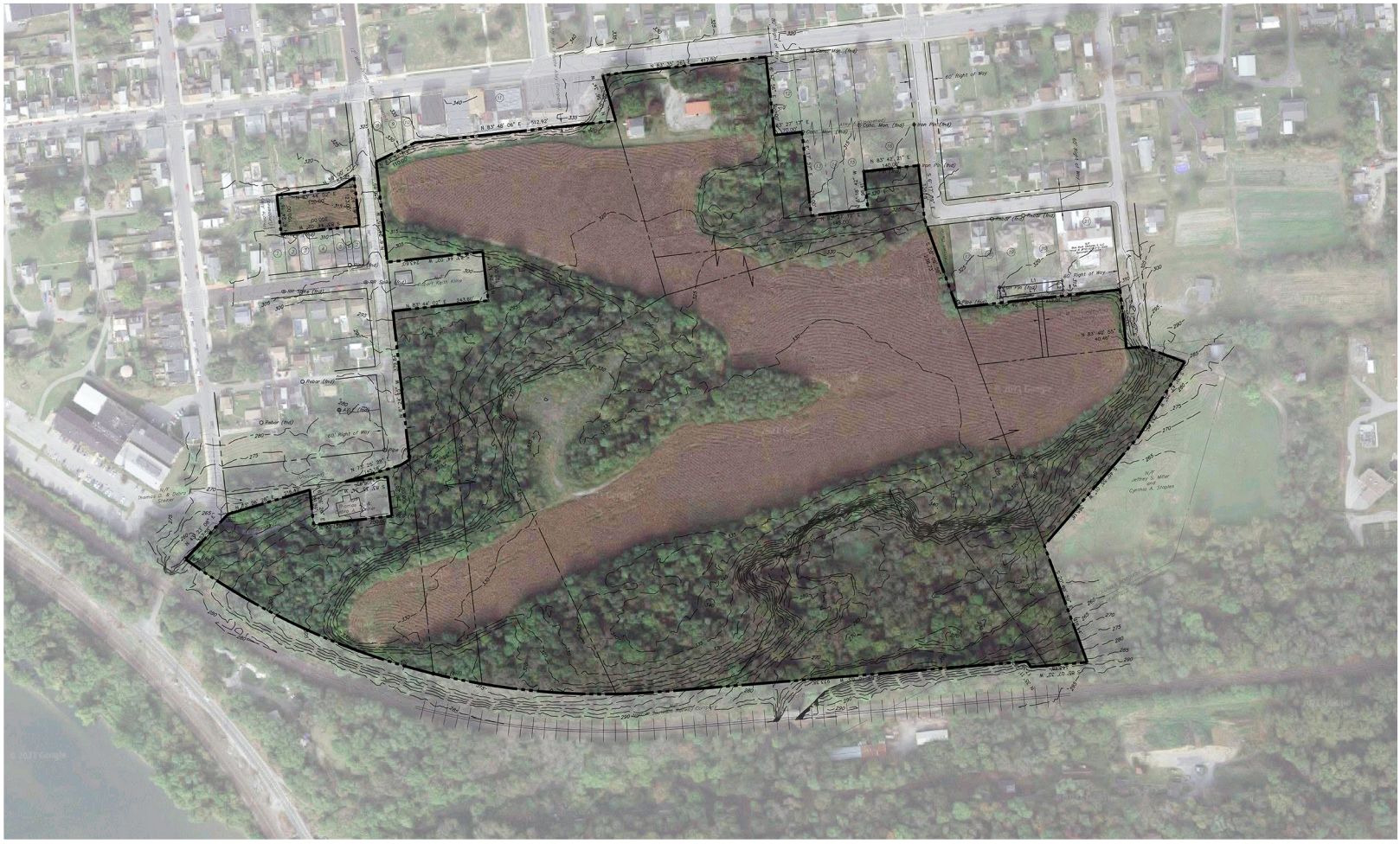
McGinness Airfield
and Related Properties
Site Inventory & Analysis Report



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July 1, 2021/Updated August 9, 2021

Mr. Mark E. Stivers, AICP, Columbia Borough Manager
308 Locust Street
Columbia, PA 17512

RE: Site Inventory & Analysis Report: McGinness Airfield and Related Properties
Columbia Borough, Lancaster County, PA

Dear Mr. Stivers:

As authorized by Columbia Borough in March 2021, ELA Group, Inc. has performed Site Inventory and Site Analysis services related to the McGinness Airfield Property located at 1020 Manor Street and the Related Property located at 750 South 9th Street.

This Report of our findings was originally completed on July 1, 2021, whereupon three updates to same were identified as being required:

1. Correcting the address of the "Related Property," from 643 Franklin Street to 750 South 9th Street.

2. Identifying that, through the Title Report, it was discovered (on July 2nd) that, adjacent to Strickler Run, a 42" waterline exists on the Airfield Property. The waterline is owned by the City of Lancaster who has since provided mapping showing the waterline's location (which has been added to Map 3: Site Inventory & Analysis) and has also confirmed its intention to install a parallel 42" waterline in a similar location in the future.

3. Updating the status of our PA Natural Diversity Inventory (PNDI) notifications to specifically indicate that, subsequent to July 1st, we received the remaining PNDI clearance from the PA Fish & Boat Commission.

Each of the above corrections has been made throughout the Report when it was updated on August 9, 2021.

Our Report, including detailed narrative and supporting maps, concludes with our Professional Opinion regarding the efficacy of Columbia Borough's purchasing and/or developing these Properties. It is important to note that ELA's work has been conducted in collaboration with CGA Law, CS Davidson, Inc., and ECS Mid-Atlantic, LLC. These firms have provided services and insights relating to legal and title matters; surveying and basemapping; and wetlands, environmental, and geotechnical characterizations, respectively. Their opinions must also be considered by the Borough as it decides its course of action with regard to these Properties.

On behalf of ELA Group, Inc., we appreciate this opportunity to be of service to Columbia Borough. We look forward to reviewing our Report with Borough Council. Should you have any questions, please contact me.

Respectfully,
ELA Group, Inc.

Richard L. Jackson, RLA
Vice President: Landscape Architecture

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EXECUTIVE SUMMARY

On behalf of Columbia Borough, ELA Group, Inc. (ELA) has conducted Site Inventory and Analysis services to assist the Borough in determining whether to gain an equitable interest in the McGinness Airfield and Related Properties, where the Airfield Property is located at 1020 Manor Street and the Related Property is located at 750 South 9th Street.

As outlined in our February 5, 2021, Professional Services Agreement, ELA's services have included on-site and in-office means by which we have inventoried a range of characteristics of the Properties, including the following:

- Location and Context
- Property Boundaries
- Use of the Properties
- Surrounding Land Uses
- Transportation Network
- Utility Services (principally Public Water and Wastewater)
- Drainage, Topography, Floodplain, Wetlands, and Stormwater
- Views and Vistas
- Natural Resources
- Historical and Cultural Resources
- Land Use Ordinance Provisions

Through our perspectives as Engineers and Landscape Architects, we have then analyzed these characteristics in terms of the Opportunities and Challenges that they pose relative to two potential development scenarios for the Airfield Property, including:

1. Aerial-Technology Business/Industrial Park
2. General-Occupancy Business/Industrial Park

The results of our Site Inventory and Site Analysis are thoroughly documented in the following Report.

At the conclusion of our Report, we have rendered our Professional Opinion with regard to the Borough's gaining an equitable interest in the McGinness Airfield and Related Properties. In short, we believe that the Opportunities outweigh the Challenges and, if developed under either of the above scenarios, the development of the Airfield Property could yield positive impacts for the Borough while attracting public/private partnerships and investment.

This Opinion is not intended to minimize the challenges and potential cost implications of purchasing and developing the Properties. Nor is ELA's Opinion, alone, enough by which the Borough should determine the efficacy of purchasing and/or developing these Properties. The opinions of CGA Law, CS Davidson, Inc., and ECS Mid-Atlantic, LLC must also be considered by the Borough as it decides its course of action.

SITE INVENTORY & ANALYSIS REPORT

I. Purpose and Intent

ELA Group, Inc. (ELA) has been retained by the Borough of Columbia (Lancaster County, PA) to conduct Site Inventory & Analysis Services relating to the McGinness Airfield (1020 Manor Street) and Related Property (750 South 9th Street), as follows.

- The former McGinness Airfield has been long-recognized as an opportunity for economic development which could substantially and positively impact Columbia Borough.

- A potential Development Sponsor, DR1 Group, has indicated an interest in developing an aerial-technology business/industrial park on the Airfield Property. Due to its vested interest in the potential economic impact of the re/development, the Borough has taken steps to position itself as the owner of the Property in order to 1) facilitate DR1's intentions and/or 2) serve as the eventual developer of the Property either in conjunction with DR1 or on its own, should DR1 not remain involved in/with the Property or its re/development.

Therefore, the Borough has taken steps to gain an equitable interest in the McGinness Airfield and Related Properties and, in doing so, complete various Due Diligence Investigations to determine the efficacy of purchasing the Airfield Property and Related Property. In addition to ELA's Site Inventory & Analysis Services authorized in March 2021, additional investigations and planning efforts include:

- Survey Basemapping to document the Properties' planimetric and topographic conditions (provided by CS Davidson, Inc.) and

- Independent Environmental Site Assessment to further characterize the Properties' environmental condition, Geotechnical Investigations to determine the use potential and/or limitations of the existing fill material, and Delineation of Wetlands which could further encumber the planning and use of the Properties (provided by ESC Mid-Atlantic, LLC).

If, based on the outcome of these Due Diligence Investigations, the Borough elects to purchase the Properties, subsequent Master Planning of same will be undertaken in which one Master Plan will be prepared for an aerial-technology business/industrial park on the Airfield Property and a second Master Plan will be prepared for a general-occupancy business/industrial park.

It should be noted that additional study may be required specific to the aerial-technology business/industrial park. If so, it is anticipated that same would be conducted/completed by or on behalf of DR1.

II. Site Inventory

The purpose of this Site Inventory is to document the site characteristics that ELA Group, Inc. researched, learned, and/or viewed with regard to the McGinness Airfield and Related Properties during the conduct of our Due Diligence investigations. By on-site and in-office means, we have inventoried the following characteristics through the lenses of Engineering and Landscape Architecture.

A. Location and Context

As shown on Map 1: Location & Context, the McGinness Airfield and Related Properties are located along the southcentral edge of Columbia Borough (with its very SE corner spilling into West Hempfield Township). Columbia is one of eighteen boroughs in Lancaster County and one (of two) which can boast of frontage on the Susquehanna River. Columbia is located roughly-equidistant from the City of Lancaster and the City of York.

