1614.800	1614.826	1614.852	1614.878	1614.904	1614.930	1614.956	1614.982	1615.008	1615.034	1615.060	1615.086	1615.112	1615.138	1615.164	1615.190	1615.216	1615.242	1615.268	1615.294	1615.320	1615.346	1615.372	1615.398	1615.424	1615.450	1615.476	1615.502	1615.528	1615.554	1615.580	1615.606	1615.632	1615.658	1615.684	1615.710	1615.736	1615.762	1615.788	1615.814	1615.840	1615.866	1615.892	1615.918	1615.944	1615.970	1615.996	1616.022	1616.048	1616.074	1616.100	1616.126	1616.152	1616.178	1616.204	1616.230	1616.256	1616.282	1616.308	1616.334	1616.360	1616.386	1616.412	1616.438	1616.464	1616.490	1616.516	1616.542	1616.568	1616.594	1616.620	1616.646	1616.672	1616.698	1616.724	1616.750	1616.776	1616.802	1616.828	1616.854	1616.880	1616.906	1616.932	1616.958	1616.984	1617.010	1617.036	1617.062	1617.088	1617.114	1617.140	1617.166	1617.192	1617.218	1617.244	1617.270	1617.296	1617.322	1617.348	1617.374	1617.400	1617.426	1617.452	1617.478	1617.504	1617.530	1617.556	1617.582	1617.608	1617.634	1617.660	1617.686	1617.712	1617.738	1617.764	1617.790	1617.816	1617.842	1617.868	1617.894	1617.920	1617.946	1617.972	1617.998	1618.024	1618.050	1618.076	1618.102	1618.128	1618.154	1618.180	1618.206	1618.232	1618.258	1618.284	1618.310	1618.336	1618.362	1618.388	1618.414	1618.440	1618.466	1618.492	1618.518	1618.544	1618.570	1618.596	1618.622	1618.648	1618.674	1618.700	1618.726	1618.752	1618.778	1618.804	1618.830	1618.856	1618.882	1618.908	1618.934	1618.960	1618.986	1619.012	1619.038	1619.064	1619.090	1619.116	1619.142	1619.168	1619.194	1619.220	1619.246	1619.272	1619.298	1619.324	1619.350	1619.376	1619.402	1619.428	1619.454	1619.480	1619.506	1619.532	1619.558	1619.584	1619.610	1619.636	1619.662	1619.688	1619.714	1619.740	1619.766	1619.792	1619.818	1619.844	1619.870	1619.896	1619.922	1619.948	1619.974	1620.000	1620.026	1620.052	1620.078	1620.104	1620.130	1620.156	1620.182	1620.208	1620.234	1620.260	1620.286	1620.312	1620.338	1620.364	1620.390	1620.416	1620.442	1620.468	1620.494	1620.520	1620.546	1620.572	1620.598	1620.624	1620.650	1620.676	1620.702	1620.728	1620.754	1620.780	1620.806	1620.832	1620.858	1620.884	1620.910	1620.936	1620.962	1620.988	1621.014	1621.040	162
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← JAMMU

SRINAGAR →



SIP NO. 42 AT CH. 24337.300			
X = 809791.808	Y = 829704.354		
R (m)	500	Lc (m)	80
Dc(deg)	70.0383	S(m)	0.00
Lc(m)	811.51	Tc(deg)	0.00
Tc(m)	487.74	D(deg)	0.1099
Rc(m)	188.289	α(C)	5
Design Speed (V) : 100 km/hr			

LEGEND

PLAN

- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Curvature (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - GSB-Crash Barrier space
-
- GPS
 - Control Point
 - Temporary Bench Mark
 - kilometer Stone
 - Hectometer Stone
 - Electric Pole
-
- Telephone Pole
 - Lamp Post
 - OPG Pillar
 - ROW Pillar
 - Tree-10,10,14
 - Tree-13,12,11
 - Well
-
- Hand Pump
 - Control Point
 - Identification
 - Municipal Tap
 - Manhole
 - Sign Post
 - Gate
-
- Temple
 - Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Transformer
-
- High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tie line
 - Crash Barrier
-
- Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OPG Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
-
- Existing Road Centre Line
 - Designed Road Centre Line
 - Designed Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed



Revisions	Date	Description	Checked by
R1	Nov.2006	Modified Drawing	
RD	April,2006	Initial Drawing	

Revisions	
DRAWING NUMBER	
NHAI/NE-1A/BAN-SRI/PP/24/R1	

NATIONAL HIGHWAYS AUTHORITY OF INDIA

Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Plan
 Km.243+000 to Km.244+000
 NS-92/J&K

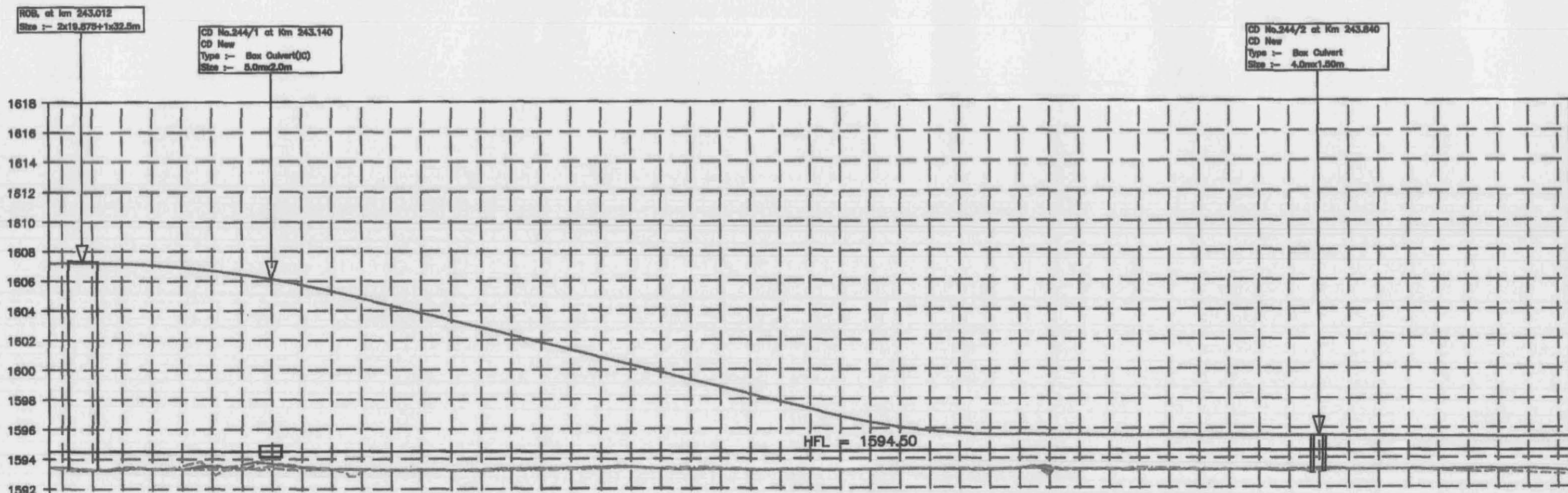
SCATAROUTE in joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: Bobby Thomas
 Designed by: S.Shastri
 Checked by: L.K.Sharma
 Approved by: J.C.Thiry



← JAMMU

SRINAGAR →



Chainage	Ground Level at 20 m to Left of Proposed Median C/L	Ground Level at 20 m to Right of Proposed Median C/L	Existing Ground /Road level at Median Edge - Left Carriageway	Existing Ground /Road level at Median Edge - Right Carriageway	Proposed Road Level at Median Edge - Left Carriageway	Proposed Road Level at Median Edge - Right Carriageway
243+000	1593.396	1593.419	1593.399	1593.419	1607.200	1607.200
243+020	1593.301	1593.242	1593.246	1593.246	1607.205	1607.205
243+040	1593.441	1593.290	1593.322	1593.315	1607.157	1607.157
243+060	1593.317	1593.361	1593.315	1593.307	1607.054	1607.054
243+080	1593.304	1593.284	1593.307	1593.294	1606.898	1606.898
243+100	1593.293	1593.281	1593.408	1593.408	1606.687	1606.687
243+120	1593.300	1593.308	1593.317	1593.309	1606.423	1606.423
243+140	1593.521	1593.362	1593.614	1593.614	1606.104	1606.104
243+160	1593.467	1593.287	1593.378	1593.447	1605.732	1605.732
243+180	1593.342	1593.274	1593.289	1593.279	1605.305	1605.305
243+200	1593.198	1593.253	1593.275	1593.282	1604.828	1604.828
243+220	1593.262	1593.240	1593.240	1593.247	1604.328	1604.328
243+240	1593.227	1593.223	1593.248	1593.223	1603.827	1603.827
243+260	1593.236	1593.209	1593.244	1593.209	1603.328	1603.328
243+280	1593.277	1593.192	1593.224	1593.192	1602.828	1602.828
243+300	1593.332	1593.217	1593.297	1593.217	1602.329	1602.329
243+320	1593.343	1593.259	1593.355	1593.259	1601.830	1601.830
243+340	1593.368	1593.293	1593.368	1593.293	1601.330	1601.330
243+360	1593.364	1593.347	1593.442	1593.347	1600.831	1600.831
243+380	1593.431	1593.444	1593.446	1593.444	1600.332	1600.332
243+400	1593.331	1593.364	1593.329	1593.364	1599.833	1599.833
243+420	1593.284	1593.306	1593.315	1593.306	1599.333	1599.333
243+440	1593.290	1593.306	1593.279	1593.306	1598.834	1598.834
243+460	1593.269	1593.294	1593.249	1593.294	1598.335	1598.335
243+480	1593.270	1593.288	1593.248	1593.288	1597.835	1597.835
243+500	1593.271	1593.286	1593.242	1593.286	1597.336	1597.336
243+520	1593.272	1593.243	1593.242	1593.243	1596.840	1596.840
243+540	1593.274	1593.250	1593.246	1593.250	1596.410	1596.410
243+560	1593.277	1593.287	1593.274	1593.287	1596.089	1596.089
243+580	1593.271	1593.281	1593.248	1593.281	1595.817	1595.817
243+600	1593.277	1593.238	1593.232	1593.238	1595.655	1595.655
243+620	1593.282	1593.201	1593.239	1593.201	1595.581	1595.581
243+640	1593.316	1593.287	1593.283	1593.287	1595.570	1595.570
243+660	1593.310	1593.321	1593.289	1593.321	1595.561	1595.561
243+680	1593.235	1593.222	1593.280	1593.222	1595.551	1595.551
243+700	1593.227	1593.291	1593.227	1593.291	1595.542	1595.542
243+720	1593.209	1593.359	1593.205	1593.359	1595.533	1595.533
243+740	1593.198	1593.302	1593.191	1593.302	1595.524	1595.524
243+760	1593.185	1593.260	1593.191	1593.260	1595.514	1595.514
243+780	1593.189	1593.233	1593.185	1593.233	1595.505	1595.505
243+800	1593.193	1593.225	1593.186	1593.225	1595.496	1595.496
243+820	1593.188	1593.236	1593.113	1593.236	1595.487	1595.487
243+840	1593.172	1592.954	1593.275	1592.954	1595.478	1595.478
243+860	1593.229	1593.285	1593.242	1593.285	1595.468	1595.468
243+880	1593.220	1593.231	1593.224	1593.231	1595.459	1595.459
243+900	1593.211	1593.229	1593.228	1593.229	1595.450	1595.450
243+920	1593.155	1593.221	1593.231	1593.221	1595.441	1595.441
243+940	1593.053	1593.281	1593.236	1593.281	1595.431	1595.431
243+960	1593.075	1593.255	1593.257	1593.255	1595.422	1595.422
243+980	1593.002	1593.274	1593.271	1593.274	1595.413	1595.413
244+000	1592.877	1593.163	1593.170	1593.163	1595.404	1595.404

LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Neckometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Filter
 - NSW Filter
 - Tree-TS,TS,T4
 - Tree-TS,T2,T1
 - Well
- Hand Pump**
- Control Point TS-168.2
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Lines**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tree line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designated Centre Line
 - Designated Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designated

Legend For Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level at Left Median Edge
- Existing Ground/Road Level at Right Median Edge
- Proposed Road Level at Left Median Edge
- Proposed Road Level at Right Median Edge

NATIONAL HIGHWAYS AUTHORITY OF INDIA

Horizontal Scale 1 : 2500
Vertical Scale 1 : 250

Detailed Design for 4-Laning of
Banihal to Srinagar Section (Km.188.000 to Km.296.000)
of NH-1(A),(including Srinagar Bypass) in J & K State

Profile
Km.243+000 to Km.244+000
NS-92/J&K

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CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: Bobby Thomas
Designed by: S.Photanchari
Checked by: L.K. Sharma
Approved by: J.C.Thiruv

NO	Date	Description	Checked by
1	Nov.2006	Modified Drawing	
2	April,2008	Initial Drawing	

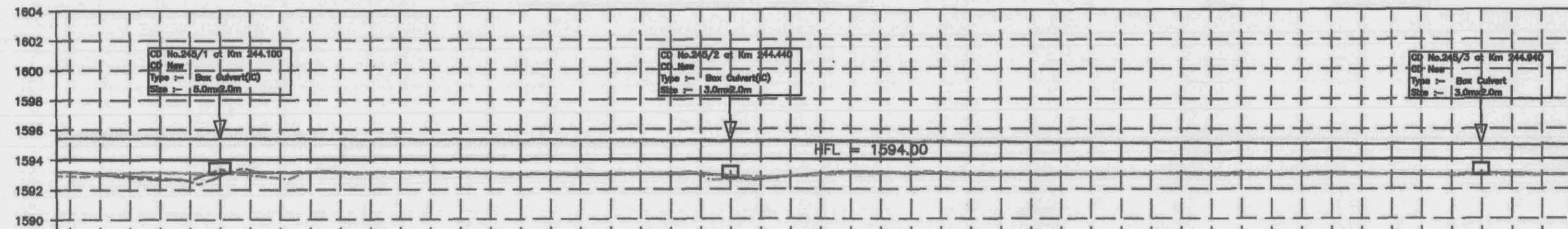
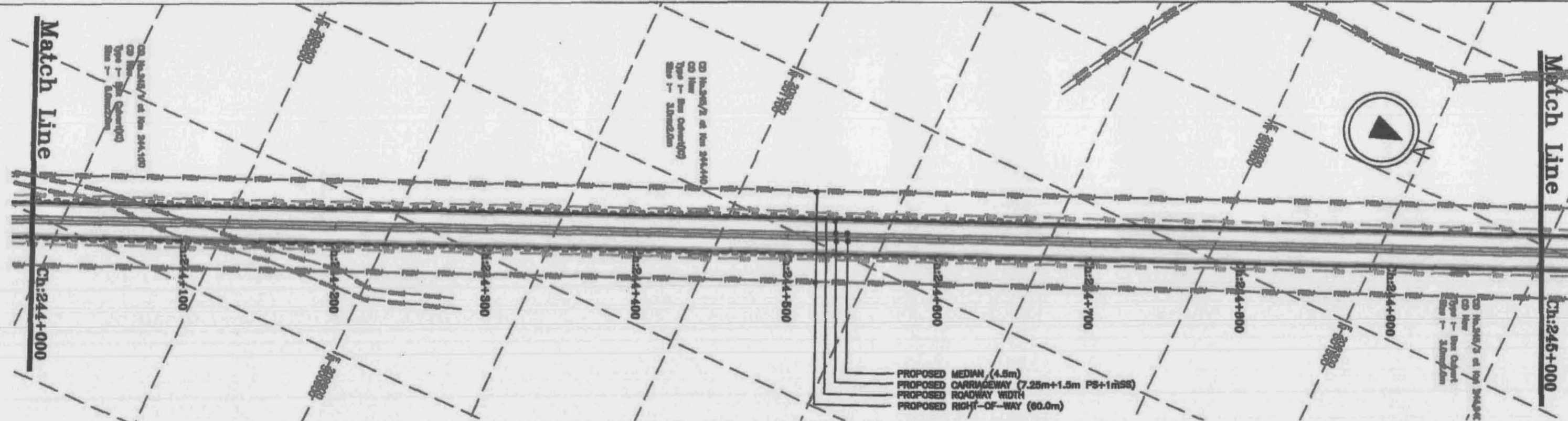
Revisions

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/24A/R1



← JAMMU

SRINAGAR →



Datum Level = 1588

Ground Level at 20 m to Left of Proposed Median C/L	1592.677-1592.881
Ground Level at 20 m to Right of Proposed Median C/L	1592.871-1592.871
Existing Ground / Road level at Median Edge - Left Carriageway	1593.170-1593.170
Existing Ground / Road level at Median Edge - Right Carriageway	1593.022-1593.022
Proposed Road Level of Median Edge - Left Carriageway	1595.404-1595.404
Proposed Road Level of Median Edge - Right Carriageway	1595.395-1595.395
Proposed Vertical Alignment - Left Median Edge	G=0.04%
Proposed Vertical Alignment - Right Median Edge	G=0.04%
Proposed Horizontal Alignment of Centre line	e = 2.0%
Superelevation/Crossfall (%)	
Chainage	244+000-245+000

LEGEND

PLAN

- TS-Tangent to Spiral
- SC-Spiral to Curve
- CS-Curve to Spiral
- ST-Spiral to Tangent
- PC-Point of Circular Curve (With Transition)
- PT-Point of Tangent (Without Transition)
- Tangent point end(km)
- PS-Paved Shoulder
- SS-Soft Shoulder
- CBS-Crash Barrier space
- GPS Control Point
- Temporary Bench Mark
- Kilometer Stone
- Heckometer Stone
- Electric Pole

- Telephone Pole
- Lamp Post
- OPC Pillar
- ROW Pillar
- Tree - T5, T6, T8
- Tree - T3, T2, T1
- Well
- Hand Pump
- Control Point
- Identification
- Manhole Top
- Manhole
- Sign Post
- Gala
- Temple
- Mosque
- Gurdwara
- Church
- Guard Post
- Flag Post
- Transformer
- High Tension Line
- Low Tension Line
- Telephone Line
- Right-of-Way
- Right-of-Way - New
- Boundary/Fencing
- Boundary Water Body
- Boundary River Bank
- Canal
- Traffic Line
- Crash Barrier
- Building Permanent/Temporary
- Existing Road Paved/Unpaved
- Utility Buildings
- OPC Line
- Water Pipe Line
- Earth Retaining Wall
- Crash Barrier
- Existing Road Centre Line
- Designated Centre Line
- Designated Road/Median Edge
- Culvert/Bridge - Existing
- Culvert/Bridge - Designed

Legend for Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level at Left Median Edge
- Existing Ground/Road Level at Right Median Edge
- Proposed Road Level at Left Median Edge
- Proposed Road Level at Right Median Edge

Revision	Date	Description	Checked by
R1	Nov, 2005	Modified Drafting	
R2	April, 2006	Minor Alterations	

Revisions

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/25/R1



Detailed Design for 4-Laning of
Banihal to Srinagar Section (Km.188.000 to Km.296.000)
of NH-1(A), (including Srinagar Bypass) in J & K State

Plan & Profile
Km.244+000 to Km.245+000
NS-92/J&K



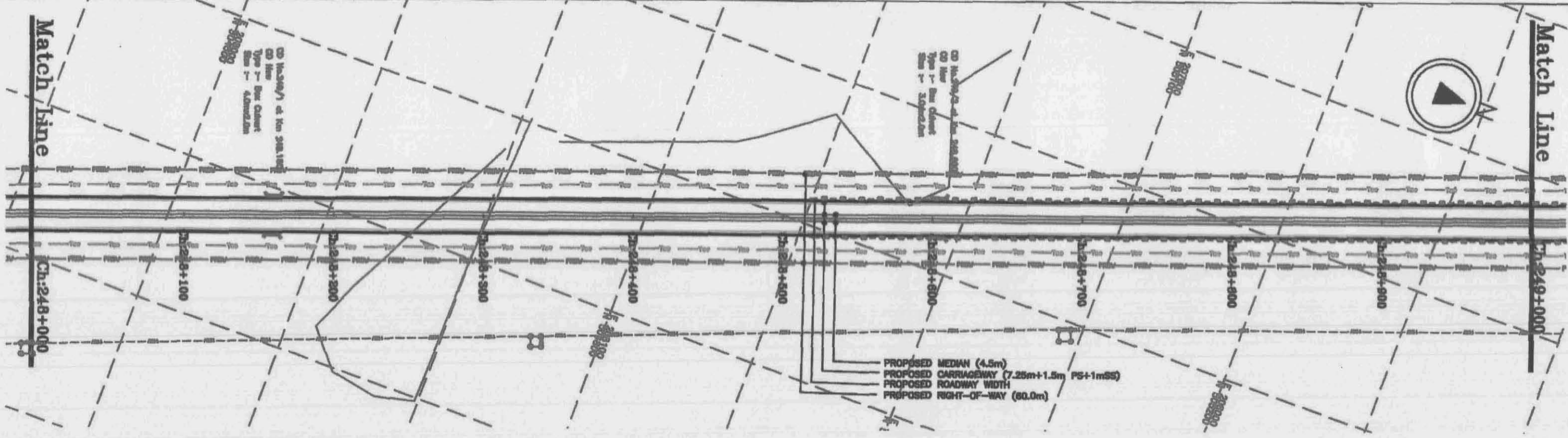
Prepared by: Bobby Thomas, S. Bhattacharjee
Checked by: L.K. Sharma, J.C. Thiry

Revision	Date	Description	Checked by



JAMMU ←

SRINAGAR →

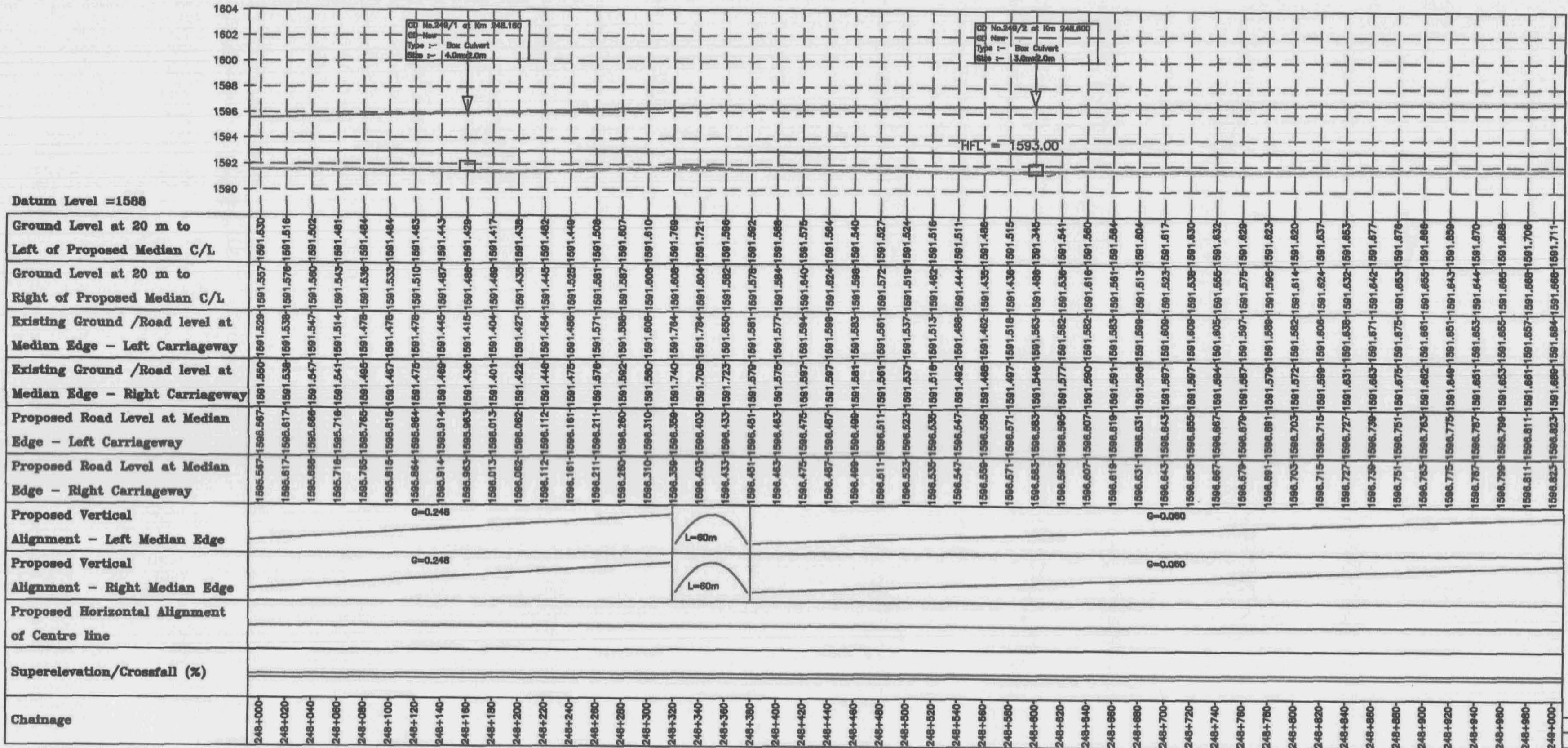


LEGEND

- PLAN
TS-Tangent to Spiral
SC-Spiral to Curve
CS-Curve to Spiral
ST-Spiral to Tangent
PC-Point of Circular Curve (With Transition)
PT-Point of Tangent (Without Transition)
Tangent point end(10m)
PS-Paved Shoulder
SS-Soft Shoulder
CBS-Crash Barrier space
GPS
Control Point
Temporary Bench Mark
Hecometer Stone
Hecometer Stone
Electric Pole
Telephone Pole
Lamp Post
GPS Piller
ROW Piller
Tree-75,75,74
Tree-75,72,71
Well
Hand Pump
Control Point
Identification
Municipal Top
Manhole
Sign Post
Gate
Temple
Mosque
Gurdwara
Church
Guard Post
Flag Post
Transformer
High Tension Lines
Low Tension Lines
Telephone Lines
Right-of-Way
Right-of-Way - New
Boundary/Fencing
Boundary Water Body
Boundary River Bank
Canal
Tie line
Crash Barrier
Building Permanent/Temporary
Existing Road Paved/Unpaved
Utility Buildings
Pipe Line
C/S Line
Water Pipe Line
Earth Retaining Wall
Crash Barrier
Existing Road Centre Line
Designed Road/Median Edges
Cutvert/Bridge - Existing
Cutvert/Bridge - Designed

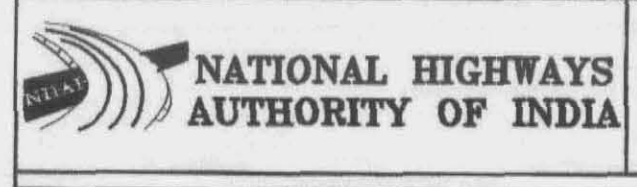
Legend For Profile

- Ground Level 20m to Left of Existing CL
Ground Level 20m to Right of Existing CL
Existing Ground/Road Level at Left Median Edge
Existing Ground/Road Level at Right Median Edge
Proposed Road Level at Left Median Edge
Proposed Road Level at Right Median Edge



Datum Level =1588

Table with columns for Ground Level at 20 m to Left of Proposed Median C/L, Right of Proposed Median C/L, Existing Ground/Road level at Median Edge - Left Carriageway, Existing Ground/Road level at Median Edge - Right Carriageway, Proposed Road Level at Median Edge - Left Carriageway, Proposed Road Level at Median Edge - Right Carriageway, Proposed Vertical Alignment - Left Median Edge, Proposed Vertical Alignment - Right Median Edge, Proposed Horizontal Alignment of Centre line, Superelevation/Crossfall (%), and Chainage.



Horizontal Scale 1 : 2500
Vertical Scale 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A), (including Srinagar Bypass) in J & K State

Plan & Profile Km.248+000 to Km.249+000 NS-92/J&K

SCETAIROHITE INDIA In joint venture with Intercontinental Consultants & Technocrats Pvt.Ltd. CHNA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

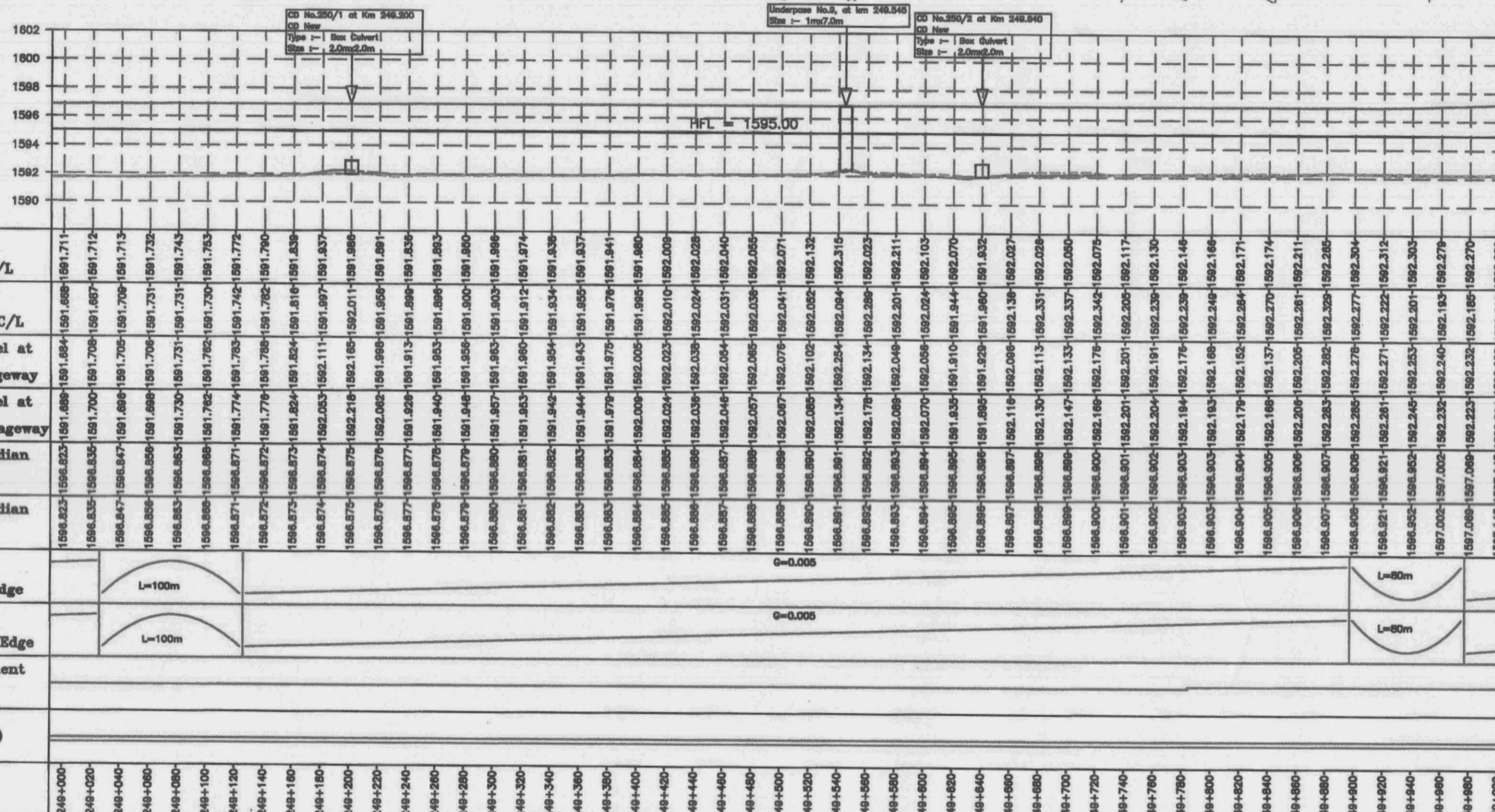
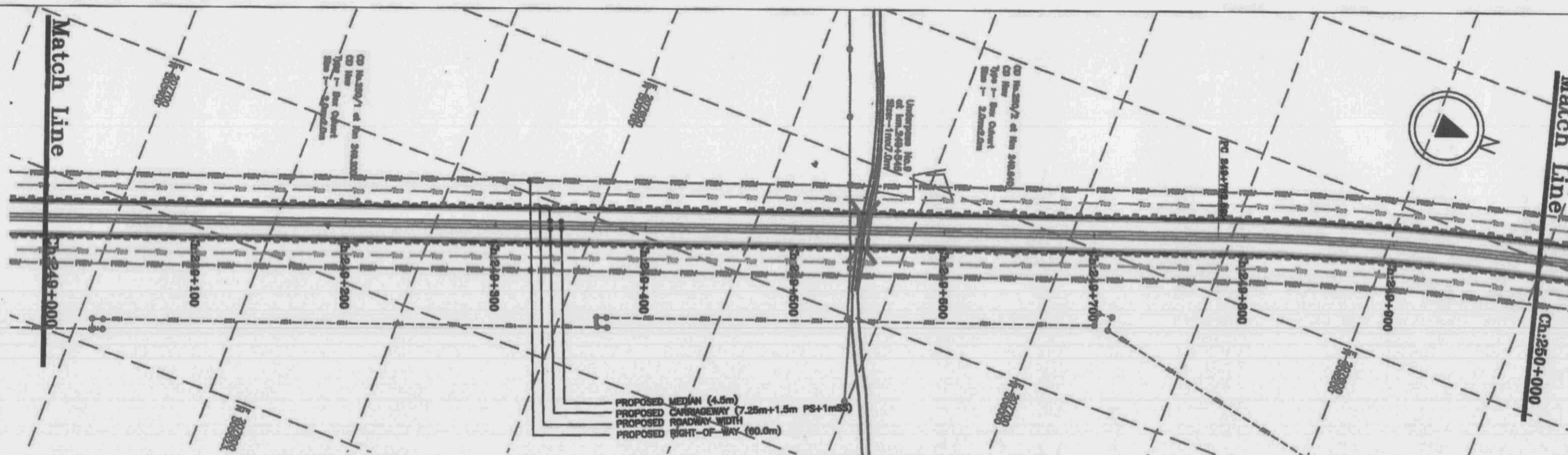
Prepared by S.Bhattacharya, Checked by L.K.Sharma
Designed by S.Bhattacharya, Approved by J.C.Thiry

Revisions table with columns: No., Date, Description, Checked by. Includes drawing number NHAI/NE-1A/BAN-SRI/PP/29/R1.



