

Exhibit A - Standards

01.01 - General Provisions

01.01A - Definitions

The following capitalized terms have the meanings set out in this Exhibit. Capitalized terms not defined here have the meanings set out in the Agreement.

1. "AASHTO H-20" is defined in Section 01.04A.2.e of this Exhibit.
2. "Active Conduit" is defined in Section 01.04C.4.a.ii of this Exhibit.
3. "Agreement" means the Conduit Network Agreement attached hereto, as may be amended.
4. "Alternate Licensee Conduit." "Alternate Licensee Conduit" ("ALC") is defined in Section 01.02B.4 of this Exhibit.
5. "Backfill" means a material used solely to fill an existing void in its entirety and/or provide physical separation between build elements of a system.
6. "Conduit Sealing Material" is defined in Section 01.04C.4.a.i of this Exhibit.
7. "Critical Routes" is defined in Section 01.03A.1.a of this Exhibit.
8. "Deliberate Medium and Heavy Vehicle Traffic Areas" is defined in Section 01.04A.3.a.iv of this Exhibit.
9. "Drop Closure Vault" ("DCV") is defined in Section 01.02A.1.c of this Exhibit.
10. "Drop Conduit, Primary" ("DCP") is defined in Section 01.02B.3.a of this Exhibit.
11. "Drop Conduit, Secondary" ("DCS") is defined in Section 01.02B.3.b of this Exhibit.
12. "Drop Conduit Package" is defined in Section 01.04C.1.a.ii of this Exhibit.
13. "Drop Demarc Vault" ("DDV") is defined in Section 01.02A.1.d of this Exhibit.
14. "Effectively Grounded" means a point where at least four grounded points, consistent with NESC requirements, exist within a Rolling Mile.
15. "End Caps" is defined in Section 01.04C.4.b.ii.1 of this Exhibit.
16. "Extra Large Vault" is defined in Section 01.04A.1.c of this Exhibit.
17. "Grade Difference" is defined in Section 01.04A.4.a.ii.1 of this Exhibit.
18. "Hardscape" means landscape or roadway elements comprised of hard wearing material such as concrete or asphalt including but not limited to paved landscape areas, paved roads, driveways, walkways, sidewalks, curbs, gutters and other similar elements.
19. "Incidental/Non-Deliberate Light Vehicle Traffic Areas" is defined in Section 01.04A.3.a.ii of this Exhibit.
20. "Incidental/Non-Deliberate Medium and Heavy Vehicle Traffic Areas" is defined in Section 01.04A.3.a.iii of this Exhibit.
21. "Intermediate Access Vault" ("IAV") is defined in Section 01.02A.1.b of this Exhibit.
22. "Large Vault" is defined in Section 01.04A.1.c of this Exhibit.
23. "Licensee" means a licensee of the conduit in the Conduit Network.
24. "Licensee Assigned Vaults" ("LAV") is defined in Section 01.02A.1.e of this Exhibit.
25. "Local Access Conduit, Primary" ("LCP") is defined in Section 01.02B.2.a of this Exhibit.
26. "Local Access Conduit, Secondary" ("LCS") is defined in Section 01.02B.2.b of this Exhibit.
27. "Local Access Conduit Package" is defined in Section 01.04C.1.a.i of this Exhibit.
28. "Manufacturer Part Number" ("MPN") means an identifier given to a particular part by a manufacturer as a reference number that is unique to the given part and manufacturer.
29. "Meet-Me Vault" ("MMV") is defined in Section 01.02A.1.a of this Exhibit.
30. "National Electric Safety Code" ("NESC") means the consensus standard developed for safe practice in the construction of electric networks including distribution.
31. "Non-Power Side" means any side of the building that has no existing power meter installed (although other utilities may be present).
32. "Outside Plant" means the aerial, buried, or at-surface cables and cable transition devices, such as splice closures and vaults, that are installed as part of the civil construction work required to build the segment of network extending up to the customer or building demarcation point.
33. "Pedestrian and Minimal Incidental Traffic Only Areas" is defined in Section 01.04A.3.a.i of this Exhibit.
34. "Power Side" means the side of the building that has an existing power meter installed.
35. "Rolling Mile" means any linear mile of contiguous Outside Plant, which may include branches.
36. "Sealant" means a material used to fill an existing void while also providing a waterproof seal by adhering to sidewalls and allowing for any anticipated movement or expansion.
37. "Service Access Points" ("SAP") is defined in Section 01.02A.2 of this Exhibit.
38. "Service Boundary" is defined in Section 01.03A.1.b of this Exhibit.
39. "Small Vault" is defined in Section 01.04A.1.a of this Exhibit.
40. "Softscape" means landscape or other elements comprised of soft or native material including bare soil, sod, turf, mulch, lawns, gardens and any other landscape or roadway areas that are not classified as Hardscape.
41. "Standard Dimensional Ratio" ("SDR") means the ratio of the nominal outside diameter of a conduit to its nominal wall thickness.
42. "Tier 5" is defined in Section 01.04A.2.a of this Exhibit.

- 43. "Tier 8" is defined in Section 01.04A.2.b of this Exhibit.
- 44. "Tier 15" is defined in Section 01.04A.2.c of this Exhibit.
- 45. "Tier 22" is defined in Section 01.04A.2.d of this Exhibit.
- 46. "Vacant Conduit" is defined in Section 01.04C.4.a.iii of this Exhibit.

01.01B - Locatability

1. General Grounding Requirements.

- a. All Leased Conduit will be Effectively Grounded and electronically locatable by means of a separate tracer wire meeting the requirements of ASTM D-1248 either within a sheathed conduit bundle or installed separately with the conduit bundle.
- b. All grounding requirements not otherwise specified in this Exhibit will be in accordance with NEC Articles 250 and 800 and NESC Section 99.
- c. Any ground method will either meet the minimum required surface area contact or depth; or if not achievable will be shown to have achieved less than or equal to 25 ohms resistance and adhere to separation requirements of NEC 250 and 800 and NESC Section 99. If neither depth nor resistance requirements are achievable, select an alternate grounding location while maintaining the Effectively Grounded requirement.
 - i. All grounding locations should be identified on the Draft Network Section design.

2. Grounding Installation Requirements.

- a. Wherever feasible, use grounding rods driven vertically through the bedding material and subgrade to a depth of 8 feet, or a resistance of 25 ohms or less is achieved.
 - i. Test to confirm required resistance level for all grounding rods at depths of between 5 and 8 feet.
- b. Use either of the following alternate ground methods to achieve the required resistance level if obstruction or other constructability issues prevent the use of a vertical grounding rod driven to a depth of at least 5 feet:
 - i. The grounding rod may be driven at an angle not to exceed 45 degrees from the vertical; or
 - ii. The grounding rod may be buried in a trench that is at least 30 inches deep. The upper end of the electrode will be flush with or below ground level unless the above-ground end and the grounding electrode conductor attachment are protected against physical damage.
 - iii. If 25 ohms or less resistance can not be achieved by typical installation methods, a larger diameter rod, a grounding plate or grounding ring may be installed when pre-approved by Google Fiber.
- c. When installing grounding rods in a vault, locate the grounding rod or grounding method electrode tie in point at the corner of the vault while maintaining an offset from vault sidewalls of between 2 and 4 inches.
- d. When a grounding point and tracer wire are colocated, tracer wire will be connected to the grounding rod or other grounding electrode as follows:
 - i. Connected grounding electrodes to the tracer wire via a grounding conductor that is a minimum AWG 6, made of copper or other noncorrosive material, and will be corrosion resistant for the expected lifetime with no breaks in the grounding conductor.

01.01C - Conduit and Vault Capacity

- 1. **Conduit and Vault Size and Count.** The sizes and counts of Drop Conduit and Vaults specified are based on the occupancy of 50% of the space by Google Fiber. Accommodating multiple Third-Party Users may require an increase in the vault and conduit size or count in Drop Conduit and Vault specifications.

