

---

# Sustainable Revitalization of the Fort Washington Office Park

## Upper Dublin/Whitemarsh Township, PA



Technical Memorandum #4UDT:  
Mechanism for the Transfer of Development Rights -  
Upper Dublin Township

February 2011

---

## Introduction

This technical memorandum serves as the fourth product of the study – a preliminary mechanism for eliminating/reducing development in the flooded area of the Upper Dublin portion of the FWOP through the transfer of development rights (TDR). This exercise involves an assignment of development rights to properties in the Sending Area, creating rules for using development credits in the Receiving Area, crafting development standards for residential uses in the Receiving Area, and suggesting the pace for TDR utilization.

## Assignment of Development Rights in Sending Area

The Sending Area includes 19 parcels with a total of 65.7 acres of land (see **Table 1**). Current development includes 420,841 SF of office, 348,566 SF of industrial, two auto-oriented retail uses of 6,112 SF, and a 76,343 SF hotel. The total assessed value of these 19 parcels is \$57.5 million.

**Table 1. FWOP Upper Dublin Township Sending Area Properties.**

Address	Current Use	Zoning	Land Acres	Land SF	Use (SF)			
					Office	Industrial	Retail	Hotel
471 PENNSYLVANIA AVE	CARWASH	CR	0.92	39,969			4,720	
285 COMMERCE DR	HOTEL	M	3.08	134,165				76,343
467 PENNSYLVANIA AVE	MEDICAL BUILDING	CR	2.93	127,631	32,464			
420 DELAWARE AVE	OFFICE BUILDING	LIM	6.33	275,735	79,746			
1035 VIRGINIA DR	OFFICE BUILDING	LIM	2.34	101,930	30,720			
535 PENNSYLVANIA AVE	OFFICE BUILDING	LIM	1.73	75,315	30,160			
475 VIRGINIA DR	OFFICE BUILDING	LIM	5.97	260,053	76,008			
1250 VIRGINIA DR	OFFICE BUILDING	LIM	4.20	182,952	45,252			
515 PENNSYLVANIA AVE	OFFICE BUILDING	LIM	4.42	192,535	83,998			
565 VIRGINIA DR	OFFICE BUILDING	LIM	2.10	91,476	14,868			
425 DELAWARE AVE	FLEX	LIM	2.10	91,476		21,058		
165 INDIANA AVE	OFFICE BUILDING	LIM	0.96	41,745	10,189			
440 VIRGINIA DR	OFFICE BUILDING	LIM	2.93	127,631	17,436			
475 PENNSYLVANIA AVE	SERVICE STATION	CR	0.65	28,247			1,392	
555 VIRGINIA DR	WAREHOUSE	LIM	2.14	93,218		10,864		
155 COMMERCE DR	WAREHOUSE	LIM	3.20	139,392		25,088		
525 VIRGINIA DR	WAREHOUSE	LIM	10.33	449,975		129,704		
550 VIRGINIA DR	WAREHOUSE	LIM	2.27	98,881		16,944		
135 COMMERCE DR	WAREHOUSE	LIM	7.10	309,276		144,908		
<b>Total</b>			<b>65.70</b>	<b>2,861,602</b>	<b>420,841</b>	<b>348,566</b>	<b>6,112</b>	<b>76,343</b>

Nine of these parcels appear to have not yet utilized all available development capacity under existing zoning, providing for the potential additional development of 22,500 SF of office, 80,700 SF of industrial, and 4,100 SF of retail (see **Table 2** on following page).

**Table 2. Additional Development Potential - Sending Area Properties.**

Address	Potential Incremental Development (SF)		
	Office	Industrial	Retail
471 PENNSYLVANIA AVE			1,300
285 COMMERCE DR			
467 PENNSYLVANIA AVE			
420 DELAWARE AVE			
1035 VIRGINIA DR			
535 PENNSYLVANIA AVE			
475 VIRGINIA DR			
1250 VIRGINIA DR			
515 PENNSYLVANIA AVE			
565 VIRGINIA DR	8,000		
425 DELAWARE AVE		6,400	
165 INDIANA AVE			
440 VIRGINIA DR	14,500		
475 PENNSYLVANIA AVE			2,800
555 VIRGINIA DR		17,100	
155 COMMERCE DR		16,700	
525 VIRGINIA DR		27,800	
550 VIRGINIA DR		12,700	
135 COMMERCE DR			
<b>Total</b>	<b>22,500</b>	<b>80,700</b>	<b>4,100</b>

