## Open Data Guide

## 7/3/2017

This guide provides a list of UDOT's public data layers offered for download through the Open Data site: <u>http://udot.uplan.opendata.arcgis.com/</u>

All data presented here is for informational purposes only and must be field verified prior to being used in project design. UDOT makes no warranty with respect to the accuracy, completeness or usefulness of this content or consequential damages resulting from the use or misuse of the content or any of the information contained herein. Please contact the UDOT GIS Department at udotgis@utah.gov for more information.

**AADT** - This dataset contains traffic statistics collected by the Transportation Monitoring Unit and developed and analyzed by the Traffic Analysis Section of the Systems Planning & Programming Division. These statistics are intended for use by transportation management, business, and the public. The traffic information is used in planning, programming, highway design, maintenance, traffic control and general administration of highway systems. The traffic information contained in this map is Annual Average Daily Traffic (AADT) on road sections of the State Highways or Local Federal-Aid roads.

**ADA Ramp Inventory** - This map displays the ADA Pedestrian ramp locations in Utah. This data is current as of May, 24 2016. The GIS data is updated biannually.

Approximate Speed Limit (2015) - This data depicts the Utah State Routes speed limits as polylines. This data includes 'N' for divided highways only. The 'P' direction is used to depict the speed in both directions on all non-divided routes. This data uses the 2014 Mandli sign data queried for speed limit signs, and discussions with UDOT Traffic and Safety for the new 70 and 80 mph zones that were added after the 2014 Mandli data collection. This data is current as of 8/7/2015.

Asset Data 2012 - These data are a snapshot of the asset inventory conducted by Mandli Communications in 2012. It was collected in the summer of 2012 via LiDAR and Photolog imagery. It is not maintained and more current data may be available. These archived data layers include: barriers, bike lanes, billboard assemblies, billboard faces, drainage inlets, intersections, lanes, medians, pavement messages, pavement striping, power pedestals, rumblestrips, shoulders, signal cabinets, signal poles, sign assemblies, sign faces, surface areas, traffic islands, and walls. The data was recollected in the spring of 2014. If interested in the most current data please search for the asset feature specifically, i.e., 'Barriers.'

Asset Data 2014 - These data are a snapshot of the asset inventory conducted by Mandli Communications in 2014. It was collected in the summer of 2014 via LiDAR and Photolog imagery. It is not maintained and more current data may be available. These archived data layers include: barriers, bike lanes, billboard assemblies, billboard faces, drainage inlets, intersections, lanes, medians, pavement messages, pavement striping, power pedestals, rumblestrips, shoulders, signal cabinets, signal poles, sign assemblies, sign faces, surface areas, traffic islands, and walls. The data was recollected in the spring of 2015. If interested in the most current data please search for the asset feature specifically, i.e., 'Barriers.' Automatic Traffic Recorder Locations - This dataset contains the automatic traffic recorder (ATR) locations in Utah. This dataset is maintained by the Traffic Analysis Section of the Systems Planning and Programming Division of UDOT. Please see the <u>Data Assessment Form</u> for more information.

**Barriers** – This dataset contains barrier inventory along state routes. Descriptive information includes location, type, height, end treatments, post type and side of road. Dataset can be used in conjunction with Median and Island data. Location information is generally accurate to within five feet. This dataset is a Mandli data layer. Mandli data was collected in the Fall of 2015 via LiDAR feature inventory. For more information please see the <u>Data Assessment Form</u>.

**Bike Lanes** – This dataset displays bike Lane locations along state routes. This file indicates where a bike lane with paint striping is present only. View pavement message file for other bike lane indication features. Location information is generally accurate to within five feet. This dataset is a Mandli data layer. Mandli data was collected in the Fall of 2015 via LiDAR feature inventory. For more information please see the <u>Data Assessment Form</u>.

**Billboard Assemblies** – This dataset contains billboard assemblies located along Utah state highways. Descriptive information includes sign owner and permit number (if applicable), billboard type, and total faces. Information also includes location information including x,y and route & milepost. This dataset is a Mandli data layer that was collected in the Fall of 2015 via LiDAR inventory. For more information please see the <u>Data Assessment Form</u>.

**Billboard Faces** – This dataset contains billboard faces located along Utah state highways. Descriptive information includes height, width, and distance from pavement. Information also includes location information including x,y and route & milepost. This dataset is a Mandli data layer that was collected in the Fall of 2015 via LiDAR inventory. For more information please see the <u>Data Assessment Form</u>.

**Cattle Guard Inventory -** This dataset displays the Cattle Guard Inventory from Operations Management System (OMS). This dataset is refreshed monthly. For more information please see the <u>Data Assessment Form</u>.

Culverts Authoritative - This data shows statewide culverts locations.

**ePM - All Projects as Lines -** Project data from ePM (Electronic Project Management). This line layer depicts UDOT's roadway projects stored in ePM. All projects are represented as a line regardless of how the geometry was originally entered into EPM. All PIN statuses are represented except for 'Abandoned.' This is a LRS derived layer with a daily refresh cycle. For more information please see the <u>Data</u> <u>Assessment Form</u>.

