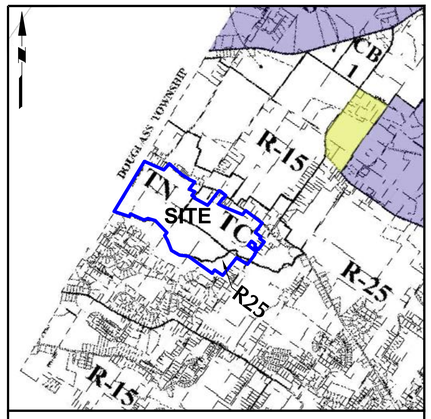
NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

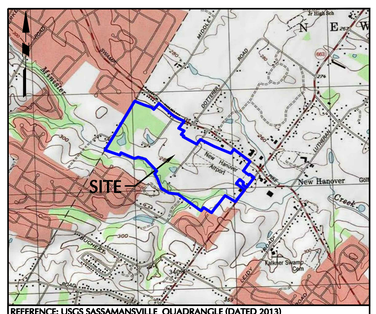
PRELIMINARY SUBDIVISION AND LAND DEVELOPMENT PLANS



ZONING MAP

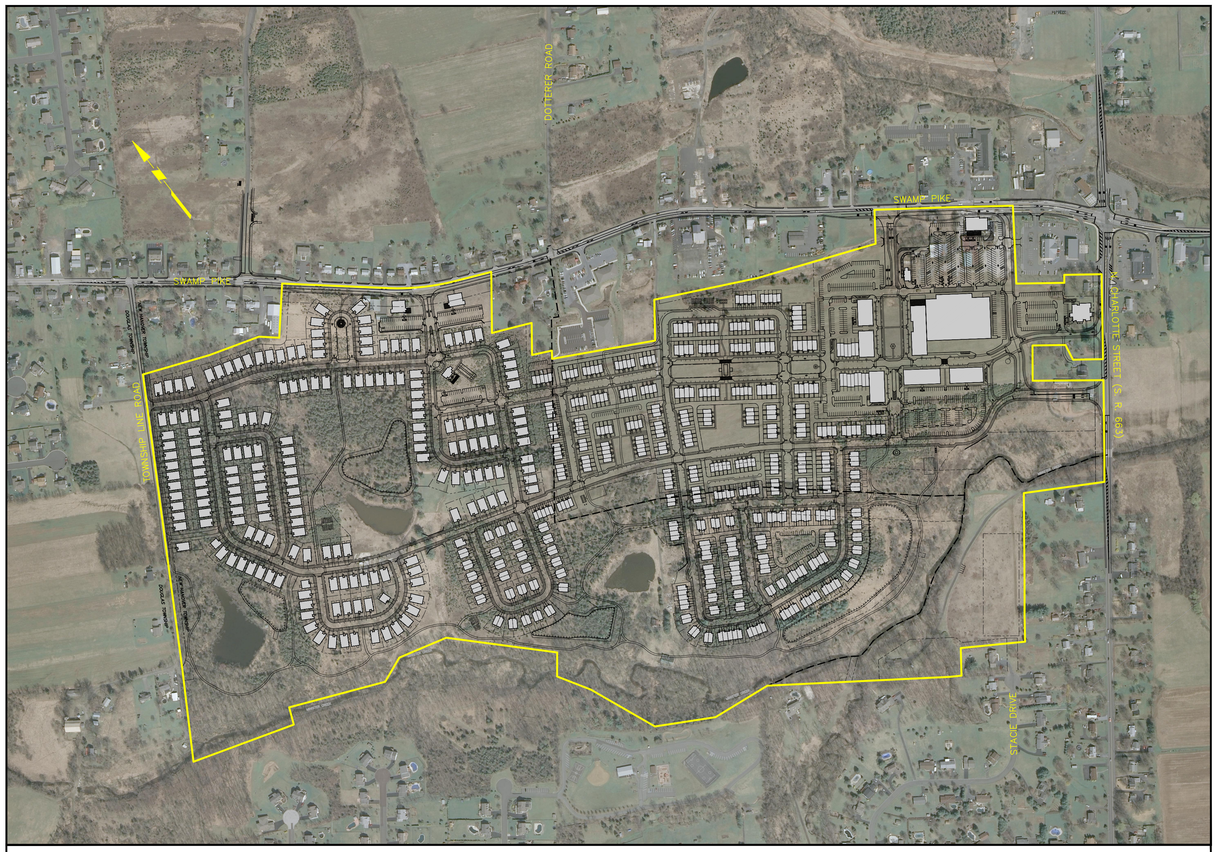
1" = 2000'

REFERENCE: NEW HANOVER TOWNSHIP (LAST REVISION: APRIL 26, 2004)



REFERENCE: USCS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



REFERENCE: AERIAL PHOTOGRAPHY PROVIDED BY PENNSYLVANIA SPATIAL DATA ACCESS (PASDA) DATED 2010.

SITE PLAN SCALE 1" = 300'

CONTACTS

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METROPOLITAN EDISON COMPANY (MET-ED)
2800 POTTSVILLE PIKE
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PHONE 610-984-8500
EMAIL jengelhardt@langan.com

GENERAL SITE NOTES:

1. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor is solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all specific instructions required for sitework construction. The Contractor is responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction.

2. The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner and Engineer make no guarantee in regard to the accuracy of any information that was obtained during investigations. The Contractor shall: make a thorough site inspection in order to field check existing site conditions; correlate conditions with the drawings; and, resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall perform additional topographic surveys he/she deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.

3. The Contractor shall, when he/she deems necessary, provide a written Request for Information (RFI) to the Owner and/or Owner's designated representative, and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and/or Owner's designated representative, and Engineer and shall allow for a minimum of three work days for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.

4. Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to bid. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the format of an RFI prior to bid.

5. There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.

6. Contractor is specifically cautioned that all construction stakeout for this project must be completed from the site specific survey control (horizontal and vertical) upon which the design is based. The contractor should not rely on or re-establish survey control by GPS or other methods for use in construction stakeout or any other purpose for this project. Any discrepancies between the existing horizontal or vertical data shown on these drawings and that encountered in the field must be reported to the design team prior to construction for resolution.

SHEET INDEX

SHEET NO.	DRAWING No.	DESCRIPTION	DRAWING SCALE	LAST REVISED DATE
* 1 OF 187	GI-001	COVER SHEET	AS SHOWN	12/13/2019
* 2 OF 187	GI-002	PROJECT CALCULATION SUMMARY PLAN	N.T.S.	12/13/2019
3 OF 187	VT-100	MASTER EXISTING FEATURES PLAN	1" = 200'	12/13/2019
4-12 OF 187	VT-101 to VT-109	EXISTING FEATURES PLANS	1" = 50'	12/13/2019
* 13 OF 187	CB-100	MASTER SUBDIVISION PLAN	1"= 150'	12/13/2019
* 14-24 OF 187	CB-101 to CB-111	SUBDIVISION PLAN	1" = 50'	12/13/2019
* 25 OF 187	CS-100	MASTER SITE PLAN	1" = 200'	12/13/2019
26-34 OF 187	CS-101 to CS-109	SITE PLANS	1" = 50'	12/13/2019
35 OF 187	CS-200	PHASING PLAN	1"=150'	12/13/2019
36 OF 187	CS-201	ROAD CLASS PLAN	1"=150'	12/13/2019
37-38 OF 187	CS-301 to CS-302	EMERGENCY TRUCK TURN PLAN	1"=30'	12/13/2019
39-40 OF 187	CS-303 to CS-304	42' FIRE TRUCK TURN PLAN	1"=80'	12/13/2019
41 OF 187	CS-305	31' FIRE TRUCK TURN PLAN	1"=80'	12/13/2019
42 OF 187	CS-306	FIRE HYDRANT PLAN	1"=120'	12/13/2019
43-44 OF 187	CS-307 to CS-308	DELIVERY TRUCK TURN PLAN	1"=30'	12/13/2019
45 OF 187	CS-309	WB-40 TRUCK TURN PLAN	1"=50'	12/13/2019
46 OF 187	CS-310	WB-62 TRUCK TURN PLAN	1"=50'	12/13/2019
47-48 OF 187	CS-311 to CS-312	GARBAGE TRUCK TURN PLAN	1"=40'	12/13/2019
49-50 OF 187	CS-501 to CS-502	SITE DETAILS	N.T.S.	12/13/2019
51 OF 187	CS-503	ROADWAY SECTION PLAN	N.T.S.	12/13/2019
* 52 OF 187	CG-100	MASTER GRADING AND DRAINAGE PLAN	1" = 150'	12/13/2019
53-61 OF 187	CG-101 to CG-109	GRADING PLANS	1" = 50'	12/13/2019
62 OF 187	CG-110	BUILDING ELEVATION TABLES	N.T.S.	12/13/2019
63-71 OF 187	CG-201-CG-209	DRAINAGE PLANS	1" = 50'	12/13/2019
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82-86 OF 187	CG-501 to CG-505	POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS	N.T.S.	12/13/2019
87 OF 187	CE-100	MASTER SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 1	1" = 150'	12/13/2019
88-96 OF 187	CE-101 to CE-109	SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 1	1" = 50'	12/13/2019
97 OF 187	CE-200	MASTER SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 2	1" = 150'	12/13/2019
98-107 OF 187	CE-201 TO CE-209	SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 2	1" = 50'	12/13/2019
108-110 OF 187	CE-501 TO CE-504	SOIL EROSION AND SEDIMENT CONTROL DETAIL	N.T.S.	12/13/2019
111 OF 187	CU-100	MASTER UTILITY PLAN	1" = 150'	12/13/2019
112-120 OF 187	CU-101 to CU-109	UTILITY PLANS	1" = 50'	12/13/2019
121-152 OF 187	CG-301 to CG-332	ROADWAY & UTILITY PROFILES	H:1" = 40' V:1" = 4'	12/13/2019
153-155 OF 187	CG-601 to CG-603	OFF-ROAD DRAINAGE PROFILES	H:1" = 40' V:1" = 4'	12/13/2019
156-157 OF 187	CG-604 to CG-605	SANITARY PROFILES	H:1" = 40' V:1" = 4'	12/13/2019
158-159 OF 187	CU-501 to CU-502	SANITARY SEWER DETAILS	N.T.S.	12/13/2019
160 OF 187	CU-503	WATER DETAILS	N.T.S.	12/13/2019
161 OF 187	CU-504	TYPICAL SERVICE CONNECTION DETAILS	1"=10'	12/13/2019
162 OF 187	LP-600	PROPOSED TREE DISTURBANCE PLAN	1" = 150'	12/13/2019
163 OF 187	L1.0	POST CONSTRUCTION STORMWATER OVERALL LANDSCAPE PLAN	1" = 150'	12/13/2019
164 OF 187	L1.1	CODE REVIEW	1" = 200'	12/13/2019
165-170 OF 187	L2.1 to L2.6	LANDSCAPE PLANS	1" = 50'	12/13/2019
171 OF 187	L3.0	OVERALL LIGHTING PLAN	1" = 150'	12/13/2019
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182 OF 187	L5.1	LANDSCAPE DETAILS AND NOTES	VARIOUS	12/13/2019
183 OF 187	L5.2	TYPICAL LIGHTING DETAILS	VARIOUS	12/13/2019
184-186 OF 187	L5.3 to L5.5	HARDSCAPING DETAILS	VARIOUS	12/13/2019
187 OF 187	L5.6	WALLS, PIER AND SIGNAGE DETAILS	VARIOUS	12/13/2019

* DENOTES PLANS TO BE RECORDED

• SUPPLEMENTAL DRAWING: "NEW HANOVER, BOUNDARY AND TOPOGRAPHIC SURVEY" BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES, DRAWING No. VT-101, DATED 1/20/16, LAST REVISED 8/07/17.

CERTIFICATION OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PREPARED BY ME OR UNDER MY DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY. THE PERIMETER MONUMENTS SHALL BE ACCURATELY PLACED AS REQUIRED BY THE TOWNSHIP. _____ 20_____

_____
JASON ENGELHARDT
PROFESSIONAL ENGINEER PA LIC. NO. PE-057145-E

CERTIFICATION OF OWNERSHIP

(RP WYNSTONE, L.P., AT REALTY, LP. AND AKM PROPERTIES, LP., TROLLEYLINE ENTERPRISES, L.P., GENERAL HANCOCK PARTNERSHIP LP.)

I _____
HAVE LAID OUT UPON MY LAND SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED.

WITNESS MY HAND AND SEAL THIS _____DAY OF _____ 20_____.

_____ _____
PRINTED NAME SIGNATURE

COMMONWEALTH OF PENNSYLVANIA COUNTY OF MONTGOMERY
ON THE _____DAY OF _____ 20_____ BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA,

PERSONALLY APPEARED _____ WHO ACKNOWLEDGED

HIMSELF TO BE THE _____

A CORPORATION, AND THAT HE AS SUCH PRESIDENT BEING AUTHORIZED TO DO SO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF STREETS AND PROPERTY SHOWN THEREON, SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA AND DESIRED THAT THIS PLAN BE RECORDED ACCORDING TO LAW.
WITNESS MY HAND AND SEAL THE DAY AND YEAR AFORESAID.

