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**LOWER GWYNEDD
TOWNSHIP**

**Feasibility Study + Needs
Assessment for a New Public
Works Facility**

**FINAL REPORT
(Section One)**

May 15, 2024

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Introduction

In The Fall of 2023, GKO Architects was engaged to prepare a Feasibility Study and Needs Assessment for a Public Works Facility. For the past eight months, GKO Architects has collaborated with Township representatives to consider alternatives to meet the long-term needs and goals of Lower Gwynedd Township and the Department of Public Works. This Study builds upon the Township's 2022 Strategic Plan to develop a complete program for a new Public Works Facility that is ready to proceed to design (including preliminary layouts).

Currently, the Department of Public Works (DPW) operations are dispersed at six locations. The main DPW facility is located at the Township Municipal Building. This location includes staff offices, staff lunchroom, locker facilities, indoor vehicle storage garage with a repair / maintenance bay, and other support and storage areas. The second DPW location is located at 917 Bethlehem Pike behind Gerhard's Appliance Warehouse. This location includes a small garage building for indoor vehicles and equipment storage. Outdoor facilities include a Salt Shed, Storage Shed, open-air Material Bins, a Covered Trailer Storage Shed, and a Fueling Station. Vehicular access is provided by a driveway easement connected to Bethlehem Pike which passes along the side of a Retail Center. There is also a narrow driveway connected to Penllyn Pike. The third DPW property is the Penllyn Woods Park location where park and trail maintenance related indoor and outdoor storage is located. The fourth location is known as the Pump Station Site where snowplow blades, sewer pipe and fittings, etc. are stored. The fifth location is known as the McCormick Garage site where two tractors and miscellaneous other equipment are stored. The sixth location is known as the historic Ingersoll House and Barn property, which is being prepared for sale in summer 2024. The Barn is currently used for miscellaneous indoor equipment storage and material storage and will not be available for DPW use after the sale.

The goals for the Study included designing a Public Works Facility to accommodate indoor vehicle storage, vehicle maintenance bays, wash bay(s), indoor general storage, outdoor storage, salt shed, parking and vehicular circulation, energy efficient building design, staff offices, breakroom / kitchen, restrooms, locker rooms, bunk rooms, other support spaces, consider future needs, and technology infrastructure needed. An important goal that would improve efficiency would be to accommodate Public Works operations at a single "primary" location, if possible.

The scope of work identified in the Township's RFP for the Study included:

- 1) Build upon the 2022 Strategic Plan to develop a complete program for a new Public Works Facility that is ready to proceed to design (including preliminary layouts)
- 2) Meet with the current public works team and other stakeholders to gain insight into the facility needs, future expansion, and ideas for locations/operations.
- 3) Identify the appropriate property size to accommodate a New Public Works Facility.
- 4) Analyze the existing properties currently operated by Public Works to determine if any can be developed, consolidated, or sold, assist in the final site selection process.
- 5) Prepare an initial budget estimate for design and construction and present a summary of the Feasibility Study findings to the Board of Supervisors.

To provide a thorough analysis of potential options for the Township's consideration, the DPW Feasibility and Needs Assessment Study has considered seven different scenarios. Potential Costs and Pros and Cons for each were identified (see tab #3 for more detail). The scenarios considered included the following:

Scenario #1) - Construct a new Public Works Facility at Moore Drive (or another site with similar characteristics). This scenario would provide space at the existing Township Municipal Building for expansion of the other departments. Several Sites were considered by the Township and the Planning Team with Moore Drive being the best alternative of available properties for a new DPW facility. With this scenario, the 917 Bethlehem Pike property could be sold.

Scenario #2) - Develop the existing 917 Bethlehem Pike site within the property's current metes and bounds configuration to allow expansion of the DPW. This scenario would require a renovation of the existing DPW area at the existing Township Municipal Building.

Scenario #3) - Develop the existing 917 Bethlehem Pike site within the property's current metes and bounds configuration, provide a minimal renovation of the existing DPW area at the Township Building, and construct an addition or new facility on a new site (at some point in the future). This new facility would accommodate growth for one or more Township Departments.

Scenario #4) - Develop the 917 Bethlehem Pike site (*like Scenario 2*), renovating the existing DPW area at the Township Building, and developing the existing Township Municipal property with a new facility to allow for future Township departmental expansion. This scenario was deemed not viable due to existing site constraints.

Scenario #5) – Develop the Township Municipal Building Site to partially expand DPW and also develop the 917 site to expand PW operations. To make room for PW expansion, this scenario would require Township Departmental expansion elsewhere.

Scenario #6) – Construct a DPW addition at the existing Township Building, develop 917 Bethlehem Pike and construct new facilities for Township department expansion on another site (at some point in the future).

Scenario #7) – Develop and expand the existing 917 Bethlehem Site by acquiring additional adjacent property, demolishing the existing buildings, and constructing a new facility that would accommodate most of the DPW needs, renovate portions of the existing Township Municipal Building, and construct a small connecting link addition. It should be noted that the idea for this scenario came from one of the two collaborative meetings with DPW staff.

Executive Summary

In reviewing the seven initial scenarios identified, three were selected for further consideration (Scenarios 1, 2, and 7). For the purposes of this report, these scenarios have been redesignated Site Scenario “A” at 917 Bethlehem Pike (Initial scenario 2), Site Scenario “B” at 917 Bethlehem Pike with expanded property boundaries (Initial Scenario #7), and Site Scenario “C” at Moore Drive with PW Building Concept 2C (Initial Scenario 1).

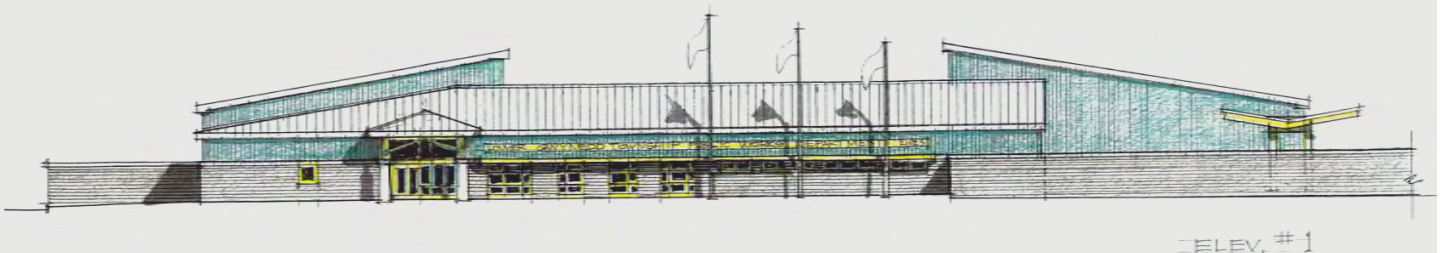
After the pros and cons of each approach were discussed, the Township agreed that Site Scenario “C” at Moore Drive with PW Building Concept 2C was the most cost-effective and operationally advantageous site and design to pursue for a new Public Works facility because it appeared to satisfy the Township’s long-term needs for the Public Works Department, while also allowing the PWD to continue operations in the current facilities during construction. Another advantage of Site Scenario “C” is that the 917 Bethlehem Pike property can be sold.

The Township requested several additional revisions be considered for Site Scenario “C” at Moore Drive with PW Building Concept 2C:

- 1) Consider moving the Public Works facility away from the existing residential properties which are located on the north side of the proposed rear property line. This would be accomplished by rotating the facility’s orientation parallel to Moore Drive. While this approach will require purchasing a larger land parcel, the Township felt this modification would help alleviate and address potential concerns of the neighboring property owners and accommodate future expansion needs of the facility.
- 2) Consider adding back several of the proposed cuts made in the development between Building Concept 2B and Building Concept 2C. These cuts included the Emergency Management Meeting room and additional space in the Locker Room / Lunchroom /

Bunk Room areas), as the small savings on the overall cost did not appear to justify the loss in functionality.

In consideration of the feedback, two additional Site Plan options with expanded acreage were created for the Moore Drive Site. These modified Site Plans, which include 16 Acre parcels, were designed to accommodate several versions of the facility layouts including Building Concepts 2C, 2B, and a new layout option based on the BOS feedback, Concept 2D. Concept 2D proposes two primary buildings, one which would be “People-Focused” and the other which would be “Operations-Focused.”



Lower Gwynedd Township

New Public Works Facility – Option “2C”

Square Footage Summary

3/6/2024

Category	(Gilmore) Projected SF	(GKO current) Option “2C” SF	Note
Indoor Vehicle Storage	33,298 SF	23,000 SF	Drive-thru bays (no interior drive needed)
Indoor General Storage <i>with covered areas removed</i>	13,920 SF 8,594 SF	9000SF + fut.	Future: 2964 snowplows + 3360 trailers + Option for 2500 SF loft Stor. + 648 Brine Tanks = 18,472 SF if all items placed indoors per original program.
Building Space	4859 SF	5000 SF	Bunk rooms / kitchen / Offices
Building Indoor Totals	52,076 SF	37,000 SF	
		9,472 SF	W/ future options = 46,472 SF
Additional Outdoor Cover	3,100 SF	5,340 SF	Salt Shed / Fuel Depot / 3 Covered Material Bins
Total Building / Covered SF	55,176 SF	51,812 SF	

Lower Gwynedd Public Works

Vehicle #	type description	size	storage
12	pick up	19'10"x13'3"	indoor
14	pick up	20'x13'8"	indoor
15	pick up	19'x13'4"	indoor
16	dump truck	20'x13'7"	indoor
17	utility	20'x13'4"	indoor
19	pick up	20'10"x13'10"	indoor
20	pick up	19'4"x13'2"	indoor
21	SUV	19'3"x13'3"	indoor
22	dump truck	27'4"x12'8"	indoor
23	dump truck	22'2"x12'6"	indoor
24	pick up	19'3"x13'3"	indoor
25	dump truck	22'9"x12'4"	indoor
26	pick up	20'x13'2"	indoor
27	bucket truck	25'x13'6"	indoor
28	dump truck	21'6"x12'5"	indoor
29	dump truck	20'x13'6"	indoor
30	sewer jet truck	32'9"x12'3"	indoor
	Backhoe	25'x11'	indoor
	Backhoe	25'x11'	indoor
	Mini excavator	18'6"x9'	indoor
	zero turn mower	9'x5'	indoor
	zero turn mower	9'x5'	indoor
	zero turn mower	9'x5'	indoor
	zero turn mower	9'x5'	indoor
	John Deere Gator	9'4"x5'2"	indoor
	Toro Workman	10'10"x5'5"	indoor
	compressor trailer	12'7"x4'10"	indoor
	crack seal trailer	15'x6'2"	indoor
	skid steer loader	10'4"x6'4"	indoor
	aerator	6'8"x4'	indoor
	roller	8'10"x5'4"	indoor
	Toro Z spray	6'4"x4'7"	indoor
	John Deere Tractor	18'4"x12'	indoor
	John Deere Tractor	12'3"x6'8"	indoor
	mower deck	11'4"x7'	indoor/under roof
	mower deck	9'x7'3"	indoor/under roof
	flail axe	6'x3'8"	indoor
	toro	8'x5'5"	indoor
	leaf vac	7'10x5'	indoor
	brine tank	9'5"x8'6"	indoor/outdoor
	brine tank	9'x8'3"	indoor/outdoor
	paint machine	6'x3'6"	indoor
T-1	trailer	34'4"x8'9"	indoor/under roof/outdoor
T-2	trailer	25'x8'9"	indoor/under roof/outdoor

T-3	trailer	26'x8'7"	indoor/under roof/outdoor
T-4	trailer	20'6"x8'4"	indoor/under roof/outdoor
T-5	trailer	16'2"x8'	indoor/under roof/outdoor
T-6	trailer	26'6"x8'8"	indoor/under roof/outdoor
	salt spreader	8"x19"	indoor
	salt spreader	8"x19"	indoor
	salt spreader	8"x19"	indoor
	salt spreader	8"x19"	indoor
	salt spreader	8"x19"	indoor
	salt spreader	8"x19"	indoor
	snowplow	11'1"x8'	indoor/under roof
	snowplow	11'1"x8'	indoor/under roof
	snowplow	11'1"x8'	indoor/under roof
	snowplow	11'1"x8'	indoor/under roof
	snowplow	11'1"x8'	indoor/under roof
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	snowplow	11'1"x8'	indoor/under roof
	snowplow	11'1"x8'	indoor/under roof
	snowplow	11'1"x8'	indoor/under roof
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	snow blower	39"x5'	indoor
	snow blower	39"x5'	indoor
	snow blower	39"x5'	indoor
	pressure washer	39"x46"	indoor
	pressure washer	39"x46"	indoor
	generator	28"x34"	indoor
	Woodchipper		
	Woodchipper insert		
	Ventrac and 3 Attachments		
	future additions		
	street sweeper	25'x12'	indoor
	dump truck	30'x13"	indoor
	barricade railer	25'x9'	indoor
	work trailer	25'x9'	indoor
	pick up	20'x13'6"	indoor
	wheel loader	30'x12'	indoor
	30 x 30 general storage		

Estimated Total Public Works Area Needed

Category	Square Feet	Acres
Indoor Vehicular Storage	33,298	
Indoor General Storage	13,920	
Building Space	4,859	
Building/Indoor Space Total	52,076	1.20
Building Outdoor Circulation Space	19,748	
<u>Outdoor Space subtotal</u>	<u>83,320</u>	
Outdoor Space Total	103,068	2.37
<u>Indoor/ Building & Outdoor Subtotal</u>	<u>155,144</u>	
Buffering Area Total	88,892	2.04
<u>Indoor/Outdoor Space and Buffering Subtotal</u>	<u>244,036</u>	
Stormwater Management Area	61,009	1.40
Subtotal	305,045	7.00
Lot Irregularities/Contingency	76,261	
<u>TOTAL:</u>	<u>381,307</u>	<u>8.75</u>

Estimated PW Indoor Vehicular Area Needed

Vehicle #	Description	size	Quantity	Spatial Assumptions Made	Storage Needed (SF)
12	pick up	19'10"x13'3"	1	24' L x 18' W. Storage Bay	432
14	pick up	20'x13'8"	1	24' L x 18' W. Storage Bay	432
15	pick up	19'x13'4"	1	24' L x 18' W. Storage Bay	432
16	dump truck	20'x13'7"	1	24' L x 18' W. Storage Bay	432
17	utility	20'x13'4"	1	24' L x 18' W. Storage Bay	432
19	pick up	20'10"x13'10"	1	25' L x 18' W. Storage Bay	450
20	pick up	19'4"x13'2"	1	24' L x 18' W. Storage Bay	432
21	SUV	19'3"x13'3"	1	24' L x 18' W. Storage Bay	432
22	dump truck	27'4"x12'8"	1	32' L x 17' W. Storage Bay	391
23	dump truck	22'2"x12'6"	1	27 W. x 17' L. Storage Bay	459
24	pick up	19'3"x13'3"	1	24' L x 18' W. Storage Bay	432
25	dump truck	22'9"x12'4"	1	24 W. x 17' L. Storage Bay	408
26	pick up	20'x13'2"	1	24' L x 18' W. Storage Bay	432
27	bucket truck	25'x13'6"	1	29 W. x 18' L. Storage Bay	522
28	dump truck	21'6"x12'5"	1	26' L x 17' W. Storage Bay	442
29	dump truck	20'x13'6"	1	24' L x 18' W. Storage Bay	432
30	sewer jet truck	32'9"x12'3"	1	37' L x 17' W. Storage Bay	629
Vehicle Maintenance Bays					
	Truck Wash Bay	20' x 100'	1	2,000	2,000
	Maintenance and Vehicle Lift Bays	20' x 28'	3	560	1,680
Future Vehicle Additions					
	street sweeper	25'x12'	indoor	29' x16' for maneuvering space	464
	dump truck	30'x13"	indoor	34' x 17' for maneuvering space	578
	pick up	20'x13'6"	indoor	24' x 18' for maneuvering space	432
	wheel loader	30'x12'	indoor	34 x 16' for maneuvering space	544

