

**APPROVED JURISDICTIONAL DETERMINATION FORM**  
**U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

**SECTION I: BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):** March 26, 2020

**B. DISTRICT OFFICE, FILE NAME, AND NUMBER:** Upper Providence Emergency Services Facility AJD MO  
CENAP-OP-R-2020-0080-24.

**C. PROJECT LOCATION AND BACKGROUND INFORMATION:** The 23.03-acre tract is located at 1301 Black Rock Road, on the southwest side of Black Rock Road, and northwest side of Golf Club Road; Tax Parcel 610002187695. The site was once part of the 116-acre Malickson Tract that extended from Black Rock Road to the Schuylkill River (see prior JD 2002-1675-39, issued by this office 15-NOV-2002, and modified 13-APR-2020). At the time of the prior JD, no waters or wetlands were identified on the subject 23-acre parcel.

State: Pennsylvania County/parish/borough: Montgomery County City: Upper Providence Twp.

Center coordinates of site (lat/long in degree decimal format): Lat. 40.16235 ° N, Long. -75.49195° W.

Universal Transverse Mercator:

Name of nearest waterbody: Schuylkill River.

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Schuylkill River.

Name of watershed or Hydrologic Unit Code (HUC): 02040203

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

**D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

Office (Desk) Determination. Date:

Field Determination. Date(s): March 18, 2020.

**SECTION II: SUMMARY OF FINDINGS**

**A. RHA SECTION 10 DETERMINATION OF JURISDICTION.**

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

**B. CWA SECTION 404 DETERMINATION OF JURISDICTION.**

There **Are no** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

**1. Waters of the U.S.**

**a. Indicate presence of waters of U.S. in review area (check all that apply):<sup>1</sup>**

TNWs, including territorial seas

Wetlands adjacent to TNWs

Relatively permanent waters<sup>2</sup> (RPWs) that flow directly or indirectly into TNWs

Non-RPWs that flow directly or indirectly into TNWs

Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

Impoundments of jurisdictional waters

Isolated (interstate or intrastate) waters, including isolated wetlands

**b. Identify (estimate) size of waters of the U.S. in the review area:**

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: acres.

**c. Limits (boundaries) of jurisdiction based on: Not Applicable.**

Elevation of established OHWM (if known): .

**2. Non-regulated waters/wetlands (check if applicable):<sup>3</sup>**

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain: See "Additional Comments" below regarding wetlands delineated by the applicant's consultant, which were determined to have formed incidental to construction activity, and are not waters of the U.S.

<sup>1</sup> Boxes checked below shall be supported by completing the appropriate sections in Section III below.

<sup>2</sup> For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

<sup>3</sup> Supporting documentation is presented in Section III.F.

### SECTION III: CWA ANALYSIS

#### A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”: .

#### B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody<sup>4</sup> is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW<sup>5</sup>: .

Tributary stream order, if known: .

<sup>4</sup> Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

<sup>5</sup> Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

**Tributary is:**  Natural  
 Artificial (man-made). Explain:  
 Manipulated (man-altered). Explain:

**Tributary properties with respect to top of bank (estimate):**

Average width: feet  
Average depth: feet  
Average side slopes: **Pick List**.

**Primary tributary substrate composition (check all that apply):**

Silts  Sands  Concrete  
 Cobbles  Gravel  Muck  
 Bedrock  Vegetation. Type/% cover:  
 Other. Explain:

**Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:**

**Presence of run/riffle/pool complexes. Explain:**

**Tributary geometry: Pick List**

**Tributary gradient (approximate average slope):** %

(c) Flow:

**Tributary provides for: Pick List**

**Estimate average number of flow events in review area/year: Pick List**

Describe flow regime:

Other information on duration and volume:

**Surface flow is: Pick List. Characteristics:**

**Subsurface flow: Pick List. Explain findings:**

Dye (or other) test performed:

**Tributary has (check all that apply):**

Bed and banks  
 OHWM<sup>6</sup> (check all indicators that apply):  
 clear, natural line impressed on the bank  the presence of litter and debris  
 changes in the character of soil  destruction of terrestrial vegetation  
 shelving  the presence of wrack line  
 vegetation matted down, bent, or absent  sediment sorting  
 leaf litter disturbed or washed away  scour  
 sediment deposition  multiple observed or predicted flow events  
 water staining  abrupt change in plant community  
 other (list):  
 Discontinuous OHWM.<sup>7</sup> Explain:

**If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):**

High Tide Line indicated by:  Mean High Water Mark indicated by:  
 oil or scum line along shore objects  survey to available datum;  
 fine shell or debris deposits (foreshore)  physical markings;  
 physical markings/characteristics  vegetation lines/changes in vegetation types.  
 tidal gauges  
 other (list):

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known:

<sup>6</sup>A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

<sup>7</sup>Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- Riparian corridor. Characteristics (type, average width): .
- Wetland fringe. Characteristics: .
- Habitat for:
  - Federally Listed species. Explain findings: .
  - Fish/spawn areas. Explain findings: .
  - Other environmentally-sensitive species. Explain findings: .
  - Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size:        acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: .

Ecological connection. Explain: .

Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- Riparian buffer. Characteristics (type, average width): .
- Vegetation type/percent cover. Explain: .
- Habitat for:
  - Federally Listed species. Explain findings: .
  - Fish/spawn areas. Explain findings: .
  - Other environmentally-sensitive species. Explain findings: .
  - Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately (        ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)      Size (in acres)      Directly abuts? (Y/N)      Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

### C. SIGNIFICANT NEXUS DETERMINATION

**A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.**

**Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:**

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

**Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:**

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

### D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

- TNWs:      linear feet      width (ft), Or,      acres.  
 Wetlands adjacent to TNWs:      acres.

2. **RPWs that flow directly or indirectly into TNWs.**

- Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
- Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (ft).  
 Other non-wetland waters: acres.  
Identify type(s) of waters: .

**3. Non-RPWs<sup>8</sup> that flow directly or indirectly into TNWs.**

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft).  
 Other non-wetland waters: acres.  
Identify type(s) of waters: .

**4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.  
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .  
 Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

**5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

**6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

**7. Impoundments of jurisdictional waters.<sup>9</sup>**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from "waters of the U.S.," or  
 Demonstrate that water meets the criteria for one of the categories presented above (1-6), or  
 Demonstrate that water is isolated with a nexus to commerce (see E below).

**E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):<sup>10</sup>**

- which are or could be used by interstate or foreign travelers for recreational or other purposes.  
 from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.  
 which are or could be used for industrial purposes by industries in interstate commerce.  
 Interstate isolated waters. Explain: .  
 Other factors. Explain: .

**Identify water body and summarize rationale supporting determination:** .

<sup>8</sup>See Footnote # 3.

<sup>9</sup> To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

<sup>10</sup> Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.  
Identify type(s) of waters: .
- Wetlands: acres.

**F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):**

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
  - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above): **See "Additional Comments" below regarding wetlands delineated by the applicant's consultant, which were determined to have formed incidental to construction activity, and are not waters of the U.S.**

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

**SECTION IV: DATA SOURCES.**

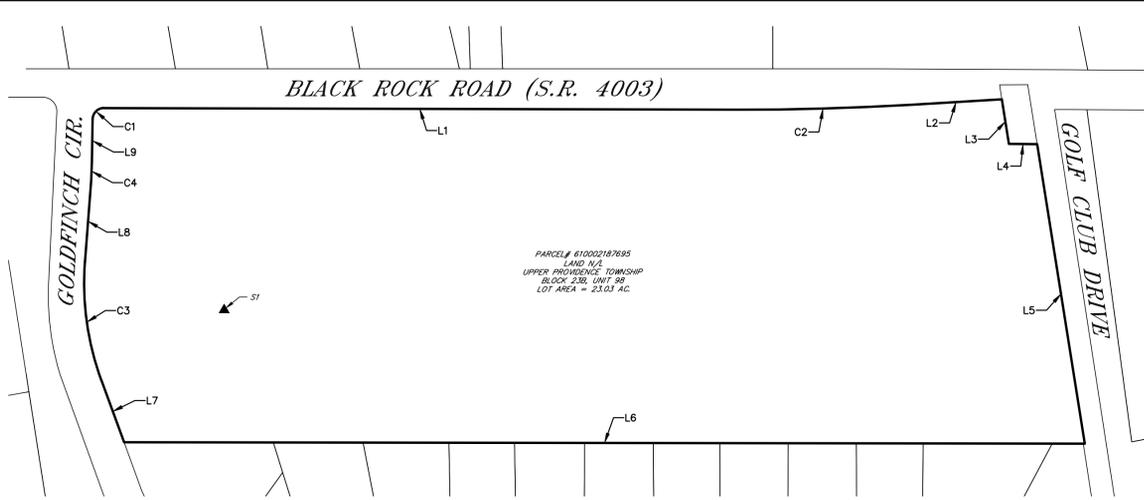
**A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):**

