The schema for public toilets data is described in detail at http://schemas.opendata.esd.org.uk/PublicToilets.

It defines the columns expected for data delivered in comma separated values (CSV) format.

Some of the rules of the schema are specified as a JSON Table Schema which can be used in conjunction with your CSV data to perform your own validation using the Open data Institute’s CSV Lint tool at http://csvlint.io. Note that there are additional rules (such as ones applying to pairs of columns) that are not tested by CSV Lint.

1. File format

1.1 The CSV format

The CSV Lint About page describes the basic rules for good CSV.

- The first row is a header row that contains the names of some columns.
- The rest of the rows are data rows that contain a number of fields.
- Line endings use CRLF (Windows line endings) and the column names and fields are separated by commas.
- If a field contains a comma, a line ending or a double quote then the field is escaped by wrapping it in double quotes. Double quote marks will be doubled up in any field escaped in the manner described.

1.2 Multiple values within a field

Where a single row contains more than one value for a field, values should be separated by the pipe (|) character.

If you use a comma you will need to enclose the whole field within double quotes and to ensure that values themselves do not contain commas.
2. Types of field

2.1 Boolean
True, Yes, False or No. These are not case sensitive.

2.2 Date
A date in the format dd/mm/yyyy. If time is included, this will be ignored.

2.3 Encoded list
Encoded lists are fixed sets of labels from which you select one or more values to populate a field.

For example, the ‘Decision’ field must be null or take one of the following values.

- Approve
- Refuse
- Split
- Withdrawn
- Prior not required
- Prior granted
- Prior refused
- Prior refused permission required

Capitalisation does not have to match, but any other variances from the encoded list specified will result in your data not being valid.

2.4 Number
A number, which may or may not have decimal places, except where stated otherwise. Note that zero is considered as a value that is distinguished from a null (or absent) value.

2.5 String
A single line of alphabetic and/or numeric characters.

2.6 Text
One or more lines of text. Multiple lines can be delimited by carriage return and line feed characters. If these characters are used, the entire field value must be enclosed in quotes.
2.7 URI
Uniform resource identifier. URIs are always followed by a string field giving the label of the applicable URI.

URIs are machine readable codes that precisely identify things, like local authorities, wards, or types of service. URIs commonly used in UK local government can be looked up from this page: http://uris.opendata.esd.org.uk.

The schema for premises licences references URIs for the following values.

- Organisation – to whom the data belongs.
- ServiceType – the type of planning application.
- GeoArea – ward or natural neighbourhood.

Councils are asked to provide relevant URIs or text labels from which URIs can be derived.

If you specify a URI, you can use any local label you choose. If you only provide a label, we need to be able to convert that to a URI.

For example, the URI for the service type of ‘Public toilets’ is http://id.esd.org.uk/service/579.

To comply with the schema you need to define the ServiceTypeLabel as ‘Public toilets’ and can optionally give the URI as http://id.esd.org.uk/service/579.

If you give no URI and use a different label locally (such as ‘Council public conveniences’) you can continue to use that label in your data if you register it as corresponding with the official URI. To do this, sign in and add a mapping for your council from the URIs page. Note that you can only use your local label for one URI within the applicable URI set.

The ESD team will add common alternative labels for anyone to use instead of official URI labels. Ask them if you are unsure of how to apply your own labels.

People consuming data are given a web method (see here) to allow labels to be converted to URIs so data from all councils uses a single set of references.

3. Cardinality
Cardinality gives the number of values that may be present in a field for one row. Cardinality will be
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Schema compliance – public toilets

one of the following.

- 0..1 – zero or one values.
- 0..∞ – any number of values.
- 0..8 – any number of values to a maximum of eight.
- 1 – one and only one value.
- 1..∞ – at least one value.

If the field allows zero values, a null value is accepted. Null is represented by an empty field and NOT by the string “null” or “N/A”. Any field with a cardinality of 0..1, 0..∞ or 0..8 is therefore optional and can be left blank.

4. Fields

The fields required by the ‘Public toilets’ schema are as given below. Many fields are optional, but included here so that they have the same name across all councils that want to use them.