Subtotal 13,319

Circulation Area (Subtotal x 1.5) 19,979

TOTAL INDOOR VEHICULAR AREA NEEDED: 33,298

Estimated PW Indoor General Storage Needed

Vehicle #	Description	size	Coverage Needed	Spatial Assumptions Made	Storage Needed (SF)
	Backhoe	25'x11'	indoor	25' L x 13' W. Storage Bay	325
	Backhoe	25'x11'	indoor	25' L x 13' W. Storage Bay	325
	Mini excavator	18'6"x9'	indoor	19' L x 10' W Storage Bay	380
1	zero turn mower	9'x5'	indoor	45 SF. Each x 4 = 180 SF Total + maneuvering room	200
2	zero turn mower	9'x5'	indoor		
3	zero turn mower	9'x5'	indoor		
4	zero turn mower	9'x5'	indoor		
	John Deere Gator	9'4"x5'2"	indoor	10' x 6' for maneuvering room	60
	Toro Workman	10'10"x5'5"	indoor	11' x 6' + 4' of maneuvering space	70
	compressor trailer	12'7"x4'10"	indoor	13' x 5' + 5' of maneuvering space	70
	crack seal trailer	15'x6'2"	indoor	15' x 7' + 5' of maneuvering space	105
	skid steer loader	10'4"x6'4"	indoor	11' x 7' + maneuvering space	100
	aerator	6'8"x4'	indoor	7' x 4' + 2' of maneuvering space	30
	roller	8'10"x5'4"	indoor	9' x 6' + 6' of maneuvering space	54
	Toro Z spray	6'4"x4'7"	indoor	7' x 5' + 5' of maneuvering space	40
	John Deere Tractor	18'4"x12'	indoor	14' W. x 20' L - storage + maneuvering	280
	John Deere Tractor	12'3"x6'8"	indoor	9' W. X 14' L. - Storage + maneuvering	130
	mower deck	11'4"x7'	indoor/under roof	deck on an upper shelf + 1' of maneuvering	145
	mower deck	9'x7'3"	indoor/under roof		25
	flail axe	6'x3'8"	indoor	6' x4' + 1' of maneuvering space	48
	toro	8'x5'5"	indoor	8' x 6' x + 2' of maneuvering space	42
	leaf vac	7'10x5'	indoor	8 x5' + 2' of maneuvering space	200
	brine tank	9'5"x8'6"	indoor/outdoor	20 x 10' Outdoor Area, per Existing	24
	brine tank	9'x8'3"	indoor/outdoor	6' x 4'	390
	paint machine	6'x3'6"	indoor	35' x 11' + 5' of maneuvering space	290
T-1	trailer	34'4"x8'9"	indoor/under roof/outdoor	26' x 11' + 4' of maneuvering space	290
T-2	trailer	25'x8'9"	indoor/under roof/outdoor	26' x 11' + 4' maneuvering space	231
T-3	trailer	26'x8'7"	indoor/under roof/outdoor	17' x 10' + 5' of maneuvering space	175
T-4	trailer	20'6"x8'4"	indoor/under roof/outdoor	27' x 11' +3' of maneuvering	300
T-5	trailer	16'2"x8'	indoor/under roof/outdoor		
T-6	trailer	26'6"x8'8"	indoor/under roof/outdoor		
1	salt spreader	8"x19"	indoor	1.5 SF. Estimated Each, Potentially stored vertically in rows of 3 - 1 row = 5 SF. (another 5 SF on top)	5
2	salt spreader	8"x19"	indoor		
3	salt spreader	8"x19"	indoor		
4	salt spreader	8"x19"	indoor		
5	salt spreader	8"x19"	indoor		
6	salt spreader	8"x19"	indoor		
1	snowplow	11'1"x8'	indoor/under roof		
2	snowplow	11'1"x8'	indoor/under roof		

3	snowplow	11'1"x8'	indoor/under roof		
4	snowplow	11'1"x8'	indoor/under roof		
5	snowplow	11'1"x8'	indoor/under roof		
6	snowplow	11'1"x8'	indoor/under roof		
7	snowplow	11'1"x8'	indoor/under roof		
8	snowplow	11'1"x8'	indoor/under roof		
9	snowplow	11'1"x8'	indoor/under roof		
10	snowplow	11'1"x8'	indoor/under roof		
11	snowplow	11'1"x8'	indoor/under roof		
12	snowplow	11'1"x8'	indoor/under roof		
13	snowplow	11'1"x8'	indoor/under roof		
14	snowplow	11'1"x8'	indoor/under roof		
1	generator	18"x30"	indoor		
2	generator	18"x30"	indoor		
3	generator	18"x30"	indoor		
4	generator	18"x30"	indoor		
5	generator	18"x30"	indoor		
6	generator	18"x30"	indoor		
7	generator	18"x30"	indoor		
8	generator	18"x30"	indoor		
1	snow blower	39"x5'	indoor		
2	snow blower	39"x5'	indoor		
3	snow blower	39"x5'	indoor		
1	pressure washer	39"x46"	indoor		
2	pressure washer	39"x46"	indoor		
	generator	28"x34"	indoor		
	Locked Tool Storage	10' x 10'	Indoor		
	Mechanical Storage Area	10' x10'	Indoor		
	Flammable Liquid/Paint Storage	6' x 5'	Indoor		
	Janitor's Closet	6'x5'	Indoor		
Storage Subtotal					6,205
<u>future additions</u>					
	barricade railer	25'x9'	indoor	25' x 11' for maneuvering space	275
	work trailer	25'x9'	indoor	25' x 12' for maneuvering space	300
	general storage	30'x30'	Indoor	900 SF.	900
	Parks & Rec. General Storage	40' x 40'	Indoor	Estimated indoor existing and future storage for parks & Rec. needs	1,600
Future Additions Subtotal					3,075
Circulation Area (Storage Subtotal + Future Additions Subtotal) x .5					4,640
TOTAL INDOOR GENERAL STORAGE NEEDED					13,920

Estimated PW Building Area Needed

	Quantity	Size Assumptions	Square Footage	Total SF
Individual Offices	4 (5?)	10' x 15'	150	600
Communal PW Staff Workspace	1	20' x 15'	300	300
Conference Room/ EM Center	1	50 SF + 25 SF per person (15)	425	425
Communal Lunchroom	1	75 SF + 25 SF per seated Person (15)	450	450
Bunkroom/Sleeping Area - Male	1	6' x 9' per Cot w/ Maneuvering Space x 10	540	540
Bunkroom/Sleeping Area - Female	1	6' x9' per Cot w/ Maneuvering Space x 5	270	270
Single - Stall Restrooms	3	8'x8'	64	192
Single - Stall Shower/ Changing areas	3	10' x 8'	80	240
Locker Room	1	10' x 15'	150	150
HVAC/Mechanical/Electrical	1	15 x 20	300	300
Workbench	1	10' x 10'	100	100
Welding Area	1	10'x20'	200	200
Linen Closet/Laundry Room	1	10' x 12'	120	120
Subtotal				3,887

Circulation Areas

Building Circulation Area

Building Space Subtotal x .25

972

Total Estimated Building Area

4,859

Estimated PW Outdoor Area Needed

	Quantity	Size	Square Footage	Total
Storage Bins - Single Bay	6	15' x 15'	225	1,350
Storage Bins - Double Bays	1	15' x 30'	450	450
P&R Requested Storage Bins	4	15' x 15'	225	900
Salt Shed Building	1	Roughly 70' x 30'	2100	2,100
Single Gas Pump	1	20'x20' for Pump	400	400
Garage Circulation Area	1	40' x 80'	3,200	3,200
Outdoor, Paved, Parking Spaces	20	10' x 20'	450	9,000
Existing Sewer Lot Storage	1	Shed & Miscellaneous Outdoor Storage	600	600
Miscellaneous Outdoor Storage	1	50' x 50'	2500	2,500
Large Dumpster	1	6x6	36	36
Small Dumpster	1	6x5	30	30
Generator & Concrete Pad	1	22 x 12	264	264
<u>Outdoor Storage\Functional Space Subtotal</u>				<u>20,830</u>

Outdoor Circulation Space Needed (Outdoor Space Subtotal x 3)

62,490

OUTDOOR AREA NEEDED TOTAL

83,320

Additional Outdoor Material Pipe Storage Bin 1 24 x 15

Lower Gwynedd Public Works

Vehicle #	type description	size	storage
12	pick up	19'10"x13'3"	indoor
14	pick up	20'x13'8"	indoor
15	pick up	19'x13'4"	indoor
16	dump truck	20'x13'7"	indoor
17	utility	20'x13'4"	indoor
19	pick up	20'10"x13'10"	indoor
20	pick up	19'4"x13'2"	indoor
21	SUV	19'3"x13'3"	indoor
22	dump truck	27'4"x12'8"	indoor
23	dump truck	22'2"x12'6"	indoor
24	pick up	19'3"x13'3"	indoor
25	dump truck	22'9"x12'4"	indoor
26	pick up	20'x13'2"	indoor
27	bucket truck	25'x13'6"	indoor
28	dump truck	21'6"x12'5"	indoor
29	dump truck	20'x13'6"	indoor
30	sewer jet truck	32'9"x12'3"	indoor
	Backhoe	25'x11'	indoor
	Backhoe	25'x11'	indoor
	Mini excavator	18'6"x9'	indoor
	zero turn mower	9'x5'	indoor
	zero turn mower	9'x5'	indoor
	zero turn mower	9'x5'	indoor
	zero turn mower	9'x5'	indoor
	John Deere Gator	9'4"x5'2"	indoor
	Toro Workman	10'10"x5'5"	indoor
	compressor trailer	12'7"x4'10"	indoor
	crack seal trailer	15'x6'2"	indoor
	skid steer loader	10'4"x6'4"	indoor
	aerator	6'8"x4'	indoor
	roller	8'10"x5'4"	indoor
	Toro Z spray	6'4"x4'7"	indoor
	John Deere Tractor	18'4"x12'	indoor
	John Deere Tractor	12'3"x6'8"	indoor
	mower deck	11'4"x7'	indoor/under roof
	mower deck	9'x7'3"	indoor/under roof
	flail axe	6'x3'8"	indoor
	toro	8'x5'5"	indoor
	leaf vac	7'10x5'	indoor
	brine tank	9'5"x8'6"	indoor/outdoor
	brine tank	9'x8'3"	indoor/outdoor
	paint machine	6'x3'6"	indoor
T-1	trailer	34'4"x8'9"	indoor/under roof/outdoor
T-2	trailer	25'x8'9"	indoor/under roof/outdoor

T-3	trailer	26'x8'7"	indoor/under roof/outdoor
T-4	trailer	20'6"x8'4"	indoor/under roof/outdoor
T-5	trailer	16'2"x8'	indoor/under roof/outdoor
T-6	trailer	26'6"x8'8"	indoor/under roof/outdoor
	salt spreader	8"x19"	indoor
	salt spreader	8"x19"	indoor
	salt spreader	8"x19"	indoor
	salt spreader	8"x19"	indoor
	salt spreader	8"x19"	indoor
	salt spreader	8"x19"	indoor
	snowplow	11'1"x8'	indoor/under roof
	snowplow	11'1"x8'	indoor/under roof
	snowplow	11'1"x8'	indoor/under roof
	snowplow	11'1"x8'	indoor/under roof
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	snowplow	11'1"x8'	indoor/under roof
	snowplow	11'1"x8'	indoor/under roof
	snowplow	11'1"x8'	indoor/under roof
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	generator	18"x30"	indoor
	snow blower	39"x5'	indoor
	snow blower	39"x5'	indoor
	snow blower	39"x5'	indoor
	pressure washer	39"x46"	indoor
	pressure washer	39"x46"	indoor
	generator	28"x34"	indoor
	Woodchipper		
	Woodchipper insert		
	Ventrac and 3 Attachments		

future additions

street sweeper	25'x12'	indoor
dump truck	30'x13"	indoor
barricade railer	25'x9'	indoor
work trailer	25'x9'	indoor
pick up	20'x13'6"	indoor
wheel loader	30'x12'	indoor

30 x 30 general storage

Estimated Total Public Works Area Needed

Category	Square Feet	Acres
Indoor Vehicular Storage	33,298	
Indoor General Storage	13,920	
Building Space	4,859	
Building/Indoor Space Total	52,076	1.20
Building Outdoor Circulation Space	19,748	
<u>Outdoor Space subtotal</u>	<u>83,320</u>	
Outdoor Space Total	103,068	2.37
<u>Indoor/ Building & Outdoor Subtotal</u>	<u>155,144</u>	
Buffering Area Total	88,892	2.04
<u>Indoor/Outdoor Space and Buffering Subtotal</u>	<u>244,036</u>	
Stormwater Management Area	61,009	1.40
Subtotal	305,045	7.00
Lot Irregularities/Contingency	76,261	
<u>TOTAL:</u>	<u>381,307</u>	<u>8.75</u>

Estimated PW Indoor Vehicular Area Needed

Vehicle #	Description	size	Quantity	Spatial Assumptions Made	Storage Needed (SF)
12	pick up	19'10"x13'3"	1	24' L x 18' W. Storage Bay	432
14	pick up	20'x13'8"	1	24' L x 18' W. Storage Bay	432
15	pick up	19'x13'4"	1	24' L x 18' W. Storage Bay	432
16	dump truck	20'x13'7"	1	24' L x 18' W. Storage Bay	432
17	utility	20'x13'4"	1	24' L x 18' W. Storage Bay	432
19	pick up	20'10"x13'10"	1	25'L. x 18'W. Storage Bay	450
20	pick up	19'4"x13'2"	1	24' L x 18' W. Storage Bay	432
21	SUV	19'3"x13'3"	1	24' L x 18' W. Storage Bay	432
22	dump truck	27'4"x12'8"	1	32' L. X 17' W. Storage Bay	391
23	dump truck	22'2"x12'6"	1	27 W. x 17' L. Storage Bay	459
24	pick up	19'3"x13'3"	1	24' L x 18' W. Storage Bay	432
25	dump truck	22'9"x12'4"	1	24 W. x 17' L. Storage Bay	408
26	pick up	20'x13'2"	1	24' L x 18' W. Storage Bay	432
27	bucket truck	25'x13'6"	1	29 W. x 18' L. Storage Bay	522
28	dump truck	21'6"x12'5"	1	26' L. X 17' W. Storage Bay	442
29	dump truck	20'x13'6"	1	24' L. x 18' W. Storage Bay	432
30	sewer jet truck	32'9"x12'3"	1	37' L. x 17' W. Storage Bay	629
Vehicle Maintenance Bays					
	Truck Wash Bay	20' x 100'	1	2,000	2,000
	Maintenance and Vehicle Lift Bays	20' x 28'	3	560	1,680
Future Vehicle Additions					
	street sweeper	25'x12'	indoor	29' x16' for maneuvering space	464
	dump truck	30'x13"	indoor	34' x 17' for maneuvering space	578
	pick up	20'x13'6"	indoor	24' x 18' for maneuvering space	432
	wheel loader	30'x12'	indoor	34 x 16' for maneuvering space	544
Subtotal					13,319
Circulation Area (Subtotal x 1.5)					19,979

TOTAL INDOOR VEHICULAR AREA NEEDED: 33,298

Estimated PW Indoor General Storage Needed

Vehicle #	Description	size	Coverage Needed	Spatial Assumptions Made	Storage Needed (SF)
	Backhoe	25'x11'	indoor	25' L x 13' W. Storage Bay	325
	Backhoe	25'x11'	indoor	25' L x 13' W. Storage Bay	325
	Mini excavator	18'6"x9'	indoor	19' L x 10' W Storage Bay	380
1	zero turn mower	9'x5'	indoor		
2	zero turn mower	9'x5'	indoor	45 SF. Each x 4 = 180 SF Total + maneuvering room	200
3	zero turn mower	9'x5'	indoor		
4	zero turn mower	9'x5'	indoor		
	John Deere Gator	94"x5'2"	indoor	10' x 6' for maneuvering room	60
	Toro Workman	10'10"x5'5"	indoor	11' x 6' + 4' of maneuvering space	70
	compressor trailer	127"x4'10"	indoor	13' x 5' + 5' of maneuvering space	70
	crack seal trailer	15'x6'2"	indoor	15' x 7' + 5' of maneuvering space	105
	skid steer loader	10'4"x6'4"	indoor	11' x 7' + maneuvering space	100
	aerator	6'8"x4'	indoor	7' x 4' + 2' of maneuvering space	30
	roller	8'10"x5'4"	indoor	9' x 6' + 6' of maneuvering space	54
	Toro Z spray	6'4"x4'7"	indoor	7' x 5' + 5' of maneuvering space	40
	John Deere Tractor	18'4"x12'	indoor	14' W. x 20' L - storage + maneuvering	280
	John Deere Tractor	12'3"x6'8"	indoor	9' W. X 14' L. - Storage + maneuvering	130
	mower deck	11'4"x7'	indoor/under roof	deck on an upper shelf + 1' of maneuvering	145
	mower deck	9'x7'3"	indoor/under roof		25
	flail axe	6'x3'8"	indoor	6' x4' + 1' of maneuvering space	48
	toro	8'x5'5"	indoor	8' x 6' x + 2' of maneuvering space	42
	leaf vac	7'10x5'	indoor	8 x5' + 2' of maneuvering space	200
	brine tank	9'5"x8'6"	indoor/outdoor	20 x 10' Outdoor Area, per Existing	24
	brine tank	9'x8'3"	indoor/outdoor	6' x 4'	390
	paint machine	6'x3'6"	indoor	35' x 11' + 5' of maneuvering space	290
T-1	trailer	34'4"x8'9"	indoor/under roof/outdoor	26' x 11' + 4' of maneuvering space	290
T-2	trailer	25'x8'9"	indoor/under roof/outdoor	26' x 11' + 4' maneuvering space	231
T-3	trailer	26'x8'7"	indoor/under roof/outdoor	21' x 11' + 5' of maneuvering space	175
T-4	trailer	20'6"x8'4"	indoor/under roof/outdoor	17' x 10' + 5' of maneuvering space	300
T-5	trailer	16'2"x8'	indoor/under roof/outdoor		
T-6	trailer	26'6"x8'8"	indoor/under roof/outdoor	27' x 11' +3' of maneuvering	
1	salt spreader	8"x19"	indoor		
2	salt spreader	8"x19"	indoor		
3	salt spreader	8"x19"	indoor		
4	salt spreader	8"x19"	indoor		
5	salt spreader	8"x19"	indoor		
6	salt spreader	8"x19"	indoor		
1	snowplow	11'1"x8'	indoor/under roof	1.5 SF. Estimated Each, Potentially stored vertically in rows of 3 - 1 row = 5 SF. (another 5 SF on top)	5
2	snowplow	11'1"x8'	indoor/under roof		