← JAMMU

SRINAGAR →

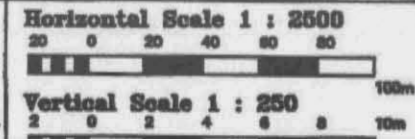


- LEGEND**
- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(ren)
 - PS-Paral Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OPC Piller
 - ROW Piller
 - Tree-T8,T8,T4
 - Tree-T3,T2,T1
 - Well
- Hand Pump**
- Control Point
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Line**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Yan Line
 - Crash Barrier
- Building**
- Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Building
 - Pipe Line
 - OPC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
- Existing Road Centre Line**
- Designed Centre Line
 - Designed Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

Legend For Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level at Left Median Edge
- Existing Ground/Road Level at Right Median Edge
- Proposed Road Level at Left Median Edge
- Proposed Road Level at Right Median Edge

RT	Nov,2008	Revised Drawing	
RD	April,2008	Initial Drawing	
Revisions	Date	Description	Checked by



Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Plan & Profile Km.249+000 to Km.250+000 NS-92/J&K

SCETALDRE FRANCE In joint venture with

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 Ph : 2628-2028, Fax 2628-2028

CHNA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHNA

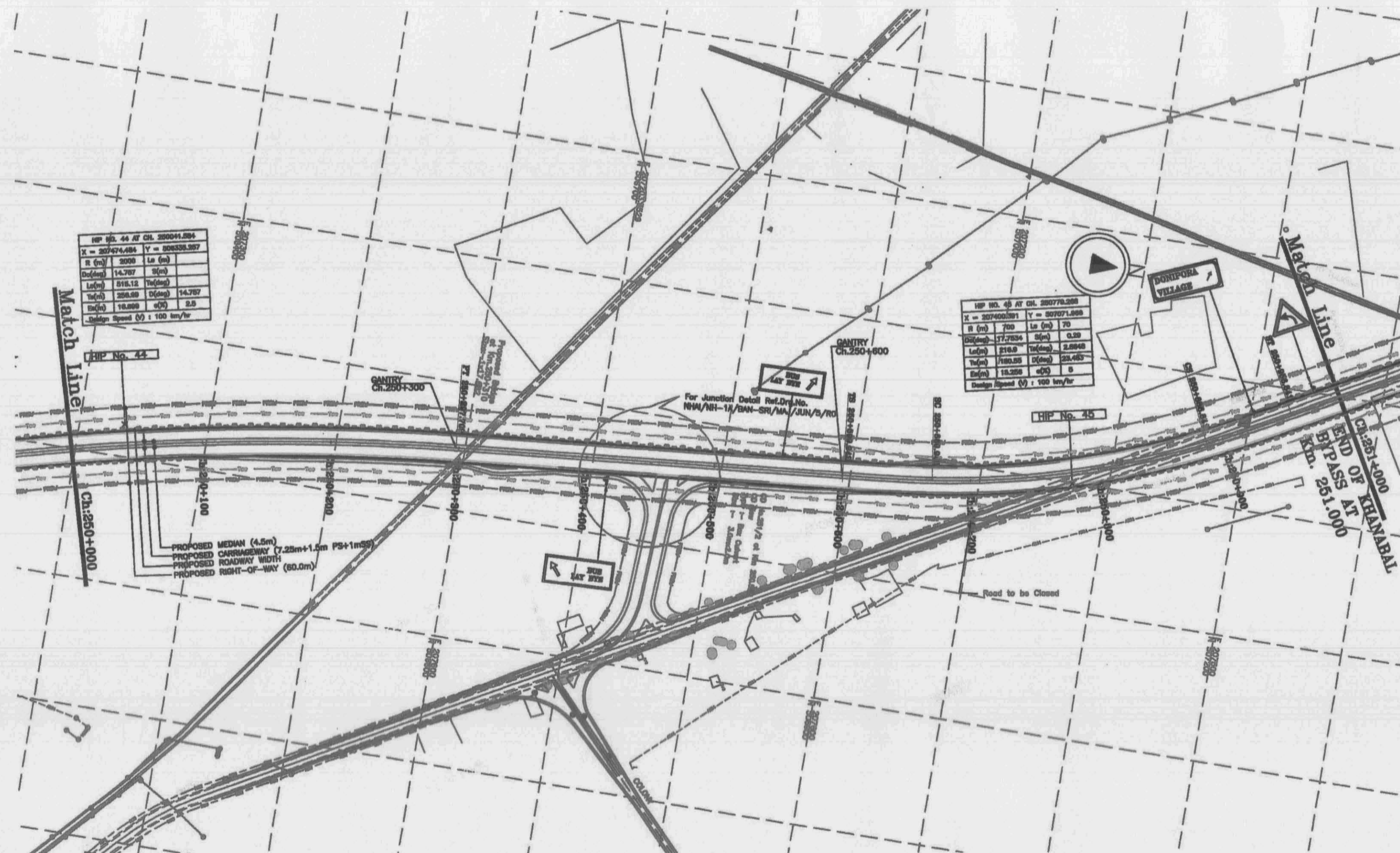
Prepared by	Bobby Thomas	Designed by	S.Shatishwarjee
Checked by	L.K.Sharma	Approved by	J.C.Thiry

DRAWING NUMBER
 NHAI/NE-1A/BAN-SRI/PP/30/R1



← JAMMU

SRINAGAR →



HP No. 44 AT CH. 250+1.000

X (m)	207474.484	Y (m)	206336.587
R (m)	2000	Ls (m)	70
Ds(deg)	14.787	S(deg)	0.20
Ls(m)	218.12	Ts(deg)	2.8948
Ts(m)	258.09	D(deg)	14.787
Ds(m)	18.009	e(PC)	5
Design Speed (V) : 100 km/hr			

HP No. 45 AT CH. 250+70.000

X (m)	207400.281	Y (m)	207071.888
R (m)	700	Ls (m)	70
Ds(deg)	17.7834	S(deg)	0.20
Ls(m)	218.0	Ts(deg)	2.8948
Ts(m)	180.85	D(deg)	23.485
Ds(m)	18.206	e(PC)	5
Design Speed (V) : 100 km/hr			

PROPOSED MEDIAN (4.5m)
 PROPOSED CARRIAGEWAY (7.25m+1.5m PS+1mSS)
 PROPOSED ROADWAY WIDTH
 PROPOSED RIGHT-OF-WAY (80.0m)

LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Pillar
 - ROW Pillar
 - Tree-TS,TS,T4
 - Tree-TS,TS,T1
 - Well
- Hand Pump**
- Control Point
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High-tension Line
 - Low-tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Top line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
- Existing Road Centre Line**
- Designed Centre Line
 - Designed Road/Median Edges
 - Convent/Bridge - Existing
 - Convent/Bridge - Designed



Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

Plan
 Km.250+000 to Km.251+000
 NS-92/J&K

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 Ph : 2626-3000, Fax 2626-8222
 CHINA HIGHWAY ENGINEERING CONSULTING
 AND SUPERVISION CORPORATION, CHINA

Bobby Thomas Prepared by
 S.Shattacharjee Designed by
 L.K. Sharma Checked by
 J.C.Thiruv Approved by

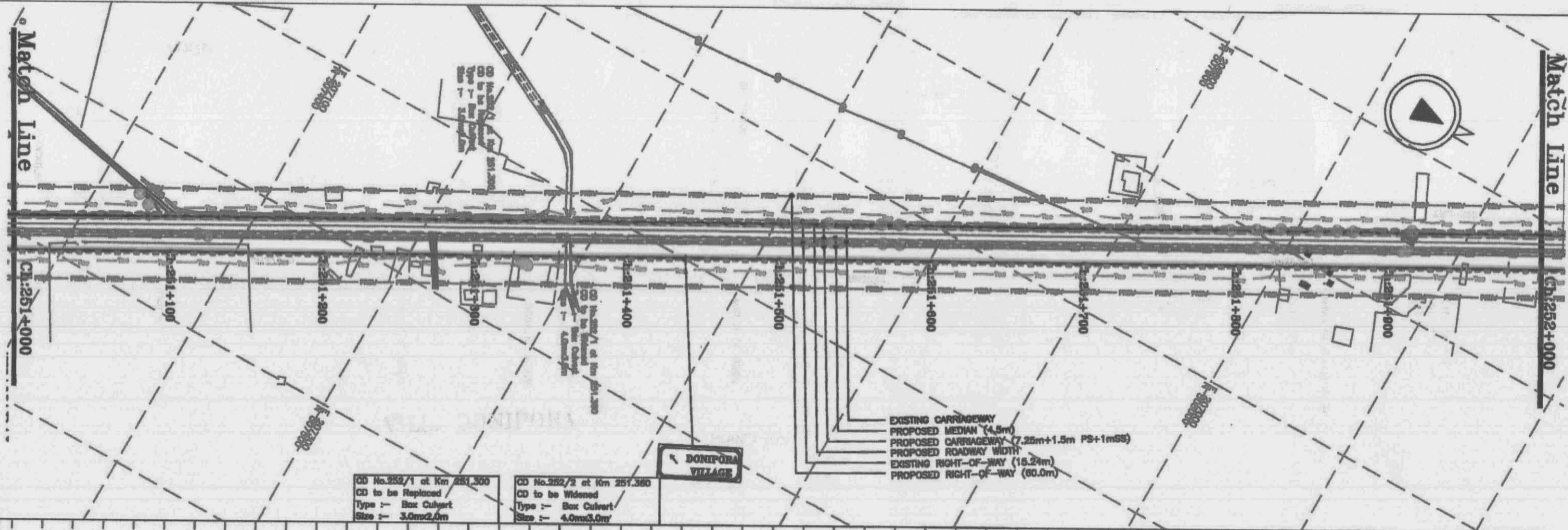
R1	Nov,2006	Modified Drawing	
R0	April,2006	Initial Drawing	
Revisions	Date	Description	Checked by

Revisions
 DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/31/R1



← JAMMU

SRINAGAR →



EXISTING CARRIAGEWAY
PROPOSED MEDIAN (4.5m)
PROPOSED CARRIAGEWAY (7.25m+1.5m PS+1mSS)
PROPOSED ROADWAY WIDTH
EXISTING RIGHT-OF-WAY (15.24m)
PROPOSED RIGHT-OF-WAY (60.0m)

CD No. 252/1 at Km 251.300
CD to be Replaced
Type - Box Culvert
Size - 3.0m x 2.0m

CD No. 252/2 at Km 251.380
CD to be Widened
Type - Box Culvert
Size - 4.0m x 3.0m

Chainage	Datum Level = 1586		Proposed Vertical Alignment - Left Median Edge	Proposed Vertical Alignment - Right Median Edge	Proposed Horizontal Alignment of Centre line	Superelevation/Crossfall (%)
	Ground Level at 20 m to Left of Proposed Median C/L	Ground Level at 20 m to Right of Proposed Median C/L				
251+000	1596.918	1596.918	G=0.002	G=0.002	R	
251+020	1596.918	1596.918				
251+040	1596.919	1596.919				
251+060	1596.919	1596.919				
251+080	1596.919	1596.919				
251+100	1596.920	1596.920				
251+120	1596.920	1596.920				
251+140	1596.921	1596.921				
251+160	1596.922	1596.922				
251+180	1596.922	1596.922				
251+200	1596.923	1596.923				
251+220	1596.923	1596.923				
251+240	1596.924	1596.924				
251+260	1596.924	1596.924				
251+280	1596.925	1596.925				
251+300	1596.925	1596.925				
251+320	1596.925	1596.925				
251+340	1596.926	1596.926				
251+360	1596.926	1596.926				
251+380	1596.926	1596.926				
251+400	1596.927	1596.927				
251+420	1596.927	1596.927				
251+440	1596.927	1596.927				
251+460	1596.927	1596.927				
251+480	1596.928	1596.928				
251+500	1596.928	1596.928				
251+520	1596.928	1596.928				
251+540	1596.929	1596.929				
251+560	1596.929	1596.929				
251+580	1596.929	1596.929				
251+600	1596.929	1596.929				
251+620	1596.930	1596.930				
251+640	1596.930	1596.930				
251+660	1596.930	1596.930				
251+680	1596.931	1596.931				
251+700	1596.931	1596.931				
251+720	1596.932	1596.932				
251+740	1596.932	1596.932				
251+760	1596.932	1596.932				
251+780	1596.932	1596.932				
251+800	1596.933	1596.933				
251+820	1596.933	1596.933				
251+840	1596.934	1596.934				
251+860	1596.934	1596.934				
251+880	1596.935	1596.935				
251+900	1596.935	1596.935				
251+920	1596.936	1596.936				
251+940	1596.936	1596.936				
251+960	1596.936	1596.936				
251+980	1596.937	1596.937				
252+000	1596.938	1596.938				

LEGEND

PLAN

- TS-Tangent to Spiral
- SC-Spiral to Curve
- CS-Curve to Spiral
- ST-Spiral to Tangent
- PC-Point of Circular Curve (With Transition)
- PT-Point of Tangent (Without Transition)
- Tangent point end(m)
- PS-Paved Shoulder
- SS-Soft Shoulder
- CBS-Crash Barrier space

GPS

- Control Point
- Temporary Bench Mark
- Ironless Stone
- Hectometer Stone
- Electric Pole

Telephone Pole

- Lamp Post
- CP Filler
- ROW Pillar
- Tree-76,75,74
- Tree-73,72,71
- Wall

Hand Pump

- Control Point
- Identification
- Municipal Top
- Manhole
- Sign Post
- Gate

Temple

- Mosque
- Gurdwara
- Church
- Guard Post
- Flag Post
- Transformer

High Tension Line

- Low Tension Line
- Telephone Line
- Right-of-Way
- Right-of-Way-New
- Boundary/Fencing
- Boundary Water Body
- Boundary River Bank
- Canal
- Traffic Line
- Crash Barrier

Building Permanent/Temporary

- Existing Road Paved/Unpaved
- Utility Building
- Pipe Line
- QC Line
- Water Pipe Line
- Earth Retaining Wall
- Crash Barrier

Existing Road Centre Line

- Designed Centre Line
- Designed Road/Median Edge
- Culvert/Bridge - Existing
- Culvert/Bridge - Designed

Legend For Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level at Left Median Edge
- Existing Ground/Road Level at Right Median Edge
- Proposed Road Level at Left Median Edge
- Proposed Road Level at Right Median Edge

Revisions	Date	Description	Checked by
R1	Nov, 2006	Modified Drawing	
R2	April, 2006	Initial Drawing	



Horizontal Scale 1 : 2500
Vertical Scale 1 : 250

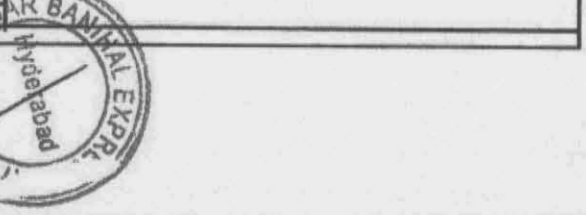
Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Plan & Profile
Km.251+000 to Km.252+000
NS-92/J&K

SCETAINOUE FRANCE In joint venture with
Intercontinental Consultants & Technocrats Pvt.Ltd.
7-A, Green Park, New Delhi - 110016
P : 2885-3000, Fax 2885-0282

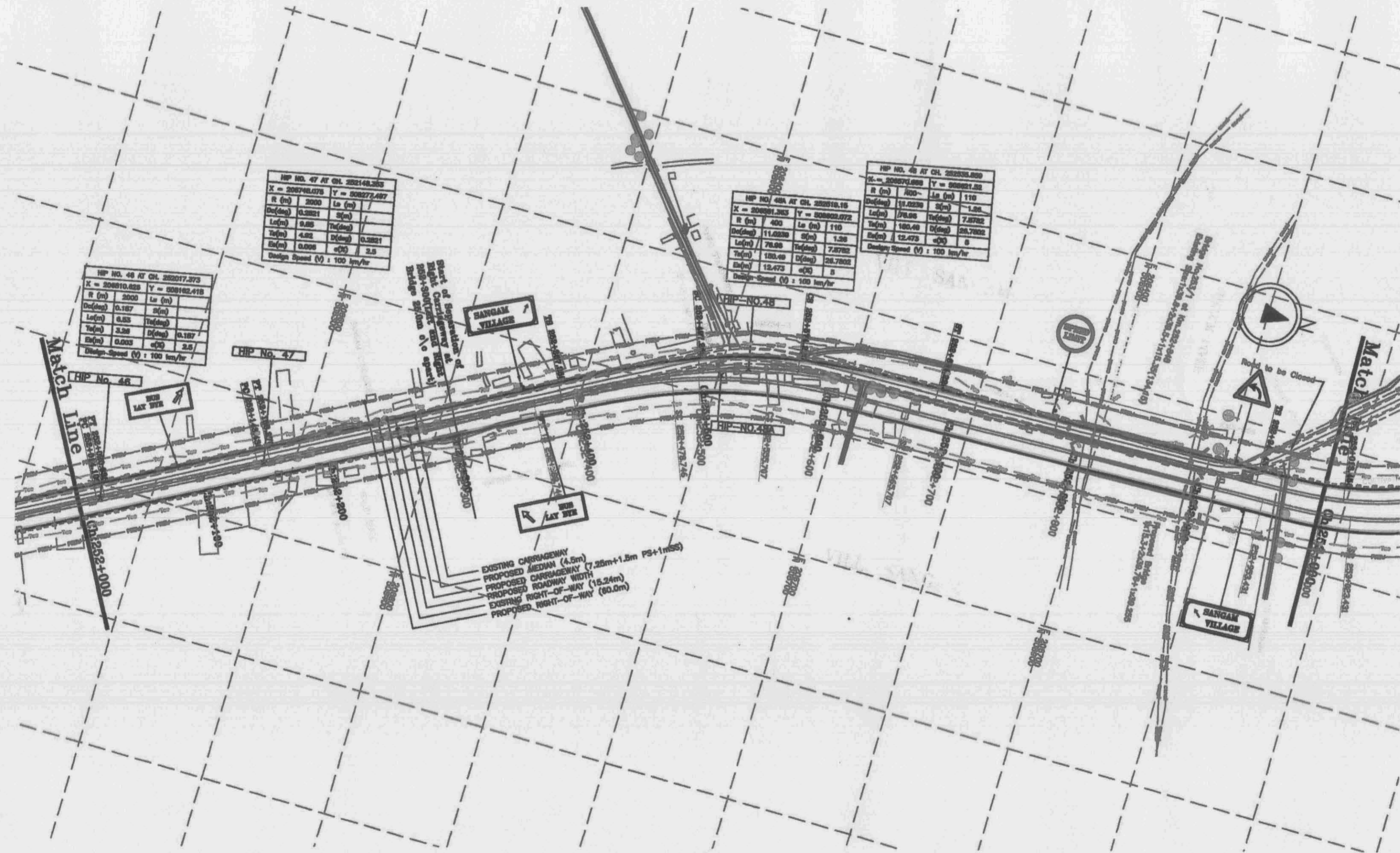
Prepared by: Bobby Thomas
Designed by: S. Raghoebarie
Checked by: L.K. Sharma
Approved by: J.C. Thiry

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/32/R1



← JAMMU

SRINAGAR →



- LEGEND**
- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(um)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Piler
 - ROW Piler
 - Tree-10,15,14
 - Tree-13,12,11
 - Well
- Hand Pump**
- Control Point TS-148.2
 - Identification
 - Municipal Tap
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Lines**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tie line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed



Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

Plan
 Km.252+000 to Km.253+000
 NS-92/J&K

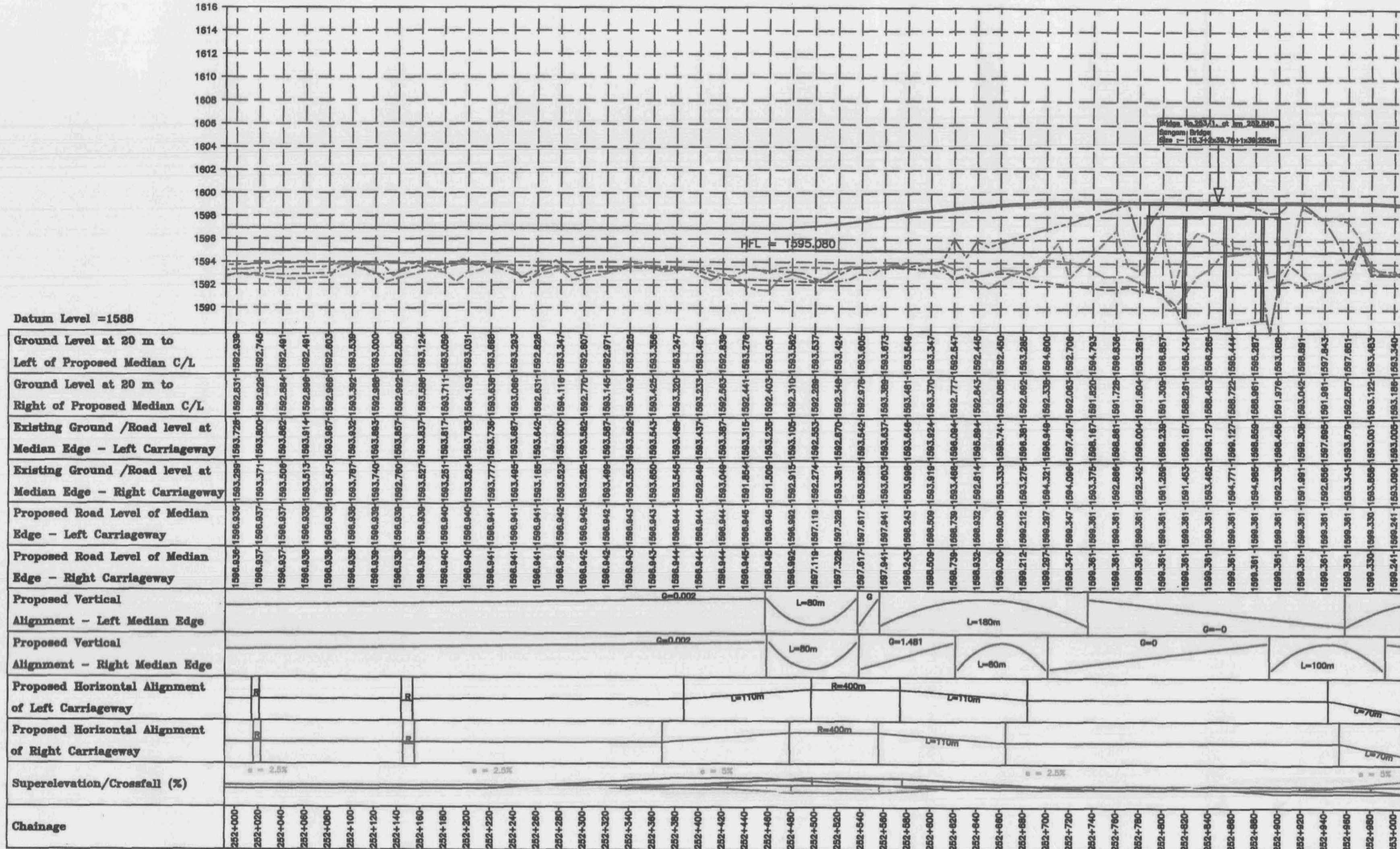
SCATAROUTE ENGINEERS In Joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 A-8, Green Park, New Delhi - 110016
 Ph : 2686-3000, Fax 2686-2322
 and
 CHINA HIGHWAY ENGINEERING CONSULTING
 AND SUPERVISION CORPORATION, CHINA

Prepared by: Robert Thomas, S.Bhattacharjee
 Designed by:
 Checked by: L.K. Sharma, J.C.Thirup
 Approved by:

Revision	Date	Description	Checked by
R1	Nov,2006	Modified Drawing	
RD	April,2006	Initial Drawing	

Revisions
DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/33/R1





LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
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 - ST-Spiral to Tangent
 - PC-Point of Curvature (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(um)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hydro-water Stone
 - Electric Pole
- Telephone Poles**
- Lamp Post
 - OFC Pole
 - ROW Poles
 - Tree-TS,TS,T4
 - Tree-T3,T2,T1
 - Wall
- Hand Pump**
- Control Point
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
- Temples**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High-tension Lines**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Bank
 - Boundary River Bank
 - Canal
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Legend For Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level of Left Median Edge
- Existing Ground/Road Level of Right Median Edge
- Proposed Road Level of Left Median Edge
- Proposed Road Level of Right Median Edge

Datum Level =1588

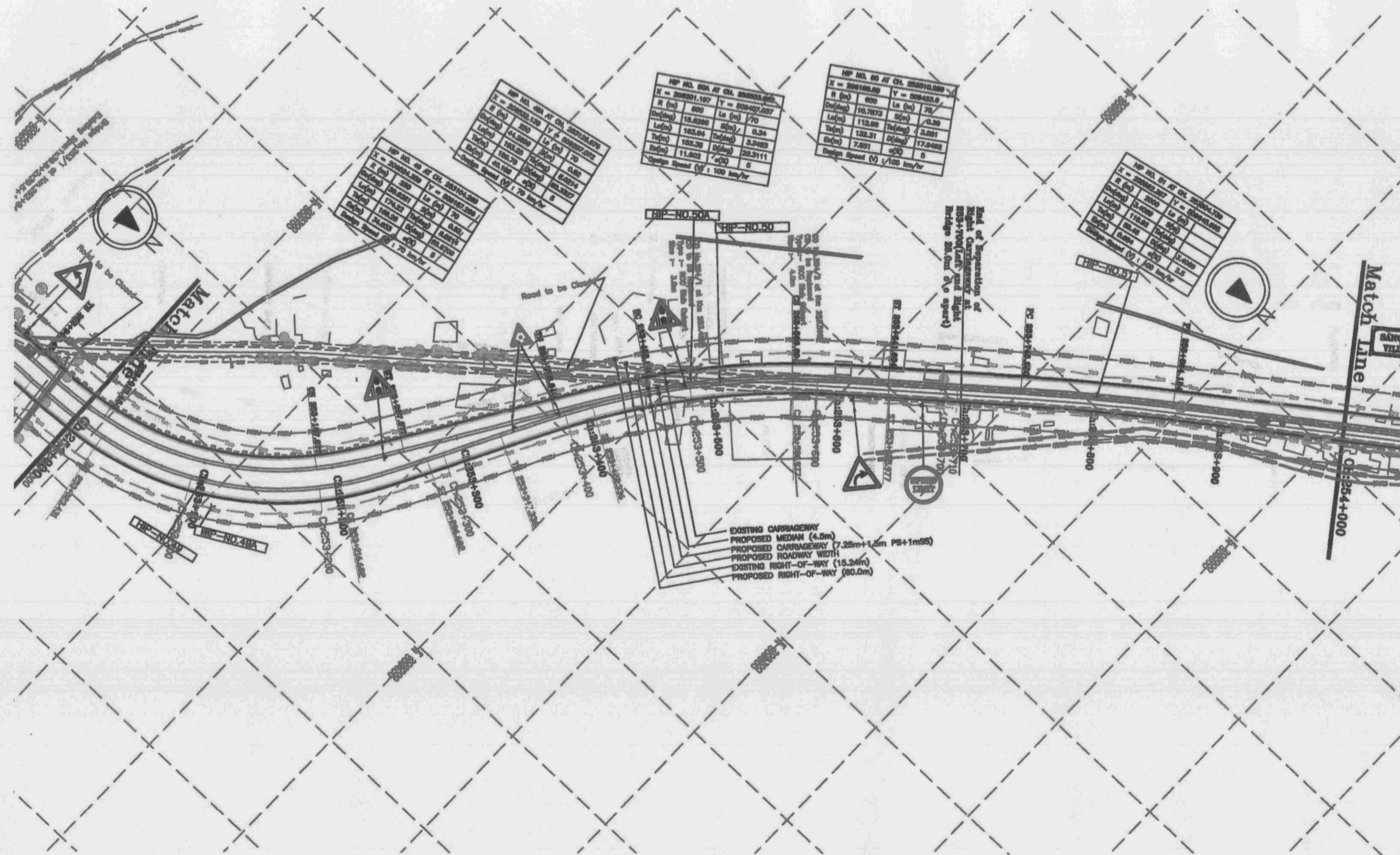
HFL = 1595.080

Bridge No. 253/1 at Km. 252.846
Banihal Bridge
Size - 15.3+30.76+1x30+255m

<p>NATIONAL HIGHWAYS AUTHORITY OF INDIA</p>	<p>Horizontal Scale 1 : 2500 Vertical Scale 1 : 250</p>	<p>Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State</p>	<p>Profile Km.252+000 to Km.253+000 NS-92/J&K</p>	<p>SCETAMBORNE FRANCE In Joint venture with Bobby Thomas S.Shasthacharjee Prepared by Designed by Checked by Approved by</p>	<table border="1"> <tr><th>Revisions</th><th>Date</th><th>Description</th><th>Checked by</th></tr> <tr><td>R1</td><td>Nov,2006</td><td>Modified Drawing</td><td></td></tr> <tr><td>R2</td><td>April,2008</td><td>Initial Drawing</td><td></td></tr> </table>	Revisions	Date	Description	Checked by	R1	Nov,2006	Modified Drawing		R2	April,2008	Initial Drawing	
	Revisions	Date	Description	Checked by													
R1	Nov,2006	Modified Drawing															
R2	April,2008	Initial Drawing															
<p>SRINAGAR BANIHAL EXPRESSWAY</p>	<p>DRAWING NUMBER NHAI/NH-1A/BAN-SRI/PP/33A/R1</p>																

← JAMMU

SRINAGAR →



LEGEND

PLAN

- TS-Tangent to Spiral
- SC-Spiral to Curve
- CS-Curve to Spiral
- ST-Spiral to Tangent
- PC-Point of Circular Curve (With Transition)
- PT-Point of Tangent (Without Transition)
- Tangent point and (m)
- PS-Paved Shoulder
- SS-Soft Shoulder
- CB-Crash Barrier space

GPS

- Control Point
- Temporary Bench Mark
- Kilometer Stone
- Hectometer Stone
- Electric Pole

Telephone Pole

- Lamp Post
- OFC Pillar
- ROW Pillar
- Tree-10,15,24
- Tree-15,12,11
- Well

Hand Pump

- Control Point TS-145.2

Identification

- Municipal Top
- Manhole
- Sign Post
- Gate

Temple

- Mosque
- Gurdwara
- Church
- Guard Post
- Flag Post
- Transformer

High Tension Line

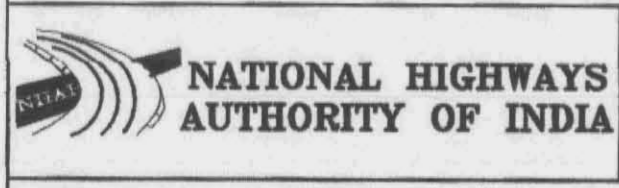
- Low Tension Line
- Telephone Line
- Right-of-Way
- Right-of-Way-New
- Boundary/Fencing
- Boundary Water Body
- Boundary River Bank
- Canal
- Tie line
- Crash Barrier

Building Permanent/Temporary

- Existing Road Paved/Unpaved
- Utility Building
- Pipe Line
- OFC Line
- Water Pipe Line
- Earth Retaining Wall
- Crash Barrier

Existing Road Centre Line

- Designed Centre Line
- Designed Road/Median Edge
- Culvert/Bridge - Existing
- Culvert/Bridge - Designed



Horizontal Scale 1 : 2500
 0 20 40 60 80
 Vertical Scale 1 : 250
 0 2 4 6 8 10m

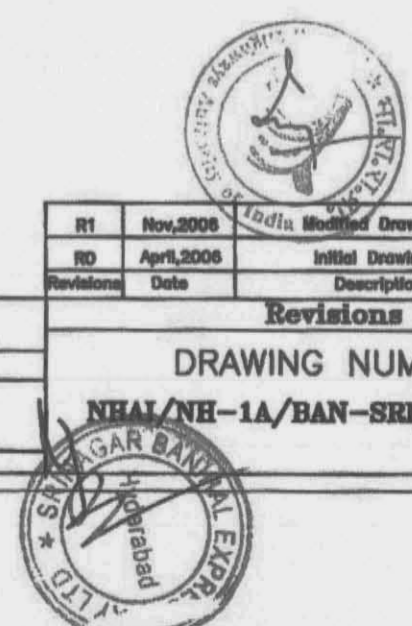
Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.000 to Km.296.000)
 of NH-1(A),(including Srinagar Bypass) in J & K State