_____ _____
NOTARY PUBLIC MY COMMISSION EXPIRES

MONTGOMERY COUNTY PLANNING COMMISSION

THIS SUBDIVISION/LAND DEVELOPMENT WAS REVIEWED BY THE MONTGOMERY COUNTY PLANNING COMMISSION ON THE _____ DAY OF _____ 20_____

(SEAL): _____
MCPC NUMBER: _____

CERTIFICATION OF TOWNSHIP APPROVAL

AT A MEETING HELD ON _____ 20_____ THE TOWNSHIP SUPERVISORS OF NEW HANOVER TOWNSHIP BY _____(RESOLUTION OR ORDINANCE No.) DULY ENACTED, APPROVED THE SUBDIVISION / LAND DEVELOPMENT PLAN OF THE PROPERTY OF RP WYNSTONE (PROPERTY OWNER)

_____ _____ _____ _____
(TOWNSHIP SECRETARY) (CHAIRMAN OF THE BOARD OF SUPERVISORS)

NEW HANOVER PLANNING COMMISSION

REVIEWED BY THE NEW HANOVER TOWNSHIP PLANNING COMMISSION AND RECOMMENDED FOR APPROVAL ON THE _____ DAY OF _____ 20_____

_____ _____
(PLANNING COMMISSION CHAIRMAN)

NEW HANOVER TOWNSHIP ENGINEER

REVIEWED BY THE TOWNSHIP ENGINEER OF THE _____ DAY OF _____ 20_____

_____
(TOWNSHIP ENGINEER)

COUNTY RECORDER OF DEEDS

RECORED I THE OFFICE OF RECORDER OF DEEDS FOR MONTGOMERY COUNTY, AT NORRISTOWN, PENNSYLVANIA, THIS _____ DAY OF _____ 20_____

BY:_____ RECORDING CERTIFICATE:
RECORDER OF DEEDS

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441546
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 KNOW WHAT'S BELOW BEFORE YOU DIG

CALL BEFORE YOU DIG
IN PA, TOLL FREE
1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
*** IT'S THE LAW ***

No.	Description	Date
1.	REVISED PER COMMENT LETTERS	12-13-19
2.	REVISED PER COMMENT LETTERS	4-07-17
3.	REVISED PER COMMENT LETTERS	8-04-17
4.	REVISED PER COMMENT LETTERS	1-31-18
5.	REVISED PER COMMENT LETTERS	11-08-17
6.	REVISED PER MCCD COMMENTS	6-01-18
7.	REVISED PER COMMENT LETTERS	11-09-18
8.	REVISED PER COMMENT LETTERS	12-13-19

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT

SIGNATURE JASON ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
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ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering, Environmental Services, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
COVER SHEET

Project No.	240038801
Date	05/31/16
Scale	AS SHOWN
Drawn By	KG
Submission Date	
Drawing No.	GI-001
Sheet	1 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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Filename: \\langan.com\data\BET\data\240038801\Cadd Data - 240038801\SheetFiles\240038801 GI001.dwg Date: 12/13/2019 Time: 14:40 User: wschaefer Style Table: Langan.stb Layout: GI-100

ZONING REQUIREMENTS

OVERALL DEVELOPMENT SUMMARY						
	TOTAL REQUIRED/PERMITTED	PROPOSED				
		TC	TN	R-25	TOTAL	PERCENTAGES
GROSS SITE AREA		64.647 Ac.	119.328 Ac.	11.802 Ac.	195.797 Ac.	
Less ultimate R.O.W. of existing streets and easements in R-25		1.321 Ac.	1.925 Ac.	0.245 Ac.	3.491 Ac.	
Gross Lot Area		**63.325 Ac.**	**117.403 Ac.**	**11.576 Ac.**	**192.305** Ac.	**100%**
MIXED USE REQUIREMENTS						
Non-Residential Uses	28.034 Ac. Min. / 72.754 Ac. Max.	26.907 Ac.	3.635 Ac.	0 Ac.	30.542 Ac.	16%
Residential Uses	61.868 Ac. Min. / 89.44 Ac. Max.	25.491 Ac.	54.754 Ac.	1.742 Ac.	81.987 Ac.	43%
Open Space / Resource Protection	69.078 Ac.	8.197 Ac.	51.451 Ac.	9.834 Ac.	69.482 Ac.	36%
Internal Open Space & Recreation Areas	20.723 Ac.	8.197 Ac.	10.691 Ac.	2.009 Ac.	20.898 Ac.	30% [1, 2]
Stormwater Management Areas		0 Ac.	7.563 Ac.	0.000 Ac.	7.563 Ac.	4%
DENSITY						
Max. Residential Dwelling Units Permitted	669 DU	189 DU	446 DU	34 DU		
Residential Dwelling Units Provided		303 DU	365 DU	1DU	669 DU [3, 4]	
Non-Residential Use Area Proposed		26.907 Ac.	3.635 Ac.	0.00 Ac.	30.542 Ac.	
Non-Residential Floor Area Proposed		308,500 SF	18,710 SF	0 SF	327,210 SF	
Non-Residential Floor Area Ratio	0.25 min. / 0.60 max.	0.26	0.12	0.00	0.25 [5]	

NOTES:
1. The development received Preliminary Plan approval in October, 2007 under an older version of the code, which did not require internal open space in the TN District, however, the 30% calculation is provided for comparison.
2. Reflects percentage of open space provided as internal open space and recreation areas to total open space/resource protection proposed.
3. A total of 761 DU was approved on the Preliminary Plan on October 22, 2007, It is the goal of these plans to reorganize the unified TC-TN Development to better suit market demand, and to provide more useable open space throughout the interior of the development, not to gain density.
4. The 2nd and 3rd story dwellings proposed in Flex Buildings 4 through 8 are not included in the total proposed dwelling unit density count.
5. The floor area of the 2nd, 3rd and 4th stories of Flex Buildings 4 through 8 are counted as non-residential floor area.

TC DISTRICT REQUIREMENTS					
	REQUIRED / PERMITTED	PROPOSED	PERCENTAGES	AREA PROVIDED ON APPROVED PLANS [1]	PERCENTAGES
GROSS DISTRICT AREA		64.647 Ac.		64.80 Ac. [1]	100%
Less ultimate R.O.W. of existing streets		1.321Ac.			
Gross Lot Area		63.325 Ac.	100%		
MIXED USE REQUIREMENTS					
Non-Residential (35% min. / 50% max. of gross area)	22.164 Ac. Min. / 31.663 Ac. Max.	26.907 Ac.[4]	42%	28.6 Ac.	44%
Residential (5% min. / 30% max.)	3.166 Ac. Min. / 18.998 Ac. Max.	25.491 Ac.	40%	27.3 Ac.	42%
Min. Open Space (35%)	22.164 Ac.	8.197 Ac.	13%	8.3 Ac.	13%
Internal O.S. & Recreation Areas (30% of min.)	6.649 Ac.	8.197 Ac.	100% [2]	3.81 Ac.	46% [2]
Internal O.S. & Recreation Areas within underlying zoning district (50% of min.)	3.325 Ac.	8.197 Ac.	123% [8]		
DENSITY					
Area of Residential Use	18.998 Ac.				
Max. Density (10 DU/Acre)	189 DU	303 DU		330 DU[6]	
Area of Non-Residential Use		26.907 Ac.			
Min./Max. Non Residential FAR (0.25 min. / 0.60 max) [5]	241,365 SF, Min. / 827,537 SF. Max.	308,500 SF	0.26 [7]	310,350 SF	0.25

NOTES:
1. The site is being developed under the regulations for a Unified Development of a Tract within the TC and TN Districts, therefore some individual values may be greater or less than permitted within each district area. See Development Summary chart for combined values.
2. The previously approved plan included 0.51 Acres for driveway access to Swamp Pike, which is omitted in this proposal.
3. Reflects the percentage of internal open space and recreational areas to the amount of the overall provided open space.
4. The underground stormwater basin area was not excluded from the proposed non-residential area.
5. The FAR was determined by multiplying (0.25 min. / 0.60 max) by the minimum and maximum permitted Non-Residential area within the TC district.
6. The 2nd, 3rd and 4th story dwellings proposed in Flex Buildings 4 through 8 are not included in the total proposed dwelling unit density count.
7. The floor area of the 2nd, 3rd and 4th stories of Flex Buildings 4 through 8 are counted as non-residential floor area.
8. At least 50% of the area of required internal open space for each underlying zoning district shall be provided in the underlying zoning district area,

TN DISTRICT REQUIREMENTS					
	REQUIRED / PERMITTED	PROPOSED [1]	PERCENTAGES	AREA PROVIDED ON APPROVED PLANS [1]	PERCENTAGES
GROSS DISTRICT AREA		119.328 Ac.		125.2 Ac.	100%
Less ultimate R.O.W. of existing streets		1.925 Ac.			
Gross Lot Area		117.4035 Ac.	100%		
MIXED USE REQUIREMENTS					
Non-Residential (5% min. / 35% max. of gross area)	5.87 Ac. Min. / 41.091 Ac. Max.	3.635 Ac.[2]	3%	1.1 Ac.	1%
Residential (50% min. / 60% max.)	58.702 Ac. Min. / 70.4421 Ac. Max.	54.754 Ac.[2]	47%	64.2 Ac.	51%
Stormwater Management Easement Areas		7.563 Ac.	6%		
Min. Open Space (35%)		41.0912 Ac.	51.451 Ac.	44%	56.6 Ac. [3]	45%
Internal O.S. & Recreation Areas (30% of min.)		12.327 Ac.	10.691 Ac.	21% [4]	4.0 Ac.	7% [4]
Internal O.S. & Recreation Areas within underlying zoning district (50% of min.)		6.164 Ac.	10.691 Ac.	87% [7]		
DENSITY					
Area of Proposed Residential Use & Min. required Open Space		111.533 Ac.			120.8 Ac. [3]
Max. Density (4 DU/Acre)		446 DU	365 DU		418 DU
Area of Non-Residential Use			3.635 Ac.		
Min./Max. Non Residential FAR (0.25 min. / 0.60 max) [5]	63.926 SF. Min. / 1,073,960 SF. Max.	18,710 SF	0.12	17,150 SF	0.35

NOTES:
1. The site is being developed under the regulations for a Unified Development of a Tract within the TC and TN Districts, therefore some individual values may be greater or less than permitted within each district area. See Development Summary chart for combined values.
2. Areas do not include stormwater management facilities within the limits of the stormwater management easements provided.
3. Area includes 9 acres of stormwater management areas.
4. Reflects the percentage of internal open space and recreational areas to the amount of the overall provided open space.
5. The FAR was determined by multiplying (0.25 min. / 0.60 max) by the minimum and maximum permitted Non-Residential area within the TN district.
6. The proposed Non Residential FAR listed includes the proposed clubhouse floor area (1,190 SF) and proposed Office Building A and B (16,800 SF).
7. At least 50% of the area of required internal open space for each underlying zoning district shall be provided in the underlying zoning district area.

NEW HANOVER TOWN CENTER STREET / ALLEY LENGTHS

ROAD NAME	LENGTH
Andover Drive	2,182 FT
Bowman Court	543 FT
Davenport Drive	478 FT
E. Fluharty Drive	338 FT
E. Vanderbilt	250 FT
E. Main Street	902 FT
E. Main Street (one way)	435 FT
Fluharty Drive	387 FT
Hudson Lane	767 FT
Lexington Drive	1,172 FT
Vanderbilt Drive	5,231 FT
Meadow Wood Lane	919 FT
Melbourne Lane	897 FT
N. Vanderbilt Drive	663 FT
N. Main Street	783 FT
Oakland Way	533 FT
S. Fluharty Drive (northbound)	388 FT
S. Fluharty Drive (southbound)	388 FT
S. Main Street	783 FT
South Gate Drive	2,134 FT
Tillman Street	335 FT
W. Fluharty Drive	338 FT
W. Main Street	819 FT
West View Drive	2,499 FT
Worthington Lane	1,114 FT
Alley AA	677 FT
Alley BB	581 FT
Alley CC	515 FT
Alley DD	331 FT
Alley EE	306 FT
Alley FF	276 FT
Alley JJ	386 FT
Alley KK	202 FT
Alley L	268 FT
Alley LL	250 FT
Alley M	228 FT
Alley N	265 FT
Alley O-1	287 FT
Alley O-2	284 FT
Alley OO	124 FT
Alley P	258 FT
Alley R	429 FT
Alley S	487 FT
Alley T	821 FT
Alley U	270 FT
Alley Y	773 FT
Alley Z	225 FT

SITE CAPACITY SUMMARY R-25 DISTRICT

BASE SITE AREA	AREA (Ac.)
Gross Site Area in R-25 District	11.822 Ac.
Less ultimate R.O.W. of existing streets and Existing Utility Easements	0.245 Ac.
Base Site Area	**11.576 Ac.**
RECREATION LAND	
Base Site Area	11.576 Ac.
Less Land w/ Restrictions [1]	6.193 Ac.
Remainder	5.383 Ac.
Multiply by 1/3 Min. Open Space Ratio for Recreation Land (40%)	**.711 Ac.**
RESOURCE PROTECTION & RECREATION LAND	
Resource Protection Land [1]	5.112 Ac.
Add Recreation Land	.711 Ac.
Total	**5.823 Ac.**
STANDARD MIN. OPEN SPACE	
Base Site Area	11.576 Ac.
Multiply by Min. Open Space Ratio (40%)	**4.631 Ac.**
REQUIRED OPEN SPACE	
> of Resource Protection/ Recreation or the Standard Min. Open Space	**5.823 Ac.**
NET BUILDABLE AREA	
Base Site Area	11.576 Ac.
Less Required Open Space	5.823 Ac.
Net Buildable Area	**5.753 Ac.**
MAXIMUM DENSITY	
Base Site Area	11.576 Ac.
Multiply by 3.0 for Max. Density [2]	34 DU
IMPERVIOUS SURFACES	
Base Site Area	11.576 Ac.
Multiply by 0.3 for Max. Impervious Surfaces	3.473 Ac.

SITE CAPACITY SUMMARY	Required	Proposed
Base Site Area		11.576 Ac.
Min. Required Open Space	5.823 Ac.	9.834 Ac.
Net Buildable Site Area	5.753 Ac.	1.742 Ac. [2]
Max. Number of Dwelling Units	34 DU	1 DU [3]

NOTES:
1. See the R-25 Resource Protection Summary for breakdown of R-25 district natural resources.
2. Area includes 1.742 AC. of remaining Kulp property.
3. One existing lot to remain, The permitted density is being applied to the Unified Development of a Tract.

HOUSING SUMMARY TABLES

HOUSING TYPES					
Proposed Residential	Proposed # Units, TN	Proposed # Units, TC	Proposed # Units, R-25	Total	Ratio
B1 Detached Dwelling [1]	0	1	1	2	0.3%
B2(3) Village House	189	0	0	189	28%
B2(4) Twins	98	0	0	98	15%
B2(8) Atrium House	78	3	0	81	12%
B2(10) Townhouse	0	285	0	285	43%
B2(12) Mixed Use Multi-family	0	14	0	14	2%
Totals:	365	303	1	669	100%

NOTES:
1. The proposed detached dwelling total includes two existing lots to remain.