3	snowplow	11'1"x8'	indoor/under roof	13'x8' per plow x 14 plows	1,500
4	snowplow	11'1"x8'	indoor/under roof		
5	snowplow	11'1"x8'	indoor/under roof		
6	snowplow	11'1"x8'	indoor/under roof		
7	snowplow	11'1"x8'	indoor/under roof		
8	snowplow	11'1"x8'	indoor/under roof		
9	snowplow	11'1"x8'	indoor/under roof		
10	snowplow	11'1"x8'	indoor/under roof		
11	snowplow	11'1"x8'	indoor/under roof		
12	snowplow	11'1"x8'	indoor/under roof		
13	snowplow	11'1"x8'	indoor/under roof		
14	snowplow	11'1"x8'	indoor/under roof		
1	generator	18"x30"	indoor		
2	generator	18"x30"	indoor		
3	generator	18"x30"	indoor		
4	generator	18"x30"	indoor		
5	generator	18"x30"	indoor		
6	generator	18"x30"	indoor		
7	generator	18"x30"	indoor		
8	generator	18"x30"	indoor		
1	snow blower	39"x5'	indoor	17 SF Each x 3 = +4' of maneuvering	55
2	snow blower	39"x5'	indoor		
3	snow blower	39"x5'	indoor		
1	pressure washer	39"x46"	indoor	13 SF each. + 2' maneuvering space	30
2	pressure washer	39"x46"	indoor		
	generator	28"x34"	indoor	7 sf + 3' of maneuvering space	10
	Locked Tool Storage	10' x 10'	Indoor	100 SF.	100
	Mechanical Storage Area	10' x10'	Indoor	100 SF.	100
	Flammable Liquid/Paint Storage	6' x 5'	Indoor	30 SF	30
	Janitor's Closet	6'x5'	Indoor	30 SF.	30
Storage Subtotal					6,205
future additions					
	barricade trailer	25'x9'	indoor	25' x 11' for maneuvering space	275
	work trailer	25'x9'	indoor	25' x 12' for maneuvering space	300
	general storage	30'x30'	Indoor	900 SF.	900
	Parks & Rec. General Storage	40' x 40'	Indoor	Estimated indoor existing and future storage for parks & Rec. needs	1,600
Future Additions Subtotal					3,075
Circulation Area (Storage Subtotal + Future Additions Subtotal) x .5					4,640
TOTAL INDOOR GENERAL STORAGE NEEDED					13,920

Estimated PW Building Area Needed

	Quantity	Size Assumptions	Square Footage	Total SF
Individual Offices	4 (5?)	10' x 15'	150	600
Communal PW Staff Workspace	1	20' x 15'	300	300
Conference Room/ EM Center	1	50 SF + 25 SF per person (15)	425	425
Communal Lunchroom	1	75 SF + 25 SF per seated Person (15)	450	450
Bunkroom/Sleeping Area - Male	1	6' x 9' per Cot w/ Maneuvering Space x 10	540	540
Bunkroom/Sleeping Area - Female	1	6' x 9' per Cot w/ Maneuvering Space x 5	270	270
Single - Stall Restrooms	3	8'x8'	64	192
Single - Stall Shower/ Changing areas	3	10' x 8'	80	240
Locker Room	1	10' x 15'	150	150
HVAC/Mechanical/Electrical	1	15 x 20	300	300
Workbench	1	10' x 10'	100	100
Welding Area	1	10'x20'	200	200
Linen Closet/Laundry Room	1	10' x 12'	120	120
Subtotal				3,887

	Building Space Subtotal x .25
Circulation Areas	972
Building Circulation Area	

Total Estimated Building Area

4,859

Estimated PW Outdoor Area Needed

	Quantity	Size	Square Footage	Total
Storage Bins - Single Bay	6	15' x 15'	225	1,350
Storage Bins - Double Bays	1	15' x 30'	450	450
P&R Requested Storage Bins	4	15' x 15'	225	900
Salt Shed Building	1	Roughly 70' x 30'	2100	2,100
Single Gas Pump	1	20'x20' for Pump	400	400
Garage Circulation Area	1	40' x 80'	3,200	3,200
Outdoor, Paved, Parking Spaces	20	10' x 20'	450	9,000
Existing Sewer Lot Storage	1	Shed & Miscellaneous Outdoor Storage	600	600
Miscellaneous Outdoor Storage	1	50' x 50'	2500	2,500
Large Dumpster	1	6x6	36	36
Small Dumpster	1	6x5	30	30
Generator & Concrete Pad	1	22 x 12	264	264
<u>Outdoor Storage\Functional Space Subtotal</u>				<u>20,830</u>

Outdoor Circulation Space Needed (Outdoor Space Subtotal x 3)

62,490

OUTDOOR AREA NEEDED TOTAL

83,320

Additional Outdoor Material Pipe Storage Bin 1 24 x 15

Scenario #1

Construct a new Public Works Facility (on the Moore Drive Site or other suitable property)

a. New Public Works (per Option 2C)	\$26.4 Mil
b. Contingency and Soft Cost (included the above costs)	\$0
<hr/>	
Total Project Cost	\$26,406,282

Pros and Cons

- Public Works program fully accommodated.
- Future Departmental expansion accommodated at the Township Municipal Building (Future phase)
- The 917 Bethlehem Pike property can be sold.
- May be a good option to balance project cost with long-term Township goals.

Scenario #2

(Development at the 917 Bethlehem Pike Site is similar in Options #3, 4, 5, 6)

Develop 917 property to expand Public Works while retaining the current PW space at the Township Building

a. New Public Works Garage (10 bays plus small staff support area)	\$4,500,000
b. New Salt Shed	\$750,000
c. New Vehicle Wash Garage	\$800,000
d. New Fuel Depot	\$250,000
e. Sitework	\$2,000,000
f. Minimal renovation at existing Public Works area of the Twp. Bldg.	\$410,000
g. Allowance for Contingency and Soft Costs (30% of above)	\$2,610,000
<hr/>	
Total Project Cost	\$11,310,000

Pros and Cons

- Public Works program and equipment list mostly accommodated (future equipment not included)
- Public Works remains split at several site locations.
- Future Departmental expansion is not accommodated at the Township Municipal Bldg.
- Least initial cost but does not address all long-term facility goals.

Scenario #3

Develop 917 property to expand Public Works and retain the current PW space at the Township Building and Build a new Facility to accommodate future departmental growth at Moore Drive (or other suitable location).

a. New Public Works Garage (10 bays and a small staff support area)	\$4,500,000
b. New Salt Shed	\$750,000
c. New Vehicle Wash Garage	\$800,000
d. New Fuel Depot	\$250,000
e. Sitework	\$2,000,000
f. Minimal renovation at existing Public Works area of the Twp. Bldg.	\$400,000
g. Renovate the Lower Level of the Existing Township Municipal Bldg. for PW support Space + 1200 SF Add.	\$2,885,000
h. Construct a new building for departmental growth (18,500 SF allowance) (including land acquisition)	\$18,000,000
i. Allowance for Contingency and Soft Costs (30% of above)	\$8,875,500
<hr/>	
Total Project Cost	\$38,460,000

Pros and Cons

- Public Works program and equipment list mostly accommodated (future equipment not included).
- Public Works remains split at several site locations.
- Future departmental expansion is provided.

Scenario #4

Construct a New free-standing Building at the Township Municipal Bldg. site to accommodate future departmental expansion (located where bank is currently located), PW would expand at the Township building and develop 917 Bethlehem Pike Public Works site. Public Works operations would remain split on several sites.

- a. Construct a new Building to accommodate future departmental expansion.
(18,500 SF allowance)
- b. See Scenario #3 for other costs

Total Project Cost

Not Viable

Pros and Cons

- Not a viable solution due to configuration of the existing site's property lines, setbacks, connections to roads, etc.

Scenario #5

Develop Township Site to accommodate a partial expansion of PW, PW would also expand at 917 Bethlehem Pike Public Works site (Public Works operations would remain split on several sites), Build a new or expanded facility at some point in the future to accommodate future departmental expansion.

a. Construct a new facility for Future departmental expansion. (18,500 SF allowance, including land acquisition)	\$18,000,000
b. Construct a 6400 SF Addition for PW expansion at Twp. Bldg.	\$2,560,000
c. Site Work at exist. Township Property	\$1,500,000
d. Renovate exist. Lower Level for PW support space	\$2,500,000
e. Develop 917 Site:	
i. Construct a New Garage (smaller than Scenario #2)	\$3,000,000
ii. Construct a vehicle wash Garage	\$800,000
iii. Construct a new Salt Shed	\$750,000
iv. Site work at 917 (Less than Scenario #2)	\$1,750,000
v. Construct a Fuel Depot	\$250,000
f. Contingency and Soft Costs (30%)	\$9,484,500

Total Project Cost	\$40,940,000
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Pros and Cons

- Full Public Works program and equipment list can be accommodated (to be confirmed by actual layouts)
- Public Works remains split on several sites.
- New Facility provides space for future departmental expansion.
- Second most expensive approach.

Scenario #6

Build a New Facility for departmental expansion at Moore Drive (or other suitable location), develop the Township Site to accommodate a partial expansion of PW, PW would also expand at 917 Bethlehem Pike Public Works site (Public Works operations would remain split on several sites). The existing Lower-Level space would be renovated as additional Public Works space.

a. Construct a new Facility for future departmental growth (33,500 SF incl. land)	\$30,000,000
Additional land cost allowance	\$500,000
b. Construct a 6400 SF Addition for PW expansion at the Twp. Bldg. (or a sim. size exp. at 917)	\$2,500,000
c. Site Work at Township Site (allowance)	\$1,500,000
d. Renovate exist. Lower-Level area for PW Garage and support space (8552 SF existing area)	\$3,000,000
e. Develop 917 Site:	
i. Construct a Garage (smaller than Scenario #5)	\$2,000,000
ii. Construct a vehicle wash Garage	\$800,000
iii. Construct a new Salt Shed	\$750,000
iv. Site work at 917 (Less than site work in Scenario #2)	\$1,750,000
v. Construct a Fuel Depot	\$250,000
<hr/>	
Subtotal (all above cost item lines)	\$43,050,000
f. Contingency and Soft Costs (30%)	\$12,915,000
<hr/>	
Total Project Cost	\$55,965,000

Pros and Cons

- Full Public Works program and equipment list can be accommodated (to be confirmed by actual layouts)
- Public Works remains split at several site locations.
- New facility provides for future departmental expansion.
- Full expansion / update for Public Works, and departmental expansion is provided.
- Most expensive approach.

Scenario #7

Construct a new Public Works facility at 917 Bethlehem Pike site which would be expanded by purchasing additional land. This scenario would accommodate most, but not all, PW vehicles and equipment (Note: Public Works would maintain operations on several sites with 917 Bethlehem being the primary site). Portions of the existing Public Works area at the Township Building would be renovated and a small “connection” addition would allow for departmental expansion.

a. Purchase approximately 2 + acres of additional land directly adjacent to the 917 Bethlehem Pike Site (allow 325k / acre)	\$ 650,000
b. Demo the existing buildings at 917 Bethlehem Pike (Allowance)	\$250,000
c. Develop 917 Site:	
i. Construct a two Garage Buildings of approx. 34,200 SF at \$365/SF =	\$12,500,000
ii. Construct a Trailer Shed of Approx. 4000 SF @ \$188 / SF	\$750,000
iii. Construct a new Salt Shed	\$750,000
iv. Site work at 917	\$3,750,000
v. Construct a Fuel Depot	\$250,000
d. Site Work at Township Site (allowance)	\$500,000
e. Construct a small 1,000 SF “connection” addition for departmental expansion at the Twp. Bldg. (365/sf)	\$365,000
f. Renovate a portion of exist. PW Garage and PW support space (2500 SF existing area @ 150/sf)	\$375,000
<hr/>	
Subtotal (all above cost item lines)	\$20,140,000
g. Contingency and Soft Costs (30%)	\$6,042,000
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Total Project Cost	\$26,182,000

Pros and Cons

- Full Public Works program and equipment list can be accommodated (though on multiple sites).
- Public Works remains split at several site locations (There could be an option to keep all PW vehicles on the 917 Site and relocate some Parks and Rec equipment to other sites).
- Some departmental expansion is provided.
- One of the least expensive approaches while offering a degree of departmental expansion.
- Zoning Ordinance challenges should be carefully considered. Challenges include:
 - Expanded property will be in several zoning districts.
 - Building setbacks.
 - Building + impervious surface coverage requirements.

Lower Gwynedd Township

New Public Works Facility (Feasibility Study Cost Estimate)

Concept 2C – Larger Total 40K SF and Expanded 16-acre Property

Revised 05/02/2024

Buildings

40,000 SF x \$365 / SF (Public Works – larger SF option (Sim. to 2B))	\$14,600,000
3,360 SF covered shed x \$188 / SF	\$ 631,680
Covered Fuel Depot and Tank (900 SF roof)	In Sitework #

Subtotal \$15,231,680

Sitework

\$ 4,500,000

Subtotal \$19,731,680

Contingencies

6% Bidding Contingency =	\$ 1,183,901
4% Inflation Contingency =	\$ 789,267

Total Construction Cost

\$21,704,848

Soft Costs

20% Soft Costs = \$ 4,340,967

Subtotal **\$ 26,045,815**

Allowance for Land Acquisition (16 Acres)

\$ 5,000,000

Total Project Costs (including Land purchase)

\$31,045,815

ADD Alternate Prices

A) Solar Panels (Level One) on Free-standing Garage	Add	\$ 150,000
B) Solar Panels (Level Two) on Main Building	Add	\$ 150,000
C) Solar Panels (Level Three) on Main Bldg. Garage	Add	\$ 150,000
D) Add roof over trailer storage	Add	\$ 300,000
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Total all buildings	Add	\$750,000