Based on the development potential and assessed values of the properties discussed above, we have assigned the following development rights to Sending Area parcels:

- 1 Development Right per 5,000 SF of existing office use
- 1 Development Right per 10,000 SF of existing industrial use
- 1 Development Right per 3,500 SF of existing retail use
- 1 Development Right per 10,000 SF of existing hotel use
- 1/5th Development Right per 5,000 SF of potential office use
- 1/3rd Development Right per 10,000 SF of potential industrial use
- 1/2 Development Right per 3,500 SF of potential retail use

Applying these factors to the 19 Sending Area parcels, we arrive at a total of 132.61 Development Rights, including:

- 84.17 Development Rights assigned to existing office use on 10 parcels
- 34.86 Development Rights assigned to existing industrial use on 6 parcels
- 7.63 Development Rights assigned to the one existing hotel
- 1.75 Development Rights assigned to the two auto-oriented retail uses
- 0.93 Development Rights assigned to potential office development on 2 parcels
- 2.69 Development Rights assigned to potential industrial development on 5 parcels
- 0.59 Development Rights assigned to potential retail development on 2 parcels

We roughly estimate the value of a Development Right at current market conditions at \$750,000. However, as noted below, the proposed use of credits in the Receiving Area is designed to generate a significant premium in value to encourage participation.

## Utilization of Development Credits in Receiving Area

In determining the utilization of Development Credits in the Receiving Area, we assume that the Transfer of Development Rights mechanism will require that entities securing Development Rights in the Sending Area will be required (1) to acquire all rights from a specific parcel at one time; (2) to fully vacate all buildings on the parcel; (3) to demolish and otherwise remediate all improvements on the parcel—returning the property to a fully pervious state; and (4) to transfer the parcel to the Township as open space at no cost to the Township.

Property owners utilizing Development Credits in the Receiving Area may choose to develop under optional Transfer of Development Rights development standards that increase allocable impervious surface to .85; reduce parking requirements to 3.8 spaces per 1,000 SF for office and retail uses; increase allowable height in certain locations (see Map 1 on the following page); and permit larger amounts of retail development in certain locations (see Map 2 on page 5).

Specifically, property owners may utilize Development Credits in the Receiving Area to:

1. Construct additional office space beyond the .25 FAR effectively available under current zoning to as much as .55 FAR;
2. Construct additional hotel space beyond the .60 FAR effectively available under current zoning to as much as .85 FAR;
3. Incorporate retail uses larger than 750 SF (up to 10,000 SF) on the first floor of multi-story buildings, where retail use is 50% or less of total building space; and
4. Construct multi-family residential buildings of 4 to 7 stories in certain portions of the Receiving Area.