Plan
 Km.253+000 to Km.254+000
 NS-92/J&K

SCETARBOUITE PVT. LTD. In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 A-4, Green Park, New Delhi - 110016
 Ph : 2666-3000, Fax 2666-0262
 CHINA HIGHWAY ENGINEERING CONSULTING
 AND SUPERVISION CORPORATION, CHINA

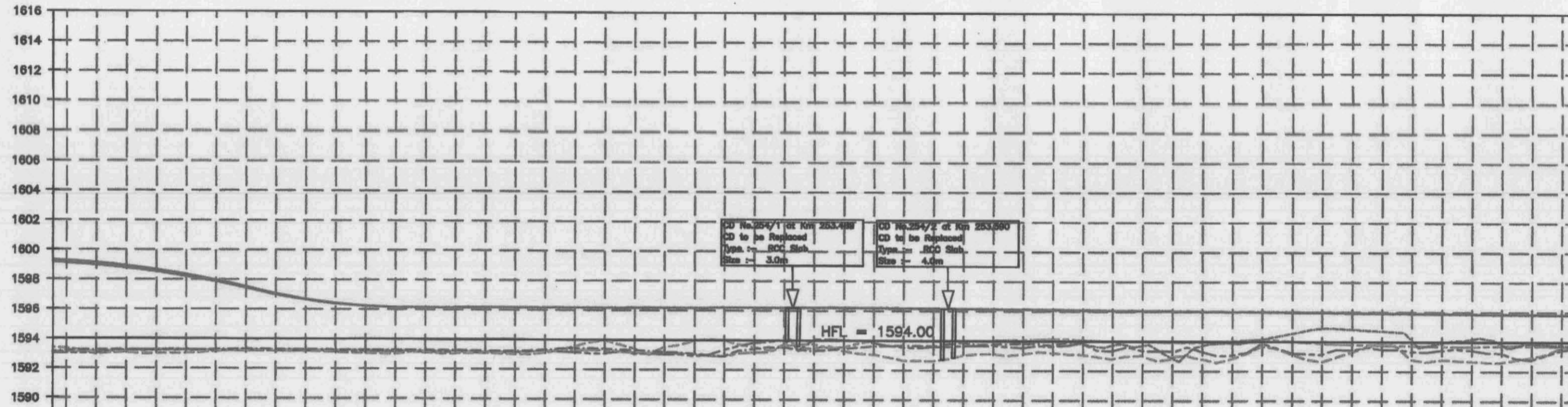
Prepared by: Bobby Thomas
 Designed by: S.Shottisharjee
 Checked by: L.K. Sharma
 Approved by: J.C.Thirry

R1	Nov,2006	India Modified Drawing	
RD	April,2006	Initial Drawing	
Revisions	Date	Description	Checked by
Revisions			
DRAWING NUMBER			
NHAI/NH-1A/BAN-SRI/PP/34/R1			



← JAMMU

SRINAGAR →



Datum Level = 1588

Ground Level at 20 m to Left of Proposed Median C/L	1593.340	1593.186	1593.032	1592.878	1592.724	1592.570	1592.416	1592.262	1592.108	1591.954	1591.800	1591.646	1591.492	1591.338	1591.184	1591.030	1590.876	1590.722	1590.568	1590.414	1590.260	1590.106	1590.000
Ground Level at 20 m to Right of Proposed Median C/L	1593.340	1593.186	1593.032	1592.878	1592.724	1592.570	1592.416	1592.262	1592.108	1591.954	1591.800	1591.646	1591.492	1591.338	1591.184	1591.030	1590.876	1590.722	1590.568	1590.414	1590.260	1590.106	1590.000
Existing Ground /Road level at Median Edge - Left Carriageway	1593.005	1592.851	1592.697	1592.543	1592.389	1592.235	1592.081	1591.927	1591.773	1591.619	1591.465	1591.311	1591.157	1591.003	1590.849	1590.695	1590.541	1590.387	1590.233	1590.079	1589.925	1589.771	1589.617
Existing Ground /Road level at Median Edge - Right Carriageway	1593.005	1592.851	1592.697	1592.543	1592.389	1592.235	1592.081	1591.927	1591.773	1591.619	1591.465	1591.311	1591.157	1591.003	1590.849	1590.695	1590.541	1590.387	1590.233	1590.079	1589.925	1589.771	1589.617
Proposed Road Level of Median Edge - Left Carriageway	1598.241	1598.087	1597.933	1597.779	1597.625	1597.471	1597.317	1597.163	1597.009	1596.855	1596.701	1596.547	1596.393	1596.239	1596.085	1595.931	1595.777	1595.623	1595.469	1595.315	1595.161	1595.007	1594.853
Proposed Road Level of Median Edge - Right Carriageway	1598.241	1598.087	1597.933	1597.779	1597.625	1597.471	1597.317	1597.163	1597.009	1596.855	1596.701	1596.547	1596.393	1596.239	1596.085	1595.931	1595.777	1595.623	1595.469	1595.315	1595.161	1595.007	1594.853
Proposed Vertical Alignment - Left Median Edge	[Vertical Curve Diagrams: L=165m, L=100m, L=90m, G=-0.028, G=0.045, G=-0.080]																						
Proposed Vertical Alignment - Right Median Edge	[Vertical Curve Diagrams: G=-1.137, L=90m, G=0.045, G=-0.080]																						
Proposed Horizontal Alignment of Left Carriageway	[Horizontal Curve Diagrams: R=250m, L=70m, R=800m, L=70m, R=2000m]																						
Proposed Horizontal Alignment of Right Carriageway	[Horizontal Curve Diagrams: R=250m, L=70m, R=800m, L=70m, R=2000m]																						
Superelevation/Crossfall (%)	[Superelevation Diagrams: e = 2.5%, e = 5%, e = 2.5%, e = 2.5%]																						
Chainage	253+000	253+020	253+040	253+060	253+080	253+100	253+120	253+140	253+160	253+180	253+200	253+220	253+240	253+260	253+280	253+300	253+320	253+340	253+360	253+380	253+400	253+420	254+000

- LEGEND**
- PLAN**
- TS-Tangent to Spiral
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 - PT-Point of Tangent (Without Transition)
 - Tangent point end(1m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Manometer Stone
 - Hexometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OPC Pillar
 - ROW Pillar
 - Tree-10,10,14
 - Tree-15,12,11
 - Well
- Hand Pump**
- Control Point
 - Identification
 - Municipal Tap
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Line**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Toe line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
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 - Pipe Line
 - Water Pipe Line
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 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

Legend For Profile

- Ground Level 20m to Left of Existing CL
- Ground Level 20m to Right of Existing CL
- Existing Ground/Road Level at Left Median Edge
- Existing Ground/Road Level at Right Median Edge
- Proposed Road Level at Left Median Edge
- Proposed Road Level at Right Median Edge

RI	Nov,2006	Final Drawing	
RD	April,2006	Initial Drawing	
Revisions	Date	Description	Checked by

Revisions

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/34A/R1



Horizontal Scale 1 : 2500
Vertical Scale 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Profile Km.253+000 to Km.254+000 NS-92/J&K

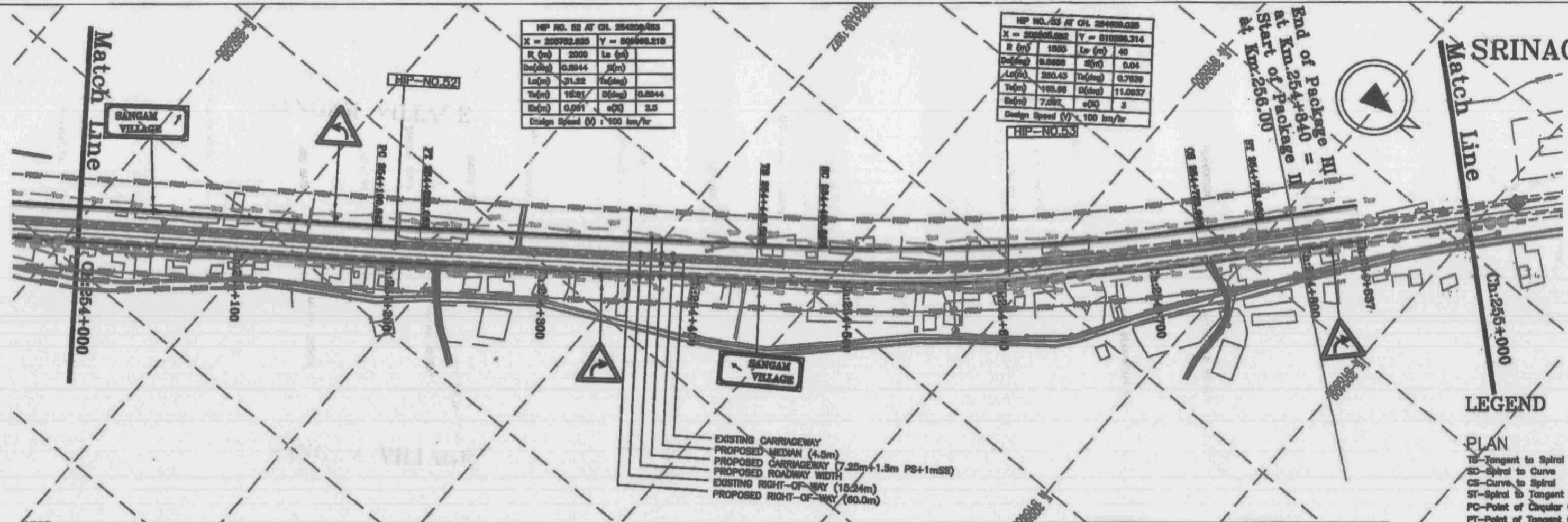
SCITA SOURCE INK in joint venture with Intercontinental Consultants & Technocrats Pvt.Ltd. CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: Bobby Thomas, S.Shasthri
Checked by: L.K.Sharma, J.C.Thiry



JAMMU ←

→ SRINAGAR



- LEGEND**
- PLAN**
 TS-Tangent to Spiral
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- Telephone Pole
 Lamp Post
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 ROW Pylon
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 Tree-T3, T2, T1
 Well
- Hand Pump
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 Identification
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 Manhole
 Sign Post
 Sign Gate
- Temple
 Mosque
 Gurudwara
 Church
 School
 Post
 Flag Post
 Transformer
- High Tension Line
 Low Tension Line
 Telephone Line
 Right-of-Way
 Right-of-Way-New
 Boundary/Fencing
 Boundary Water Body
 Boundary River Bank
 Canal
 Top line
 Crash Barrier
- Building Permanent/Temporary
 Existing Road Paved/Unpaved
 Utility Buildings
 Pipe Line
 Fire Line
 O/C Line
 Water Pipe Line
 Earth Retaining Wall
 Crash Barrier
- Existing Road Centre Line
 Designed Centre Line
 Designed Road/Median Edges
 Culvert/Bridge - Existing
 Culvert/Bridge - Designed

Datum Level =1590	1598	1596	1594	1592
Ground Level at 20 m to Left of Proposed Median C/L	1593.603	1593.780	1593.831	1593.843
Ground Level at 20 m to Right of Proposed Median C/L	1593.713	1593.690	1593.681	1593.676
Existing Ground /Road level at Median Edge - Left Carriageway	1593.831	1593.815	1593.800	1593.785
Existing Ground /Road level at Median Edge - Right Carriageway	1593.713	1593.707	1593.700	1593.693
Proposed Road Level of Median Edge - Left Carriageway	1595.831	1595.815	1595.800	1595.785
Proposed Road Level of Median Edge - Right Carriageway	1595.831	1595.815	1595.800	1595.785
Proposed Vertical Alignment - Left Median Edge	L=60m, G=-0.215			
Proposed Vertical Alignment - Right Median Edge	L=60m, G=-0.215			
Proposed Horizontal Alignment of Left Carriageway	R, L=40m, R=1500m, L=40m			
Proposed Horizontal Alignment of Right Carriageway	R, L=40m, R=1500m, L=40m			
Superelevation/Crossfall (%)	e = 2.5%			
Chainage	254+000	254+020	254+040	254+060
	254+080	254+100	254+120	254+140
	254+160	254+180	254+200	254+220
	254+240	254+260	254+280	254+300
	254+320	254+340	254+360	254+380
	254+400	254+420	254+440	254+460
	254+480	254+500	254+520	254+540
	254+560	254+580	254+600	254+620
	254+640	254+660	254+680	254+700
	254+720	254+740	254+760	254+780
	254+800	254+820	254+840	254+860
	254+880	254+900	254+920	254+940



Horizontal Scale 1 : 2500
 Vertical Scale 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Plan & Profile Km.254+000 to Km.254+640 NS-92/J&K

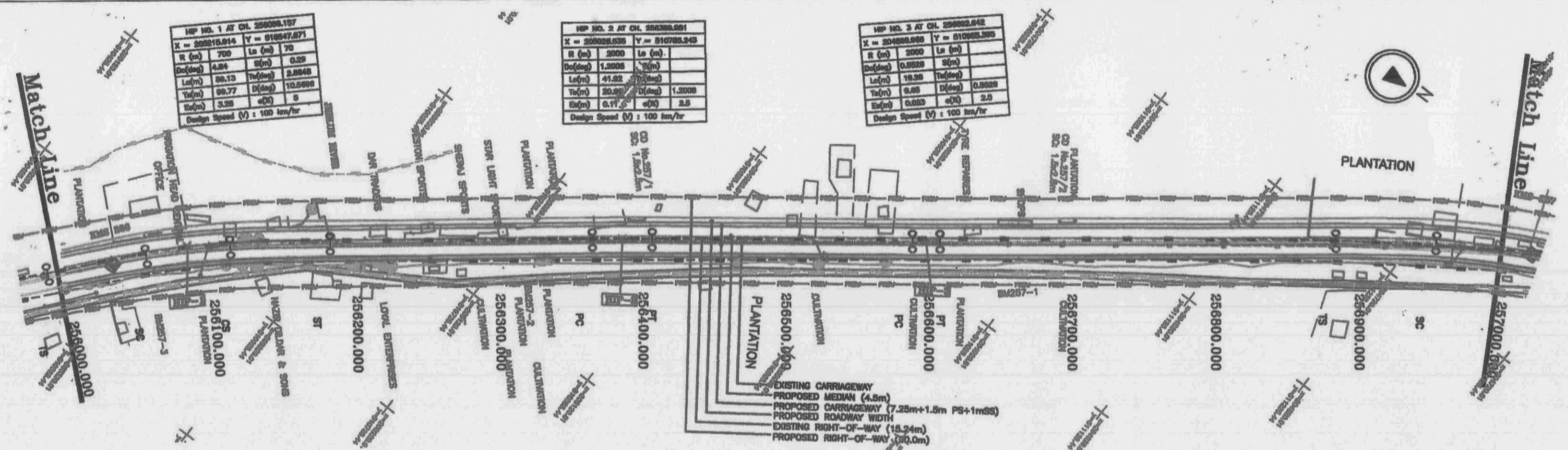
SCETABRIQUE INRCS In joint venture with Intercontinental Consultants & Technocrats Pvt.Ltd. A-4, Green Park, New Delhi - 110016 Ph : 2636-3000, Fax: 2636-3232 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: Bobby Thomas, S.Shanthakumar
 Designed by: L.K. Sharma, J.C.Thiry
 Checked by: J.C.Thiry, Approved by: J.C.Thiry

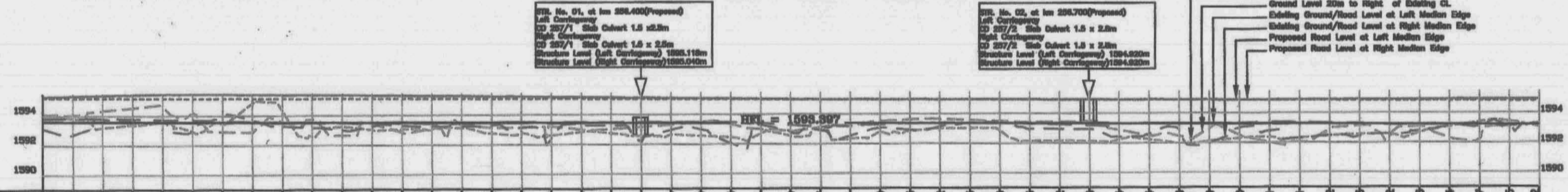
R1	Nov,2006	Modified Drawing	
R0	April,2006	Initial Drawing	
Revisions	Date	Description	Checked by

DRAWING NUMBER NHAI/NH-1A/BAN-SRI/PP/35/R1





LEFT SIDE WIDENING



Chainage (m)	Proposed Vertical Alignment - Left Carriageway		Proposed Vertical Alignment - Right Carriageway			
	Grade	Curve	Grade	Curve	Grade	Curve
256+000	P	R	P	R	P	R
256+020	L=85.570, P=-0.099%		P=-0.120% L=207.034			
256+040	R		P=-0.040% L=258.919			
256+060	L=70.000		P=-0.040% L=1141.740			
256+080	D=183.317		D=182.058			
256+100	D=183.317		D=276.004			
256+120	R		CL			
256+140	R		R			
256+160	R		R			
256+180	R		R			
256+200	R		R			
256+220	R		R			
256+240	R		R			
256+260	R		R			
256+280	R		R			
256+300	R		R			
256+320	R		R			
256+340	R		R			
256+360	R		R			
256+380	R		R			
256+400	R		R			
256+420	R		R			
256+440	R		R			
256+460	R		R			
256+480	R		R			
256+500	R		R			
256+520	R		R			
256+540	R		R			
256+560	R		R			
256+580	R		R			
256+600	R		R			
256+620	R		R			
256+640	R		R			
256+660	R		R			
256+680	R		R			
256+700	R		R			
256+720	R		R			
256+740	R		R			
256+760	R		R			
256+780	R		R			
256+800	R		R			
256+820	R		R			
256+840	R		R			
256+860	R		R			
256+880	R		R			
256+900	R		R			
256+920	R		R			
256+940	R		R			
256+960	R		R			
256+980	R		R			
257+000	R		R			

LEGEND

PLAN

- Ts-Tangent to Spiral
- SS-Spiral to Spiral
- CS-Curve to Spiral
- ST-Spiral to Tangent
- PC-Point of Curvature (With Transition)
- PT-Point of Tangent (Without Transition)
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- PS-Paved Shoulder
- SS-Soft Shoulder
- CS-Crush Barrier space

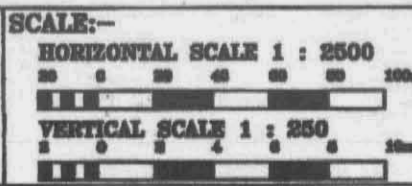
OTHER SYMBOLS

- Control Point
- Temporary Bench Mark
- Kilometer Stone
- Heavometer Stone
- Electric Pole
- Telephone Pole
- Lamp Post
- OPD Pillar
- R/W Pillar
- Tree-T8,T8,T4
- Tree-T3,T2,T1
- Well
- Hand Pump
- Control Point TB-140.2
- Municipal Top
- Mantle
- Sign Post
- Gate
- Temple
- Shrine
- Gravestone
- Church
- Guard Post
- Flag Post
- Transformer
- High Tension Line
- Low Tension Line
- Telephone Line
- Right-of-way
- Right-of-way-New
- Boundary/Fencing
- Boundary Water Body
- Boundary River Bank
- Canal
- Town Line
- Crash Barrier
- Building Permanent/Temporary
- Existing Road/Paved/Unpaved
- Utility Buildings
- Pipe Line
- OPD Line
- Water Pipe Line
- Earth Retaining Wall
- Crash Barrier
- Existing Road Centre Line
- Designed Centre Line
- Designed Road/Median Edge
- Culvert/Bridge - Existing
- Culvert/Bridge - Designed

L-PROFILE

P-Gradient(%)
L-Length of Grade(m)
R-Radius of Curve (m) "-" sign for summit vertical curve and "+" for left hand side horizontal curve)
CL-Transition
D-Straight distance
e-Superelevation in percentage

GOOD FOR CONSTRUCTION



Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE Km.256.000 to Km.257.000 (Package-II)

SCITTARBOURNE FRANCE In joint venture with
Intercontinental Consultants & Technocrats Pvt.Ltd.
 A-5, Green Park, New Delhi - 110016
 Ph : 2600-0200, Fax 2600-5922
 and
CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: S.Chatterji
 Designed by:
 Checked by: L.K. Sharma
 Approved by: J.C. Thery

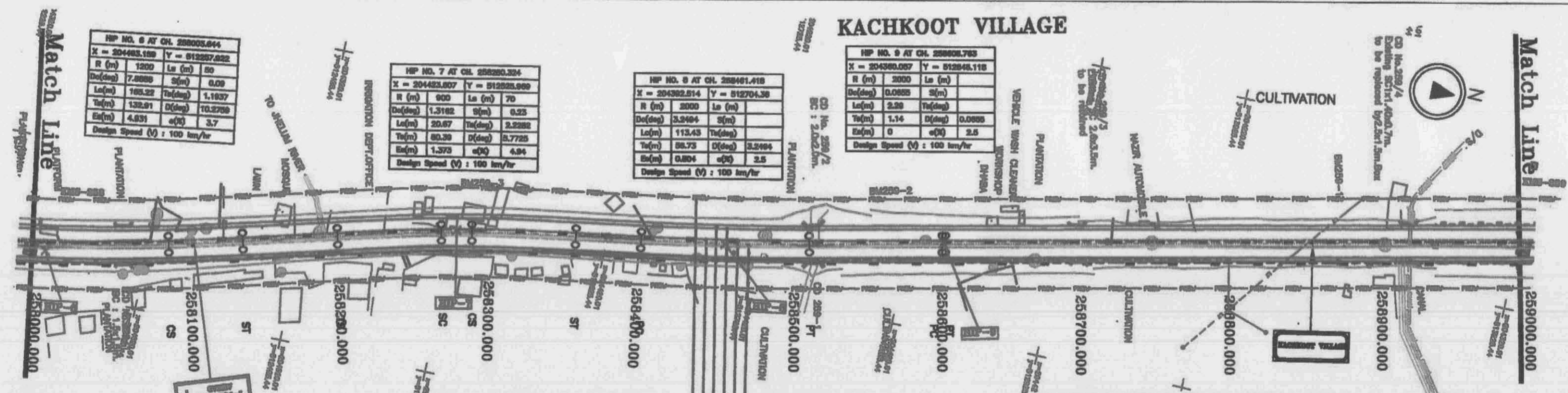
Revisions		
Rev.	Date	Description
R1	Feb-2005	Underpass Modified
R2	Jan-2005	Initial Plan

DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/01/R1

JAMMU ←

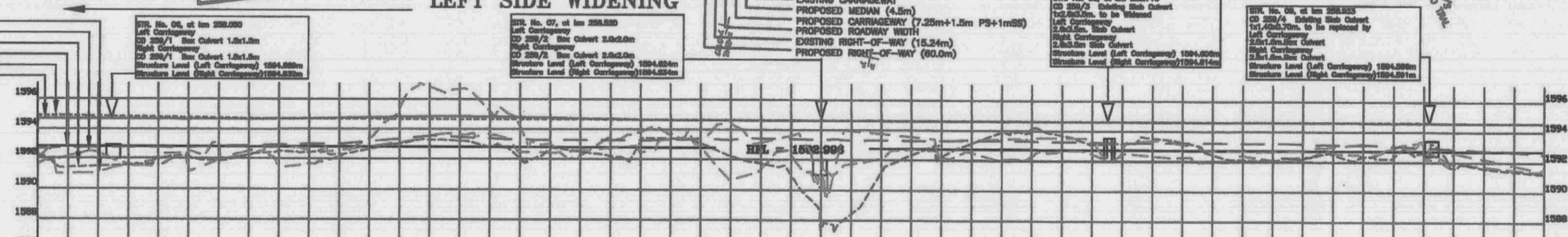
SRINAGAR →

KACHKOOT VILLAGE



LEFT SIDE WIDENING

Ground Level 20m to Left of Existing CL
Ground Level 20m to Right of Existing CL
Existing Ground/Road Level at Left Median Edge
Existing Ground/Road Level at Right Median Edge
Proposed Road Level at Left Median Edge
Proposed Road Level at Right Median Edge



Ground Level at 20m to Left of Proposed Median C/L	1994.883	1994.872	1994.847	1994.817	1994.787	1994.758	1994.728	1994.699	1994.670	1994.641	1994.612	1994.583	1994.554	1994.525	1994.496	1994.467	1994.438	1994.409	1994.380	1994.351	1994.322	1994.293	1994.264	1994.235	1994.206	1994.177	1994.148	1994.119	1994.090	1994.061	1994.032	1994.003	1993.974	1993.945	1993.916	1993.887	1993.858	1993.829	1993.800	1993.771	1993.742	1993.713	1993.684	1993.655	1993.626	1993.597	1993.568	1993.539	1993.510	1993.481	1993.452	1993.423	1993.394	1993.365	1993.336	1993.307	1993.278	1993.249	1993.220	1993.191	1993.162	1993.133	1993.104	1993.075	1993.046	1993.017	1992.988	1992.959	1992.930	1992.901	1992.872	1992.843	1992.814	1992.785	1992.756	1992.727	1992.698	1992.669	1992.640	1992.611	1992.582	1992.553	1992.524	1992.495	1992.466	1992.437	1992.408	1992.379	1992.350	1992.321	1992.292	1992.263	1992.234	1992.205	1992.176	1992.147	1992.118	1992.089	1992.060	1992.031	1992.002	1991.973	1991.944	1991.915	1991.886	1991.857	1991.828	1991.799	1991.770	1991.741	1991.712	1991.683	1991.654	1991.625	1991.596	1991.567	1991.538	1991.509	1991.480	1991.451	1991.422	1991.393	1991.364	1991.335	1991.306	1991.277	1991.248	1991.219	1991.190	1991.161	1991.132	1991.103	1991.074	1991.045	1991.016	1990.987	1990.958	1990.929	1990.900	1990.871	1990.842	1990.813	1990.784	1990.755	1990.726	1990.697	1990.668	1990.639	1990.610	1990.581	1990.552	1990.523	1990.494	1990.465	1990.436	1990.407	1990.378	1990.349	1990.320	1990.291	1990.262	1990.233	1990.204	1990.175	1990.146	1990.117	1990.088	1990.059	1990.030	1990.001	1989.972	1989.943	1989.914	1989.885	1989.856	1989.827	1989.798	1989.769	1989.740	1989.711	1989.682	1989.653	1989.624	1989.595	1989.566	1989.537	1989.508	1989.479	1989.450	1989.421	1989.392	1989.363	1989.334	1989.305	1989.276	1989.247	1989.218	1989.189	1989.160	1989.131	1989.102	1989.073	1989.044	1989.015	1988.986	1988.957	1988.928	1988.899	1988.870	1988.841	1988.812	1988.783	1988.754	1988.725	1988.696	1988.667	1988.638	1988.609	1988.580	1988.551	1988.522	1988.493	1988.464	1988.435	1988.406	1988.377	1988.348	1988.319	1988.290	1988.261	1988.232	1988.203	1988.174	1988.145	1988.116	1988.087	1988.058	1988.029	1988.000	1987.971	1987.942	1987.913	1987.884	1987.855	1987.826	1987.797	1987.768	1987.739	1987.710	1987.681	1987.652	1987.623	1987.594	1987.565	1987.536	1987.507	1987.478	1987.449	1987.420	1987.391	1987.362	1987.333	1987.304	1987.275	1987.246	1987.217	1987.188	1987.159	1987.130	1987.101	1987.072	1987.043	1987.014	1986.985	1986.956	1986.927	1986.898	1986.869	1986.840	1986.811	1986.782	1986.753	1986.724	1986.695	1986.666	1986.637	1986.608	1986.579	1986.550	1986.521	1986.492	1986.463	1986.434	1986.405	1986.376	1986.347	1986.318	1986.289	1986.260	1986.231	1986.202	1986.173	1986.144	1986.115	1986.086	1986.057	1986.028	1985.999	1985.970	1985.941	1985.912	1985.883	1985.854	1985.825	1985.796	1985.767	1985.738	1985.709	1985.680	1985.651	1985.622	1985.593	1985.564	1985.535	1985.506	1985.477	1985.448	1985.419	1985.390	1985.361	1985.332	1985.303	1985.274	1985.245	1985.216	1985.187	1985.158	1985.129	1985.100	1985.071	1985.042	1985.013	1984.984	1984.955	1984.926	1984.897	1984.868	1984.839	1984.810	1984.781	1984.752	1984.723	1984.694	1984.665	1984.636	1984.607	1984.578	1984.549	1984.520	1984.491	1984.462	1984.433	1984.404	1984.375	1984.346	1984.317	1984.288	1984.259	1984.230	1984.201	1984.172	1984.143	1984.114	1984.085	1984.056	1984.027	1983.998	1983.969	1983.940	1983.911	1983.882	1983.853	1983.824	1983.795	1983.766	1983.737	1983.708	1983.679	1983.650	1983.621	1983.592	1983.563	1983.534	1983.505	1983.476	1983.447	1983.418	1983.389	1983.360	1983.331	1983.302	1983.273	1983.244	1983.215	1983.186	1983.157	1983.128	1983.099	1983.070	1983.041	1983.012	1982.983	1982.954	1982.925	1982.896	1982.867	1982.838	1982.809	1982.780	1982.751	1982.722	1982.693	1982.664	1982.635	1982.606	1982.577	1982.548	1982.519	1982.490	1982.461	1982.432	1982.403	1982.374	1982.345	1982.316	1982.287	1982.258	1982.229	1982.200	1982.171	1982.142	1982.113	1982.084	1982.055	1982.026	1981.997	1981.968	1981.939	1981.910	1981.881	1981.852	1981.823	1981.794	1981.765	1981.736	1981.707	1981.678	1981.649	1981.620	1981.591	1981.562	1981.533	1981.504	1981.475	1981.446	1981.417	1981.388	1981.359	1981.330	1981.301	1981.272	1981.243	1981.214	1981.185	1981.156	1981.127	1981.098	1981.069	1981.040	1981.011	1980.982	1980.953	1980.924	1980.895	1980.866	1980.837	1980.808	1980.779	1980.750	1980.721	1980.692	1980.663	1980.634	1980.605	1980.576	1980.547	1980.518	1980.489	1980.460	1980.431	1980.402	1980.373	1980.344	1980.315	1980.286	1980.257	1980.228	1980.199	1980.170	1980.141	1980.112	1980.083	1980.054	1980.025	1980.000	1979.975	1979.950	1979.925	1979.900	1979.875	1979.850	1979.825	1979.800	1979.775	1979.750	1979.725	1979.700	1979.675	1979.650	1979.625	1979.600	1979.575	1979.550	1979.525	1979.500	1979.475	1979.450	1979.425	1979.400	1979.375	1979.350	1979.325	1979.300	1979.275	1979.250	1979.225	1979.200	1979.175	1979.150	1979.125	1979.100	1979.075	1979.050	1979.025	1979.000	1978.975	1978.950	1978.925	1978.900	1978.875	1978.850	1978.825	1978.800	1978.775	1978.750	1978.725	1978.700	1978.675	1978.650	1978.625	1978.600	1978.575	1978.550	1978.525	1978.500	1978.475	1978.450	1978.425	1978.400	1978.375	1978.350	1978.325	1978.300	1978.275	1978.250	1978.225	1978.200	1978.175	1978.150	1978.125	1978.100	1978.075	1978.050	1978.025	1978.000	1977.975	1977.950	1977.925	1977.900	1977.875	1977.850	1977.825	1977.800	1977.775	1977.750	1977.725	1977.700	1977.675	1977.650	1977.625	1977.600	1977.575	1977.550	1977.525	1977.500	1977.475	1977.450	1977.425	1977.400	1977.375	1977.350	1977.325	1977.300	1977.275	1977.250	1977.225	1977.200	1977.175	1977.150	1977.125	1977.100	1977.075	1977.050	1977.025	1977.000	1976.975	1976.950	1976.925	1976.900	1976.875	1976.850	1976.825	1976.800	1976.775	1976.750	1976.725	1976.700	1976.675	1976.650	1976.625	1976.600	1976.575	1976.550	1976.525	1976.500	1976.475	1976.450	1976.425	1976.400	1976.375	1976.350	1976.325	1976.300	1976.275	1976.250	1976.225	1976.200	1976.175	1976.150	1976.125	1976.100	1976.075	1976.050	1976.025	1976.000	1975.975	1975.950	1975.925	1975.900	1975.875	1975.850	1975.825	1975.800	1975.775	1975.750	1975.725	1975.700	1975.675	1975.650	1975.625	1975.600	1975.575	1975.550	1975.525	1975.500	1975.475	1975.450	1975.425	1975.400	1975.375	1975.350	1975.325	1975.300	1975.275	1975.250	1975.225	1975.200	1975.175	1975.150	1975.125	1975.100	1975.075	1975.050	1975.025	1975.000	1974.975	1974.950	1974.925	1974.900	1974.875	1974.850	1974.825	1974.800	1974.775	1974.750	1974.725	1974.700	1974.675	1974.650	1974.625	1974.600	1974.575	1974.550	1974.525	1974.500	1974.475	1974.450	1974.425	1974.400	1974.375	1974.350	1974.325	1974.300	1974.275	1974.250	1974.225	1974.200	1974.175	1974.150	1974.125	1974.100	1974.075	1974.050	1974.025	1974.000	1973.975	1973.950	1973.925	1973.900	1973.875	1973.850	1973.825	1973.800	1973.775	1973.750	1973.725	1973.700	1973.675	1973.650	1973.625	1973.600	1973.575	1973.550	1973.525	1973.500	1973.475	1973.450	1973.425	1973.400	1973.375	1973.350	1973.325	1973.300	1973.275	1973.250	1973.225	1973.200	1973.175	1973.150	1973.125	1973.100	1973.075	1973.050	1973.025	1973.000	1972.975	1972.950	1972.925	1972.900	1972.875	1972.850	1972.825	1972.800	1972.775	1972.750	1972.725	1972.700	1972.675	1972.650	1972.625	1972.600	1972.575	1972.550	1972.525	1972.500	1972.475	1972.450	1972.425	1972.400	1972.375	1972.350	1972.325	1972.300	1972.275	1972.250	1972.225	1972.200	1972.175	1972.1
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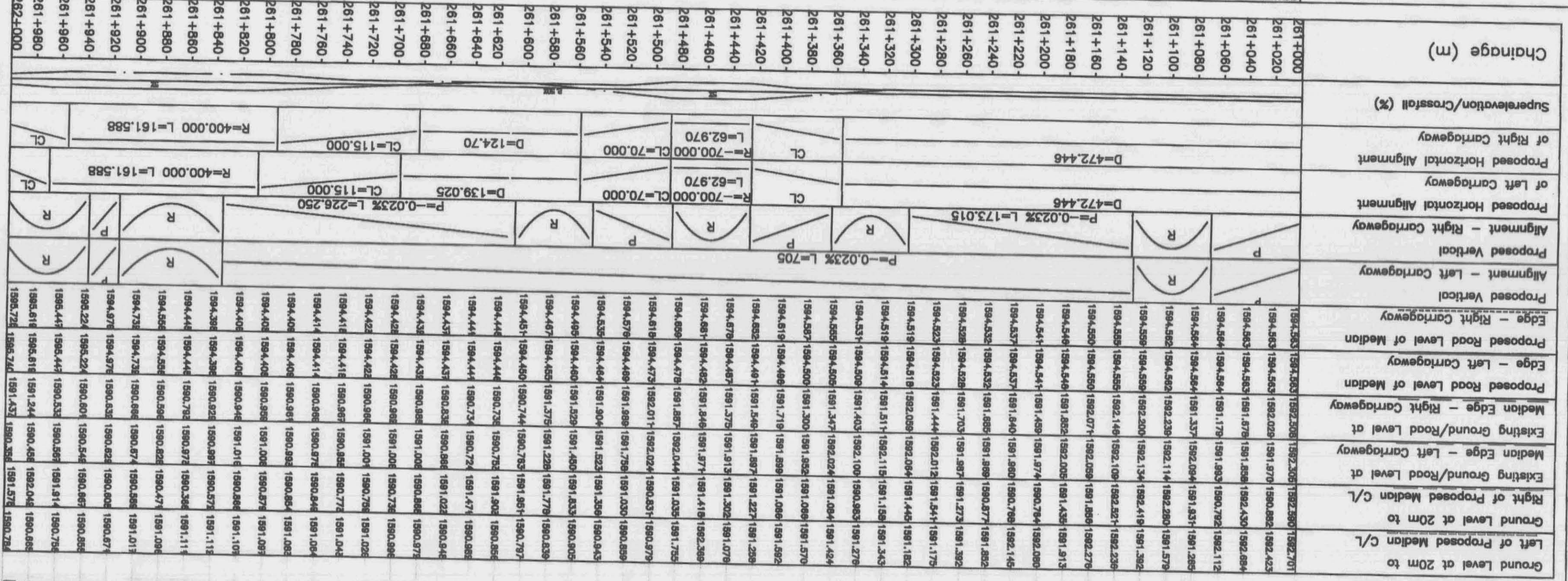
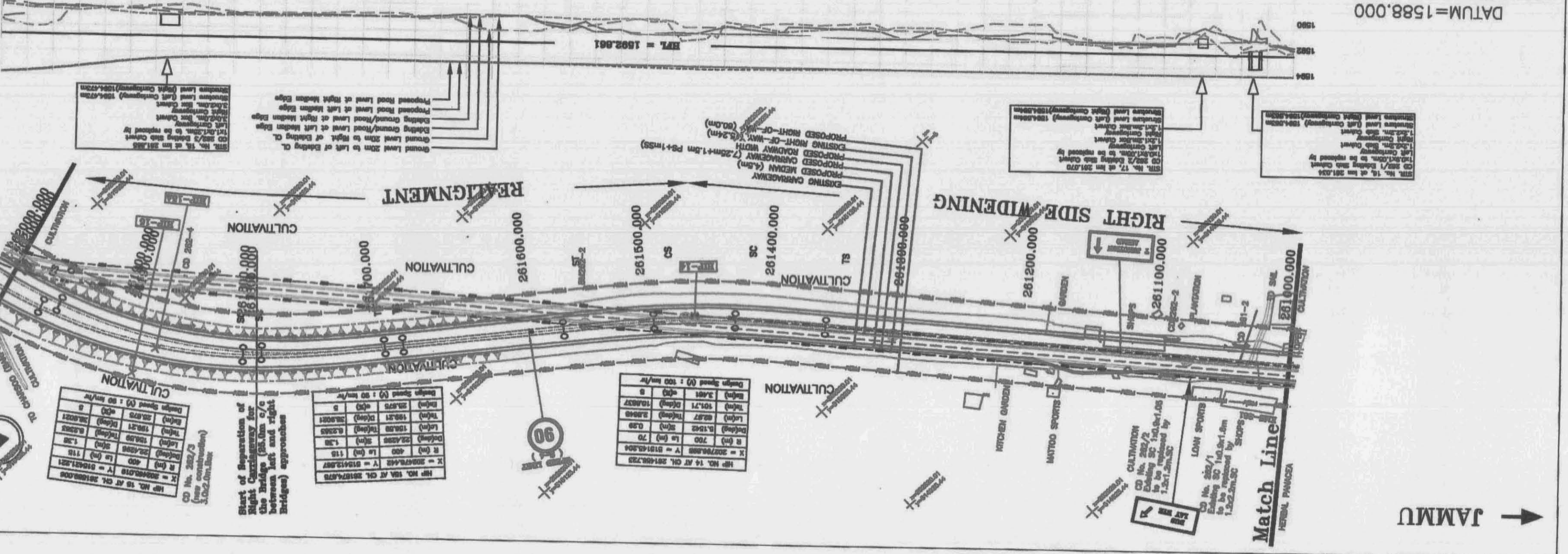