As can be easily seen in this Map, Columbia and, therefore, the Properties are served by US Route 30 (along the north edge of the Borough), PA Route 462 (running through the center of the Borough), PA Route 441

(along the west side of the Borough, adjacent to the River), and an urban grid of Borough streets which provides access to the Properties.

Along the south edge of the Airfield Property, Map 1 identifies the location of a rail line (operated by Norfolk Southern Railway Company) and Strickler Run, a tributary of the Susquehanna River.

B. Property Boundaries

Map 2: Property Survey (by CS Davidson, Inc.) identifies the following Property Boundaries:

1. The McGinness Airfield consists of 56.440-acres included in eight (8) deeded parcels (Areas "B" and "C") owned by the Estate of George G. & Dorothy V. McGinness, The George McGinness Revocable Trust of 2007, and/or The Dorothy McGinness Revocable Trust of 2007. The Airfield is bounded on the west by Plane Street, Penn Street (Unopened), and South 9th Street; on the north by Manor Street; on the east by South 12th Street, Franklin Street, and South 13th Street; and on the south by Strickler Run and Norfolk Southern Railway.

2. The Related Property at 750 South 9th Street (Area "A") consists of 20,575 SF (or 0.472-acres) owned by The George McGinness Revocable Trust of 2007 and The Dorothy McGinness Revocable Trust of 2007. This Property is bounded by Avenue X to the north and South 9th Street to the east.

3. It is important to note that the ownership of two (2) land areas adjacent to the Airfield Property is "unknown:"

   A) The first such area (+/- 0.25-acres) is located immediately to the south of the intersection of South 12th Street and Franklin Street (in the NE corner of the Airfield Property) and

   B) The second area (+/- 1.43-acres) is located in the SE corner of the Airfield Property, appears to be landlocked, and straddles the Columbia Borough/West Hempfield Township municipal boundary.

4. Map 2 identifies a number of private and/or unopened alleys that border and/or encroach on the Airfield Property. Also of note are documented centerlines of "Perpetual Right(s) to Lay and Maintain Sanitary Sewer" within the Airfield Property.

5. Two included parcels interrupt the continuous frontage of the Airfield Property as follows:

   A) The N/F Robert Keith Kline Property located on South 9th Street across from Franklin Street and

   B) The N/F Thomas D. and Debra A. Steiner Property located on Penn Street between Plane Street and South 9th Street.

It should be noted that a Title Report/Search has been separately provided to the Borough and its Solicitor. The results of same are separately documented by CGA Law.

C. Use of the Properties

Map 3: Site Inventory & Analysis compiles the following information:

1. Related Property

The Related Property at 750 South 9th Street, located on South 9th Street at Avenue X, is currently used as a small, urban farm/garden.

2. Airfield Property

A) Following WWII, this Property was developed as follows:

1) The McGinness Family Homestead was constructed (and still stands today).

2) Meanwhile, land was assembled through various property acquisitions and extensive earthwork was undertaken by which to create two grass-surfaced and crisscrossing runways; the longer of which aligns NE-to-SW, the shorter aligns NW-to-SE. Thus established by 1950, the Airfield was utilized as a local airport into the early 2000's, although the use of the shorter runway appears to have been suspended prior to that time. The Airfield operation included an office structure (still existing), two Quonset huts/hangars (since removed), and fuel dispensing. Today, the runways are used for agricultural purposes. Due to its current agricultural use, portions of the Airfield Property are enrolled in the "Clean & Green" program.

B) Initial investigations of the Airfield Property, conducted in 2017 by Rettew Associates, indicated the extent to which fill was moved and/or placed on the Property and the levels to which potentially-harmful compounds had infiltrated on-site soils/fill material. Meanwhile, unauthorized dumping had also occurred on the Property, located within the V-shaped land area between the two runways.

Rettew's initial investigations have been followed-up by ECS Mid-Atlantic's completion of a Preliminary Geotechnical Engineering Report and an Environmental Subsurface Exploration Report as part of Columbia Borough's current Due Diligence Investigations.

C) A former quarry site (likely established well-before the Airfield) is located to the north of Strickler Run and is a considerable distance below the predominant "Airfield elevation" of the Property. This lower-lying landscape, which encompasses some 15.4-acres and is composed of a rail line (with nearby bridge), Strickler Run (with associated wetlands and floodplain), and quarry, creates a unique setting unlike the remainder of the Airfield Property. It is through this area that a 42" waterline, owned by the City of Lancaster, traverses; the City has indicated its intention to install a parallel 42" waterline in the same locale.

D) In the SW corner of the property, adjacent to Plane Street at Norfolk Southern's right-of-way, the remnants of a former, long-vacant convalescent home can be found.

D. Surrounding Land Uses

As shown on Map 3: Site Inventory & Analysis, the Airfield Property is situated in the midst of residential and mixed-use neighborhoods to the west (where the Related Property is located), north (including the Columbia Borough Fire Company Station 80 and Susquehanna Fire and Rescue Company 4), and east. The network of Borough streets serving these neighborhoods provides the Property with vehicular and pedestrian access/connectivity. As noted above, land uses to the south include Norfolk Southern Railway and Strickler Run.

E. Transportation Network

1. Vehicular Access

As shown on Map 4: Transportation Network, the McGinness Airfield and Related Properties are served by a hierarchical network of streets and roadways, as follows:

A) US Route 30

1) US Route 30 provides highway access to Columbia from Lancaster County/Lancaster City to the east and York County/York City to the west (across the Susquehanna River via the Wrights Ferry Bridge).

2) Columbia Borough is directly served by a Route 30 interchange located in the NW corner of the Borough; this interchange provides automobile and truck access to Route 441 (Front Street) and to Route 462 (via North 3rd Street, a Columbia Borough street).

3) US Route 30 provides access to Interstate 283 to the east and Interstate 83 to the west. Via this highway network, Columbia is connected to major destinations in the mid-Atlantic region as well as to the PA Turnpike (Interstate 76). These destinations include Harrisburg (including Harrisburg International Airport), Baltimore, MD (including Baltimore Washington International Airport), Philadelphia (and its Airport), and Pittsburgh (and its Airport).

B) State Route 441 (AKA: Front Street and Water Street)

1) Route 441 provides roadway access north (through Marietta [at State Route 23] to Middletown) with access to Interstate 283 and the PA Turnpike (Interstate 76) and south (through Washington Boro) to River Road.

2) As noted above, via North 3rd Street (a Columbia Borough street), Route 441 connects to State Route 462 at Chestnut Street.

3) Two possible truck routes to the Airfield Property, from Route 441/Front Street (via Manor Street), include:

a) Plane Street (located to the W/SW of the Property), noting the following:

i) The use of Plane Street would cause limited impact to the neighborhoods between Front Street and Manor Street; however,

ii) This access provides a grade-separated crossing of the Norfolk Southern Railway via an existing, single-lane underpass beneath the Railway, characterized as follows:

- Sufficient vertical clearance appears to be provided and the underpass is 17'-wide;
- No weight limit is listed for the underpass; and
- Trucks (over 9,001 pounds) are prohibited from traveling northbound through the underpass; however, no such weight limit is posted for southbound travel.

Although this access could function to serve only southbound truck traffic, it would be beneficial to consider improvements that would remove the restriction on northbound truck traffic.

b) The primary truck route alternative to Plane Street is Lawrence Street-to-Mill Street-to-South 4th Street or Florence Street (to the W of the Property), noting the following:

i) Additional residential neighborhoods would be impacted along this route;

ii) Two at-grade crossings of rail lines would be required; and

iii) The route is further characterized as follows:

- Trucks (over 9,001 pounds) are prohibited from traveling northward on Lawrence Street from Front Street;
- Steep grades and an at-grade crossing of the Norfolk Southern Rail Line occur along Lawrence Street within close proximity to Front Street; and

- Mill Street and South 4th Street/Florence Street are extremely narrow and truck-turning movements are tight.

Although this access could function to serve only southbound truck traffic, its challenges are greater than those identified for Plane Street. This route should be given further consideration only if the Plane Street route cannot be improved so as to provide both northbound and southbound traffic flow.

C) State Route 462 (AKA: Chestnut Street, North 5th Street, and Lancaster Avenue)

1) Route 462 provides roadway access to Wrightsville (via the Columbia-Wrightsville Bridge), to York City and points west and, through Mountville, to Lancaster City and points east.

2) Route 462/Lancaster Avenue provides potential truck routes to the Airfield Property (via Manor Street) as follows:

a) From South 15th Street:

i) South 15th Street is a State Route which traverses two blocks (from Lancaster Avenue to Manor Street) of which one block is located within West Hempfield Township before re-entering Columbia Borough;

ii) The intersection of Lancaster Avenue and South 15th Street is conveniently located for trucks coming to the Airfield Property from east of Columbia, less so for vehicles coming from downtown Columbia;

iv) This intersection is already signalized; however, based on the conduct of a Traffic Impact Study, intersection improvements would likely be required;

v) Trucks heading to the Airfield Property would pass from a commercial neighborhood (closest to Lancaster Avenue) before transitioning into a residential neighborhood;

vi) At Manor Avenue, the State Route turns east/left away from the Airfield Property; and

vii) To access the Property at South 11th Street (four blocks to the west), trucks would turn right/west onto Manor Street which, at this location, provides a wide right-of-way and cartway. [See II.E.1.D) below.]

b) From South 12th Street:

i) As noted in II.E.1.D) below, this truck route could provide more-convenient and more-direct access to the Airfield Property especially for trucks coming from the west;

ii) However, extensive improvements to the Barber Street/South 12th Street intersection with Lancaster Avenue would be required to address myriad existing complications with traffic flow at this location;

iii) If these intersection improvements could be made, this route would pass through two blocks of a mixed commercial and residential neighborhood both of which are wholly-located within Columbia Borough; and

iv) To access the Property at South 11th Street (one block to the west), trucks would turn right/west onto Manor Street which, at this location, provides a wide right-of-way and cartway. [See II.E.1.D) below.]

c) Logic would suggest that truck access would be most-convenient and direct via South 11th Street. However, on-street parking is provided on both sides of this predominantly residential street and trucks over 9,001 pounds are prohibited on this street, except for local deliveries. For these reasons, this route was eliminated from consideration as a primary truck route.

D) Manor Street

The Airfield Property's principal frontage is provided by Manor Street (a Borough street) west of South 15th Street. If developed, it is anticipated that the primary access to the Airfield Property would occur at the intersection of Manor Street and South 11th Street. This "Primary Access" is noted on Map 3.

