

new 433 HW

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```
library(readr)
```

```
## Warning: package 'readr' was built under R version 3.6.2
```

```
X<-read.csv("AL20.csv")
```

```
head(X)
```

```
## STATE_CODE_001 STRUCTURE_NUMBER_008 RECORD_TYPE_005A ROUTE_PREFIX_005B
## 1 1 00000000000S702 1 6
## 2 1 00000000000S703 1 6
## 3 1 00000000000M0022 1 8
## 4 1 883039900 1 4
## 5 1 1014002450 1 3
## 6 1 1331700710 1 6
## SERVICE_LEVEL_005C ROUTE_NUMBER_005D DIRECTION_005E HIGHWAY_DISTRICT_002
## 1 1 4007 0 9
## 2 1 4003 0 9
## 3 1 0 0 0
## 4 1 88 0 2
## 5 1 101 0 2
## 6 2 0 0 2
## COUNTY_CODE_003 PLACE_CODE_004 FEATURES_DESC_006A
## 1 53 0 PERDIDO CREEK
## 2 53 3004 PERDIDO CREEK
## 3 113 19000 UCHEE CREEK
## 4 59 0 LITTLE BEAR CR. DAM SPW
## 5 79 0 TENNESSEE RIVER
## 6 33 0 TENNESSEE RIVER
## CRITICAL_FACILITY_006B FACILITY_CARRIED_007 LOCATION_009
## 1 NA IRR BIA RTE 4007 11.4KM NW OF ATMORE AL
## 2 NA IRR BIA RTE 4003 ON LYNN MCGEE ROAD
## 3 NA 101ST AIRBORNE RD 3.4 KM S OF SUNSHINE RD
## 4 NA CO. RD 88 LITTLE BEAR CR DAM
## 5 NA SR 101 ON WHEELER DAM
## 6 NA Res Rd ON WILSON DAM
## MIN_VERT_CLR_010 KILOPOINT_011 BASE_HWY_NETWORK_012 LRS_INV_ROUTE_013A
## 1 99.99 1.500 0 0
## 2 99.99 1.100 0 0
## 3 99.99 0.000 0 0
## 4 99.99 0.000 0 0
## 5 4.52 39.429 0 0
## 6 99.99 0.000 0 0
## SUBROUTE_NO_013B LAT_016 LONG_017 DETOUR_KILOS_019 TOLL_020
```

## 1	0	31061094	87341348	3	3
## 2	0	31062020	87340890	3	3
## 3	NA	32174330	-845837	18	3
## 4	NA	34270600	87581200	16	3
## 5	NA	34481800	87225400	42	3
## 6	NA	34480000	87373000	6	3
##	MAINTENANCE_021	OWNER_022	FUNCTIONAL_CLASS_026	YEAR_BUILT_027	
## 1	62	62	9	1999	
## 2	62	62	9	2002	
## 3	74	74	9	1942	
## 4	67	67	8	1974	
## 5	67	67	6	1937	
## 6	67	67	17	1924	
##	TRAFFIC_LANES_ON_028A	TRAFFIC_LANES_UND_028B	ADT_029	YEAR_ADT_030	
## 1	2	0	50	2019	
## 2	2	0	159	2019	
## 3	2	0	375	2017	
## 4	2	0	430	2017	
## 5	2	0	5520	2017	
## 6	2	2	3620	2018	
##	DESIGN_LOAD_031	APPR_WIDTH_MT_032	MEDIAN_CODE_033	DEGREES_SKEW_034	
## 1	5	9.7	0	30	
## 2	5	6.5	0	0	
## 3	4	10.4	0	0	
## 4	5	11.6	0	99	
## 5	4	7.9	0	0	
## 6	3	7.9	0	0	
##	STRUCTURE_FLARED_035	RAILINGS_036A	TRANSITIONS_036B	APPR_RAIL_036C	
## 1	0	1	1	1	
## 2	0	1	1	1	
## 3	0	0	0	1	
## 4	0	1	1	1	
## 5	0	1	0	0	
## 6	0	1	1	1	
##	APPR_RAIL_END_036D	HISTORY_037	NAVIGATION_038	NAV_VERT_CLR_MT_039	
## 1	1	5	0	0.0	
## 2	1	5	0	0.0	
## 3	1	5	0	0.0	
## 4	1	5	N	0.0	
## 5	0	4	1	17.9	
## 6	1	1	1	17.3	
##	NAV_HORR_CLR_MT_040	OPEN_CLOSED_POSTED_041	SERVICE_ON_042A		
## 1	0.0	A	1		
## 2	0.0	A	1		
## 3	0.0	A	1		
## 4	0.0	A	1		
## 5	33.5	A	5		
## 6	33.5	A	5		
##	SERVICE_UND_042B	STRUCTURE_KIND_043A	STRUCTURE_TYPE_043B	APPR_KIND_044A	
## 1	5	5	5	0	
## 2	5	5	1	0	
## 3	5	1	4	0	
## 4	9	5	5	0	
## 5	5	3	10	3	

	6	4	3	1