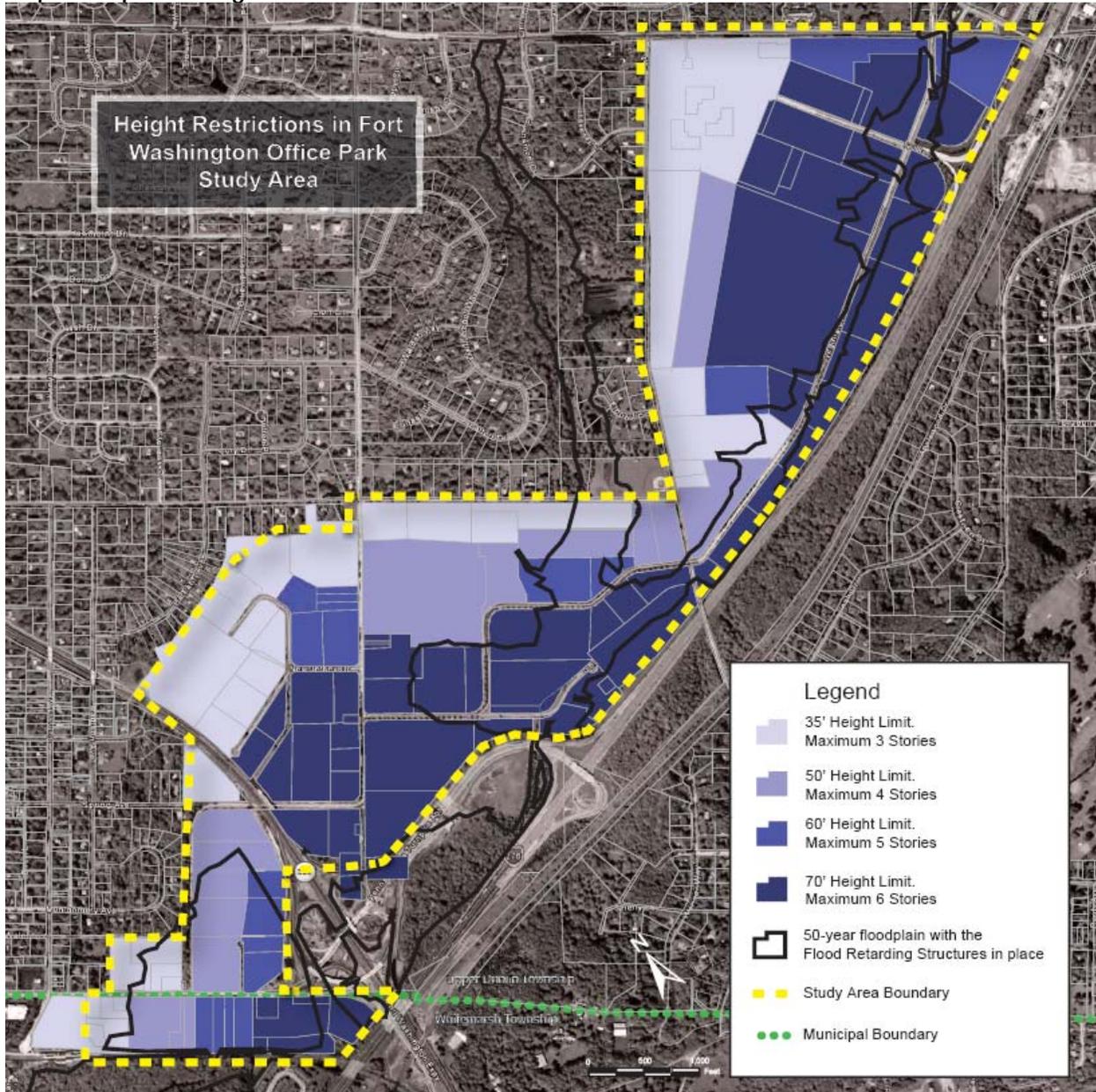
Optional Transfer of Development Rights development may occur subject to property owners or developers securing Development Rights from the Sending Area. The optional development standards and uses will only be available when developers have secured necessary Development Credits.

Increments of TDR development will be allowed in the Receiving Area subject to these factors:

1. 40,000 SF of additional office or hotel space will be allowed for each development credit.
2. 35,000 SF of residential development will be allowed for each development credit.
3. Only 50% of purchased development credits may be utilized for residential development; the other 50% must be utilized for office or hotel development.
4. 2,500 SF of retail use not otherwise allowed in the Receiving Area can be incorporated in the first floor of multi-story buildings for each .25 development credit.

These factors have been scaled to provide a significant financial incentive to property owners and developers to participate in TDR. That is, the value of incremental development allowed in the Receiving Area is intended to exceed the current value of property in the Sending Area.

