

# HANOVER MEADOWS MASTER PLAN

March, 2015

*Prepared For:*

**North Coventry Township  
845 South Hanover Street  
Pottstown, PA 19465**

*Prepared By:*

**LTL Consultants, Ltd.  
One Town Centre Drive • P. O. Box 241  
Oley, Pennsylvania 19547-0241  
Telephone - 610-987-9290  
Fax - 610-987-9288**

## TABLE OF CONTENTS

<b>SUBJECT</b>	<b>PAGE</b>
EXECUTIVE SUMMARY .....	1
CHAPTER 1 - INTRODUCTION	
Master Plan Purpose and Goals .....	2
Regional Context .....	2
Demographics .....	2
CHAPTER 2 - ANALYSIS	
Township Park and Recreation System .....	3
Context of Hanover Meadows within the Park System .....	3
Master Plan Process .....	3
Scope of Work Summary .....	4
Public Participation Process.....	4
Data Collection Methodology / Site Data.....	5
Activity and Facility Analysis .....	10
Building Location .....	11
Site Alternatives.....	13
CHAPTER 3 – MASTER PLAN	
Meeting Consensus .....	1
Alternative Concept Plans.....	1
Master Plan .....	1
Site Maintenance and Operating Costs .....	1
Security Analysis .....	1
CHAPTER 4 – IMPLEMENTATION AND FUNDING STRATEGY	
Project Phasing.....	1
Estimate of Probable Development Costs.....	1
Phased Capitol Program.....	1
Accessibility.....	1
Regulatory Requirements.....	1
Potential Funding Sources .....	1
LIST OF MAPS AND FIGURES	
APPENDIX	

Steering Committee Members:

Jim Marks, North Coventry Township Board of Supervisors

Rebekah Elliot, North Coventry Township Board of Supervisors

Jay Kline, North Coventry Township Planning Commission

Jay Erb, North Coventry Township Parks and Recreation Commission

Kevin Hennessey, North Coventry Township Manager

Jon McKee, North Coventry Township Director of Public Works

Justin Keller, Pottstown Area Regional Recreation Coordinator

Ed Latshaw, LTL Consultants, Township Engineer

John Wetzel, LTL Consultants, Project Engineer

## EXECUTVE SUMMARY

Hanover Meadows is a 22 acre open space property located in North Coventry Township, Chester County, Pennsylvania. The property was acquired in 2004 as part of the development of the Town Square Plaza located to the north side of this site. The site was previously used for agriculture and presently contains open fields, wetlands and wooded areas and is bounded on three sides by public roads.

North Coventry Township seeks to develop a portion of the site to house the municipal maintenance facilities as well as provide a building location for the police department and the administration offices. As part of this development, the Township wishes to incorporate some public uses such as trail and park areas.

## **INTRODUCTION**

The 22 acre Hanover Meadows site is an unimproved open space property located in North Coventry Township, Pennsylvania. Fallow agricultural fields, mowed lawn areas, wetlands and woodlands characterize the property. The site has been identified as a potential location for Township Municipal Buildings for maintenance, police and administrative uses.

In 2015, North Coventry Township assembled a steering committee that included elected officials, members of township boards, township staff and consultants to review the possible uses for the site and to develop the master plan presented in this report. This document outlines the planning process and the Master Plan design.

## **MASTER PLAN PURPOSE AND GOALS**

The goal of this master plan is to create a long range plan for the development of the property to provide facilities for the Township use as well as incorporate public uses.

## **REGIONAL CONTEXT**

North Coventry Township is a second class township located in northern Chester County, Pennsylvania. The Township has a total land area of approximately 13.6 square miles. The Township is considered an inner ring suburb of Pottstown Borough and an outer ring suburb of Philadelphia. Route 422 that connects Philadelphia (about 35 miles to the southeast to Reading (about 20 miles to the northwest) runs along the northern edge of the township. Route 100 bisects the Township in a north south direction. Much of the Township development is clustered along these two corridors.