<table>
<thead>
<tr>
<th>Column number</th>
<th>Column name</th>
<th>Type</th>
<th>Cardinality</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ExtractDate</td>
<td>Date</td>
<td>1</td>
<td>The date that the data was last extracted from its source database. Or manually updated.</td>
</tr>
<tr>
<td>2</td>
<td>OrganisationURI</td>
<td>URI</td>
<td>0..1</td>
<td>URI from ODC of publishing organisation.</td>
</tr>
<tr>
<td>3</td>
<td>OrganisationLabel</td>
<td>String</td>
<td>1</td>
<td>Label of the above URI.</td>
</tr>
<tr>
<td>4</td>
<td>ServiceTypeURI</td>
<td>URI</td>
<td>0..1</td>
<td>Service URI from <a href="http://id.esd.org.uk/list/services">http://id.esd.org.uk/list/services</a>. For Public toilets, this must be <a href="http://id.esd.org.uk/service/579">http://id.esd.org.uk/service/579</a>.</td>
</tr>
<tr>
<td>5</td>
<td>ServiceTypeLabel</td>
<td>String</td>
<td>1</td>
<td>Label of the above URI.</td>
</tr>
<tr>
<td>6</td>
<td>LocationText</td>
<td>String</td>
<td>1</td>
<td>Name of building, street, park, etc.</td>
</tr>
</tbody>
</table>
| 7             | CoordinateReferenceSystem | Encoded list | 0..1       | Values, if specified, can be:
- WGS84 (see [http://en.wikipedia.org/wiki/WGS84](http://en.wikipedia.org/wiki/WGS84)) - version of latitude and longitude. This is the default considered to apply if no value is given; or
| 8             | GeoX                    | Number   | 1           | Longitude or east grid reference for centroid of application boundary. See notes against GeoPointLicensingURL |
| 9             | GeoY                    | Number   | 1           | Latitude or north grid reference for centroid of application boundary. See notes against GeoPointLicensingURL |
| 10            | GeoPointLicensingURL    | URL      | 0..1        | URL of any page that describes any licensing restrictions on using the northing and easting and UPRN values. Where GeoX and GeoY field values are derived from Ordnance Survey maps, this field should use the URL [http://www.ordnancesurvey.co.uk/business-and-government/help-and](http://www.ordnancesurvey.co.uk/business-and-government/help-and). |
## Local government open data incentive scheme
### Schema compliance – public toilets

<table>
<thead>
<tr>
<th>ID</th>
<th>Field</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Category</td>
<td>Encoded list</td>
<td>Values: Female, Male, Female and male, Unisex, Male urinal, Children only, None</td>
</tr>
<tr>
<td>12</td>
<td>AccessibleCategory</td>
<td>Encoded list</td>
<td>Values: Female, Male, Female and male, Unisex, Male urinal, Children only, None</td>
</tr>
<tr>
<td>13</td>
<td>RADARKeyNeeded</td>
<td>Boolean</td>
<td>Is a RADAR key needed to access the accessible toilet?</td>
</tr>
<tr>
<td>14</td>
<td>BabyChange</td>
<td>Boolean</td>
<td>Are there baby change facilities?</td>
</tr>
<tr>
<td>15</td>
<td>FamilyToilet</td>
<td>Boolean</td>
<td>Is there a family toilet, which is a large cubicle with adult- and child-sized toilets and a changing table?</td>
</tr>
<tr>
<td>16</td>
<td>ChangingPlace</td>
<td>Boolean</td>
<td>Flag to indicate if the toilet includes changing facilities for people with profound and multiple learning disabilities and their carers, as well as many other disabled people. See <a href="http://www.changing-places.org">http://www.changing-places.org</a>.</td>
</tr>
<tr>
<td>17</td>
<td>AutomaticPublicConv</td>
<td>Boolean</td>
<td>Also known as a ‘superloo’.</td>
</tr>
<tr>
<td>18</td>
<td>FullTimeStaffing</td>
<td>Boolean</td>
<td>Is there full-time staffing?</td>
</tr>
<tr>
<td>19</td>
<td>PartOfCommunitySch</td>
<td>Boolean</td>
<td>Is the toilet part of a community scheme?</td>
</tr>
<tr>
<td>20</td>
<td>CommunitySchemeName</td>
<td>String</td>
<td>Name of organisation managing the toilet.</td>
</tr>
<tr>
<td>21</td>
<td>ChargeAmount</td>
<td>Currency</td>
<td>Charge expressed as a number in GBP to two decimal places.</td>
</tr>
<tr>
<td>22</td>
<td>InfoURL</td>
<td>URL</td>
<td>URL of web page describing the facilities.</td>
</tr>
<tr>
<td>23</td>
<td>OpeningHours</td>
<td>Text</td>
<td>Opening hours. Syntax used by Open Street Map and described at <a href="http://wiki.openstreetmap.org/wiki/Key:opening_hours">http://wiki.openstreetmap.org/wiki/Key:opening_hours</a> is recommended.</td>
</tr>
<tr>
<td>24</td>
<td>ManagedBy</td>
<td>String</td>
<td>Name of organisation managing the toilet.</td>
</tr>
<tr>
<td>25</td>
<td>ReportEmail</td>
<td>Email address</td>
<td>Email address for reporting problems.</td>
</tr>
<tr>
<td>26</td>
<td>ReportTel</td>
<td>String</td>
<td>Telephone number for reporting problems.</td>
</tr>
<tr>
<td>27</td>
<td>Notes</td>
<td>Text</td>
<td>Notes on reporting, accessibility, hours or anything else.</td>
</tr>
<tr>
<td>28</td>
<td>UPRN</td>
<td>String</td>
<td>Unique Property Reference Number of the toilet. The GeoPointLicensingURL should advise any conditions attached to use.</td>
</tr>
<tr>
<td>29</td>
<td>Postcode</td>
<td>String</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>StreetAddress</td>
<td>Text</td>
<td>A predefined spatial area that the application is contained in. URIs for official geographies (e.g. wards) must come from <a href="http://statistics.data.gov.uk">http://statistics.data.gov.uk</a> and for unofficial geographies from <a href="http://neighbourhoods.esd.org.uk">http://neighbourhoods.esd.org.uk</a>.</td>
</tr>
<tr>
<td>31</td>
<td>GeoAreaURI</td>
<td>URI</td>
<td>Label of the above URI.</td>
</tr>
</tbody>
</table>