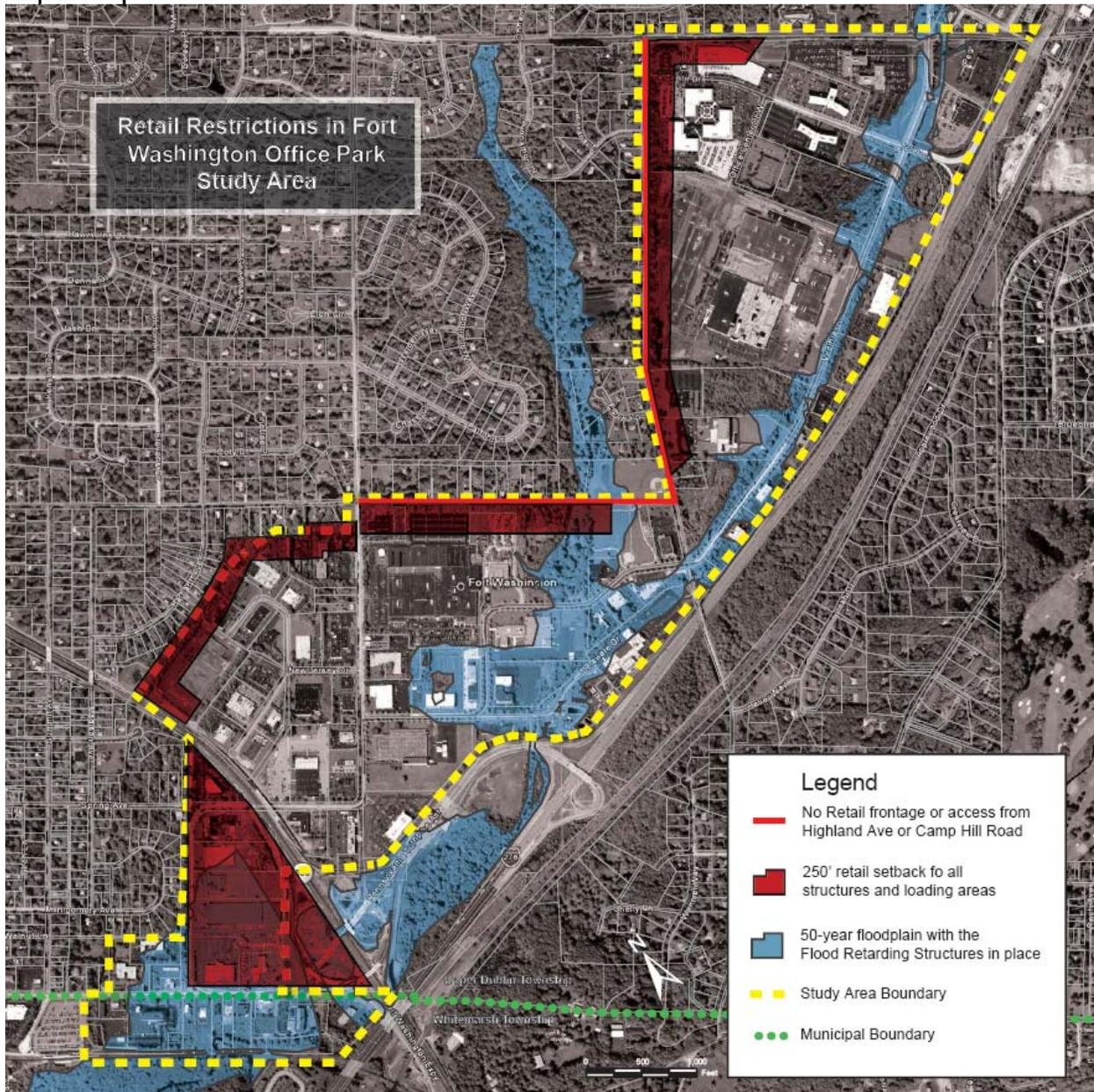
Map 1. Proposed Height Restrictions in the FWOP.



As the map shows, there are several proposed height categories for the FWOP of up to 35', 50', 60', and 70'. Total land area in each category in the Receiving Area is as follows:

- 35' Height Limit – 168.51 acres
- 50' Height Limit – 53.65 acres
- 60' Height Limit – 26.25 acres
- 70' Height Limit – 172.75 acres

Map 2. Proposed Retail Use Restrictions in the FWOP.



As the map indicates, we are suggesting limits to the location of potential retail development in the FWOP to buffer existing residential areas surrounding the office park.