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Sheet 1 of 1; prepared by Gilmore and Associates, Inc.; dated 2/17/20, last revised 3-26-20; entitled "PLAN OF SURVEY JURISDICTIONAL DETERMINATION PLAN FOR EMERGENCY SERVICES FACILITY PARCEL #610002187695 ...".
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: .
- Corps navigable waters' study: .
- U.S. Geological Survey Hydrologic Atlas: .
  - USGS NHD data.
  - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: Collegeville, PA (1:24000).
- USDA Natural Resources Conservation Service Soil Survey. Citation: Montgomery County, Sheet 38.
- National wetlands inventory map(s). Cite name: .
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): Google Earth and PennPilot, multiple years.  
or  Other (Name & Date): Ground photos by Corps March 18, 2020; photos by agent Jan. 23, 2020.
- Previous determination(s). File no. and date of response letter: CENAP-OP-R-2002-1675-39, Nov. 15, 2002.
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): .

## **B. ADDITIONAL COMMENTS TO SUPPORT JD:**

1. The majority of the subject property for the current 23-acre AJD is unimproved with the exception of the eastern corner, which contains two garages, a storage shed and parking lot. In addition, a section of former runway for small planes crosses the east-central portion of the site. This former airport site was used as a staging area for the adjacent Toll Brothers development between 2003 and 2009. This 23-acre tract was split out of the Malickson Tract/River Crest development property and deeded to the Township in 2009. Since acquiring the property, the Township has used the site continuously for general maintenance activities such as the stockpiling of soils, millings, rock, temporary parking and lay-down. The agent provided a 2-page "Summary of Project-Specific Activity at 1301 Black Rock Road," which outlines the prior and ongoing stockpile and borrow activities on this site since it was first used as such by Toll Brothers.
2. The site is nearly level to gently sloping towards the southwest. The property drains toward the Schuylkill River, which lies approximately one-half mile to the southwest. On the adjacent Malickson Tract, to the southwest, there are several unnamed tributaries to the river. At the time of the 2002 prior JD, none of those tributaries extended up-slope onto the subject 23-acre property. Currently, there is a series of storm drains within a storm water management swale running along the northeast border of the River Crest development (between the development and this 23-acre site). It is not known exactly where the drains or swale flow to.
3. The consultant had delineated three areas of wetlands in close proximity to the highly disturbed stockpile area described in paragraph 3 above, which includes an access road and multiple stockpiles. The delineated wetlands were dominated by hydrophytic vegetation and exhibited hydrology at the ground surface at the time of the inspection.
  - a. Wetland A. The consultant's report states that this 0.92-acre emergent wetland in the center of the parcel formed within a shallow impoundment along a gravel access road to stockpiles of soil and road millings. The report goes on to state that the roadbed forms an impermeable berm that retains surface runoff from the north. The wetland is dominated by emergent vegetation with a fringe of saplings and young trees around the northern perimeter of the impounded area. Based on observation during the inspection (and other information noted below), this office agrees with the consultant's findings on the recent formation of this wetland from impoundment by the access road and stockpile activities.
  - b. Wetland B. The consultant's report states that this 0.12-acre emergent wetland to the WSW of Wetland A formed within a shallow impoundment between the gravel access road and a large soil stockpile. The wetland drains to the southwest by overland flow toward the River Crest subdivision. The wetland is primarily emergent. Based on observation during the inspection (and other information noted below), this office agrees with the consultant's findings that this wetland has formed due to drainage being impeded by the stockpiles, with surface water forced to drain via a narrow pathway to a down-slope area.
  - c. Wetland C. The consultant's report states that this 0.093-acre emergent wetland in the eastern portion of the parcel is within a shallow impoundment that formed by siltation fencing, excavation, staging and equipment traffic along the edge of a field. The wetland is primarily emergent. Based on observation during the inspection (and other information noted below), this office agrees with the consultant's findings. This wetland appears to have formed along the edge of the former airport runway, where drainage has become impeded by the disturbances which have occurred in the area just down-slope (to the southwest).