**Facility Inventory** - Facilities inventory data from the Operations Management System (OMS). Facility types include: brake check areas, road-closed gates, material storage locations, offices, port of entries, rest areas, runaway truck lanes, view areas, and welcome centers. This layer is updated as needed. For more information please see the <u>Data Assessment Form.</u>

**Facility Type -** Type of Facility refers to the operational characteristic of the roadway by code: (1) oneway, (2) two-way, (3) couplet, (4) ramp, (5) non mainline, (6) non inventory direction, and (7) planned/unbuilt. This data comes from the Highway Performance Monitoring System (HPMS). This dataset is current as per the 2014 HPMS submittal. For more information please see the <u>Data</u> <u>Assessment Form</u>.

**Fencing** - Dataset of fences from Operations Management System (OMS). Fence types include: cattle, chain link, decorative metal, field, miscellaneous, and wildlife. This dataset is updated as needed. For more information please see the <u>Data Assessment Form</u>.

**Functional Class** - The Functional Classification Dataset defines the classes into which streets and highways are grouped, based on their function within the overall roadway network. For information please see the <u>Data Assessment Form</u>.

Historical Pavement Properties - This historical collection of data contains pavement elements collected by UDOT's Falling Weight Deflectometer (FWD). It is a static dataset containing: Resilient Modulus, Structural Number, 2006 Load Transfer Efficiency, and GPR Thickness.

**IRI** - This service contains IRI data for 2012 and 2014. The data covers all state roads in Utah. The pavement data is aggregated to tenth-mile segments and is sourced from the Deighton Total Infrastructure Management System (dTIMS) which is maintained by the Pavement Management Section in Program Development at the Utah Department of Transportation. For more information please see the <u>Data Assessment Form</u>.

**Lanes** - This dataset contains lane configuration and count for Utah state highways. Descriptive information includes lanes by type (Aux, Thru, Decel, Accel, Turn, Passing) and count of each type lane. Information also includes location information including x, y and route & milepost. This dataset is a MANDLI data layer. Mandli data was collected in the Fall of 2015 via LiDAR inventory. For more information please see the <u>Data Assessment Form</u>.

LRS Routes - This map service is a GIS representation of the UDOT Route System (main routes, ramps and collectors).

**Medians and Traffic Islands** - This dataset contains median/traffic island locations along state routes. Descriptive information includes type, width, and protection type. A width value of 999 generally indicates a median/island greater than 300ft. Location information is x,y and route and milepost. This dataset is a Mandli data layer that was collected in the Fall of 2015 via LiDAR inventory. For more information please see the following Data Assessment Forms: <u>Median Data Assessment</u>, <u>Traffic Island</u> <u>Data Assessment</u>.

**Mile Points** - This service contains UDOT mile post and tenth mile post data created from LRS. The mile post and tenth mile post data is scale dependent and is only visible at specific scales. Mile Posts in this dataset only appear along state routes. This information is updated monthly. Click on MP for link to Streetview. For more information please see the <u>Data Assessment Form</u>.

**Outdoor Advertising -** Web data containing Scenic Byway, Fed Aid Primary Routes from 1991, MAP21, National Highway System and Access Category 2006 data. For more information please see the <u>Data</u> <u>Assessment Form.</u>

**Ownership Code** - Government Ownership of routes. The following owner codes are included in the data: (1) State Highway Agency (UDOT), (2) County Highway Agency, (4) City or Municipal Highway

Agency, (62) Bureau of Indian Affairs, (64) U.S. Forest Service, and (66) National Parks Service. This data comes from the Highway Performance Monitoring System (HPMS). This data is refreshed yearly and is current as per the 2014 HPMS submittal. For more information please see the <u>Data Assessment Form</u>.

**Pavement Management Level -** The strategic maintenance management level for pavements. The Pavement Management QIT recommended Maintenance Management Level designations for Utah state routes. These were established to assist with prioritizing projects and setting appropriate condition level goals. The system was set up for three levels: Interstate, Level 1 (High Volume) and Level 2 (Low Volume). Level 1 routes were established for roads with AADT over 1,000 or over 200 combination trucks. Level 2 routes were established for roads with AADT under 1,000 or fewer than 200 combination trucks.

**Pavement Messages -** Pavement messages data consists of message location, content and type. This dataset is a Mandli data layer. Mandli data was collected in the Fall of 2015 via LiDAR feature inventory. Location information includes X & Y, elevation, and side of road and mile post. Location accuracy is generally 5 feet or less. For more information please see the <u>Data Assessment Form</u>.

**Pavement Section Data -** This map service contains pavement distress data for 2004-2012 and 2014. The data covers all state roads in Utah. The pavement data is aggregated to section level analysis. This data is sourced from the Deighton Total Infrastructure Management System (dTIMS) and maintained by the Pavement Management Section in Program Development at the Utah Department of Transportation.