## 6	APPR_TYPE_044B	MAIN_UNIT_SPANS_045	APPR_SPANS_046	HORR_CLR_MT_047
## 1	0	1	0	9.7
## 2	0	1	0	9.7
## 3	0	3	0	7.3
## 4	0	5	0	8.6
## 5	2	2	143	6.0
## 6	20	8	78	6.0
##	MAX_SPAN_LEN_MT_048	STRUCTURE_LEN_MT_049	LEFT_CURB_MT_050A	
## 1	14.7	15.0	0.0	
## 2	12.9	13.6	0.3	
## 3	18.3	43.0	0.6	
## 4	14.0	65.5	0.0	
## 5	53.3	1981.2	0.9	
## 6	46.9	1512.4	1.7	
##	RIGHT_CURB_MT_050B	ROADWAY_WIDTH_MT_051	DECK_WIDTH_MT_052	
## 1	0.0	9.7	9.7	
## 2	0.3	9.1	9.8	
## 3	0.6	7.3	9.0	
## 4	0.0	8.7	10.5	
## 5	0.2	6.1	7.8	
## 6	0.5	6.1	8.3	
##	VERT_CLR_OVER_MT_053	VERT_CLR_UND_REF_054A	VERT_CLR_UND_054B	
## 1	99.99	N	0.00	
## 2	99.99	N	0.00	
## 3	99.99	N	0.00	
## 4	99.99	N	0.00	
## 5	4.52	N	0.00	
## 6	99.99	H	12.19	
##	LAT_UND_REF_055A	LAT_UND_MT_055B	LEFT_LAT_UND_MT_056	DECK_COND_058
## 1	N	0	0	8
## 2	N	0	0	8
## 3	N	0	0	5
## 4	N	0	0	7
## 5	N	0	0	5
## 6	H	6	0	5
##	SUPERSTRUCTURE_COND_059	SUBSTRUCTURE_COND_060	CHANNEL_COND_061	
## 1	8	7	6	
## 2	8	7	7	
## 3	5	6	6	
## 4	7	7	7	
## 5	6	5	9	
## 6	5	5	8	
##	CULVERT_COND_062	OPR_RATING_METH_063	OPERATING_RATING_064	
## 1	N	2	44.5	
## 2	N	2	84.8	
## 3	N	2	51.7	
## 4	N	1	44.2	
## 5	N	1	40.0	
## 6	N	1	58.4	
##	INV_RATING_METH_065	INVENTORY_RATING_066	STRUCTURAL_EVAL_067	
## 1	2	32.7	7	
## 2	2	35.1	7	
## 3	2	37.2	5	

## 4	1	26.6	6
## 5	1	23.9	5
## 6	1	35.0	5
##	DECK_GEOMETRY_EVAL_068	UNDCLRENCE_EVAL_069	POSTING_EVAL_070
## 1	7	N	5
## 2	6	N	5
## 3	5	N	5
## 4	5	N	5
## 5	2	N	5
## 6	2	9	5
##	WATERWAY_EVAL_071	APPR_ROAD_EVAL_072	WORK_PROPOSED_075A
## 1	8	8	NA
## 2	7	8	NA
## 3	8	6	38
## 4	9	6	NA
## 5	8	8	31
## 6	9	3	31
##	WORK_DONE_BY_075B	IMP_LEN_MT_076	DATE_OF_INSPECT_090
## 1	NA	0.0	219
## 2	NA	0.0	219
## 3	1	52.8	1019
## 4	NA	NA	618
## 5	1	1981.2	619
## 6	1	1512.4	618
##	INSPECT_FREQ_MONTHS_091	FRACTURE_092A	UNDWATER_LOOK_SEE_092B
## 1	24	N	N
## 2	24	N	N
## 3	24	N	Y60
## 4	24	N	N
## 5	24	Y24	N
## 6	24	Y24	N
##	SPEC_INSPECT_092C	FRACTURE_LAST_DATE_093A	UNDWATER_LAST_DATE_093B
## 1	N	NA	NA
## 2	N	NA	NA
## 3	N	NA	1017
## 4	N	NA	NA
## 5	N	619	NA
## 6	N	618	NA
##	SPEC_LAST_DATE_093C	BRIDGE_IMP_COST_094	ROADWAY_IMP_COST_095
## 1	NA	0	0
## 2	NA	0	0
## 3	NA	1	1
## 4	NA	NA	NA
## 5	NA	50000	2000
## 6	NA	35000	2000
##	TOTAL_IMP_COST_096	YEAR_OF_IMP_097	OTHER_STATE_CODE_098A
## 1	0	2019	NA
## 2	0	2019	NA
## 3	2	2019	NA
## 4	NA	NA	NA
## 5	60000	NA	NA
## 6	45000	NA	NA
##	OTHER_STATE_PCNT_098B	OTHR_STATE_STRUC_NO_099	STRAHNET_HIGHWAY_100
## 1	0		0

## 2	0		0	
## 3	NA		0	
## 4	NA		0	
## 5	NA		0	
## 6	NA		0	
##	PARALLEL_STRUCTURE_101	TRAFFIC_DIRECTION_102	