## **DEMOGRAPHICS**

According to the 2010 census North Coventry Township has a population of 7,866 residents.

## **ANALYSIS**

### **TOWNSHIP PARK AND RECREATION SYSTEM**

North Coventry Township has more than 627 acres of parks dedicated to open space and recreational activities. A majority of the land, 538 acres, is located in the Coventry Woods parcel located in the western portion of the Township and is a passive use park. In addition there is also approximately 260 acres located within the French Creek State Park on the western edge of the Township.

The Township currently has three parks that are primarily used for active recreation uses. They include Kenilworth, River Bend and Riverside Parks and contain about 37 total acres of space. Active uses that currently are provided at these facilities include: two baseball fields, two softball/little league fields, two soccer or multi-use fields, three basketball, one volleyball and two tennis courts, three playgrounds/tot lots, and a Frisbee golf course located at the parks. In addition there is a private facility within the township, the Wampler Little League complex that contains four Little League/T-ball fields. There are two school facilities, North Coventry Elementary School and West-Mont Christian Academy within the township that also have recreational fields and facilities.

The Township has a plan to provide walking trails throughout the Township and has made an effort to provide connections between parks and open spaces where possible. The Hanover Trail is intended to follow along Hanover Street leading from Pottstown southward through the Township. The Hanover Trail connects to the Cedarville Trail at a point just north of the Hanover Meadows site and connects to the Bickel Run Trail just south of the site.

### **CONTEXT OF HANOVER MEADOWS WITH THE TOWNSHIP PARK SYSTEM**

Geographically the Hanover Meadows parcel is located just east of the center of the Township along the Route 100 corridor. This location is central to the more developed eastern half of the Township. As previously stated the site lies along the Hanover Trail corridor and is a key connection in providing public lands to link the existing trails and parks together.

### **MASTER PLAN PROCESS**

The Master Plan study seeks to develop a general consensus for improvements and facilities that should be constructed, and to establish an estimate of probable construction costs that can be used for developing an implementation and funding strategy.

The Master Plan forms the basis of the design and engineering phases of the project when detailed design decisions are later documented through the completion of construction drawings. For the design and engineering phase, the existing topographic survey that was prepared during the previous site development will be used supplemented by some

additional field verification. Upon completion of the survey and design development drawings, construction documents will be completed and the project can then be bid and constructed. This project will be built in phases over a period of several years.

In January of 2015, North Coventry Township selected LTL Consultants, Ltd, the Township Engineers to analyze the site, assess community needs and develop a Master Plan for the Park.

The scope of work for the master plan was developed by the Township together with LTL. The following list outlines the following needs of the master plan:

**SCOPE OF WORK—SUMMARY:**

- A. Community Background Information/Data
- B. Site Information, Analysis and Design Considerations
- C. Activities and Facilities Proposed for the Site
- D. Development of Master Site Plan
- E. Evaluation of Materials and Design Options
- F. Security Analysis
- G. Cost Estimates for Design, Construction and Operation of the Park

**PUBLIC PARTICIPATION PROCESS**

The following is the list of meetings held by the consultants during the development of the Master Plan

Event/Task	Date	Time
Staff/Committee Kick-off Meeting	February 2, 2015	1:00 PM
Public Meeting #1: Programs and Concepts	February 18, 2015	6:00 PM
Steering Committee Meeting: Review Initial Concepts	March 2, 2015	1:00 PM
Public Meeting #2: Preliminary Alternatives	March 18, 2015	6:00 PM
Public Meeting #3: Final Plan	April 15, 2015	6:00 PM

**Steering Committee Meetings**

The project steering committee was comprised of Township staff, Township Supervisors, Board members as well as outside consultants. All meetings were open to public participation.