01.02 - Access Point and Conduit Classification

01.02A - Access Point Classifications

- 1. **Vaults.** Vaults will be used as Access Points throughout the Arterial Conduit, Local Access Conduit, and Drop Conduit, and will be classified per this Section 01.03A. Vaults will be further classified as follows:
 - a. **"Meet-Me Vault" ("MMV")** means a vault identified by Google Fiber to be a Meet-Me Point.
 - i. **Conduit Terminated:** LCP, LCS
 - ii. **Minimum Size:** Not applicable
 - iii. **Occupant:** Google Fiber
 - b. **"Intermediate Access Vault" ("IAV")** means a vault installed along Local Access Conduit or Arterial Conduit for the purpose of accessing Leased Conduit for the installation and ongoing maintenance of the Google Fiber Network.



- i. **Conduit Terminated:** LCP, LCS, ATP, ATS
 - ii. **Minimum Size:** Large Vault
 - iii. **Occupant:** All Licensees
 - 1. The use of the IAV to support Licensee Equipment will be limited to cable pulls, slack storage and reel-end splicing.
 - 2. The maximum volume each Licensee may use of the IAV will be based on the ratio of the Licensee's Local Access Conduit entering the IAV to the total conduit package entering the IAV.
 - c. **"Drop Closure Vault" ("DCV")** means a vault installed at the demarcation point between the Local Access Conduit, Secondary, and the Drop Conduit, Primary, and will act as the demarcation point between any Licensee's Outside Plant deployment and success-based Drop Cable installation.
 - i. **Conduit Terminated:** LCS, ATS, DCP, DCS
 - 1. DCS will only terminate at a DCV for parcels immediately adjacent to the DCV.
 - ii. **Minimum Size:** Large Vault
 - iii. **Occupant:** All Licensees
 - 1. The use of the DCV to support Licensee Equipment will be limited to cable pulls and a single drop closure.
 - 2. The volume of the DDV will be divided evenly between Licensees.
 - d. **"Drop Demarc Vault" ("DDV")** means a vault installed at the demarcation point between the Drop Conduit, Primary, and the Drop Conduit, Secondary, for the purpose of routing Drop Cables from DCV to a SAP.
 - i. **Conduit Terminated:** DCP, DCS
 - ii. **Minimum Size:** Small Vault
 - iii. **Occupant:** All Licensees
 - 1. The use of the DDV to support Licensee Equipment will be limited to cable pulls and slack storage for any cables utilizing the DCS terminated at the DDV.
 - 2. The volume of the DDV will be divided evenly between Licensees.
 - e. **"Licensee Assigned Vault" ("LAV")** means a vault installed at critical locations identified by Google Fiber during the Network Segment Design review and approval process.
 - i. **Conduit Terminated:** LCP, LCS
 - 1. Alternate conduit break-outs may be identified by Google Fiber during the Network Segment Design review process.
 - ii. **Minimum Size:** Large Vault
 - 1. Alternate vault sizing may be identified by Google Fiber during the Network Segment Design review process.
 - iii. **Occupant:** Google Fiber
2. **"Service Access Point" ("SAP")** means an Access Point located at SxU and MxU Buildings served by DCS.
- a. For SxU, the SAP will be established on the building facade.
 - b. For MxU Developments, the SAP will be established at each building on the property either mounted on the exterior of a building or inside a designated telecom room.

01.02B - Conduit Classifications

1. **Arterial Conduit Network.**
This Exhibit will not differentiate between the Arterial Conduit Network and Local Access Conduit.
- a. This Exhibit will reference Local Access Conduit as the connection between the Meet-Me Point and the Drop Closure Vault and associated Drop Conduit.
 - b. Where the Arterial Conduit Network meets the requirements outlined for Local Access Conduit in this Exhibit, the Arterial Conduit Network may be included by the City in their Network Segment Design and may be part of the Leased Conduit.
 - c. Any use of the Arterial Conduit Network where the requirements of the Local Access Conduit are not met is not allowed without explicit pre-approval by Google Fiber prior to the Network Segment Design.
2. **Local Access Conduit.** The Local Access Conduit will be installed as a single conduit package, either bundled or sheathed, of multiple conduit. The different conduit comprising the Local Access Conduit will be classified as follows:
- a. **"Local Access Conduit, Primary" ("LCP")** means a Local Access Conduit intended for Google Fiber's Trunk Cables or Feeder Cables and will connect between MMV, IAP and LAV throughout the Leased Conduit.
 - i. **Minimum Conduit Count:** 2
 - 1. Additional LCP conduit may be identified by Google Fiber during the Network Segment Design review process.
 - ii. **Minimum Nominal Conduit Size:** 1"



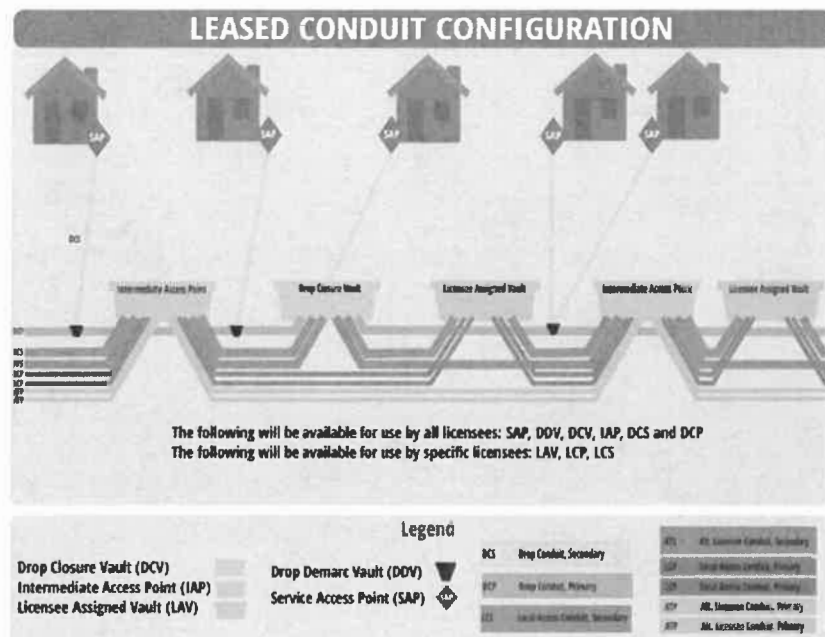
- iii. **Occupant:** Google Fiber
 - b. **"Local Access Conduit, Secondary" ("LCS")** means a Local Access Conduit intended for Google Fiber's Feeder Cables and/or Distribution Cables and will connect between MMV, IAP, LAV, and DCV throughout the Leased Conduit.
 - i. **Minimum Conduit Count:** 1
 - ii. **Minimum Nominal Size:** 1.5"
 - iii. **Occupant:** Google Fiber
3. **Drop Conduit.** The Drop Conduit will be installed as a single conduit and will be bundled or sheathed when installed in parallel with other conduit in the Conduit Network. Each Drop Conduit will consist of two segments, classified as follows:
- a. **"Drop Conduit, Primary" ("DCP")** means a Drop Conduit installed along the right of way, either public or private, connecting a DCV to one or multiple DDV.
 - i. **Minimum Conduit Count:** 1
 - ii. **Minimum Nominal Conduit Size:** 1.5"
 - iii. **Occupant:** All Licensees
 - b. **"Drop Conduit, Secondary" ("DCS")** means a Drop Conduit installed on a private property connecting the SAP on an individual building to either a DCV or DDV. For an MxU Development with multiple buildings, the DCS will connect from the DCV or DDV to the SAP on the first building with additional DCS connecting from the SAP on the first building to the SAP on the second building, continuing as such until all buildings on the MxU Development are connected.
 - i. **Minimum Conduit Count:** 1
 - ii. **Minimum Nominal Conduit Size:**
 - 1. 1.5" for MxU Developments with multiple buildings; or
 - 2. 1" for all other property types.
 - iii. **Occupant:** All Licensees
4. **Alternate Licensee Conduit. "Alternate Licensee Conduit" ("ALC")** means any conduit installed in parallel with the Local Access Conduit dedicated to a Third-Party User.