TEMP_STRUCTURE_103	
## 1	N	2	NA	
## 2	N	2	NA	
## 3	N	2	NA	
## 4	N	2	NA	
## 5	N	2	NA	
## 6	N	2	NA	
##	HIGHWAY_SYSTEM_104	FEDERAL_LANDS_105	YEAR_RECONSTRUCTED_106	
## 1	0	1	0	
## 2	0	1	0	
## 3	0	0	0	
## 4	0	0	0	
## 5	0	0	1962	
## 6	0	0	1958	
##	DECK_STRUCTURE_TYPE_107	SURFACE_TYPE_108A	MEMBRANE_TYPE_108B	
## 1	2	6	0	
## 2	2	6	0	
## 3	1	1	0	
## 4	1	0	0	
## 5	1	0	0	
## 6	1	5	0	
##	DECK_PROTECTION_108C	PERCENT_ADT_TRUCK_109	NATIONAL_NETWORK_110	
## 1	1	1	0	
## 2	8	1	0	
## 3	0	35	0	
## 4	0	5	0	
## 5	0	10	0	
## 6	0	8	0	
##	PIER_PROTECTION_111	BRIDGE_LEN_IND_112	SCOUR_CRITICAL_113	FUTURE_ADT_114
## 1	NA	Y	8	59
## 2	NA	Y	8	200
## 3	NA	Y	5	400
## 4	NA	Y	5	600
## 5	1	Y	5	9000
## 6	1	Y	5	2500
##	YEAR_OF_FUTURE_ADT_115	MIN_NAV_CLR_MT_116	FED_AGENCY	SUBMITTED_BY
## 1	2039	0	Y	62
## 2	2039	0	Y	62
## 3	2039	NA	Y	74
## 4	2037	NA	Y	67
## 5	2037	NA	Y	67
## 6	2038	NA	Y	67
##	BRIDGE_CONDITION	LOWEST_RATING	DECK_AREA	
## 1	G	7	145.50	
## 2	G	7	133.28	
## 3	F	5	387.00	
## 4	G	7	687.75	
## 5	F	5	15453.36	
## 6	F	5	12552.92	

tail(X)

##	STATE_CODE_001	STRUCTURE_NUMBER_008	RECORD_TYPE_005A		
## 16150	1	DAPTRARUC025463	1		
## 16151	1	DAPTRARUC025465	1		
## 16152	1	DAPTRARUC025690	1		
## 16153	1	DAPTRARUC040153	1		
## 16154	1	DAPTRARUC040156	1		
## 16155	1	DAPTRARUC040161	1		
##	ROUTE_PREFIX_005B	SERVICE_LEVEL_005C	ROUTE_NUMBER_005D		
## 16150	8	0	0		
## 16151	8	0	0		
## 16152	8	0	0		
## 16153	8	0	0		
## 16154	8	0	0		
## 16155	8	0	0		
##	DIRECTION_005E	HIGHWAY_DISTRICT_002	COUNTY_CODE_003	PLACE_CODE_004	
## 16150	0	0	45	27640	
## 16151	0	0	45	27640	
## 16152	0	0	45	27640	
## 16153	0	0	45	27640	
## 16154	0	0	45	27640	
## 16155	0	0	45	27640	
##	FEATURES_DESC_006A	CRITICAL_FACILITY_006B	FACILITY_CARRIED_007		
## 16150	TRIB OF STEEP HEARD CRK	NA	RIFF ROAD #4		
## 16151	TRIB OF CLAYBANK CRK	NA	FORESTRY ACS TA31		
## 16152	BOWLES CREEK	NA	WEST PERIMETER RD		
## 16153	STEEPHEAD CRK	NA	BAILY RD		
## 16154	CLAYBANK CREEK	NA	FARRELL RD		
## 16155	HARRAND CREEK	NA	LOWE FIELD RD		
##	LOCATION_009	MIN_VERT_CLR_010	KILOPOINT_011		
## 16150	FK	99.99	0		
## 16151	FK223712	99.99	0		
## 16152	SW OF BR 24576 & 24577	99.99	0		
## 16153	FK181721	99.99	0		
## 16154	FK203693	99.99	0		
## 16155	FK191675	99.99	0		
##	BASE_HWY_NETWORK_012	LRS_INV_ROUTE_013A	SUBROUTE_NO_013B	LAT_016	
## 16150	0			NA 31235600	
## 16151	0			NA 31221920	
## 16152	0			NA 31284811	
## 16153	0			NA 31224598	
## 16154	0			NA 31211649	
## 16155	0			NA 31201799	
##	LONG_017	DETOUR_KILOS_019	TOLL_020	MAINTENANCE_021	OWNER_022
## 16150	-854713	8	3	74	74
## 16151	-854247	0	3	74	74
## 16152	-854933	31	3	74	74
## 16153	-854530	5	3	74	74