XXX committee meetings were held during the course of the Master Plan development process. In the first meeting, the consultants presented base mapping data, past development plans. The committee discussed the various options and restrictions for the site. The second meeting reviewed the ideas and concepts developed during the first public meeting in effort to build consensus prior to the development of the site alternative plans.

## **Public Meetings**

Three public meetings were held. The first public meeting introduced the residents to the project and recorded their ideas for the use of the site. The second public meeting provided the residents with concept plans derived from the ideas from the first meeting. The third public meeting presented a draft master plan for review and comment.

## **DATA COLLECTION AND METHODOLOGY**

Base map information was compiled using the best available information. This information included as-built survey plans of the site from the land development done for the Town Square Plaza project. This information was supplemented by information gathered by the consultants from several site visits over the course of the master planning process.

## **Acreage**

In 2004, the Newman Development Group developed a 63 acre parcel located between Route 100 and South Hanover Street in North Coventry Township. A shopping center, known as Town Square Plaza, was constructed on the northern portion of the site. A road, Lenape Crossing, was constructed that bisected the site and left a 22 acre parcel of land to the south of the roadway. This parcel was deeded to North Coventry Township to use as Open Space.

## **Topographic Features**

During construction of the Town Square Plaza, a detention basin was constructed on the open space area to act as a sediment control measure and also to serve as stormwater control for future development. Excess fill from the construction was placed on the site. The grading of the fill was done in a manner to construct an anticipated play field on the site. The fill was not placed with the intent of using it for structural purposes.

The play field area constructed on the north end of the site is level with steep fill slopes on the north, west and east sides. An earthen berm was constructed along the western side to act as a buffer for Route 100. There is a haul road that was graded in as part of the filling operation between the play field and the Transcontinental pipeline. The northern half of the site drains to the detention basin which in turn discharges to a stormwater system.

A natural high ridgeline bisects the site from east to west, south of this ridge line the original topography is undisturbed and slopes towards the south at approximately a 4% slope. At the southern end of the site is a large area of hydric soils and wetlands that feed Bickel Run.



A residential property cuts into the site towards the southeastern corner of the site. A house and garage are located on the 1.25 acre parcel.

### **Land Use**

Hanover Meadows were previously used for agriculture production. Presently, it is characterized as an undeveloped open space which is used by neighbors for passive recreation such as hiking and bird watching.

The site is bounded on three sides by public roads. On the east side is South Hanover Street and residences line the street opposite from the site. On the west side is Route 100: there are residences on the opposite side of Route 100 but they face Chestershire Drive and are buffered from Route 100. On the north side of the property is Lenape Crossing that was constructed as part of the site development for Town Square Plaza and provides access to the shopping center. On the south side is a single large residential property.

### **Historic Features**

According to the National Register of Historic Places and the National Historic Landmarks Program, there is nothing of national historical significance on the site. Indications of previous agricultural activity have been found on site and verified by those in the community.

### **Environmental Issues**

This site contains a mix of natural features including wooded areas, wetlands, a spring and fallow agricultural fields. Creating better access to better serve the community, while respecting these sensitive environmental features established the development parameters of this Master Plan. There are areas of steep slope that were identified on the site although nearly all of these areas are man-made slopes that were constructed as part of site filling and basin construction so they do not represent an environmentally sensitive area.

### **Soil Types**

Soils each contain their own distinctive characteristics, such as physical and chemical properties, slope, composition, depth to bedrock, permeability, erodibility, and drainage. These characteristics help determine building suitability, agricultural productivity, and other factors that effect land uses.

A soils survey was referred to and the soil boundaries and types are shown in figure “XXX”.

Hanover Meadows has four soil types all of which are silt loams with fairly similar characteristics. Silt loams are defined as being relatively flat (3 to 8 percent slopes) and well-drained. These soils are usually suitable for trails, parking lots and other associated recreational facilities. Soil groups PeB (58%) and PeC (21%) are the predominant soil on

the site. Although it may be noted that the northern portion of the site was extensively regraded as part of the site development and may not reflect the soil types identified. The soil types shown are somewhat limited to very limited for the proposed uses as a recreational facility. Most of the limitation is related to a shallow depth to bedrock and slow draining soils. The filling operations have helped alleviate some of this limitation. The soil group CyA (18%) on the southern end of the site is rated as a hydric soil. As part of the land development process the soil was extensively sampled to determine the exact limits of the hydric soil.