In addition to the truck routes described above, Manor Street could provide secondary access to the Airfield Property from South 9th Street (which would also provide access to the Related Property) and South 12th Street. These "Secondary Access" points are noted on Map 3.

As noted above, the right-of-way and cartway width of Manor Street, along its Airfield Property frontage, provides a starting place for a range of traffic lane improvements, the potential requirements for which would be identified in a subsequent Traffic Impact Study.

E) Borough Street Grid

As shown on Map 2: Property Survey and Map 4: Transportation Network, the Airfield Property is bounded by additional, improved Borough streets (not described above) including Plane Street and Franklin Street (at South 12th Street). These "Secondary Access" points are noted on Map 3. It is also important to note that unimproved Borough Streets include Avenue Y, Penn Street, and a part of South 9th Street (all west of the Airfield Property) and a part of South 13th Street (to the east).

2. Rail Service

As noted above, the south edge of the Airfield Property possesses frontage along a right-of-way of the Norfolk Southern Railway Company. Unfortunately, the topographic variance (as shown on Map 3) between the usable, Airfield land area and the railroad renders consideration of freight rail service to the Airfield Property moot.

3. Transit

Via Bus Route 17 (as depicted on Map 4), Red Rose Transit Authority provides weekday and weekend bus service to/from Lancaster City to/from Columbia to/from Marietta. It is important to note that Stop #4 on this Route is located at Manor Street and South 14th Street, immediately adjacent to the Airfield Property.

4. Multi-Modal Trail

As also shown on Map 4, Lancaster County's Northwest River Trail enters Columbia Borough from the north and currently terminates at the Columbia Crossing River Trails Center at North Front Street and Walnut Street in the Borough. Should this Trail be extended southward while continuing to parallel the Susquehanna River, it could pass-by the SW corner of the Airfield Property near the railroad underpass at Plane Street.

F. Utility Services

While the focus of this Inventory is on Public Water and Wastewater services, it is to be noted that gas and electric services are to be found in/along most, if not all, of the surrounding streets. Further, it is to be noted that Lancaster City's on-site 42" waterline is of little consequence to the use/development of the Airfield Property.

1. Public Water Service

Water service is provided by Columbia Water Company (CWC), who provided the following information.

A) Capacity

1) CWC indicates that, within reason, they do not expect any issues with meeting capacity needs for a business/industrial park use.

2) While tapping fees are not typically required, fees are involved with making physical connections to water mains/lines.

3) Once fire service demands have been identified/quantified, discussions will be required with regard to any water storage tank capacity needed for fire suppression.

B) Water Availability (See Map 5: Columbia Water Map)

1) 8" water mains are located at South 12th Street and Franklin Street (east of the Airfield Property) and in Manor Street (along the frontage of the Airfield Property).

2) A 6" water main is located in South 9th Street (west of the Airfield Property and adjacent to the Related Property).

C) Water Main Extension

Should the Airfield Property be developed into a business/industrial park use:

1) The CWC will require that "looping" of extensions to the water system be planned and implemented so as to stabilize flow;

2) Water main extensions are required to be 8" DICL pipe; and

3) Fire hydrants are required at intervals of 400' or less and at the ends of dead-end pipe runs.

D) Hydrant Flow Tests

1) Two Hydrant Flow Tests were conducted:

a) Flow Hydrant: Intersection of Franklin Street and Plane Street
Residual Pressure Hydrant: Intersection of Manor Street and South 9th Street
Main Size: 6" DICL
Results: 974 GPM / 60 PSI (Static) / 44 PSI (Residual)

b) Flow Hydrant: Intersection of Manor Street and South 12th Street
Residual Pressure Hydrant: Intersection of Franklin Street and South 13th Street
Main Size: 8" DICL
Results: 883 GPM / 66 PSI (Static) / 45 PSI (Residual)

2) Conclusions:

a) Domestic Use:

i) It is likely that the volumes and pressures are adequate; however, the requirements for each potential business/industrial park use should be determined based on the above test results.

ii) If flow is found to be inadequate, pumps and/or tank-and-pump systems may be required.

iii) Each domestic use will require its own meter.

b) Fire Service:

i) It is assumed that most/all potential business/industrial park uses will require fire suppression systems, some of which may require 20 PSI over an extended period of time.

ii) Depending on the total Fire Service needs within a potential business/industrial park, uses requiring very high flows over extended periods of time will need additional fire suppression facilities, such as tank and/or tank-and-pump systems.

2. Public Wastewater Service

Wastewater service is provided by Lancaster Area Sewer Authority (LASA), from whom ELA has garnered the following information.

A) As shown on Map 6: LASA Wastewater System Map, Gravity Wastewater Lines are located in the following locations:

1) Manor Street (north of the Airfield Property);

2) South 12th Street and Franklin Street (east of the Airfield Property);

3) Avenue X (east of the Airfield Property and through the Property, as shown on Map 2: Property Survey) to South 9th Street then west on Fairview Avenue;

4) A number of manholes along these lines would provide connection opportunities; if new connections must be made to a main, same must be accomplished via a new manhole; and

5) No lines appear to directly serve the Related Property.

B) Wastewater Capacity

1) Upon the filing of a formal request (including escrow deposit), an Official Determination will be made as to the availability of sufficient capacity;

2) In the meantime, LASA is not under a service moratorium;

3) Unofficially, LASA does not expect difficulty in providing up to 100,000 GPD of capacity, pending LASA's Official Determination;

4) However, further consideration may be needed relative to water storage tank discharges (for fire suppression) and how that may factor into capacity needs; this may become a stormwate5r discharge using dechlorination methods, if necessary;

5) Tapping fees are based on $10/GPD; reservation fees are based on $100/238 GPD; and

6) It might be advisable to employ sewer metering manholes for potential uses with higher water needs than wastewater needs.

C) Sewage Facilities Planning Module requirements will be based upon total calculated sewage needs.

D) Potential Design Considerations:

1) Plan for dedication of the wastewater system to LASA.

2) Minimum pipe requirements for dedicated lines include 8" Diameter at minimum slope of 0.5%.

3) Undedicated lines (such as laterals) are required to be at a minimum depth of 3' at minimum slope of 1.0%.

G. Drainage, Topography, Floodplain, Wetlands, and Stormwater

Not only is the Related Property at 750 South 9th Street separated from the Airfield Property by South 9th Street, it is unrelated to the Airfield in terms of drainage, topography, and stormwater characteristics. None of these attributes of the Related Property are unique, nor do they appear to pose undue challenges. As shown on Map 3: Site Inventory & Analysis, the Airfield Property is far more complex, as more-fully documented in ECS Mid-Atlantic's Preliminary Geotechnical Engineering Report and as follows.

1. Drainage

A) The Airfield Property consists of some twelve (12) watersheds, numbered "W1" through "W12."

B) Pending the collection of further survey data, it is possible that W4 is a sub-watershed of W5. Similarly, it may be found that W8 is a sub-watershed of W9. Anecdotal reports indicate that, as a result of runway construction, a stormwater pipe may have been installed from the intersection of South 12th Street/Avenue X or Franklin Street southward along the axis of South 12th Street toward W9 or W11; this report has not yet been confirmed.

C) More significantly, W1, W4, W5, W7, and W8 are clearly defined by the grading activities which resulted in the two, grassed runways constructed in the late 1940's. Generally, these watersheds show evidence that the runways were crowned and/or pitched/cross-sloped to drain the landing surface. Consequently, runoff from the runways collected in shallow, flat swales or in closed depressions adjacent to the runways (note the closed depression in W1 and W8; it is quite possible that a closed depression exists within W4 and W7, as well).

D) W2's historical flow pattern toward the west/Susquehanna River was cut-off by runway construction, resulting in a closed depression. Similar to W4 and W5, anecdotal reports indicate that this area may be drained by a stormwater pipe (possibly flowing toward W3); this report has not yet been confirmed.

E) Similarly, W3 (which likely received runoff from W2, prior to 1945) is a triangular-shaped watershed which concludes at a closed depression adjacent to the end of South 9th Street's improvements. Similar to W4, W5, and W2, anecdotal reports indicate that this area may be drained by a stormwater pipe discharging toward/under unopened Penn Street; this report has not yet been confirmed.

F) As currently delineated, W6 includes on-site and off-site land areas which drain toward Plane Street and the Norfolk Southern Railway underpass.

G) W9, W10, W11, and W12 are defined by a common ridge line which roughly parallels the NE/SW runway. W9 and W12 discharge to Strickler Run. W10 discharges to Norfolk Southern's right-of-way. W11 appears to be a self-contained watershed which bears the scars of the former quarry operation including the quarry wall/cliff to the north of the flooded quarry pit, and two closed depressions adjacent to the pond.

2. Topography

Utilizing the above-described watershed framework, topographic conditions can be described as follows:

A) The highest elevations on the Airfield Property (+/- 345.0' above Sea Level) are located along the ridgeline which defines W7 and 8 and W10, 11, and 9.

B) The lowest elevations on the Airfield Property include the following:

1) The land area adjacent to the Plane Street/Norfolk Southern underpass in W6 (+/- 256.0');

2) The flooded quarry pit/pond in W11 (+/- 262.0');

3) The closed depression in W3 (+/- 281.5'); and

4) The closed depression in W2 (+/- 307.5').

C) The flattest topography on-site is found within the two runways.

D) The steepest slopes on-site are principally manmade occurrences; those related to construction of the off-site firehouse (W1 and W2), runway/Airfield construction (W2, W3, W5, W6, W7, and W9), subsequent placement of fill (W3), and the quarry operation (W11).

3. Floodplain

As is to be expected, Strickler Run is subject to flooding. Map 3 depicts the floodplain boundaries as outlined through Lancaster County's Geographic Information System (GIS) database.

4. Wetlands

On-site wetlands have been delineated by ECS Mid-Atlantic, LLC as documented in their Waters of the US Report. These wetlands have been depicted on Map 3.

5. Stormwater

A) Existing Stormwater Drainage

1) Drainage across the site is dictated by site topography. The significant fill areas and berms that have been created based on previous land uses have resulted in low-lying, wet, and wooded areas that serve to detain and manage stormwater, prior to discharging to the low-lying area on the west side of the site and/or south area to the existing quarry and Strickler Run.

2) Limited existing stormwater infrastructure is present on the current site. As noted above, however, anecdotal reports indicate that several stormwater pipes may be located on the site which drain from low lying areas/closed depressions beneath the runways to downstream watersheds or under South 9th Street to Penn Street. This infrastructure has not been confirmed to date.