LOWER GWYNEDD TOWNSHIP
FEASIBILITY STUDY + NEEDS ASSESSMENT FOR
NEW PUBLIC WORKS FACILITY

1130 North Bethlehem Pike
Spring House, PA 19477

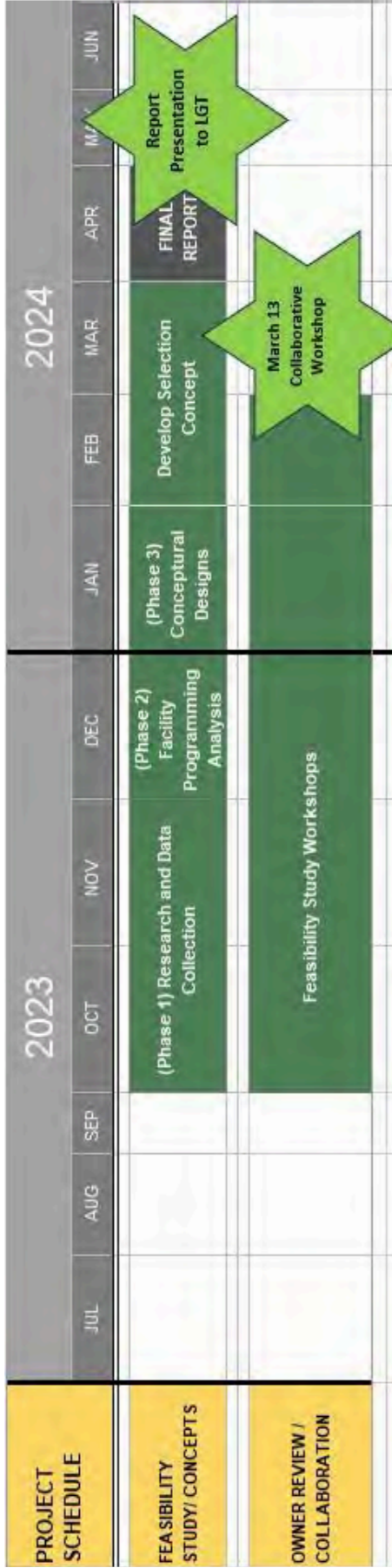
April 23, 2024

Presented by:
P. Michael O'Rourke, AIA
Matthew Jones, Associate



GODSHALL KANE O'ROURKE ARCHITECTS, LLC

TIMELINE



Meeting Frequency

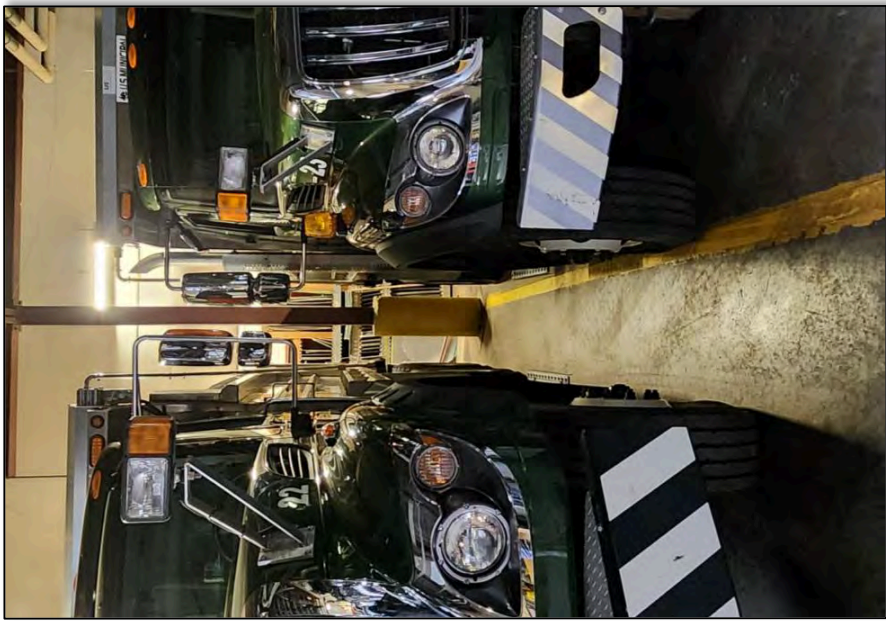
- Bi-weekly meetings alternating in-person and virtual formats
- Timeline approach | Proposed timeline has been tested by other Feasibility Studies
- Collaborative Meeting w/ Public Works Staff



Current Public Works

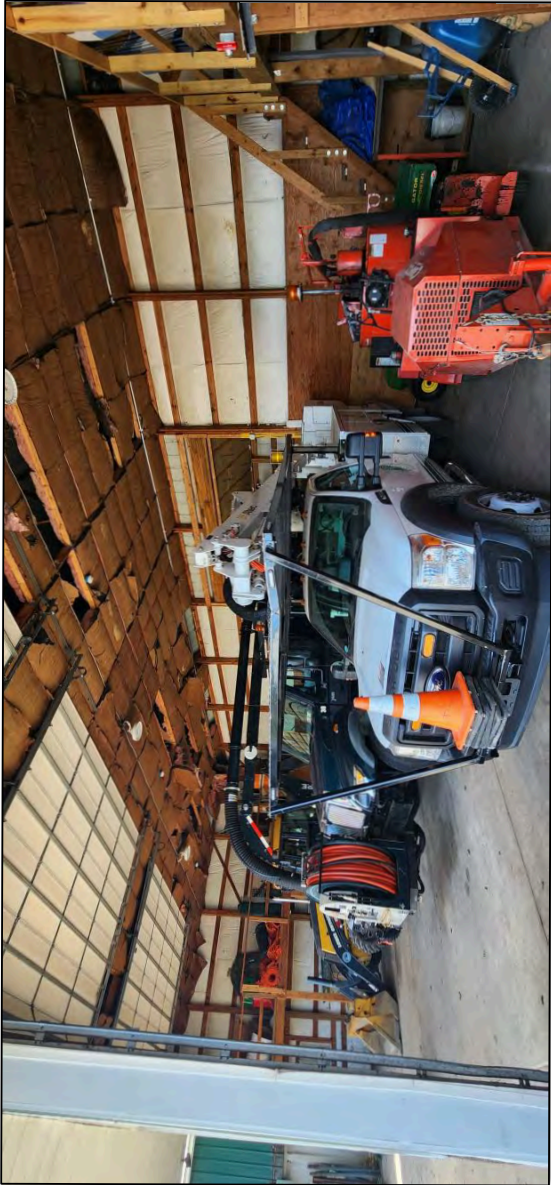
Facility Sites





Lower Gwynedd Township | Feasibility Study + Needs Assessment
04.23.2024 - Slide: 6





Lower Gwynedd Township | Feasibility Study + Needs Assessment
04.23.2024 - Slide: 7





Lower Gwynedd Township | Feasibility Study + Needs Assessment

04.23.2024 - Slide: 8



Lower Gwynedd Township

Factors & Space Needs

- Covered storage for existing & future vehicles & equipment
- New features:
 - Employee facilities: staff offices, breakroom/kitchen, restrooms, locker rooms, etc.
 - Salt shed
 - Vehicle washing station
 - Fuel depot
 - Expanded vehicle maintenance space
 - Welding room
 - Wood shop
 - Rain garden and ability to add other green features
- Consolidate operations to single site
- Sufficient room for vehicle circulation
- Technology / telecommunications infrastructure
- Ability to sell 917 site



Scenarios To Be Discussed

- **Develop 917 Bethlehem Pike Property (only)**
- **Develop & Expand 917 Bethlehem Pike Property**
- **Concept Option 2C: Construct a new Public Works Facility at Moore Drive**



Scenarios Considered and Discarded

- Develop Township Site Including Bank Property
- Develop 917 Bethlehem Pike + Renovate/Expand Township Building (including Police space) for Public Works
- Develop 917 Bethlehem Pike + Renovate/Expand Township Building (including Police & Fire space) for Public Works



Scenario #1

-Develop 917 Bethlehem Pike Property (Only)





Lower Gwynedd Township | Feasibility Study + Needs Assessment

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Lower Gwynedd Township

New Public Works Facility

Scenario #1

Develop the 917 Bethlehem Pike Site

Buildings/Renovations	\$ 6,700,000
Sitework	\$ 2,000,000
30% Soft Costs (included bidding and inflation contingencies)	\$ 2,610,000
<hr/>	
Total Project Costs (including Land purchase)	\$11,310,000

Pros and Cons

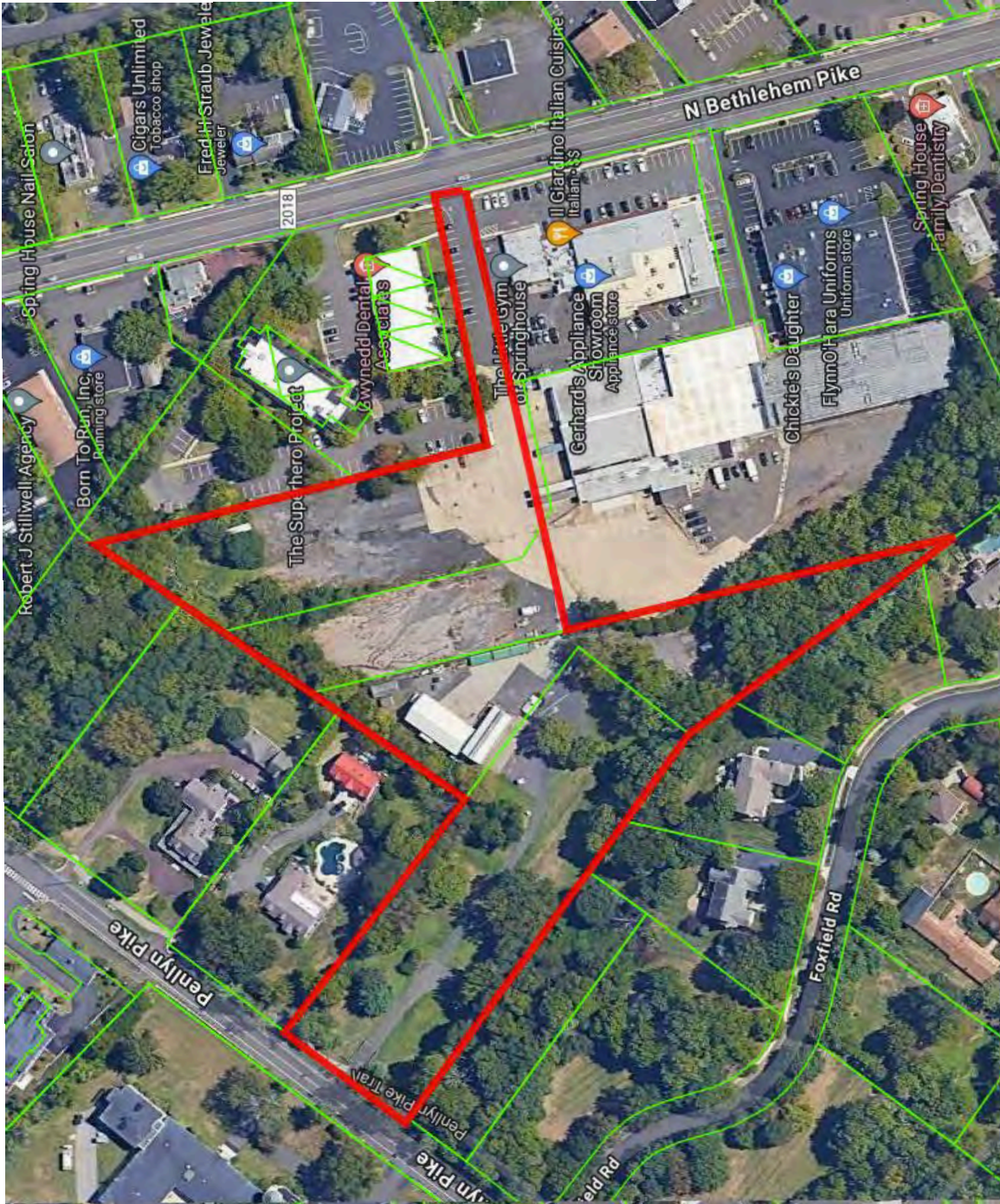
- PW staff and equipment list mostly accommodated (future equipment not included).
- PW remains split on multiple locations.
- Retains logistical and storage concerns – vehicle circulation on lot and in garages, lack of heating and plumbing in existing buildings, and ongoing maintenance issues.
- Increases concerns about complaints from neighbors, especially with an elevated position.
- Challenges with access to Bethlehem Pike remain.
- Least initial cost but does not address all long-term facility goals.
- Internal garage driveway is not desirable.
- Not a truly viable solution.



Scenario #2

-Develop & Expand 917 Bethlehem Pike Property





Lower Gwynedd Township | Feasibility Study + Needs Assessment
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917 Bethlehem Pike



Lower Gwynedd Township

New Public Works Facility

Scenario #2

Develop and Expand the 917 Bethlehem Pike Site

Buildings/Renovations	\$14,990,000
Sitework	\$ 4,500,000
30% Soft Costs (included bidding and inflation contingencies)	\$ 5,847,000
Subtotal	\$25,337,000
<hr/>	
Allowance for Land Acquisition	\$ 650,000
<hr/>	
Total Project Costs (including Land purchase)	\$25,987,000

Pros and Cons

- PW staff and equipment list fully accommodated.
- PW remains split on multiple locations.
- Increases concerns about complaints from neighbors, especially with an elevated position.
- Zoning Ordinance challenges should be carefully considered.
- Challenges with access to Bethlehem Pike remain.
- Viable alternative to Moore Drive concept.



Scenario #3

-Design Concept Option 2C: Construct a new Public Works Facility at Moore Drive



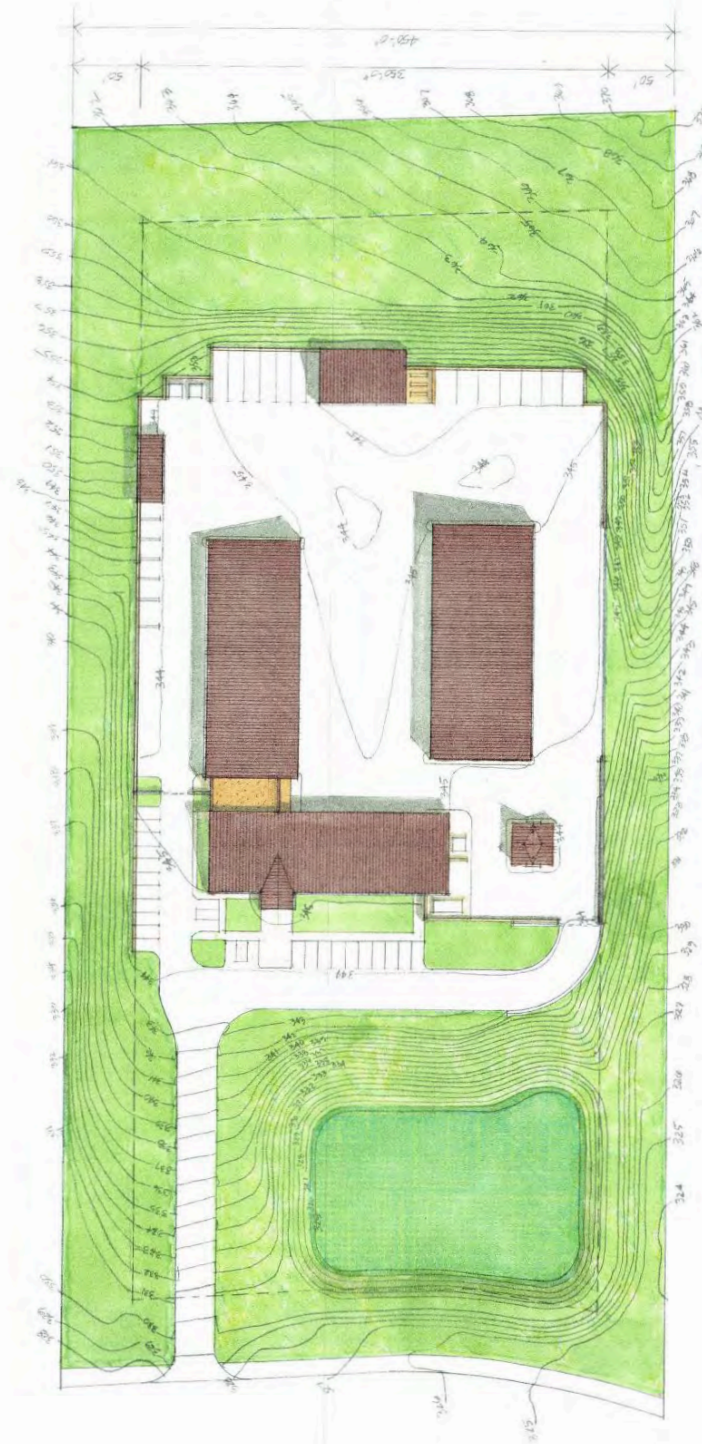


Lower Gwynedd Township | Feasibility Study + Needs Assessment
04.23.2024 - Slide: 21





Lower Gwynedd Township
New Public Works Facility
Concept # 2c



Site Plan



Lower Gwynedd Township | Feasibility Study + Needs Assessment
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Lower Gwynedd Township
 New Public Works Facility
 Concept # 2c