## 16154	-854407	3	3	74	74
## 16155	-854454	5	3	74	74
##	FUNCTIONAL_CLASS_026	YEAR_BUILT_027	TRAFFIC_LANES_ON_028A		
## 16150	9	1990	1		
## 16151	9	1990	1		

##	16152	9	1976	2
##	16153	9	1974	2
##	16154	9	1976	2
##	16155	9	1979	2
##	TRAFFIC_LANES_UND_028B ADT_029 YEAR_ADT_030 DESIGN_LOAD_031			
##	16150	0	20	2016
##	16151	0	10	2016
##	16152	0	100	2016
##	16153	0	100	2016
##	16154	0	540	2016
##	16155	0	540	2016
##	APPR_WIDTH_MT_032 MEDIAN_CODE_033 DEGREES_SKEW_034			
##	16150	4.3	0	0
##	16151	4.4	0	0
##	16152	5.5	0	0
##	16153	7.5	0	0
##	16154	7.3	0	0
##	16155	6.7	0	0
##	STRUCTURE_FLARED_035 RAILINGS_036A TRANSITIONS_036B APPR_RAIL_036C			
##	16150	0	1	0
##	16151	0	0	0
##	16152	0	N	N
##	16153	0	1	0
##	16154	0	1	1
##	16155	0	1	1
##	APPR_RAIL_END_036D HISTORY_037 NAVIGATION_038 NAV_VERT_CLR_MT_039			
##	16150	0	5	N
##	16151	0	5	N
##	16152	N	5	0
##	16153	0	5	N
##	16154	1	5	N
##	16155	1	5	N
##	NAV_HORR_CLR_MT_040 OPEN_CLOSED_POSTED_041 SERVICE_ON_042A			
##	16150	0	A	1
##	16151	0	A	1
##	16152	0	A	1
##	16153	0	A	1
##	16154	0	A	1
##	16155	0	A	1
##	SERVICE_UND_042B STRUCTURE_KIND_043A STRUCTURE_TYPE_043B			
##	16150	5	1	22
##	16151	5	1	22
##	16152	5	3	19
##	16153	5	1	22
##	16154	5	1	22
##	16155	5	1	22
##	APPR_KIND_044A APPR_TYPE_044B MAIN_UNIT_SPANS_045 APPR_SPANS_046			
##	16150	0	0	2
##	16151	0	0	1
##	16152	0	0	3
##	16153	0	0	3
##	16154	0	0	6
##	16155	0	0	3
##	HORR_CLR_MT_047 MAX_SPAN_LEN_MT_048 STRUCTURE_LEN_MT_049			

##	16150	4.3	10.4	20.7
##	16151	4.4	10.4	10.4
##	16152	5.5	3.0	11.3
##	16153	7.5	10.4	31.1
##	16154	8.7	10.4	62.2
##	16155	8.7	10.4	31.1
##	LEFT_CURB_MT_050A RIGHT_CURB_MT_050B ROADWAY_WIDTH_MT_051			
##	16150	0.0	0.0	4.3
##	16151	0.3	0.3	4.4
##	16152	0.0	0.0	0.0
##	16153	0.3	0.3	7.5
##	16154	0.3	0.3	8.7
##	16155	0.3	0.3	8.7
##	DECK_WIDTH_MT_052 VERT_CLR_OVER_MT_053 VERT_CLR_UND_REF_054A			
##	16150	5.2	99.99	N
##	16151	5.0	99.99	N
##	16152	0.0	99.99	N
##	16153	8.1	99.99	N
##	16154	9.3	99.99	N
##	16155	9.3	99.99	N
##	VERT_CLR_UND_054B LAT_UND_REF_055A LAT_UND_MT_055B			
##	16150	0	N	0
##	16151	0	N	0
##	16152	0	N	0
##	16153	0	N	0
##	16154	0	N	0
##	16155	0	N	0
##	LEFT_LAT_UND_MT_056 DECK_COND_058 SUPERSTRUCTURE_COND_059			
##	16150	0	7	7
##	16151	0	7	7
##	16152	0	N	N
##	16153	0	6	5
##	16154	0	7	6
##	16155	0	6	6
##	SUBSTRUCTURE_COND_060 CHANNEL_COND_061 CULVERT_COND_062			
##	16150	7	7	N
##	16151	7	7	N
##	16152	N	6	6
##	16153	6	6	N
##	16154	7	7	N
##	16155	7	7	N
##	OPR_RATING_METH_063 OPERATING_RATING_064 INV_RATING_METH_065			
##	16150	5	NA	5
##	16151	5	NA	5
##	16152	5	NA	5
##	16153	5	NA	5
##	16154	5	NA	5
##	16155	5	NA	5
##	INVENTORY_RATING_066 STRUCTURAL_EVAL_067 