B) Preliminary Stormwater Management Design Considerations

1) Pursuant to the Preliminary Geotechnical Engineering Report prepared by ECS Mid-Atlantic, LLC, infiltration of stormwater runoff may be feasible in select areas of the site depending on the depth of the facility and the specific fill conditions.

a) Should development of the Airfield Property occur, further evaluation and additional stormwater testing and infiltration pits will be necessary. The PADEP suggests four (4) to six (6) test pits per acre of development.

b) Infiltration of stormwater appears to be infeasible in the area around Test Pit 13 based on elevated arsenic levels. Any stormwater infrastructure located in this area of the site will need to be watertight to prevent stormwater from reaching subsurface soils.

2) It is anticipated that stormwater will be managed via a combination of above and below ground BMP facilities to meet NPDES and Borough Ordinance requirements for peak rate, volume, and water quality.

3) Low Impact Development (LID) and Antidegradation Best Available Combination Technologies (ABACT) stormwater Best Management Practices (BMP's) and innovative stormwater management techniques and products should be evaluated, if development of the Airfield Property occurs.

a) Examples of these BMPs include rainwater harvesting and reuse, spray irrigation, bioretention rain gardens, pervious pavement, green roofs, stormwater filter products and/or hydrodynamic separator devices, injection wells, and the like.

b) The feasibility of rainwater harvesting/reuse as well as use of green roofs should be considered.

Given the nature of soil contaminants on the site and limited ability for infiltration into native soils, these alternative stormwater management options will need to be evaluated and justification provided to the PADEP.

4) Strickler Run, which flows through the southern portion of the site, provides an excellent opportunity to improve watershed conditions and provide stormwater benefits should the Airfield Property be developed. Not only would these benefit the Property's development, they would benefit the Borough and its associated MS4 program and pollutant reduction requirements as well as other municipalities who are tributary to the Strickler Run corridor.

a) The Borough is encouraged to correspond with environmental agencies, other municipalities within the Strickler Run watershed who may have a vested interest in stream improvements, and explore conservation and clean water grant-funding opportunities to improve the area around the Run.

b) Current PADEP Growing Greener funding is available for design and permitting of projects of this scope and should be pursued if/when the Airfield were to be developed.

C) Additional Considerations

1) The Environmental Subsurface Exploration Report by ECS Mid-Atlantic, LLC confirmed there is one area of the site where soil contaminant levels exceed Non-Residential MSC thresholds (Test Pit 13). This elevated contaminant level will require that any potential development of the Airfield Property be submitted through the PADEP NPDES Individual Permit process.

a) The individual permit process requires a full NPDES permit review by the Southcentral Region of PADEP (as opposed to the local Conservation District) and thus is subject to longer review times and processing delays.

b) The individual permit process will require alternative BMP's be considered, especially if there are limited areas of the site where infiltration is feasible. These BMP alternatives (LID and ABACT) were previously discussed in the above section (green roof, rainwater harvesting, and the like).

2) As suggested in the Environmental and Geotechnical reports by ECS Mid-Atlantic, LLC, the Borough is encouraged to pursue Pennsylvania Voluntary Cleanup Program (Act 2) Liability Protection for the site.

   Rettew's 2017 environmental report identified containment levels in the existing quarry and recommended further groundwater testing be pursued between the quarry and Strickler Run to ensure that the quarry is not actively impacting the stream's health. The Act 2 process would provide a means to test groundwater in this area and ensure environmental due diligence and mitigation efforts are being provided that directly impact a stream corridor.

3) Should the Airfield Property be developed, a Soil Management Plan must be prepared by a professional geologist or geotechnical engineer as part of the Erosion and Sediment Control Plan/NPDES Permitting process to ensure that site soils are being properly managed during construction and earth moving efforts.

H. Views and Vistas

Due to the historical placement of extensive fill material, the Airfield Property potentially boasts commanding views of the Susquehanna River to the west (they are currently obscured by volunteer tree growth at the end of the runway) and, in the opposite direction, over-top of neighboring lands to the east. These viewsheds are defined by the wooded areas along the south edge of the NE/SW runway and the stands of trees at the edges of the Property or within the "V" created by the runways.

Meanwhile, viewsheds within the Property are generally attractive and not in dire need of screening. However, the fill embankment behind the firehouse (and framing the NW corner of the Property) is unattractive due, in large part, to the lack of any landscaping/ground cover on the embankment.

Unfortunately, for properties surrounding the Airfield, the fill embankments created for the runways impose a stark, vertical element in the landscape which inhibits expansive views into the Property along South 9th Street, the rear of Franklin Street (between South 12th and 13th Streets), and South 13th Street itself.

I. Natural Resources

In mid-April, ELA initiated project notification under the PA Department of Conservation and Natural Resources' (DCNR) PA Natural Diversity Inventory (PNDI). On April 14th, ELA received the following reply:

1. "No Known Impacts" to threatened or endangered species were identified by the PA Game Commission, PA DCNR, or the US Fish and Wildlife Service (USFWS). No further review is required by these agencies.

2. A "Potential Impact" was identified by the PA Fish and Boat Commission (PAFBC) for "Sensitive Species," defined as "collectible, having economic value, or being susceptible to decline as a result of visitation"); these unnamed species are considered "threatened." ELA submitted requested documentation to the PAFBC on May 4th; on July 2nd, we received notice from the USFWS (presumably on behalf of the PAFBC) again confirming that no federally-recognized species are "known/likely to occur in the project area.".

Beyond the above, due to the extensive placement of fill and earthmoving activities begun over 70 years ago and the quarrying that occurred prior to that time, the chief, remaining natural resource on the Properties includes Strickler Run and its attendant wetlands/floodplain and steeply-sloped woodlands, which are located along the south edge of the Airfield Property. This unique corridor, blending a stream and woodlands with a former quarry and active railroad corridor lends itself to being conserved and/or placed toward passive use.

J. Historical and Cultural Resources

Also in mid-April, ELA initiated project notification under the PA Historic and Museum Commission's (PHMC's) State Historic Preservation Office (SHPO). As we did for the PA Fish and Boat Commission, on or about May

5th, ELA submitted a narrative, mapping, and photographs of the Airfield Property. On May 6th, the SHPO replied that we will be notified "when the submission is accepted as a new Environmental Review Project or if more information is required to process the submission. No further action is required at this time." We are awaiting further communication from the SHPO.

K. Land Use Ordinance Provisions

Key provisions of the Borough's Land Use Ordinances are noted below.

1. Zoning Ordinance (Chapter 220)

A) According to the Borough's Zoning Map, the Related Property at 750 South 9th Street is located within the Medium Density Residential (MDR) District. As such, this Property is subject to the following provisions:

1) A range of Residential Uses are permitted in the MDR District including Single-Family Detached, Twin Side-by-Side Dwellings, and Rowhouses/Townhouses;

2) Some Commercial Uses are permitted; however, they require use of/relationship to existing on-site structures (of which there are none on this Property);

3) Notable permitted Institutional Uses include Adult and Child Daycare; and

4) Parking lots, as a principal use, are permitted in the MDR District by Special Exception (SE).

Should development of this Property be undertaken, further analysis of these potential uses, and the full range of Zoning Ordinance provisions should be conducted.

B) The former Airfield Property is predominantly zoned "Light Business;" a S/SE portion of the Airfield Property is zoned "Conservation." As such, this Property is subject to the following provisions:

1) Light Business (LB) District

a) Notable permitted uses in the LB District include (found in "220 Attachment 2"):

i) Residential: No residential uses are permitted in the LB District.

ii) Commercial: Airport, Bakery, Bed-and-Breakfast, Beverage Distributor, Carwash (SE), Communications Antennas (when mounted on existing structure), Conference Center, Construction Company or Tradesperson's Headquarters, Crafts or Artisan's Studio, Custom Printing, Exercise Club, Financial Institution (drive-through service by SE), Funeral Home, Greenhouse or Garden Center, Kennel (SE), Commercial or Industrial Laundry, Lumber Yard, Motel or Hotel, Office, Personal Services, Indoor and Outdoor Recreation, Household Appliance Repair Service, Restaurant (without drive-through service), Retail Stores, Tavern (which may include state-licensed microbrewery), Indoor Theater (other than adult use), and Trade/Hobby School

iii) Industrial: Finishing of Prepared Compounds (see list); Industrial Equipment Sales, Rental, and Service (see limitations); Apparel, Textiles, Shoes, and Apparel Accessories; Ceramics Products; Electrical/Electronic Machines, Supplies, and Equipment; Fabricated Metal Products (SE); Food and Beverage Products (industrial scale); Furniture and Wood Products (other than raw paper pulp); Glass and Glass Products (other than Crafts Studio); Jewelry and Optical Goods; Leather, Clay, and Pottery Products (other than Crafts Studio); Microelectronic Components; Paper and Cardboard Products(other than raw paper pulp); Pharmaceuticals; Products from Previously Manufactured Materials (see list); Scientific,

Electronic, and Other Precision Instruments; Packaging; Bulk Photo Processing; Printing or Bookbinding; Recycling Collection Center (SE); Research and Development, Engineering, or Testing Facility or Laboratory; and Wholesale Sales

iv) Institutional: College or University Educational and Support Buildings, Community center or Library, Cultural center or Museum, Child and Adult Daycare Center, Hospital, Membership Club (see limitations), Nursing Home or Personal Care Home, Place of Worship, and Public or Private/Primary or Secondary School

v) Public/Semipublic: Borough-Owned Uses, Government Facilities (SE; limited), Emergency Services Station (which may include supporting social club building or facility), Publicly-Owned Recreation, Public Utility Facility (SE), Non-household Swimming Pool, and US Postal Service Facility

vi) Accessory: Daycare Center Accessory to a Place of Worship, Group Daycare Home, and Family Daycare Home

vii) Permitted Accessory Uses in all Zoning Districts include Off-Street Parking and Loading only to serve a use that is permitted in that District [Section 220-25.C.(7)]; however, a Parking Lot, as a Principal Use of an LB-zoned property, is not permitted (Section 220 Attachment 2).

b) Document “220 Attachment 3” establishes the following Dimensional Requirements for lots within the LB District:

i) Minimum Lot Area: 5-acre min. tract area, subdividable into min. 20,000 SF lots

ii) Minimum Lot Width: 80’ at minimum setback line

iii) Minimum Front Yard Setback: 30’

iv) Minimum Rear Yard Setback: 25’ (Added setback required when adjoining residential)

v) Minimum Side Yard Setback: 25’ (Added setback required when adjoining residential)

vi) Maximum Coverage: 40% building / 85% total impervious

c) Section 220-26.B.(3) establishes that the maximum height of buildings within the LB District is six (6) stories or 90’, whichever is more restrictive, provided that the maximum height shall be 35’ within 50’ of an existing dwelling within a residential district.

d) Section 220-30 provides additional requirements for specific principal uses applicable to some of the above-listed uses.

e) Section 220-31 provides additional requirements applicable to some of the above-listed accessory uses.

f) Article V: Environmental Protection provides a range of requirements which could be applicable to this Property.

g) Article VI: Off-Street parking and Loading establishes the number of parking spaces required for the above-listed uses, general regulations for off-street parking, and design standards for off-street parking (which cross-references requirements found in the Borough’s Subdivision & Land Development Ordinance). As to off-street loading, this Article establishes the means by which applicants shall provide evidence of their needed number and size of loading facilities.

h) Additional provisions include Signs (Article VII) and General Regulations (Article VIII). Interestingly, Article VIII references the Borough's "Airport Approach Ordinance" at Section 220-58.