* By 2024 Needs
 3,000 S.F. GROSS
 1,224 S.F. TOTAL
 * Floor Plan

Lower Gwynedd Township | Feasibility Study + Needs Assessment

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Lower Gwynedd Township

New Public Works Facility

Scenario #3

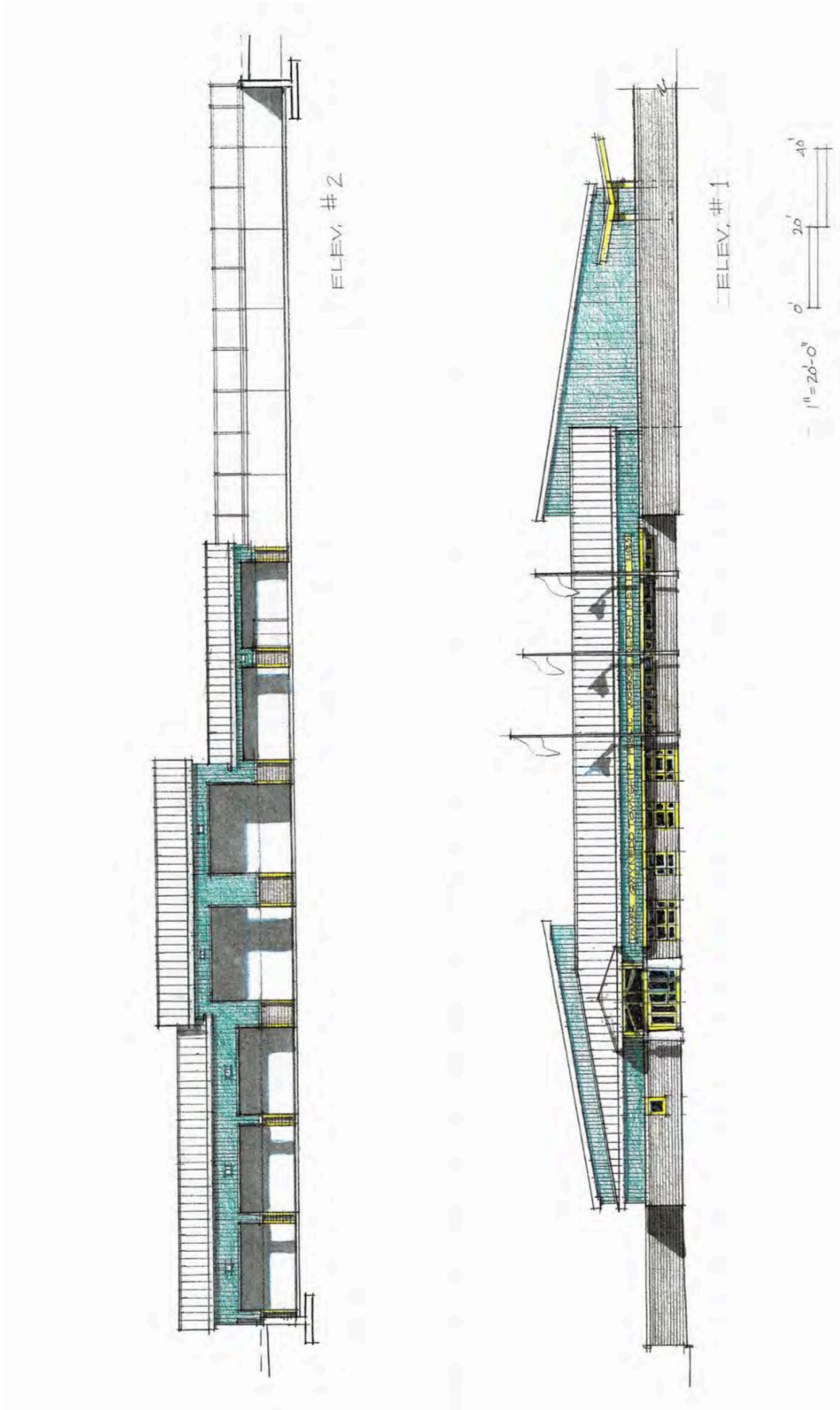
Construct a new Public Works Facility on the Moore Drive Site or other suitable property

Buildings	\$13,724,680
Sitework	\$ 4,007,352
30% Soft Costs (included bidding and inflation contingencies)	\$ 5,674,250
Subtotal	\$23,406,282
<hr/>	
Allowance for Land Acquisition	\$ 3,000,000
Total Project Costs (including Land purchase)	\$26,406,282

Pros and Cons

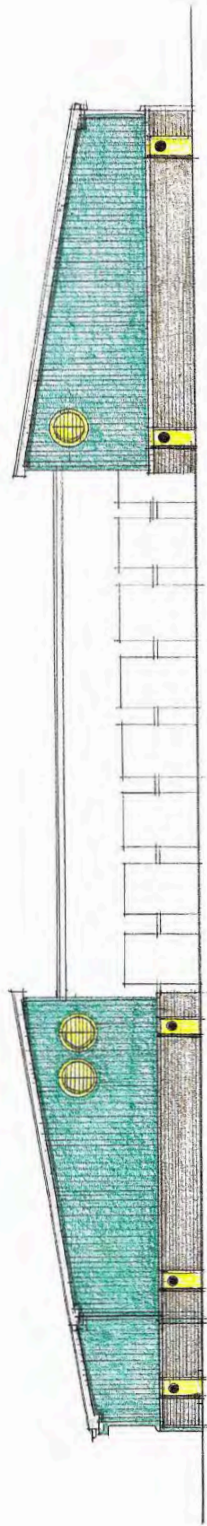
- Public Works program fully accommodated – on a single site.
- Purpose-built site meets all stated project goals.
- Minimizes impact to neighbors – good offsets and natural barriers.
- No significant zoning concerns.
- 917 Bethlehem Pike property can be sold (appraised at \$1,075,000).
- Design aligns with Gilmore projections.
- Good option to balance project cost with long-term Township goals.



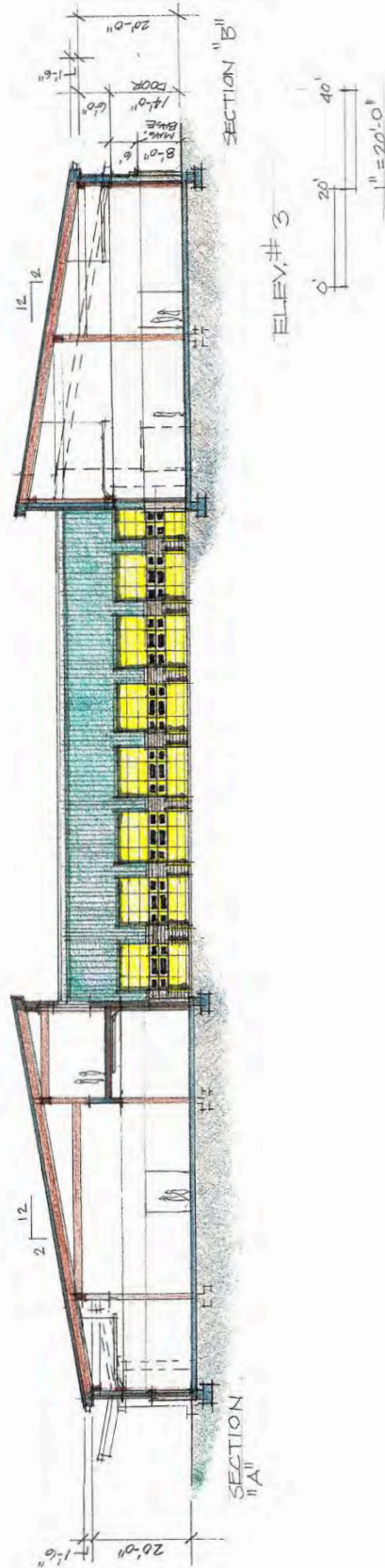


Lower Gwynedd Township | Feasibility Study + Needs Assessment
04.23.2024 - Slide: 26



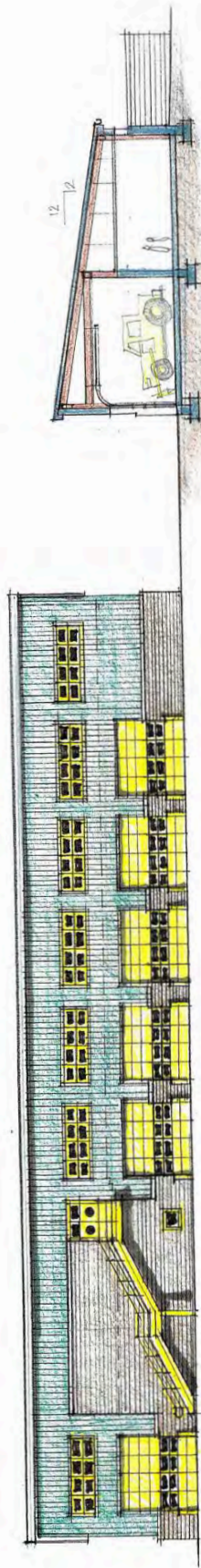


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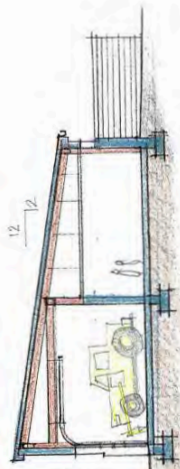


ELEV, #3

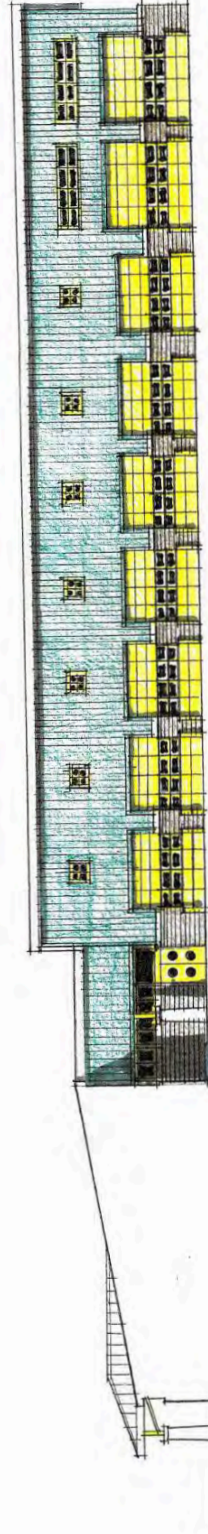




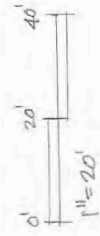
ELEV. # 8



SECTION 11C



ELEV. # 7



Line-Item Cost Comparison Between Scenarios 2 & 3

<u>Cost Item</u>	<u>Site Location</u>	<u>Site Location</u>
	Scenario #2 - 917 / Gerhard's	Scenario #3 – Moore Drive
<i>Land Acquisition</i>	\$650,000 allowance	\$3,000,000 allowance
<i>Demolition</i>	\$250,000 for demo of exist. Bldgs.	Land clearing in Site Work Cost
<i>Site Work Cost</i>	\$3,750,000 incl. land clearing	\$4,007,352 incl. land clearing + FD
<i>Building Cost</i>	\$12,500,000 (34,200 SF x \$365/SF*)	\$13,093,000 (37,000 SF x \$354*)
<i>Trailer Shed</i>	\$750,000	Not included – future phase
<i>Salt Shed</i>	\$750,000 (incl. retaining wall)	\$ 631,680
<i>Fuel Depot</i>	\$250,000	In Site Work Cost

Note * Cost per SF difference is based relative project size cost efficiency factor

Scenario 3 - Value Engineering Comparison Between Options 2b and 2c

VE Item	Scenario 3 – Concept 2b	1.5.24	Scenario 3 – Concept 2c	3.4.24
<i>Site Work Scope Reduction</i>	10.5 Ac parcel		9.5 Ac parcel – Reduced site work	
<i>Driveways to Moore Drive</i>	2		Reduced to single drive	
<i>Garage Door Reduction</i>	0		Reduced by 3 garage doors	
<i>Reduce Mason. Sep. Walls</i>	0		Reduced by 3 separation walls	
<i>Building Footprint</i>	40,000 sf		37,000 sf (3,000 SF reduction)	
			<ul style="list-style-type: none"> • More efficient layout • No large Conference Room 	
<i>Shed SF Reduction</i>	7,000 SF		3,360 SF (3640 SF reduction)	



Lower Gwynedd Township

Design Comparison

Key Elements	Develop Existing 917 Site	Develop + Expand 917 Site	2C - New Building at Moore Drive
Storage for existing vehicles and equipment	Yes	Yes	Yes
Storage for future vehicles and equipment	No	Yes	Yes
Staff office, breakroom/kitchen, restroom, locker rooms, etc.	Yes	Yes	Yes
Consolidate operations to single site	No	No	Yes
Sufficient room for vehicle circulation	Yes	Yes	Yes
Technology / telecommunications infrastructure	Yes	Yes	Yes
Ability to sell 917 site	No	No	Yes
Estimated Cost	\$11,310,000	\$25,987,000	\$26,406,282
Additional Notes	Noise concerns, retaining wall keeps trucks above some neighbors.	Cost includes \$650k for land acquisition. Impervious/setback/zoning considerations, noise concerns.	Cost includes \$3m for land acquisition. Design aligns with Gilmore projections.



Conclusion

After collaborating with Lower Gwynedd Township to identify seven possible scenarios for the Department of Public Works, our recommendation for the best option is to purchase property and construct a new facility at Moore Drive (or a site with similar characteristics to Moore Drive). If property at the Moore Drive site is procured, we concur that the facility should be oriented along Moore Drive so that it can be located as far away as possible from the residential properties to the north. This will require procurement of a larger property than identified in the 2022 Strategic Plan. We have estimated the property should be approximately 16 (sixteen) acres. A property of this size should provide an average dimensional setback of approximately 400'-0" from the back of the facility to the rear property line where the residential properties are located. We further recommend that Master Site Plan Scenario "C" with one of the Concept "Two" Building layout variants (2b, 2c, or 2d) be utilized as the design basis for the new DPW facility. The Moore Drive property, which is located behind the Giant Foods Grocery Store, is an ideal location for the new Public Works facility in our view.

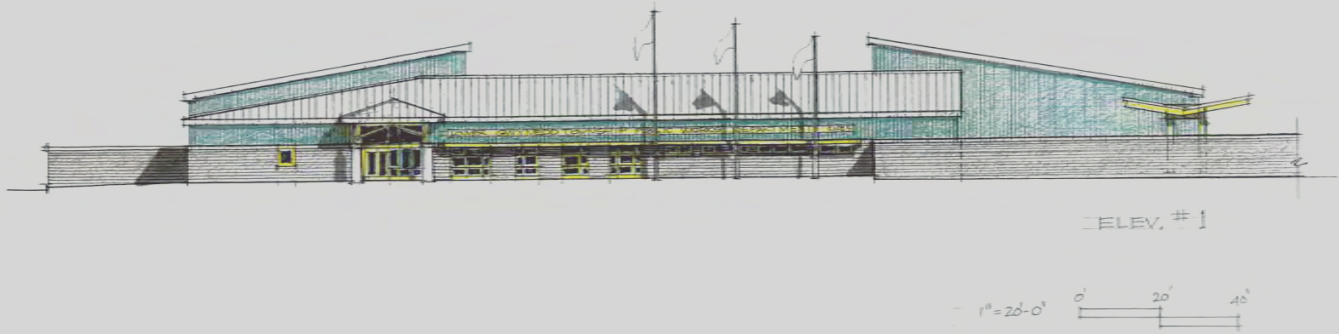
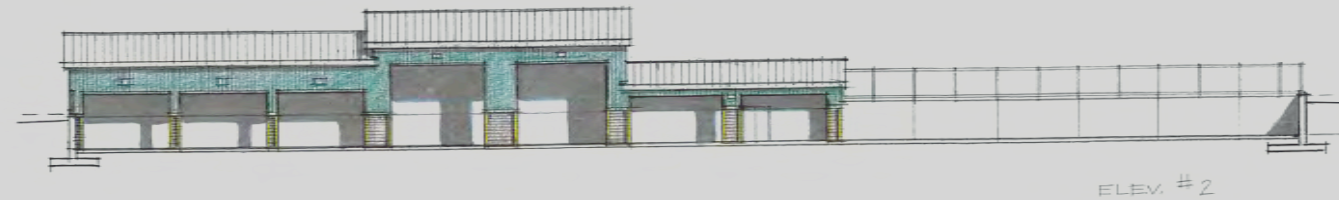


TABLE OF CONTENTS:

MASTER PLAN SCENARIOS 'A', 'B', + 'C'	7
DPW CONCEPT 2C DETAILED PLANS ELEVATIONS SITE PLAN (9.5 AC. SITE)	8
DPW OPTIONAL SITE PLANS 2B 2D (16 AC. SITE)	9
APPENDIX	10
<ul style="list-style-type: none"> • Schedule • Sketches Related to 7 Initial Scenarios • Sketches Related to PW Building 	