PLAN AND LONGITUDINAL PROFILE
of NH-1(A), (including Srinagar Bypass) in J & K State
Banihal to Srinagar Section (Km.188.00 to Km.296.00)
(Package-II)
Km.261.000 to Km.262.000

Checked by: L.K. Sharma
Designed by: Anil
Approved by: J.C. Thakur
Checked by: J.C. Thakur

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/06/R1

Chainage (m)	Superelevation/Crossfall (%)	Proposed Horizontal Alignment of Right Carriageway	Proposed Horizontal Alignment of Left Carriageway	Alignment - Right Carriageway	Alignment - Left Carriageway	Proposed Vertical	Alignment - Right Carriageway	Proposed Road Level of Median	Edge - Left Carriageway	Proposed Road Level of Median	Median Edge - Right Carriageway	Existing Ground/Road Level at	Median Edge - Left Carriageway	Right of Proposed Median C/L	Ground Level at 20m to	Left of Proposed Median C/L	Ground Level at 20m to
261+000																	
261+020																	
261+040																	
261+060																	
261+080																	
261+100																	
261+120																	
261+140																	
261+160																	
261+180																	
261+200																	
261+220																	
261+240																	
261+260																	
261+280																	
261+300																	
261+320																	
261+340																	
261+360																	
261+380																	
261+400																	
261+420																	
261+440																	
261+460																	
261+480																	
261+500																	
261+520																	
261+540																	
261+560																	
261+580																	
261+600																	
261+620																	
261+640																	
261+660																	
261+680																	
261+700																	
261+720																	
261+740																	
261+760																	
261+780																	
261+800																	
261+820																	
261+840																	
261+860																	
261+880																	
261+900																	
261+920																	
261+940																	
261+960																	
261+980																	
262+000																	



LEGEND

SRINAGAR ←

→ JAMMU

PLAN

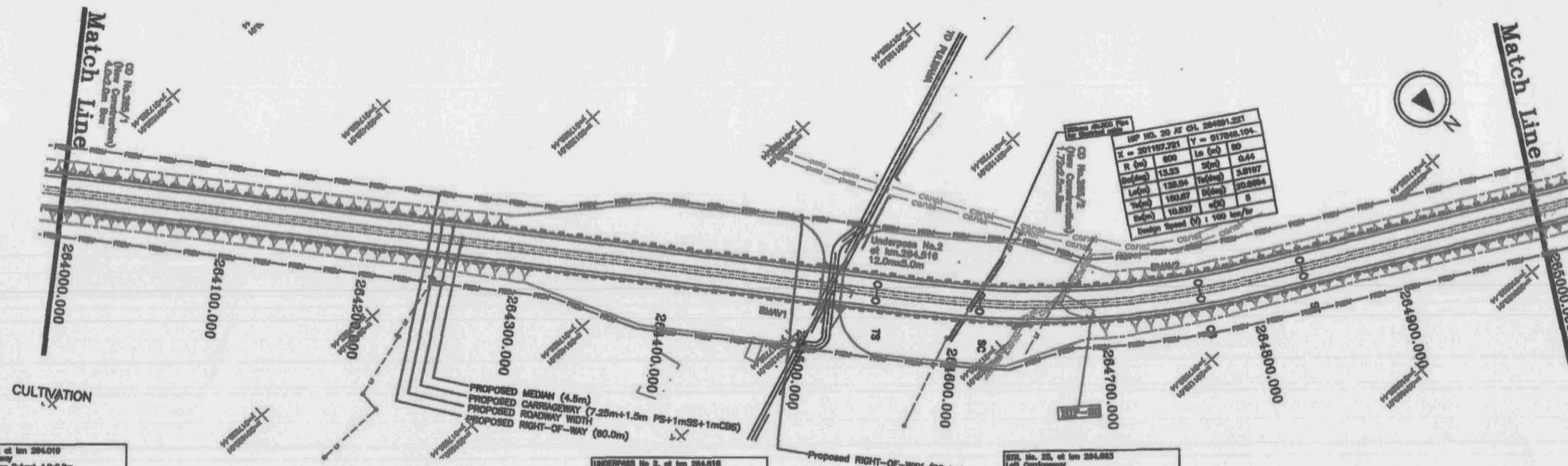
TS - Tangent to Spiral
CS - Spiral to Spiral
PC - Point of Curvature (With Transition)
PT - Point of Tangent (Without Transition)
Tangent point (end of)
PS - Forward Shoulder
SS - Soft Shoulder
CRS - Crown Barrier space
GPS - Central Point
Temporary Bench Mark
Reference Stone
Electric Pole
Lamp Post
Hand Pump
Control Point
Milestone
Sign Post
Temple
Mausoleum
Cemetery
Fog Point
Transformer
Left Telephone Line
Right of Way
Right of Way New
Boundary of Right Bank
Boundary of Left Bank
Crest
Thee Bar
Building Permanent/Temporary
Lushy Buildings
Fog Line
Water Pipe Line
Crest Barrier
Designing Road Centre Line
Designing Road/Median Edges
Crest/Bridge - Designed
L-PROFILE

L-PROFILE

P - Gradient (%)
R - Radius of Curve (m), "s" sign for summit
vertical curve and for left hand side
horizontal curve
CL - Transition
D - Superelevation in percentage
GOOD FOR CONSTRUCTION

JAMMU ←

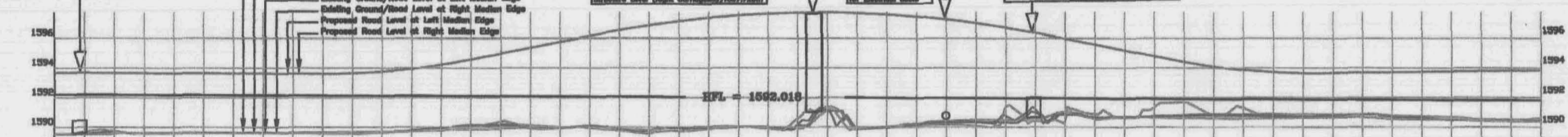
SRINAGAR →



SR. No. 25, at Km. 284.019
Left Carriageway
CD 285/1 Box Culvert 4.0x2.0m.
Right Carriageway
CD 285/1 Box Culvert 4.0x2.0m.
Structure Level (Left Carriageway) 1893.672m
Structure Level (Right Carriageway) 1893.672m

UNDERPASS No. 1, at Km. 284.510
Left Carriageway
12.0m x 5.0m
Right Carriageway
12.0m x 5.0m
Structure Level (Left Carriageway) 1897.720m
Structure Level (Right Carriageway) 1897.720m

SR. No. 25, at Km. 284.583
Left Carriageway
CD 285/2 Box Culvert 1.7x0.2m.
Right Carriageway
CD 285/2 Box Culvert 1.7x0.2m.
Structure Level (Left Carriageway) 1888.320m
Structure Level (Right Carriageway) 1888.320m



LEGEND

- PLAN
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point (m)
 - PS-Point Shoulder
 - SS-Soft Shoulder
 - CSB-Crush Barrier space
 - GPS
 - Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
 - Telephone Pole
 - Lamp Post
 - OFC Pillar
 - ROW Pillar
 - Tree-TS, TS, TS
 - Tree-TS, TS, TS
 - Well
 - Hand Pump
 - Control Point
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
 - Temple
 - Mosque
 - Gurdwara
 - Church
 - Gas Post
 - Flag Post
 - Transformer
 - High Tension Lines
 - Low Tension Lines
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-Here
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Toe line
 - Crash Barrier
 - Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

L-PROFILE

- P-Gradient(%)
- L-Length of Grade(m)
- R-Radius of Curve (m), '-' sign for summit vertical curve and for left hand side (horizontal curve)
- CL-Centre Line
- D-Straight distance
- e-Superelevation in percentage

GOOD FOR CONSTRUCTION

Rev	Date	Description	Checked by
1	Feb-2005	Underpass Modified	
2	Jan-2005	Initial Plan	

Revisions

DRAWING NUMBER

NHAI/NH-1A/BAN-SRI/PP/09/R1



SCALE:-
HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE
Km.284.000 to Km.285.000
(Package-II)

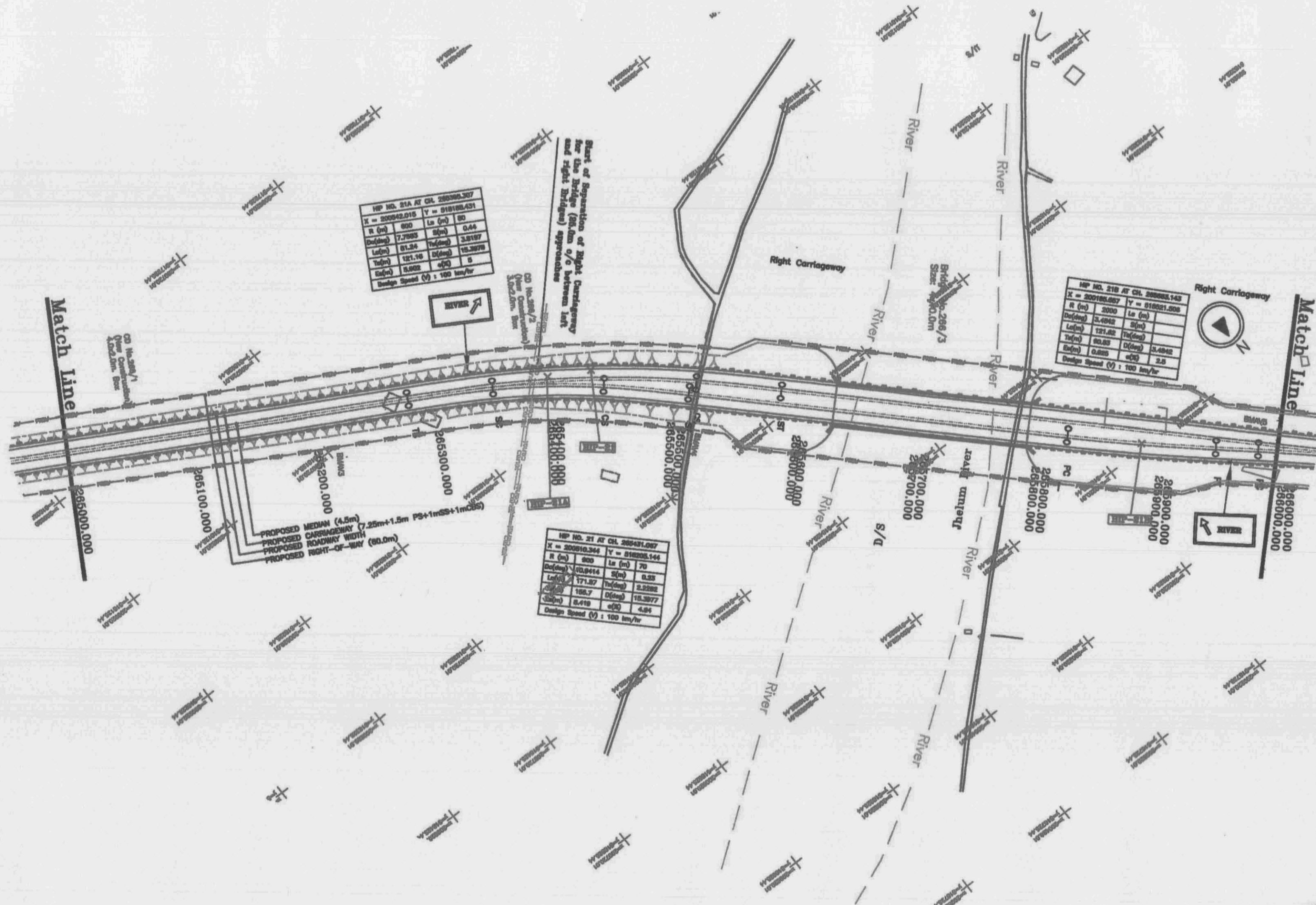
SCETABOUBE ENGINEERS IN JOINT VENTURE WITH
Intercontinental Consultants & Technocrats Pvt.Ltd.
A-3, Green Park, New Delhi - 110016
Ph : 2686-3000, Fax 2686-0852

Prepared by: S.Chatterji
Checked by: L.K.Sharma
Designed by: S.Chatterji
Approved by: J.C.Thiruv



← JAMMU

SRINAGAR →



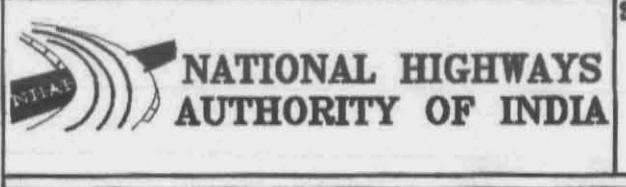
LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(1st)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Poles
 - ROW Poles
 - Tree-T8,T5,T4
 - Tree-T3,T2,T1
 - Wall
- Hond Pump**
- Control Point TS-149.2
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Line**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Tangent
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Ten Line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designated Centre Line
 - Designated Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

- L-PROFILE**
- P-Gradient(%)
 - L-Length of Grade(m)
 - R-Radius of Curve (m), "-" sign for summit vertical curve and for left hand side horizontal curve
 - CL-Transition
 - D-Straight distance
 - e-Super-elevation in percentage

GOOD FOR CONSTRUCTION

Rev.	Date	Description	Checked by
R1	Feb-2008	Underpass Modified	
R0	Jan-2008	Initial Plan	



SCALE:-
 HORIZONTAL SCALE 1 : 2500
 VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE
 Km.265.000 to Km.266.000
 (Package-II)

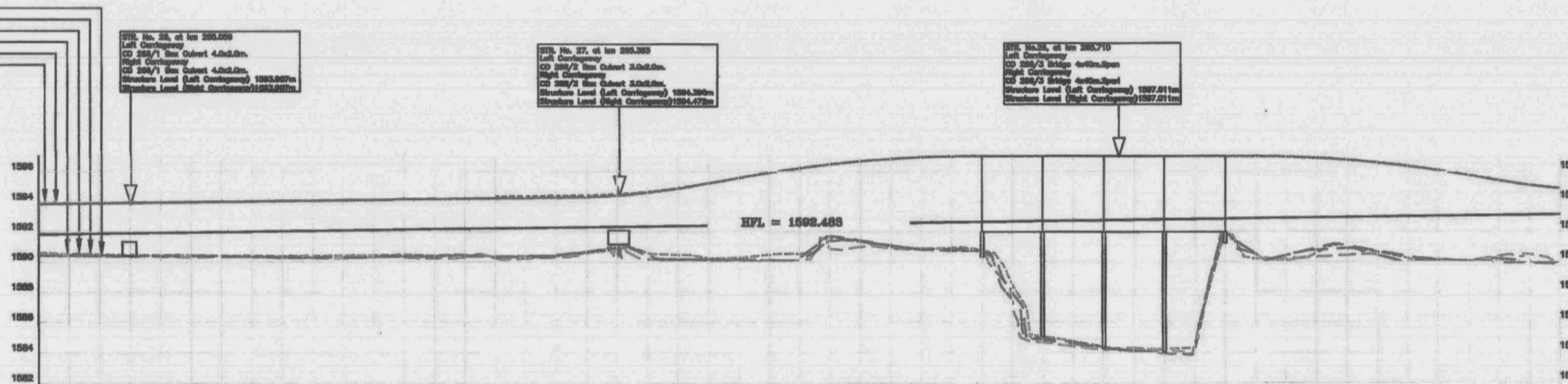
SCETASOURTE INRCC In joint venture with Intercontinental Consultants & Technocrats Pvt.Ltd. A-5, Green Park, New Delhi - 110016 Ph : 2655-3000, Fax 2655-0222 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: Anil S.Chaturvedi
 Checked by: L.K.Sharma
 Designed by: S.Chaturvedi
 Approved by: J.C.Thirvi

Revisions
 DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/10/R1



Ground Level 20m to Left of Existing CL
 Ground Level 20m to Right of Existing CL
 Existing Ground/Road Level at Left Median Edge
 Existing Ground/Road Level at Right Median Edge
 Proposed Road Level at Left Median Edge
 Proposed Road Level at Right Median Edge



DATUM=1581.000

Ground Level at 20m to Left of Proposed Median C/L	1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334																		
Ground Level at 20m to Right of Proposed Median C/L	1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334																		
Existing Ground/Road Level at Median Edge - Left Carriageway	1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334																		
Existing Ground/Road Level at Median Edge - Right Carriageway	1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334																		
Proposed Road Level of Median Edge - Left Carriageway	1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334																		
Proposed Road Level of Median Edge - Right Carriageway	1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334, 1593.334																		
Proposed Vertical Alignment - Left Carriageway	P=0.122% L=519.801 																		
Proposed Vertical Alignment - Right Carriageway	P=0.122% L=519.801 																		
Proposed Horizontal Alignment of Left Carriageway	D=439.704 																		
Proposed Horizontal Alignment of Right Carriageway	D=439.704 																		
Superelevation/Crossfall (%)																			
Chainage (m)	265+000, 265+020, 265+040, 265+060, 265+080, 265+100, 265+120, 265+140, 265+160, 265+180, 265+200, 265+220, 265+240, 265+260, 265+280, 265+300, 265+320, 265+340, 265+360, 265+380, 265+400, 265+420, 265+440, 265+460, 265+480, 265+500, 265+520, 265+540, 265+560, 265+580, 265+600, 265+620, 265+640, 265+660, 265+680, 265+700, 265+720, 265+740, 265+760, 265+780, 265+800, 265+820, 265+840, 265+860, 265+880, 265+900, 265+920, 265+940, 265+960, 265+980, 266+000																		

LEGEND

PLAN

- TS-Tangent to Spiral
- SC-Spiral to Curve
- CS-Curve to Spiral
- ST-Spiral to Tangent
- PC-Point of Circular Curve (With Transition)
- PT-Point of Tangent (Without Transition)
- Tangent point end(m)
- PS-Paved Shoulder
- SS-Soft Shoulder
- CBS-Cross Barrier space

GPS

- Control Point
- Temporary Bench Mark
- Kilometer Stone
- Hectometer Stone
- Electric Pole

Telephone Pole

- Lamp Post
- RFC Piller
- ROW Piller
- Tree-70,75,74
- Tree-73,72,71
- Well

Hand Pump

- Control Point TS-146.2
- Identification
- Municipal Top
- Milestone
- Sign Post
- Gate

Temple

- Mosque
- Garudwara
- Church
- Guard Post
- Flag Post
- Transformer

High Tension Line

- Low Tension Line
- Telephone Line
- Right-of-Way
- Right-of-Way New
- Boundary/Fencing
- Boundary Water Body
- Boundary River Bank Canal
- Tree line
- Crash Barrier

Building Permanent/Temporary

- Existing Road Paved/Unpaved
- Utility Building
- Pipe Line
- OFD Line
- Water Pipe Line
- Earth Retaining Wall
- Crash Barrier

Existing Road Centre Line

- Designed Centre Line
- Designed Road/Median Edges
- Culvert/Bridge - Existing
- Culvert/Bridge - Designed

L-PROFILE

P-Gradient(%)

L-Length of Grade(m)

R-Radius of Curve (m), '-' sign for summit vertical curve and for left hand side horizontal curve

S-Transition

S-Straight distance

S-Superelevation in percentage

GOOD FOR CONSTRUCTION



SCALE:-
 HORIZONTAL SCALE 1 : 2500

 VERTICAL SCALE 1 : 250

**Detailed Design for 4-Laning of
 Banihal to Srinagar Section (Km.188.00 to Km.296.00)
 of NH-1(A),(including Srinagar Bypass) in J & K State**

**PLAN AND
 LONGITUDINAL PROFILE
 Km.265.000 to Km.266.000
 (Package-II)**

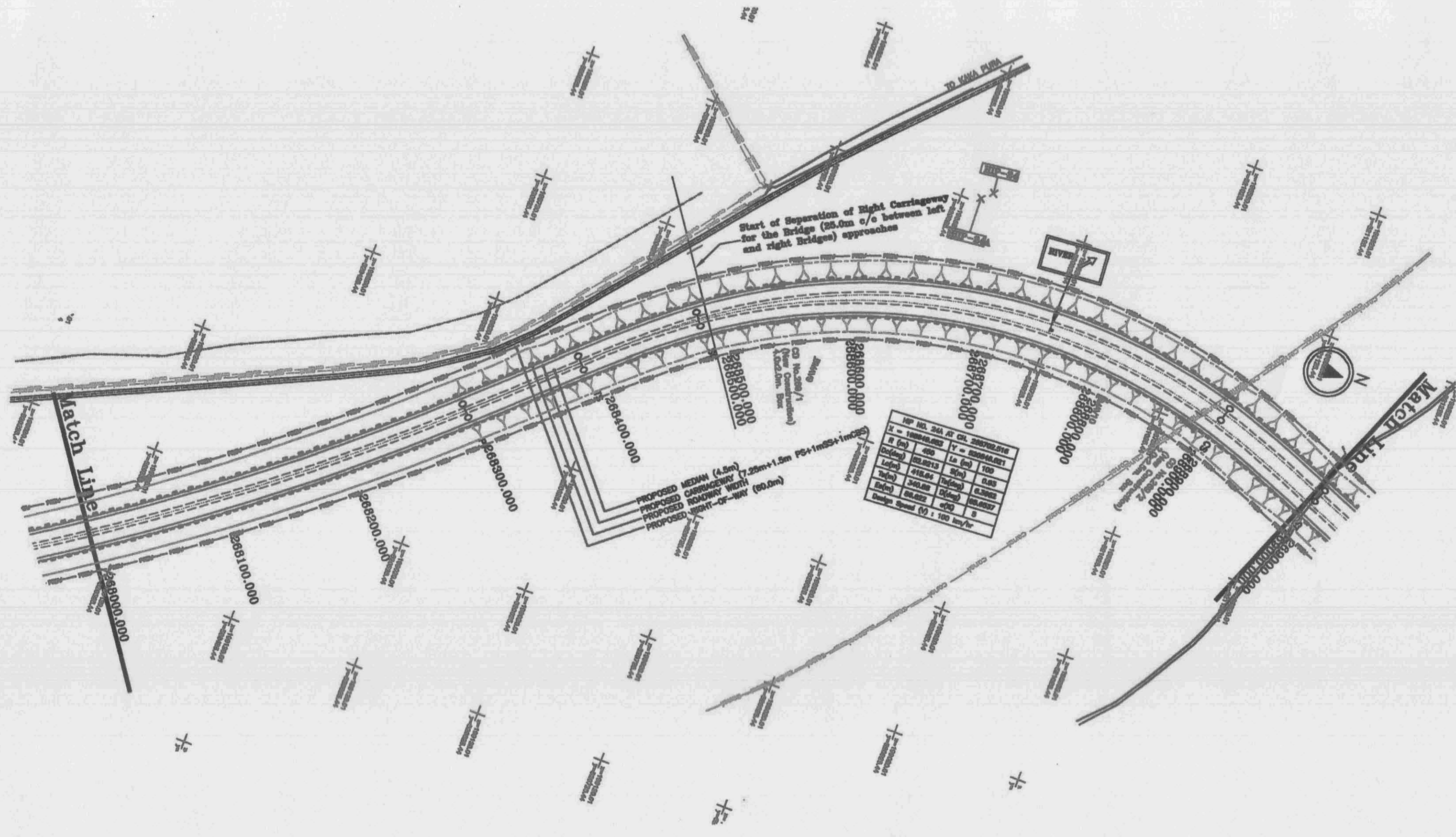
SCITEAMWORK IN JOINT VENTURE WITH
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 A-9, Green Park, New Delhi - 110016
 Ph : 2585-3000, Fax 2585-2822
 and
 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: Anil K. Jaiswal, S.Chatterji
 Checked by: L.K. Sharma, J.C.Thiry

Revisions		Checked by
RD	Feb-2006	Undersign Modified
RD	Jan-2006	Initial Plan
Revision	Date	Description
DRAWING NUMBER		
NHAI/NH-1A/BAN-SRI/PP/10A/R1		

← JAMMU

SRINAGAR →



LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Curvature Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(um)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CS-Crash Barrier space
- PLAN**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Headmeter Stone
 - Electric Pole
 - Telephone Pole
 - Lamp Post
 - OPC Filter
 - ROW Filler
 - Tree-T8,T8,T4
 - Tree-T2,T2,T1
 - Well
 - Hand Pump
 - Control Point TD-148.2
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
 - Temple
 - Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Paving
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tree line
 - Crash Barrier
 - Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OPC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

- L-PROFILE**
- P-Gradient(%)
 - L-Length of Grade(m)
 - R-Radius of Curve (m, "L" sign for summit vertical curve and for left hand side horizontal curve)
 - T-Transition
 - S-Straight distance
 - a-Superelevation in percentage

GOOD FOR CONSTRUCTION

R1	Feb-2008	Underpass Modified	
R0	Jan-2008	Initial Plan	
Revised	Date	Description	Checked by

Revisions

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/13/R1



SCALE:-
HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of
Banihal to Srinagar Section (Km.188.00 to Km.296.00)
of NH-1(A),(including Srinagar Bypass) in J & K State

**PLAN AND
LONGITUDINAL PROFILE**
Km.288.000 to Km.289.000
(Package-II)

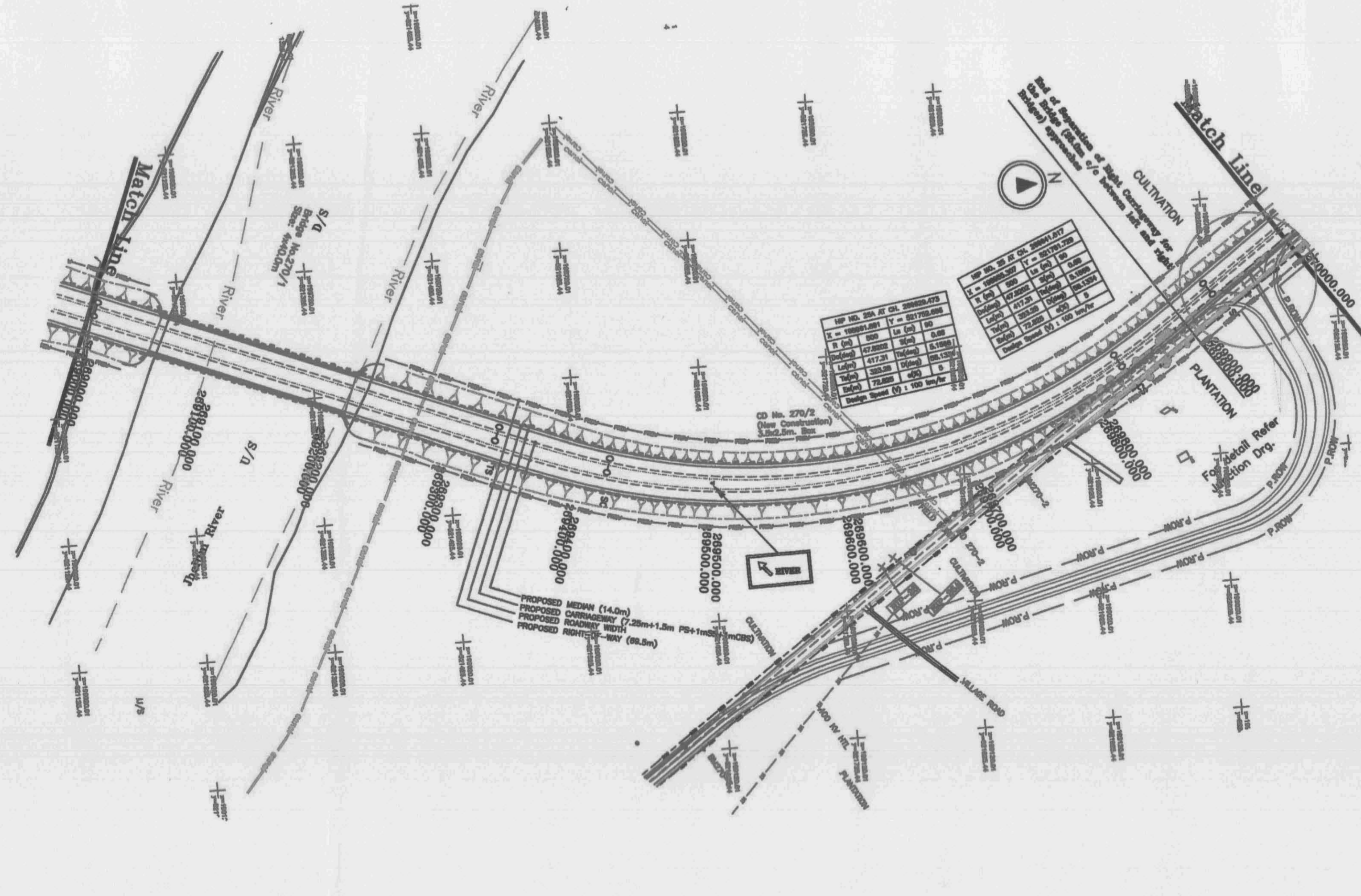
SCETANROUTE ENGINEERS
In joint venture with
Intercontinental Consultants & Technocrats Pvt.Ltd.
A-4, Green Park, New Delhi - 110016
Ph : 2686-3000, Fax: 2685-6882
and
CHINA HIGHWAY ENGINEERING CONSULTING
AND SUPERVISION CORPORATION, CHINA