DECK_GEOMETRY_EVAL_068			
##	16150	NA	*	6
##	16151	NA	*	6
##	16152	NA	*	N
##	16153	NA	*	6
##	16154	NA	*	5

##	16155	NA	*	5
##	UNDCLRENCE_EVAL_069	POSTING_EVAL_070	WATERWAY_EVAL_071	
##	16150	N	5	7
##	16151	N	5	7
##	16152	N	5	7
##	16153	N	5	7
##	16154	N	5	8
##	16155	N	5	7
##	APPR_ROAD_EVAL_072	WORK_PROPOSED_075A	WORK_DONE_BY_075B	
##	16150	6	38	1
##	16151	6	38	1
##	16152	8	38	1
##	16153	6	38	1
##	16154	6	38	1
##	16155	6	38	1
##	IMP_LEN_MT_076	DATE_OF_INSPECT_090	INSPECT_FREQ_MONTHS_091	
##	16150	28.4	818	24
##	16151	17.1	818	24
##	16152	18.0	818	24
##	16153	39.5	818	24
##	16154	72.6	818	24
##	16155	39.5	818	24
##	FRACTURE_092A	UNDWATER_LOOK_SEE_092B	SPEC_INSPECT_092C	
##	16150	N	N	N
##	16151	N	N	N
##	16152	N	N	N
##	16153	N	N	N
##	16154	N	N	N
##	16155	N	N	N
##	FRACTURE_LAST_DATE_093A	UNDWATER_LAST_DATE_093B	SPEC_LAST_DATE_093C	
##	16150	NA	NA	NA
##	16151	NA	NA	NA
##	16152	NA	NA	NA
##	16153	NA	NA	NA
##	16154	NA	NA	NA
##	16155	NA	NA	NA
##	BRIDGE_IMP_COST_094	ROADWAY_IMP_COST_095	TOTAL_IMP_COST_096	
##	16150	1	1	2
##	16151	1	1	2
##	16152	1	1	2
##	16153	1	1	2
##	16154	1	1	2
##	16155	1	1	2
##	YEAR_OF_IMP_097	OTHER_STATE_CODE_098A	OTHER_STATE_PCNT_098B	
##	16150	2018	NA	NA
##	16151	2018	NA	NA
##	16152	2018	NA	NA
##	16153	2018	NA	NA
##	16154	2018	NA	NA
##	16155	2018	NA	NA
##	OTHR_STATE_STRUC_NO_099	STRAHNET_HIGHWAY_100	PARALLEL_STRUCTURE_101	
##	16150		0	N
##	16151		0	N
##	16152		0	N

## 16153		0	N
## 16154		0	N
## 16155		0	N
##	TRAFFIC_DIRECTION_102	TEMP_STRUCTURE_103	HIGHWAY_SYSTEM_104
## 16150	3	NA	0
## 16151	3	NA	0
## 16152	2	NA	0
## 16153	2	NA	0
## 16154	2	NA	0
## 16155	2	NA	0
##	FEDERAL_LANDS_105	YEAR_RECONSTRUCTED_106	DECK_STRUCTURE_TYPE_107
## 16150	0	0	2
## 16151	0	0	2
## 16152	0	0	N
## 16153	0	0	2
## 16154	0	0	2
## 16155	0	0	2
##	SURFACE_TYPE_108A	MEMBRANE_TYPE_108B	DECK_PROTECTION_108C
## 16150	0	0	0
## 16151	0	0	0
## 16152	N	N	N
## 16153	0	0	0
## 16154	6	1	8
## 16155	6	1	8
##	PERCENT_ADT_TRUCK_109	NATIONAL_NETWORK_110	PIER_PROTECTION_111
## 16150	5	0	NA
## 16151	1	0	NA
## 16152	20	0	NA
## 16153	20	0	NA
## 16154	20	0	NA
## 16155	20	0	NA
##	BRIDGE_LEN_IND_112	SCOUR_CRITICAL_113	FUTURE_ADT_114
## 16150	Y	5	25
## 16151	Y	8	15
## 16152	Y	8	100
## 16153	Y	8	150
## 16154	Y	5	600
## 16155	Y	8	600
##	YEAR_OF_FUTURE_ADT_115	MIN_NAV_CLR_MT_116	FED_AGENCY SUBMITTED_BY
## 16150	2036	NA	Y 74
## 16151	2036	NA	Y 74
## 16152	2036	NA	Y 74
## 16153	2036	NA	Y 74
## 16154	2036	NA	Y 74
## 16155	2036	NA	Y 74
##	BRIDGE_CONDITION	LOWEST_RATING	DECK_AREA
## 16150	G	7	107.64
## 16151	G	7	52.00
## 16152	F	6	62.15
## 16153	F	5	251.91
## 16154	F	6	578.46
## 16155	F	6	289.23

str(X)