## Residential Development Standards/Impact

Based on the above analysis and height restrictions, the following residential development standards are suggested:

- Minimum residential height: 4 floors
- Maximum residential height: 5 to 7 floors (refer to Map 1)

- Minimum residential FAR: 1.0
- Maximum residential FAR: 1.65 at 7 stories; 1.60 at 6 stories; 1.55 at 5 stories
- Minimum density: 30 dus per acre
- Maximum density: 65 dus per acre at 7 stories; 60 dus per acre at 6 stories; 55 dus per acre at 5 stories

As a result, the least residential development would be a four-story building with 30 dwelling units per acre and 1,300 SF average unit size. Assuming an average unit size of 1,300 SF, the maximum number of residential units that could be developed in the Receiving Area is 1,785.

## Commercial/Industrial Tax Base Impact

The use of some portions of the Receiving Area for residential development will somewhat reduce the total parcels devoted to commercial and industrial use. At an average density of 40 dwelling units per acre, approximately 45 acres of property could be assigned to these residential developments. Under base zoning, these parcels would be expected to generate approximately 500,000 SF of office use. In addition, the full conversion of commercial/industrial development in the Sending Area could result in the loss of another 850,000 SF of existing commercial property and 110,000 SF of potential development in the Sending Area. The maximum reduction of commercial and industrial development—existing and potential—from the Sending Area and from portions of the Receiving Area used for residential development would be 1,460,000 SF.

The terms of the proposed TDR program, however, more than balance this site-specific commercial/industrial reduction. These TDR terms require that at least half of all credits (a minimum of 66.30) be utilized to increase the level of commercial development in the Receiving Area at a rate of 40,000 SF per credit. This will result in 2,650,000 SF of additional commercial development, or a net gain of 1.2 million square feet of commercial space.

## Pace of TDR Utilization

The 19 parcels in the Sending Area have very different circumstances with regard to the intensity and frequency of flooding, as well as the value of existing development (see **Table 3**). Based on a review of these parcels, we estimate that 6 parcels with an estimated allocation of 26.45 credits are highly likely to be early participants in development rights transfer. On the other hand, 7 parcels with an estimated 51.28 credits are not likely to participate for many years, if ever. Three office buildings with 38.03 credits and all in the same ownership are located in areas of frequent and intensive flood risk. However, the property owner has expressed no interest in TDR for these three properties at this time. Finally, three properties with 12.78 potential credits suffer minor flood risk, but may choose to participate if the bonus development allowed in the Receiving Area provides sufficient incentive to transfer development rights.

**Table 3. Likelihood of Credit Sale.**

Address	Use	Credits
<b>Highly Likely</b>		26.45
1035 VIRGINIA DR	OFFICE BUILDING	
565 VIRGINIA DR	OFFICE BUILDING	
425 DELAWARE AVE	FLEX	
440 VIRGINIA DR	OFFICE BUILDING	
475 PENNSYLVANIA AVE	SERVICE STATION	
525 VIRGINIA DR	WAREHOUSE	
<b>Serious Flood Risk</b>		38.03
535 PENNSYLVANIA AVE	OFFICE BUILDING	
515 PENNSYLVANIA AVE	OFFICE BUILDING	
475 VIRGINIA DR	OFFICE BUILDING	
<b>Possible</b>		12.78
1250 VIRGINIA DR	OFFICE BUILDING	
165 INDIANA AVE	OFFICE BUILDING	
555 VIRGINIA DR	WAREHOUSE	
<b>Highly Unlikely</b>		51.28
135 COMMERCE DR	WAREHOUSE	
285 COMMERCE DR	HOTEL	
471 PENNSYLVANIA AVE	CARWASH	
550 VIRGINIA DR	WAREHOUSE	
155 COMMERCE DR	WAREHOUSE	
467 PENNSYLVANIA AVE	MEDICAL BUILDING	
420 DELAWARE AVE	OFFICE BUILDING	

We therefore estimate that credit transfer in the next 10 to 15 years is likely to be in the range of 30 to 75 credits. This would likely result in:

- The conversion of 25% to 60% of the Sending Area to open space;
- Elimination of 225,000 SF to 475,000 SF of commercial/industrial space in the Sending Area, including 130,000 SF currently vacant;
- Development of 600,000 SF to 1,500,000 SF of new office or hotel space in the Receiving Area beyond that allowed by current zoning; and
- Development of 400 to 1,000 units of housing in the Receiving Area.