01.02C - Access Point and Conduit Layout

- 1. **General Overview - Minimum Requirements.**
 - a. LCP and LCS will originate from the MMV and will be installed as needed to reach all associated DCV throughout the Conduit Network.
 - b. DCP will be installed as needed to reach all associated parcels with addresses designed to be Servable Addresses throughout the Conduit Network.
 - c. Multiple IAV will be installed along the Local Access Conduit pathway where both the LCP and LCS will be accessed.
 - d. Multiple DCV will be installed along the Local Access Conduit pathway where the LCS, one or multiple DCP will be accessed, and one or more DCS may originate.
 - e. Multiple DDV will be installed along the Drop Conduit pathway where the DCP will be accessed and one more multiple DCS may terminate.
 - f. DCS will be installed as needed to connect a building SAP either to another building's SAP on the same property or to the associated DCV or DDV.
- 2. **General Overview - Schematic View.**

Leased Conduit Configuration: Conduit and Access Points Only.





3. Access Point and Conduit Placement.

a. Drop Conduit.

- i. [Reserved]

b. Drop Vault.

- i. All DCV and DDV are to be placed at the end of the Right of Way abutting the private property line for the served MxU Development or SxU.
- ii. When a DCV is to be shared between multiple SxU:
 1. The DCV may support up to a maximum of 8 SxU,
 2. The DCV will be located centrally with respect to the supported SxU,
- iii. One DDV is required for every one to two SxU
 1. The DCV may serve this purpose for one to two SxU.
 2. Where feasible, the DDV or DCV serving two SxU should be placed on the common lot line for the two properties being served.
- iv. One dedicated DCV is to be placed for each MxU Development.
- v. The distance from the DCV to all supported SAP should be a maximum of 1,000 LFT.
 1. Any instance where the DCV to SAP length is greater than 1,000 LFT should be identified on the Draft Network Section Design and may be a reason for not validating the Draft Network Section Design.
- vi. Drop Conduit connecting any DCV and SAP should connect through a maximum of 3 DDV.
 1. Any instance where the DCV to SAP connection requires the use of more than 3 DDV should be identified on the Network Section Design and may be a reason for not validating the Draft Network Section Design.

c. Intermediate Access Vault.

- i. An IAV will be placed no less than once every 1,500 LFT of Local Access Conduit pathway.
 1. An IAV will be required at all planned angled turns or deviations from a linear running line including, but not limited to, all ninety-degree crossings or transitions.
- ii. IAV as specified above supports Google Fiber and one additional tenant deploying using similar Local Access Conduit specifications. A change in IAV specifications would need to be agreed upon jointly between Google Fiber and City for either additional tenant support or if the planned additional tenant requires a larger Local Access Conduit package.

d. Service Access Point.

- i. The total conduit length between the SAP for a Servable Address and its associated Meet-me Point will be a maximum of 19 km.

01.03 - Network Section Design

01.03A - Design Requirements

1. **Defined Critical Routes.**
 - a. Google Fiber will identify routes critical to their ability to utilize the Leased Conduit for the intended service area ("**Critical Routes**").
 - b. A boundary will be identified for each Critical Route ("**Service Boundary**") for use during Network Section Design.
 - i. All addresses designed to be Servable Addresses within a Service Boundary should be connected via Drop Conduit and Local Access Count to the Leased Conduit on the Service Boundary's associated Critical Route through the shortest path reasonably possible.
2. **Defined Meet-me Points.**
 - a. Google Fiber will identify the specific geo-location of one or multiple Meet-Me Points.
 - b. The Leased Conduit along each Critical Route will be associated with and should connect a Meet-Me Point designated by Google Fiber.
3. **First Network Segment Design Requirement.**
 - a. Design will include the following, in addition to the required information set out in the Agreement
 - i. Sequencing
 - ii. Critical Routes and associated Service Boundaries
 - iii. Include requirement for Servable Addresses to tie to their associated Trunk Boundary
 - iv. Include requirement for max % of Servable Addresses in buildings located entirely within private Rights of Way
 - v. Include requirements for materials for SAP Enclosures
4. **Subsequent Network Segment Design Requirement.**
 - a. Design will include the following, in addition to the required information set out in the Agreement
 - i. Updates to sequencing
 - ii. Critical Routes and associated Service Boundaries
 - iii. Include updated designs based on as-builts
 - iv. Include requirement for Servable Addresses to tie to their associated Trunk Boundary
 - v. Cross-reference to sequencing & address counts

01.03B - Design Deliverables

1. **Design Deliverable Requirements.**
 - a. Any design updates required to be provided under the Agreement will be provided to Google Fiber in both PDF and GDB files.
 - b. GDB files will meet the requirements of Section 01.03B.2.
2. **GDB Requirements.**

All Network Section Designs will be delivered in a GDB format matching the data schema prescribed in Section 01.04D (Leased Conduit Design Data Schema), which includes both the data elements required, the attribution for each data element, and requirements for when and how each element and attribute is to be used in the design.

01.04 - Access Point and Conduit Construction

01.04A - Vault Construction Requirements

1. **Vault Size Classifications.**

Vault sizes are determined by a range of width, length, depth or diameter, if applicable, as follows. When the width, length, depth, or diameter fall in different sizes, the larger size will apply.

 - a. **Small Vault (SV). "Small Vault"** means a vault with the dimensions as follows:
 - i. Width: Greater than 12 inches and up to 24 inches.
 - ii. Length: Greater than 20 inches and up to 36 inches.
 - iii. Diameter: Greater than 12 inches and up to 24 inches.
 - iv. Depth: Up to 36 inches.
 - b. **Large Vault (LV). "Large Vault"** means a vault with the dimensions as follows:
 - i. Width: Greater than 24 inches and up to 36 inches.
 - ii. Length: Greater than 36 inches and up to 48 inches.
 - iii. Diameter: Greater than 24 inches and up to 36 inches.



- iv. Depth: Up to 48 inches.
- c. **Extra Large Vault (XLV).** "Extra Large Vault" means a vault with the dimensions as follows:
 - i. Width: Greater than 36 inches and up to 48 inches.
 - ii. Length: Greater than 48 inches and up to 72 inches.
 - iii. Diameter: Greater than 36 inches and up to 54 inches.
 - iv. Depth: Up to 60 inches.
- 2. **Vault Tier Requirements.** "Tier Rating" means the designated traffic loading design strength of a vault as determined by the testing requirements or design criteria of either ANSI/SCTE 77 2017 or AASHTO.
 - a. "Tier 5" means a vault certified per ANSI/SCTE 77 2017 to a vertical test load of 7,500 lbf and a lateral test load of 2,700 lbf
 - b. "Tier 8" means a vault certified per ANSI/SCTE 77 2017 to a vertical test load of 12,000 lbf and a lateral test load of 2,700 lbf
 - c. "Tier 15" means a vault certified per ANSI/SCTE 77 2017 to a vertical test load of 22,500 lbf and a lateral test load of 3,600 lbf
 - d. "Tier 22" means a vault certified per ANSI/SCTE 77 2017 to a vertical test load of 33,750 lbf and a lateral test load of 3,600 lbf
 - e. "AASHTO H-20" means a vault designed for deliberate vehicular traffic applications and constructed of certified precast concrete, cast iron, or other AASHTO-recognized materials per the AASHTO Standard Specifications for Highway Bridges.
- 3. **Vault Placement Locations.**
 - a. **Location Definitions.**

Vaults may be placed only in locations that meet the following classifications:

 - i. **"Pedestrian and Minimal Incidental Traffic Only Areas"** means a Softscape or Hardscape right-of-way or easement area that is located on the frontside or backside of a property at least 4 feet from the edge of residential driveways and where anticipated traffic loading is minimal, and that meets any of the following:
 - 1. Any Softscape location directly behind the property side of a sidewalk, where curb, gutter, and sidewalk are all present;
 - 2. Any Softscape location offset by a minimum of 10 feet from the back of the curb, where curb and gutter are present but sidewalk is not present;
 - 3. Any Softscape location offset by a minimum of 20 feet from the back of the curb or edge of the roadway where the roadway interfaces directly with Softscape;
 - 4. Any Softscape location offset by a minimum of 5 feet from the edge of a parking lot, unpaved road, or unpaved lot; or
 - 5. Any location behind a curb located near a parking lot, unpaved road, or unpaved lot.
 - ii. **"Incidental/Non-Deliberate Light Vehicle Traffic Areas"** means an area that meets any of the following specifications:
 - 1. Any Softscape or Hardscape areas within 10 feet from any street corner centerline, median or traffic road edge with a turning radius of 20 feet or less, and where all adjacent traffic speeds are no greater than 30 mph;
 - 2. Any Softscape or Hardscape within a sidewalk, at the back of the curb, or within beauty strips;
 - 3. Any Softscape area within 10 feet from the back of the curb, where only a curb or curb and gutter, but no sidewalk, is present; or
 - 4. Any Softscape within 20 feet from the edge of a roadway where the roadway interfaces directly with the Softscape.
 - iii. **"Incidental/Non-Deliberate Medium and Heavy Vehicle Traffic Areas"** means a Softscape or Hardscape area that meets the following specifications:
 - 1. Located within 10 feet from any street corner centerline, median or traffic road edge with a turning radius of 20 feet or less, and where any adjacent traffic speed limits exceed 30 mph; or
 - 2. Any shoulder, easement, right-of-way, or median located on highway or state department of transportation property.
 - 3. "Deliberate Light Vehicle Traffic Areas" means a Softscape or Hardscape area that meets the following specifications:
 - 4. Any single or dual lane alleyway not used specifically as a loading dock, and where anticipated traffic use will be limited to vehicles of class 6 or lower, as defined in the Federal Highway Administration's vehicle classification system; or
 - 5. Any trash receptacle areas, outside dumpster placement area, equipment travelway or equipment operating areas
 - iv. **"Deliberate Medium and Heavy Vehicle Traffic Areas"** means a Softscape or Hardscape area that meets the following specifications:
 - 1. Any location within a traveled roadway; or

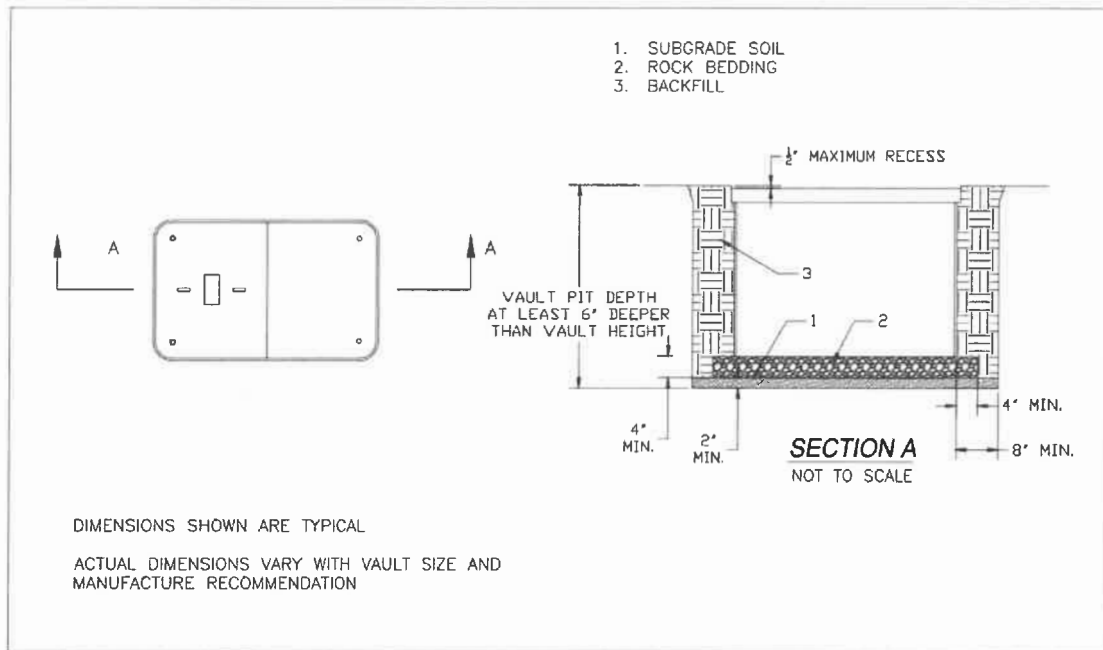
2. Any roadway or alleyway used as a loading dock, or where the anticipated traffic use will include vehicles above class 6, as defined in the Federal Highway Administration's vehicle classification system.
- b. **Vault Tier Rating Location Requirements.**
The requirements of this Section 1.04A.3.b take precedence over all criteria in Section 1.04A.3.a and are to be used in conjunction with the location classifications provided in Section 1.04A.2.
 - i. Allowable uses of Tier 5 or Tier 8 vaults:
 1. Pedestrian and Minimal Incidental Traffic Only Areas
 - ii. Allowable uses of Tier 15 vaults:
 1. Backyard or Rear Easement Areas
 2. Pedestrian and Minimal Incidental Traffic Only Areas
 3. Incidental/Non-Deliberate Light Vehicle Traffic Areas
 - iii. Allowable uses of Tier 22 vaults:
 1. Incidental/Non-Deliberate Light Vehicle Traffic Areas
 2. Incidental/Non-Deliberate Medium and Heavy Vehicle Traffic Areas
 3. Deliberate Light Vehicle Traffic Areas
 - iv. Allowable uses of AASHTO H-20 vaults:
 1. Deliberate Medium and Heavy Vehicle Traffic Areas
4. **Vault Placement Requirements.**
 - a. **Surface Grade.**
 - i. If a vault is placed in a surface with a grade less than or equal to 35 degrees from horizontal, place the vault flush with the surface and match the grade.
 - ii. If a vault is placed in a surface with a grade greater than 35 degrees from horizontal, place the vault level (i.e., horizontal), and the following additional requirements apply:
 1. If the greatest vertical distance from the surface to the top of the vault (the "Grade Difference") is less than 24 inches, create a layback with a maximum run to rise ratio of 1:2.
 2. If the Grade Difference exceeds 24 inches, install a retaining wall if deemed necessary.
 - b. **Other Vault and Lid Placement Requirements.**
 - i. If a vault is placed in a narrow alleyway or travelway where the typical vehicle wheel path runs along the road edge, place the vault in the center of the alleyway or travelway.
 - ii. If a vault is placed in Softscape, vault edges will be at least 6 inches from any Hardscape element, including but not limited to sidewalk edges, curbs, or driveways, unless a shorter separation is necessary given in-field conditions.
 - iii. Secure vault lids properly, and tighten hex bolts to the proper torque required by the manufacturer.
 1. Bolts will be tightened at a minimum to be flush or recessed with the vault lid.
 - iv. Set vault lid and frame flush with one another, and adhere to the following tolerances relative to existing grade:
 1. In Softscape, the vault and/or lid cover will not be recessed more than 1/2 inches relative to existing grade, and any elevation gradient between top of vault and existing grade of the surrounding soil or Backfill will have a layback with a run to rise ratio of 1:2.
 2. In Hardscape, the vault and/or lid cover will not be recessed more than 1/4 inches relative to existing grade.
5. **Vault Materials.**
 - a. Vault frames and vault lids may be Plastic Material or Polymer Concrete.
 - b. **Surface Friction.** All vault covers, lids and surface exposed to potential pedestrian traffic, or any lid or vault surface placed within 5 feet of a pedestrian pathway, will have a surface with coefficient of friction greater than or equal to the following:
 - i. Plastic Material: 0.25 or greater as determined by ASTM C1028, ASTM E303 or equivalent testing.
 - ii. Polymer Concrete: 0.5 or greater as determined by ASTM C1028, ASTM E303 or equivalent testing.
 - c. **Locking Mechanism.**
All vault lids will have the capability of locking and being secured to the vault frame. The mechanism used to secure the lid will meet the following requirements:
 - i. Use a standard hex bolt that is tightened and secured for the locking mechanism; and
 - ii. May not use any turn-latch, spring loaded or key lock style mechanisms.
 - d. **Vault Lid Labeling.**
 - i. All IAV will be clearly marked with "DSM-IAP"
 - ii. All DCV will be clearly marked with "DSM-DCV"
 - iii. All DDV will be clearly marked with "DSM-DDV"

- iv. All LAV will be clearly marked with a marking agreed upon between City and the associated Licensee; LAV assigned to Google Fiber will be marked with the Google Fiber Utility Logo or a marking of "GFBR".