4. The consultant's report states that the three delineated wetland areas formed in uplands after the initial Corps field inspection in 2002. These wetlands were created by ongoing man-made disturbances associated with heavy equipment traffic, construction of access roadways, sedimentation control and material stockpiling. The initial site disturbances were in association with site development by Toll Brothers. The Township then continued to use the site on an approximate monthly basis since their receipt of the parcel in 2009.
5. The report goes on to state that historic aerial photographs show continuous activities at this site after the initial Corps inspection and JD in 2002. The area delineated as Wetland A contains recently killed vegetation in a 2005 aerial photograph, presumably due to prolonged inundation from soil stockpiling in 2004. Based on several photographs by the previous consultant in 2002, the area that is now Wetland A contained a young pine plantation. Wetland B formed as a shallow depression adjacent to Wetland A due to road construction and soil stockpiling. Wetland C formed in an area used for equipment staging in 2004, an impounding area with silt fence in 2005, and additional staging and disturbance in 2008 and 2010. Further construction disturbances in the area of Wetland C are evident in 2008 and 2010. The three new wetland areas are water-filled depressions formed in uplands by ongoing site excavation and fill activities. This property has not been abandoned but rather has seen continuous use since property acquisitions by Toll Brothers and the Township. In conclusion, the report states that the 23-acre tract contains three wetland areas within shallow man-made depressions. The wetlands formed inadvertently within shallow impoundments resulting from equipment traffic, staging, access roads and materials stockpiling.
6. This office reviewed multiple years of aerial photography on Google Earth (2002-present) as well as older photography from PennPilot (1942-1971). In 1942, the 23-acre tract was farm fields, with no water courses evident. In 1957, there were some buildings present, some dirt roads, and an apparent grass air strip. In 1971, the air strip is more evident, with what appears to be a dirt road running down the center of the grass strip. The fields appear to have gone fallow, with some shrubs and trees present. By 2002, the area is more wooded, with the stockpiling activities evident by 2004. At times, in 2004 and 2010, there appears to be a small channel formed flowing from Wetland A, across the area where the access road is currently located, toward where Wetland B is now. By 2011 and 2016, the channel is not evident, as the access road has shifted closer to its present location, and the stockpiles may have shifted somewhat. In aerials from 2004 and 2011, there is earth disturbance just down-slope of Wetland C, which may have played a role in hindering drainage and causing hydrology to form.
7. The NWI shows no waters or wetlands indicated on this site or in the vicinity. Topographic maps show no streams. The site is situated on an elevational high point between the Schuylkill River (about 0.5 mile to the southwest) and Perkiomen Creek (about 1.75 miles to the east). The 1960s Montgomery County soil survey does show a drainage channel extending from what is now the residential development up-slope into this site. However, the prior 2002 JD confirmed that the drainage channels present at that time did not extend up that far.

8. Based on the consultant's report, review of historic aerial photography, the NWI, topographic maps and the soil survey, as well as observations during the site inspection on 18-MAR-2020, this office concurs that the wetland areas delineated by the consultant have formed due to recent construction activities. As noted above, the ground surface in the area has been manipulated to a high degree since the prior Corps inspection and JD in 2002 (CENAP-OP-R-2002-1675-39). As per the preamble to 33 CFR 328.3 in the 1986 Corps Regulations, "...we generally do not consider the following waters to be 'Waters of the United States.' ... (e) Waterfilled depressions created in dry land incidental to construction activity ... unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States." Based upon the above findings, the three areas delineated by the consultant as wetlands have been determined not to be waters of the U.S.

