

LRS Data from ArcGIS for Mileposting

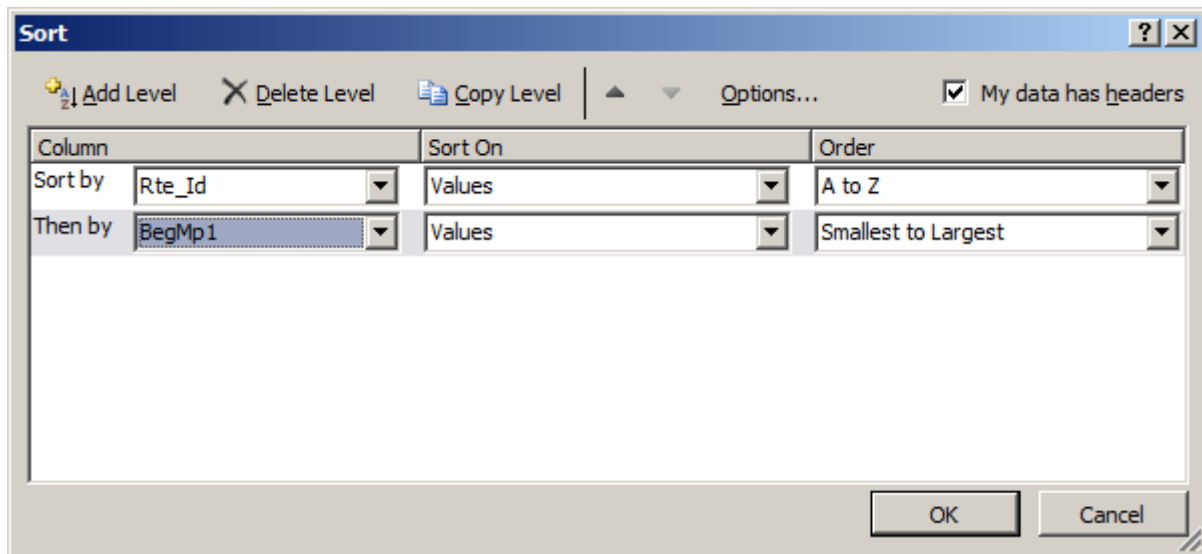
Revised: December 20, 2013

NOTE: This data is updated on a quarterly basis.

1. Navigate to the NCDOT GIS Data Layers web page (if the link does not work Google “NCDOT GIS layers” and it should be the first result):
<https://connect.ncdot.gov/resources/gis/pages/gis-data-layers.aspx>
2. Scroll down and on the left hand side you should see a link called “LRS Arcs Shapefile Format”. Click on this link and you should automatically begin downloading a .zip file that contains the file you will need.
3. You should now have an LRS_ARCS_SHP.zip file. Open it and look for the file called LRS_ARCS.dbf. This will be the only file you need; extract it to the directory of your choice. This can be done by dragging and dropping the .dbf file to its destination, or you can right click on the .zip file itself and select “Extract All...”, choose a folder, and click “Extract”.
4. Open Excel, and then open the LRS_ARCS.dbf file by dragging and dropping it into Excel. This may take a few moments, as the .dbf file contains thousands of entries. You should be greeted by a spreadsheet like the one below:

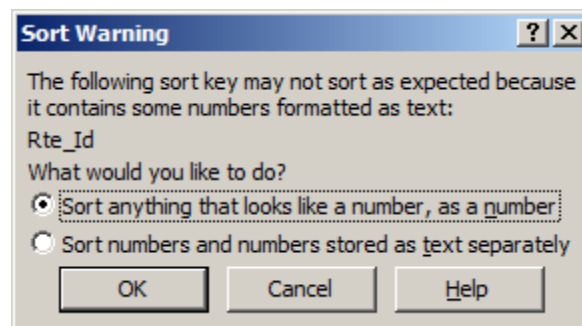
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC		
RTE	RTE	RTE	RTE	RTE	LENGTH_3D	R	S	SRCD	DOC_NBR	R	REVD	DOC_NUM	RTE	ONE	RTE	O	RTE	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
1	I	73	0	4	0	0.278000000000	S	O	HTO_76_07-11	O	dgn	DCL	1	I	74	0	0	0	NA	0	99	99	9	NA	0	99	99	9	N	
2	I	73	0	0	0	0.281000000000	S	O	HTO_76_07-11	O	dgn	DCL	1	I	74	0	6	0	NA	0	99	99	9	NA	0	99	99	9	N	
3	I	73	0	0	0	1.449000000000	S	O	HTO_76_07-11	O	DGN	DCL	1	I	74	0	6	0	NA	0	99	99	9	NA	0	99	99	9	N	
4	I	73	0	4	0	0.352000000000	S	O	HTO_76_07-11	O	DGN	DCL	1	I	74	0	0	0	NA	0	99	99	9	NA	0	99	99	9	N	
5	SR	1577	0	0	1	0.270000000000	S	N		N		2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
6	SR	1970	0	0	0	1.502000000000	S	N		N		2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
7	SR	1968	0	0	0	0.683000000000	S	N	<Null>	A	2010	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
8	SR	1821	0	0	1	0.332000000000	S	N		N		2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
9	SR	1781	0	0	1	0.197000000000	S	N		N		2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
10	SR	1962	0	0	1	0.140000000000	S	N		N		2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
11	SR	1745	0	0	0	0.799000000000	S	N		N		2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
12	SR	1746	0	0	1	0.983000000000	S	N		N		2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
13	NC	215	0	0	0	0.666000000000	S	N	<Null>	A	2010	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
14	US	64	0	0	0	0.179000000000	S	N	<Null>	A	2010	DCL	1	US	276	0	0	0	NA	0	99	99	9	NA	0	99	99	9	N	
15	US	276	0	0	0	9.786000000000	S	N		N		2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
16	NC	215	0	0	0	4.640000000000	S	N	<Null>	A	2010	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
17	SR	1941	0	0	0	0.013000000000	S	N		N		2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
18	SR	2453	0	0	1	0.190000000000	S	P	50074	A	2010	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
19	US	1	9	0	0	0.010000000000	S	N	<Null>	A	2010	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
20	US	1	9	0	0	0.081000000000	S	N	<Null>	A	2010	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
21	US	1	9	0	0	0.038000000000	S	N	<Null>	A	2010	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
22	US	158	9	0	0	0.127000000000	S	N	<Null>	A	2009	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
23	US	158	9	0	0	0.190000000000	S	N	<Null>	A	2009	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
24	US	158	9	0	0	1.421000000000	S	N	<Null>	A	2009	4L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
25	US	158	9	0	0	0.085000000000	S	N	<Null>	A	2009	4L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
26	SR	1410	0	0	1	0.021000000000	S	N	<Null>	A	2010	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
27	SR	1410	0	0	0	0.154000000000	S	N	<Null>	A	2010	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
28	SR	1256	0	0	1	0.329000000000	S	N	<Null>	A	2010	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
29	SR	1321	0	0	0	0.491000000000	S	N	<Null>	A	2010	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
30	I	73	0	0	0	0.310000000000	S	O	HTO_76_07-11	O	DGN	DCL	1	I	74	0	6	0	NA	0	99	99	9	NA	0	99	99	9	N	
31	NC	268	9	0	0	0.114000000000	S	N	<Null>	A	2010	2L	0	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
32	I	77	0	0	0	0.456000000000	S	N	<Null>	A	2010	DCL	1	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
33	I	77	0	0	0	1.155000000000	S	N	<Null>	A	2010	DCL	1	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
34	US	74	0	6	0	0.154000000000	S	N	<Null>	A	2010	DCL	1	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
35	US	74	0	6	0	0.314000000000	S	N	<Null>	A	2010	DCL	1	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
36	US	74	0	6	0	0.311000000000	S	N	<Null>	A	2010	DCL	1	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
37	US	74	0	6	0	0.380000000000	S	N	<Null>	A	2010	DCL	1	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
38	US	74	0	6	0	0.376000000000	S	N	<Null>	A	2010	DCL	1	NA	0	99	99	9	NA	0	99	99	9	NA	0	99	99	9	N	
39	I	73	0	4	0	1.440000000000	S	O	HTO_76_07-11	O	DGN	DCL	1	I	74	0	0	0	NA	0	99	99	9	NA	0	99	99	9	N	

5. First you will want to sort the spreadsheet by Route ID then by Beginning Milepost. Highlight all the data in the spreadsheet by hitting ctrl + a, then click on the Sort & Filter button in the top right of Excel, then click "Custom Sort".
6. The "My data has headers" button should already be checked. If not, go ahead and check the box. Next click "Add Level" so that you will be able to sort by two columns.
7. In the "Sort by" drop down menu, scroll down until you see "Rte_Id" and select it. In the "Then by" drop down menu scroll until you see "BegMp1" and select it. You should have a screen like the one below:



If Excel does not read the headers, the Rte_Id and BegMp1 fields are located in Columns BE and BI, respectively. Click "OK" to sort the file.

8. You may receive a warning like the one below:



Leave the selection as it is and click "OK".