2) Conservation (C) District

For purposes of this Inventory, it is assumed that the C-zoned portion of the Airfield Property would be utilized for conservation, passive recreation, and/or educational purposes. These uses are consistent with the purpose and intent of the District, subject to specific, applicable requirements.

3) It is noted that the SE corner of the Airfield Property is located within West Hempfield Township. Because this corner of the Property is cut-off by Strickler Run, rendering it landlocked, an inventory of zoning characteristics has not been undertaken.

2. Floodplain Management Ordinance (Chapter 120)

Due to Strickler Run's potential for flooding, any future improvements adjacent to the Run or within its floodplain would be subject to the provisions of this Ordinance.

3. Subdivision & Land Development Ordinance (Chapter 190)

Should the Airfield and/or Related Properties be developed, compliance with all provisions of the Subdivision & Land Development (S&LD) Ordinance will be required from plan processing to plan content; supplemental requirements, tests, and studies to assurances; design standards to required improvements. Bearing this in mind, the following requirements are notable:

A) Streets, access drives, and driveways (Section 190-39):

1) Unless topographic conditions prevail, curvilinear streets are discouraged in favor of continuing the Borough's street grid. All proposed streets shall be classified according to the street hierarchy of the existing transportation network as defined by the Borough's Comprehensive Plan, Official map, or other planning documents.

2) Detailed design standards establish that each proposed interior street classification be determined by the proposed use, projected Average Daily Trips (ADT's), and the intensity of development permitted and existing along each street. Each cartway width shall be based on the travel lane, on-street parking, multi-modal lanes, and gutter widths.

3) Vertical and horizontal street alignments are based on design speed. Street intersection placement and pavement design standards are based on street classification.

4) 4' (min) sidewalks are required on both sides of streets; if proposed, trails must be 4'-wide (min).

5) All lots must be accessed from a public or private right-of-way.

6) Requirements are established for driveways, access drives, and cul-de-sac streets.

B) Parking facilities: Design requirements are found in Section 190-40.

C) Blocks and lots: Design requirements are found in Section 190-41.

D) Easements: Design requirements are found in Section 190-42.

E) Survey monuments and markers, Sanitary wastewater disposal, Water supply, Landscaping, and Lighting are addressed in Sections 190-43 through 190-47, respectively.

F) Article X (Design Standards for Infill and Redevelopment Sites) provides a number of sound planning principles which could be incorporated into potential development scenarios, whether directly required/recommend or not.

4. Stormwater Management Ordinance (Chapter 184)

Should the Airfield and/or Related Properties be developed, compliance with this Ordinance will be required noting that, in doing so, consideration must be given to the results of ECS Mid-Atlantic's Preliminary Geotechnical Engineering Report and the Environmental Subsurface Exploration Report.

III. Site Analysis

The purpose of this Site Analysis is to assess what ELA Group, Inc. has researched, learned, and/or viewed with regard to the McGinness Airfield and Related Properties during the conduct of our Site Inventory investigations. In doing so, we have assessed the Challenges and Opportunities that are posed by these Properties, by way of rendering a Professional Opinion as to the efficacy of Columbia Borough's purchasing or not purchasing the Properties. For ease of review, the below Challenges and Opportunities follow the order of the Site Inventory as presented above. Similar to the Site Inventory, we have conducted the following Analysis through the lenses of Engineering and Landscape Architecture.

It bears repeating that additional study may be required specific to the aerial-technology business/industrial park. If so, it is anticipated that same would be conducted/completed by or on behalf of DR1.

A. Opportunities

Subject to the findings documented in ECS Mid-Atlantic's Preliminary Geotechnical Engineering Report and Environmental Subsurface Exploration Report, we note the following.

Location and Context

- The Airfield and Related Properties are located in Columbia Borough, a community of substantial attributes including the Susquehanna River, US Route 30, PA Routes 441 and 462, and an urban street grid.

- The Borough is located roughly-equidistant from the City of Lancaster and the City of York.

Property Boundaries

- The Airfield Property represents a large, contiguous tract of land consisting of eight deeded parcels and 56.440 acres. It is rare to find undeveloped business/industrial land of this size in Lancaster County.

Use of the Properties

- In addition to the Airfield Property's breadth, it is unique in its topography as a result of being graded for the creation of two grassed runways. Should the Property be developed, the NE-to-SW runway is a substantial asset by which to develop an aerial-technology business/industrial park; if not, the Property's topography is conducive to the siting of a general-occupancy business/industrial park.

- The south edge of the Property presents an opportunity for recreational, educational, and interpretive use centered around Strickler Run and the former quarry, while avoiding conflicts with Lancaster City's 42" waterline(s) in this area. If about 15.4-acres of the Property is devoted to these recreational, educational, and interpretive uses, some 41-acres would remain for potential business/industrial park development.

- Although few in number, existing structures on the Property might be suitable for repurposing, even if only on a temporary basis.

- The Related Parcel at 750 South 9th Street is utilized as an urban farm and presents opportunities for infill residential development.

Surrounding Land Uses

- Both the Airfield and Related Properties fit-into the urban mix of residential and commercial land uses along this south-central edge of Columbia Borough.

- Unique to the Airfield Property is its adjacency to Columbia Borough Fire Company Station 80 and Susquehanna Fire and Rescue Company 4.

Transportation Network

- Vehicular Access

    - Columbia Borough and, consequently, the Airfield and Related Properties have access to the mid-Atlantic region via Interstate 283, Interstate 83, and the PA Turnpike.

    - Due to relatively-recent improvements to Route 30 and Route 441/Front Street, a truck route has been established along the west-side of the Borough, adjacent to the Susquehanna River. This route would facilitate access to the Airfield Property, principally via the Norfolk Southern Railway underpass at Plane Street. Improvements to this underpass could provide northbound and southbound access to/from Route 441/Front Street and reduce truck traffic impacts to/in the neighborhoods surrounding the Airfield Property.

    - Truck route access from Route 462/Lancaster Avenue to the Airfield Property could currently be best achieved at South 15th Street, subject to improvements being made at this existing, signalized intersection.

    - Regardless of which route is utilized (Plane Street or South 15th Street), the Airfield Property's frontage on Manor Street provides good access with plenty of cartway and right-of-way width. Logic dictates that "Primary Access" would occur at the Manor Street/South 11th Street intersection.

    - Due to the Borough's urban street grid, "Secondary Access" to the Airfield and Related Properties could be accommodated from a number of streets and directions.

- Transit

  Red Rose Transit Authority's Bus Route 17 not only provides access to/from the City of Lancaster, Columbia, and Marietta, the Route passes-by the Airfield Property on fronting Manor Street and provides a bus stop at South 14th Street.

- Multi-Modal Trail

  Columbia Borough's and Lancaster County's premier, regional trail, the Northwest River Trail, is currently anchored, at its southern end, by the Columbia Crossing River Trails Center. If/when this trail is extended further south, it will pass-by the Airfield and Related Properties. Not only would this be an asset to future businesses and residents of the Properties, passive recreation, education, and interpretive uses along Strickler Run could enjoy a symbiotic relationship with the NW River Trail.

Utility Services

- Public water service is directly available from South 9th Street, Manor Street, and South 12th Street/Franklin Street. Pending confirmation of service/capacity needs, domestic water supply is likely adequate.

- Public wastewater service, via gravity means, is available on Manor Street, South 12th Street/Franklin Street, through the Airfield Property itself, and along South 9th Street/Fairview Avenue

- Although not inventoried in detail, the Airfield and Related Properties have access to electric service and likely to gas service as well.

Drainage, Topography, Floodplain, Wetlands, and Stormwater

- The Related Property at 750 South 9th Street appears to be suitable for residential development.

- Subject to ECS Mid-Atlantic's Preliminary Geotechnical Engineering Report and Environmental Subsurface Exploration Report, the Airfield Property has been substantially graded into landforms suitable for business/industrial park development.

  The lower, south side of the Property is more suited for passive recreation, education, and interpretive uses. Here, Strickler Run presents an opportunity for streambank, floodplain, and wetland restoration which, if undertaken with adjoining municipalities, could yield mutual MS4 benefits and pollution reduction credits. The planning and implementation of these improvements could garner grant funding assistance.

  While the Airfield Property is subject to flooding/high water events and wetlands, these encumbrances primarily occur within Conservation-zoned land which is unlikely to be developed beyond passive recreation, education, and interpretive uses.

- Subject to ECS Mid-Atlantic's Preliminary Geotechnical Engineering Report and Environmental Subsurface Exploration Report and the confirmation of anecdotal reports of potentially-existing stormwater piping infrastructure, conventional means of stormwater management may be accomplished on-site; these means could be enhanced by the use of innovative technologies.

Land Use Ordinance Provisions

Of the Ordinance provisions inventoried, the following opportunities emerge:

- The Related Property at 750 South 9th Street is clearly zoned for residential development, possibly in concert with the Borough's infill and redevelopment provisions found in the S&LD Ordinance.

- The Airfield Property's "Light Business" zoning designation provides a comprehensive list of Permitted and Special Exception Uses which would be conducive to both an aerial-technology business/industrial park and a general-occupancy business/industrial park.

- The Borough's S&LD Ordinance encourages extension and preservation of the Borough's street grid while focusing on context-sensitive street and parking lot design. These provisions establish a firm vision for the potential development of the Airfield Property. As also addressed in the S&LD Ordinance, trails and sidewalks are encouraged which could make use of existing unopened/unimproved easements.

B. Challenges

Subject to the findings documented in ECS Mid-Atlantic's Preliminary Geotechnical Engineering Report and Environmental Subsurface Exploration Report, we note the following.

Property Boundaries

Subject to the Title Search/Report conducted for the Borough, the following challenges are noted:

- Within the boundaries of the Airfield Property, two potential purparts are identified for which rightful ownership is unknown.

- Several easements, rights-of-way, and alleys appear to be private, unopened, and/or unimproved; still others have been literally buried by the placement of fill.