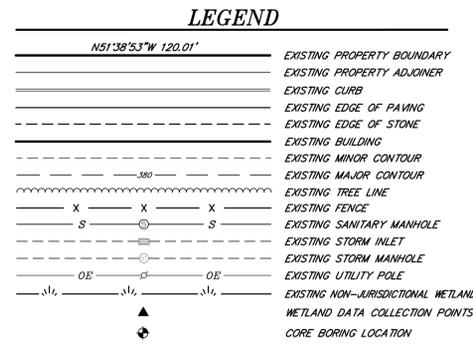


**BOUNDARY LINE TABLE**

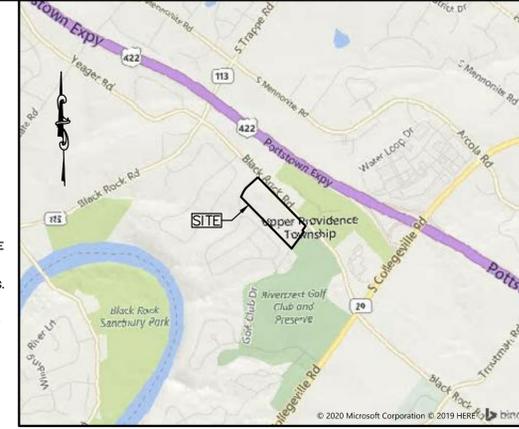
| LINE # | BEARING       | DISTANCE |
|--------|---------------|----------|
| L1     | S44° 31' 24"E | 117.66   |
| L2     | S48° 02' 22"E | 162.23   |
| L3     | S36° 15' 23"W | 79.39    |
| L4     | S44° 10' 25"E | 50.00    |
| L5     | S36° 15' 23"W | 534.18   |
| L6     | N44° 35' 18"W | 1699.64  |
| L7     | N25° 04' 43"E | 115.98   |
| L8     | N49° 39' 44"E | 143.93   |
| L9     | N46° 09' 42"E | 75.13    |

**BOUNDARY CURVE TABLE**

| CURVE # | ARC LENGTH | RADIUS   | DELTA     | CHORD BEARING | CHORD DISTANCE |
|---------|------------|----------|-----------|---------------|----------------|
| C1      | 31.17'     | 20.00'   | 89°17'46" | S89°10'51"E   | 28.11'         |
| C2      | 309.27'    | 5040.00' | 3°30'57"  | S46°16'53"E   | 309.22'        |
| C3      | 212.39'    | 495.00'  | 24°35'01" | N37°22'14"E   | 210.76'        |
| C4      | 32.69'     | 535.00'  | 3°30'02"  | N47°54'43"E   | 32.68'         |