```
## 'data.frame':   16155 obs. of  123 variables:
## $ STATE_CODE_001      : int  1 1 1 1 1 1 1 1 1 1 ...
## $ STRUCTURE_NUMBER_008 : Factor w/ 16101 levels "000000000000S702",...: 1 2 3 15009 124 2845 8757 1
## $ RECORD_TYPE_005A    : int  1 1 1 1 1 1 1 1 1 1 ...
## $ ROUTE_PREFIX_005B   : int  6 6 8 4 3 6 4 4 6 5 ...
## $ SERVICE_LEVEL_005C  : int  1 1 1 1 1 2 1 1 8 0 ...
## $ ROUTE_NUMBER_005D   : Factor w/ 964 levels "?????", "0", "0000A",...: 615 614 2 925 61 2 2 2 2 2
## $ DIRECTION_005E     : int  0 0 0 0 0 0 0 0 0 0 ...
## $ HIGHWAY_DISTRICT_002 : int  9 9 0 2 2 2 10 10 1 10 ...
## $ COUNTY_CODE_003     : int  53 53 113 59 79 33 127 127 95 75 ...
## $ PLACE_CODE_004      : int  0 3004 19000 0 0 0 0 0 0 48808 ...
## $ FEATURES_DESC_006A  : Factor w/ 5572 levels "_", "_15TH STREET & RAMP",...: 3738 3738 5066 2867 4
## $ CRITICAL_FACILITY_006B : logi  NA NA NA NA NA NA NA ...
## $ FACILITY_CARRIED_007 : Factor w/ 8032 levels "__CR 27", "_11TH AVE RAMP",...: 5006 5005 95 2347 6
## $ LOCATION_009       : Factor w/ 14885 levels "_", ".1 mile s. us 72",...: 6535 13638 9079 13371
## $ MIN_VERT_CLR_010    : num  99.99 99.99 99.99 99.99 4.52 ...
## $ KILOPOINT_011      : num  1.5 1.1 0 0 39.4 ...
## $ BASE_HWY_NETWORK_012 : int  0 0 0 0 0 0 0 0 0 0 ...
## $ LRS_INV_ROUTE_013A  : Factor w/ 1567 levels "", "0", "000AL00000",...: 2 2 1 1 1 1 227 227 1 1199
## $ SUBROUTE_NO_013B   : int  0 0 NA NA NA NA 0 0 NA 0 ...
## $ LAT_016            : int  31061094 31062020 32174330 34270600 34481800 34480000 33543030 3344
## $ LONG_017          : int  87341348 87340890 -845837 87581200 87225400 87373000 87171770 87213
## $ DETOUR_KILOS_019   : int  3 3 18 16 42 6 2 13 199 158 ...
## $ TOLL_020           : int  3 3 3 3 3 3 3 3 3 3 ...
## $ MAINTENANCE_021    : int  62 62 74 67 67 67 2 2 67 4 ...
## $ OWNER_022          : int  62 62 74 67 67 67 2 2 67 4 ...
## $ FUNCTIONAL_CLASS_026 : int  9 9 9 8 6 17 9 9 9 9 ...
## $ YEAR_BUILT_027     : int  1999 2002 1942 1974 1937 1924 1898 1900 1939 1900 ...
## $ TRAFFIC_LANES_ON_028A : int  2 2 2 2 2 2 1 1 2 1 ...
## $ TRAFFIC_LANES_UND_028B : int  0 0 0 0 0 2 0 0 0 0 ...
## $ ADT_029            : int  50 159 375 430 5520 3620 400 150 350 15 ...
## $ YEAR_ADT_030       : int  2019 2019 2017 2017 2017 2018 1991 1991 2018 2007 ...
## $ DESIGN_LOAD_031    : Factor w/ 10 levels "0", "1", "2", "3",...: 6 6 5 6 5 4 2 3 5 2 ...
## $ APPR_WIDTH_MT_032  : num  9.7 6.5 10.4 11.6 7.9 7.9 5.2 4.9 6.1 3 ...
## $ MEDIAN_CODE_033    : int  0 0 0 0 0 0 0 0 0 0 ...
## $ DEGREES_SKEW_034   : int  30 0 0 99 0 0 0 0 0 0 ...
## $ STRUCTURE_FLARED_035 : int  0 0 0 0 0 0 0 0 0 0 ...
## $ RAILINGS_036A      : Factor w/ 3 levels "0", "1", "N": 2 2 1 2 2 2 1 1 2 1 ...
## $ TRANSITIONS_036B   : Factor w/ 3 levels "0", "1", "N": 2 2 1 2 1 2 1 1 1 1 ...
## $ APPR_RAIL_036C     : Factor w/ 3 levels "0", "1", "N": 2 2 2 2 1 2 1 1 1 1 ...
## $ APPR_RAIL_END_036D : Factor w/ 3 levels "0", "1", "N": 2 2 2 2 1 2 1 1 1 1 ...
## $ HISTORY_037        : int  5 5 5 5 4 1 2 5 5 5 ...
## $ NAVIGATION_038     : Factor w/ 3 levels "0", "1", "N": 1 1 1 3 2 2 1 1 1 1 ...
## $ NAV_VERT_CLR_MT_039 : num  0 0 0 0 17.9 17.3 0 0 0 0 ...
## $ NAV_HORR_CLR_MT_040 : num  0 0 0 0 33.5 33.5 0 0 0 0 ...
## $ OPEN_CLOSED_POSTED_041 : Factor w/ 7 levels "A", "B", "D", "E",...: 1 1 1 1 1 1 6 5 1 6 ...
## $ SERVICE_ON_042A    : int  1 1 1 1 5 5 1 1 1 1 ...
## $ SERVICE_UND_042B   : int  5 5 5 9 5 6 5 5 5 5 ...
## $ STRUCTURE_KIND_043A : int  5 5 1 5 3 4 3 3 1 4 ...
## $ STRUCTURE_TYPE_043B : int  5 1 4 5 10 3 10 10 4 10 ...
## $ APPR_KIND_044A     : int  0 0 0 0 3 1 3 3 0 0 ...
## $ APPR_TYPE_044B     : int  0 0 0 0 2 20 2 2 0 0 ...
```

```