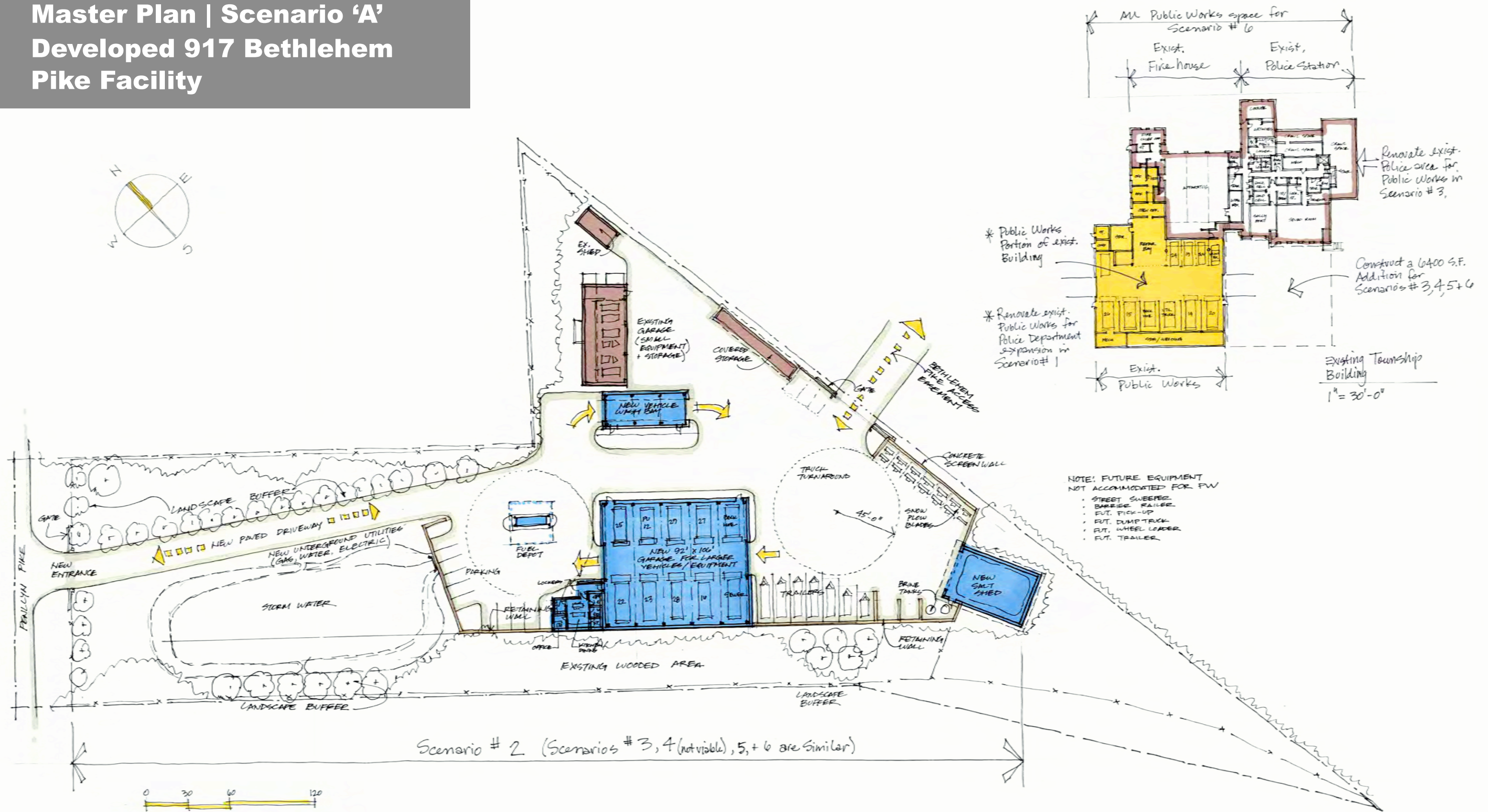
LOWER GWYNEDD TOWNSHIP

Feasibility Study + Needs Assessment for a New Public Works Facility

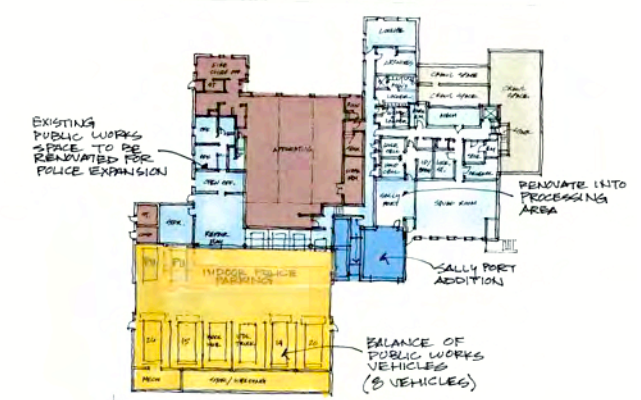
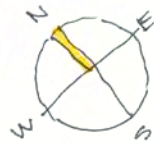
FINAL REPORT (Section Two)

May 15, 2024

Lower Gwynedd Township Master Plan | Scenario 'A' Developed 917 Bethlehem Pike Facility



Lower Gwynedd Township Master Plan | Scenario 'B' Expanded + Developed 917 Bethlehem Pike Facility



Lower Gwynedd Township 917 Bethlehem Pike Site

Zoning

A-1 Zoning District with LPO (Lower Pike Overlay District) over part of the property
(Municipal is listed as an acceptable use by right)

Front Yard =	65 ft.	
Side Yard =	45 ft. each min.	
Rear Yard =	65 ft.	
Total Building Coverage =		10%
With Sewer and water =		15%
Total Building Coverage with Sewer and Water shall not exceed =		20%
Impervious Surface =		45%
Max. Building Height =		45 ft.
Parking setback from a Property Line		5 ft.

LPO (Lower Pike Overlay District)

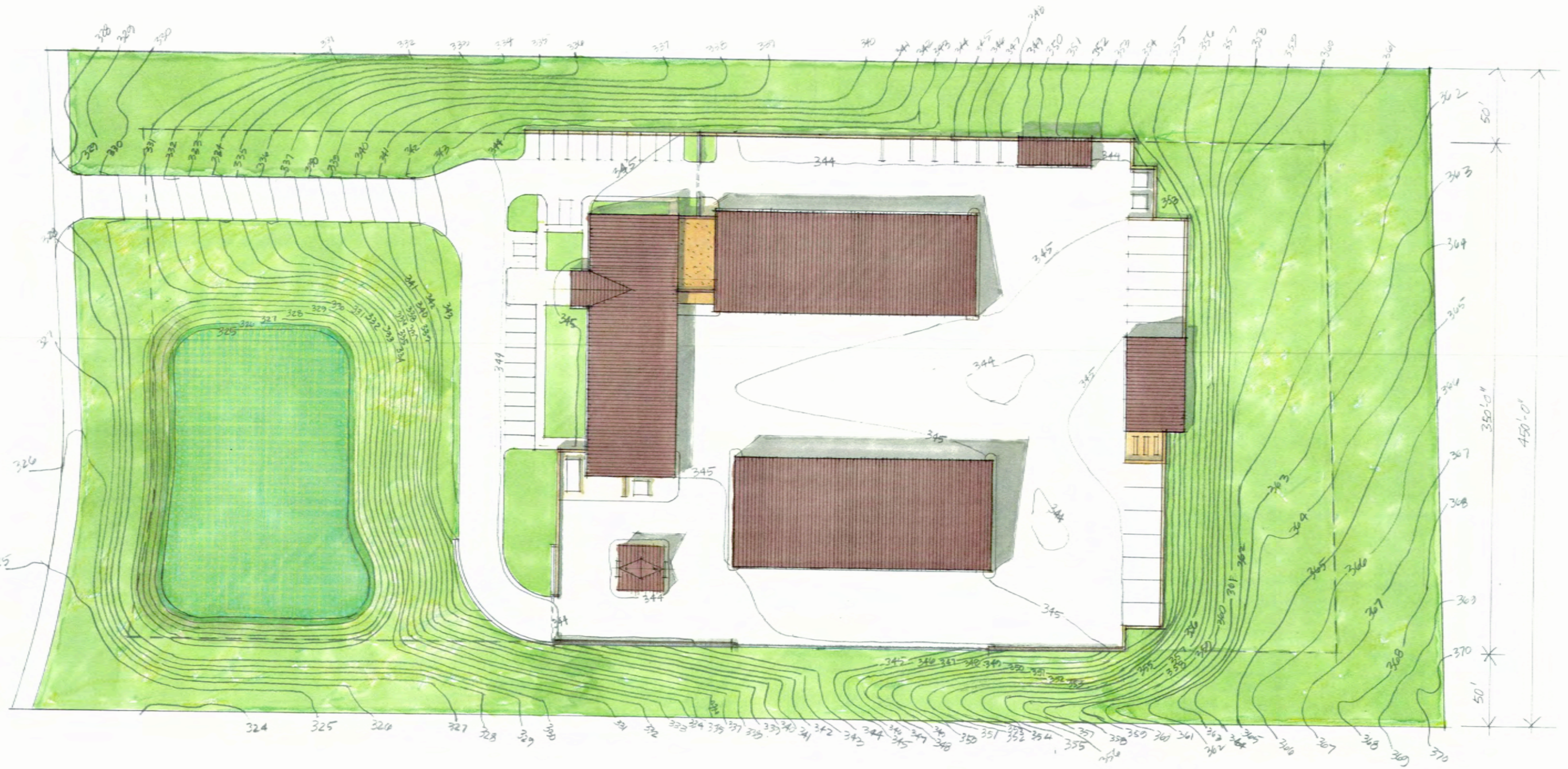
Front Yard =	20 ft.
Side Yard =	10 ft. each
Rear Yard =	20 ft.

D (Business District) with LPO Overlay

Note: There appears to be a small section of "D" Business District in the extreme NE corner of the proposed property expansion. Municipal use is allowed in this District by right.

Front Yard =	10 ft.	
Side Yard =	5 ft. min. with 30 ft aggregate	
Rear Yard =	30 ft.	
District Yard =	50 ft.	
Total Building Coverage =		30%
Impervious Surface =		65%
Building Height =		30 ft.

MOORE DRIVE



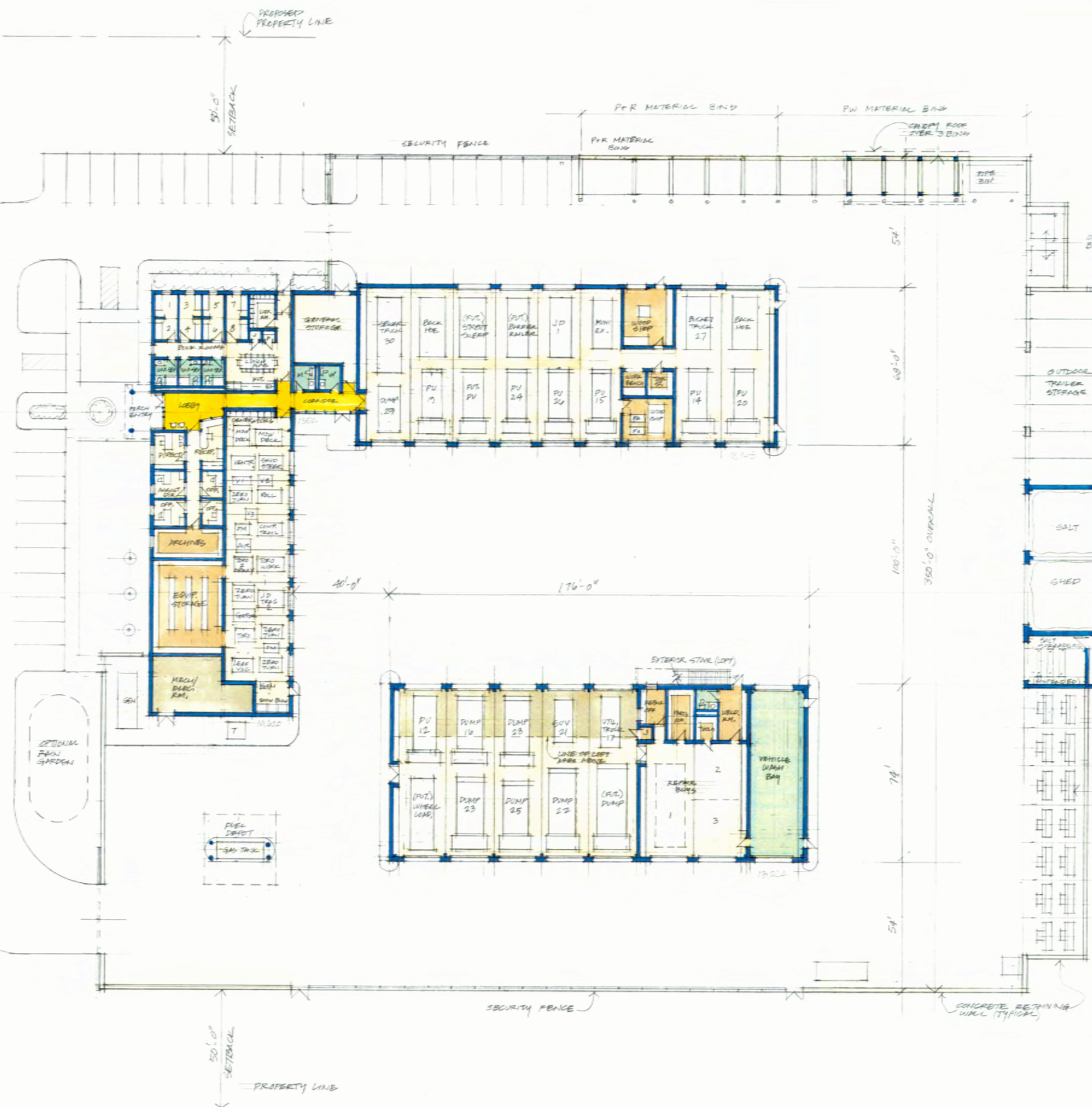
Lower Gwynedd Township
Master Plan | Scenario 'C'
w/ Concept 2C Public Works
Building Layout

Lower Gwynedd Township
New Public Works Facility
Concept # 2c

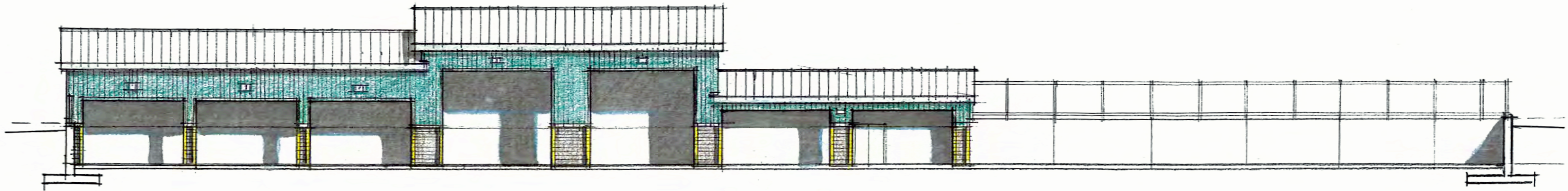


DRIVEWAY ACCESS

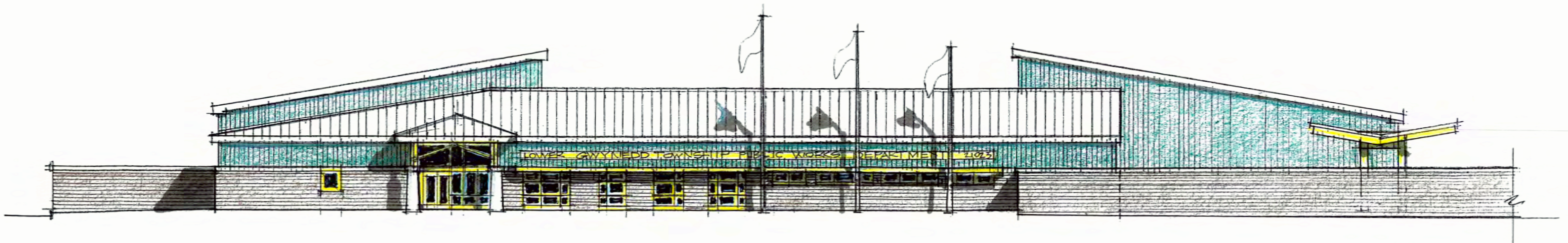
STORM WATER



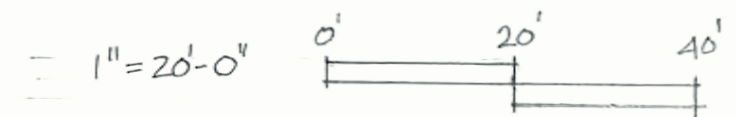
* 36,964 S.F. INTERIOR
3,500 S.F. COVERED
900 S.F. FIELD DEPT
41,224 S.F. TOTAL
* Floor Plan

