Purple Line BRT Project

Types of fieldwork

As part of the Project Development phase, METRO Purple Line BRT project staff will be conducting fieldwork as part of design and engineering of the project. Fieldwork activities may include surveying, wetland delineation, Geotech borings, subsurface utility exploration, archaeological investigations, and environmental testing.

Surveying

Surveying determines the elevation of land and the location of features such as trails, roads, walls, existing structures, overhead utilities and other structures, as well as property lines. Surveying will be performed along with the entire proposed route of the METRO Purple Line BRT project. Surveying crews typically consist of two surveyors: one with a tripod-mounted recording tool and another with a vertical survey rod; surveyors also use Global Positioning System (GPS) equipment.

Wetland surveying

Survey crews also check the location of wetlands that may be affected by the Purple Line project, in order to avoid, minimize or mitigate the impacts of construction on the region's valuable wetland resources.

Geotech borings

Geotech borings are needed to sample soil in order to determine its properties before building on it. Borings are performed using a drilling machine with a hydraulic auger on the back of a truck. Crews will bore holes approximately one foot in diameter along the center line of the METRO Purple Line BRT project, near existing or proposed foundations of bridges. Twenty-foot-deep borings are typically made along the proposed alignment or roadways; 100-foot deep borings are typically made around bridge abutments and bridge piers. All holes will be refilled and seeded the same day or patched with asphalt the same day if they were originally paved. Project staff will contact private property owners for Right-of-Entry prior to any Geotech borings.

Subsurface utility exploration

Subsurface utility exploration is needed at specific locations where the METRO Purple Line BRT guideway will cross underground utility lines. Utility locating crews will use vacuum trucks to remove soil above the utility line in "potholes" approximately 18 inches in diameter. Once the utility line has been found, the subcontractor will replace and compact the removed soil. Workers will mark the location of utility lines with spray paint and/or flags. Surveyors accompanying the utility workers will record the location of the markings. The work also includes opening manholes to observe the location of storm sewer and sanitary sewer lines.

Need Help?

Project staff will contact private property owners for Right-of-Entry prior to subsurface utility exploration.

Archaeological investigations

Archaeological investigation may be required in specific areas where there is potential for archaeological resources. Hand tools, machinery, or other remote sensing devices to conduct subsurface testing (i.e., shovel testing) will be used to locate subsurface features. Limited excavations may also be required to determine horizontal and vertical boundaries.

Environmental testing

Crews will bore holes two to four inches in diameter and up to 25 feet deep, or to the level of the groundwater table. Depending on the current and past land uses and on the proposed final use of a particular location, crews may need to use backhoes to dig test trenches in areas with contaminated soil. Trenches are typically three to four feet wide, up to 15 feet deep and 20 to 50 feet long. Crews will refill the holes and trenches and seed previously sodded areas for re-vegetation. Trenches will be backfilled the same day they are opened and will not be left open overnight. Boreholes in paved areas will be patched with like material. Work will generally be done on weekdays between 7 a.m. and 5 p.m. Work will not be done on weekends unless requested by a business. Noise from the work will be similar to a medium-sized diesel truck engine. Project staff will contact private property owners for Right-of-Entry prior to any environmental testing.

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