## $ MAIN_UNIT_SPANS_045 : int 1 1 3 5 2 8 1 1 1 2 ...
## $ APPR_SPANS_046 : int 0 0 0 0 143 78 4 5 0 0 ...
## $ HRRR_CLR_MT_047 : num 9.7 9.7 7.3 8.6 6 6 3.7 3.7 7.3 4.4 ...
## $ MAX_SPAN_LEN_MT_048 : num 14.7 12.9 18.3 14 53.3 46.9 30.5 25.6 18.3 7.9 ...
## $ STRUCTURE_LEN_MT_049 : num 15 13.6 43 65.5 1981.2 ...
## $ LEFT_CURB_MT_050A : num 0 0.3 0.6 0 0.9 1.7 0 0 0.3 0 ...
## $ RIGHT_CURB_MT_050B : num 0 0.3 0.6 0 0.2 0.5 0 0 0.3 0 ...
## $ ROADWAY_WIDTH_MT_051 : num 9.7 9.1 7.3 8.7 6.1 6.1 3.7 3.7 7 4.4 ...
## $ DECK_WIDTH_MT_052 : num 9.7 9.8 9 10.5 7.8 8.3 3.7 3.7 8.2 4.8 ...
## $ VERT_CLR_OVER_MT_053 : num 99.99 99.99 99.99 99.99 4.52 ...
## $ VERT_CLR_UND_REF_054A : Factor w/ 3 levels "H","N","R": 2 2 2 2 2 1 2 2 2 2 ...
## $ VERT_CLR_UND_054B : num 0 0 0 0 0 ...
## $ LAT_UND_REF_055A : Factor w/ 3 levels "H","N","R": 2 2 2 2 2 1 2 2 2 2 ...
## $ LAT_UND_MT_055B : num 0 0 0 0 0 6 0 0 0 99.9 ...
## $ LEFT_LAT_UND_MT_056 : num 0 0 0 0 0 0 0 0 0 0 ...
## $ DECK_COND_058 : Factor w/ 11 levels "0","1","2","3",...: 9 9 6 8 6 6 7 5 8 6 ...
## $ SUPERSTRUCTURE_COND_059 : Factor w/ 11 levels "0","1","2","3",...: 9 9 6 8 7 6 5 5 8 5 ...
## $ SUBSTRUCTURE_COND_060 : Factor w/ 11 levels "0","1","2","3",...: 8 8 7 8 6 6 6 5 8 5 ...
## $ CHANNEL_COND_061 : Factor w/ 11 levels "0","1","2","3",...: 7 8 7 8 10 9 8 7 7 6 ...
## $ CULVERT_COND_062 : Factor w/ 9 levels "1","3","4","5",...: 9 9 9 9 9 9 9 9 9 ...
## $ OPR_RATING_METH_063 : int 2 2 2 1 1 1 1 5 1 1 ...
## $ OPERATING_RATING_064 : num 44.5 84.8 51.7 44.2 40 58.4 2.7 0 47.7 2.7 ...
## $ INV_RATING_METH_065 : Factor w/ 8 levels "0","1","2","3",...: 3 3 3 2 2 2 2 6 2 2 ...
## $ INVENTORY_RATING_066 : num 32.7 35.1 37.2 26.6 23.9 35 1.8 0 28.8 1.8 ...
## $ STRUCTURAL_EVAL_067 : Factor w/ 10 levels "*","0","2","3",...: 8 8 6 7 6 6 3 2 8 3 ...