RESIDENTIAL DEVELOPMENT STANDARDS			
HOUSING TYPE	PERFORMANCE STANDARD DEVELOPMENT REQUIREMENTS	TN/TC DEVELOPMENT STANDARDS REQUIREMENTS	PROPOSED
B1 Residential in R-25			
Lot Area, Min,	15,000 SF [1]	N/A	75,896 SF [2]
Lot Area, Average	N/A	N/A	75,896 SF
Building Coverage, Max,	20%	N/A	3.5%
Lot Width, Min,	94 FT	N/A	189 FT
Front Yard Setback, Min,	40 FT	N/A	285 FT
Side Yard Setback, Min,	15 FT	N/A	24 FT
Rear Yard Setback, Min,	30 FT	N/A	41 FT
B2 (3) Village House			
Lot Area, Min,	6,000 SF	4,500 SF	5,250 SF
Lot Area, Average	N/A	N/A	6,159 SF
Building Coverage, Max, [3]	35%	N/A[4]	N/A[4]
Lot Width, Min,	50 FT	30 FT [5]	50 FT [5]
Front Yard Setback House/Garage, Min,	15 FT / 25 FT	0 FT [5]	0 FT [5]
Side Yard Setback House/Garage, Min,	5 FT / 5 FT	3,75 FT	5 FT / 5 FT
Rear Yard Setback House/Garage, Min,	30 FT / 30 FT	22,5 FT [5]	22,5 FT
Setback from Cartway, Min,	N/A	15 FT [5]	30 FT
Setback from ROW	N/A	0 FT [5]	19 FT
Front Setback, Max,	N/A	20 FT [5]	20 FT
Building Height, Max,	N/A	40 FT	40 FT
B2 (4) Twins			
Lot Area, Min,	4,000 SF	3,000 SF	3,003 SF
Lot Area, Average,	N/A	N/A	3,409 SF
Building Coverage, Max,	35%	N/A[4]	N/A[4]
Front Yard Setback, Min,	30 FT	0 FT [5]	12 FT
Side Yard Setback, Min,	10 FT	7,5 FT	7,5 FT
Rear Yard Setback, Min,	20 FT	15 FT [5]	15 FT
Lot Width at Setback, Min,	30 FT	18 FT [5]	30 FT
Setback from Cartway, Min,	N/A	15 FT [5]	18 FT
Setback from ROW	N/A	0 FT [5]	0 FT [5]
Front Setback, Max,	N/A	20 FT [5]	22,5 FT
Building Height, Max,	N/A	40 FT	40 FT
B2 (8) Atrium House			
Lot Area, Min,	2,000 SF	1,500 SF	2,160 SF
Lot Area, Average	N/A	N/A	2,779 SF
Lot Width, Min,	40 FT	24 FT [5]	24 FT
Building Coverage, Max,	65%	N/A[4]	N/A[4]
Courtyard Area, Min,	20%	15%	TBD
Cl.yd. Dimension, Min,	12 FT	9 FT	TBD
Side Yard Setback, Min,	N/A	N/A	9 FT
Rear Yard Setback, Min,	N/A	N/A	17,5 FT
Setback from Cartway, Min,	N/A	15 FT [5]	20 FT
Setback from ROW	N/A	0 FT [5]	0 FT [5]
Front Setback, Max,	N/A	20 FT [5]	20 FT
Building Height, Max,	35 FT	40 FT	40 FT
B2 (10) Townhouses			
Units per Bldg, Max,	5	N/A	5
Lot Area, Min,	2,000 SF	1,500 SF	1,500 SF
Lot Area, Average	N/A	N/A	1,782 SF
Lot Width, Min,	22 FT	13,2 FT [5]	20 FT
Building Coverage, Max,	50%	N/A[4]	N/A[4]
Setback from Street Line, Min,	30 FT	0 FT [5]	0 FT [5]
Setback from Parking, Min,	10 FT	7,5 FT	20 FT
Setback from Walk, Min,	5 FT	3,75 FT	11 FT
Rear Yard Setback, Min,	20 FT	15 FT	15 FT
Building Spacing, Min,	30 FT	22,5 FT	22,5 FT
Setback from Cartway, Min,	N/A	15 FT [5]	22 FT
Setback from ROW	N/A	0 FT [5]	0 FT [5]
Front Setback, Max,	N/A	20 FT [5]	17 FT
Building Height, Max,	40 FT	40 FT	40 FT
B2 (12) Mixed Use Multifamily			
Building Façade Offset	4 FT every 40 FT	N/A	4 FT every 40 FT
Setback from Cartway, Min,	N/A	15 FT [5]	15 FT
Setback from ROW	N/A	0 FT [5]	4 FT
Front Setback, Max,	N/A	20 FT [5]	4 FT

NOTES:
1 With Township operated water & sewer services.
2 The proposed information shown in the R-25 district pertains to the DD-1 unit which is an existing lot to remain and the only lot within the R-25 district.
3 Measured at the max front yard setback line. TC/TN district lot widths are permitted to be reduced by 60% of the requirement of permitted use.
4 Building coverage requirements are not listed in the TN or TC development standards sections.
5 Per Zoning Table 805.B(4),1. Development Standards, the min. front yard setback from edge of cartway is 15'. The min. front yard setback from a ROW for all uses is 0'. The max. front yard setback is 20' (excepting public entry plaza areas). Side and rear yard setbacks are permitted to be reduced by 75% of the requirement of permitted use.

RESOURCE PROTECTION SUMMARY TABLES

RESOURCE PROTECTION SUMMARY					
RESOURCE	TOTAL AREA OF RESOURCE	ALLOWABLE DISTURBANCE [1]		PROPOSED DISTURBANCE [2]	
		PERCENTAGE	ACREAGE	PERCENTAGE	ACREAGE
Floodplain [2]	25.985 Ac.	0%	0.0 Ac.	24%	6.215 Ac.
Wetlands	10.575 Ac.	0%	0.0 Ac.	2%	0.242 Ac.
Watercourses	2.654 Ac.	0%	0.0 Ac.	0%	0. Ac.
Wetland Margins	9.085 Ac.	20%	1.817 Ac.	9%	0.843 Ac.
Pond Shorelines	8.622 Ac.	20%	1.724 Ac.	20%	1.763 Ac.
Steep Slopes >25%	3.195 Ac.	20%	0.639 Ac.	12%	0.396 Ac.
Steep Slopes 15-25%	3.437 Ac.	30%	1.031 Ac.	24%	0.834 Ac.
Woodlands [4]	65.760 Ac.	50%	32.88 Ac.	49.8%	32.77 Ac.

NOTES:
1. Allowable disturbance is based on Zoning Code Section 27-1601.A-J.
2. Floodplain, Wetlands. Watercourses and Wetland Margins allowed to be disturbed for road crossings.
3. Pre-developed floodplain calculations based on the 100-year Floodplain Analysis Report prepared by Langan Engineering and Environmental Services, Inc.
4. The woodlands area is based on a plan titled "Proposed Tree Disturbance" prepared by Richard C. Mast Associates, P.C. With the exception that 2.0 AC of woodlands was removed from sample area #1 (woodlands over the pond in the southwest corner of the site). And that the 7.52 AC from TMP 47-53-034 is no longer part of the development. See Proposed Tree Disturbance Plan for further analysis of woodlands areas.

R-25 RESOURCE PROTECTION SUMMARY			
RESOURCE IN R-25 DISTRICT	OPEN SPACE RATIO	ACRES OF LAND W/ RESOURCE RESTRICTIONS [1]	RESOURCE PROTECTION LAND
Floodplain [2]	1.00	3.778 Ac.	3.778 Ac.
Floodplain Soils	1.00	N/A	N/A
Woodlands	0.50	2.043 Ac.	1.022 Ac.
Watercourses	1.00	N/A	N/A
Wetlands	1.00	0.075 Ac.	0.075 Ac.
Pond Shorelines	0.80	N/A	N/A
Wetland Margins [3]	0.80	0.297 Ac.	0.238 Ac.
TOTAL		6.193 Ac.	5.112 Ac.

NOTES:
1. For the purpose of the resource areas calculation, areas that overlapped were only counted once. The areas with the greatest protection standard were used when resources overlapped.
2. Pre-developed floodplain calculations based on the 100-year Floodplain Analysis Report prepared by Langan Engineering and Environmental Services, Inc.
3. A wetland margin width of 20 feet from the wetland boundary was used per the wetlands margin definition found in zoning code section 27-201.

PARKING SUMMARY TABLES

NON-RESIDENTIAL PARKING CALCULATIONS					
PROPOSED USE	USE ID	BUILDING SIZE (SF)	PARKING REQUIREMENT	REQUIRED SPACES	PROPOSED SPACES
Clubhouse	D3	1,910	1 Space / 50 SF + 1 Sp per employee [1]	37	37
Office Building A	E3	8,000	1 Space / 200 SF of GFA	40	40
Office Building B	E3	8,800	1 Space / 200 SF of GFA	44	44
NON-SHARED PARKING				**121**	**121**
Mixed Use Multi-family Office Building A	E3	4,300	1 Space / 200 SF of GFA	22	
Mixed Use Multi-family Office Building B	E3	5,700	1 Space / 200 SF of GFA	29	
Retail Building 1	F3	17,800	1 Space / 200 SF of GFA [2]	67	
Retail Flex Building 4	F3	9,600	1 Space / 200 SF of GFA [3]	36	
Retail Flex Building 5	F3	9,600	1 Space / 200 SF of GFA [3]	36	
Retail Flex Building 6	F3	11,500	1 Space / 200 SF of GFA [3]	44	
Retail Flex Building 7	F3	13,500	1 Space / 200 SF of GFA [3]	51	
Retail Flex Building 8	F3	12,400	1 Space / 200 SF of GFA [3]	47	
Supermarket	F3	68,000	1 Space / 200 SF of GFA [2]	255	
Restaurant 1	F10	2,000	1 Space / 50 SF of GFA [4]	40	
Restaurant 2	F9	7,000	1 Space / 50 SF of GFA [4]	140	
Restaurant 3	F9	8,000	1 Space / 50 SF of GFA [4]	160	
SHARED PARKING					
Shared parking spaces before reduction				927	
Min. required with shared parking 80%				**742**	**742**
TOTAL SHARED AND NON-SHARED SPACES				**863**	**863**

NOTES:
1. Assumes 85% of the total GFA is to be used or intended to be used for service to customers, patrons, clients, or guest. Also assumes 4 employees.
2. Retail parking requirement 1 space per 200 SF of total floor area used or intended to be used for serving customers. Assumes 75% of the total GFA is is to be used by customers.
3. Retail parking requirement 1 space per 200 SF of total floor area used or intended to be used for serving customers. Assumes 25% of the total GFA is dedicated to internal elevator/stairs and hallways and 75% of the remaining area is to be used by customers.
4. Restaurant parking requirement 1 space per 50 SF of total floor area or 1 space per every 2 seats whichever is greater. Assumes 1 space per 50 SF.
5. The 14 proposed dwelling units located in Mixed Use Multi-family Buildings A & B require 32 spaces (2 Spaces / D.U, plus 0,25 Spaces per D.U.). These parking spaces were excluded from the table above because they are not proposed to be shared and are not included in Langan's Supplemental Parking Memorandum. These parking spaces are provided as private driveway spaces behind the units (2 spaces per driveway) and 4 guest spaces provided in the adjacent parking areas which are not included in the total provided 742 spaces in the table above.

RESIDENTIAL PARKING CALCULATIONS					
BUILDING TYPE	USE ID	DWELLING UNITS	PARKING REQUIREMENT	REQUIRED SPACES	PROPOSED SPACES
Detached Dwelling [1,2]	B1	2	2 Spaces / D.U.	4	4
Village House [3]	B2(3)	202	2 Spaces / D.U.	404	404
Twins [3]	B2(4)	72	2 Spaces / D.U.	144	72
Atrium House [3]	B2(8)	103	2 Spaces / D.U.	206	103
Townhouse [7]	B2(10)	290	2 Spaces / D.U.	580	537
Guest Parking [4]		669	0.25 Spaces / D.U.	168	585
Mixed Use Multi-family Building A (2 BR 2,300 SF EA) [5]	B12	6	2 Spaces / D.U.	12	12
Mixed Use Multi-family Building B (2 BR 2,300 SF EA) [5]	B12	8	2 Spaces / D.U.	16	16
Guest Parking [4]		14	0.25 Spaces / D.U.	4	4
NON-SHARED PARKING				**1,538**	**1,737**
Flex Building 4 [3] (1 BR 1,000 SF EA / 2 BR 1,200 SF EA)	B12	15 (5 - 1BR + 10 - 2BR)	2 Spaces / D.U.	30	
Flex Building 5 [3] (1 BR 1,000 SF EA / 2 BR 1,200 SF EA)	B12	15 (5 - 1BR + 10 - 2BR)	2 Spaces / D.U.	30	
Flex Building 6 [3] (1 BR 1,000 SF EA / 2 BR 1,200 SF EA)	B12	18 (6 - 1BR + 12 - 2BR)	2 Spaces / D.U.	36	
Flex Building 7 [3] (1 BR 1,000 SF EA / 2 BR 1,200 SF EA)	B12	32 (10 - 1BR + 22 - 2BR)	2 Spaces / D.U.	64	
Flex Building 8 [3] (1 BR 1,000 SF EA / 2 BR 1,200 SF EA)	B12	29 (10 - 1BR + 19 - 2BR)	2 Spaces / D.U.	58	
Guest Parking [4]		109	0.25 Spaces / D.U.	28	
SHARED PARKING					
Shared parking spaces before reduction				246	
Min. required with shared parking 80%				**197**	**197**
TOTAL SHARED AND NON-SHARED SPACES				**1,735**	**1,934**

NOTES:
1. Detached Dwellings and Village House buildings count 2 garage spaces per unit,
2. Two existing dwellings to remain.
3. Twins and Atrium buildings assume 1 driveway space per unit.
4. Overflow (guest) parking requirement is 0.25 spaces per DU.
5. Multi Use buildings assume 1 garage space and 1 space offset from the garage in driveway.
6. Flex dwelling units assume 2 spaces per unit and 10% of the residential GLA is dedicated to internal elevator/stairs and hallways
7. There are 43 front loaded townhouse units which assumes 1 garage space per unit. The remaining townhouse units are alley loaded and assume 1 garage space and 1 space offset from the garage in driveway.

OPEN SPACE SUMMARY TABLES

PERIPHERAL OPEN SPACE [1]			
AREA DESIGNATION	AREA IN TN, SQ. FT.	AREA IN TC, SQ. Ft.	AREA IN R-25, SQ. FT.
A			340,870
B	32,085		
C	352,105		
D	1,308,947		
E	29,485		
F	52,859		
Subtotals	1,775,481 SF	0 SF	340,870 SF
Acreage	40,759 Ac.	0 Ac.	7,825 Ac.
Total	2,116,351 SF		
Acreage	48,585 Ac.		

NOTES:
1. Does not include internal open space, recreation open space, or stormwater management easements

INTERNAL OPEN SPACE				
AREA DESIGNATION	AREA IN TN, SQ. FT.	AMENITY	AREA IN TC, SQ. FT.	AMENITY
1	13,380	Lawn/Planting		
2	8,683	Parklet/Sitting/Lawn		
3	6,760	Lawn/Planting		
4	1,641	Lawn/Planting		
5	1,083	Lawn/Planting		
6	29,030	Lawn/Planting		
7	14,976	Lawn/Planting		
8			3,663	Walk/Lawn/Planting
9			3,670	Walk/Lawn/Planting
10			33,445	Park/Central Green
11			4,099	Walk/Lawn/Planting
12			42,036	Lawn/Planting
13			10,402	Park/Central Green
14			1,610	Lawn/Planting
15			29,382	Park/Central Green
16			18,606	Park/Central Green
17	1,800	Lawn/Planting		
18	5,793	Lawn/Planting		
19	2,637	Lawn/Planting		
20	2,133	Lawn/Planting		
21	2,108	Lawn/Planting		
22	2,729	Lawn/Planting		
23	4,057	Lawn/Planting		
24	1,138	Lawn/Planting		
25	2,194	Lawn/Planting		
26	1,621	Lawn/Planting		
27	1,820	Lawn/Planting		
Subtotals	103,583 SF		146,913 SF	
Acreage	2.378 Ac.		3.373 Ac.	
Total	250,496 SF			
Acreage	5.751 Ac.			