- GENERAL NOTES:**
- THE SITE FEATURES AND TOPOGRAPHY AS SHOWN ARE BASED ON A FIELD SURVEY PERFORMED BY GILMORE & ASSOCIATES INC. IN JANUARY OF 2020.
  - THE PROPERTY LINES SHOWN ARE BASED ON THE METES AND BOUNDS DESCRIPTION CONTAINED IN THE VESTING DEED OF THE SUBJECT PROPERTY WHICH IS BEST FIT ONLY AND IS APPROXIMATE. NO BOUNDARY RETRACEMENT OR TITLE RESEARCH WAS PERFORMED IN PREPARATION OF THIS PLAN. EASEMENTS, RESTRICTIONS AND/OR COVENANTS MAY APPLY.
  - THE HORIZONTAL COORDINATES ARE BASED ON THE PENNSYLVANIA STATE PLANE SOUTH COORDINATE SYSTEM (NAD83). VERTICAL ELEVATIONS ARE BASED ON THE UPPER PROVIDENCE TOWNSHIP MUNICIPAL COMPLEX DATUM. GILMORE & ASSOCIATES JOB# 201606058T.
  - LOCATIONS OF EXISTING UNDERGROUND UTILITIES/FACILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM ABOVE GROUND OBSERVATION OF THE SITE. NO EXCAVATIONS WERE PERFORMED IN PREPARATION OF THIS DRAWING. THEREFORE ALL UTILITIES SHOWN SHOULD BE CONSIDERED APPROXIMATE IN LOCATION, DEPTH, AND SIZE. THE POTENTIAL EXISTS FOR OTHER UNDERGROUND UTILITIES/FACILITIES TO BE PRESENT WHICH ARE NOT SHOWN ON THIS DRAWING. ONLY THE VISIBLE LOCATIONS OF UNDERGROUND UTILITIES/FACILITIES AT THE TIME OF THE FIELD SURVEY SHALL BE CONSIDERED TRUE AND ACCURATE. COMPLETENESS OR ACCURACY OF UNDERGROUND UTILITIES/FACILITIES ARE NOT GUARANTEED BY GILMORE & ASSOCIATES INC.
  - THE WETLANDS WERE FLAGGED BY SETH BACON SOIL AND WETLAND CONSULTANTING INC. AND LOCATED BY GILMORE & ASSOCIATES INC.
  - SITE LOCATED WITHIN ZONE 'X' (AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN), PER FLOOD INSURANCE RATE MAP OF MONTGOMERY COUNTY, MAP NO. 42091002366, PANEL #236 OF 451, MAP REVISED: MARCH 2, 2016.
  - BENCHMARK IS A SANITARY MANHOLE RIM AT THE ENTRANCE TO THE PARKING LOT ON THE SOUTH EASTERN PORTION OF SUBJECT PROPERTY. ELEVATION = 310.46
  - ALL CONTRACTORS WORKING ON THIS PROJECT SHALL VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES/FACILITIES PRIOR TO THE START OF WORK AND SHALL COMPLY WITH THE REQUIREMENTS OF P.L. 852, NO. 287, DECEMBER 10, 1974 AS LAST AMENDED ON APRIL 28, 2016, PENNSYLVANIA ACT 50.