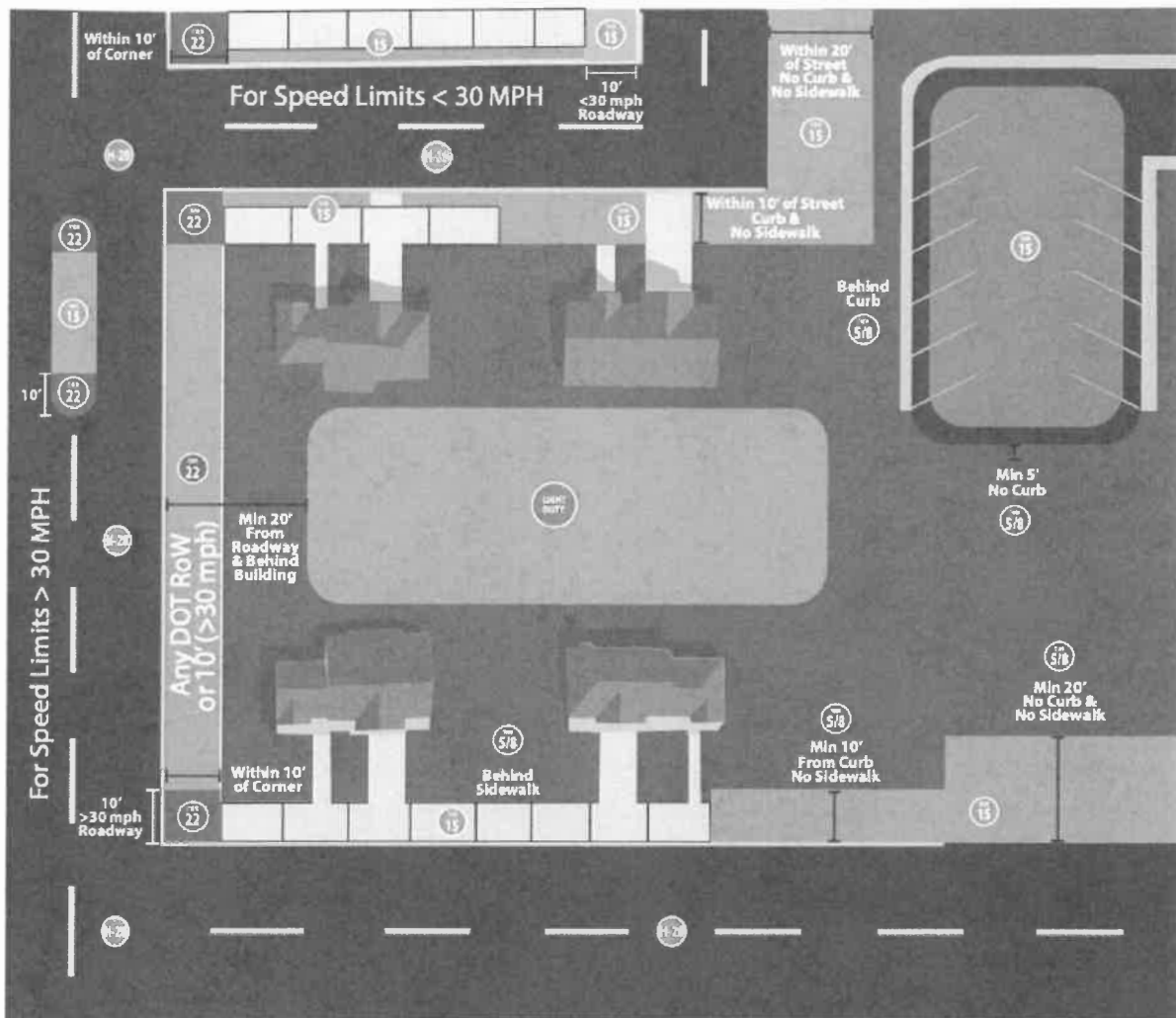
6. **Vault Placement Drawings.**

The following drawings correspond to the requirements outlined in this Section 01.04A.

a. **Vault Installation Guide.**



b. **Typical Vault Placement Guide.**



VAULT PLACEMENT GUIDE (Minimum Requirements)

Vault Placement Location	Traffic Tier Rating Selection				
	Light Duty	Tier 5/8	Tier 15	Tier 22	H-20
Backyard or Rear Easement	22	5/8	15		
Pedestrian and Minimal Incident Only Traffic		5/8	15		
Incidental/Non-Deliberate Light Vehicle Traffic			15	22	
Deliberate Light Vehicle				22	
Deliberate Medium and Heavy Vehicle Traffic					H-20

01.04B - Service Access Point Construction Requirements

1. **Service Access Point Types.**
 - a. **SAP Conduit Stub.**
 - i. For Residential SxU, the SAP will consist of a conduit stub on the exterior of the building.
 - ii. DCS will be swept up, anchored, and terminated at 24 inches above grade.
 - b. **SAP Enclosure.**
 - i. For Commercial SxU, and for all MxU Buildings, the SAP will consist of a multi-tenant enclosure mounted either on the exterior of the associated building or inside of a telecom room.

- ii. DCS will be terminated within the enclosure and accessible to each Licensee.
2. **Service Access Point Location.**
- a. Exterior SAP will be placed on the Power Side of a property whenever possible and will meet the following requirements.
 - i. Install SAP at a minimum separation of 12 inches from the existing power meter and power lines; and
 - ii. Install SAP at a maximum separation of 48 inches from existing power meter.
 - b. Exterior SAP will be installed at the same height as the power meter or as other existing utilities and meet the following requirements:
 - i. The SAP will be a minimum of 24" above the ground measured from the bottom of the SAP Enclosure or the SAP Conduit Stub termination; and
 - ii. The SAP will be a maximum of 5 feet above the ground measured from the bottom of the SAP Enclosure or the SAP Conduit Stub termination.
 - c. If an exterior SAP will be installed in front of the fence line running parallel to the street, or if no fence line exists, all of the following additional requirements apply:
 - i. The SAP should be set back at least 4 feet from the front of the building; or
 - ii. If installed on the Power Side and the power meter is mounted with a set back of greater than 4 feet, match the set back of the power meter.
 - d. SAP Enclosures will be mounted level and have clearance to open and close freely.
3. **Service Access Point Materials.**
- a. Manufacturer and MPN for materials used as SAP Enclosures will be specified in the first Network Section Design.

01.04C - Conduit Construction Requirements

1. **General Conduit Requirements**
- a. **Conduit Packages.**
 - i. **"Local Access Conduit Package"** means any bundling of installed conduit that contains Local Access Conduit as well as any other combination of Alternate Licensee Conduit or other City installed conduit.
 - ii. **"Drop Conduit Package"** means any bundling of installed conduit that contains only Drop Conduit.
 - b. **Bore Profile.**
 - i. For all Local Access Conduit Packages, a minimum 36 inch cover is required unless within 10 ft of a vault where a minimum 24 inch cover will be required..
 - ii. For all Drop Conduit Packages, a minimum 12 inch cover is required.
 - c. **Aerial Construction.**
The use of aerial construction will not be accepted for either Local Access Conduit Packages or Drop Conduit Packages unless essential for crossing over areas where underground construction is prohibited by law or otherwise infeasible.
 - i. No Drop Conduit Packages may be aerial.
 - ii. Each individual crossing must be reviewed and approved by Google Fiber.
 - iii. Each street crossing must be accomplished by one of the following:
 - 1. **Aerial Conduit.** The Local Access Conduit Package may be installed aerially over the street crossing and risered down to IAV installed on both sides of the crossing as close to the riser as possible.
 - 2. **Dedicated Strand.** The City may provide access to a strand for each Licensee for the installation of the Google Fiber Network or other Licensee's facilities where the Local Access Conduit Package is risered from the strand down to an IAV installed as close to the riser as possible on both sides of the crossing.
2. **Bored Conduit Installation Requirements.**
- a. **Reaming Requirement.** Use backreaming when required by drill rig or conduit manufacturer specifications, or in any scenario when the pullback will exceed the conduit maximum short term tensile load.
 - b. **Conduit Pullback Requirements.**
 - i. Pulling hardware will (i) be of appropriate size, per manufacturer specification, based on the conduit outside diameter, and (ii) be capable of withstanding the maximum load applied during pull.
 - ii. Install a swivel attachment between conduit and drill head to prevent transmission of torsional loads during pullback. Use a swivel suitable for drilling operations in soil and slurry.
 - iii. During pullback, ensure conduit is properly sealed to prevent all soil, slurry or fluids from entering the conduit.