**Pavement Striping** - This dataset contains pavement striping located along Utah state highways. Descriptive information includes paint color, pattern, and quantity. Location information includes x,y and route & milepost. This dataset is a Mandli data layer that was collected in the Fall of 2015 via LiDAR inventory. For more information please see the <u>Data Assessment Form</u>.

**Route Elevations -** This information was derived from the 2014 Asset Data Collection. The elevation information associated with the Medians (a continuous asset) delivery was used. The beginning and ending elevations for a section were averaged, rounded to the nearest hundred, then dissolved based on elevation, region, and route. For more information please see the <u>Data Assessment Form</u>.

**Route Grades** - This information was derived from the 2014 Asset Data Collection. The grade information collected along with Pavement Condition was used. All values were rounded to the nearest whole number then adjoining tenth-mile features were dissolved according to the rounded grade value. For more information please see the <u>Data Assessment Form</u>.

**Rumble Strips** - Rumble strip dataset is a statewide inventory of rumble along all state routes. Descriptive information includes location (x, y & milepost), lane type, surface type, and lane striping associated with rumble strip. This dataset is a Mandli data layer. Mandli data was collected in the spring of 2014 via LiDAR and Photolog imagery. In general location information is accurate within 5 feet. For more information please see the <u>Data Assessment Form</u>.

**Shoulders** - This dataset of shoulder locations in Utah includes descriptive information like width, material, edge type, road location (center, left, right), x and y location, and route and milepost. The width has been rounded to the nearest whole foot for end use purposes. This dataset is a Mandli data

layer. Mandli data was collected in the Fall of 2015 via LiDAR and Photolog imagery. For more information please see the <u>Data Assessment Form</u>.

**Sign Assemblies** - This dataset contains sign support type information along all state routes in Utah. Descriptive data includes support type (i.e., double post, signal pole, structure mounted etc.), number of signs on mount, and location. Location information was gathered where the sign support meets the ground at its lowest right point. Location information is generally accurate to within five feet. This dataset is a Mandli data layer. Mandli data was collected in the Fall of 2015 via LiDAR feature inventory. For more information please see the <u>Data Assessment Form</u>.

**Sign Faces** - Sign face data includes the standard MUTCD or UDOT sign designation color and description, sign condition (good, fair, poor), and sign orientation (north, southwest, etc.). This dataset is a Mandli data layer. Mandli data was collected in the Fall of 2015 via LiDAR feature inventory. For more information please see the <u>Data Assessment Form</u>.

**Surface Areas** - This map service contains pavement surface areas for 2012, 2014, and most current. The data covers all state roads in Utah and is segmented into tenth-mile sections. The pavement data is sourced from the Deighton Total Infrastructure Management System (dTIMS) which is maintained by the Pavement Management Section in Program Development at the Utah Department of Transportation. For more information please see the <u>Data Assessment Form</u>.

**Surface Type History** - The Surface Type data originates from UDOT Systems Planning and Programming Pavement Management Section from their dTIMS database. This information is intended for pavement engineering at UDOT. This data covers all Utah state roads. This was last updated in 2013.

**UDOT Commission Districts** - Commission District data layer for UDOT. This is a polygon layer that shows transportation commission district boundaries for Utah. This layer is stored in UDOT's SDE. This dataset is updated as-needed. For more information please see the <u>Data Assessment Form</u>.

**UDOT HPMS Samples (2014)** - This dataset contains the sample locations on State and Federal Aid Routes for UDOT's HPMS data collection. The locations are up to date as of 2014. The data associated with each location will be updated through the annual HPMS process and should not be considered final. For more information please see the <u>Data Assessment Form</u>.

**UDOT Pavement Cores (Statewide)** - This service contains pavement core data for state roads. It is sourced from UDOT's pavement coring operations and is refreshed daily. It contains basic pavement thickness information and is intended for preconstruction activities.

**UDOT Regions** - This data layer contains UDOT region boundary and office location information. The data in this data is stored in UDOT's SDE. It does not have a refresh schedule. The data is updated on an as needed basis. For more information please see the <u>Data Assessment Form</u>.

**UDOT Station Information** - The station location and station boundary layers in this data are available for download from UDOTs data portal. The data is updated by the regions and is refreshed as needed. For more information please see the <u>Data Assessment Form</u>.

**UDOT Structures** - Displays the locations of Utah bridges and structures and includes the following attributes: structure ID, structure name, location, and bridge owner. The data is supplied for reference. The data source is BrM (Pontis) and it is refreshed daily.

**Urban Code** - Large Urbanized Area Code data comes from Highway Performance Monitoring System (HPMS) and is based on census designations for urban and rural. The dataset is attributed to define routes as urban or rural. This dataset is current as per the 2014 HPMS submittal. This dataset is refreshed yearly. For more information please see the <u>Data Assessment Form</u>.