If the Borough purchases the Airfield and Related Properties, these anomalies should be addressed.

Use of the Properties

- As outlined in ECS Mid-Atlantic's Preliminary Geotechnical Engineering Report, remediation techniques (including, but not limited to, alternative foundation systems and slope stabilization) will likely be required to mitigate the results of extensive earthwork operations and placement of fill by which the Airfield was created. These remediations will likely lead to additional construction costs related to developing a business/industrial park on this Property.

- Similarly, as outlined in ECS Mid-Atlantic's Environmental Subsurface Exploration Report, the cost of managing soils and stormwater, developing, and building-out a business/industrial park on the Airfield Property will be exacerbated by the presence of exceedant levels of contaminants. Additionally, we would encourage the Borough to pursue Act 2 Liability Protection if it were to purchase the Airfield Property.

- The remnants of the former convalescent home and the quarry, quarry wall/cliff, and flooded pit represent attractive nuisances. If the Borough were to purchase the Airfield Property, these safety concerns should be addressed immediately as well as for the long-term, especially if these areas were to be opened to public use as passive recreation, education, and interpretive areas.

- Similarly, the status of existing buildings, foundations, and underground storage tanks should be assessed as promptly as possible. If these improvements will not be used, re-used, or re-purposed (either temporarily or permanently), they should be removed/deconstructed.

Surrounding Land Uses

- Although the Airfield and Related Properties have long been zoned for Light Business and Residential use, they have also been long dormant. Should these Properties be developed, the surrounding mixed-use, residential, and commercial neighborhoods will see an increase in activity at the site and within the surrounding transportation network.

  If the Borough were to purchase and catalyze development of the Properties, time, energy, and financial resources will be required to limit the impact of the Properties' development and occupancy.

Transportation Network

- In order to address increases in traffic flow and to establish truck routes which minimize the impact on surrounding neighborhoods, financial resources will need to be expended for the following:

  - To improve the Norfolk Southern Railway underpass at Plane Street; should this not come to fruition, the focus must shift to Lawrence Street/Mill Street/South 4th Street or Florence Street, likely at considerably more expense and

  - To improve existing intersections on Route 462/Lancaster Avenue, principally at South 15th Street and possibly at South 12th Street. While the function of these intersections would/could be greatly improved, nonetheless, these improvements will likely be viewed as disruptive.

- As already noted, although Norfolk Southern Railway is located immediately adjacent to the south edge of the Airfield Property, rail service cannot be feasibly extended to the Property due to the considerable topographic/grade change.

Utility Services

- If the Airfield Property were to be developed, in addition to looping Public Water service through the Property, it is likely that fire suppression capabilities will need to be enhanced, especially for those end-users who must meet robust firefighting requirements.

- It is noted that, although Public Water and Wastewater infrastructure is conveniently accessible, gaps in these systems will likely need to be completed, especially to the west side of the Airfield Property and to provide wastewater service to the Related Property at 750 South 9th Street.

- As is to be expected, tapping and/or connection fees will be incurred by the developer of and/or end-users within the Airfield and Related Properties.

Drainage, Topography, Floodplain, Wetlands, and Stormwater

- According to anecdotal reports, it is possible that stormwater pipe infrastructure exists by which to provide drainage out of several watersheds, W2, W3, W4, and W5. If the Borough were to purchase the Airfield and Related Properties, the presence/absence of these pipes should be confirmed as soon as possible. If these pipes are not found or are found to be in poor condition, costs might be incurred to re/establish same.

- As noted above as an Opportunity, subject to ECS Mid-Atlantic's Preliminary Geotechnical Engineering Report and Environmental Subsurface Exploration Report, conventional means of stormwater management may be accomplished on-site; these means could be enhanced by the use of innovative technologies. It may also be found that innovative and more-expensive stormwater technologies become required and that conventional, less-expensive means are less likely to be used.

Natural and Historical/Cultural Resources

- It must be noted that PHMC/SHPO clearances are still pending.

Land Use Ordinance Provisions

- By-and-large, the Borough's Land Use Ordinance provisions are sensible and reasonable; however, the following observations are offered for consideration:

    - The setback provisions established within the Light Business (LB) Zoning District tend to be "suburban" in nature, not reflective of the Borough's "urban" context. For example, consideration should be given to reducing setback requirements (except when adjacent to residential uses) and, in lieu of 30' minimum front setback lines, consideration should be given to establishing relatively narrow "build-to" lines instead.

    - Maximum lot coverage requirements which combine "building" and "total impervious" coverage percentages can often result in unintended consequences, especially as larger, technology-driven businesses and their buildings rely less on employees (yielding less need for parking and the impervious coverage imparted by same).

    - It is noted that no residential uses are permitted within the LB Zoning District. The Borough may wish to reconsider this, especially in a walkable business/industrial park setting where workforce and live/work housing could provide business/industrial park employers with a competitive advantage in the recruiting/hiring of employees. If the Airfield Property were to be developed into a business/industrial park in which some first-floor retail, personal services, and daycare uses are provided, these typically single-story land uses could be provided with upper-floor residential units.

    - The prohibition of parking as a Principal Use within a business/industrial park setting, such as could be developed on the Airfield Property, should be reconsidered.

PROFESSIONAL OPINION

It is undoubtedly noticeable that several of the above characteristics that are documented in the Site Inventory end-up posing both Challenges and Opportunities as documented in the Site Analysis. This is not unique to the McGinness Airfield and Related Properties; such is the nature of considering the attributes of properties, making land purchase decisions, and possibly proceeding with subdivision planning, permitting, and implementation of or for a certain land use.

Through the lenses of Engineering and Landscape Architecture, ELA Group, Inc. offers the following Professional Opinion:

1. As thoroughly documented above, many Opportunities are to be realized through the acquisition and development of the McGinness Airfield and Related Properties;

2. As is also documented above, many Challenges must also be faced (some of which are known, some of which are unknown, and still others are likely yet to be discovered) along with the cost-implications that could be incurred;

3. It is the Opinion of ELA Group, Inc. that the Opportunities outweigh the Challenges;

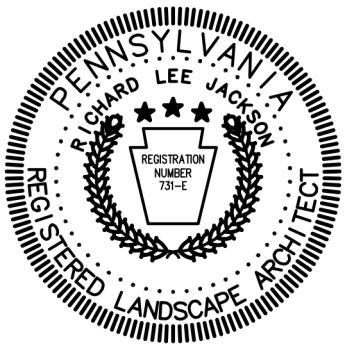
4. Whether the Airfield Property were to be developed as an aerial-technology business/industrial park or as a general-occupancy business/industrial park, the potential and positive impact on Columbia Borough is sizable; and

5. We believe that the purchase and development of the McGinness Airfield and Related Properties could attract public/private partnerships and investment.

In offering this Professional Opinion, it is important to note that ours is but one of several opinions to be considered. It is not our Opinion, alone, that is enough for the Borough to determine the efficacy of purchasing and/or developing these Properties. The opinions of CGA Law, CS Davidson, Inc., and ECS Mid-Atlantic, LLC must also be considered by the Borough as it decides its course of action.

Respectfully,
ELA Group, Inc.