Prepared by	Anil	Designed by	S.Chatterji
Checked by	L.K.Sharma	Approved by	J.C.Thiry



← JAMMU

SRINAGAR →



LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Curvature (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Sectional Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Pillar
 - ROW Pillar
 - Tree-T8,T5,T4
 - Tree-T3,T2,T1
 - Well
- Hand Pump**
- Control Point
 - Identification
 - Municipal Tap
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mausoleum
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Line**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way - New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Traffic Line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

- L-PROFILE**
- P-Gradient(%)
 - L-Length of Grade(m)
 - R-Radius of Curve (m) - sign for summit vertical curve and for left hand side horizontal curve
 - CL-Transition
 - D-Straight distance
 - e-Superelevation in percentage

GOOD FOR CONSTRUCTION

R1	Feb-2005	Underpass Modified	
R0	Jan-2005	Initial Plan	
Revision	Date	Description	Checked by

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/14/R1



SCALE:-
HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE
Km.289.000 to Km.270.000
(Package-II)

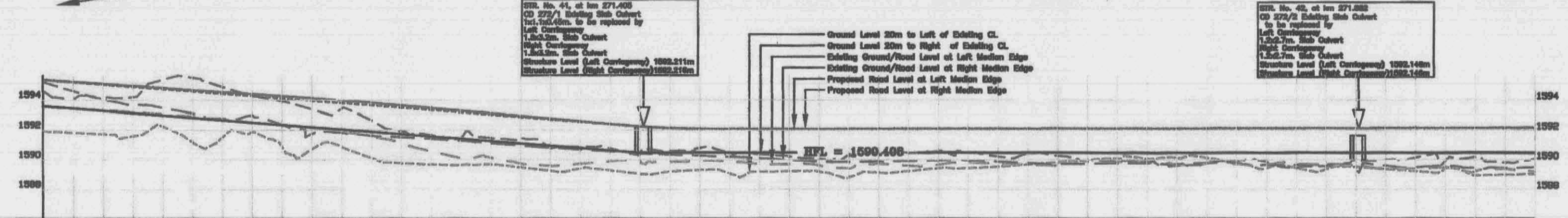
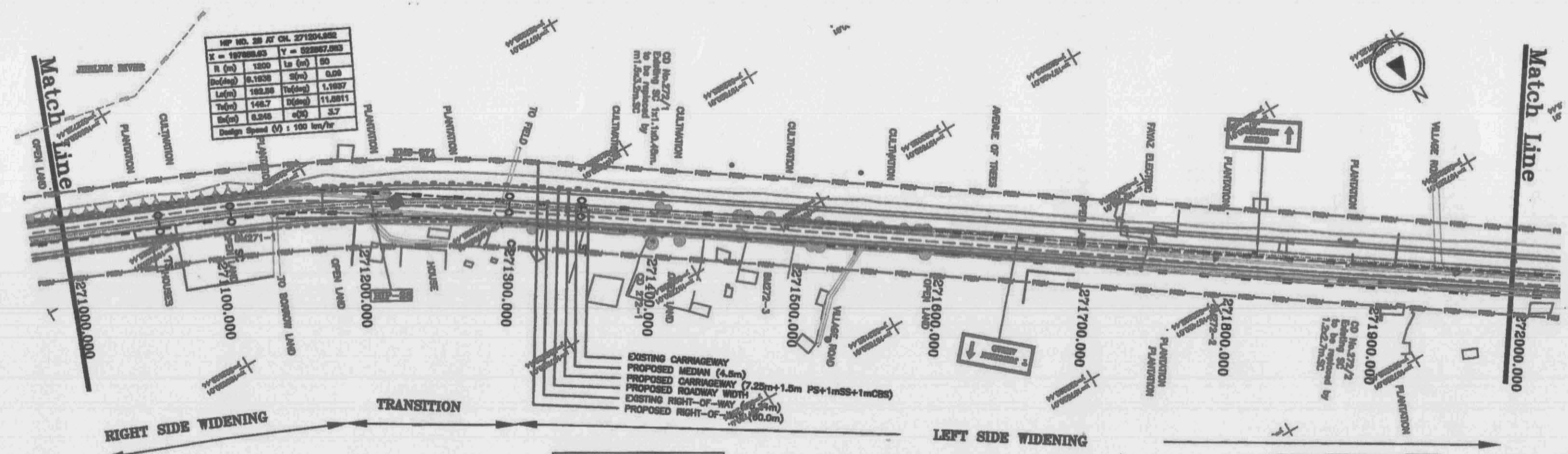
SCITAURQUE ENGINEERS In joint venture with
Intercontinental Consultants & Technocrats Pvt.Ltd.
4th, Green Park, New Delhi - 110016
Ph : 2686-3000, Fax: 2685-8822
and
CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by	Anju	Designed by	S.Chattarji
Checked by	L.K.Sharma	Approved by	J.C.Thiruv



JAMMU ←

SRINAGAR →



DATUM=1586.000	
Ground Level at 20m to Left of Proposed Median C/L	1593.282 1593.229 1593.005 1593.005 1593.229 1591.802
Ground Level at 20m to Right of Proposed Median C/L	1593.229 1593.005 1593.005 1593.229 1591.802 1593.282
Existing Ground/Road Level at Median Edge - Left Carriageway	1593.229 1593.005 1593.005 1593.229 1591.802 1593.282
Existing Ground/Road Level at Median Edge - Right Carriageway	1593.229 1593.005 1593.005 1593.229 1591.802 1593.282
Proposed Road Level of Median Edge - Left Carriageway	1593.229 1593.005 1593.005 1593.229 1591.802 1593.282
Proposed Road Level of Median Edge - Right Carriageway	1593.229 1593.005 1593.005 1593.229 1591.802 1593.282
Proposed Vertical Alignment - Left Carriageway	P=-0.700% L=155.221 R P=-0.880% L=154.760 R P=0.014% L=506.733 R
Proposed Vertical Alignment - Right Carriageway	P=-0.784% L=433.075 R P=0.014% L=846.721 R
Proposed Horizontal Alignment for Proposed Median C/L	D CL R=1200.000 L=192.555 CL D D=690.881
Superelevation/Crossfall (%)	
Chainage (m)	271+000 271+020 271+040 271+060 271+080 271+100 271+120 271+140 271+160 271+180 271+200 271+220 271+240 271+260 271+280 271+300 271+320 271+340 271+360 271+380 271+400 271+420 271+440 271+460 271+480 271+500 271+520 271+540 271+560 271+580 271+600 271+620 271+640 271+660 271+680 271+700 271+720 271+740 271+760 271+780 271+800 271+820 271+840 271+860 271+880 271+900 271+920 271+940 271+960 271+980 272+000

LEGEND

PLAN
 TS-Tangent to Spiral
 SC-Spiral to Curve
 CS-Curve to Spiral
 ST-Spiral to Tangent
 PC-Point of Curvature (With Transition)
 PT-Point of Tangent (Without Transition)
 Tugent point end(m)
 PS-Paved Shoulder
 SS-Soft Shoulder
 CBS-Crash Barrier space

GPS
 Control Point
 Temporary Bench Mark
 Kilometer Stone
 Heatmeter Stone
 Electric Pole

Telephone Pole
 Lamp Post
 GPO Pillar
 ROW Pillar
 Tree-TS,TS,TS4
 Tree-TS,TS,TS1
 Well

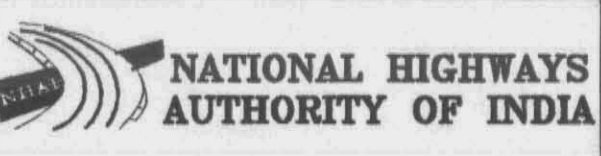
Hand Pump
 Control Point TB-140.2
 Identification
 Marked Top
 Mound
 Sign Post
 Gate

Temple
 Mosque
 Gurudwara
 Church
 Guard Post
 Flag Post
 Transformer
 High Tension Line
 Low Tension Line
 Telephone Line
 Right-of-Way
 Right-of-Way-Non
 Boundary/Fencing
 Boundary Water Body
 Boundary River Bank
 Canal
 Tie line
 Crash Barrier

Building Permanent/Temporary
 Existing Road Paved/Unpaved
 Utility Buildings
 Pipe Line
 GPO Line
 Water Pipe Line
 Earth Retaining Wall
 Crash Barrier

Existing Road Centre Line
 Designed Centre Line
 Designed Road/Median Edge
 Culvert/Bridge - Existing
 Culvert/Bridge - Designed

L-PROFILE
 P-Gradient(%)
 L-Length of Grade(m)
 R-Radius of Curve (m), '-' sign for summit vertical curve and for left hand side horizontal curve)
 CL-Transition
 D-Straight distance
 e-Superelevation in percentage



SCALE:-
 HORIZONTAL SCALE 1 : 2500
 VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE
 Km.271.000 to Km.272.000
 (Package-II)

SCETABROUTE FRANCE In joint venture with Intercontinental Consultants & Technocrats Pvt.Ltd.
 L-4, Green Park, New Delhi - 110016
 Ph : 2626-3926, Fax : 2626-3282
 and
 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by Anil Jha
 Designed by S.Chatterji
 Checked by L.K. Sharma
 Approved by J.C.Thiry

GOOD FOR CONSTRUCTION

Revised No.	Revised Date	Revised Description	Checked by

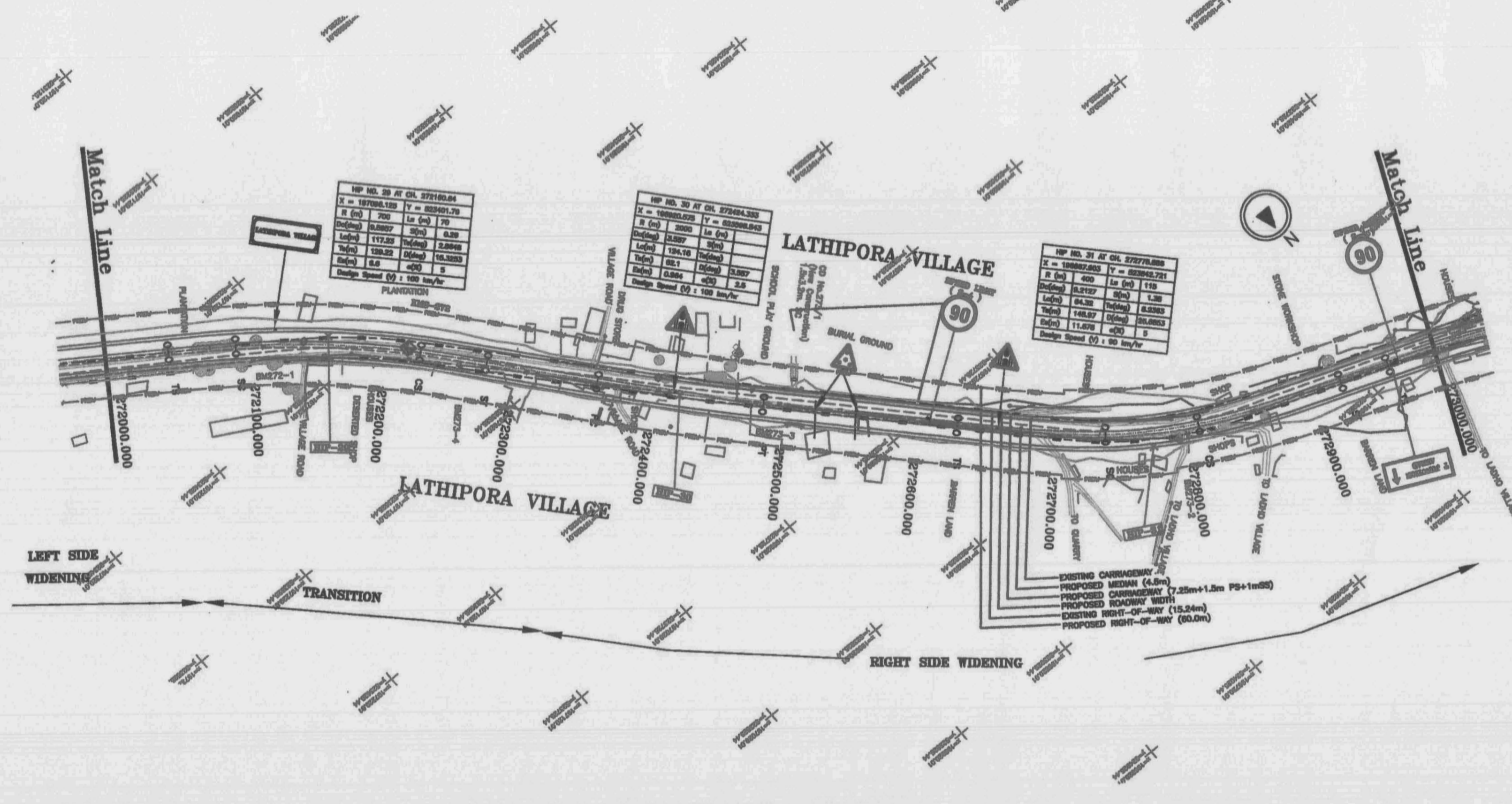
Revisions

DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/16/R1



← JAMMU

SRINAGAR →



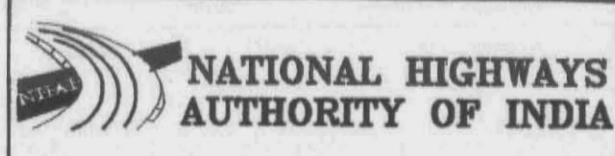
LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(1m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - CPC Piler
 - ROW Piler
 - Tree-T3,T3,T4
 - Tree-T3,T3,T1
 - Wall
- Hand Pump**
- Control Point TD-148.2
 - Identification
 - Municipal Tap
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Line**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tie line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - CPC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

- L-PROFILE**
- P-Gradient(%)
 - L-Length of Grade(m)
 - R-Radius of Curve (m), '-' sign for summit vertical curve and for left hand side horizontal curve
 - CL-Transition
 - D-Straight distance
 - e-Superelevation in percentage

GOOD FOR CONSTRUCTION

Sl No	Date	Description	Checked by
01	Feb-2008	Underpass Modified	
02	Jan-2008	Initial Plan	



SCALE:-
 HORIZONTAL SCALE 1 : 2500
 VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

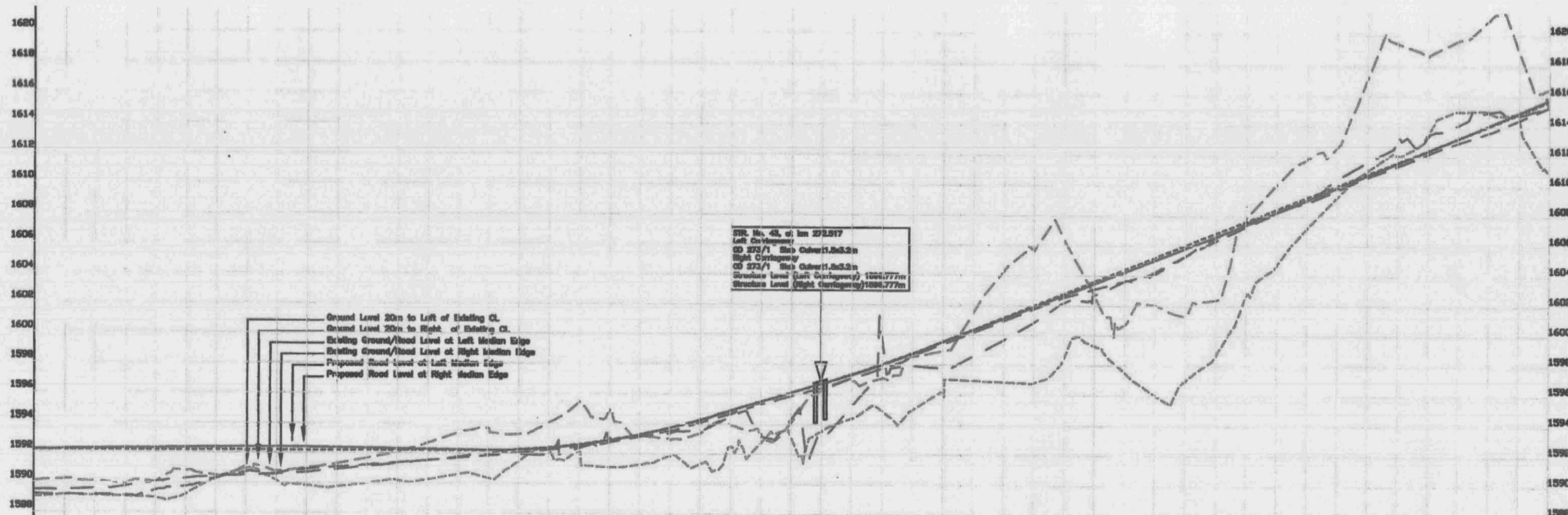
PLAN AND LONGITUDINAL PROFILE
 Km.272.000 to Km.273.000
 (Package-II)

SCITAUBOUE In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 A-6, Green Park, New Delhi - 110016
 Ph : 2656-3000, Fax 2656-5252
 and
 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: Anu S.Chatterji
 Designed by: S.Chatterji
 Checked by: L.K. Sharma
 Approved by: J.C.Thiruv

DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/17/R1





LEGEND

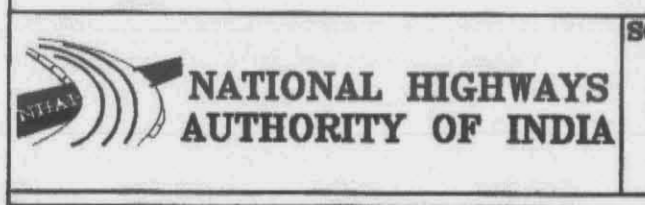
- PLAN TS-Tangent to Spiral SC-Spiral to Curve CS-Curve to Spiral ST-Spiral to Tangent PO-Point of Curvature (With Transition) PT-Point of Tangent (Without Transition) Tangent point end(m) PS-Paved Shoulder SS-Soft Shoulder CBS-Crash Barrier space

- GPS Control Point Temporary Bench Mark Kilometer Stone Mastometer Stone Electric Pole

- Telephone Pole Lamp Post OFC Pillar ROW Pillar Tree-15.15.74 Tree-13.12.71 Well Hand Pump Control Point Transformer Identification Marked Top Manhole Sign Post Gate Temple Mosque Gurdwara Church Guard Post Flag Post Transformer High Tension Line Low Tension Line Telephone Line Right-of-Way Right-of-Way-Proposed Boundary/Fencing Boundary Water Body Boundary River Bank Canal Tug line Crash Barrier Building Permanent/Temporary Existing Road Power/Unpowered Utility Building Pipe Line OFC Line Water Pipe Line Earth Retaining Wall Crash Barrier Existing Road Centre Line Designed Centre Line Designed Road/Median Edge Culvert/Bridge - Existing Culvert/Bridge - Designed

DATUM=1586.000

Table with 10 rows: Ground Level at 20m to Left of Proposed Median C/L, Ground Level at 20m to Right of Proposed Median C/L, Existing Ground/Road Level at Median Edge - Left Carriageway, Existing Ground/Road Level at Median Edge - Right Carriageway, Proposed Road Level of Median Edge - Left Carriageway, Proposed Road Level of Median Edge - Right Carriageway, Proposed Vertical Alignment - Left Carriageway, Proposed Vertical Alignment - Right Carriageway, Proposed Horizontal Alignment for Proposed Median C/L, Superelevation/Crossfall (%), Chainage (m)



SCALE:- HORIZONTAL SCALE 1 : 2500 VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE Km.272.000 to Km.273.000 (Package-II)

SCETAMBHORE ENGINEERS IN JOINT VENTURE WITH Intercontinental Consultants & Technocrats Pvt.Ltd., A-9, Green Park, New Delhi - 110018

Prepared by S.Chatterji, Checked by L.K. Sharma, J.C.Thiruv

GOOD FOR CONSTRUCTION

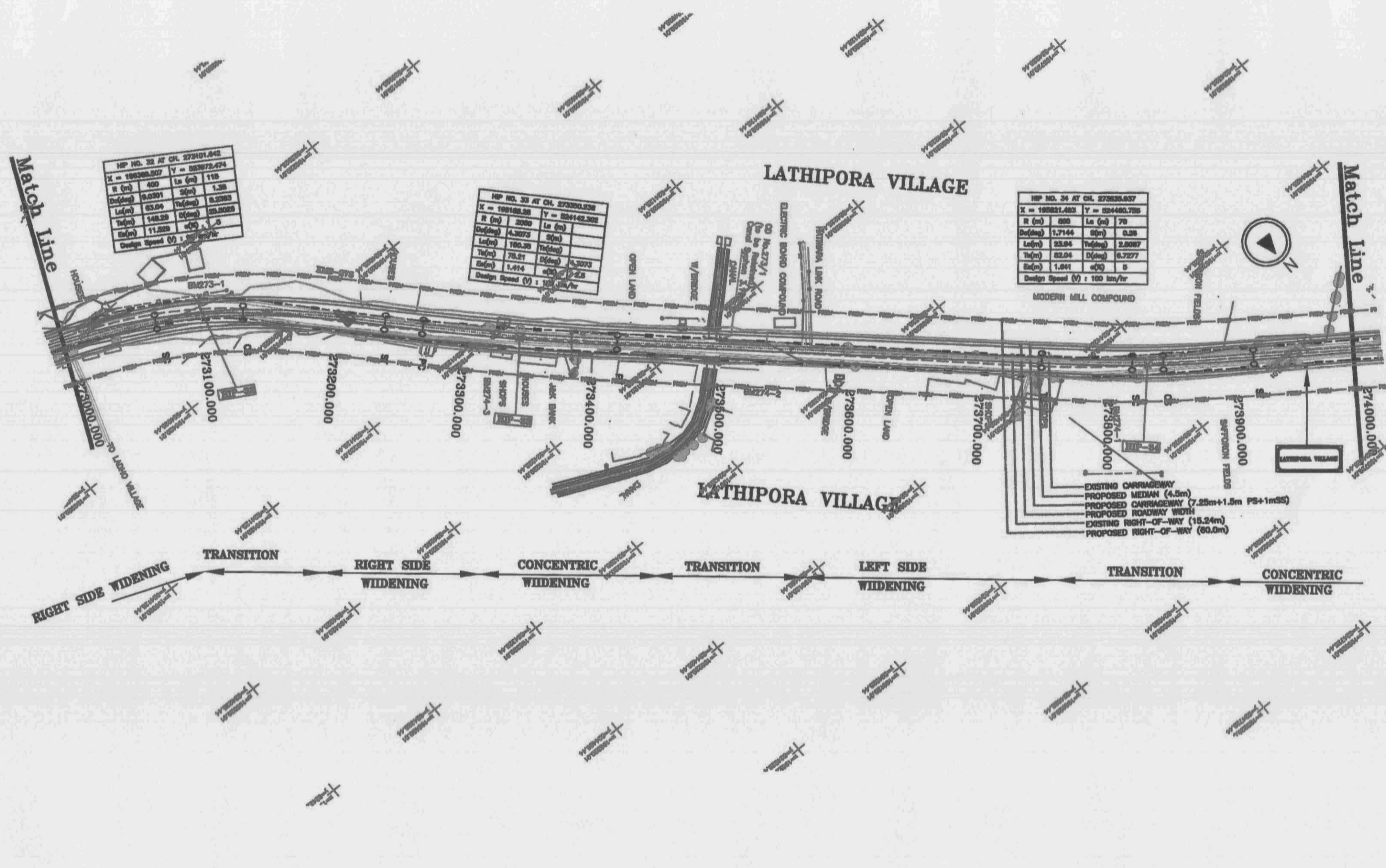
Revisions table with columns: No, Date, Description, Checked by

DRAWING NUMBER NHAI/NH-1A/BAN-SRI/PP/17A/R1



← JAMMU

SRINAGAR →



HP NO. 32 AT CH. 273101.842

X = 198388.827	Y = 828773.474
R (m) 400	Ls (m) 1.38
Defn(%) 0.0301	S(%) 0.2383
Ld(m) 83.04	Td(m) 83.04
Ed(m) 148.33	D(%) 0.2383
Design Speed (V) : 100 km/hr	

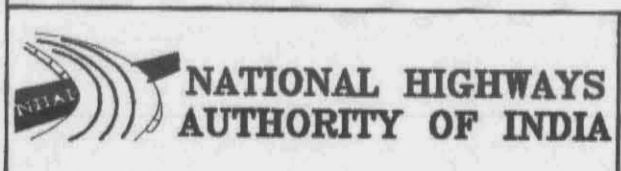
HP NO. 33 AT CH. 273300.338

X = 198188.33	Y = 828142.332
R (m) 200	Ls (m)
Defn(%) 0.0301	S(%)
Ld(m) 166.08	Td(m)
Ed(m) 78.21	D(%)
Design Speed (V) : 100 km/hr	

HP NO. 34 AT CH. 273600.937

X = 198251.483	Y = 824483.788
R (m) 800	Ls (m) 70
Defn(%) 1.7144	S(%) 0.38
Ld(m) 33.94	Td(m) 33.94
Ed(m) 82.04	D(%) 0.7277
Design Speed (V) : 100 km/hr	

- LEGEND**
- PLAN**
- TS-Tangent to Spiral
 - SD-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Curvature (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - GFC Filter
 - RCW Filter
 - Tree-TL,TL,TL
 - Tree-TL,TL,TL
 - Well
- Hand Pump**
- Control Point TS-148.3
 - Manhole
 - Municipal Tap
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Traffic Line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Power/Unpaved
 - Utility Building
 - Pipe Line
 - GFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed
- L-PROFILE**
- P-Gradient(%)
 - L-Length of Grade(m)
 - R-Radius of Curve (m), "-" sign for summit vertical curve and for left hand side horizontal curve
 - CL-Transition
 - D-Straight distance
 - e-Superelevation in percentage



SCALE:-
 HORIZONTAL SCALE 1 : 2500
 VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE
 Km.273.000 to Km.274.000
 (Package-II)

SCETIAUDORRE FRANCE In joint venture with
 Intracoastal Consultants & Technocrats Pvt.Ltd.
 A-5, Green Park, New Delhi - 110016
 Ph : 2688-3000, Fax 2685-5252
 and
 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: Anil S.Chatterji
 Checked by: L.K.Sharma J.C.Thiruv

GOOD FOR CONSTRUCTION

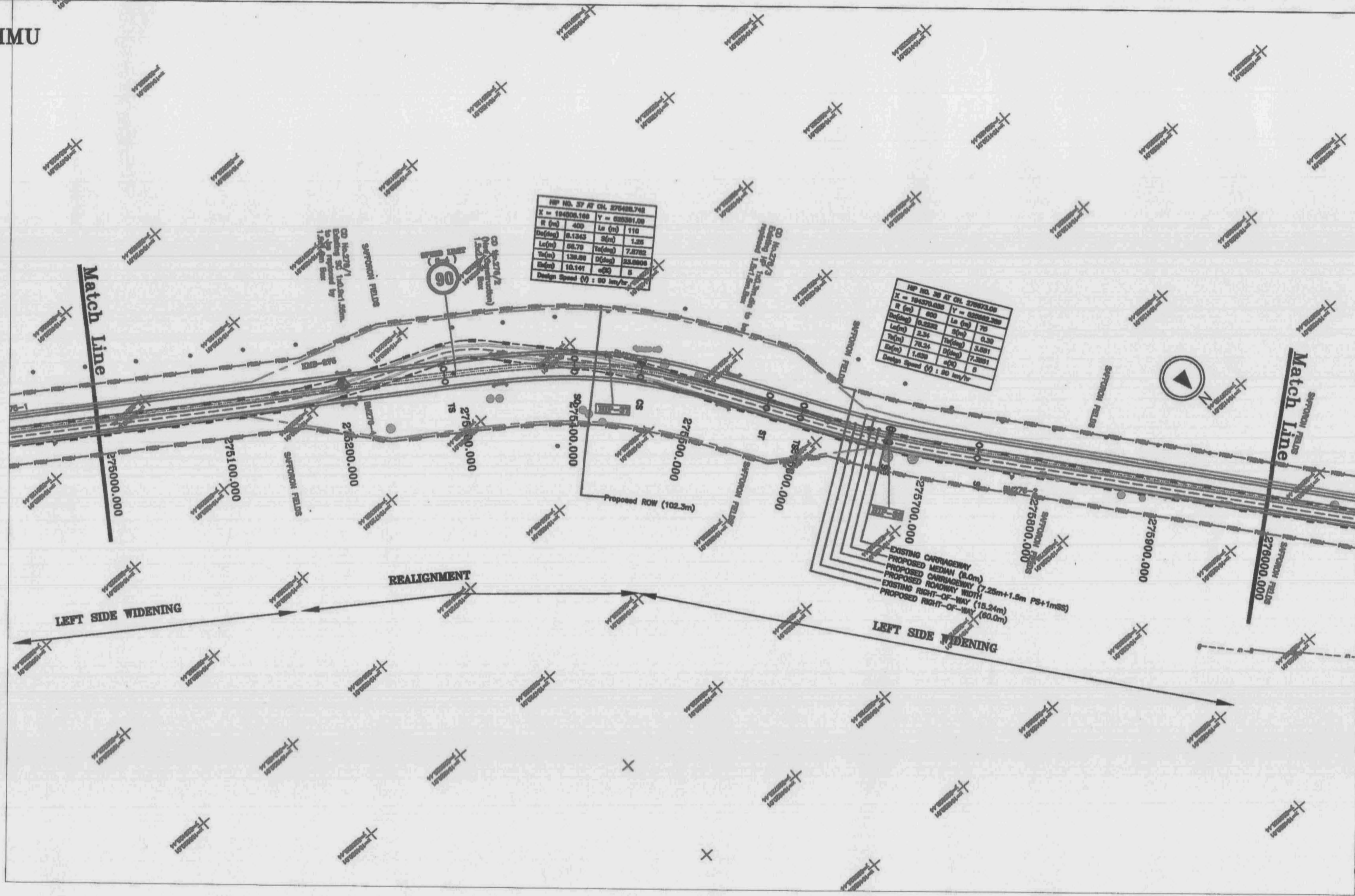
RI	Feb-2008	Underpass Modified	
RD	Jan-2006	Initial Plan	
Revision	Date	Description	Checked by

DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/18/R1



← JAMMU

SRINAGAR →



HP No. 27 AT CH. 276488.745

X = 194205.148	Y = 825381.28
R (m)	400
Ls (m)	110
Def (deg)	8.1343
St (m)	1.28
Ls (m)	88.70
Ts (m)	7.8782
St (m)	138.89
D (deg)	23.8989
St (m)	10.141
Design Speed (V)	80 km/hr

HP No. 28 AT CH. 276733.550

X = 194205.148	Y = 825381.28
R (m)	600
Ls (m)	70
Def (deg)	9.5222
St (m)	0.38
Ls (m)	2.34
Ts (m)	78.54
St (m)	7.3891
D (deg)	1.629
St (m)	1.629
Design Speed (V)	80 km/hr

LEGEND

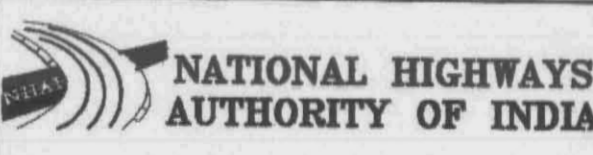
- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end (m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CS-Crash Barrier space
 - GPS
 - Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Heater Stone
 - Electric Pole
 - Telephone Pole
 - Lamp Post
 - OFC Piler
 - ROW Piler
 - Tree-18,15,14
 - Tree-13,12,11
 - Well
 - Hand Pump
 - Control Point
 - Identification
 - Municipal Top
 - Milestone
 - Sign Post
 - Gate
 - Temple
 - Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Toe line
 - Crash Barrier
 - Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