### **Wetlands**

At the southern end of the site is a large area of wetlands and hydric soils. The extent of the wetlands and soils have been delineated and verified by the U.S Army Corps of Engineers as part of the land development in 2003. No construction is permitted within these areas.

### **Floodplains**

There are no delineated floodplains located on the site.

### **Riparian Buffers**

There are Waters of the United States identified on the site. These serve to feed Tributary No. 4 to Bickel Run. The waters are located within the identified wetland areas. These areas are dense grasses and some tree growth that act as a riparian buffer. Additional plantings of trees have taken place in recent years within the hydric soil areas to enhance the riparian buffer.

### **Site Access**

The site is bounded on three sides by public roads: Route 100, South Hanover Street and Lenape Crossing. Route 100 and South Hanover Street are state-owned and maintained roads. Lenape Crossing is owned and maintained by the township.

Currently there is an access point on South Hanover Street that is used by township maintenance personnel. This access is located at the high point on South Hanover Street, which affords the best sight distance for the entrance. It is also located just to the south of the deed restriction line within the restricted area so future development is limited. If a permanent access were to be taken it could be moved to just north of the restriction line, which would still allow for adequate sight distances. Any other access points further north or south of the high point would have limited sight distance and would restrict the allowable movement in and out of the driveway.

Lenape Crossing serves as a connector between Route 100 and South Hanover Street and has the entrance to the Town Square Plaza located on it. Any access from this street

would ideally line up with the entrance and this would be the optimal location for topography and sight distance.

Route 100 is a limited access highway. There is a traffic light located at the intersection with Lenape Crossing. PennDOT would most likely not permit taking access from Route 100 for this site. The improvements required for an access to the highway would also be cost prohibitive.

### **Pedestrian Circulation**

Currently there are no formal pedestrian facilities on the site. There is a sidewalk on the north side of Lenape Crossing that connects to the interior sidewalk to Town Square Plaza as well as providing a sidewalk along South Hanover Street to the north of the site. This sidewalk is part of the Hanover Trail system. A mowed grass path is provided across the site to provide a connection between Town Square Plaza and Kemp Road. The trail at Kemp Road is currently under review with the township and adjoining property owners in order to provide the final connection to Bickel Run park.

### **Zoning**

The site along with the Town Square Plaza site is zoned C-3 Planned Commercial District. This district is intended to serve the commercial and open space uses that are provided by these parcels. All of the surrounding properties are zoned R-1 Residential which is intended for single family detached housing.

### **Deed Restrictions**

The southern portion of the site, approximately 10 acres, had a deed restriction placed upon it in 2004 that restricted use of the land for structures or macadamized surfaces for 25 years. In 2009, North Coventry Township filed to have the deed revised to allow improvements for a walking trail including paving the walking trail surface.

In 2013, the Township petitioned with the County courts to allow for 12 acres of the site to be utilized for municipal services.

### **Easements**

A 75 foot wide easement for the Transcontinental Gas Pipeline crosses the northeast corner of the site. No construction is permitted within this easement.

### **Wildlife (PNDI search)**

Pennsylvania Natural Diversity Inventory (PNDI) records indicate no known impacts to threatened or endangered species and resources within the project site. A copy of the PNDI receipt can be found in the appendix.

## **Water / Sewer Service**

There are public sewer and water facilities located within the South Hanover Street right-of-way. There are fire hydrants that are connected to the waterlines along Lenape Crossing and South Hanover Street. There is also a gas service line located along South Hanover Street. There are no water or sewer facilities located along Route 100.