RECREATION OPEN SPACE						
AREA DESIGNATION	AREA IN TN, SQ. FT.	AMENITY	AREA IN TC, SQ. FT.	AMENITY	AREA IN R-25, SQ. FT.	AMENITY
1	120,821	Park 1 [1]				
2	37,330	Open Lawn				
3	35,992	Bike, Com, Gdn,				
4	26,230	Bike, Com, Gdn.				
5			4,157	Bike Trail		
6			4,200	Bike Trail		
7			24,179	Bike Trail, Lawn		
8			83,477	Park 2 [2]		
9			54,739	Open Lawn		
10			39,415	Bike, Com, Gdn., Pavilion		
11	13,059	Bike Trails [3]				
12	681	Bike Trails [3]				
13	848	Bike Trails [3]				
14	743	Bike Trails [3]				
15	37,805	Bike Trails [3]				
16	63,226	Bike Trails [3]				
17	1,950	Bike Trails [3]				
18	2,255	Bike Trails [3]				
19	7,797	Bike Trails [3]				
20	13,396	Park 2 [2]				
21					87,500 SF	Open Lawn
Subtotals	362,133 SF		210,167 SF		87,500 SF	
Acreage	8,313 Ac.		4,825 Ac.		2.009 Ac.	
Total	659,800 SF					
Acreage	15,147 Ac.					

NOTE:
1. Park 1 Amenities: playground, 2 pavilions, bike trail, open lawn and volleyball court
2. Park 2 Amenities: playground, bike trail, sitting area, open lawn
3. Includes portions of the bike trails not located within resource protection areas

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

CERTIFICATION OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PREPARED BY ME OR UNDER MY DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY. THE PERIMETER MONUMENTS SHALL BE ACCURATELY PLACED AS REQUIRED BY THE TOWNSHIP. _____, 20____

_____
JASON ENGELHARDT
PROFESSIONAL ENGINEER PA LIC. NO. PE–057145–E

CERTIFICATION OF OWNERSHIP

(RP WYNSTONE, L.P., AT REALTY, LP. AND AKM PROPERTIES, LP., TROLLEYLINE ENTERPRISES, L.P., GENERAL HANCOCK PARTNERSHIP LP.)

I _____
HAVE LAID OUT UPON MY LAND SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED.

WITNESS MY HAND AND SEAL THIS _____DAY OF _____, 20____.

_____ _____
PRINTED NAME SIGNATURE

COMMONWEALTH OF PENNSYLVANIA COUNTY OF MONTGOMERY
ON THE _____DAY OF _____, 20____, BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA,

PERSONALLY APPEARED _____ WHO ACKNOWLEDGED
HIMSELF TO BE THE _____

A CORPORATION, AND THAT HE AS SUCH PRESIDENT BEING AUTHORIZED TO DO SO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF STREETS AND PROPERTY SHOWN THEREON, SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA AND DESIRED THAT THIS PLAN BE RECORDED ACCORDING TO LAW.
WITNESS MY HAND AND SEAL THE DAY AND YEAR AFORESAID.

_____ _____
NOTARY PUBLIC MY COMMISSION EXPIRES

MONTGOMERY COUNTY PLANNING COMMISSION

THIS SUBDIVISION/LAND DEVELOPMENT WAS REVIEWED BY THE MONTGOMERY COUNTY PLANNING COMMISSION ON THE _____ DAY OF _____, 20____

(SEAL): _____
MCPC NUMBER: _____

CERTIFICATION OF TOWNSHIP APPROVAL

AT A MEETING HELD ON _____, 20____, THE TOWNSHIP SUPERVISORS OF NEW HANOVER TOWNSHIP BY _____(RESOLUTION OR ORDINANCE No.) DULY ENACTED, APPROVED THE SUBDIVISION / LAND DEVELOPMENT PLAN OF THE PROPERTY OF RP WYNSTONE (PROPERTY OWNER)

_____ _____
(TOWNSHIP SECRETARY) (CHAIRMAN OF THE BOARD OF SUPERVISORS)

NEW HANOVER PLANNING COMMISSION

REVIEWED BY

NEW HANOVER TOWN CENTER
SOIL DESCRIPTIONS AND LIMITATIONS

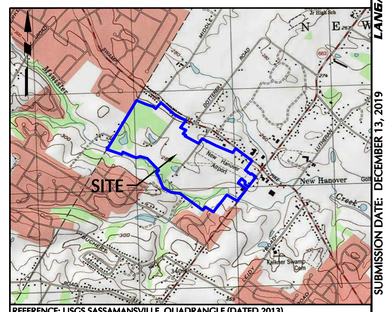
SOIL	NAME (TYPE)	HYDROLOGIC SOIL GROUP	HYDRIC	DEPTH OF WATERTABLE	DEPTH TO BEDROCK	SOIL LIMITATIONS	RESOLUTIONS
AbA	ABBOTTSTOWN SILT LOAM, 0 TO 3 PERCENT SLOPES	D	N	6 to 18 inches	48 to 49 inches	SEASONAL WETNESS	REDUCE WETNESS THROUGH THE USE OF DRAINAGE SYSTEMS
AbB	ABBOTTSTOWN SILT LOAM, 3 TO 8 PERCENT SLOPES	D	N	6 to 18 inches	48 to 49 inches	SEASONAL WETNESS	REDUCE WETNESS THROUGH THE USE OF DRAINAGE SYSTEMS
Bo	BOWMANSVILLE-KNAUERS SILT LOAMS	C/D	Y	0 to 18 inches	72 to 99 inches	SEASONAL HIGH WATER TABLE	REDUCE WETNESS THROUGH THE USE OF DRAINAGE SYSTEMS
BwA	BUCKINGHAM SILT LOAM, 0 TO 3 PERCENT SLOPES	B/D	N	6 to 18 inches	80 to 99 inches	SEASONAL HIGH WATER TABLE	REDUCE WETNESS THROUGH THE USE OF DRAINAGE SYSTEMS
CrA	CROTON SILT LOAM, 0 TO 3 PERCENT SLOPES	D	Y	0 to 6 inches	44 to 64 inches	SEASONAL HIGH WATER TABLE	REDUCE WETNESS THROUGH THE USE OF DRAINAGE SYSTEMS
CrB	CROTON SILT LOAM, 3 TO 8 PERCENT SLOPES	D	Y	0 to 6 inches	44 to 64 inches	SEASONAL HIGH WATER TABLE	REDUCE WETNESS THROUGH THE USE OF DRAINAGE SYSTEMS
KlC	KLINESVILLE CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES	D	N	More than 80 inches	15 to 23 inches	SEASONAL HIGH WATER TABLE	REDUCE WETNESS THROUGH THE USE OF DRAINAGE SYSTEMS
PeB	PENN SILT LOAM, 3 TO 8 PERCENT SLOPES	B	N	More than 80 inches	28 to 48 inches	NONE	NONE
PeC	PENN SILT LOAM, 8 TO 15 PERCENT SLOPES	B	N	More than 80 inches	28 to 48 inches	NONE	NONE
PkD	PENN-KLINESVILLE CHANNERY SILT LOAMMS, 15 TO 25 PERCENT SLOPES	B	N	More than 80 inches	34 to 44 inches	NONE	NONE
ReB	READINGTON SILT LOAM, 3 TO 8 PERCENT SLOPES	C	N	18 to 36 inches	58 to 68 inches	SEASONAL HIGH WATER TABLE	REDUCE WETNESS THROUGH THE USE OF DRAINAGE SYSTEMS
RhA	REAVILLE SILT LOAM, 0 TO 3 PERCENT SLOPES	D	N	6 to 36 inches	32 to 42 inches	SEASONAL HIGH WATER TABLE	REDUCE WETNESS THROUGH THE USE OF DRAINAGE SYSTEMS
RhB	REAVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	D	N	6 to 36 inches	32 to 42 inches	SEASONAL HIGH WATER TABLE	REDUCE WETNESS THROUGH THE USE OF DRAINAGE SYSTEMS
RhC	REAVILLE SILT LOAM, 8 TO 15 PERCENT SLOPES	D	N	6 to 36 inches	33 to 42 inches	SEASONAL HIGH WATER TABLE	REDUCE WETNESS THROUGH THE USE OF DRAINAGE SYSTEMS
Rt	ROWLAND SILT LOAM, TERRACE	C	N	12 to 36 inches	46 to 61 inches	SEASONAL HIGH WATER TABLE	REDUCE WETNESS THROUGH THE USE OF DRAINAGE SYSTEMS
UusB	URBAN LAND-UDORTHENTS, SHALE AND SANDSTONE COMPLEX, 0 TO 8 PERCENT SLOPES	A	N	More than 80 inches	20 to 99 inches		
UusD	URBAN LAND-UDORTHENTS, SHALE AND SANDSTONE COMPLEX, 8 TO 25 PERCENT SLOPES	A	N	More than 80 inches	20 to 99 inches		

Resolutions to Limitations

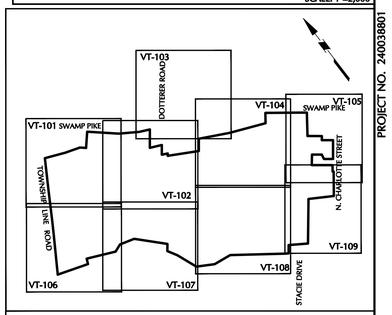
1. For areas where steep slopes are a limitation, soil shall be stabilized with specified erosion control matting and the slopes shall be tracked.
2. For areas where seasonal high water table is a limitation, ponded water shall be pumped through a "dirt bag" or to the sediment basin/trap.
3. For areas where shallow depth to bedrock is a limitation, contractor shall determine whether rock is rippable. If rock is not rippable, blasting will be required. All blasting shall meet all local, county, state and federal requirements.
4. For areas where topsoil is a limitation, topsoil shall be stripped and stockpiled in accordance with the details. The stockpile surface shall be maintained in accordance with the temporary stabilization notes.
5. For areas where embankments are a limitation, the existing road shall be closed prior to cutting embankments. No embankments that hold back water shall be removed.

EXISTING CONDITIONS PLAN NOTES:

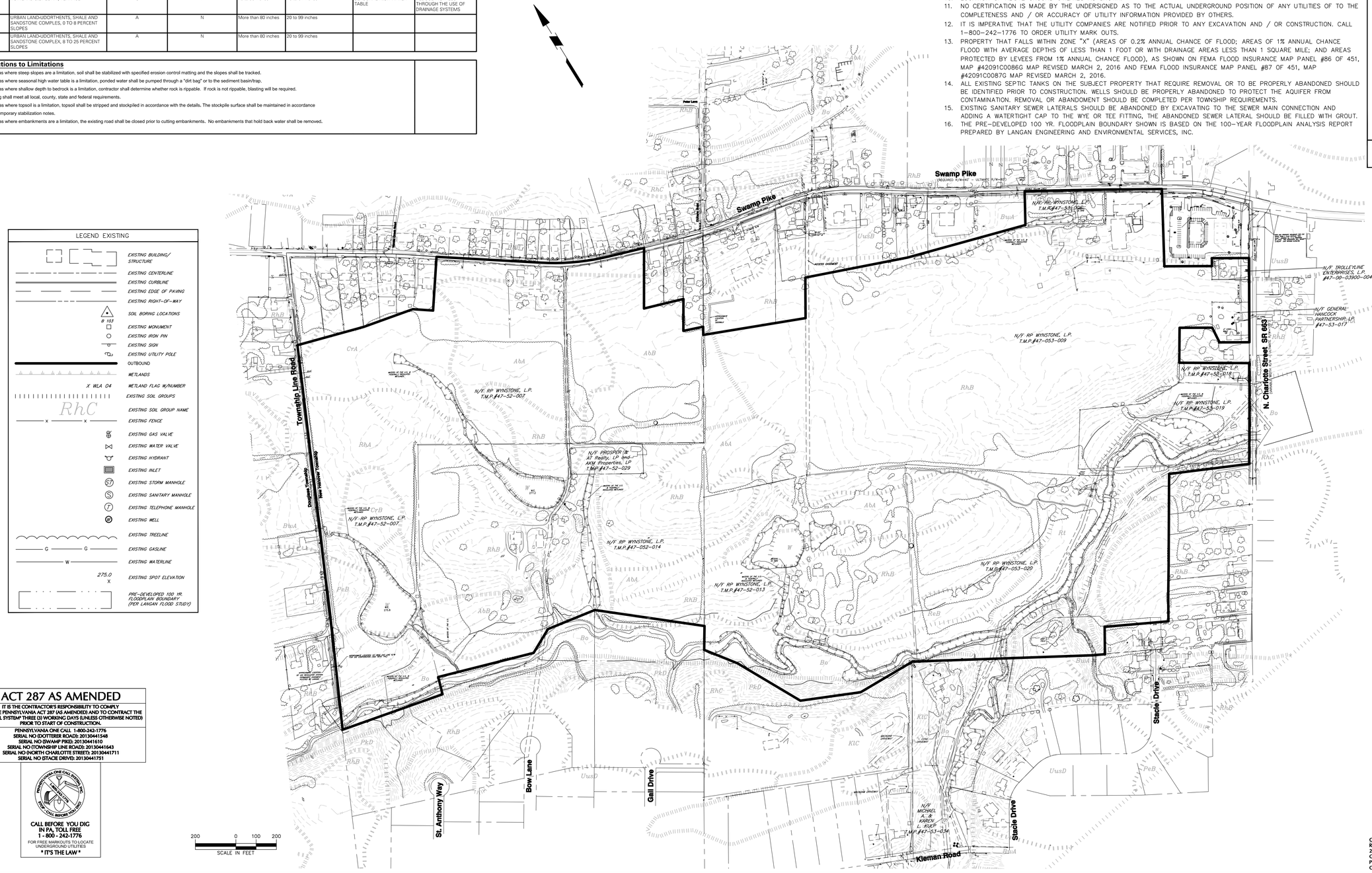
1. EXISTING TOPOGRAPHIC INFORMATION TAKEN FROM THE FOLLOWING BOUCHER & JAMES INC. PLANS:
   – PLAN OF SURVEY, SHEET 1 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 06/12/08.
   – PLAN OF SURVEY, SHEET 2 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 02/27/08.
   – PLAN OF SURVEY, SHEET 1 OF 1, OF STOFFLET – T.M.P 47–046–028, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES INC., AND PLAN DATE 12/28/04 (NO REVISIONS).
2. THIS PLAN WAS PREPARED WITH RESPECT TO THE FOLLOWING REFERENCE:
   – PLAN ENTITLED "NEW HANOVER, BOUNDARY AND TOPOGRAPHIC SURVEY" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, SHEET NO. VT–101, DATED 1/20/16.
3. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN BASED ON A FIELD SURVEY PERFORMED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES DURING SEPTEMBER 2015 AND JUNE 2017.
4. BOUNDARY INFORMATION FOR BLOCK 53 UNIT 20 (47–00–03948–001) AND BLOCK 53 UNIT 71 (47–03948–109) WERE TAKEN FROM AN ANNEXATION PLAN OF THE KULP TRACT, PREPARED BY RICHARD C. MAST ASSOCIATES, P.C., DATED SEPTEMBER 28, 2005, AND LAST REVISED AUGUST 1, 2006.
5. SUBJECT PROPERTY CONSISTS OF TAX PARCEL IDENTIFICATION NO.:
   47–00–03916–006 DB 5798 PG 02506 TO 02511.1
   47–00–07308–007 DB 5798 PG 02506 TO 02511.1
   47–00–07316–008 DB 5798 PG 02506 TO 02511.1
   47–00–07240–003 DB 5826 PG 00947 TO 00954
   47–00–07244–008 DB 5826 PG 00947 TO 00954
   47–00–07244–809 DB 5633 PG 02941 TO 02946.1
   47–00–03948–001 DB 5826 PG 00947 TO 00954
   47–00–07268–002 DB 5824 PG 00397 TO 00404
   47–00–03908–005 DB 5939 PG 01775 TO 01780
   47–00–03948–10–9 DB 5736 PG 01212 TO 01216.1
6. THE ULTIMATE RIGHT–OF–WAY FOR EXISTING ROADS ARE HEREBY OFFERED FOR DEDICATION TO NEW HANOVER TOWNSHIP, PENNDOT OR MONTGOMERY COUNTY. UTILITY EASEMENTS ARE PROVIDED TO BE USED FOR PUBLIC WATER, SANITARY SEWERS, ELECTRIC, CABLE, ETC. INTERNAL DRIVEWAYS, ALLEYS, PARKING LOTS, STORMWATER FACILITIES, RETAINING WALLS, FENCES, ETC., WILL BE OWNED AND MAINTAINED PRIVATELY.
7. WATERS OF THE UNITED STATES SHOWN HEREON WERE FIELD DELINEATED AND VERIFIED BY NOVA CONSULTANTS, LTD., IN APRIL 2005, AND SURVEY LOCATED BY BRUCHER & JAMES, INC., IN MARCH 2005.
8. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS AS SHOWN HEREIN.
9. THIS PLAN IS NOT VALID UNLESS EMBOSSED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONAL (S).
10. LOCATION OF ABOVE GROUND UTILITIES AS SHOWN.
11. NO CERTIFICATION IS MADE BY THE UNDERSIGNED AS TO THE ACTUAL UNDERGROUND POSITION OF ANY UTILITIES OF TO THE COMPLETENESS AND / OR ACCURACY OF UTILITY INFORMATION PROVIDED BY OTHERS.
12. IT IS IMPERATIVE THAT THE UTILITY COMPANIES ARE NOTIFIED PRIOR TO ANY EXCAVATION AND / OR CONSTRUCTION. CALL 1–800–242–1776 TO ORDER UTILITY MARK OUTS.
13. PROPERTY THAT FALLS WITHIN ZONE "X" (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD), AS SHOWN ON FEMA FLOOD INSURANCE MAP PANEL #86 OF 451, MAP #42091C0086G MAP REVISED MARCH 2, 2016 AND FEMA FLOOD INSURANCE MAP PANEL #87 OF 451, MAP #42091C0087G MAP REVISED MARCH 2, 2016.
14. ALL EXISTING SEPTIC TANKS ON THE SUBJECT PROPERTY THAT REQUIRE REMOVAL OR TO BE PROPERLY ABANDONED SHOULD BE IDENTIFIED PRIOR TO CONSTRUCTION. WELLS SHOULD BE PROPERLY ABANDONED TO PROTECT THE AQUIFER FROM CONTAMINATION. REMOVAL OR ABANDONMENT SHOULD BE COMPLETED PER TOWNSHIP REQUIREMENTS.
15. EXISTING SANITARY SEWER LATERALS SHOULD BE ABANDONED BY EXCAVATING TO THE SEWER MAIN CONNECTION AND ADDING A WATERTIGHT CAP TO THE WYE OR TEE FITTING, THE ABANDONED SEWER LATERAL SHOULD BE FILLED WITH GROUT.
16. THE PRE–DEVELOPED 100 YR. FLOODPLAIN BOUNDARY SHOWN IS BASED ON THE 100–YEAR FLOODPLAIN ANALYSIS REPORT PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC.



SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'



LEGEND EXISTING

- EXISTING BUILDING/ STRUCTURE
- EXISTING CENTERLINE
- EXISTING CURBLINE
- EXISTING EDGE OF PAVING
- EXISTING RIGHT-OF-WAY
- B 103 — SOIL BORING LOCATIONS
- EXISTING MONUMENT
- EXISTING IRON PIN
- EXISTING SIGN
- EXISTING UTILITY POLE
- OUTBOUND
- WETLANDS
- X WLA 04 — WETLAND FLAG W/NUMBER
- RhC — EXISTING SOIL GROUPS
- EXISTING SOIL GROUP NAME
- EXISTING FENCE
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING HYDRANT
- EXISTING INLET
- EXISTING STORM MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING WELL
- EXISTING TREELINE
- G — G — EXISTING GASLINE
- W — EXISTING WATERLINE
- 275.0 X — EXISTING SPOT ELEVATION
- PRE-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Date	Description	No.
12–13–19	REVISED PER COMMENT LETTERS	8.
11–09–18	REVISED PER COMMENT LETTERS	7.
6–01–18	REVISED PER MCCD COMMENTS	6.
1–31–18	REVISED PER COMMENT LETTERS	5.
11–08–17	REVISED PER COMMENT LETTERS	4.
8–04–17	REVISED PER COMMENT LETTERS	3.
4–07–17	REVISED PER COMMENT LETTERS	2.
11–04–16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT
SIGNATURE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
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ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan C3, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
MASTER EXISTING FEATURES PLAN

Project No. 240038801	Drawing No. VT-100
Date 05/31/16	
Scale 1" = 200'	
Drawn By ZB	
Submission Date	Sheet 3 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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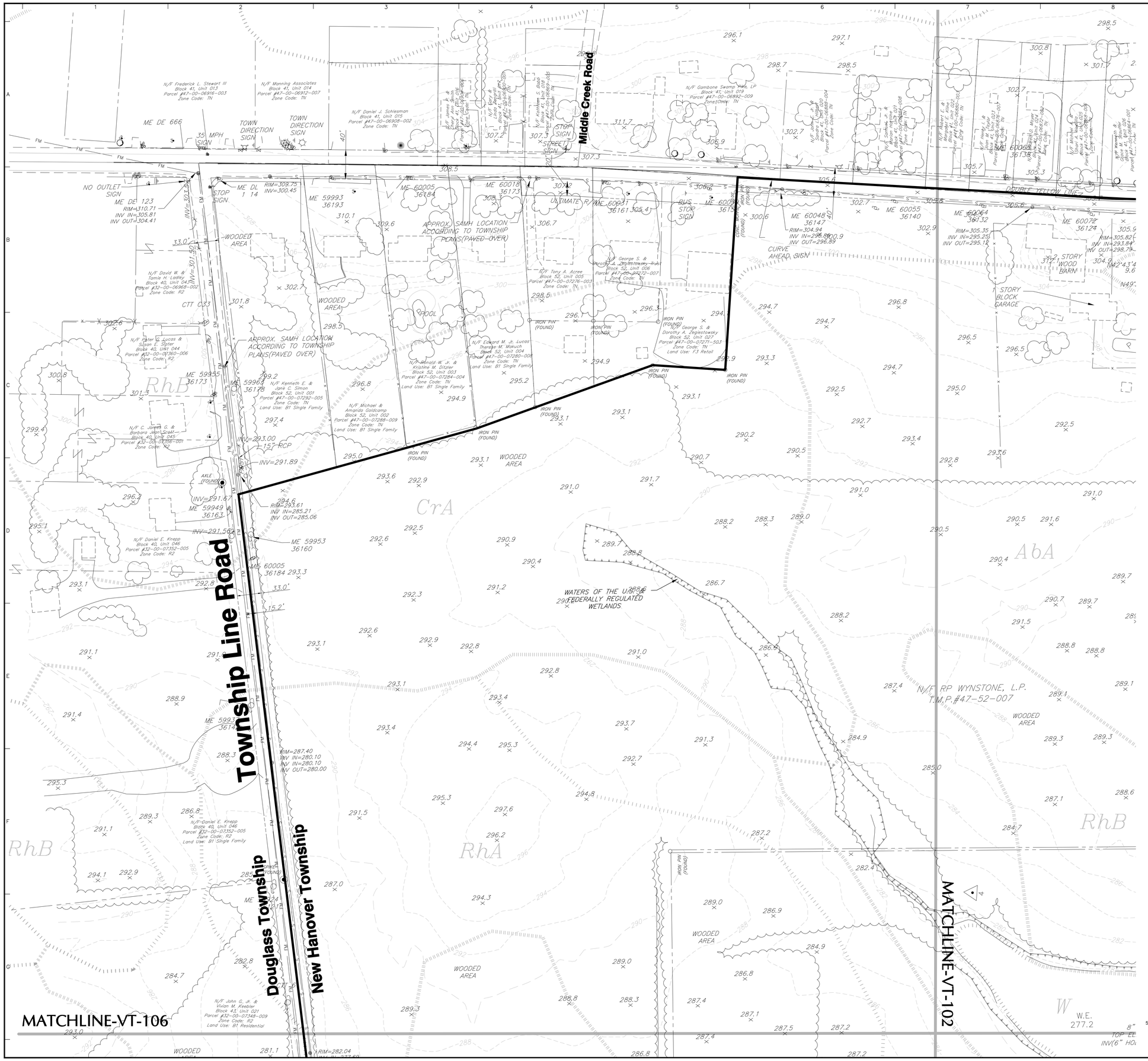
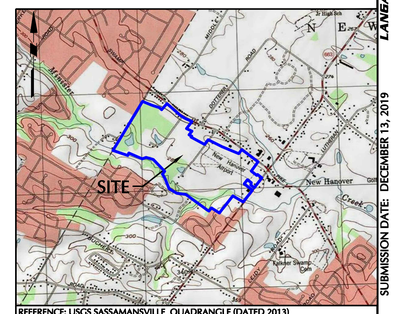
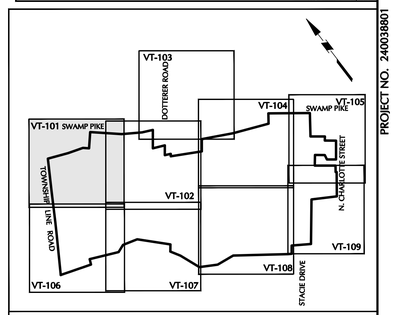
Filename: \\langan.com\data\BET\data\B240038801\Cadd Data - 240038801\SheetFiles\240038801 VT100.dwg Date: 12/13/2019 Time: 14:41 User: wschaefer Style Table: Langan.stb Layout: VT-100





SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

PROJECT NO. 240038801

SUBMISSION DATE: DECEMBER 13, 2019

NOTES:
1. SEE VT-100 FOR SOIL TYPE LEGEND.

LEGEND EXISTING

- EXISTING BUILDING/STRUCTURE
- EXISTING CENTERLINE
- EXISTING CURBLINE
- EXISTING EDGE OF PAVING
- EXISTING RIGHT-OF-WAY
- SOIL BORING LOCATIONS (# 103)
- EXISTING MONUMENT
- EXISTING IRON PIN
- EXISTING SIGN
- EXISTING UTILITY POLE
- OUTBOUND
- WETLANDS
- WETLAND FLAG W/NUMBER (X WLA 04)
- EXISTING SOIL GROUPS (RhC)
- EXISTING SOIL GROUP NAME
- EXISTING FENCE
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING HYDRANT
- EXISTING INLET
- EXISTING STORM MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING WELL
- EXISTING TREELINE
- EXISTING GASLINE (G)
- EXISTING WATERLINE (W)
- EXISTING SPOT ELEVATION (275.0 X)
- PRE-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY* (PER LANGAN FLOOD STUDY)

SCALE IN FEET: 50 0 25 50

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12–13–19
7.	REVISED PER COMMENT LETTERS	11–09–18
6.	REVISED PER MCCD COMMENTS	6–01–18
5.	REVISED PER COMMENT LETTERS	1–31–18
4.	REVISED PER COMMENT LETTERS	11–08–17
3.	REVISED PER COMMENT LETTERS	8–04–17
2.	REVISED PER COMMENT LETTERS	4–07–17
1.	REVISED PER COMMENT LETTERS	11–04–16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JASON SCOTT ENGELHARDT — ENGINEER — 057145 — E

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE–057145–E

LANGAN
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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
EXISTING FEATURES PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	KG
Submission Date	
Drawing No.	VT-101
Sheet	4 of 187

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Filename: \\langan.com\data\BET\data\240038801\Cadd Data - 240038801\SheetFiles\240038801 VT101-109.dwg Date: 12/13/2019 Time: 14:41 User: wschaefer Style Table: Langan.stb Layout: VT-101

MATCHLINE-VT-101

MATCHLINE-VT-103

MATCHLINE-VT-104

MATCHLINE-VT-107

DOTTERER ROAD

NO PARKING SIGN

STOP SIGN

ULTIMATE R/W

35 MPH SIGN

DOUBLE YELLOW LINE

APPROX. SAMH LOCATION ACCORDING TO TOWNSHIP PLANS(PAVED OVER)

APPROXIMATE LOCATION OF SIDEWALK

POOL

WOODED AREA

1 STORY BLOCK GARAGE

2 1/2 STORY STONE DWELLING

2 1/2 STORY WOOD BARN

10' WIDE WATER LINE EASEMENT (SEE NOTE 14D & 14E)

16.5' WIDE ACCESS EASEMENT

W.E. 277.2

8" STANDPIPE TOP ELEV.=278.85 INV(6" HOLE)=277.17

WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS

N/F RP WYNSTONE, L.P. T.M.P.#47-52-007

N/F PROSPER AT Realty, LP and AKM Properties, LP T.M.P.#47-52-029

N/F Michael D. & Diane S. Jacobs Block 41, Unit 04E Parcel #47-00-06817-001 Zone Code: TN

N/F Beth L. Allen Block 52, Unit 028 Parcel #47-00-07248-409 Zone Code: TN Land Use: B1 Single Family

N/F Terry T. Jr. & Amy L. O'Connor Block 52, Unit 006 Parcel #47-00-07264-006 Zone Code: TN Land Use: B1 Single Family

N/F Victoria Redgrave Block 52 Unit 009 Parcel #47-00-07260-001 Zone Code: TN Land Use: B1 Single Family

N/F Wayne L. & Rebecca L. Block 52, Unit 010 Parcel #47-00-07256-505 Zone Code: TN Land Use: B1 Single Family

N/F Mark L. Halteman Block 52, Unit 011 Parcel #47-00-07252-009 Zone Code: TC Land Use: F34 Commercial

N/F Beth L. Allen Block 52, Unit 025 Parcel #47-00-07247-005 Zone Code: TC Land Use: B1 Residential

OWNER
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NOTES:
1. SEE VT-100 FOR SOIL TYPE LEGEND.