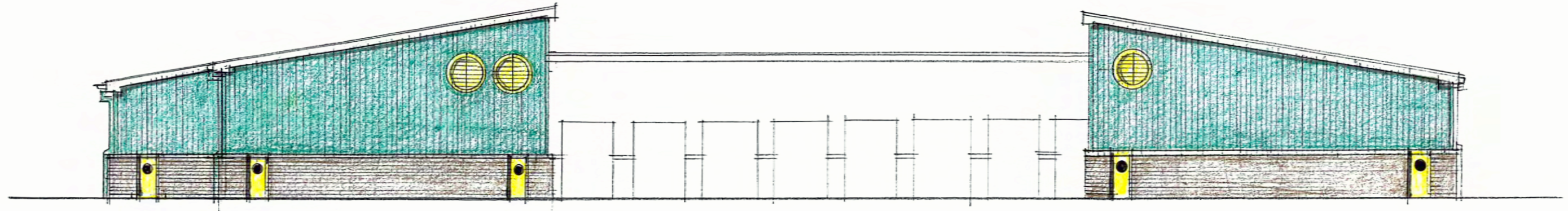


ELEV. #2

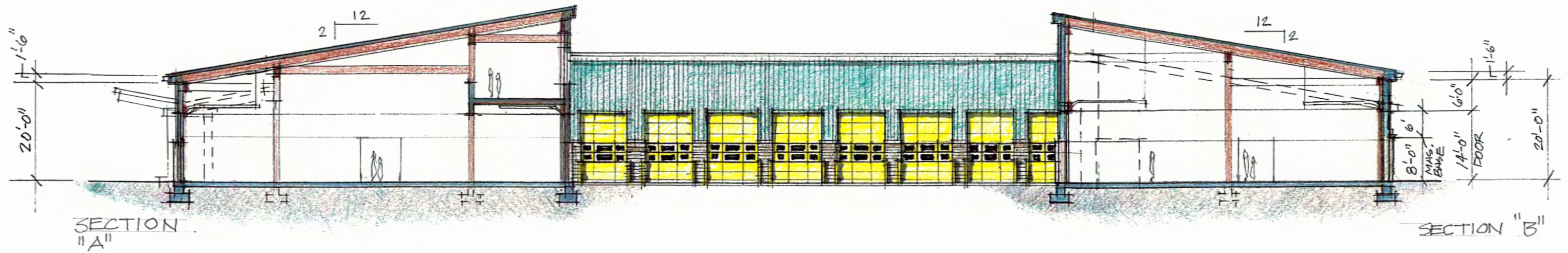


ELEV. #1

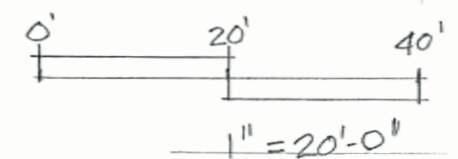


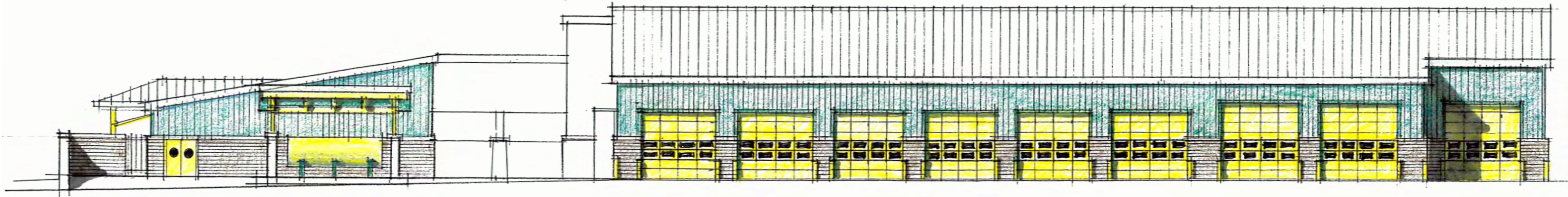


ELEV, #4

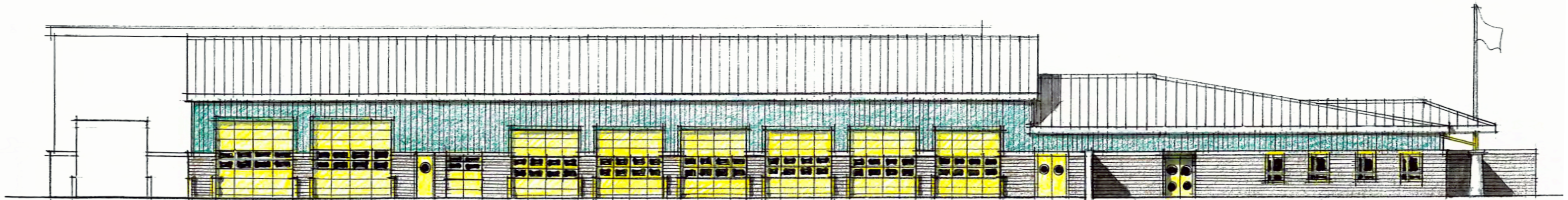


ELEV, #3

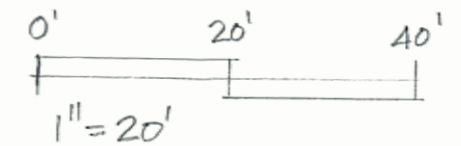


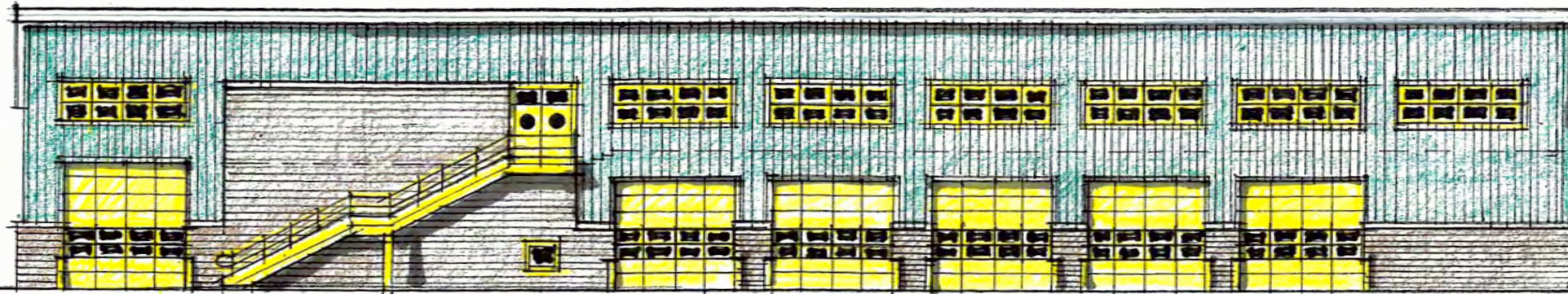


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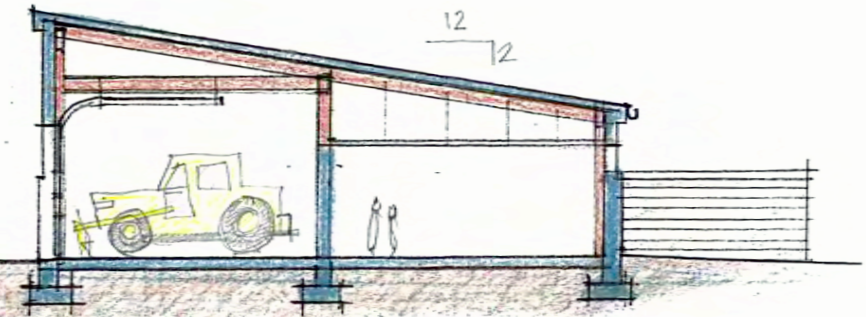


ELEV. # 5

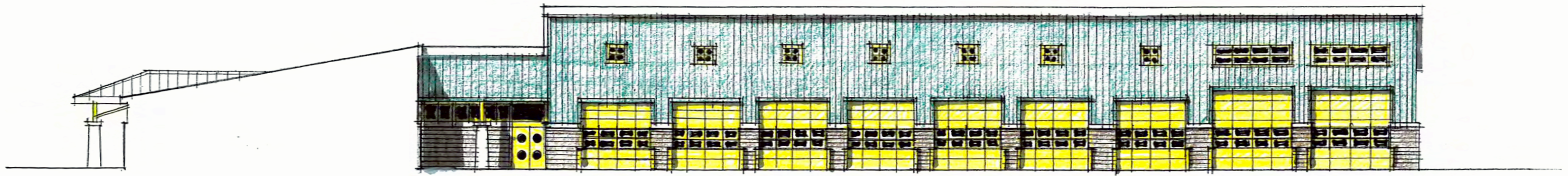




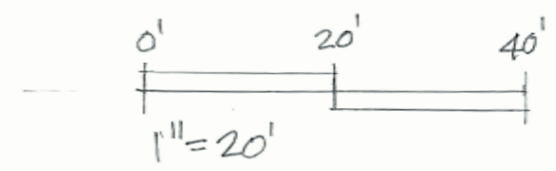
ELEV. # 8



SECTION "C"

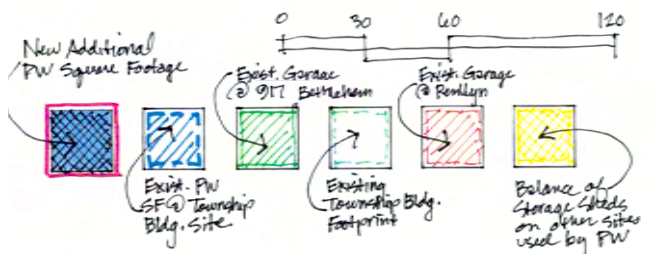
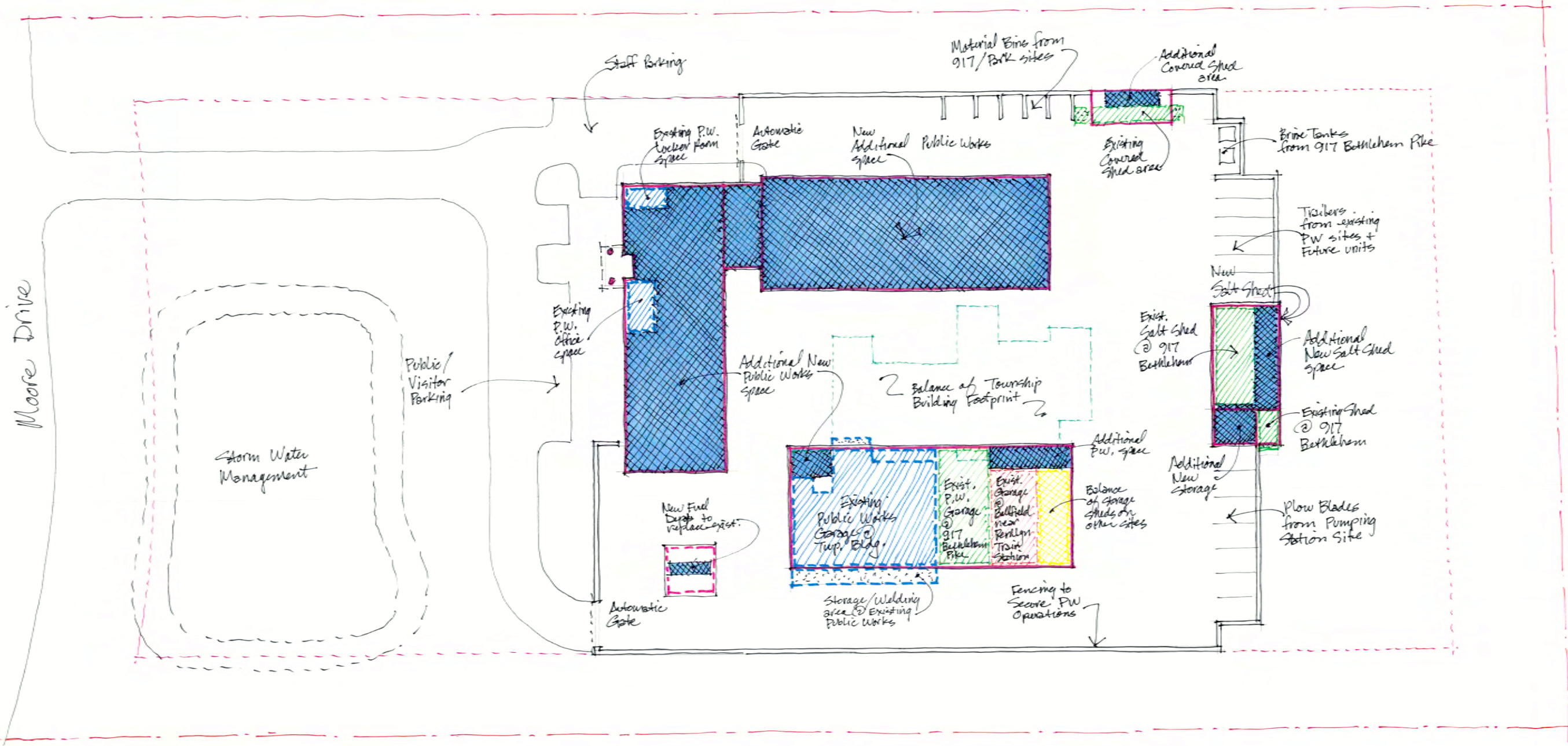


ELEV. # 7



Option 2C

Scenario # 1 Moore Drive Site
New Public Works Facility

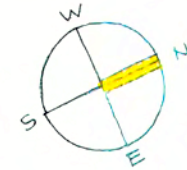


Lower Guymed Township
Public Works - New Additional Square Footage
vs Existing Square Footage

Lower Gwynedd Township

New Public Works Facility

Concept # 2b EXPANDED PROPERTY



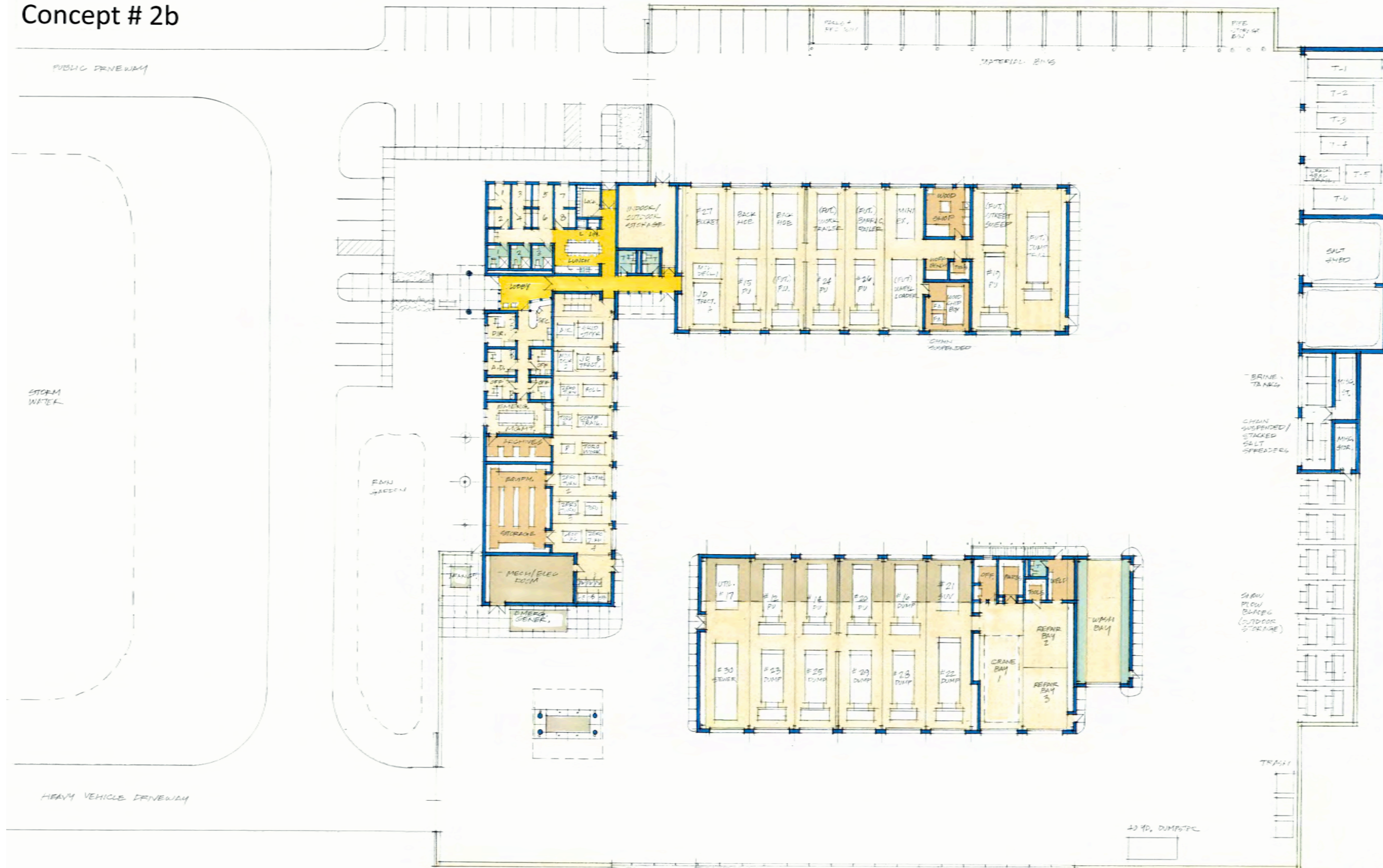
- 16 Acre Parcel w/ Building Concept #2B
(see following page for a detailed building layout.)