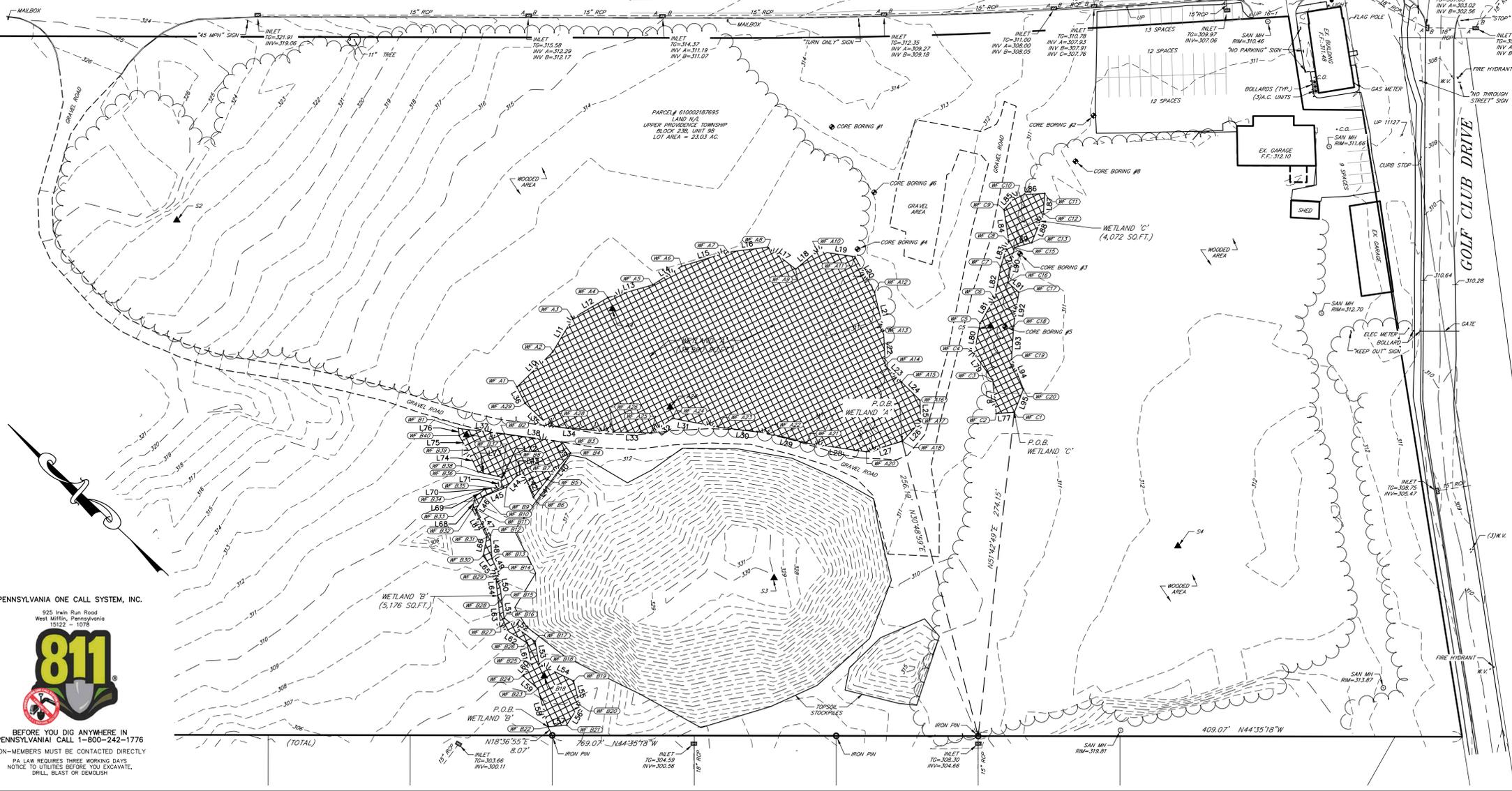


**GILMORE & ASSOCIATES, INC.**  
ENGINEERING & CONSULTING SERVICES

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**NOT APPROVED FOR CONSTRUCTION**



**WETLAND 'A' LINE TABLE**

| LINE # | BEARING       | DISTANCE |
|--------|---------------|----------|
| L10    | S89° 04' 39"E | 42.60    |
| L11    | N76° 07' 41"E | 33.00    |
| L12    | S74° 49' 45"E | 34.08    |
| L13    | S60° 31' 44"E | 39.58    |
| L14    | S77° 16' 17"E | 29.12    |
| L15    | S61° 33' 07"E | 40.82    |
| L16    | S51° 47' 09"E | 33.75    |
| L17    | S6° 32' 21"E  | 30.03    |
| L18    | S84° 25' 58"E | 23.81    |
| L19    | S36° 12' 35"E | 32.10    |
| L20    | S16° 14' 30"W | 34.15    |
| L21    | S32° 07' 05"W | 33.47    |
| L22    | S42° 25' 03"W | 29.28    |
| L23    | S0° 43' 50"W  | 19.37    |
| L24    | S0° 15' 18"E  | 22.03    |
| L25    | S44° 00' 44"W | 17.97    |
| L26    | S88° 13' 09"W | 22.68    |
| L27    | N60° 53' 15"W | 31.59    |
| L28    | N36° 15' 41"W | 50.77    |
| L29    | N30° 42' 46"W | 33.73    |
| L30    | N37° 27' 45"W | 42.45    |
| L31    | N33° 59' 23"W | 39.34    |
| L32    | N78° 43' 19"W | 21.94    |
| L33    | N43° 17' 14"W | 31.99    |
| L34    | N39° 41' 24"W | 53.99    |
| L35    | N1° 18' 30"W  | 28.60    |
| L36    | N18° 19' 43"E | 15.17    |