LEGEND EXISTING

- EXISTING BUILDING/ STRUCTURE
- EXISTING CENTERLINE
- EXISTING CURBLINE
- EXISTING EDGE OF PAVING
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- SOIL BORING LOCATIONS (B 103)
- EXISTING MONUMENT
- EXISTING IRON PIN
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- OUTBOUND
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- WETLAND FLAG W/NUMBER (X WLA 04)
- EXISTING SOIL GROUPS
- EXISTING SOIL GROUP NAME (RhC)
- EXISTING FENCE
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- EXISTING SPOT ELEVATION (275.0 X)
- PRE-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

50 0 25 50
SCALE IN FEET

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP
SCALE: 1"=2,000'

KEY MAP
SCALE 1"=1000'

VT-101 SWAMP PIKE (TOWNSHIP ROAD 761) · VT-103 · DOTTERER ROAD · VT-104 · VT-105 SWAMP PIKE · N. CHARLOTTE STREET · VT-102 · VT-109 · VT-108 · STACIE DRIVE · VT-107 · VT-106

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

No.	Description	Date
1.	REVISED PER COMMENT LETTERS	11-04-16
2.	REVISED PER COMMENT LETTERS	4-07-17
3.	REVISED PER COMMENT LETTERS	8-04-17
4.	REVISED PER COMMENT LETTERS	11-08-17
5.	REVISED PER COMMENT LETTERS	1-31-18
6.	REVISED PER MCCD COMMENTS	6-01-18
7.	REVISED PER COMMENT LETTERS	11-09-18
8.	REVISED PER COMMENT LETTERS	12-13-19

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
EXISTING FEATURES PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	KG
Submission Date	
Drawing No.	VT-102
Sheet	5 of 187

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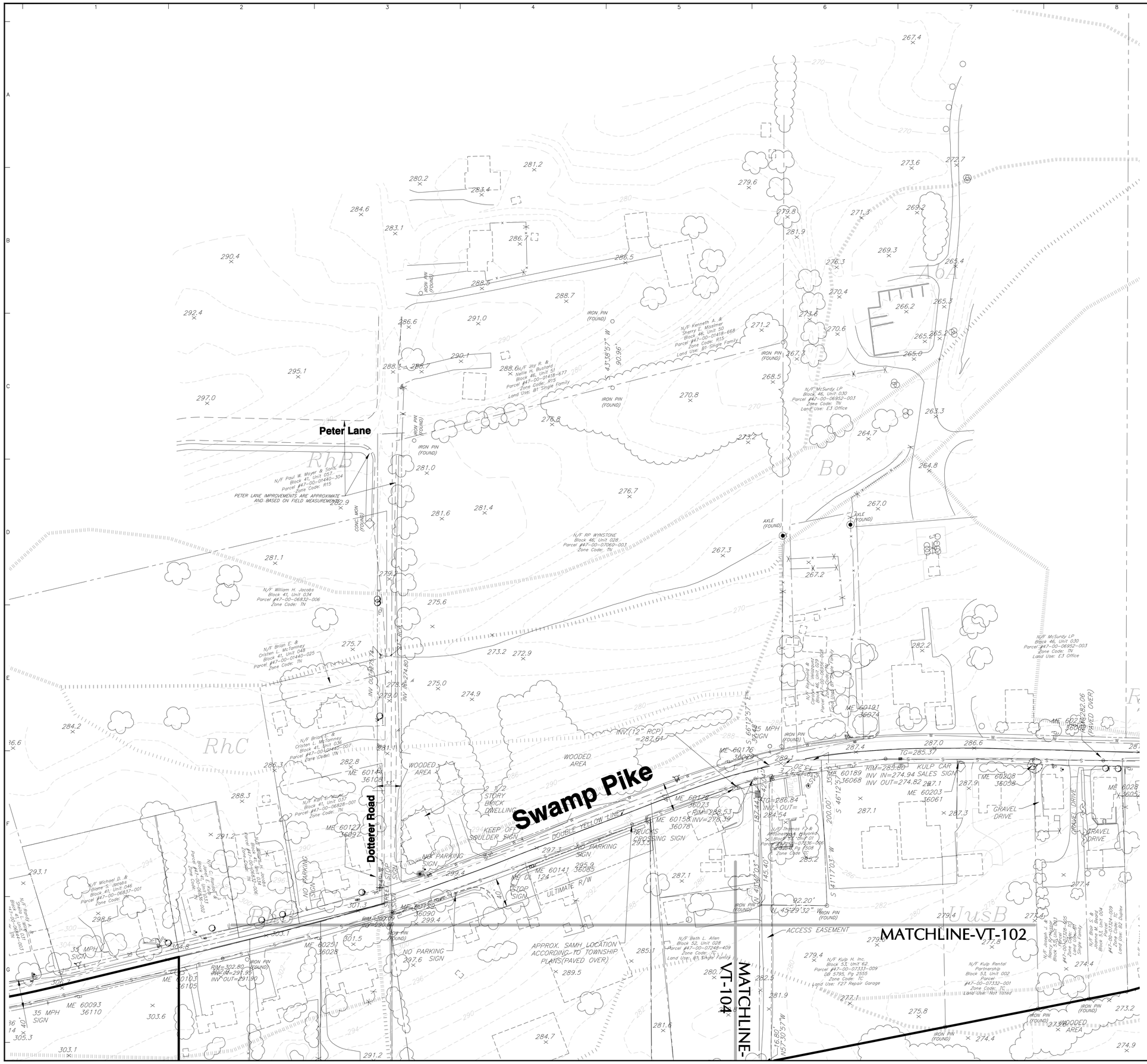
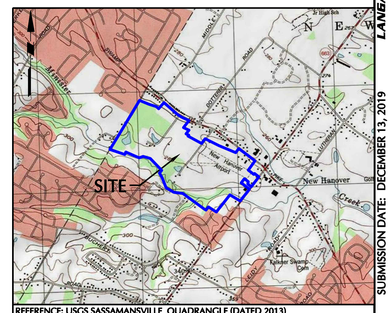
Filename: \\langan.com\data\BET\data\240038801\Cadd Data - 240038801\SheetFiles\240038801 VT101-109.dwg Date: 12/13/2019 Time: 14:41 User: wschaefer Style Table: Langan.stb Layout: VT-102

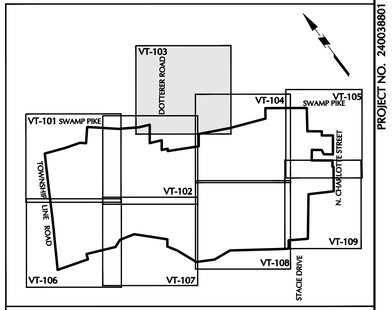




REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'



KEY MAP

SCALE 1"=1000'

NOTES:
1. SEE VT-100 FOR SOIL TYPE LEGEND.

LEGEND EXISTING

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- EXISTING CENTERLINE
- EXISTING CURBLINE
- EXISTING EDGE OF PAVING
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- B 103 EXISTING MONUMENT
- EXISTING IRON PIN
- EXISTING SIGN
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- WETLANDS
- X WLA 04 WETLAND FLAG W/NUMBER
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- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING HYDRANT
- EXISTING INLET
- EXISTING STORM MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING WELL
- EXISTING TREELINE
- EXISTING GASLINE
- EXISTING WATERLINE
- 275.0 X EXISTING SPOT ELEVATION
- PRE-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

50 0 25 50
SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER PE-057145-E

SIGNATURE DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc.
Langan CS, Inc.
Langan International LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

EXISTING FEATURES PLAN

Project No. 240038801	Drawing No. VT-103
Date 05/31/16	
Scale 1"=50'	
Drawn By KG	
Submission Date	Sheet 6 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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Filename: \\langan.com\data\BET\data\240038801\Cadd Data - 240038801\SheetFiles\240038801 VT101-109.dwg Date: 12/13/2019 Time: 14:41 User: wschaefer Style Table: Langan.stb Layout: VT-103

Swamp Pike

(REQUIRED R/W=40' – ULTIMATE R/W=80')

MATCHLINE-VT-102

MATCHLINE-VT-103

MATCHLINE-VT-105

MATCHLINE-VT-108

N/F McSurdy LP
Block 46, Unit 030
Parcel #47-00-06952-003
Zone Code: TN
Land Use: E3 Office

N/F Edward W. & Jacqueline Hoover
Block 46, Unit 035
Parcel #47-00-06940-002
Zone Code: TC

N/F HCSC Phase 2 LP
Block 46, Unit 035
Parcel #47-00-06932-005
Zone Code: TC

N/A Hanover Court Shopping Center Assoc.
Block 46, Unit 034
Parcel #47-00-06936-001
Zone Code: TC

W/A Windstrage Associates
Block 46, Unit 031
Parcel #47-00-06948-007
Zone Code: R15

N/F Richard & Carole E. Weigand
Block 46, Unit 032
Parcel #47-00-06956-006
Zone Code: TC
Land Use: E3 Office Bldg

N/F Thomas C. & Antoinette M. Krukowski
Block 53, Unit 01
Parcel #47-00-07336-001
Deed Book 5795, Pg 1508
Zone Code: TC

N/F Kulp H. Inc.
Block 53, Unit 62
Parcel #47-00-07333-009
DB 5795, Pg 2555
Zone Code: TC
Land Use: F27 Repair Garage

N/F Kulp Rental Partnership
Block 53, Unit 002
Parcel #47-00-07332-001
Zone Code: TC
Land Use: Not Rated

N/F Joseph A. & Theresa A. Rotzell
Block 53, Unit 005
Parcel #47-00-07334-005
Zone Code: TC
Land Use: B2 Duplex

N/F Brad S. & Joanne M. Baird
Block 53, Unit 004
Parcel #47-00-07334-009
Zone Code: TC
Land Use: B2 Duplex

N/F Theresa A. Rotzell
Block 53, Unit 005
Parcel #47-00-07334-004
Zone Code: TC
Land Use: B1 Single Family

N/F Oliver H. Jr. & Lorraine S. Wolf
Block 53, Unit 066
Parcel #47-00-07319-005
Zone Code: TC
Land Use: F3 Retail

N/F RP WYNSTONE, LP
T.M.P. #47-53-006

N/F RP WYNSTONE, L.P.
T.M.P.#47-053-009

APPROX. SAMH LOCATION ACCORDING TO TOWNSHIP PLANS(PAVED OVER)

WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS

ACCESS EASEMENT

16.5' WIDE ACCESS EASEMENT

PRIVATE GRAVEL DRIVEWAY (SEE NOTE 3F, 3G, & 15B PERTAINING TO EASEMENT)

GRAVEL DRIVE

MACADAM DRIVE

STONE WALL

WOODED AREA

2 STORY STONE DWELLING

2 STORY WOOD BARN

RhB

RhC

IRON PIN (FOUND)

ME 60191 36074

ME 60176 36079

ME 60189 36068

ME 60208 36098

ME 60203 36061

ME 60281 36052

ME 60229 NO PARKING 36044 SIGN

ME 60140 36036

ME 60251 36028

ME 60304 35999

ME 60301 35998

35 MPH SIGN

KULP CAR SALES SIGN

DOUBLE YELLOW LINE

12" DIP

15" RCP

12" CPP

WATERS IN PIPE

CURVE AHEAD SIGN (PAVED OVER)

N 47°15'44" E 280.21'

S 47°15'44" E 293.55'

S 46°12'55" E 365.48'

S 46°12'55" W 200.00'

S 41°17'03" W 145.40'

S 45°29'32" W 92.20'

S 41°17'03" W 774.07'

S 15°30'57" W 16.80'

S 43°16'50" W 975.41'

S 43°16'50" W

S 41°17'03" W 182.44'

N 43°41'03" E 182.44'

TC=286.84 INV. OUT= 284.54

TC=285.37

RIM=285.80 INV IN=274.94 INV OUT=274.82

RIM=264.22 INV IN=256.12 INV OUT=256.02

RIM=260.16 INV IN=250.91 INV OUT=250.86

INV=265.48

INV=255.96

INV=256.34

INV=265.69

M2=259.00 INV OUT=255.50

8.53

MATCHLINE-VT-102

MATCHLINE-VT-103

MATCHLINE-VT-105

MATCHLINE-VT-108

NOTES:
1. SEE VT-100 FOR SOIL TYPE LEGEND.

LEGEND EXISTING

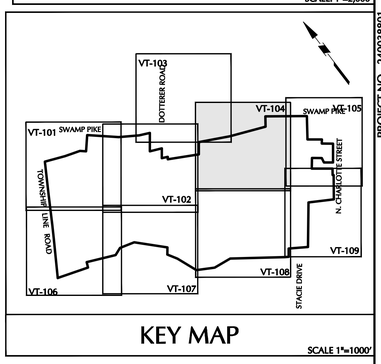
- EXISTING BUILDING/ STRUCTURE
- EXISTING CENTERLINE
- EXISTING CURBLINE
- EXISTING EDGE OF PAVING
- EXISTING RIGHT-OF-WAY
- SOIL BORING LOCATIONS (B 103)
- EXISTING MONUMENT
- EXISTING IRON PIN
- EXISTING SIGN
- EXISTING UTILITY POLE
- OUTBOUND
- WETLANDS
- WETLAND FLAG W/NUMBER (X WLA 04)
- EXISTING SOIL GROUPS (RhC)
- EXISTING SOIL GROUP NAME
- EXISTING FENCE
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING HYDRANT
- EXISTING INLET
- EXISTING STORM MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING WELL
- EXISTING TREELINE
- EXISTING GASLINE (G)
- EXISTING WATERLINE (W)
- EXISTING SPOT ELEVATION (275.0 X)
- PRE-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

SCALE IN FEET: 50 0 25 50

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8099
CONTACT: BENJAMIN GOLDTHORP

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12–13–19
7.	REVISED PER COMMENT LETTERS	11–09–18
6.	REVISED PER MCCD COMMENTS	6–01–18
5.	REVISED PER COMMENT LETTERS	1–31–18
4.	REVISED PER COMMENT LETTERS	11–08–17
3.	REVISED PER COMMENT LETTERS	8–04–17
2.	REVISED PER COMMENT LETTERS	4–07–17
1.	REVISED PER COMMENT LETTERS	11–04–16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE–057145–E