## $ DECK_GEOMETRY_EVAL_068 : Factor w/ 10 levels "0","2","3","4",...: 7 6 5 5 2 2 2 1 4 6 ...
## $ UNDCLENCE_EVAL_069 : Factor w/ 10 levels "0","2","3","4",...: 10 10 10 10 10 9 10 10 10 10 ...
## $ POSTING_EVAL_070 : int 5 5 5 5 5 5 0 0 5 0 ...
## $ WATERWAY_EVAL_071 : Factor w/ 10 levels "0","2","3","4",...: 8 7 8 9 8 9 7 8 6 4 ...
## $ APPR_ROAD_EVAL_072 : int 8 8 6 6 8 3 2 2 8 5 ...
## $ WORK_PROPOSED_075A : int NA NA 38 NA 31 31 31 31 NA 31 ...
## $ WORK_DONE_BY_075B : int NA NA 1 NA 1 1 1 1 NA 1 ...
## $ IMP_LEN_MT_076 : num 0 0 52.8 NA 1981.2 ...
## $ DATE_OF_INSPECT_090 : int 219 219 1019 618 619 618 1019 113 1218 619 ...
## $ INSPECT_FREQ_MONTHS_091 : int 24 24 24 24 24 24 24 24 24 24 ...
## $ FRACTURE_092A : Factor w/ 6 levels "N ","Y01","Y03",...: 1 1 1 1 6 6 6 6 1 6 ...
## $ UNDOWATER_LOOK_SEE_092B : Factor w/ 5 levels "N ","Y12","Y24",...: 1 1 5 1 1 1 1 1 1 1 ...
## $ SPEC_INSPECT_092C : Factor w/ 6 levels "N ","Y01","Y03",...: 1 1 1 1 1 1 3 3 1 5 ...
## $ FRACTURE_LAST_DATE_093A : int NA NA NA NA 619 618 1019 213 NA 619 ...
## $ UNDOWATER_LAST_DATE_093B : int NA NA 1017 NA NA NA NA NA NA NA ...
## $ SPEC_LAST_DATE_093C : int NA NA NA NA NA NA 120 113 NA 619 ...
## $ BRIDGE_IMP_COST_094 : int 0 0 1 NA 50000 35000 511 480 NA 230 ...
## $ ROADWAY_IMP_COST_095 : int 0 0 1 NA 2000 2000 51 48 NA 23 ...
## $ TOTAL_IMP_COST_096 : int 0 0 2 NA 60000 45000 562 528 NA 253 ...
## $ YEAR_OF_IMP_097 : int 2019 2019 2019 NA NA NA 2020 2020 NA 2020 ...
## $ OTHER_STATE_CODE_098A : int NA NA NA NA NA NA NA NA NA NA ...
## $ OTHER_STATE_PCNT_098B : int 0 0 NA NA NA NA 0 0 NA 0 ...
## $ OTHR_STATE_STRUC_NO_099 : Factor w/ 32 levels " ",...: 1 1 1 1 1 1 2 2 1 2 ...
## [list output truncated]

```

Github repository

<https://github.com/JialuoLi/Myrepo>