Site Plan



Lower Gwynedd Township
New Public Works Facility
Concept # 2b



Floor Plan

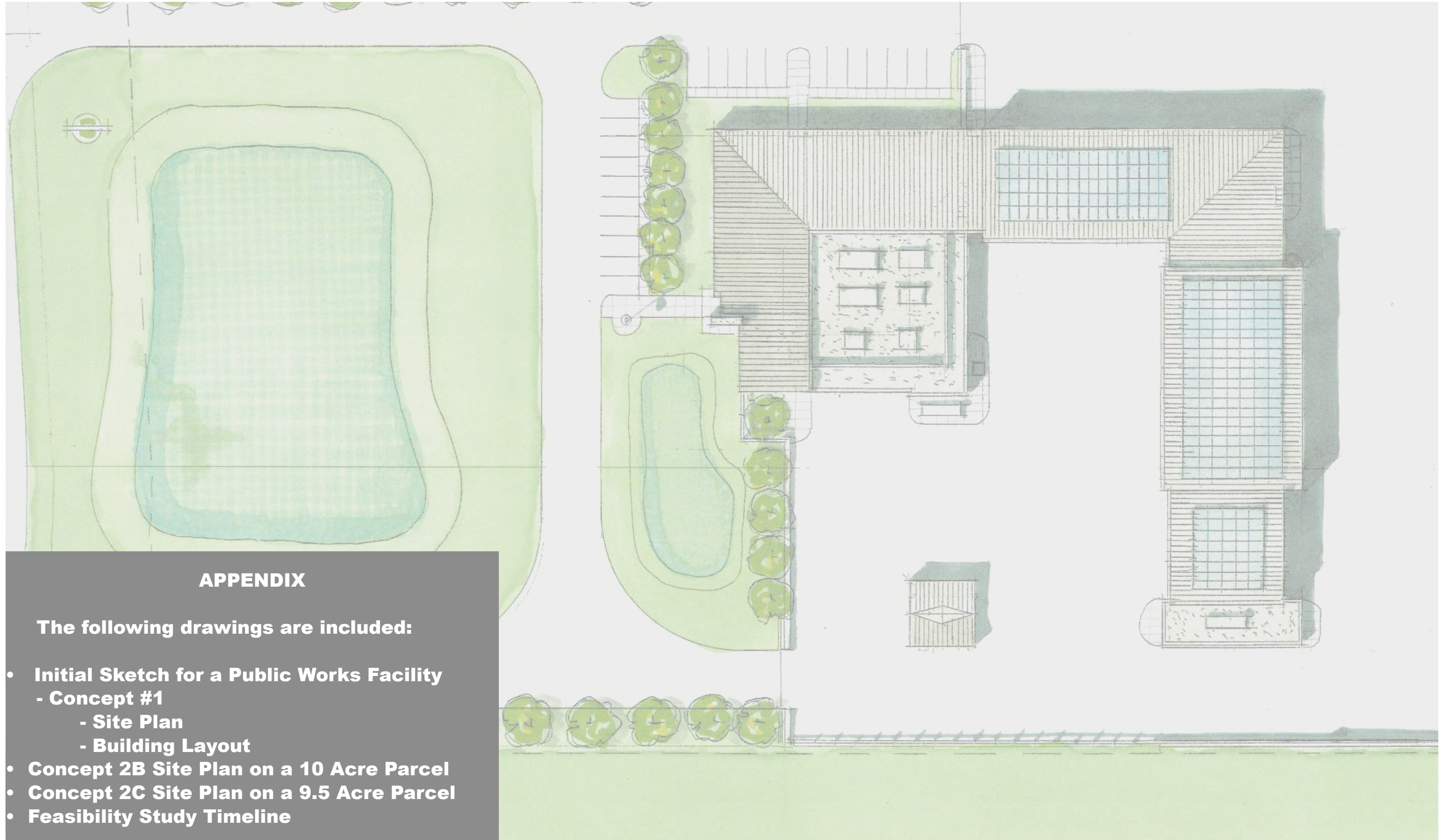
Lower Gwynedd Township

New Public Works Facility

Concept # 2d



Floor Plan



APPENDIX

The following drawings are included:

- **Initial Sketch for a Public Works Facility**
 - **Concept #1**
 - **Site Plan**
 - **Building Layout**
- **Concept 2B Site Plan on a 10 Acre Parcel**
- **Concept 2C Site Plan on a 9.5 Acre Parcel**
- **Feasibility Study Timeline**

Lower Gwynedd Township
New Public Works Facility
Concept #1

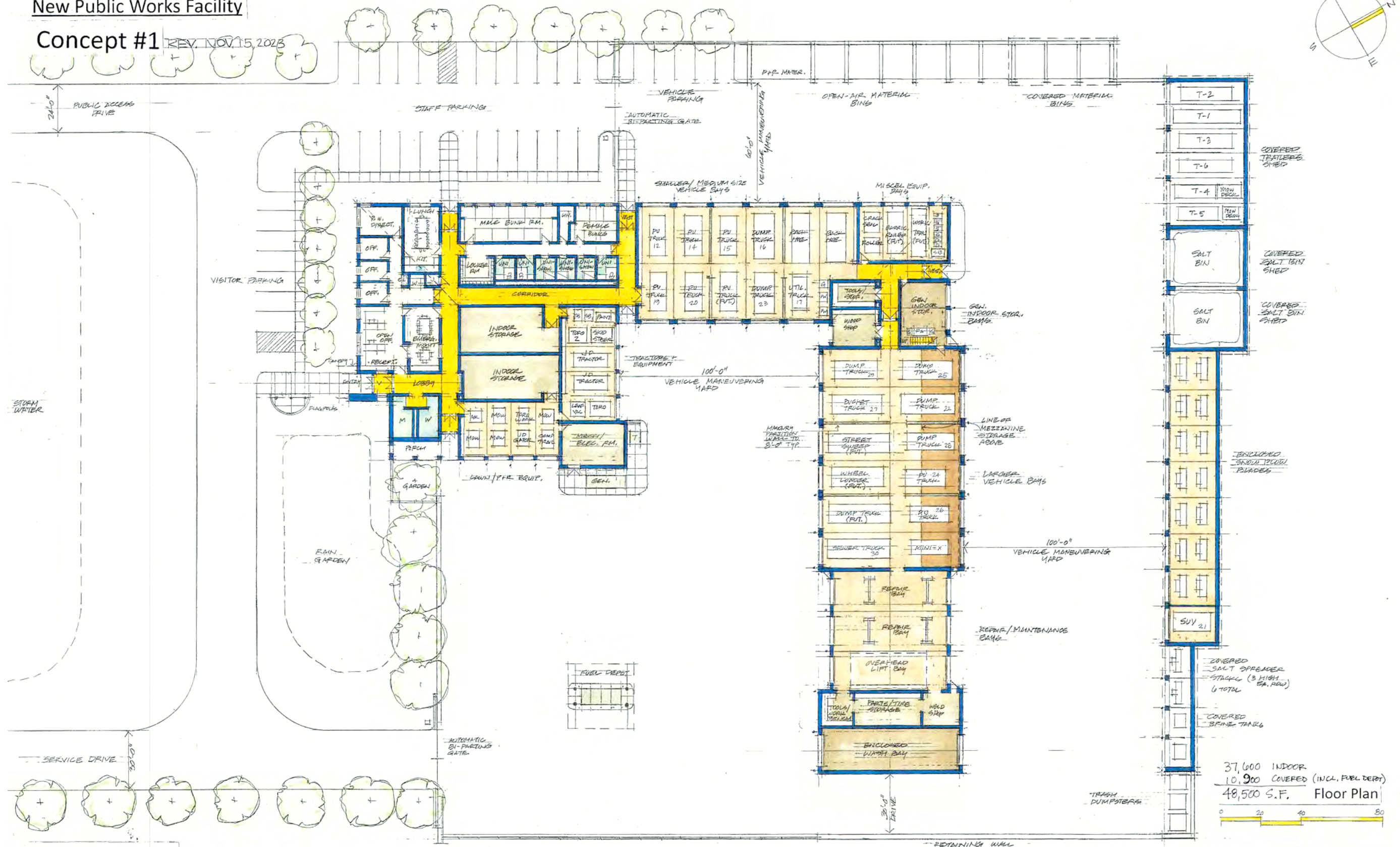
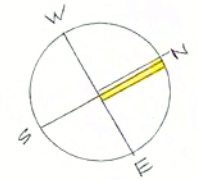


Site Plan

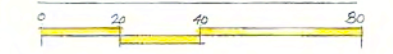


Lower Gwynedd Township
New Public Works Facility

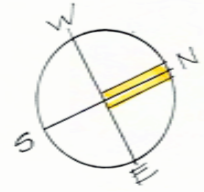
Concept #1 REV. NOV. 15, 2023



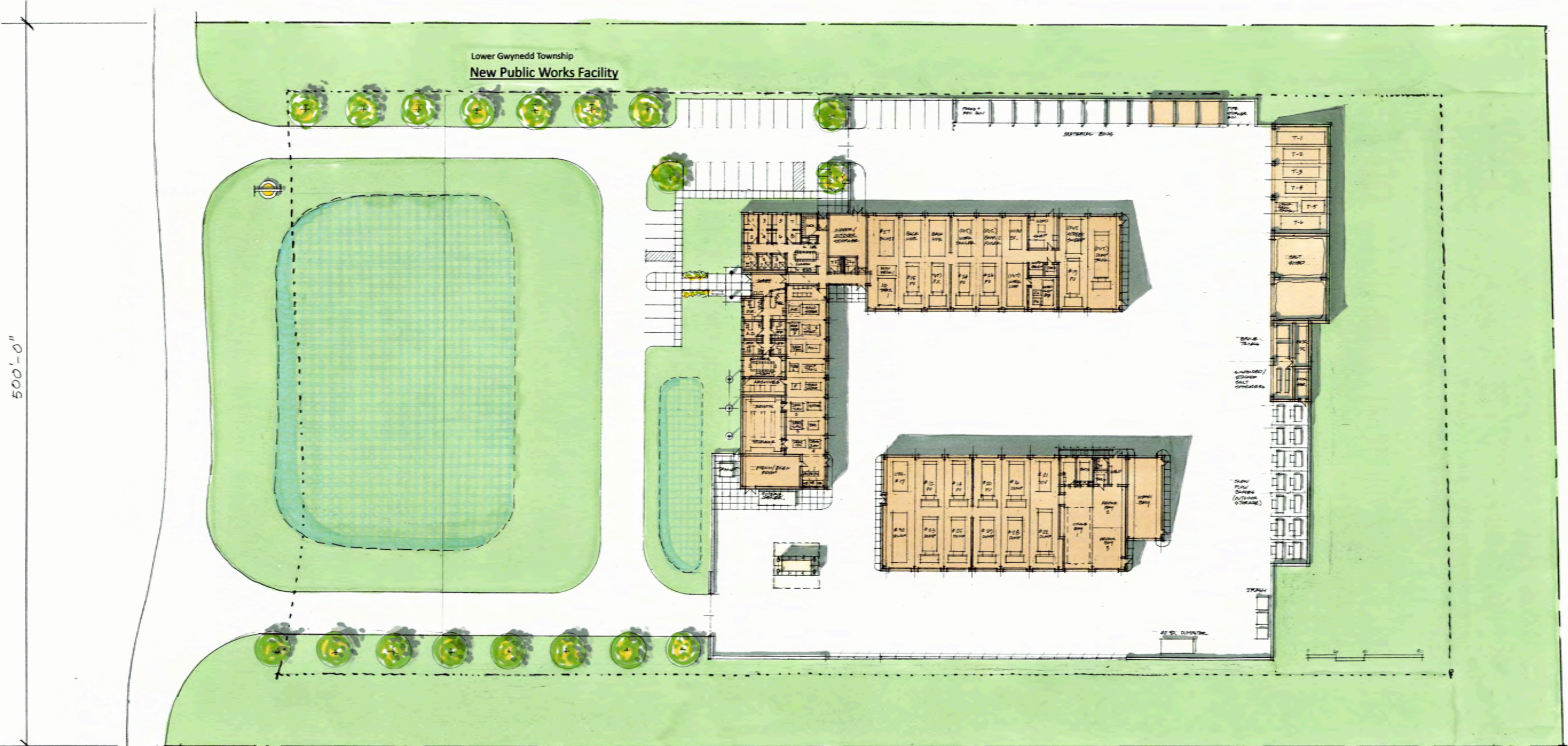
37,000 INDOOR
10,900 COVERED (INCL. FUEL DEP.)
48,500 S.F. Floor Plan



Concept # 2b



Lower Gwynedd Township
New Public Works Facility

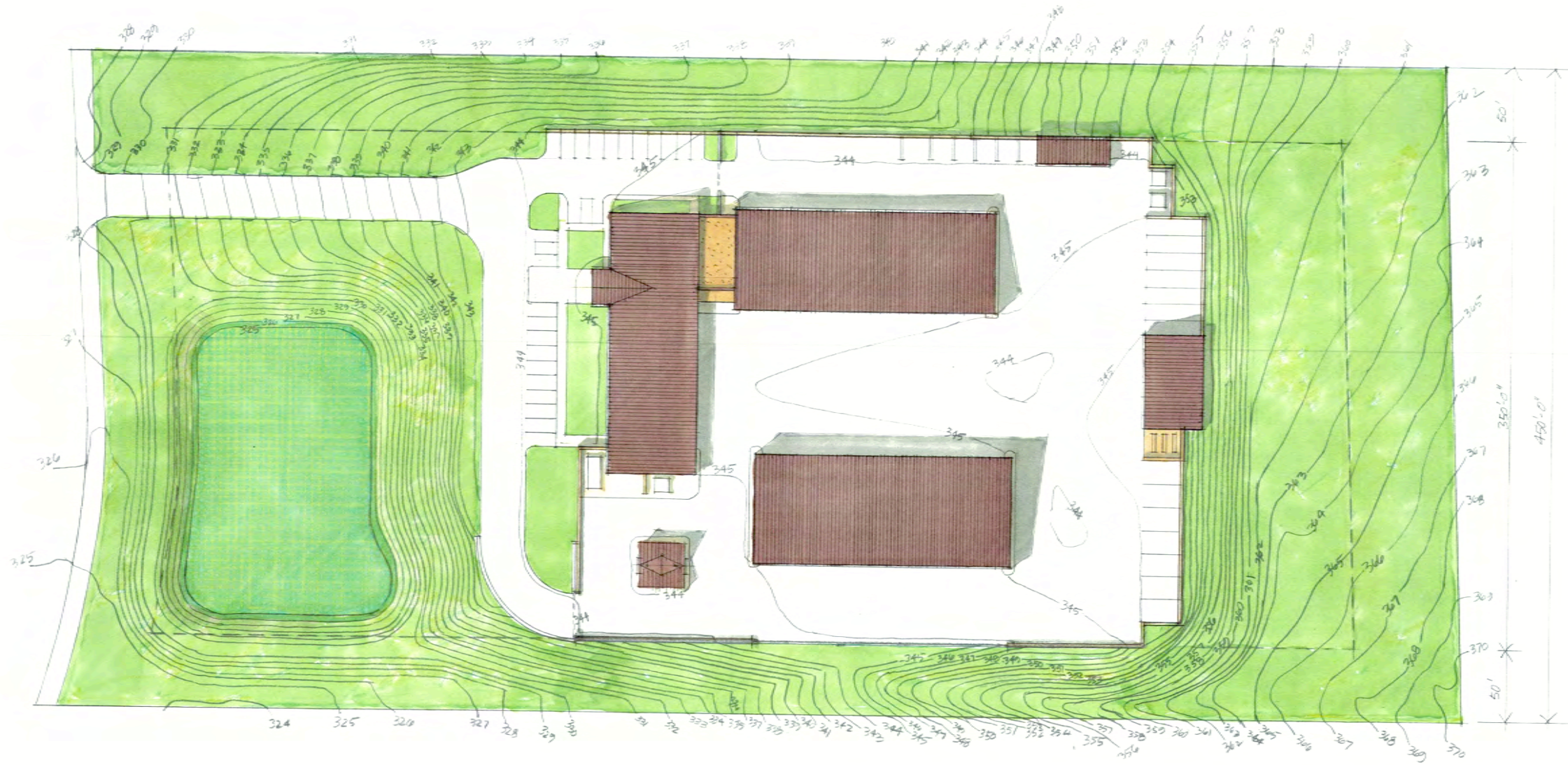
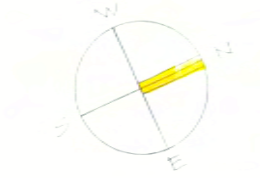


Site Plan

Lower Gwynedd Township

New Public Works Facility

Concept # 2c



Site Plan

PROJECT SCHEDULE	2023						2024					
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
FEASIBILITY STUDY/ CONCEPTS				(Phase 1) Research and Data Collection		(Phase 2) Facility Programming Analysis	(Phase 3) Conceptual Designs	Develop Selection Concept		FINAL REPORT	Report Presentation to LGT	
OWNER REVIEW / COLLABORATION				Feasibility Study Workshops					March 13 Collaborative Workshop			