LANGAN
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NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan UK Ltd. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
EXISTING FEATURES PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	KG
Submission Date	
Drawing No.	VT-104
Sheet	7 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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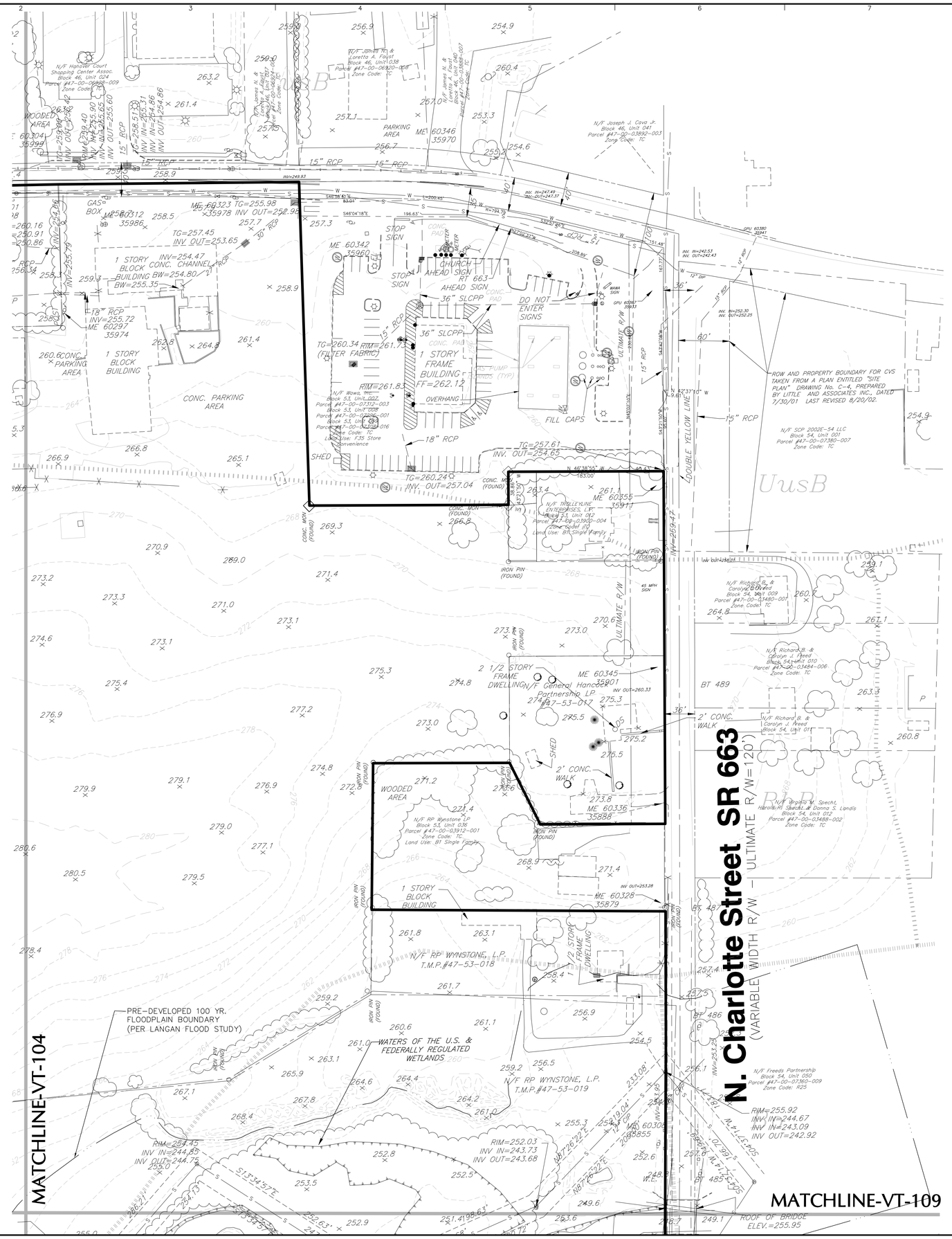

MATCHLINE-VT-104
MATCHLINE-VT-109
N. Charlotte Street SR 663
(VARIABLE WIDTH R/W – ULTIMATE R/W=120')
PRE-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)
WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS
DOUBLE YELLOW LINE
ROW AND PROPERTY BOUNDARY FOR CVS TAKEN FROM A PLAN ENTITLED "SITE PLAN" DRAWING No. C-4, PREPARED BY LITTLE AND ASSOCIATES INC., DATED 7/30/01 LAST REVISED 8/20/02.
N/F RP WYNSTONE, L.P. T.M.P.#47-53-018
N/F RP WYNSTONE, L.P. T.M.P.#47-53-019
N/F RP Wynstone LP Block 53, Unit 036 Parcel #47-00-03912-001 Zone Code: TC Land Use: BT Single Family
N/F Wawa, Inc. Block 53, Unit 002 Parcel #47-00-07312-003 Block 53, Unit 009 Parcel #47-00-03486-001 Block 53, Unit 010 Parcel #47-00-03484-016 Zone Code: TC Land Use: 735 Store Convenience
N/F TROLLEYLINE ENTERPRISES, LP. Block 53, Unit 042 Parcel #47-00-03905-004 Zone Code: TC Land Use: BT Single Family
N/F Freeds Partnership Block 54, Unit 030 Parcel #47-00-07360-009 Zone Code: 425
N/F SCP 2002E-54 LLC Block 54, Unit 001 Parcel #47-00-07380-007 Zone Code: TC
N/F Richard B. & Carolyn J. Reed Block 54, Unit 009 Parcel #47-00-03480-001 Zone Code: TC
N/F Richard B. & Carolyn J. Reed Block 54, Unit 010 Parcel #47-00-03484-006 Zone Code: TC
N/F Richard B. & Carolyn J. Reed Block 54, Unit 011
N/F Virginia M. Specht, Harold R. Specht, Jr. & Donna S. Landis Block 54, Unit 012 Parcel #47-00-03488-002 Zone Code: TC
N/F Joseph J. Cava Jr. Block 46, Unit 041 Parcel #47-00-03892-003 Zone Code: TC
N/F James N. & Loretta A. Faust Block 46, Unit 038 Parcel #47-00-06920-008 Zone Code: TC
N/F James N. & Loretta A. Faust Block 46, Unit 040 Parcel #47-00-03868-007 Zone Code: TC
N/F Hanover Court Shopping Center Assoc. Block 46, Unit 024 Parcel #47-00-06858-009 Zone Code: TC
Kim Homes N.A. Block 46, Unit 001 Parcel #47-00-03482-001 Zone Code: TC
1 STORY BLOCK CONC. CHANNEL BUILDING BW=254.80 BW=255.35
1 STORY BLOCK BUILDING
1 STORY FRAME BUILDING FF=262.12
2 1/2 STORY FRAME DWELLING
1 STORY BLOCK BUILDING
2 STORY FRAME DWELLING
WOODED AREA
PARKING AREA
CONC. PARKING AREA
CONC. PAD
GAS PUMP ISLANDS (TYP)
FILL CAPS
OVERHANG
SHED
GAS BOX
STOP SIGN
CHURCH AHEAD SIGN
RT 663 AHEAD SIGN
DO NOT ENTER SIGNS
45 MPH SIGN
2' CONC. WALK
36" SLCPP
18" RCP
15" RCP
15" HDPE
12" RCP
14" RCP
30" RCP
IRON PIN (FOUND)
CONC. MON (FOUND)
CONC. MON (FOUND)
TG=257.45 INV OUT=253.65
TG=260.34 RIM=261.73 (FILTER FABRIC)
TG=257.61 INV. OUT=254.65
TG=260.24 INV. OUT=257.04
RIM=261.83
RIM=254.45 INV IN=244.85 INV OUT=244.75
RIM=252.03 INV IN=243.73 INV OUT=243.68
RIM=255.92 INV IN=244.67 INV IN=243.09 INV OUT=242.92
ME 60342 35960
ME 60323 TG=255.98 35978 INV OUT=252.98
ME 60312 35986
ME 60304 35995
ME 60346 35970
ME 60345 35901
ME 60336 35888
ME 60328 35879
ME 60355 35911
ME 60305 35855
GPU 60380 35941
GPU 60360 35933
BT 489
BT 487
BT 486
BT 485
S40°04'18"E
S46°56'45"E
S43°37'10"W
S47°21'30"W
S54°42'30"W
S13°34'57"E
N87°26'22"E
N87°26'22"E
N 46°38'55" W 183.00
S 43°21'05" E 183.00
S 46°38'55" E 183.00
N 43°21'05" W 183.00
INV. IN=247.49 INV. OUT=247.37
INV. IN=242.53 INV. OUT=242.43
INV. IN=252.30 INV. OUT=252.25
INV. IN=253.23
INV. OUT=253.28
INV=259.47
INV=255.79
INV=255.72
INV=249.93
INV=255.90
INV=255.60
INV=254.86
INV=254.31
INV=255.65
INV=255.51
INV=259.40
INV=259.34
INV=255.0
INV=254.47
INV=254.86
INV=255.31
INV=255.65
INV=255.60
INV=255.90

MATCHLINE-VT-101

MATCHLINE-VT-107

Douglass Township

New Hanover Township

WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS

N/F RP WYNSTONE, L.P. T.M.P.#47-52-007

MINISTER CREEK

APPROXIMATE LOCATION 15' WIDE GAS LINE R/W FOR UGI CORPORATION (SEE NOTE 14C)

PRE-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

APPROXIMATE LOCATION OF UGI REGULATOR STATION PERMANENT EASEMENT PLOTTED BY LANGAN

24" RCP

8" STANDPIPE X TOP ELEV.=274.67

N/F Gerald T. & Audrey K. Reinhart Block 40, Unit 86 Parcel #32-00-07350-007 Zone Code: R2 Land Use: B1 Single Family

N/F John G. Jr. & Vivian M. Keebler Block 43, Unit 021 Parcel #32-00-07348-009 Zone Code: R2 Land Use: B1 Residential

N/F James R. Loshnowsky & Anita M. Reinhart Block 40, Unit 150 Parcel #32-00-07350-016 Zone Code: R2 Land Use: B1 Single Family

N/F John M. & Lisa M. Keebler Block 43, Unit 025 Parcel #32-00-07347-001 Zone Code: R2 Land Use: B1 Single Family

N/F Carl A. & Diane M. Keebler Block 43, Unit 033 Parcel #32-00-07345-010 Zone Code: R2

N/F Berks Montgomery Municipal Authority Block 43, Unit 022 Parcel #32-00-07344-004 Zone Code: R2 Land Use: Tax Exempt

N/F Prosper & Josephine Guerra-Ospley Block 52, Unit 032 Parcel #47-00-02857-117 Zone Code: R-25 Land Use: B1 Single Family

N/F John G. Jr. & Vivian M. Keebler Block 43, Unit 021 Parcel #32-00-07348-009 Zone Code: R2 Land Use: B1 Residential

N/F New Hanover Township Block 52, Unit 043 Parcel #47-00-02749-147 Zone Code: R25 Land Use: Municipal Property

N/F Raymond D. III & Teri A. Bechtel Block 52, Unit 034

N/F Heather M. & Michael J. Fischer Block 52, Unit 033

N/F Jaimes & Michelle Bozzini

1 STORY BLOCK BARN

2 STORY STONE BARN

WOODED AREA

W.E. 275.8

W.E. 272.5

DL 2148

DL 2147

ME DL 2145

ME DL 2144

CTT 1

CTT 2

IRON PIN (FOUND)

RIM=282.04 INV IN=277.69 INV OUT=277.59

RIM=281.78 INV IN=276.38 INV OUT=276.28

INV=277.21

RIM=282.72 INV IN=274.40 INV OUT=274.32

RIM=281.02 INV IN=273.82 INV OUT=273.62

RIM=279.55 INV IN=272.15 INV OUT=272.05

INV=365.44

L=22.27 R=50.00

N49°40'10"E 108.62'

N44°05'01"E 84.52'

N54°25'25"E 116.49'

N35°45'26"E 43.30'

N44°05'01"E 138.66'

N66°05'01"E 82.52'

N78°21'19"E 109.46'

N54°05'19"W 138.66'

N13°37'06"E 643.36'

S13°37'06"W 619.62'

N13°37'06"E

S13°37'06"W

SCALE IN FEET 50 0 25 50

NOTES:
1. SEE VT-100 FOR SOIL TYPE LEGEND.

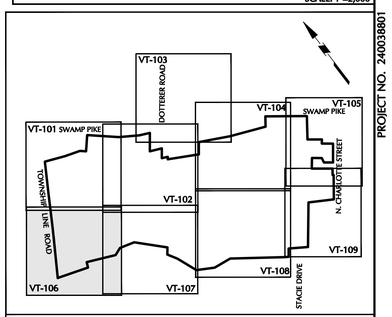
LEGEND EXISTING

- EXISTING BUILDING/ STRUCTURE
- EXISTING CENTERLINE
- EXISTING CURBLINE
- EXISTING EDGE OF PAVING
- EXISTING RIGHT-OF-WAY
- SOIL BORING LOCATIONS (B 103)
- EXISTING MONUMENT
- EXISTING IRON PIN
- EXISTING SIGN
- EXISTING UTILITY POLE
- OUTBOUND
- WETLANDS
- WETLAND FLAG W/NUMBER (X WLA 04)
- EXISTING SOIL GROUPS
- EXISTING SOIL GROUP NAME (RhC)
- EXISTING FENCE
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING HYDRANT
- EXISTING INLET
- EXISTING STORM MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING WELL
- EXISTING TREELINE
- EXISTING GASLINE
- EXISTING WATERLINE
- EXISTING SPOT ELEVATION (275.0)
- PRE-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying, Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan Treadwell LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
EXISTING FEATURES PLAN

Project No. 240038801	Drawing No. VT-106
Date 05/31/16	
Scale 1"=50'	
Drawn By KG	
Submission Date	Sheet 9 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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Filename: \\langan.com\data\BET\data\240038801\Cadd Data - 240038801\SheetFiles\240038801 VT101-109.dwg Date: 12/13/2019 Time: 14:42 User: wschaefer Style Table: Langan.stb Layout: VT-106

MATCHLINE-VT-102

MATCHLINE-VT-106

MATCHLINE-VT-108

WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS

ME 59998
36038

8" STANDPIPE
TOP ELEV.=278.85
INV(6" HOLE)=277.17

WOODED AREA

1 STORY BLOCK BARN

1 STORY STONE BARN

SEPTIC TANK

2 1/2 STORY STUCCO BUILDING

N/F RP WYNSTONE, L.P.
T.M.P.#47-052-014

(SEE NOTE 1OF PERTAINING TO EASEMENT)

PRE-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

MINISTER CREEK

N/F New Hanover Township
Block 52, Unit 030
Parcel #47-00-01879-225
Zone Code: R25
Land Use: Municipal Property

N/F New Hanover Township
Block 52, Unit 042
Parcel #47-00-02749-147
Zone Code: R25
Land Use: Municipal Property

N/F New Hanover Township
Block 39E, Unit 102
Parcel #47-00-02850-109
Zone Code: R25
Land Use: Municipal Property

N/F RP WYNSTONE, L.P.
T.M.P.#47-52-013

W.E. 272.9
INV(4" PVC)=272.49

12" STANDPIPE
TOP ELEV.=267.55

WATERS IN PIPE

INV(6" PVC)=265.07

IRON PIN (FOUND)

IRON PIN (VEGINED)

DL 1396

DL 2148

RhB

AbA

PkD

RhC

Bo

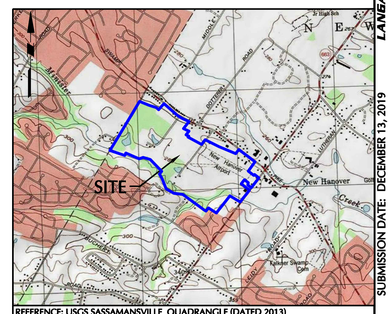
NOTES:
1. SEE VT-100 FOR SOIL TYPE LEGEND.