## **Hydrology**

The northern half of the site flows to the existing detention basin. The basin then discharges to Tributary 5 of the Schuylkill River. The tributary is considered a High Quality water source. The southern half of the site drains to the wetlands, which in turn feeds Tributary 4 of the Bickel Run. Bickel Run is located within the Pigeon Creek basin and is also considered a High Quality water source.

## **ACTIVITY AND FACILITY ANALYSIS**

### **Municipal Needs**

North Coventry Township has identified this site as a property to be used to construct a new municipal maintenance facility. In addition, a new building to house the Township police department as well as a future site for Township administration facilities is also desired for this site. The current facilities that the Township uses have a limited time lease contract. The existing maintenance building will need to relocate by 2020.

### **Recreational Needs**

The Federation of Northern Chester County Communities prepared a report in 2012 entitled “Parks, Recreation and Open Space Plan”. In the report, the recreational facilities in northern Chester County were inventoried and assessed to determine how they were meeting the needs of the communities. Based on this report there is a need for both diamond (baseball/softball) fields and rectangular (soccer/football/lacrosse) fields in the region. North Coventry currently provides most of the diamond fields that are available and some of the rectangular fields. Additional fields could be provided to meet the need, however in looking at the regional needs, it may be more prudent to locate additional fields throughout the region, not just in North Coventry Township.

The township has also been proactive in trying to provide walking trails throughout the township as part of any land development. The township also recognizes the need to provide connection between the various parks and open spaces in order to make the trail system viable.

### **Building Locations**

Phillips & Donovan Architects, LLC, prepared a preliminary site sketch in 2014 to identify the building facility size and approximate layout. In November 2014, some test pits were dug at the proposed building location to determine the suitability of the soils. Based on the observed conditions of the fill material that was placed in 2004, the buildings should be located as far south on the property as is currently feasible given the deed restrictions.

Three locations were considered for the municipal buildings as part of this study. One location was to place the buildings as close to Lenape Crossing as possible in an effort to keep the maintenance and police facilities as close to the road as possible. The two other building locations were based on the architect's site sketch that would locate the buildings as far south on the property as the deed restriction would permit. One alternative uses the architect's layout; the other alternative assumes that construction of the administration building would take place within the deed-restricted area after the deed restrictions expire in 2029.

### **Building Location 1 – Along Lenape Crossing**

Locating the municipal complex along the roadway at first glance appears to minimize the site disturbance and would provide the largest remaining area of open space. The detention basin and gas line easement limit some of the road frontage that would be available for building placement. Towards Route 100 the site has a large knoll part of which was the result of the filling operations and the natural topography. Based on the layout shown the estimated depth of fill material that would need to be removed or recompacted is approximately 13,500 cubic yards. This could easily add \$700,000 to \$1,000,000 in additional site costs in order to adequately prepare the foundations for the buildings.

#### Advantages

- Locates municipal services along existing roadway, minimizes interior driveways required.
- Minimizes perception of trucks and police driving through recreation areas.
- Preserves a larger, more contiguous area of open space on the property.

#### Disadvantages

- Higher construction costs.
- Earthwork required will limit usable open areas for field uses.
- Parking and bathroom facilities would be at one end of the site, more remote from play areas.

### **Building Location 2 – Architect's Concept**

Locating the municipal complex along the high ridge that runs midway across the site. This would allow for the buildings to be placed on virgin soils, which would be a preferred foundation condition in this case. A driveway would be constructed through the site to connect Lenape Crossing to South Hanover Street to provide access for the municipal buildings.

#### Advantages

- Provides facilities centrally located to site including bathroom and parking facilities.
- Economizes building construction costs for foundations.
- Through driveway will help with traffic flow.

#### Disadvantages

- Buildings act to divide the site. Difficult to screen off maintenance facilities.
- Concern of trucks and municipal vehicles driving through the site with play areas.