- c. **Conduit Handling.**
 - i. Conduit will be handled, stored, and joined in accordance to manufacturer's specifications.
 - ii. If a conduit is damaged or separates, or otherwise requires coupling or splicing at a location between two bore pits, the following requirements apply:
 - 1. Couple or splice the conduit in accordance with the conduit manufacturer's requirements; and
 - 2. Use only couplers that are compatible with the conduit material and that provide an air-tight seal.
 - d. **Conduit Proofing and Testing.**
 - i. Proof and validate the integrity of a minimum of one conduit out of each newly installed Conduit Package by pulling or pushing a mandrel in accordance with the following requirements:
 - 1. Mandrel outside diameter will be a minimum of 85% of the conduit's outside diameter.
 - 2. For any conduit with an outside diameter of less than 1 1/2 inches, a flexible mandrel comprised of neoprene or similar is required.
 - ii. All conduit in each newly installed Conduit Package will be left with an intact and operational mule tape or pull line.
3. **Trenched Conduit Installation Requirements.**
- a. Open trenching will be used as a conduit deployment method only when Bored Conduit requirements cannot be reasonably met.
 - b. Any instance where open trenching is required should be identified on the Network Section Design and may be a reason for rejection.
 - c. Conduit Handling requirements in Section 01.04C.2.c above will be followed.
 - d. Conduit Proofing and Testing requirements in Section 01.04C.2.d above will be followed.
4. **Conduit Sealing.**
- a. **Conduit Seal and Conduit Types.**
 - i. **"Conduit Sealing Material"** means a conduit or cored hole Sealant application that meets all of the following requirements:
 - 1. Provides a watertight seal around the conduit or cable with a minimum 10 foot pressure head.
 - 2. Capable of withstanding at least 5 psi pressure.
 - 3. Confirmed material compatibility with the cable jacket, conduit, or metallic elements.
 - 4. If used, sealing plug will be one self-contained assembly having an adjustable resilient filler of neoprene or silicone rubber clamped between backing ends and compressed with stainless steel hardware.
 - 5. If used to seal an empty conduit, sealing plug will have an eye or other type of capturing device on the side of the plug that entering the conduit to enable attachment to the pull tape so that the pull tape will be easily accessible when the plug is removed.
 - ii. **"Active Conduit"** means any occupied conduit.
 - iii. **"Vacant Conduit"** means any unoccupied conduit.
 - b. **Conduit Seal Requirements.**
 - i. All installed conduit will have ends sealed at all times to prevent any soil, slurry, or other materials from entering the conduit during all stages of construction.
 - ii. All conduit will be sealed with End Caps upon completion of the Network Segment Construction.
 - 1. **"End Caps"** means material that can be slipped over, screwed onto or placed into conduit ends and be able to remain attached without the use of permanent adhesives, and still be easily removed by hand.
 - 2. The End Cap must have an eye or other type of capturing device on the side of the plug that enters the conduit to attach onto the pull tape so that the pull tape will be easily accessible when the cap is removed.
5. **Conduit Entry at Vaults.**
- a. **Conduit Sealing at Vaults.**
 - i. Conduit entry points in vaults will be sealed between the vault wall and outside of conduit, and must be sealed with acceptable permanent sealing Material such as duct putty, permanent foam, or equivalent duct Sealant.
6. **Conduit Materials.**
- a. Conduit will be HDPE.
 - b. Conduit wall thickness will have a Standard Dimension Ratio of 13.5 or less.

- c. Pre-installed mule tape or pull line will be rated to 1,250 lbs.

7. Conduit Identification.

- a. Conduit will be differentiated by color between Local Access Conduit, Drop Conduit, and Alternate Tenant Conduit for each additional Tenant.
- LCP will be differentiated by striping.
 - Conduit End Caps will match conduit coloring.

01.05 - Leased Conduit Design Data Schema

1. General Design Data Requirements.

- Projection is to be set to Web Mercator. Please understand the risks associated with this - ie. lengths will still need to be calculated as geodesic lengths
- GPS data is to be collected and stored as a related record using WGS 1984.
- The Trusted Source is listed for each feature and attribute in the Sections below.
 - When the Trusted Source is the City, the feature and attribute information from the City will be definitive and any conflicts or changes identified by either the City or Google Fiber should be managed in the City's design system and provided to Google Fiber.
 - When the Trusted Source is Google Fiber, the feature and attribute information from Google Fiber will be definitive and any conflicts or changes identified by either the City or Google Fiber should be managed in Google Fiber's design system and provided to the City.

2. List of Required Objects.

Only the following GIS features will be included in design updates provided by the City to Google Fiber.

Name of Feature	Feature Type	Description	Trusted Source
ADDRESS	Point	Each unique and verifiable address.	Google Fiber
BUILDINGOUTLINE	Polygon	Outline of each structure housing one or multiple addresses, required when an MxU Development contains more than one Building.	Google Fiber
CONDUIT	Polyline	Planned, designed, or constructed Licensed Conduit.	City
GUYSPAN	Polyline	Planned, designed, or constructed aerial strand.	City
PARCEL	Polygon	Outline of each tract or plot of land.	City
POLE	Point	Planned, designed, or constructed pole to which aerial strand is attached.	City
PROPERTYOUTLINE	Polygon	Outline of each SxU ROE or MxU Development containing one or multiple Buildings and/or Parcels.	Google Fiber
RISER	Point	Planned, designed, or constructed pole-attached riser.	City
STRUCTURE	Point	Planned, designed, or constructed Access Point or Meet-Me Point.	City

3. List of Domain Values.

Where a domain is listed for a feature, only the listed domain values associated with each domain may be used. If the domain value is "null" there is not a domain requirement.

a. **YesNo.**

Code	Name	Description
Y	Yes	Yes
N	No	No

b. **3PAddressType.**

Code	Name	Description
MXU	MxU	An address in a residential multi-dwelling development or commercial multi-tenant development.
SXU	SxU	An address in a single-family residential building or a single-tenant commercial building.



c. **3PAddressStatus.**

Code	Name	Description
NULL	Null	Address not assessed.
CONSTRUCTABLE_ADDRESS	Constructable Address	Address meeting the definition of a Constructable Address per the Agreement.
DESIGNED_ADDRESS	Designed Address	Address meeting the definition of a Designed Address per the Agreement.
GO_BACK_ADDRESS	Go-Back Address	Address meeting the definition of a Go-Back Address per the Agreement.
NON_STANDARD_ADDRESS	Non-Standard Address	Address meeting the definition of a Non-Standard Address per the Agreement.
UP_FRONT_ADDRESS	Up-Front Address	Address meeting the definition of a Up-Front Address per the Agreement.
SERVABLE_ADDRESS	Servable Address	Address meeting the definition of a Servable Address per the Agreement.

d. **3PStatus.**

Note - these statuses are to be considered a hierarchy, following the order of ACCEPTED, VALIDATED, DRAFTED and then PENDING. Each feature's attribute must be populated correctly once the Status indicated in the attribute's Status Required column is reached.

Code	Name	Description
ACCEPTED	Accepted Network Section	Associated with an Accepted Network Section.
VALIDATED	Validated Network Section Design	Associated with a Google Fiber validated Network Section Design.
DRAFTED	Draft Network Section Design	Associated with a submitted Draft Network Section Design.
PENDING	Pending Network Section Design	Not yet associated with a Network Section Design.

e. **3PConduitType.**

Code	Name	Description
LCP	Local Access Conduit, Primary	Local Access Conduit, Primary as defined in the Agreement.
LCS	Local Access Conduit, Secondary	Local Access Conduit, Secondary as defined in the Agreement.
DCP	Drop Conduit, Primary	Drop Conduit, Primary as defined in the Agreement.
DCS	Drop Conduit, Secondary	Drop Conduit, Secondary as defined in the Agreement.
ALC	Alternate Licensee Conduit	Alternate Licensee Conduit as defined in the Agreement.

f. **3PConduitColor.**

Code	Name	Description
BLUE	Blue	Blue Conduit color.
ORANGE	Orange	Orange Conduit color.
GREEN	Green	Green Conduit color.
BROWN	Brown	Brown Conduit color.
SLATE	Slate	Slate Conduit color.
WHITE	White	White Conduit color.
RED	Red	Red Conduit color.