- L-PROFILE**
- P-Gradient(%)
 - L-Length of Grade(m)
 - R-Radius of Curve (m, "-" sign for summit vertical curve and for left hand side horizontal curve)
 - GL-Transition
 - SD-Straight distance
 - Supersaturation in percentage

GOOD FOR CONSTRUCTION

R1	Feb-2009	Underpass Modified	
R2	Jan-2008	Initial Plan	
Revisions	Date	Description	Checked by

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/20/R1



SCALE:-
HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of
Banihal to Srinagar Section (Km.188.00 to Km.296.00)
of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE
Km.275.000 to Km.276.000
(Package-II)

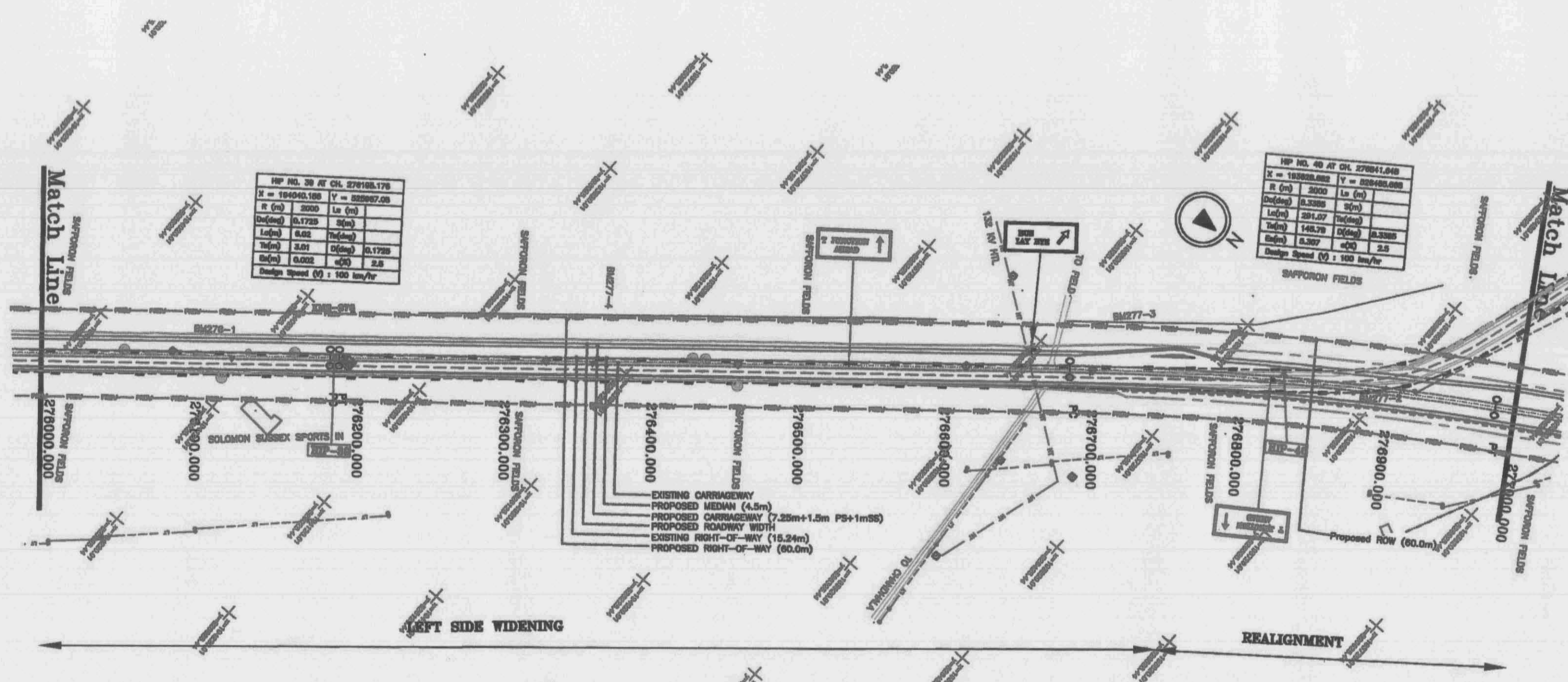
SCETASBOURNE IN Joint venture with
Intercontinental Consultants & Technocrats Pvt.Ltd.
A-5, Green Park, New Delhi - 110016
Ph : 2886-3000, Fax 2885-8282
and
CHINA HIGHWAY ENGINEERING CONSULTING
AND SUPERVISION CORPORATION, CHINA

Prepared by: Anil
Designed by: S.Chatterji
Checked by: L.K. Sharma
Approved by: J.C.Thiruv



← JAMMU

SRINAGAR →



HP NO. 38 AT CHL 276108.178

X = 194040.188	Y = 825927.09
R (m)	2000
Lo (m)	0.1725
So (m)	0.1725
Lo (m)	0.1725
So (m)	0.1725
Design Speed (V)	100 km/hr

HP NO. 40 AT CHL 276841.048

X = 193888.888	Y = 825485.888
R (m)	3000
Lo (m)	0.3385
So (m)	0.3385
Lo (m)	0.3385
So (m)	0.3385
Design Speed (V)	100 km/hr

LEGEND

PLAN

- TS-Tangent to Spiral
- SC-Spiral to Curve
- CS-Curve to Spiral
- ST-Spiral to Tangent
- PC-Point of Circular Curve (With Transition)
- PT-Point of Tangent (Without Transition)
- Tangent point end(0m)
- PS-Paved Shoulder
- SS-Soft Shoulder
- CBS-Crash Barrier space

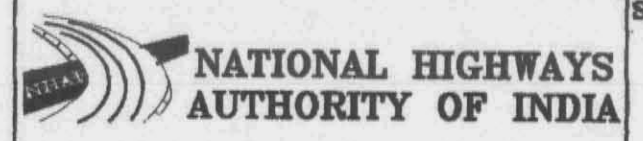
- GPS
- Control Point
- Temporary Bench Mark
- Kilometer Stone
- Headwater Stone
- Electric Pole
- Telephone Pole
- Lamp Post
- OPC Filter
- ROW Filter
- Tree-T8,T9,T4
- Tree-T3,T2,T1
- Well
- Hand Pump
- Control Point TS-148.2
- Manhole
- Municipal Tap
- Manhole
- Sign Post
- Gate
- Temple
- Mosque
- Gurdwara
- Church
- Guard Post
- Flag Post
- Transformer
- High Tension Line
- Low Tension Line
- Telephone Line
- Right-of-Way
- Right-of-Way-New
- Boundary/Fencing
- Boundary Water Body
- Boundary River Bank
- Canal
- Top Line
- Crash Barrier
- Building Permanent/Temporary
- Existing Road Pavement/Unpaved
- Utility Buildings
- Pipe Line
- OPC Line
- Water Pipe Line
- Earth Retaining Wall
- Crash Barrier
- Existing Road Centre Line
- Designed Centre Line
- Designed Road/Median Edges
- Culvert/Bridge - Existing
- Culvert/Bridge - Designed

L-PROFILE

- P-Gradient(%)
- L-Length of Grade(m)
- R-Radius of Curve (m, '-' sign for summit vertical curve and for left hand side horizontal curve)
- CL-Transition
- D-Straight distance
- e-Superelevation in percentage

GOOD FOR CONSTRUCTION

Rev	Date	Description	Checked by
R1	Feb-2008	Underpass Modified	
R0	Jan-2008	Initial Plan	



SCALE:-
HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE
Km.276.000 to Km.277.000
(Package-II)

SCETANBOONE PUNJ in joint venture with
Intercontinental Consultants & Technocrats Pvt.Ltd.
A-4, Green Park, New Delhi - 110016
Ph : 2686-3000, Fax 2685-0282
and
CHNA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

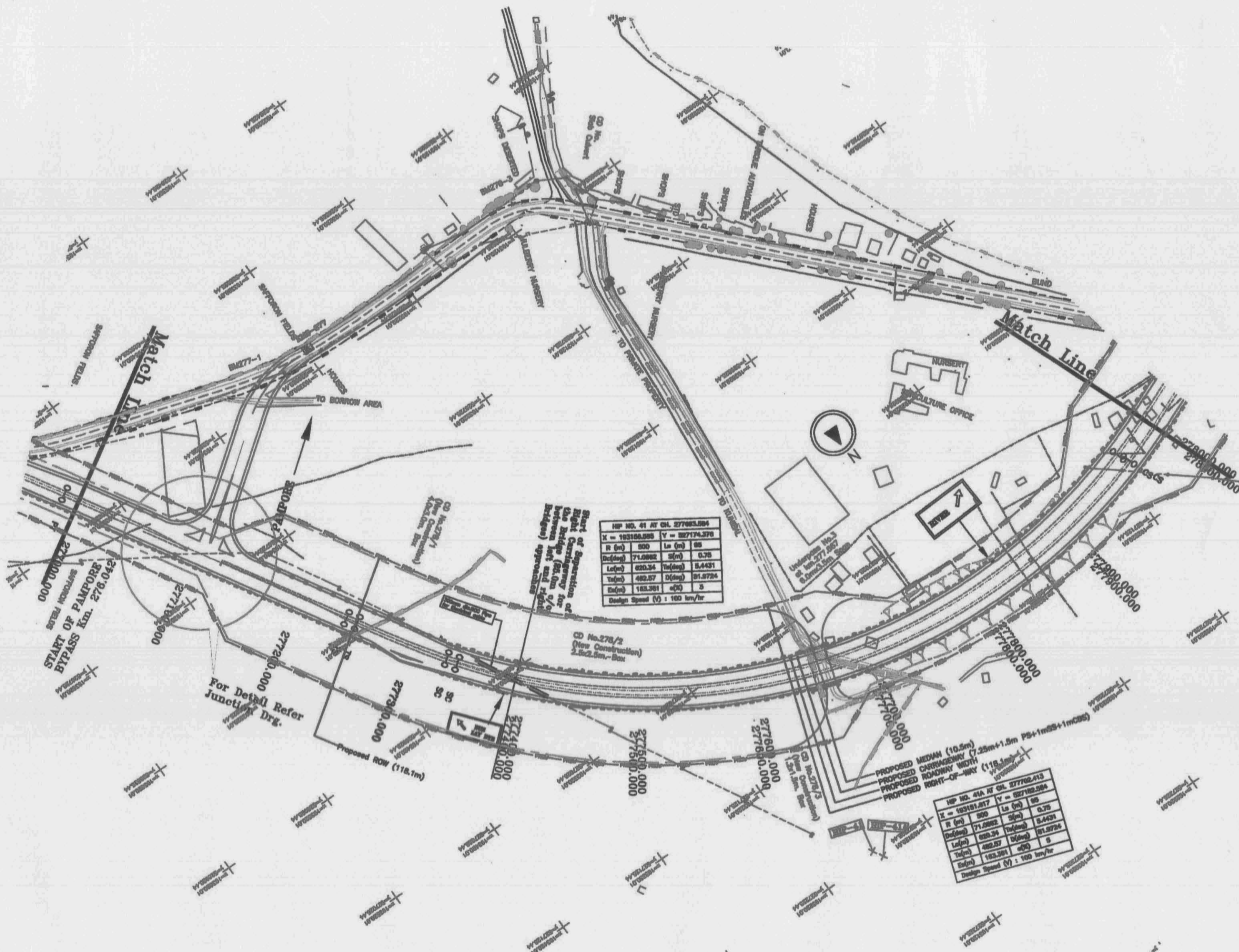
Prepared by Anil S.Chatterji
Checked by L.K. Sharma J.C.Thiray

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/21/R1



← JAMMU

SRINAGAR →



LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Curvature (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(km)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Heactometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Pillar
 - ROW Pillar
 - Tree-TS,TS,74
 - Tree-TS,T2,T1
 - Well
- Hand Pump**
- Control Point TS-145.2
 - Identification
 - Manhole Top
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Church
 - Guard Post
 - Flag Post
 - Transformer
- High Tension Lines**
- Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Top line
 - Crash Barrier
- Building Permanent/Temporary**
- Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed
- L-PROFILE**
- P-Gradient(%)
 - L-Length of Grade(m)
 - R-Radius of Curve (m, '-' sign for summit vertical curve and for left hand side horizontal curve)
 - CL-Transition
 - D-Straight distance
 - S-Superelevation in percentage

HP NO. 41 AT CH. 27783.594

X = 193106.895	Y = 827174.376
R (m)	71.0862
L (m)	5.4431
Defn(a)	91.8724
Lo(a)	163.361
So(a)	100 km/hr

HP NO. 41A AT CH. 27762.415

X = 193106.895	Y = 827174.376
R (m)	71.0862
L (m)	5.4431
Defn(a)	91.8724
Lo(a)	163.361
So(a)	100 km/hr



GOOD FOR CONSTRUCTION

Rev.	Date	Description	Checked by
R1	Feb-2008	Underpass Modified	
R2	Jan-2008	Initial Plan	

Revisions

DRAWING NUMBER

NHAI/NH-1A/BAN-SRI/PP/22/R1

Prepared by: Anil
 Designed by: S.Chatterji
 Checked by: L.K. Sharma
 Approved by: J.C.Thiruv

PLAN AND LONGITUDINAL PROFILE

Km.277.000 to Km.278.000

(Package-II)

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

SCALE:-

HORIZONTAL SCALE 1 : 2500

VERTICAL SCALE 1 : 250

NATIONAL HIGHWAYS AUTHORITY OF INDIA

SCETAPUR IN Joint venture with

Intercontinental Consultants & Technocrats Pvt.Ltd.

A-2, Green Park, New Delhi - 110016

Ph : 2686-3000, Fax 2686-8252

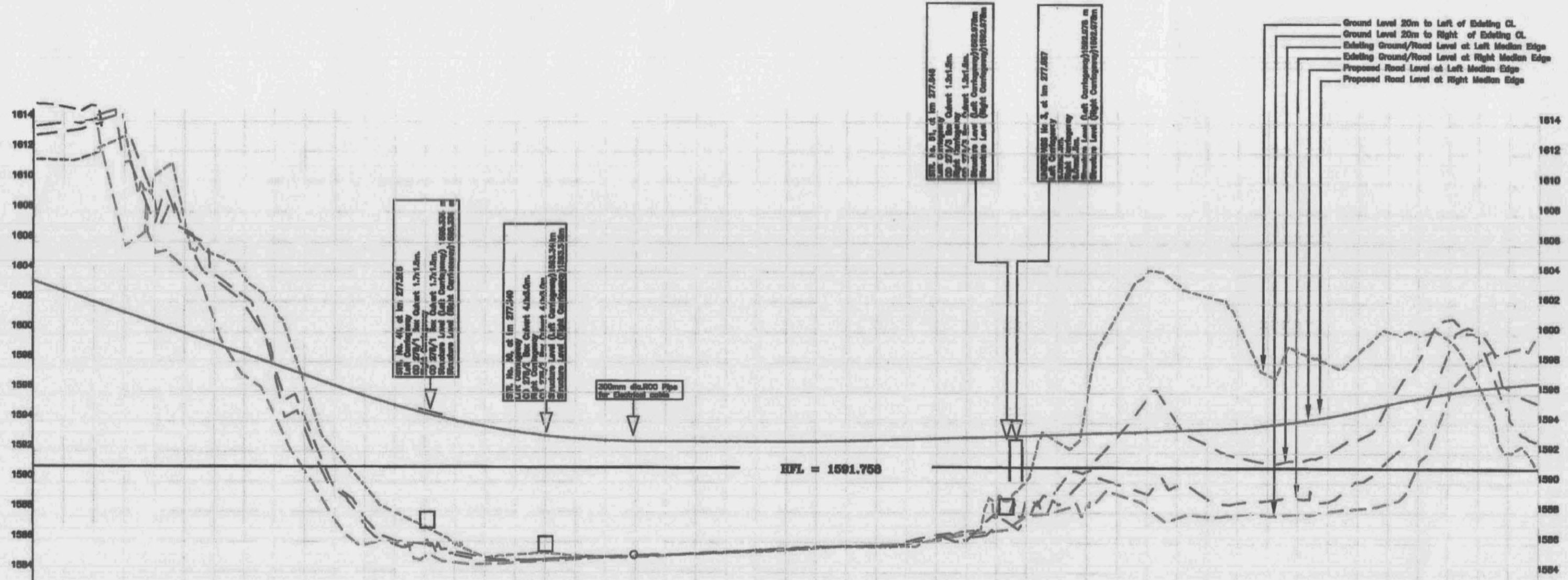
and

CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA



← JAMMU

SRINAGAR →



DATUM=1582.000

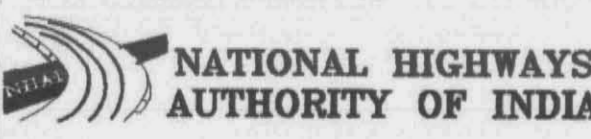
Ground Level at 20m to Left of Proposed Median C/L	1603.888	1603.888	1613.792	1613.197	1615.272	1611.292																																													
Ground Level at 20m to Right of Proposed Median C/L	1602.888	1602.888	1614.043	1613.445	1615.006	1611.504																																													
Existing Ground/Road Level at Median Edge - Left Carriageway	1602.268	1602.268	1614.319	1613.837	1614.834	1612.063																																													
Existing Ground/Road Level at Median Edge - Right Carriageway	1601.588	1601.588	1611.237	1613.885	1603.943	1612.970																																													
Proposed Road Level of Median Edge - Left Carriageway	1600.888	1600.888	1607.157	1608.648	1605.500	1610.286																																													
Proposed Road Level of Median Edge - Right Carriageway	1600.188	1600.188	1606.808	1608.647	1604.250	1607.446																																													
Proposed Vertical Alignment - Left Carriageway	P=-3.500% L=530		R=5721.425 L=200.000		L=75.595m P=-0.004%																																														
Proposed Vertical Alignment - Right Carriageway	P=-3.500% L=530		R=5721.425 L=200.000		L=75.595m P=-0.004%																																														
Proposed Horizontal Alignment of Left Carriageway	D=257.0		CL=95.000		R=-500.000 L=625.344																																														
Proposed Horizontal Alignment of Right Carriageway	D=266.40		CL=95.000		R=-500.000 L=625.344																																														
Superelevation/Crossfall (%)	2.5%		e=5.0%																																																
Chainage (m)	277+000	277+020	277+040	277+060	277+080	277+100	277+120	277+140	277+160	277+180	277+200	277+220	277+240	277+260	277+280	277+300	277+320	277+340	277+360	277+380	277+400	277+420	277+440	277+460	277+480	277+500	277+520	277+540	277+560	277+580	277+600	277+620	277+640	277+660	277+680	277+700	277+720	277+740	277+760	277+780	277+800	277+820	277+840	277+860	277+880	277+900	277+920	277+940	277+960	277+980	278+000

LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - ST-Spiral to Tangent
 - PC-Point of Curvature (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(1m)
 - PS-Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Pillar
 - ROW Pillar
 - Tree-TS,TS+4
 - Tree-TS,TS+11
 - Well
- Hand Pump**
- Control Point
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Stand Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - The line
 - Crash Barrier
- Building**
- Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed
- L-PROFILE**
- P-Gradient(%)
 - L-Length of Grade(m)
 - R-Radius of Curve (m, '-' sign for summit vertical curve and for left hand side horizontal curve)
 - Transition
 - Straight distance
 - Superelevation in percentage

GOOD FOR CONSTRUCTION

R1	Feb-2008	Underpass Modified	
R0	Jan-2008	Initial Plan	
Revised Date	Description	Checked by	



SCALE:-
HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE
Km.277.000 to Km.278.000 (Package-II)

PREPARED BY: Anil Sharma
CHECKED BY: L.K. Sharma
DESIGNED BY: S.Chatterji
APPROVED BY: J.C.Thiry

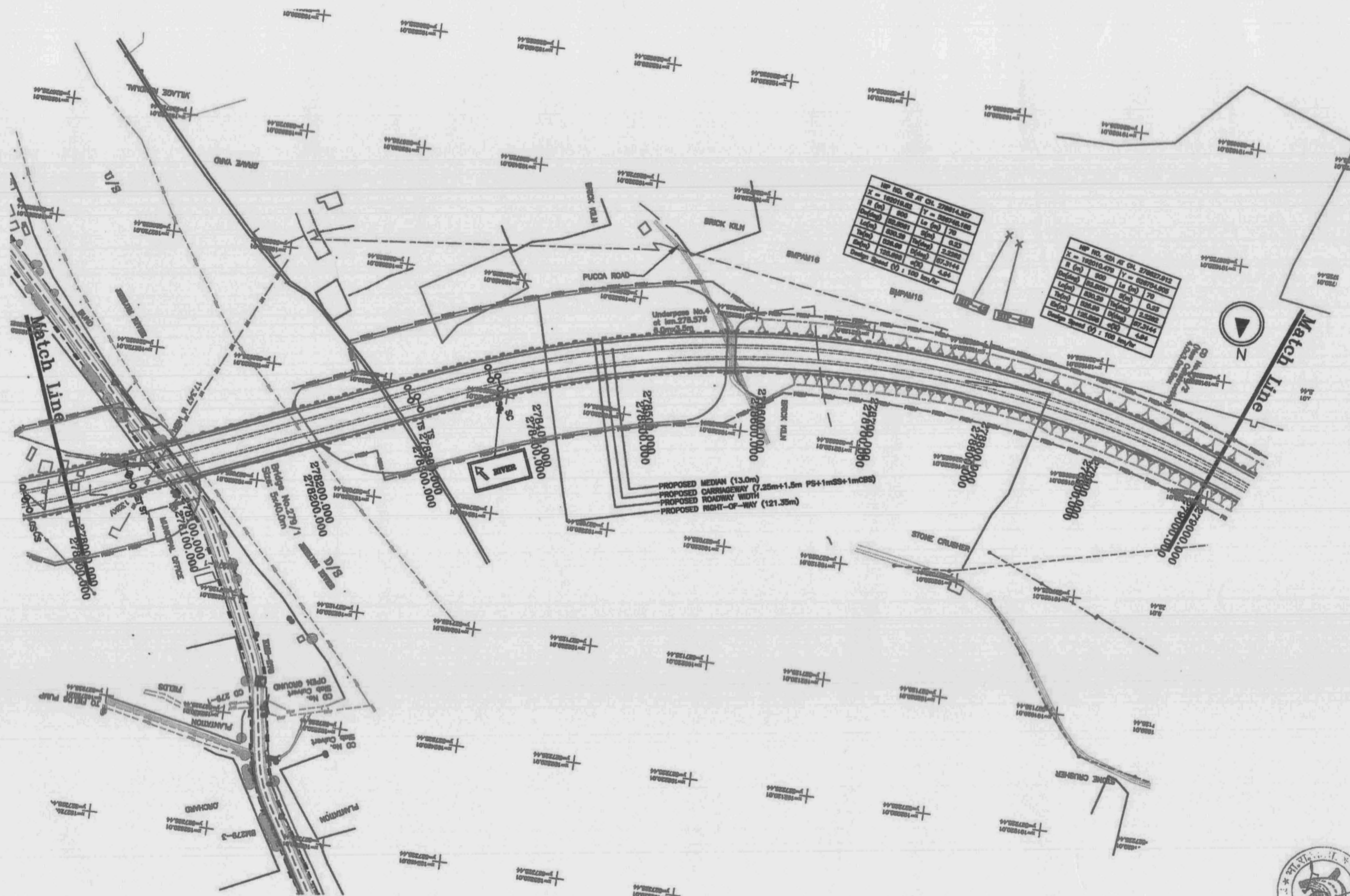
INTERCONTINENTAL CONSULTANTS & TECHNICIANS PVT.LTD.
CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/22A/R1



← JAMMU

SRINAGAR →



LEGEND

PLAN

- TS-Tangent to Spiral
- SC-Spiral to Curve
- CS-Curve to Spiral
- ST-Spiral to Tangent
- PC-Point of Circular Curve (With Transition)
- PT-Point of Tangent (Without Transition)
- Tangent point end(1m)
- PS-Paved Shoulder
- SS-Soft Shoulder
- CBS-Cross Barrier space

- GPS Control Point
- Temporary Bench Mark
- Kilometer Stone
- Neckmarker Stone
- Electric Pole

- Telephone Pole
- Lamp Post
- OTC Filter
- ROW Filter
- Tree-18,15,14
- Tree-12,12,11
- Well

- Hand Pump
- Control Point TS-148.2
- Identification
- Multipole Tap
- Manhole
- Sign Post
- Gate

- Temple
- Mosque
- Gurdwara
- Church
- Guard Post
- Flag Post
- Transformer
- High Tension Line
- Low Tension Line
- Telephone Line
- Right-of-Way
- Right-of-Way-New
- Boundary/Fencing
- Boundary Water Body
- Boundary River Bank
- Canal
- Tree line
- Crash Barrier

- Building Permanent/Temporary
- Existing Road Paved/Unpaved
- Utility Building
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- Existing Road Centre Line
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- Designed Road/Median Edges
- Culvert/Bridge - Existing
- Culvert/Bridge - Designed

- L-PROFILE**
- P-Gradient(%)
 - L-Length of Grade(m)
 - R-Radius of Curve (m, "-" sign for summit vertical curve and for left hand side horizontal curve)
 - CL-Transition
 - D-Straight distance
 - e-Superelevation in percentage

GOOD FOR CONSTRUCTION

Rev	Date	Description	Checked by
R1	Feb-2006	Underpass Modified	
R2	Jan-2006	Initial Plan	

Revisions

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/23/R1

NATIONAL HIGHWAYS AUTHORITY OF INDIA

SCALE:-
HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE Km.278.000 to Km.279.000 (Package-II)

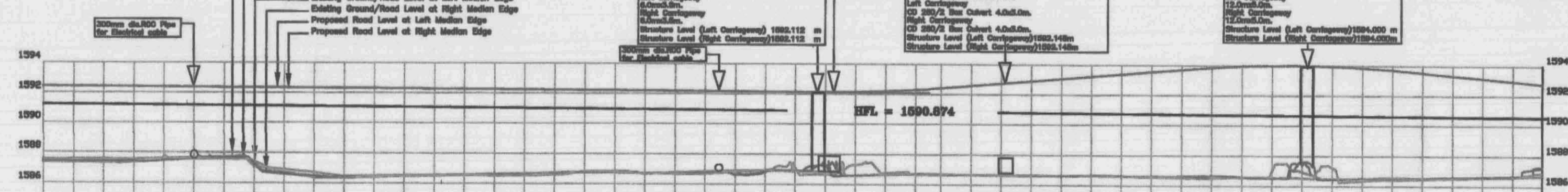
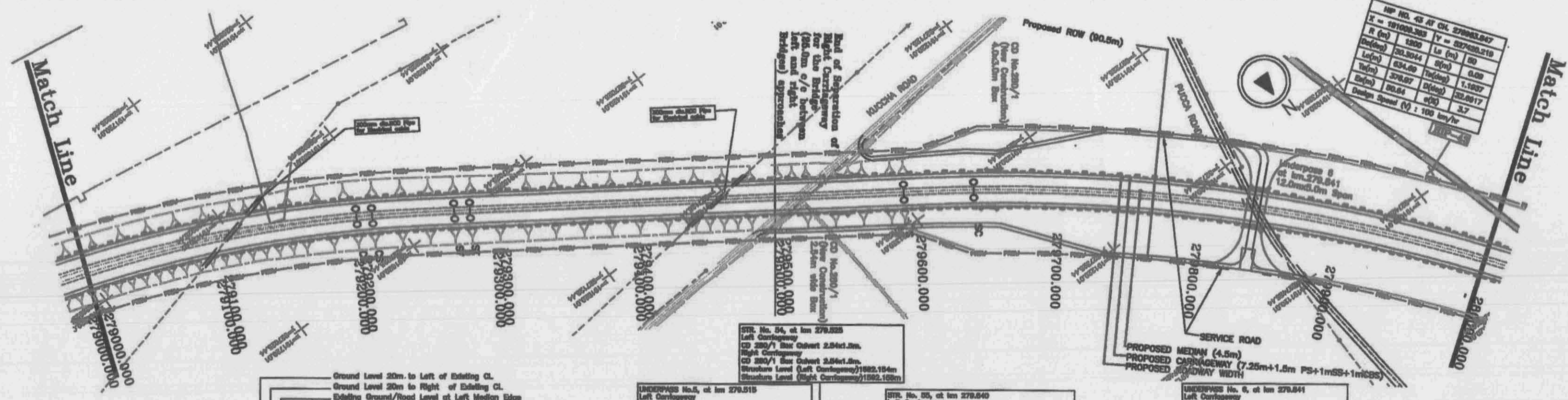
SCETIAROUTE FRANCE In joint venture with
Intercontinental Consultants & Technocrats Pvt.Ltd.
A-4, Green Park, New Delhi - 110016
Ph : 2986-3000, Fax 2985-8282
and
CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: Anju
Designed by: S.Chatterji
Checked by: L.K. Sharma
Approved by: J.C.Thiruv