#### **Building Location 3 – Architect’s Concept Revised**

Similar to Location 2. Locating the municipal complex as close to the line demarcating the deed restricted area with a portion of the building within the deed restriction. This anticipates that the construction of administration facility will not be needed or built until the deed restriction expires in 2029.

#### Advantages

- Opens up some more room on the northern half of the site.
- Provides facilities centrally located to site including bathroom and parking facilities.
- Economizes building construction costs for foundations.

#### Disadvantages

- Restricts the Township from final build out of facilities for 14 years, including a driveway entrance.
- Driveway entrance on South Hanover Street for this layout may limit sight distance.
- Buildings act to divide the site. Difficult to screen off maintenance facilities.

Our recommendation is to utilize the site layout concept that was proposed by Phillips and Donovan Architects, LLC. We would modify the layout slightly from their proposal by moving the maintenance building to adjacent to the deed restriction line since this location has the least fill material that needs to be removed.

### **Site Alternatives**

Three alternatives for a master plan for the site are to be considered. All of the alternatives will utilize the Building Location 2 described above. This will also use the driveway and parking arrangement that fits this location plan. Some of the proposed parking is located along the edge of the deed-restricted area. In order to abide by the restrictions it is proposed that the parking area be constructed with a stabilized soil geo-grid system to eliminate the need for a macadamized surface. All of the options will include a walking trail that connects to the off-site trails at the north and south end of the site as well as an internal loop trail.

### **Site Alternative A**

This alternative is designed to maximize the active recreation facilities for the site. Active recreation facilities are for organized sport activities. The plan shows several multi-use fields that could host soccer, lacrosse or field hockey games. The fields would be graded to be flat and would require regular maintenance. Two fields, a multi-use field and a little league/softball field, are shown on the northern half; both could exist simultaneously if properly designed although it may be more desirable to dedicate the use of the field. A multi-use field could be graded within the southern half of the site without violating the deed restrictions as long as no goalposts or other structures are built at this time. Parking facilities are shown for the fields as well as the anticipated use for the municipal building. Some of the parking facilities could be shared. Additional parking facilities could be developed along the entrance drives either as paved spaces or as stabilized shoulder areas that would allow for parking. Other active uses shown include an amphitheater, pavilion and tot lot.

#### Advantages

- Provides fields for organized youth and adult leagues at a centrally located site within the Township.

#### Disadvantages

- Requires more construction cost and long-term maintenance costs.
- Organized sport events require more parking, especially when back-to-back events are scheduled.

### **Site Alternative B**

This alternative utilizes only passive recreation facilities for the site. Passive facilities tend to not attract organized activities. Facilities shown on the plan include the pavilions and tot lot shown on Alternative A since this type of facility compliments both passive and active uses. The fields shown are listed as meadows and would likely be mowed on a less frequent basis than a play field. This would still allow space for informal games or play without requiring the same level of maintenance as a sports field. Since parking requirements are less for passive uses, it is suggested that parking areas be constructed utilizing stabilized soil geogrids that would allow for the occasional larger event such as a community day without requiring the maintenance of a paved lot. The access to the site is also limited to a single driveway to the site



#### Advantages

- Passive use facilities are more economical to construct and for long-term maintenance.
- Minimizes impervious coverage by reducing the access driveways and utilizing grass parking.

#### Disadvantages

- Site located between two major roads may make the site less conducive for picnic and casual play activities.
- Limits funding sources for park development because proposed facilities are limited.

#### **Site Alternative C**

This alternative uses both passive and active facilities to try to meet as many park needs as possible. One multi-use field is proposed with the pavilion and playground facilities closely placed around this area. A baseball/softball field is also proposed to be constructed in lieu of a second driveway. This minimizes the area that needs to be developed and maintained.

#### Advantages

- Provides facilities to meet the most needs.
- Still maintains a mostly “open space” feel to the site.

#### Disadvantages

- Provides fewer facilities than the fully active site.
- Limits the driveway access to the site.