BLACK	Black	Black Conduit color.
YELLOW	Yellow	Yellow Conduit color.
VIOLET	Violet	Violet Conduit color.
PINK	Pink	Pink or rose Conduit color.
AQUA	Aqua	Aqua Conduit color.
TERRA_COTTA	Terra Cotta	Terra Cotta Conduit color.
GRAY	Gray	Gray Conduit color.

g. **3PPlacementType.**

Code	Name	Description
AERIAL	Aerial Placement	Asset placed aerially.
BORED	Bored Placement	Asset placed via boring or directional drilling.
TRENCHED	Open Trench Placement	Asset placed via open trenching.

h. **3PPropertyType.**

Code	Name	Description
MXU_DEVELOPMENT	MxU Development	Property meeting the definition of a MxU Development per the Agreement.
SXU_ROE	SxU Right of Entry	Privately developed property with private roads.

i. **3PStructureType.**

Code	Name	Description
MMV	Meet-Me Vault	Meet-Me Vault as defined in the Agreement.
IAV	Intermediate Access Vault	Intermediate Access Vault as defined in the Agreement.
DCV	Drop Closure Vault	Drop Closure Vault as defined in the Agreement.
DDV	Drop Demarc Vault	Drop Demarc Vault as defined in the Agreement.
LAV	Licensee Assigned Vault	Licensee Assigned Vault as defined in the Agreement.
SAP_STUB	Service Access Point, Conduit Stub	Service Access Point, Conduit Stub as defined in the Agreement.
SAP_IE	Service Access Point, Interior Enclosure	Service Access Point, Interior Enclosure as defined in the Agreement.
SAP_EE	Service Access Point, Exterior Enclosure	Service Access Point, Exterior Enclosure as defined in the Agreement.

j. **PoleMaterial.**

Code	Name	Description
WOOD	Wood	Wood Pole Material
METAL	Metal	Metal Pole Material
CONCRETE	Concrete	Concrete Pole Material
COMPOSITE	Composite	Composite Pole Material

k. **PoleUse.**

Code	Name	Description
DISTRIBUTION	Distribution	Pole used is Distribution.
TRANSMISSION	Transmission	Pole used is Transmission.
DROP	Drop	Pole used is Drop.
STUB	Stub	Pole used is Stub.

COMMUNICATIONS	Communications	Pole used is Communications.
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l. **VaultSize.**

Code	Name	Description
SV	Small Vault	Small Vault as defined in the Agreement.
LV	Large Vault	Large Vault as defined in the Agreement.
XLV	Extra Large Vault	Extra Large Vault as defined in the Agreement.

m. **VaultLidType.**

Code	Name	Description
SPLIT	Split	Two piece vault lid.
SOLID	Solid	One piece vault lid.

n. **VaultLidMaterial.**

Code	Name	Description
PLASTIC_MATERIAL	Plastic Material	Plastic Material as defined in the Agreement.
POLYMER_CONCRETE	Polymer Concrete	Polymer Concrete as defined in the Agreement.

o. **VaultRating.**

Code	Name	Description
TIER_05	Tier 5	Tier 5 as defined in the Agreement.
TIER_08	Tier 8	Tier 8 as defined in the Agreement.
TIER_15	Tier 15	Tier 15 as defined in the Agreement.
TIER_22	Tier 22	Tier 22 as defined in the Agreement.
AASHTO_H20	AASHTO H-20	AASHTO H-20 as defined in the Agreement.

4. **List of Attributes by Feature.**a. **ADDRESS.**

Attribute Name	Type	Domain Name	Status Required	Description	Trusted Source
GLOBALID	String	null	PENDING	Unique feature ID through the lifetime of the database. If a feature is deleted the ID will not be repeated. If a feature is added it will have newly created unique ID. If a feature is modified it will keep its unique ID	Google Fiber
3P_ADDRESSID	String	null	PENDING	Unique ID for each address.	City
3P_PARCELID	String	null	PENDING	Parcel ID where address is located.	City
3P_ADDRESSTYPE	String	3PAddressType	PENDING	The type of address as defined by the Agreement.	Google Fiber
3P_ADDRESSTATUS	String	3PAddressStatus	PENDING	Contractual status of each Address as defined by the Agreement.	Google Fiber
3P_ACCEPTANCEDATE	Date	null	ACCEPTED	The contractual Acceptance Date of the Address.	Google Fiber
3P_COMMENCEMENTDATE	Date	null	ACCEPTED	The contractual Commencement Date of the Address.	Google Fiber
3P_NETWORKSECTIONID	String	null	DRAFTED	The unique ID of the Network	Google

				Section containing the Drop Conduit for the Address.	Fiber
3P_STATUS	String	3PStatus	PENDING	Status describes the status of the Network Section containing the Address.	Google Fiber
STREETADDRESS	String	null	PENDING	Street name and number, normalized to follow USPS standards	Google Fiber
UNITNUMBER	String	null	PENDING	Unit number, normalized to follow USPS standards	Google Fiber
CITY	String	null	PENDING	City name, normalized to follow USPS standards	Google Fiber
STATE	String	null	PENDING	Two letter uppercase code for the state, such as CA, TX. The full spelling of the state name, such as "California" or "Texas", must not be used.	Google Fiber
ZIPCODE	String	null	PENDING	5 or 9 digit zipcode (XXXXX or XXXXX - YYYY)	Google Fiber
LATITUDE	String	null	PENDING	In WGS84 format, location of returned addresses should be as close to the center of parcels as possible. If any parcel has several buildings, address points should be located on top of relevant buildings.	Google Fiber
LONGITUDE	String	null	PENDING	In WGS84 format, location of returned addresses should be as close to the center of parcels as possible. If any parcel has several buildings, address points should be located on top of relevant buildings.	Google Fiber

b. BUILDINGOUTLINE.

Attribute Name	Type	Domain Name	Status Required	Description	Trusted Source
GLOBALID	String	null	PENDING	Unique feature ID through the lifetime of the database. If a feature is deleted the ID will not be repeated. If a feature is added it will have newly created unique ID. If a feature is modified it will keep its unique ID	Google Fiber
3P_BUILDINGID	String	null	PENDING	Unique ID of the building.	City
3P_PARCELID	String	null	PENDING	Parcel ID where building is located.	City
3P_PROPERTYID	String	null	PENDING	Property ID where building is located.	Google Fiber

c. CONDUIT.

Attribute Name	Type	Domain Name	Status Required	Description	Trusted Source
GLOBALID	String	null	PENDING	Unique feature ID through the lifetime of the database. If a feature is deleted the ID will not	City



				be repeated. If a feature is added it will have newly created unique ID. If a feature is modified it will keep its unique ID	
3P_CONDUITID	String	null	DRAFTED	Unique ID of the Conduit.	City
3P_NETWORKSECTIONID	String	null	DRAFTED	The unique ID of the Network Section containing the Conduit.	City
3P_STATUS	String	3PStatus	DRAFTED	Status describes the status of the Network Section containing the Conduit.	City
3P_CONDUITTYPE	String	3PConduitType	DRAFTED	Classification of the Conduit as defined in the Agreement.	City
3P_PLACEMENTTYPE	String	3PPlacementType	DRAFTED	Construction method by which the Conduit was installed.	City
3P_ISOCCUPIED	String	YesNo	VALIDATED	Flag for if the Conduit contains Network Equipment.	City
3P_CONDUITCOLOR	String	3PConduitColor	VALIDATED	Color of the Conduit.	City
3P_CONDUITSTRIPE	String	YesNo	VALIDATED	Striping of the Conduit.	City
OWNER	String	null	DRAFTED	Name of the Conduit Owner.	City
DIAMETER	String	null	DRAFTED	The nominal size of the Conduit.	City
TOSTRUCTURE	String	null	VALIDATED	StructureName of the structure the conduit is going to. When the conduit transitions directly to a riser, please populate this field with the associated 3P_POLEID.	City
FROMSTRUCTURE	String	null	VALIDATED	StructureName of the structure the conduit is coming from. When the conduit transitions directly to a riser, please populate this field with the associated 3P_POLEID.	City
MEASUREDLENGTH	Double	null	ACCEPTED	Measured length of the Conduit as constructed (ft).	City
INSTALLATIONDATE	Date	null	ACCEPTED	Date the Network Section containing the Conduit was accepted.	City

d. GUYSPAN.