**WETLAND 'B' LINE TABLE**

| LINE # | BEARING       | DISTANCE |
|--------|---------------|----------|
| L37    | S38° 01' 31"E | 38.99    |
| L38    | S36° 38' 03"E | 49.17    |
| L39    | S7° 19' 35"W  | 12.00    |
| L40    | S87° 15' 26"W | 29.46    |
| L41    | S83° 25' 27"W | 19.30    |
| L42    | N22° 44' 41"E | 21.92    |
| L43    | N67° 01' 46"W | 6.27     |
| L44    | S87° 53' 05"W | 12.57    |
| L45    | N66° 55' 45"W | 20.65    |
| L46    | S77° 12' 45"W | 12.71    |
| L47    | S16° 26' 39"W | 25.16    |
| L48    | S41° 24' 47"W | 19.52    |
| L49    | S19° 53' 42"W | 12.26    |
| L50    | S37° 56' 07"W | 23.78    |
| L51    | S37° 59' 27"W | 15.53    |
| L52    | S7° 35' 12"E  | 32.84    |
| L53    | S35° 22' 42"W | 19.02    |
| L54    | S18° 18' 22"E | 32.60    |
| L55    | S31° 05' 20"W | 20.56    |
| L56    | S77° 39' 11"W | 20.31    |
| L57    | N50° 10' 42"W | 15.88    |
| L58    | N30° 40' 14"E | 33.12    |
| L59    | N3° 50' 32"W  | 16.83    |
| L60    | N83° 36' 11"E | 12.26    |
| L61    | N31° 49' 26"E | 18.75    |
| L62    | N13° 07' 40"W | 25.96    |
| L63    | N40° 12' 43"E | 20.47    |
| L64    | N39° 14' 03"E | 24.78    |
| L65    | N8° 51' 06"E  | 17.72    |
| L66    | N56° 33' 37"E | 16.25    |
| L67    | N17° 28' 54"E | 26.12    |
| L68    | N56° 45' 29"E | 10.89    |
| L69    | S82° 39' 57"E | 10.30    |
| L70    | S52° 20' 42"E | 9.75     |
| L71    | N82° 35' 57"E | 7.76     |
| L72    | N45° 17' 21"E | 2.66     |
| L73    | N32° 00' 16"W | 20.43    |
| L74    | N19° 19' 01"E | 20.67    |
| L75    | N15° 01' 18"E | 13.89    |
| L76    | N41° 38' 18"E | 6.03     |

**WETLAND 'C' LINE TABLE**

| LINE # | BEARING       | DISTANCE |
|--------|---------------|----------|
| L77    | N48° 06' 03"W | 15.22    |
| L78    | N39° 06' 38"E | 28.43    |
| L79    | N9° 59' 32"E  | 27.09    |
| L80    | N56° 36' 15"E | 25.87    |
| L81    | N75° 26' 19"E | 24.75    |
| L82    | N56° 05' 05"E | 26.54    |
| L83    | N62° 39' 10"E | 22.84    |
| L84    | N36° 44' 34"E | 26.74    |
| L85    | N87° 00' 34"E | 16.41    |
| L86    | S48° 24' 49"E | 23.49    |
| L87    | S48° 33' 25"W | 17.06    |
| L88    | S67° 21' 40"W | 26.31    |
| L89    | N60° 34' 03"W | 15.26    |
| L90    | S56° 10' 52"W | 29.83    |
| L91    | S2° 43' 57"E  | 12.52    |
| L92    | S54° 03' 57"W | 29.05    |
| L93    | S48° 50' 10"W | 27.40    |
| L94    | S24° 00' 14"W | 27.35    |
| L95    | S66° 50' 52"W | 20.99    |



**G&A**

TAX MAP PARCEL NO.: 610002187695  
MUNICIPAL FILE NO.: XX

JOB NO.: 1912005T  
OWNER: UPPER PROVIDENCE TOWNSHIP  
UPPER PROVIDENCE TOWNSHIP  
PARCEL #610002187695  
610-933-9179

PLAN OF SURVEY  
JURISDICTIONAL DETERMINATION PLAN  
FOR EMERGENCY SERVICES FACILITY  
PARCEL #610002187695  
UPPER PROVIDENCE TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

TOTAL AREA: 23.03 AC.  
DATE: 2/7/20

DESIGNED BY: ---  
DRAWN BY: ---  
CHECKED BY: ---  
SCALE: 1"=50'

REVISIONS:

| NO. | DATE     | DESCRIPTION |
|-----|----------|-------------|
| 1   | 03-26-20 | TBF         |

SHEET NO.: 1 OF 1

N:\Projects\2019\1912005T\UPT EMS BLDG.DESIGN\CAD\Production Drawings\1912005T Exc.dwg Layout: EXISTING CONDITIONS Plotted By: hiltsinger, on Thu Mar 26, 2020 at 9:49am

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