9. Now you will want to delete the columns you won't be using. You may want to resize the columns so that you can read the full header. The only columns you will need are MAINT_CNTY (Column AQ), Beg_Inters (AZ), End_Inters (BA), Rte_Nm (BD), Rte_Id (BE), MaxMp1 (BF), BegMp1 (BI), and EndMp1 (BJ), Route2 (BK), BegMp2 (BL), EndMp2 (BM), Route3 (BN), BegMp3 (BO), EndMp3 (BP), Route4 (BQ), BegMp4 (BR), EndMp4 (BS), Route5 (BT), BegMp5 (BU), EndMp5 (BV).
- MAINT_CNTY – 2 digit county code that the route is located in
 - Beg_Inters – intersecting feature at beginning of route segment
 - End_Inters – intersecting feature at end of route segment
 - Rte_Nm – route name
 - Rte_Id – 8 digit route ID, with 2 digit county ID at the end
 - MaxMp1 – maximum milepost on route, this is typically equivalent to the route length
 - BegMp1 – beginning milepost for that route segment
 - EndMp1 – ending milepost for that route segment
 - Route2 – 8 digit route ID, with 2 digit county ID at the end for first coinciding route
 - BegMp2 – beginning milepost for first coinciding route segment
 - EndMp2 – ending milepost for first coinciding route segment
 - Route3 – 8 digit route ID, with 2 digit county ID at the end for second coinciding route
 - BegMp3 – beginning milepost for second coinciding route segment
 - EndMp3 – ending milepost for second coinciding route segment
 - Route4 – 8 digit route ID, with 2 digit county ID at the end for third coinciding route
 - BegMp4 – beginning milepost for third coinciding route segment
 - EndMp4 – ending milepost for third coinciding route segment
 - Route5 – 8 digit route ID, with 2 digit county ID at the end for fourth coinciding route
 - BegMp5 – beginning milepost for fourth coinciding route segment
 - EndMp5 – ending milepost for fourth coinciding route segment

Currently there are no routes with more than four coinciding routes so you can delete the data for Route6.

10. After sorting and deleting the unnecessary columns you should have a spreadsheet that looks like the one below:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	MAINT_CNTY	Beg_Inters	End_Inters	Rte_Nm	Rte_Id	MaxMp1	BegMp1	EndMp1	Route2	BegMp2	EndMp2	Route3	BegMp3	EndMp3	Route4	BegMp4	EndMp4	Route5	BegMp5
25	44	30000280	80003110	I-26	1000002644	17.461	0.010	0.200	20000074	0.010	0.200								
26	44	80003110	C0000010	I-26	1000002644	17.461	0.200	0.330	20000074	0.200	0.330								
27	44	C0000010	80003114	I-26	1000002644	17.461	0.923	1.349	20000074	0.923	1.349								
28	44	80003114	40001345	I-26	1000002644	17.461	1.349	2.661	20000074	1.349	2.661								
29	44	40001345	80003116	I-26	1000002644	17.461	2.661	3.102	20000074	2.661	3.102								
30	44	80003116	20400025	I-26	1000002644	17.461	3.102	3.274	20000074	3.102	3.274								
31	44	20400025	29000025	I-26	1000002644	17.461	3.274	3.288	20400025	3.509	3.523	20000074	3.274	3.288					
32	44	29000025	80003117	I-26	1000002644	17.461	3.288	3.497	20400025	3.523	3.732	20000074	3.288	3.497					
33	44	80003117	40001534	I-26	1000002644	17.461	3.497	3.948	20400025	3.732	4.183	20000074	3.497	3.948					
34	44	40001534	40001528	I-26	1000002644	17.461	3.948	5.837	20400025	4.183	6.072	20000074	3.948	5.837					
35	44	40001528	40001503	I-26	1000002644	17.461	5.837	7.748	20400025	6.072	7.983	20000074	5.837	7.748					
36	44	40001503	80003128	I-26	1000002644	17.461	7.748	8.774	20400025	7.983	9.009	20000074	7.748	8.774					
37	44	80003128	80003129	I-26	1000002644	17.461	8.774	8.993	20400025	9.009	9.228	20000074	8.774	8.993					
38	44	80003129	20600064	I-26	1000002644	17.461	8.993	9.006	20400025	9.228	9.241	20000074	8.993	9.006					
39	44	20600064	20000064	I-26	1000002644	17.461	9.006	9.014	20400025	9.241	9.249	20000074	9.006	9.014					

- You can manipulate the appearance of the data as you like (changing column headings to be more descriptive, rearranging columns, etc.) and print / save the spreadsheet as needed. For ease of use, change the header MAINT_CNTY to CNTY and move the columns Rte_Nm, Rte_ID, and MaxMp1 to in between the newly established CNTY column and the Beg_Inters column. Then the spreadsheet will look like the one below:

1	CNTY	Rte_Nm	Rte_Id	MaxMp1	Beg_Inters	End_Inters	BegMp1	EndMp1	Route2	BegMp2	EndMp2	Route3	BegMp3	EndMp3	Route4	BegMp4	EndMp4	Route5	BegMp5	EndMp5
25	44	I-26	1000002644	17.461	30000280	80003110	0.010	0.200	20000074	0.010	0.200									
26	44	I-26	1000002644	17.461	80003110	C0000010	0.200	0.330	20000074	0.200	0.330									
27	44	I-26	1000002644	17.461	C0000010	80003114	0.923	1.349	20000074	0.923	1.349									
28	44	I-26	1000002644	17.461	80003114	40001345	1.349	2.661	20000074	1.349	2.661									
29	44	I-26	1000002644	17.461	40001345	80003116	2.661	3.102	20000074	2.661	3.102									
30	44	I-26	1000002644	17.461	80003116	20400025	3.102	3.274	20000074	3.102	3.274									
31	44	I-26	1000002644	17.461	20400025	29000025	3.274	3.288	20400025	3.509	3.523	20000074	3.274	3.288						
32	44	I-26	1000002644	17.461	29000025	80003117	3.288	3.497	20400025	3.523	3.732	20000074	3.288	3.497						
33	44	I-26	1000002644	17.461	80003117	40001534	3.497	3.948	20400025	3.732	4.183	20000074	3.497	3.948						
34	44	I-26	1000002644	17.461	40001534	40001528	3.948	5.837	20400025	4.183	6.072	20000074	3.948	5.837						
35	44	I-26	1000002644	17.461	40001528	40001503	5.837	7.748	20400025	6.072	7.983	20000074	5.837	7.748						
36	44	I-26	1000002644	17.461	40001503	80003128	7.748	8.774	20400025	7.983	9.009	20000074	7.748	8.774						
37	44	I-26	1000002644	17.461	80003128	80003129	8.774	8.993	20400025	9.009	9.228	20000074	8.774	8.993						
38	44	I-26	1000002644	17.461	80003129	20600064	8.993	9.006	20400025	9.228	9.241	20000074	8.993	9.006						
39	44	I-26	1000002644	17.461	20600064	20000064	9.006	9.014	20400025	9.241	9.249	20000074	9.006	9.014						

- Now it's time to search for the route you need. Hit ctrl + f to bring up the Find and Replace box. Using the Find function, search for the 10 digit route + county ID number. For example, if you were looking for SR 1357 in Union County, you would hit ctrl + f, type "4000135789" in the search bar, and either hit enter on the keyboard or click the "Find Next" button.

- This should bring you to the first entry for your route, in this example SR 1357 in Union County. If you have located the route you are searching for, you can close the Find and Replace box and paste the data for your route into a new spreadsheet.

- At this point you should have the data you need and nothing else. The final result for SR 1357 in Union County is shown below.

1	CNTY	Rte_Nm	Rte_Id	MaxMp1	Beg_Inters	End_Inters	BegMp1	EndMp1	Route2	BegMp2	EndMp2	Route3	BegMp3	EndMp3	Route4	BegMp4	EndMp4	Route5	BegMp5	EndMp5	
85354	89	SR-1357	4000135789	4.802	40001009	40001364	0.000	0.226													
85355	89	SR-1357	4000135789	4.802	40001364	40001363	0.226	0.736													
85356	89	SR-1357	4000135789	4.802	40001363	40001362	0.736	1.158													
85357	89	SR-1357	4000135789	4.802	40001362	40001408	1.158	1.523													
85358	89	SR-1357	4000135789	4.802	40001408	40001361	1.523	1.722													
85359	89	SR-1357	4000135789	4.802	40001361	40001409	1.722	1.862													
85360	89	SR-1357	4000135789	4.802	40001409	40001450	1.862	2.058													
85361	89	SR-1357	4000135789	4.802	40001450	40001451	2.058	2.308													
85362	89	SR-1357	4000135789	4.802	40001451	40003673	2.308	2.726													
85363	89	SR-1357	4000135789	4.802	40003673	40001470	2.726	2.966													
85364	89	SR-1357	4000135789	4.802	40001470	40002844	2.966	3.155													
85365	89	SR-1357	4000135789	4.802	40002844	40001358	3.155	3.462													
85366	89	SR-1357	4000135789	4.802	40001358	40001442	3.462	3.489													
85367	89	SR-1357	4000135789	4.802	40001442	40002513	3.489	3.635													
85368	89	SR-1357	4000135789	4.802	40002513	40002514	3.635	3.808													
85369	89	SR-1357	4000135789	4.802	40002514	40001447	3.808	4.067													
85370	89	SR-1357	4000135789	4.802	40001447	40002802	4.067	4.405													
85371	89	SR-1357	4000135789	4.802	40002802	40001008	4.405	4.475													
85372	89	SR-1357	4000135789	4.802	40001008	40001346	4.475	4.802													