Attribute Name	Type	Domain Name	Status Required	Description	Trusted Source
GLOBALID	String	null	PENDING	Unique feature ID through the lifetime of the database. If a feature is deleted the ID will not be repeated. If a feature is added it will have newly created unique ID. If a feature is modified it will keep its unique ID	City
3P_GUYSPANID	String	null	DRAFTED	Unique ID of the Guyspan.	City
3P_NETWORKSECTIONID	String	null	DRAFTED	The unique ID of the Network Section containing the Guyspan.	City

3P_STATUS	String	Status	DRAFTED	Status describes the status of the Network Section containing the Guyspan.	City
OWNER	String	null	DRAFTED	Name of the Guyspan Owner.	City
STRANDSIZE	String	null	DRAFTED	Size of strand used for Guyspan.	City
TOSTRUCTURE	String	null	VALIDATE D	3P_POLEID of the Pole the Guyspan is going to.	City
FROMSTRUCTURE	String	null	VALIDATE D	3P_POLEID of the Pole the Guyspan is coming from.	City
INSTALLATIONDATE	Date	null	ACCEPTED	Date the Network Section containing the Guyspan was accepted.	City

e. PARCEL.

Attribute Name	Type	Domain Name	Status Required	Description	Trusted Source
GLOBALID	String	null	PENDING	Unique feature ID through the lifetime of the database. If a feature is deleted the ID will not be repeated. If a feature is added it will have newly created unique ID. If a feature is modified it will keep its unique ID	City
3P_PARCELID	String	null	PENDING	Unique ID of the parcel.	City
3P_LANDSQFT	String	null	PENDING	If available, the total square footage of the parcel.	City
3P_FLOODZONE	String	YesNo	PENDING	Floodzone designation of the parcel.	City
3P_PROPERTYID	String	null	PENDING	Property ID where parcel is located, if applicable.	Google Fiber
PARCELADDRESS	String	null	PENDING	Street name and number, normalized to follow USPS standards for the reference address for the Parcel.	Google Fiber
CITY	String	null	PENDING	City name, normalized to follow USPS standards	Google Fiber
STATE	String	null	PENDING	Two letter uppercase code for the state, such as CA, TX. The full spelling of the state name, such as "California" or "Texas", must not be used.	Google Fiber
ZIPCODE	String	null	PENDING	5 or 9 digit zipcode (XXXXX or XXXXX - YYYY)	Google Fiber

f. POLE.

Attribute Name	Type	Domain Name	Status Required	Description	Trusted Source
GLOBALID	String	null	PENDING	Unique feature ID through the lifetime of the database. If a feature is deleted the ID will not be repeated. If a feature is added it will have newly created unique ID. If a feature is modified it will keep its unique ID	City
3P_POLEID	String	null	DRAFTED	Unique ID of the Pole.	City
3P_NETWORKSECTIONID	String	null	DRAFTED	The unique ID of the Network Section containing the Pole.	City
3P_STATUS	String	3PStatus	DRAFTED	Status describes the status of the Network Section containing	City



				the Pole.	
OWNER	String	null	VALIDATE D	Name of the Pole Owner.	City
OWNERPOLEID	String	null	VALIDATE D	If applicable, the Owner's Unique ID of the Pole.	City
MATERIAL	String	PoleMaterial	VALIDATE D	Pole material.	City
USE	String	PoleUse	VALIDATE D	Pole use.	City
ATTACHMENTCOUNT	Double	null	VALIDATE D	Number of communications attachments on Pole.	City
ATTACHMENTHEIGHT1	Double	null	VALIDATE D	Height of Google attachment to pole from bottom of pole (ft).	City
ATTACHMENTHEIGHT2	Double	null	VALIDATE D	Height of Google attachment to pole from bottom of pole (ft).	City
ATTACHMENTHEIGHT3	Double	null	VALIDATE D	Height of Google attachment to pole from bottom of pole (ft).	City

g. PROPERTYOUTLINE.

Attribute Name	Type	Domain Name	Status Required	Description	Trusted Source
GLOBALID	String	null	PENDING	Unique feature ID through the lifetime of the database. If a feature is deleted the ID will not be repeated. If a feature is added it will have newly created unique ID. If a feature is modified it will keep its unique ID	Google Fiber
3P_PROPERTYID	String	null	PENDING	Unique ID of the MxU Development or SxU ROE.	Google Fiber
3P_PROPERTYTYPE	String	3PPropertyType	PENDING	Type of property.	Google Fiber
PROPERTYADDRESS	String	null	PENDING	Street name and number, normalized to follow USPS standards for the reference address for MxU Development or SxU ROE.	Google Fiber
CITY	String	null	PENDING	City name, normalized to follow USPS standards	Google Fiber
STATE	String	null	PENDING	Two letter uppercase code for the state, such as CA, TX. The full spelling of the state name, such as "California" or "Texas", must not be used.	Google Fiber
ZIPCODE	String	null	PENDING	5 or 9 digit zipcode (XXXXX or XXXXX - YYYY)	Google Fiber

h. RISER.

Attribute Name	Type	Domain Name	Status Required	Description	Trusted Source
GLOBALID	String	null	PENDING	Unique feature ID through the lifetime of the database. If a feature is deleted the ID will not be repeated. If a feature is added it will have newly created unique ID. If a feature is modified it will keep its unique ID	City
3P_RISERID	String	null	DRAFTED	Unique ID of the Riser	City
3P_NETWORKSECTIONID	String	null	DRAFTED	The unique ID of the Network Section containing the Riser.	City



3P_STATUS	String	3PStatus	DRAFTED	Status describes the status of the Network Section containing the Riser.	City
3P_POLEID	String	null	DRAFTED	3P_POLEID that the Riser is attached to.	City
3P_RISERTYPE	String	3PConduitType	DRAFTED	Classification of the Riser as defined in the Agreement.	City
3P_ISOCCUPIED	String	YesNo	VALIDATE D	Flag for if the Conduit contains Network Equipment.	3rd Party
OWNER	String	null	DRAFTED	Name of the Riser Owner.	3rd Party
DIAMETER	String	null	VALIDATE D	The nominal size of the Riser	3rd Party
INSTALLATIONDATE	Date	null	ACCEPTED	Date the Network Section containing the Riser was accepted.	3rd Party

i. **STRUCTURE.**

Attribute Name	Type	Domain Name	Status Required	Description	Trusted Source
GLOBALID	String	null	PENDING	Unique feature ID through the lifetime of the database. If a feature is deleted the ID will not be repeated. If a feature is added it will have newly created unique ID. If a feature is modified it will keep its unique ID	City
3P_STRUCTUREID	String	null	DRAFTED	Unique ID of the Structure.	City
3P_NETWORKSECTIONID	String	null	DRAFTED	The unique ID of the Network Section containing the Conduit.	City
3P_STRUCTURETYPE	String	3PStructureType	DRAFTED	The type of Access Point as defined by the Agreement.	City
3P_STATUS	String	3PStatus	DRAFTED	Status describes the status of the Network Section containing the Structure.	City
OWNER	String	null	DRAFTED	Name of the Structure Owner.	City
NAME	String	null	VALIDATE D	When 3P_STRUCTURETYPE is VAULT, the vault lid marking as defined in the Agreement.	3rd Party
VAULTSIZE	String	VaultSize	VALIDATE D	Size of structure	3rd Party
VAULTLIDTYPE	String	VaultLidType	VALIDATE D	Type of lid	3rd Party
VAULTRATING	String	VaultRating	VALIDATE D	Rating of the lid	3rd Party
VAULTLIDMATERIAL	String	VaultLidMaterial	VALIDATE D	Material of lid	3rd Party
VAULTLIDRING	String	YesNo	VALIDATE D	Indicate if the vault has a ring	3rd Party
INSTALLATIONDATE	Date	null	ACCEPTED	Date the Network Section containing the Structure was accepted.	3rd Party