Richard L. Jackson, RLA
Vice President: Landscape Architecture



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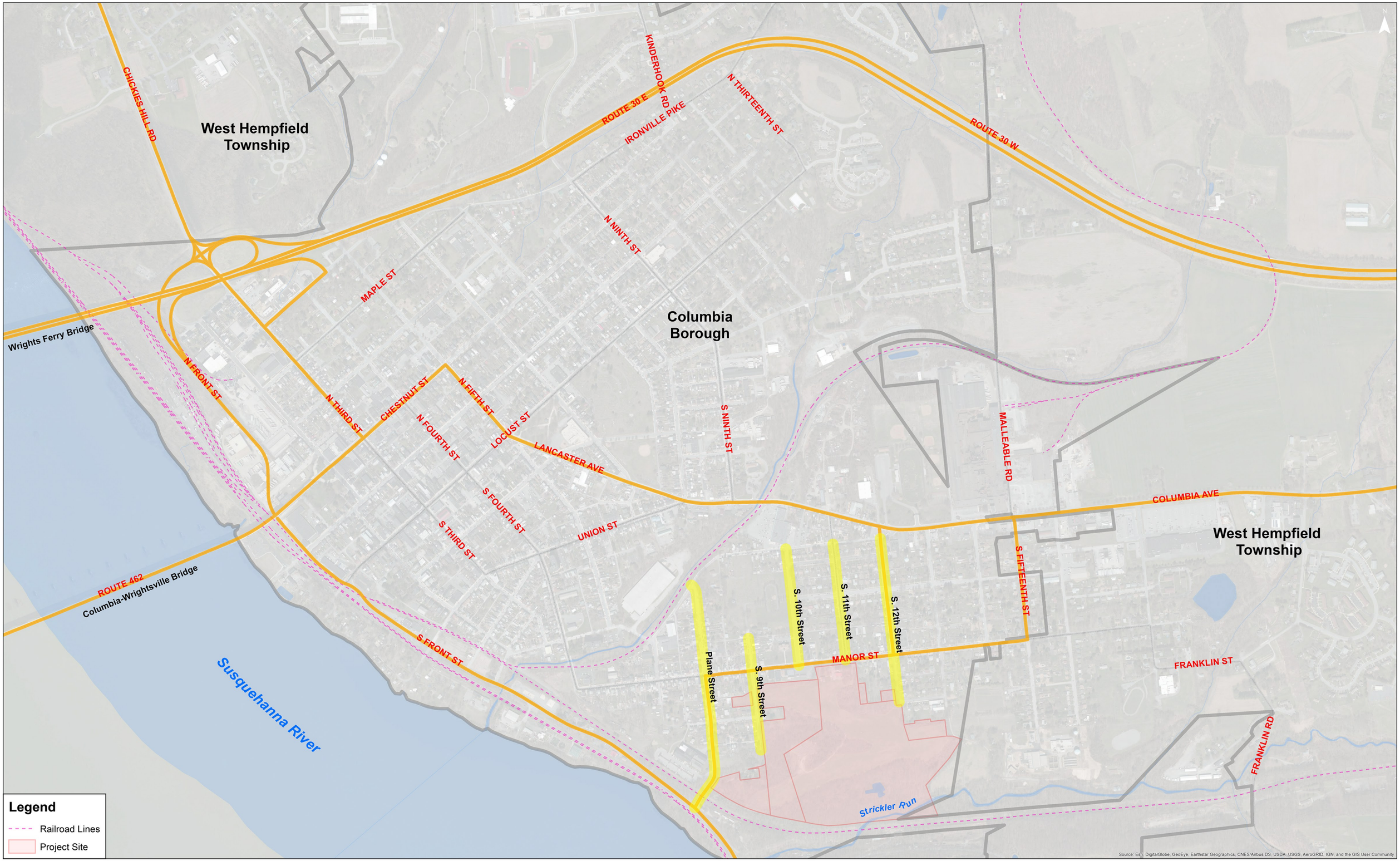
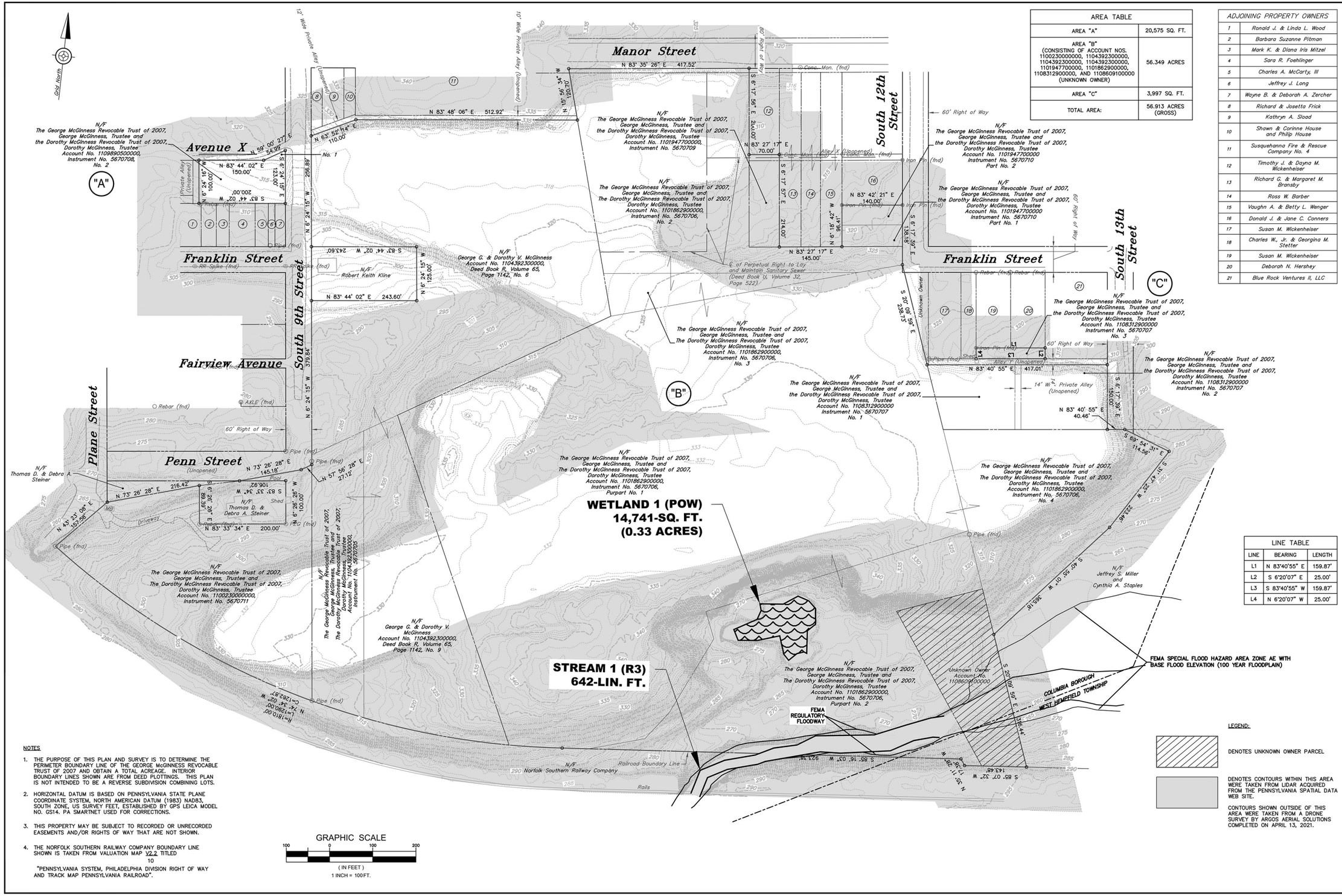


Map 1: Location and Context

McGinness Airfield and Related Properties

EA group, inc. ENGINEERS + LANDSCAPE ARCHITECTS



AREA TABLE	
AREA "A"	20,575 SQ. FT.
AREA "B" (CONSISTING OF ACCOUNT NOS. 1100230000000, 1104392300000, 1104392300000, 1104392300000, 1101947700000, 1101862900000, 1108312900000, AND 1108609100000 (UNKNOWN OWNER)	56.349 ACRES
AREA "C"	3,997 SQ. FT.
TOTAL AREA:	56.913 ACRES (GROSS)

ADJOINING PROPERTY OWNERS	
1	Ronald J. & Linda L. Wood
2	Barbara Suzanne Pitman
3	Mark K. & Diana Iris Mitzel
4	Sara R. Foehlinger
5	Charles A. McCarty, III
6	Jeffrey J. Long
7	Wayne B. & Deborah A. Zercher
8	Richard & Josetta Frick
9	Kathryn A. Sload
10	Shawn & Corinne House and Philip House
11	Susquehanna Fire & Rescue Company No. 4
12	Timothy J. & Dayna M. Wickenheiser
13	Richard G. & Margaret M. Bransby
14	Ross W. Barber
15	Vaughn A. & Betty L. Wenger
16	Donald J. & Jane C. Conners
17	Susan M. Wickenheiser
18	Charles W., Jr. & Georgina M. Stetter
19	Susan M. Wickenheiser
20	Deborah N. Hershey
21	Blue Rock Ventures II, LLC

NOTES

1. THE PURPOSE OF THIS PLAN AND SURVEY IS TO DETERMINE THE PERIMETER BOUNDARY LINE OF THE GEORGE McGINNESS REVOCABLE TRUST OF 2007 AND OBTAIN A TOTAL ACREAGE. INTERIOR BOUNDARY LINES SHOWN ARE FROM DEED PLOTTINGS. THIS PLAN IS NOT INTENDED TO BE A REVERSE SUBDIVISION COMBINING LOTS.
2. HORIZONTAL DATUM IS BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM (1983) NAD83, SOUTH ZONE, US SURVEY FEET, ESTABLISHED BY GPS LEICA MODEL NO. GS14. PA SMARTNET USED FOR CORRECTIONS.
3. THIS PROPERTY MAY BE SUBJECT TO RECORDED OR UNRECORDED EASEMENTS AND/OR RIGHTS OF WAY THAT ARE NOT SHOWN.
4. THE NORFOLK SOUTHERN RAILWAY COMPANY BOUNDARY LINE SHOWN IS TAKEN FROM VALUATION MAP V2.2 TITLED 10 "PENNSYLVANIA SYSTEM, PHILADELPHIA DIVISION RIGHT OF WAY AND TRACK MAP PENNSYLVANIA RAILROAD".

COLUMBIA BOROUGH

PROPERTY LINE AND TOPOGRAPHIC SURVEY

COLUMBIA BOROUGH — LANCASTER COUNTY, PENNSYLVANIA

McGINNESS AIRPORT

C.S.Davidson, Inc.
Excellence in Civil Engineering
38 NORTH DUKE STREET, YORK, PA • PHONE (717) 846-4805 • FAX (717) 846-5811
50 WEST MIDDLE STREET, GETTYSBURG, PA • PHONE (717) 337-3021 • FAX (717) 337-0782
315 W. JAMES STREET, SUITE 102, LANCASTER, PA • PHONE (717) 481-2991 • FAX (717) 481-8690
WWW.CSDAVIDSON.COM