[Support/Public-Sector/Guidance/Derived-Data-Exemptions.html](http://support/public-sector/guidance/dervied-data-exemptions.html) or the URL of another page that attributes the data to Ordnance Survey.
5. **Row uniqueness**

LocationText is expected to be unique within each Organisation. However it is normally expected that each dataset of toilets published for one or more organisations will entirely replace the previous dataset for those organisations. Hence data consumers can overwrite previous datasets rather than updating them by uniquely identifying rows.

6. **Validations performed**

Validations are performed in the technical review of submissions under the local open data incentive scheme.

Checks applied by the CSV Lint utility with the [JSON CSV schema](http://example.com) are:

- required fields are populated;
- maximum and minimum field lengths enforced;
- patterns match defined regular expressions (including URLs and email addresses);
- values from encoded lists are valid;
- URLs are correctly defined; and
- correct data types apply (e.g. dates in date field, numbers in numeric field).

In addition, ESD will automatically check:

- labels for URIs map to URIs (in general or via local text added by councils);
- URIs exist within appropriate URI sets and match labels specified;
- in comma separated lists of URIs all are of valid format;
- dates are in the specific format and valid;
- the GeoX field is populated where the GeoY field is populated and vice versa;
- CommunitySchemeName can only be populated if PartOfCommunityScheme is true; and
- LocationText is unique within each Organisation.

ESD will perform brief manual checks on the data content to check that values appear sensible.
7. Sample data
A sample of compliant CSV data provided by Hampshire County Council is here:

http://schemas.opendata.esd.org.uk/PublicToilets/example-public-toilets.csv

8. Note for DataShare users
A DataShare definition file for planning application data is provided here. DataShare users can create a new dataset definition by importing this definition file. The definition will automatically impose the following rules.

- Required fields are populated.
- Maximum and minimum values enforced.
- Correct stub used for URI fields.
- Correct data type (e.g. dates in date field, numbers in numeric field).

9. Data openness and licensing
UPRNs are subject to Public Sector Mapping Agreement licensing, as are Northing and Eastings if they are derived from Ordnance Survey maps. However, Ordnance Survey has granted an exemption from OS licensing restrictions for Public Toilets under the streamlined derived data exemption which means that the data can be published on terms equivalent to OS OpenData under Open Government Licence with attribution to Ordnance Survey copyright. "Contains Ordnance Survey data © Crown Copyright and database right [year]."

Further information about PSMA licensing is available on

10. Getting more help
Our help page gives answers to common questions. The Knowledge Hub's Local Open Data Community includes a forum where the scheme is discussed. You need to register separately to participate in discussion. If your email address does not belong to a public sector organisation, email knowledgehub@capacitygrid.com to request access.
If the above don’t address your query, email us at support@esd.org.uk.