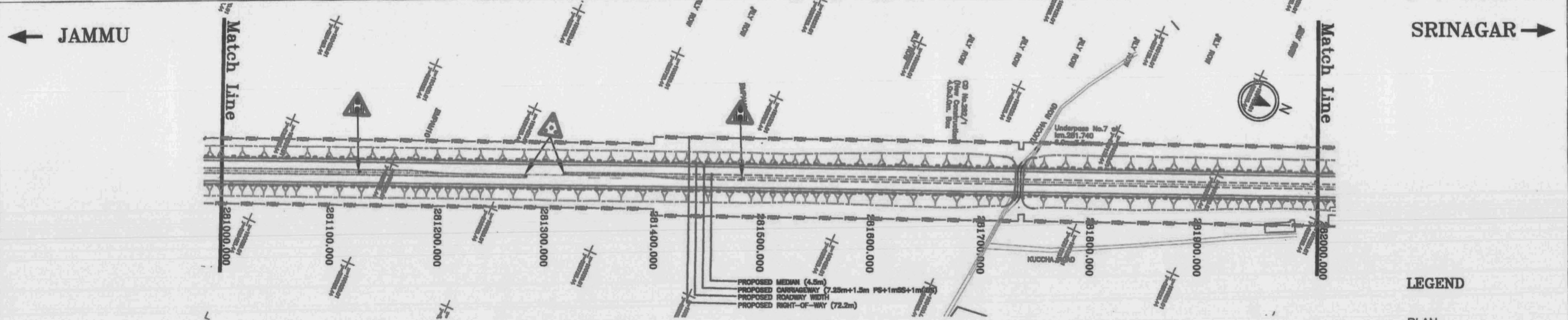
JAMMU ←

→ SRINAGAR



DATUM=1584.000

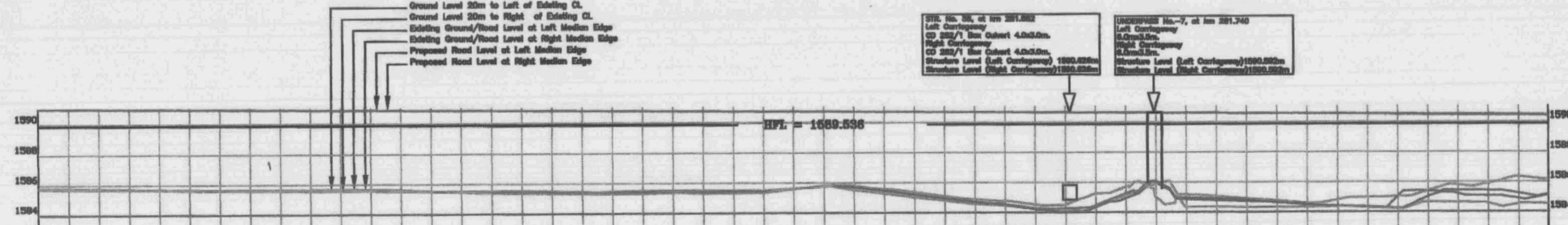
Ground Level at 20m to Left of Proposed Median C/L	1592.407	1592.397	1592.366	1592.325	1592.274	1592.213	1592.142	1592.071	1591.990	1591.909	1591.828	1591.747	1591.666	1591.585	1591.504	1591.423	1591.342	1591.261	1591.180	1591.099	1591.018	1590.937	1590.856	1590.775	1590.694	1590.613	1590.532	1590.451	1590.370	1590.289	1590.208	1590.127	1590.046	1589.965	1589.884	1589.803	1589.722	1589.641	1589.560	1589.479	1589.398	1589.317	1589.236	1589.155	1589.074	1588.993	1588.912	1588.831	1588.750	1588.669	1588.588	1588.507	1588.426	1588.345	1588.264	1588.183	1588.102	1588.021	1587.940	1587.859	1587.778	1587.697	1587.616	1587.535	1587.454	1587.373	1587.292	1587.211	1587.130	1587.049	1586.968	1586.887	1586.806	1586.725	1586.644	1586.563	1586.482	1586.401	1586.320	1586.239	1586.158	1586.077	1585.996	1585.915	1585.834	1585.753	1585.672	1585.591	1585.510	1585.429	1585.348	1585.267	1585.186	1585.105	1585.024	1584.943	1584.862	1584.781	1584.700	1584.619	1584.538	1584.457	1584.376	1584.295	1584.214	1584.133	1584.052	1583.971	1583.890	1583.809	1583.728	1583.647	1583.566	1583.485	1583.404	1583.323	1583.242	1583.161	1583.080	1582.999	1582.918	1582.837	1582.756	1582.675	1582.594	1582.513	1582.432	1582.351	1582.270	1582.189	1582.108	1582.027	1581.946	1581.865	1581.784	1581.703	1581.622	1581.541	1581.460	1581.379	1581.298	1581.217	1581.136	1581.055	1580.974	1580.893	1580.812	1580.731	1580.650	1580.569	1580.488	1580.407	1580.326	1580.245	1580.164	1580.083	1580.002	1579.921	1579.840	1579.759	1579.678	1579.597	1579.516	1579.435	1579.354	1579.273	1579.192	1579.111	1579.030	1578.949	1578.868	1578.787	1578.706	1578.625	1578.544	1578.463	1578.382	1578.301	1578.220	1578.139	1578.058	1577.977	1577.896	1577.815	1577.734	1577.653	1577.572	1577.491	1577.410	1577.329	1577.248	1577.167	1577.086	1577.005	1576.924	1576.843	1576.762	1576.681	1576.600	1576.519	1576.438	1576.357	1576.276	1576.195	1576.114	1576.033	1575.952	1575.871	1575.790	1575.709	1575.628	1575.547	1575.466	1575.385	1575.304	1575.223	1575.142	1575.061	1574.980	1574.899	1574.818	1574.737	1574.656	1574.575	1574.494	1574.413	1574.332	1574.251	1574.170	1574.089	1574.008	1573.927	1573.846	1573.765	1573.684	1573.603	1573.522	1573.441	1573.360	1573.279	1573.198	1573.117	1573.036	1572.955	1572.874	1572.793	1572.712	1572.631	1572.550	1572.469	1572.388	1572.307	1572.226	1572.145	1572.064	1571.983	1571.902	1571.821	1571.740	1571.659	1571.578	1571.497	1571.416	1571.335	1571.254	1571.173	1571.092	1571.011	1570.930	1570.849	1570.768	1570.687	1570.606	1570.525	1570.444	1570.363	1570.282	1570.201	1570.120	1570.039	1569.958	1569.877	1569.796	1569.715	1569.634	1569.553	1569.472	1569.391	1569.310	1569.229	1569.148	1569.067	1568.986	1568.905	1568.824	1568.743	1568.662	1568.581	1568.500	1568.419	1568.338	1568.257	1568.176	1568.095	1568.014	1567.933	1567.852	1567.771	1567.690	1567.609	1567.528	1567.447	1567.366	1567.285	1567.204	1567.123	1567.042	1566.961	1566.880	1566.799	1566.718	1566.637	1566.556	1566.475	1566.394	1566.313	1566.232	1566.151	1566.070	1565.989	1565.908	1565.827	1565.746	1565.665	1565.584	1565.503	1565.422	1565.341	1565.260	1565.179	1565.098	1565.017	1564.936	1564.855	1564.774	1564.693	1564.612	1564.531	1564.450	1564.369	1564.288	1564.207	1564.126	1564.045	1563.964	1563.883	1563.802	1563.721	1563.640	1563.559	1563.478	1563.397	1563.316	1563.235	1563.154	1563.073	1562.992	1562.911	1562.830	1562.749	1562.668	1562.587	1562.506	1562.425	1562.344	1562.263	1562.182	1562.101	1562.020	1561.939	1561.858	1561.777	1561.696	1561.615	1561.534	1561.453	1561.372	1561.291	1561.210	1561.129	1561.048	1560.967	1560.886	1560.805	1560.724	1560.643	1560.562	1560.481	1560.400	1560.319	1560.238	1560.157	1560.076	1560.000
Ground Level at 20m to Right of Proposed Median C/L	1592.407	1592.397	1592.366	1592.325	1592.274	1592.213	1592.142	1592.071	1591.990	1591.909	1591.828	1591.747	1591.666	1591.585	1591.504	1591.423	1591.342	1591.261	1591.180	1591.099	1591.018	1590.937	1590.856	1590.775	1590.694	1590.613	1590.532	1590.451	1590.370	1590.289	1590.208	1590.127	1590.046	1589.965	1589.884	1589.803	1589.722	1589.641	1589.560	1589.479	1589.398	1589.317	1589.236	1589.155	1589.074	1588.993	1588.912	1588.831	1588.750	1588.669	1588.588	1588.507	1588.426	1588.345	1588.264	1588.183	1588.102	1588.021	1587.940	1587.859	1587.778	1587.697	1587.616	1587.535	1587.454	1587.373	1587.292	1587.211	1587.130	1587.049	1586.968	1586.887	1586.806	1586.725	1586.644	1586.563	1586.482	1586.401	1586.320	1586.239	1586.158	1586.077	1585.996	1585.915	1585.834	1585.753	1585.672	1585.591	1585.510	1585.429	1585.348	1585.267	1585.186	1585.105	1585.024	1584.943	1584.862	1584.781	1584.700	1584.619	1584.538	1584.457	1584.376	1584.295	1584.214	1584.133	1584.052	1583.971	1583.890	1583.809	1583.728	1583.647	1583.566	1583.485	1583.404	1583.323	1583.242	1583.161	1583.080	1582.999	1582.918	1582.837	1582.756	1582.675	1582.594	1582.513	1582.432	1582.351	1582.270	1582.189	1582.108	1582.027	1581.946	1581.865	1581.784	1581.703	1581.622	1581.541	1581.460	1581.379	1581.298	1581.217	1581.136	1581.055	1580.974	1580.893	1580.812	1580.731	1580.650	1580.569	1580.488	1580.407	1580.326	1580.245	1580.164	1580.083	1580.002	1579.921	1579.840	1579.759	1579.678	1579.597	1579.516	1579.435	1579.354	1579.273	1579.192	1579.111	1579.030	1578.949	1578.868	1578.787	1578.706	1578.625	1578.544	1578.463	1578.382	1578.301	1578.220	1578.139	1578.058	1577.977	1577.896	1577.815	1577.734	1577.653	1577.572	1577.491	1577.410	1577.329	1577.248	1577.167	1577.086	1577.005	1576.924	1576.843	1576.762	1576.681	1576.600	1576.519	1576.438	1576.357	1576.276	1576.195	1576.114	1576.033	1575.952	1575.871	1575.790	1575.709	1575.628	1575.547	1575.466	1575.385	1575.304	1575.223	1575.142	1575.061	1574.980	1574.899	1574.818	1574.737	1574.656	1574.575	1574.494	1574.413	1574.332	1574.251	1574.170	1574.089	1574.008	1573.927	1573.846	1573.765	1573.684	1573.603	1573.522	1573.441	1573.360	1573.279	1573.198	1573.117	1573.036	1572.955	1572.874	1572.793	1572.712	1572.631	1572.550	1572.469	1572.388	1572.307	1572.226	1572.145	1572.064	1571.983	1571.902	1571.821	1571.740	1571.659	1571.578	1571.497	1571.416	1571.335	1571.254	1571.173	1571.092	1571.011	1570.930	1570.849	1570.768	1570.687	1570.606	1570.525	1570.444	1570.363	1570.282	1570.201	1570.120	1570.039	1569.958	1569.877	1569.796	1569.715	1569.634	1569.553	1569.472	1569.391	1569.310	1569.229	1569.148	1569.067	1568.986	1568.905	1568.824	1568.743	1568.662	1568.581	1568.500	1568.419	1568.338	1568.257	1568.176	1568.095	1568.014	1567.933	1567.852	1567.771	1567.690	1567.609	1567.528	1567.447	1567.366	1567.285	1567.204	1567.123	1567.042	1566.961	1566.880	1566.799	1566.718	1566.637	1566.556	1566.475	1566.394	1566.313	1566.232	1566.151	1566.070	1565.989	1565.908	1565.827	1565.746	1565.665	1565.584	1565.503	1565.422	1565.341	1565.260	1565.179	1565.098	1565.017	1564.936	1564.855	1564.774	1564.693	1564.612	1564.531	1564.450	1564.369	1564.288	1564.207	1564.126	1564.045	1563.964	1563.883	1563.802	1563.721	1563.640	1563.559	1563.478	1563.397	1563.316	1563.235	1563.154	1563.073	1562.992	1562.911	1562.830	1562.749	1562.668	1562.587	1562.506	1562.425	1562.344	1562.263	1562.182	1562.101	1562.020	1561.939	1561.858	1561.777	1561.696	1561.615	1561.534	1561.453	1561.372	1561.291	1561.210	1561.129	1561.048	1560.967	1560.886	1560.805	1560.724	1560.643	1560.562	1560.481	1560.400	1560.319	1560.238	1560.157	1560.076	1560.000
Existing Ground/Road Level at Median Edge - Left Carriageway	1592.407	1592.397	1592.366	1592.325	1592.274	1592.213	1592.142	1592.071	1591.990	1591.909	1591.828	1591.747	1591.666	1591.585	1591.504	1591.423	1591.342	1591.261	1591.180	1591.099	1591.018	1590.937	1590.856	1590.775	1590.694	1590.613	1590.532	1590.451	1590.370	1590.289	1590.208	1590.127	1590.046	1589.965	1589.884	1589.803	1589.722	1589.641	1589.560	1589.479	1589.398	1589.317	1589.236	1589.155	1589.074	1588.993	1588.912	1588.831	1588.750	1588.669	1588.588	1588.507	1588.426	1588.345	1588.264	1588.183	1588.102	1588.021	1587.940	1587.859	1587.778	1587.697	1587.616	1587.535	1587.454	1587.373	1587.292	1587.211	1587.130	1587.049	1586.968	1586.887	1586.806	1586.725	1586.644	1586.563	1586.482	1586.401	1586.320	1586.239	1586.158	1586.077	1585.996	1585.915	1585.834	1585.753	1585.672	1585.591	1585.510	1585.429	1585.348	1585.267	1585.186	1585.105	1585.024	1584.943	1584.862	1584.781	1584.700	1584.619	1584.538	1584.457	1584.376	1584.295	1584.214	1584.133	1584.																																																																																																																																																																																																																																																																																																									



LEGEND

PLAN

- TS-Tangent to Spiral
- SC-Spiral to Curve
- CS-Curve to Spiral
- ST-Spiral to Tangent
- PC-Point of Circular Curve (With Transition)
- PT-Point of Tangent (Without Transition)
- Tangent point end(ion)
- PS-Paved Shoulder
- SS-Soft Shoulder
- CBS-Crash Barrier space
- GPS Control Point
- Temporary Bench Mark
- Kilometer Stone
- Hectometer Stone
- Electric Pole
- Telephone Pole
- Lamp Post
- GPO Pillar
- ROW Pillar
- Tree-75,75,74
- Tree-73,72,71
- Well
- Hand Pump
- Control Point TS-143.2
- Identification
- Municipal Tap
- Manhole
- Sign Post
- Gate
- Temple
- Mosque
- Gurudwara
- Church
- Guard Post
- Flag Post
- Transformer
- High/Tension Line
- Low Tension Line
- Telephone Line
- Right-of-Way
- Right-of-Way-New
- Boundary/Fencing
- Water Body
- Boundary River Bank
- Canal
- Taxi line
- Crash Barrier
- Building Permanent/Temporary
- Existing Road Paved/Unpaved
- Utility Buildings
- Pipe Line
- OPC Line
- Water Pipe Line
- Earth Retaining Wall
- Crash Barrier
- Existing Road Centre Line
- Designed Centre Line
- Designed Road/Median Edge
- Culvert/Bridge - Existing
- Culvert/Bridge - Designed



Chainage (m)	Ground Level at 20m to Left of Proposed Median C/L	Ground Level at 20m to Right of Proposed Median C/L	Existing Ground/Road Level at Median Edge - Left Carriageway	Existing Ground/Road Level at Median Edge - Right Carriageway	Proposed Road Level of Median Edge - Left Carriageway	Proposed Road Level of Median Edge - Right Carriageway
281+000	1591.035	1591.035	1591.035	1591.035	1591.035	1591.035
281+020	1591.022	1591.022	1591.022	1591.022	1591.022	1591.022
281+040	1591.011	1591.011	1591.011	1591.011	1591.011	1591.011
281+060	1590.999	1590.999	1590.999	1590.999	1590.999	1590.999
281+080	1590.987	1590.987	1590.987	1590.987	1590.987	1590.987
281+100	1590.978	1590.978	1590.978	1590.978	1590.978	1590.978
281+120	1590.963	1590.963	1590.963	1590.963	1590.963	1590.963
281+140	1590.951	1590.951	1590.951	1590.951	1590.951	1590.951
281+160	1590.938	1590.938	1590.938	1590.938	1590.938	1590.938
281+180	1590.927	1590.927	1590.927	1590.927	1590.927	1590.927
281+200	1590.918	1590.918	1590.918	1590.918	1590.918	1590.918
281+220	1590.903	1590.903	1590.903	1590.903	1590.903	1590.903
281+240	1590.891	1590.891	1590.891	1590.891	1590.891	1590.891
281+260	1590.879	1590.879	1590.879	1590.879	1590.879	1590.879
281+280	1590.867	1590.867	1590.867	1590.867	1590.867	1590.867
281+300	1590.858	1590.858	1590.858	1590.858	1590.858	1590.858
281+320	1590.843	1590.843	1590.843	1590.843	1590.843	1590.843
281+340	1590.831	1590.831	1590.831	1590.831	1590.831	1590.831
281+360	1590.819	1590.819	1590.819	1590.819	1590.819	1590.819
281+380	1590.807	1590.807	1590.807	1590.807	1590.807	1590.807
281+400	1590.798	1590.798	1590.798	1590.798	1590.798	1590.798
281+420	1590.783	1590.783	1590.783	1590.783	1590.783	1590.783
281+440	1590.771	1590.771	1590.771	1590.771	1590.771	1590.771
281+460	1590.759	1590.759	1590.759	1590.759	1590.759	1590.759
281+480	1590.747	1590.747	1590.747	1590.747	1590.747	1590.747
281+500	1590.738	1590.738	1590.738	1590.738	1590.738	1590.738
281+520	1590.723	1590.723	1590.723	1590.723	1590.723	1590.723
281+540	1590.711	1590.711	1590.711	1590.711	1590.711	1590.711
281+560	1590.699	1590.699	1590.699	1590.699	1590.699	1590.699
281+580	1590.687	1590.687	1590.687	1590.687	1590.687	1590.687
281+600	1590.679	1590.679	1590.679	1590.679	1590.679	1590.679
281+620	1590.663	1590.663	1590.663	1590.663	1590.663	1590.663
281+640	1590.651	1590.651	1590.651	1590.651	1590.651	1590.651
281+660	1590.639	1590.639	1590.639	1590.639	1590.639	1590.639
281+680	1590.627	1590.627	1590.627	1590.627	1590.627	1590.627
281+700	1590.618	1590.618	1590.618	1590.618	1590.618	1590.618
281+720	1590.603	1590.603	1590.603	1590.603	1590.603	1590.603
281+740	1590.591	1590.591	1590.591	1590.591	1590.591	1590.591
281+760	1590.579	1590.579	1590.579	1590.579	1590.579	1590.579
281+780	1590.567	1590.567	1590.567	1590.567	1590.567	1590.567
281+800	1590.558	1590.558	1590.558	1590.558	1590.558	1590.558
281+820	1590.543	1590.543	1590.543	1590.543	1590.543	1590.543
281+840	1590.531	1590.531	1590.531	1590.531	1590.531	1590.531
281+860	1590.519	1590.519	1590.519	1590.519	1590.519	1590.519
281+880	1590.507	1590.507	1590.507	1590.507	1590.507	1590.507
281+900	1590.498	1590.498	1590.498	1590.498	1590.498	1590.498
281+920	1590.483	1590.483	1590.483	1590.483	1590.483	1590.483
281+940	1590.471	1590.471	1590.471	1590.471	1590.471	1590.471
281+960	1590.459	1590.459	1590.459	1590.459	1590.459	1590.459
281+980	1590.447	1590.447	1590.447	1590.447	1590.447	1590.447
282+000	1590.439	1590.439	1590.439	1590.439	1590.439	1590.439

Proposed Vertical Alignment - Left Carriageway
 $P = -0.060\%$ $L = 2113.044$

Proposed Vertical Alignment - Right Carriageway
 $P = -0.060\%$ $L = 2113.044$

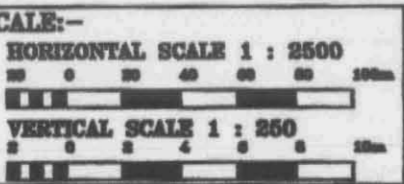
Proposed Horizontal Alignment for Proposed Median C/L
 $D = 1942.613$

L-PROFILE

P-Gradient(%)
L-Length of Grade(m)
R-Radius of Curve (m) sign for summit vertical curve and for left hand side horizontal curve
- Transition
- Straight distance
- Superelevation in percentage

GOOD FOR CONSTRUCTION

NATIONAL HIGHWAYS AUTHORITY OF INDIA



Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE Km.281.000 to Km.282.000 (Package-II)

PREPARED BY S.Chatterji
DESIGNED BY J.C.Thirya
CHECKED BY L.K.Sharma
APPROVED BY S.Chatterji

Rev.	Date	Description	Checked by
R1	Feb-2009	Underpass Modified	
R2	Jan-2009	Initial Plan	

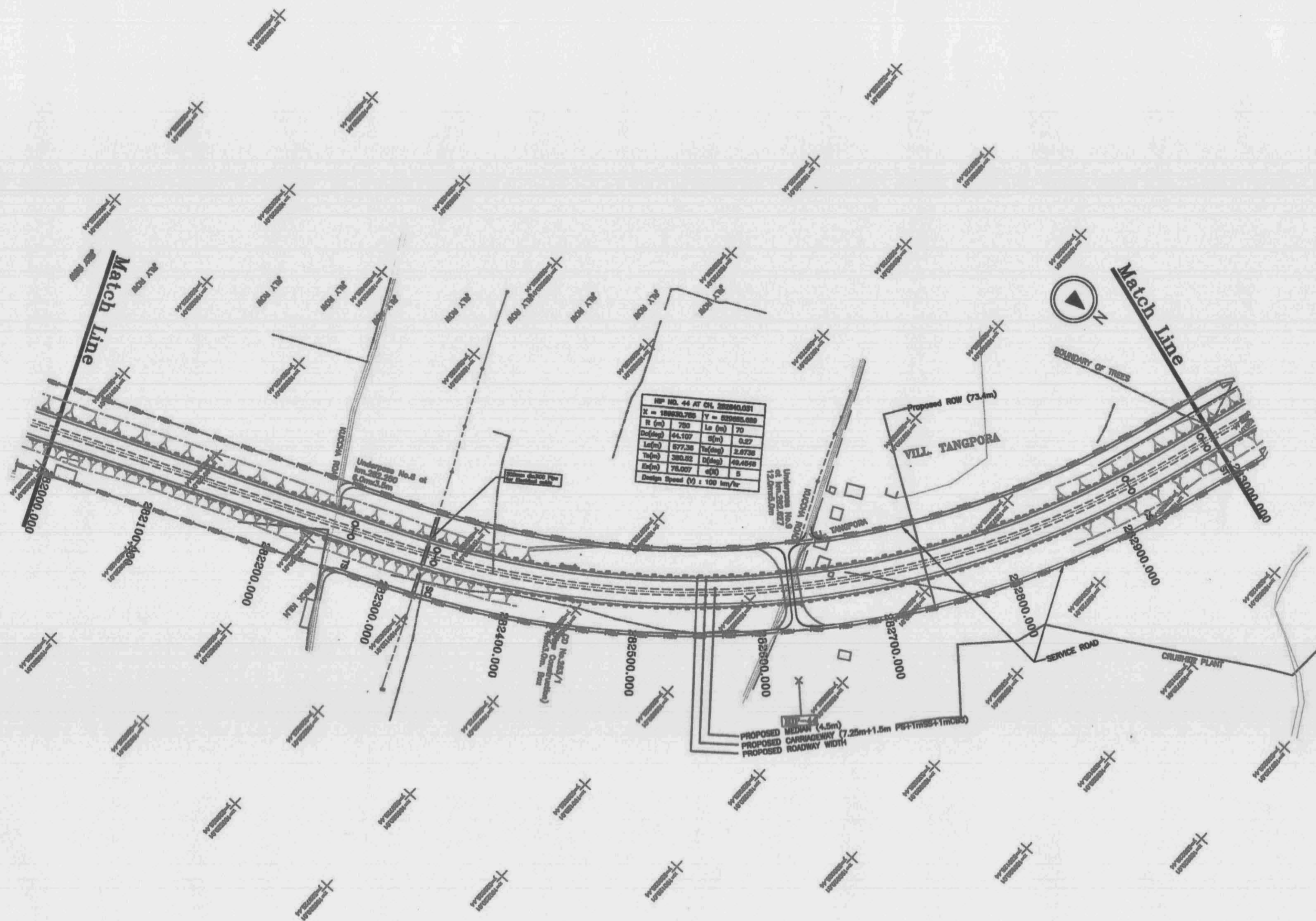
Revisions

DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/26/R1



← JAMMU

SRINAGAR →



HP NO. 44 AT CH. 282840.031	
X = 128630.750	Y = 820085.089
R (m)	700
Ch(deg)	64.107
Ls(m)	8.27
Ts(m)	877.28
Td(deg)	2.6738
Sp(m)	380.82
D(deg)	49.4848
e(%)	76.007
e(S)	5
Design Speed (V) : 100 km/hr	

LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Curvature (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole
Lamp Post
OFC Pillar
ROW Pillar
Tree-T8,T5,T4
Tree-T3,T2,T1
Well
- Hand Pump
Control Point TB-148.2
Identification
Municipal Tap
Manhole
Sign Post
Gate
- Temple
Mausoleum
Gurdwara
Church
Guard Post
Flag Post
Transformer
- High Tension Line
Low Tension Line
Telephone Line
Right-of-Way
Right-of-Way-New
Boundary/Fencing
Boundary Water Body
Boundary River Bank
Canal
Toe line
Crash Barrier
- Building Permanent/Temporary
Existing Road Paved/Unpaved
Utility Buildings
Pipe Line
OFC Line
Water Pipe Line
Earth Retaining Wall
Crash Barrier
- Existing Road Centre Line
Designed Centre Line
Designed Road/Median Edges
Culvert/Bridge - Existing
Culvert/Bridge - Designed
- L-PROFILE**
- P-Gradient(%)
 - L-Length of Grade(m)
 - R-Radius of Curve (m, "-" sign for summit vertical curve and for left hand side horizontal curve)
 - CL-Transition
 - D-Straight distance
 - S-Superelevation in percentage



GOOD FOR CONSTRUCTION

Revision	Date	Description	Checked by
R1	Feb-2008	Underpass Modified	
R0	Jan-2008	Initial Plan	



SCALE:-
 HORIZONTAL SCALE 1 : 2500
 VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE
 Km.282.000 to Km.283.000
 (Package-II)

SCETARUPDE ENGINEERS
 In joint venture with
 Intercontinental Consultants & Technocrats PVT.Ltd.
 A-8, Green Park, New Delhi - 110016
 Ph : 2666-3000, Fax 2666-6282
 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: **Anil**
 Designed by: **S.Chatterji**
 Checked by: **L.K.Sharma**
 Approved by: **J.C.Thiruv**

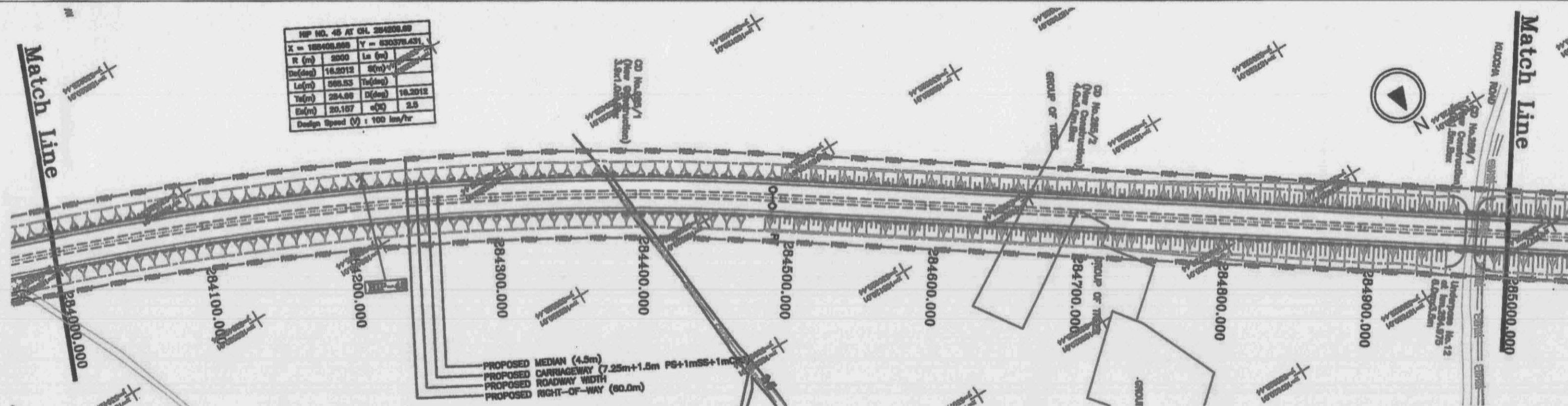
Revisions

DRAWING NUMBER	
NHAI/NH-1A/BAN-SRI/PP/27/R1	



JAMMU ←

SRINAGAR →

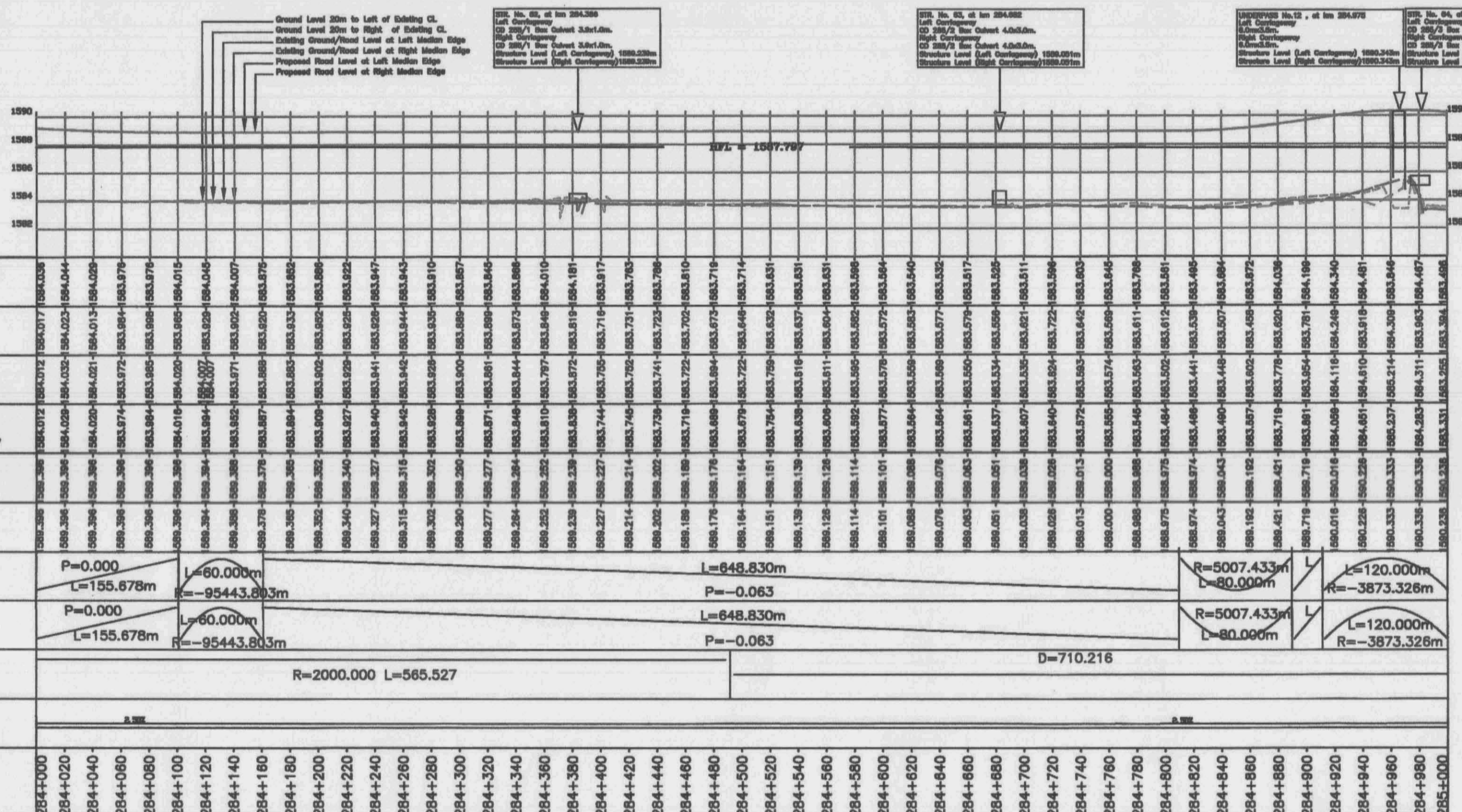


Station (m)	Radius (m)	Length (m)	Start Angle (deg)	End Angle (deg)
284000.000	3000	60.00	16.2012	16.2012
284060.000	3000	60.00	16.2012	16.2012
284120.000	3000	60.00	16.2012	16.2012
284180.000	3000	60.00	16.2012	16.2012

PROPOSED MEDIAN (4.5m)
 PROPOSED CARRIAGEWAY (7.25m+1.5m PS+1mSS+1m)
 PROPOSED ROADWAY WIDTH
 PROPOSED RIGHT-OF-WAY (80.0m)

LEGEND

- PLAN**
 TS-Tangent to Spiral
 SC-Spiral to Curve
 CS-Curve to Spiral
 ST-Spiral to Tangent
 PC-Point of Circular Curve (With Transition)
 PT-Point of Tangent (Without Transition)
 Tangent point end(1st)
 PS-Paved Shoulder
 SS-Soft Shoulder
 CBS-Crash Barrier space
- GPS**
 Control Point
 Temporary Bench Mark
 Kilometer Stone
 Hectometer Stone
 Electric Pole
- Telephone Pole
 Lamp Post
 GFC Filter
 ROW Filter
 Tree-T6,T5,T4
 Tree-T3,T2,T1
 Well
- Hand Pump
 Control Point TS-148.2
 Identification
 Municipal Top
 Sign Post
 Sign Post
 Gate
- Temple
 Mosque
 Gurudwara
 Church
 Guard Post
 Flag Post
 Transformer
 High Tension Line
 Low Tension Line
 Telephone Line
 Right-of-Way
 Right-of-Way-New
 Boundary/Fencing
 Boundary Water Body
 Boundary River Bank
 Canal
 Gas line
 Crash Barrier
- Building Permanent/Temporary
 Existing Road Paved/Unpaved
 Utility Building
 Pipe Line
 GFC Line
 Water Pipe Line
 Earth Retaining Wall
 Crash Barrier
- Existing Road Centre Line
 Designed Centre Line
 Designed Road/Median Edge
 Culvert/Bridge - Existing
 Culvert/Bridge - Designed



Chainage (m)	Ground Level at 20m to Left of Proposed Median C/L	Ground Level at 20m to Right of Proposed Median C/L	Existing Ground/Road Level at Median Edge - Left Carriageway	Existing Ground/Road Level at Median Edge - Right Carriageway	Proposed Road Level of Median Edge - Left Carriageway	Proposed Road Level of Median Edge - Right Carriageway
284000	1584.038	1584.017	1584.012	1584.032	1584.025	1584.044
284020	1584.038	1584.028	1584.028	1584.023	1584.023	1584.044
284040	1584.038	1584.020	1584.020	1584.021	1584.013	1584.029
284060	1584.038	1584.014	1584.014	1584.014	1584.014	1584.029
284080	1584.038	1584.008	1584.008	1584.008	1584.008	1584.029
284100	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284120	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284140	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284160	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284180	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284200	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284220	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284240	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284260	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284280	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284300	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284320	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284340	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284360	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284380	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284400	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284420	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284440	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284460	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284480	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284500	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284520	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284540	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284560	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284580	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284600	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284620	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284640	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284660	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284680	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284700	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284720	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284740	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284760	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284780	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284800	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284820	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284840	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284860	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284880	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284900	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284920	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284940	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
284960	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029
284980	1584.038	1584.002	1584.002	1584.002	1584.002	1584.029
285000	1584.038	1584.007	1584.007	1584.007	1584.007	1584.029

L-PROFILE

P-Gradient(%)
 L-Length of Grade(m)
 R-Radius of Curve (m, "-" sign for summit vertical curve and for left hand side horizontal curve)
 S-Transition
 e-Super-elevation in percentage

GOOD FOR CONSTRUCTION



SCALE:-
 HORIZONTAL SCALE 1 : 2500
 VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND LONGITUDINAL PROFILE Km.284.000 to Km.285.000 (Package-II)

SCETIAUROUTE FRANCE In joint venture with
 Intercontinental Consultants & Technocrats Pvt.Ltd.
 A-4, Green Park, New Delhi - 110016
 Ph : 2885-3000, Fax 2885-3322
 CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