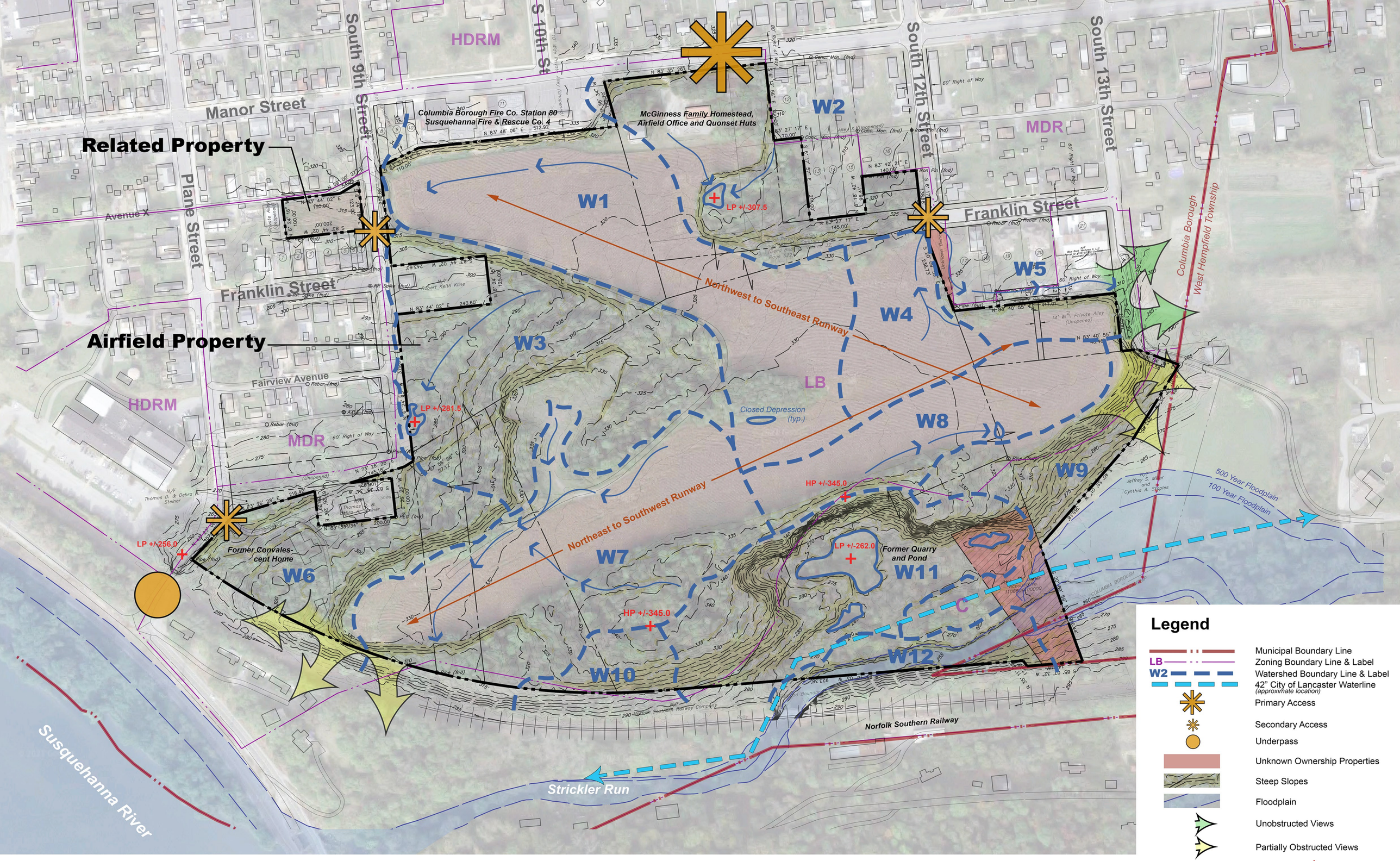
NO.	DATE	DESCRIPTION

DRAWN BY	DWF/BAM
CHECKED BY	
SCALE	1" = 100'
DATE	7/01/2021
DWG. NO.	398131303_A
FILE NO.	3981.3.13.03
SHEET NO.	1 OF 1

Map 2: Property Survey

McGinness Airfield and Related Properties

CELEBRATING 25 YEARS
EA group, inc.
ENGINEERS • LANDSCAPE ARCHITECTS



Legend

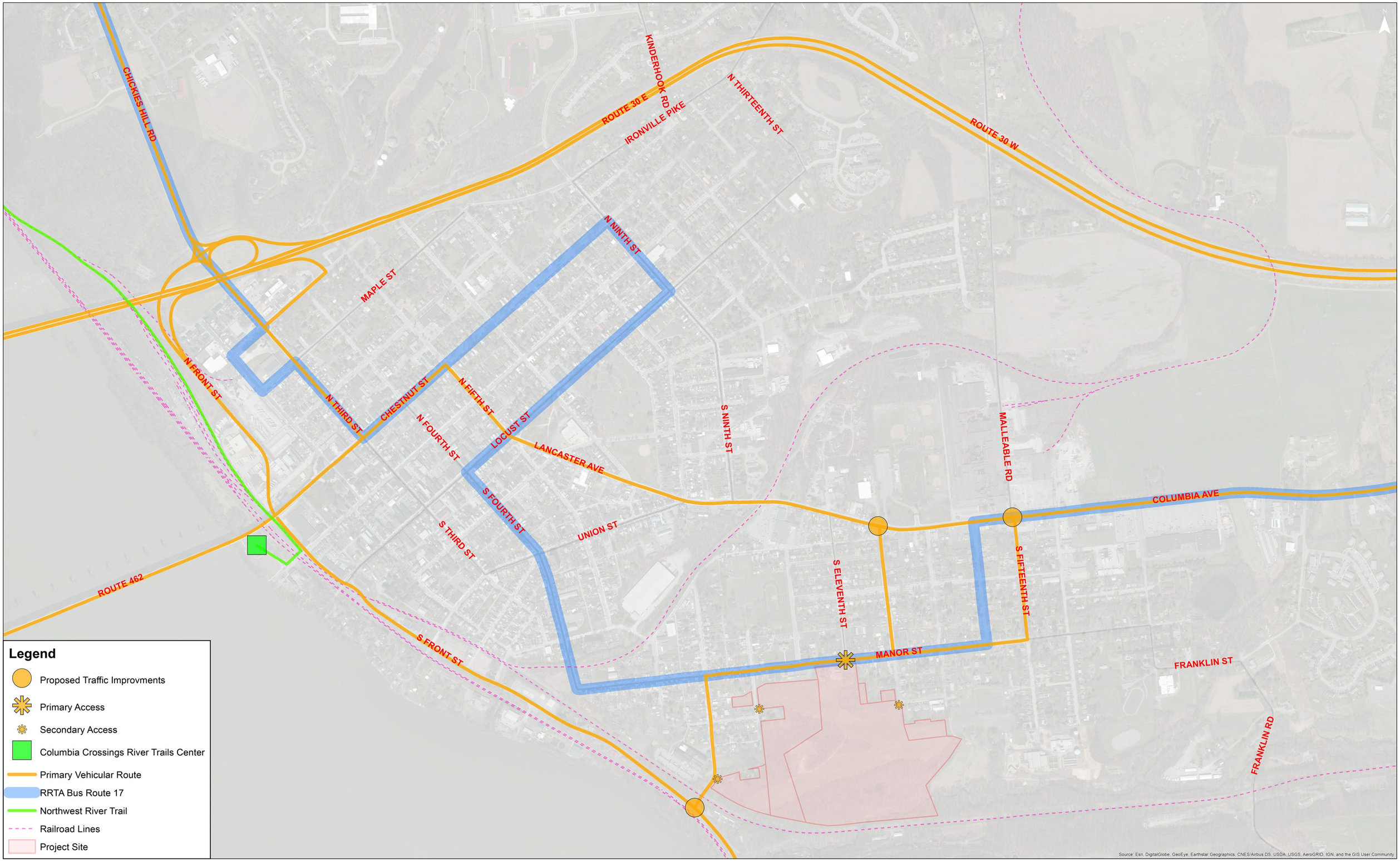
- Municipal Boundary Line
- LB — Zoning Boundary Line & Label
- W2 — Watershed Boundary Line & Label
- 42" City of Lancaster Waterline *(approximate location)*
- Primary Access
- Secondary Access
- Underpass
- Unknown Ownership Properties
- Steep Slopes
- Floodplain
- Unobstructed Views
- Partially Obstructed Views

Map 3: Site Inventory and Analysis

McGinness Airfield and Related Properties

0 50 100 200 300

CELEBRATING 25 YEARS
EA group, inc.
ENGINEERS • LANDSCAPE ARCHITECTS



Map 4: Transportation Network

McGinness Airfield and Related Properties

CELEBRATING 25 YEARS
EA group, inc.
ENGINEERS + LANDSCAPE ARCHITECTS

4/20/2021, 10:11:19 AM

Lancaster_PEMA_2018_Clip

- Red: Band_1
- Green: Band_2
- Blue: Band_3

Fire Hydrant

System Valves

- Gate Valve, Opens Right
- Hydrant Valve

Private Valve

Vault Valve

- Blowoff Valve
- End Cap

Main

- 1-1/4"
- 6"
- 8"
- 12"
- Service Connection
- Parcel - Lancaster Co.
- Lancaster Roads

0 0.02 0.04 0.08 mi

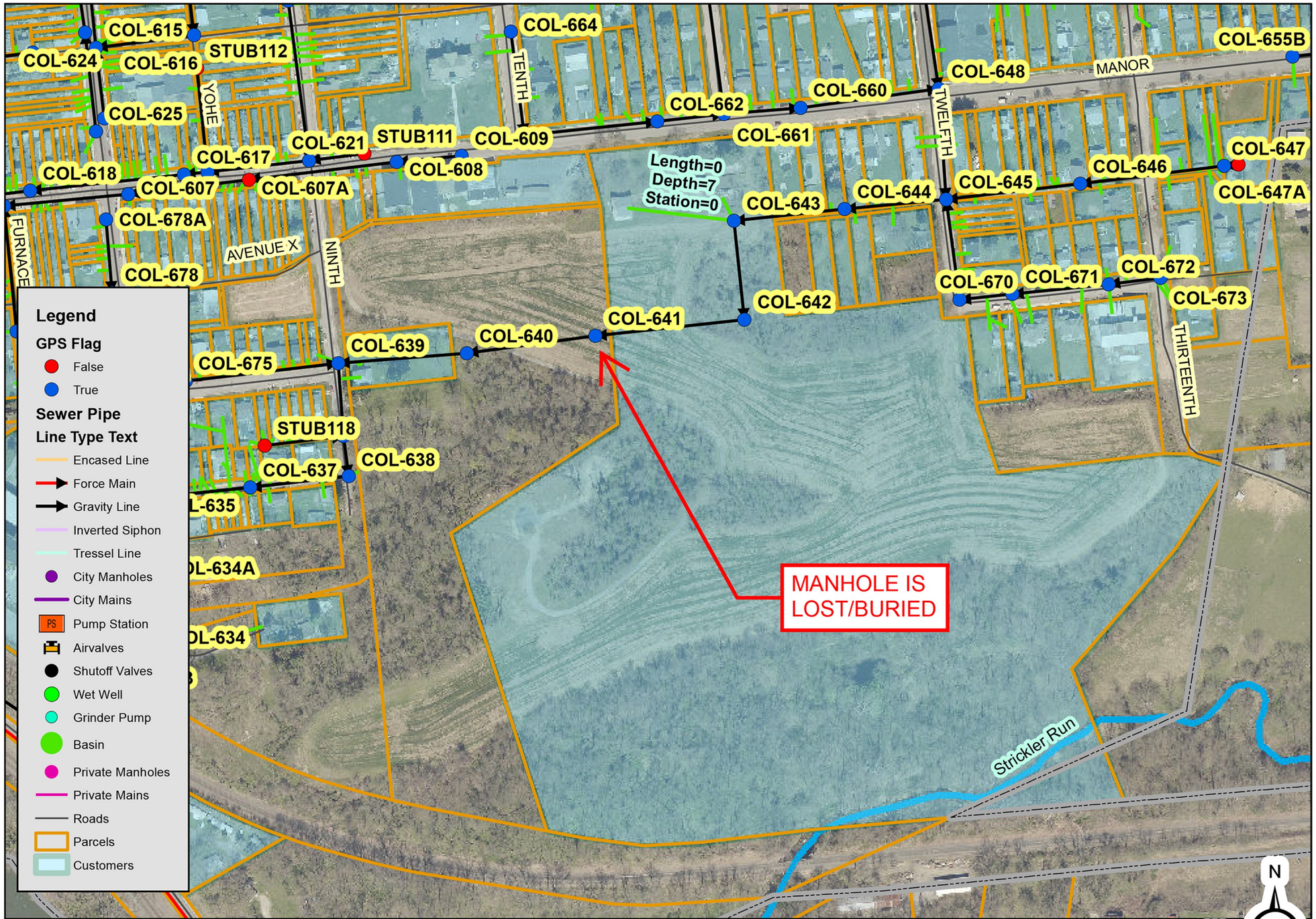
0 0.04 0.07 0.14 km

Maxar, Microsoft

Map 5: Columbia Water Map

McGinness Airfield and Related Properties

EA group, inc. ENGINEERS • LANDSCAPE ARCHITECTS



1 inch = 300 feet

Map Created: 4/27/2021

Map 6: LASA Wastewater System Map

McGinness Airfield and Related Properties