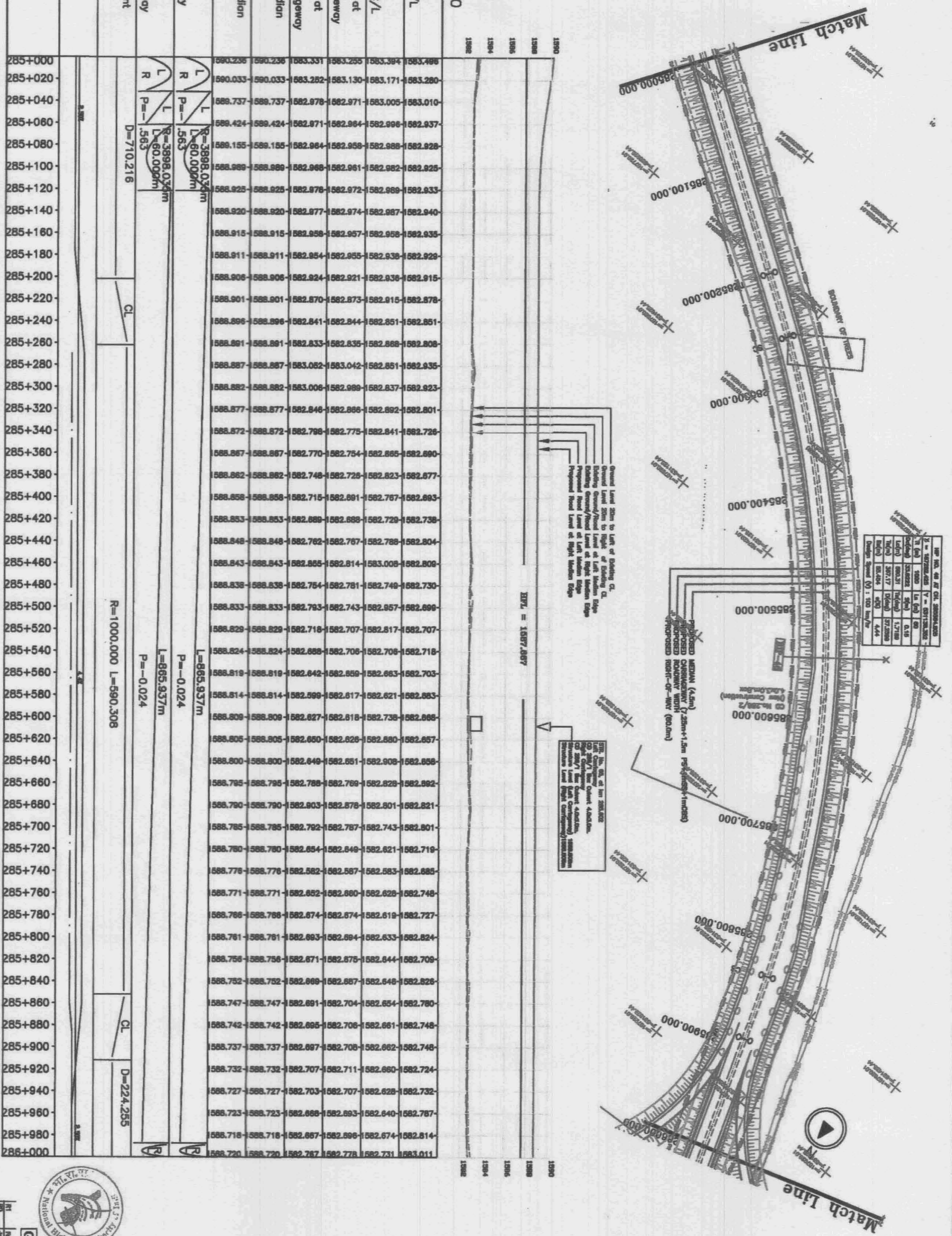
Asst Prepared by	S.Chatterji Designed by
L.K. Sharma Checked by	J.C.Thiruv Approved by

Revision No.	Date	Description	Checked by
R1	Feb-2009	Underpass Modified	
R2	Jan-2009	Initial Plan	

Revisions

DRAWING NUMBER
 NHAI/NH-1A/BAN-SRI/PP/29/R1





LEGEND

PLAN

- T- Tangent to Sight
- CP- Sight to Curve
- CC- Curve to Sight
- ST- Sight to Tangent
- PC- Point of Curvature (with Transition)
- PT- Point of Tangent (without Transition)
- PS- Point of Sight
- SS- Sight to Sight
- CS- Curve to Sight
- SC- Sight to Curve
- CC- Curve to Curve
- SS- Sight to Sight
- CS- Curve to Sight
- SC- Sight to Curve
- CC- Curve to Curve
- SS- Sight to Sight
- CS- Curve to Sight
- SC- Sight to Curve
- CC- Curve to Curve

L-PROFILE

- G- Ground
- P- Proposed
- CL- Center Line
- EL- Edge Line
- ML- Median Line
- SL- Shoulder Line
- BL- Bank Line
- DL- Ditch Line
- FL- Filling Line
- HL- Height Line
- IL- Intersection Line
- OL- Offset Line
- PL- Profile Line
- RL- Road Line
- TL- Top Line
- UL- Utility Line
- VL- Vertical Line
- WL- Water Line
- XL- X-section Line
- YL- Y-section Line
- ZL- Z-section Line

GOOD FOR CONSTRUCTION

REVISIONS

No.	Description	Date
1	As per design	15/06/2011

DRAWING NUMBER
NHAI/NH-14/BAI-SRI/PP/30/R1

Scale:
 Horizontal Scale: 1:2500
 Vertical Scale: 1:250

Author: J. Srinagar

Checked by: J. Srinagar

Designed by: J. Srinagar

Reviewed by: J. Srinagar

NATIONAL HIGHWAYS AUTHORITY OF INDIA

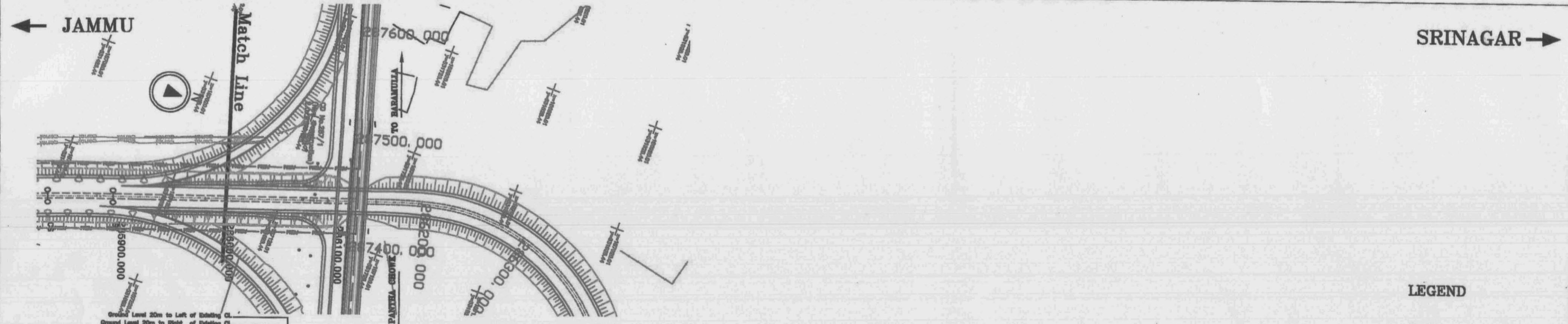
Detailed Design for 4-Laning of Baramulla to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A). (including Srinagar Bypass) in J & K State

LONGITUDINAL PROFILE
Km.285.000 to Km.286.000 (Package-II)

PREPARED BY: J. Srinagar
DESIGNED BY: J. Srinagar
CHECKED BY: J. Srinagar
REVIEWED BY: J. Srinagar

DATE: 15/06/2011

PROJECT NO.: NHAI/NH-14/BAI-SRI/PP/30/R1
SCALE: Horizontal Scale 1:2500, Vertical Scale 1:250
DRAWING NUMBER: NHAI/NH-14/BAI-SRI/PP/30/R1
PROJECT LOCATION: Baramulla to Srinagar Section (Km.188.00 to Km.296.00) of NH-1(A), J & K State



LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(ion)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CB-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
 - Telephone Pole
 - Lamp Post
 - GPO Pillar
 - ROW Pillar
 - Tree-TB,TS,T4
 - Tree-TA,T2,T1
 - Well
 - Hand Pump
 - Control Point TS-148.2
 - Manhole Top
 - Manhole
 - Sign Post
 - Gate
 - Temple
 - Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Retaining
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tee Line
 - Crash Barrier
 - Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Barb Netting Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed

DATUM=1580.000

Ground Level at 20m to Left of Proposed Median C/L	1593.011	1592.731	1592.778	1592.808	1592.798	1592.805	1592.839	1592.839	1592.819	1592.810	1593.091
Ground Level at 20m to Right of Proposed Median C/L	1592.731	1592.778	1592.808	1592.798	1592.805	1592.839	1592.839	1592.819	1592.810	1593.091	
Existing Ground/Road Level at Median Edge - Left Carriageway	1592.778	1592.808	1592.798	1592.805	1592.839	1592.839	1592.819	1592.810	1593.091		
Existing Ground/Road Level at Median Edge - Right Carriageway	1592.778	1592.808	1592.798	1592.805	1592.839	1592.839	1592.819	1592.810	1593.091		
Proposed Road Level of Median Edge - Left Carriageway	1588.720	1588.787	1588.831	1588.934	1589.040	1589.148	1589.228	1589.278	1589.316	1589.516	1593.091
Proposed Road Level of Median Edge - Right Carriageway	1588.720	1588.787	1588.831	1588.934	1589.040	1589.148	1589.228	1589.278	1589.316	1589.516	1593.091
Proposed Vertical Alignment - Left Carriageway	R		P=0.530%								
			L=88.456								
Proposed Vertical Alignment - Right Carriageway	R		P=0.530%								
			L=88.456								
Proposed Horizontal Alignment for Proposed Median C/L	D=224.255										
Superelevation/Crossfall (%)	e=0.00										
Chainage (m)	286+000	286+020	286+040	286+060	286+080	286+100	286+115				

L-PROFILE

P-Gradient(%)
L-Length of Grade(m)
R-Radius of Curve (m) sign for summit vertical curve and for left hand side horizontal curve
CL-Transition
D-Straight distance
e-Superelevation in percentage

GOOD FOR CONSTRUCTION

RI	18-008	Underpass Modified	
RD	18-008	Initial Plan	
Revisions	Date	Description	Checked by

DRAWING NUMBER
NHAI/NH-1A/BAN-SRI/PP/31/R1



SCALE:-
HORIZONTAL SCALE 1 : 2500
VERTICAL SCALE 1 : 250

Detailed Design for 4-Laning of
Banihal to Srinagar Section (Km.188.00 to Km.296.00)
of NH-1(A),(including Srinagar Bypass) in J & K State

PLAN AND
LONGITUDINAL PROFILE
Km.286.000 to Km.287.000
(Package-II)

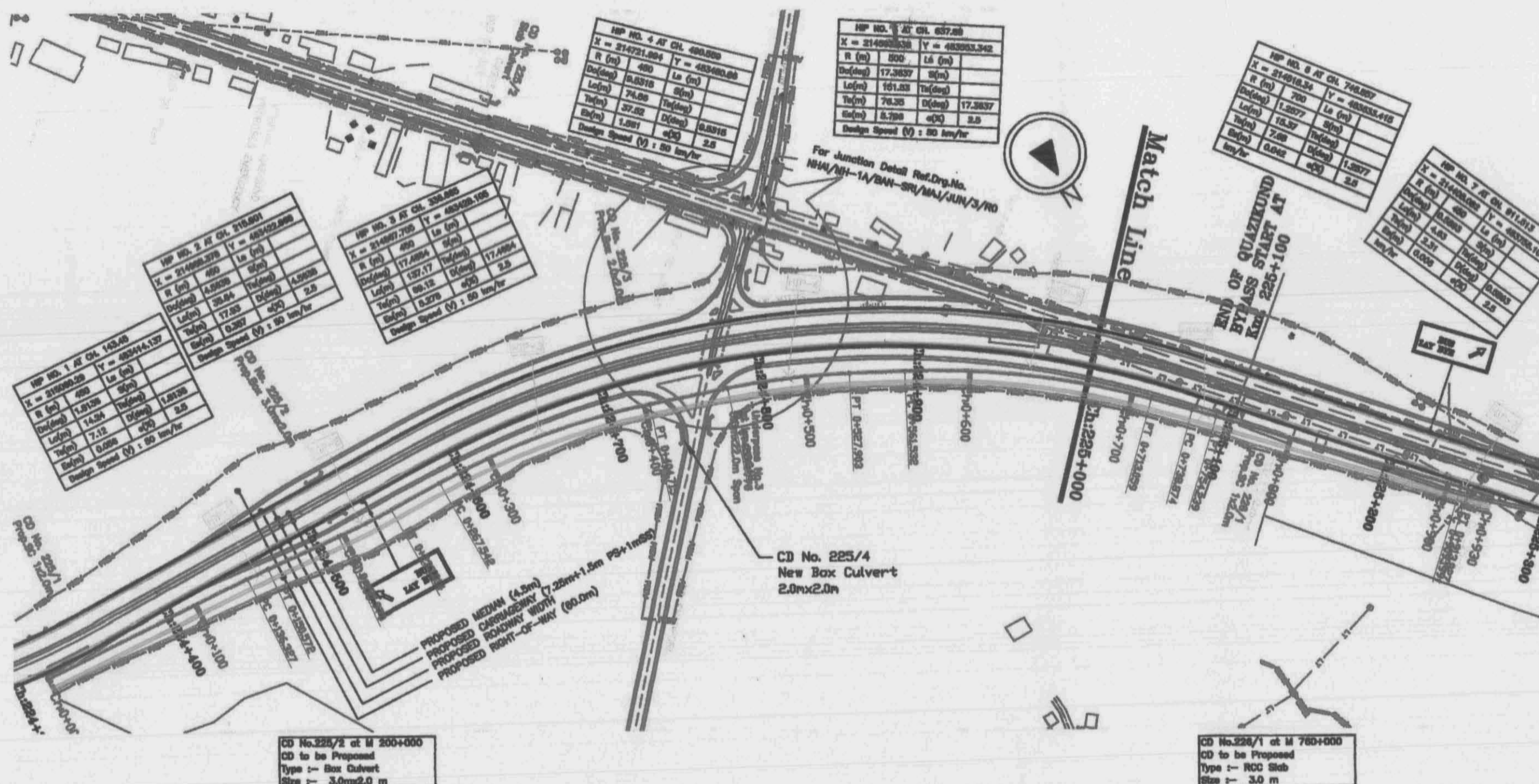
INTERCONTINENTAL CONSULTANTS & TECHNOLOGISTS PVT.LTD.
A-8, Green Park, New Delhi - 110016
Ph : 2686-3000, Fax 2685-0252
CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Prepared by: Anil
Designed by: S.Chatterji
Checked by: L.K.Sharma
Approved by: J.C.Thiry



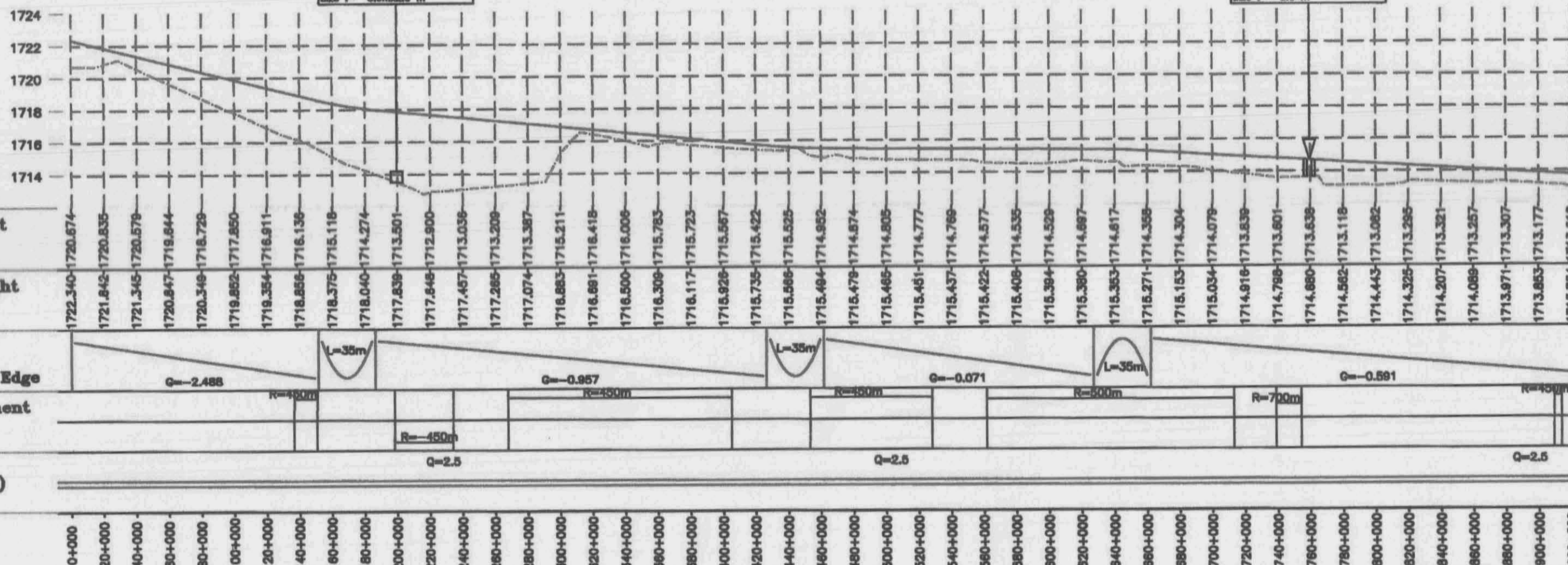
JAMMU ←

SRINAGAR →



LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Curvature (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(1m)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CBS-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Kilometer Stone
 - Hectometer Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - GPC Pylon
 - ROW Pylon
 - Tree-T5,T6,T7
 - Tree-T3,T2,T1
 - Well
- Hand Pump**
- Control Point TS-148.2
 - Identification
 - Municipal Top
 - Sign Post
 - Gate
- Temple**
- Mosque
 - Gurdwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way
 - Right-of-Way-New
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Tie line
 - Crash Barrier
 - Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - GPC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designed Centre Line
 - Designed Road/Median Edge
 - Culvert/Bridge - Existing
 - Culvert/Bridge - New



Datum Level =1712

Existing Road level of Right Service Road Edge	1722.340	1720.674	1721.842	1720.635	1721.345	1720.578	1720.847	1719.844	1720.348	1718.729	1719.852	1717.850	1719.354	1716.911	1718.858	1716.136	1718.375	1715.118	1718.040	1714.274	1717.839	1713.501	1717.848	1712.900	1717.457	1713.036	1717.285	1713.209	1717.074	1713.387	1716.853	1715.211	1716.891	1716.418	1716.500	1716.006	1716.309	1715.783	1716.117	1715.723	1715.929	1715.567	1715.735	1715.422	1715.586	1715.525	1715.494	1714.952	1715.478	1714.874	1715.465	1714.805	1715.451	1714.777	1715.437	1714.769	1715.422	1714.577	1715.408	1714.535	1715.394	1714.529	1715.380	1714.987	1715.353	1714.817	1715.271	1714.355	1715.153	1714.304	1715.034	1714.079	1714.916	1713.839	1714.798	1713.801	1714.880	1713.638	1714.582	1713.119	1714.445	1713.082	1714.325	1713.295	1714.207	1713.321	1714.089	1713.257	1713.971	1713.307	1713.853	1713.177	1713.734	1713.018
Proposed Road Level of Right Service Road Edge	1722.340	1720.674	1721.345	1720.578	1720.847	1719.844	1720.348	1718.729	1719.852	1717.850	1719.354	1716.911	1718.858	1716.136	1718.375	1715.118	1718.040	1714.274	1717.839	1713.501	1717.848	1712.900	1717.457	1713.036	1717.285	1713.209	1717.074	1713.387	1716.853	1715.211	1716.891	1716.418	1716.500	1716.006	1716.309	1715.783	1716.117	1715.723	1715.929	1715.567	1715.735	1715.422	1715.586	1715.525	1715.494	1714.952	1715.478	1714.874	1715.465	1714.805	1715.451	1714.777	1715.437	1714.769	1715.422	1714.577	1715.408	1714.535	1715.394	1714.529	1715.380	1714.987	1715.353	1714.817	1715.271	1714.355	1715.153	1714.304	1715.034	1714.079	1714.916	1713.839	1714.798	1713.801	1714.880	1713.638	1714.582	1713.119	1714.445	1713.082	1714.325	1713.295	1714.207	1713.321	1714.089	1713.257	1713.971	1713.307	1713.853	1713.177	1713.734	1713.018		
Proposed Vertical Alignment - Right Median Edge	Q=-2.48%		L=35m		R=450m		Q=-0.57%		L=35m		R=450m		Q=-0.071%		R=500m		Q=-0.591%		R=700m		R=700m																																																																									
Proposed Horizontal Alignment of Centre line	Q=2.5		Q=2.5		Q=2.5		Q=2.5		Q=2.5		Q=2.5		Q=2.5		Q=2.5		Q=2.5		Q=2.5		Q=2.5																																																																									
Superelevation/Crossfall (%)	Q=2.5																																																																																													
Chainage	0+000	20+000	40+000	60+000	80+000	100+000	120+000	140+000	160+000	180+000	200+000	220+000	240+000	260+000	280+000	300+000	320+000	340+000	360+000	380+000	400+000	420+000	440+000	460+000	480+000	500+000	520+000	540+000	560+000	580+000	600+000	620+000	640+000	660+000	680+000	700+000	720+000	740+000	760+000	780+000	800+000	820+000	840+000	860+000	880+000	900+000	920+000																																															

Legend For Profile

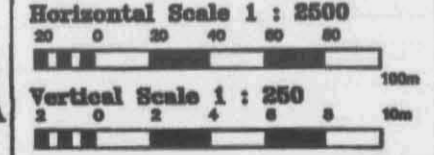
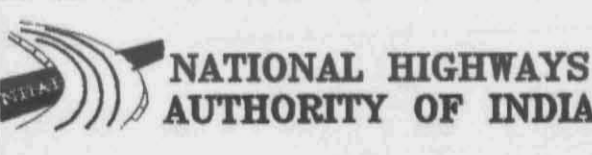
- Ground Level 20m to Left of Existing CL
- Proposed Road Level at Left Median Edge

Revision	Date	Description	Checked by
R1	Nov,2008	Modified Drawing	
R0	April,2008	Initial Drawing	

Revisions

DRAWING NUMBER

NHAI/NE-1A/BAN-SRI/SRR/PP/01/R1



Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

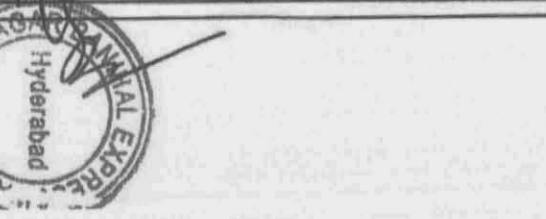
Service Road Right Km.0+000 to Km.0920+000 NS-92/J&K

SCITAUBORNE PNRCS In joint venture with **Robit Thomas S. Shettycharan**

Prepared by: **L.K. Sharma** Checked by: **J.C. Dhillon**

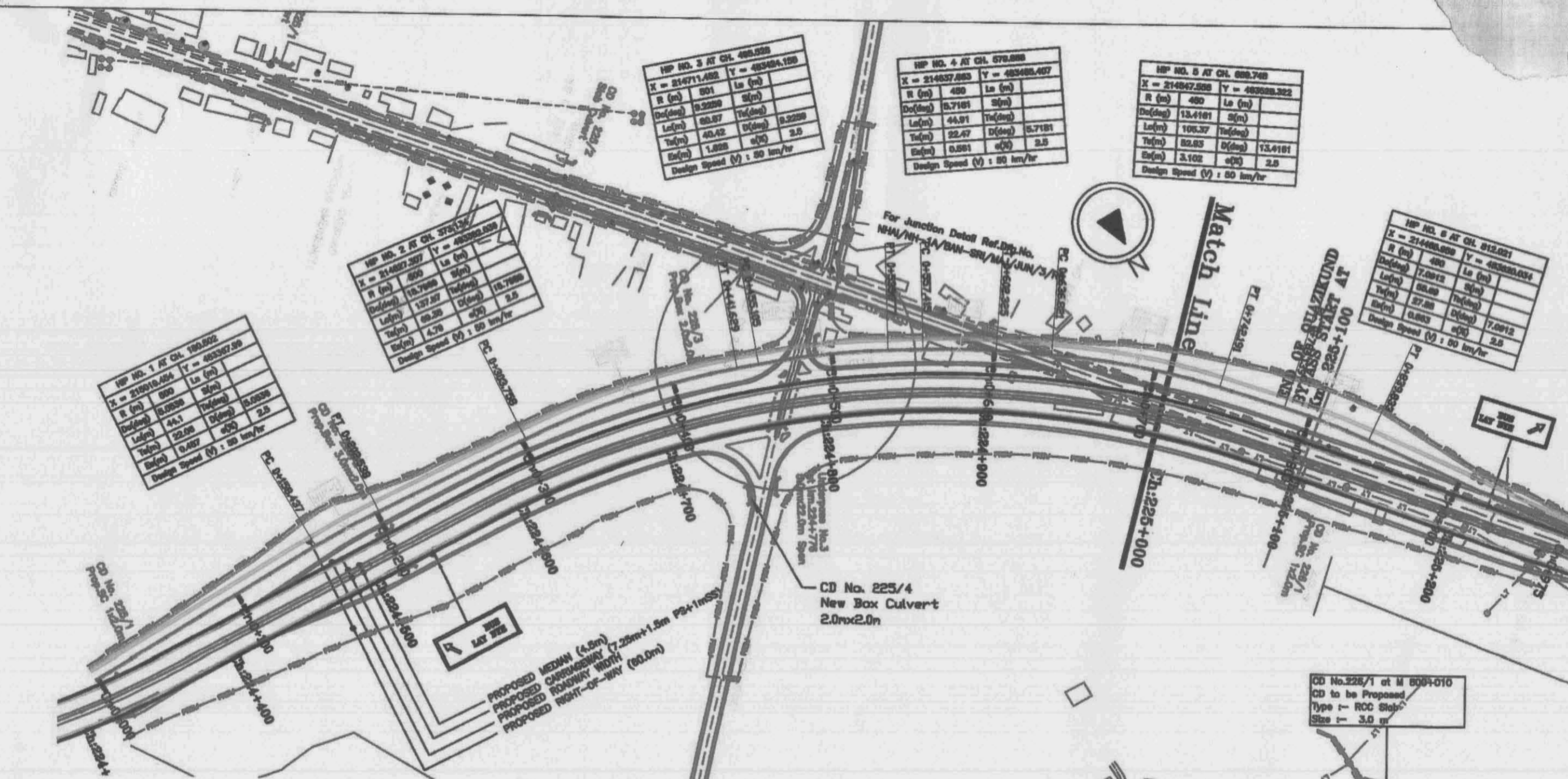
Designed by: **S. Shettycharan** Approved by: **J.C. Dhillon**

Approved by: **J.C. Dhillon**



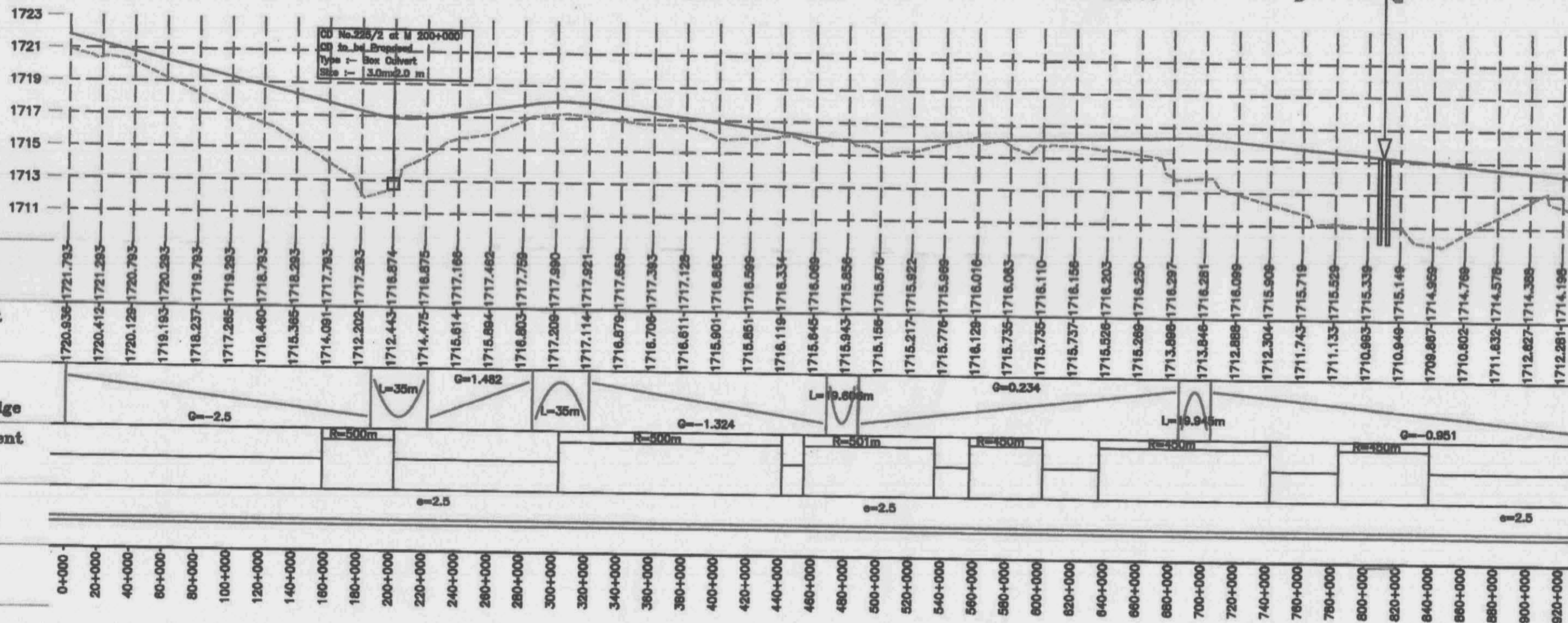
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SRINAGAR



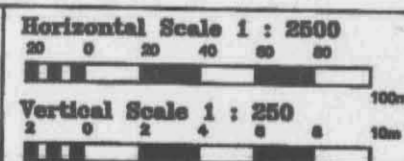
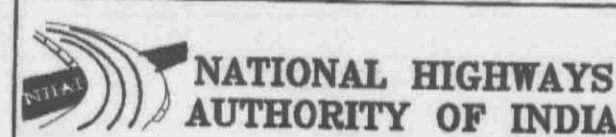
LEGEND

- PLAN**
- TS-Tangent to Spiral
 - SC-Spiral to Curve
 - CS-Curve to Spiral
 - ST-Spiral to Tangent
 - PC-Point of Circular Curve (With Transition)
 - PT-Point of Tangent (Without Transition)
 - Tangent point end(um)
 - PS-Paved Shoulder
 - SS-Soft Shoulder
 - CSB-Crash Barrier space
- GPS**
- Control Point
 - Temporary Bench Mark
 - Metre Stone
 - Hectometre Stone
 - Electric Pole
- Telephone Pole**
- Lamp Post
 - OFC Pillar
 - ROW Pillar
 - Tree-T6,T5,T4
 - Tree-T3,T2,T1
 - Well
 - Hand Pump
 - Control Point IS-140.2
 - Identification
 - Municipal Top
 - Manhole
 - Sign Post
 - Gate
 - Temple
 - Mosque
 - Guardwara
 - Church
 - Guard Post
 - Flag Post
 - Transformer
 - High Tension Line
 - Low Tension Line
 - Telephone Line
 - Right-of-Way-New
 - Right-of-Way-Old
 - Boundary/Fencing
 - Boundary Water Body
 - Boundary River Bank
 - Canal
 - Top line
 - Crash Barrier
 - Building Permanent/Temporary
 - Existing Road Paved/Unpaved
 - Utility Buildings
 - Pipe Line
 - OFC Line
 - Water Pipe Line
 - Earth Retaining Wall
 - Crash Barrier
 - Existing Road Centre Line
 - Designated Centre Line
 - Designated Road/Median Edges
 - Culvert/Bridge - Existing
 - Culvert/Bridge - Designed



Legend for Profile

Ground Level 20m to Left of Existing CL.
Proposed Road Level at Left Median Edge



Detailed Design for 4-Laning of Banihal to Srinagar Section (Km.188.000 to Km.296.000) of NH-1(A),(including Srinagar Bypass) in J & K State

Service Road Left Km.0+000 to Km.0920+000 NS-92/J&K

SCETABOLITE FRANCE In joint venture with Intercontinental Consultants & Technocrats Pvt.Ltd. A-8, Green Park, New Delhi - 110016 Ph : 2609-3000, Fax 2609-6002 and CHINA HIGHWAY ENGINEERING CONSULTING AND SUPERVISION CORPORATION, CHINA

Boboy Thomas Prepared by S. Bhattacharjee Designed by L.K. Sharma Checked by J.C. Thiry Approved by

Rev.	Date	Description	Checked by
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