LEGEND EXISTING

- EXISTING BUILDING/ STRUCTURE
- EXISTING CENTERLINE
- EXISTING CURBLINE
- EXISTING EDGE OF PAVING
- EXISTING RIGHT-OF-WAY
- SOIL BORING LOCATIONS (B 103)
- EXISTING MONUMENT
- EXISTING IRON PIN
- EXISTING SIGN
- EXISTING UTILITY POLE
- OUTBOUND
- WETLANDS
- WETLAND FLAG W/NUMBER (X WLA 04)
- EXISTING SOIL GROUPS
- EXISTING SOIL GROUP NAME (RhC)
- EXISTING FENCE
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING HYDRANT
- EXISTING INLET
- EXISTING STORM MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING WELL
- EXISTING TREELINE
- EXISTING GASLINE (G)
- EXISTING WATERLINE (W)
- EXISTING SPOT ELEVATION (275.0 X)
- PRE-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

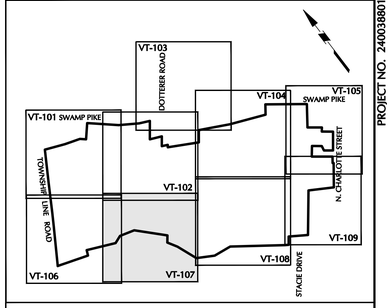
50 0 25 50
SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.K. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
EXISTING FEATURES PLAN

Project No. 240038801	Drawing No. VT-107
Date 05/31/16	
Scale 1"=50'	
Drawn By KG	
Submission Date	Sheet 10 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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MATCHLINE-VT-104

MATCHLINE-VT-107

MATCHLINE-VT-109

30' WIDE SANITARY SEWER EASEMENT (SEE NOTE 2B, 3C, 3D, 12C & 12D)

RIM=254.49
INV IN=246.79
INV OUT=245.74

RIM=254.15
INV IN=245.80
INV OUT=245.75

RIM=254.43
INV IN=247.63
INV OUT=247.58

RIM=256.23
INV IN=248.77
INV OUT=248.68

RIM=256.51
INV IN=249.08
INV OUT=249.04

RIM=265.08

N/F RP WYNSTONE, L.P.
T.M.P.#47-053-020

N/F Michael A. & Koren L. Kulp
Block 53, Unit 034
Parcel #47-00-02856-004
Zone Code: R2S
Land Use: 81 Single Family

N/F Michael A. & Koren L. Kulp and Kevin M. Kulp
Block 53, Unit 071
Parcel #47-00-03139-109
Zone Code: R2S

N/F Dennis & Michele Kulp
Block 53, Unit 050
Parcel #47-00-06780-004
Zone Code: R2S
Land Use: 81 Single Family

N/F New Hanover Township
Block 59A, Unit 102
Parcel #42-00-02850-109
Zone Code: R2S
Land Use: Municipal Property

N/F John W. Jr. &

WOODED AREA

FORMER BUILDING (NOW DEMOLISHED)

12 1/2 STORY BRICK DWELLING

SEPTIC TANK

PRE-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

MINISTER CREEK

DRIP FIELD

POOL

POOL PUMP

PAVER PATIO

1 1/2 STORY FRAME DWELLING FF=281.18

POST

IRON PIN (FOUND)

IRON PIN (FOUND)

IRON PIN (FOUND)

IRON PIN (FOUND)

CONC. MON (FOUND)

INV(4" PVC)=272.92

16.59'
S52°48'10"E

ME 60074
35520

ME 60050
35880

AbA

RhB

ReB

Bo

Rt

RhC

BwA

KlC

B 101

B 105

12" CPE

12" CPP

12" CMP

12" DIP

12" CIP

6" WATER

6" GAS

6" SAN

6" FM

6" WM

6" WL

6" GAS

6" SAN

6" FM

6" WM

6" WL

6" GAS

6" SAN

6" FM

6" WM

6" WL

MATCHLINE-VT-105

MATCHLINE-VT-108

N. Charlotte Street SR 663

Stacie Drive

MINISTER CREEK

WOODED AREA

PRE-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

RIM=264.45
INV IN=244.83
INV OUT=244.73

RIM=252.03
INV IN=243.73
INV OUT=243.68

RIM=252.76
INV IN=244.34
INV OUT=244.26

RIM=260.34
INV=245.34

RIM=293.30
INV IN=280.00
INV OUT=279.90

RIM=287.79
INV IN=279.39
INV OUT=279.29

1 1/2 STORY FRAME DWELLING
FF=295.13
GF=294.30
WO=286.39
INV=276.67

OVERHANG

SHED

STONE DRIVE

POOL

N/F Freeds Partnership
Block 54, Unit 030
Parcel #47-00-03360-009
Zone Code: R25

N/F Marion & Francis J. Zielinski
Block 53, Unit 021
Parcel #47-00-03920-002
Zone Code: R25
Land Use: B1 Single Family

N/F Marion & Francis J. Zielinski
Block 53, Unit 022
Parcel #47-00-03924-007
Zone Code: R25
Land Use: Vacant

N/F Jaqueylen Bl Rialy
Block 53, Unit 023
Parcel #47-00-03928-003
Zone Code: R25
Land Use: F2 Nursery School

N/F Wesley & Kathleen Engelman
Block 53, Unit 024
Parcel #47-00-04932-008
Zone Code: R25
Land Use: B1 Single Family

N/F Scott J. & Ann Marie Scheeler
Block 53, Unit 025
Parcel #47-00-03935-004
Zone Code: R25
Land Use: B1 Single Family

N/F Kerry E. & Susan A. Wisneski
Block 53, Unit 026
Parcel #47-00-03940-009
Zone Code: R25
Land Use: B1 Single Family

N/F Matthew Akers & Lauren Besler
Block 53, Unit 027
Parcel #47-00-03944-005
Zone Code: R25
Land Use: B1 Single Family

N/F Jean A. & Gary C. Moser
Block 53, Unit 028
Parcel #47-00-03952-006
Zone Code: R25
Land Use: B1 Multi-Family

N/F Phillip B. & Jennifer C. Block 53, Unit 030
Parcel #47-00-03952-015
Zone Code: R25
Land Use: B1 Single Family

N/F Karen L. Clarke
Block 53, Unit 056
Parcel #47-00-06804-007
Zone Code: R25
Land Use: B1 Single Family

N/F Joseph & Lorraine Tomlinson
Block 53, Unit 057
Parcel #47-00-06812-005
Zone Code: R25

N/F Leon E. & Rebecca A. Schlegel
Block 53, Unit 065
Parcel #47-00-06805-002
Zone Code: R25

N/F Ramona Quiseppe
Block 53, Unit 058
Parcel #47-00-06820-009
Zone Code: R25

N/F Edward C. & Judith M. Greth
Block 53, Unit 059
Parcel #47-00-06816-004
Zone Code: R25

ROOF OF BRIDGE ELEV.=255.5

ROOF OF BRIDGE ELEV.=254.42

ROOF OF BRIDGE ELEV.=255.9

W.E. 247.2

W.E. 248.3

ME 60305
B 35855

ME 60283
B 35819

ULTIMATE R/W

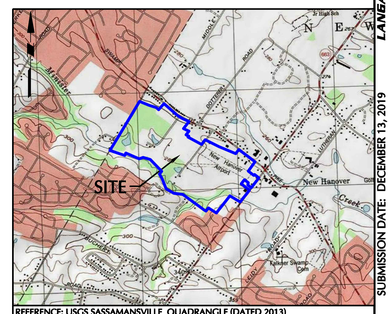
IRON PIN (FOUND)

CONC. MON (FOUND)

AXLE (FOUND)

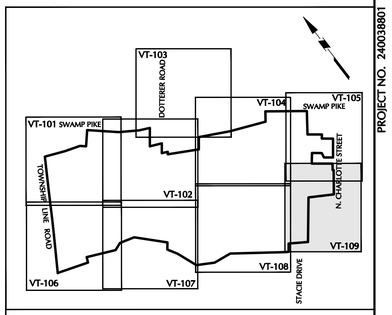
52'

36'



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

NOTES:
1. SEE VT-100 FOR SOIL TYPE LEGEND.

LEGEND EXISTING

- EXISTING BUILDING/STRUCTURE
- EXISTING CENTERLINE
- EXISTING CURBLINE
- EXISTING EDGE OF PAVING
- EXISTING RIGHT-OF-WAY
- SOIL BORING LOCATIONS
- B 103 EXISTING MONUMENT
- EXISTING IRON PIN
- EXISTING SIGN
- EXISTING UTILITY POLE
- OUTBOUND
- WETLANDS
- X WLA 04 WETLAND FLAG W/NUMBER
- EXISTING SOIL GROUPS
- RhC EXISTING SOIL GROUP NAME
- EXISTING FENCE
- EXISTING GAS VALVE
- EXISTING WATER VALVE
- EXISTING HYDRANT
- EXISTING INLET
- EXISTING STORM MANHOLE
- EXISTING SANITARY MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING WELL
- EXISTING TREELINE
- G G EXISTING GASLINE
- W EXISTING WATERLINE
- 275.0 X EXISTING SPOT ELEVATION
- PRE-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

50 0 25 50
SCALE IN FEET

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

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2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT PE-057145-E DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
EXISTING FEATURES PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	KG
Submission Date	
Drawing No.	VT-109
Sheet	12 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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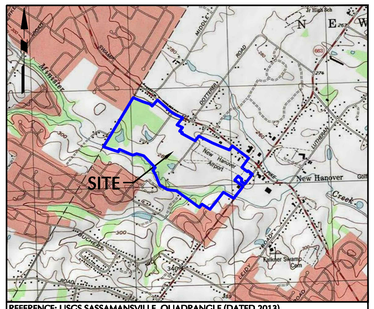
SITE
New Hanover
Rahns Quarry
Rahns Quarry Pit
Swamp Creek
Rahns Quarry Dam
Rahns Quarry Pond
Rahns Quarry Pond Dam
Rahns Quarry Pond Spillway
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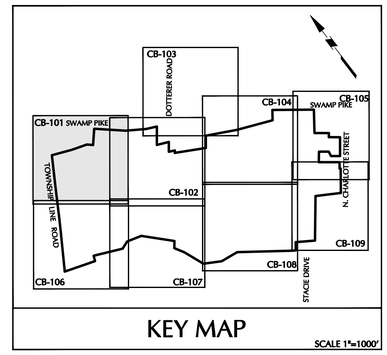
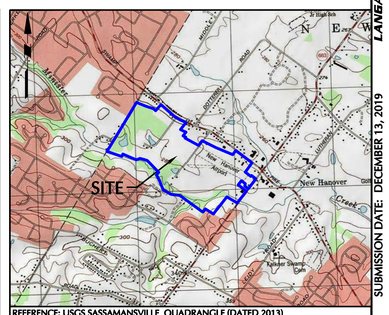
Rahns Quarry Pond Spillway Dam

NOTES

1. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS AS SHOWN HEREIN.
2. SUBJECT PROPERTY CONSISTS OF TAX PARCEL IDENTIFICATION NO.:
   47-00-03916-006 DB 5798 PG 02506 TO 02511.1
   47-00-07308-007 DB 5798 PG 02506 TO 02511.1
   47-00-07316-008 DB 5798 PG 02506 TO 02511.1
   47-00-07240-003 DB 5826 PG 00947 TO 00954
   47-00-07244-008 DB 5826 PG 00947 TO 00954
   47-00-07060-003 DB 5826 PG 00947 TO 00954
   47-00-03948-001 DB 5826 PG 00947 TO 00954
   47-00-07268-002 DB 5824 PG 00397 TO 00404
   47-00-03908-005 DB 5939 PG 01775 TO 01780
   47-00-03948-10-9 DB 5736 PG 01212 TO 01216.1
3. EXISTING TOPOGRAPHIC INFORMATION TAKEN FROM THE FOLLOWING BOUCHER & JAMES INC. PLANS:
   – PLAN OF SURVEY, SHEET 1 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 06/12/08.
   – PLAN OF SURVEY, SHEET 2 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 02/27/08.
   – PLAN OF SURVEY, SHEET 1 OF 1, OF STOFFLET – T.M.P 47–046–028, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES INC., AND PLAN DATE 12/28/04 (NO REVISIONS).
4. THIS PLAN WAS PREPARED WITH RESPECT TO THE FOLLOWING REFERENCE: PLAN ENTITLED "NEW HANOVER, BOUNDARY AND TOPOGRAPHIC SURVEY" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, SHEET No. VT–101, DATED 1/20/16, LAST REVISED 8/07/17.
5. BOUNDARY AND PARTIAL TOPOGRAPHIC INFORMATION SHOWN BASED ON A FIELD SURVEY PERFORMED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES DURING SEPTEMBER 2015 AND JUNE 2017.
6. BOUNDARY INFORMATION FOR BLOCK 53 UNIT 20 (47–00–03948–001) AND BLOCK 53 UNIT 71 (47–03948–109) WERE TAKEN FROM AN ANNEXATION PLAN OF THE KULP TRACT, PREPARED BY RICHARD C. MAST ASSOCIATES, P.C., DATED SEPTEMBER 28, 2005, AND LAST REVISED AUGUST 1, 2006.
7. WATERS OF THE UNITED STATES SHOWN HEREON WERE FIELD DELINEATED AND VERIFIED BY NOVA CONSULTANTS, LTD., IN APRIL 2005, AND SURVEY LOCATED BY BOUCHER & JAMES, INC., IN MARCH 2005.
8. PROPERTY THAT FALLS WITHIN ZONE "X" (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD), AS SHOWN ON FEMA FLOOD INSURANCE MAP PANEL #86 OF 451, MAP #42091C0086E MAP REVISED DECEMBER 19, 1996 AND FEMA FLOOD INSURANCE MAP PANEL #87 OF 451, MAP #42091C0087E MAP REVISED DECEMBER 19, 1996.
9. MERIDIAN IS REFERENCED TO PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, ZONE SOUTH, NAD 83.
10. VERTICAL DATUM IS BASED ON NAVD 88.
11. MONUMENTS SHALL BE PLACED IN THE GROUND AFTER FINAL GRADING IS COMPLETED, AT A TIME SPECIFIED BY THE TOWNSHIP ENGINEER. MONUMENTS SHALL BE CONCRETE, THE SIZE AND LENGTH APPROVED BY THE TOWNSHIP ENGINEER.
12. PK NAILS SHALL BE USED IN PLACE OF MONUMENTS WHICH ARE SHOWN IN PAVED AREAS.
13. REFER TO SHEET CB–110 FOR CURVE DATA TABLES.
14. REFER TO SHEET CB–111 FOR LOT AREA TABLES.
15. A BLANKET EASEMENT IS PROVIDED OVER THE ENTIRE PROPERTY FOR THE SANITARY SEWER MAINS, MANHOLES, AND APPURTENANCES.
16. THIS PLAN IS NOT VALID UNLESS STAMPED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONAL(S).
17. TOWNSHIP LINE ROAD SHALL BE RESURFACED THE FULL WIDTH OF THE ROADWAY AS INDICATED ON THE SITE PLAN.



KEY MAP SCALE 1"=1000'



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'

CERTIFICATION OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PREPARED BY ME OR UNDER MY DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY. THE PERIMETER MONUMENTS SHALL BE ACCURATELY PLACED AS REQUIRED BY THE TOWNSHIP. _____, 20____

_____
JASON ENGELHARDT
PROFESSIONAL ENGINEER PA LIC. NO. PE–057145–E

CERTIFICATION OF OWNERSHIP

(RP WYNSTONE, L.P., AT REALTY, LP. AND AKM PROPERTIES, LP., TROLLEYLINE ENTERPRISES, L.P., GENERAL HANCOCK PARTNERSHIP LP.)

I _____
HAVE LAID OUT UPON MY LAND SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED.

WITNESS MY HAND AND SEAL THIS _____DAY OF _____, 20_____.

_____ _____
PRINTED NAME SIGNATURE

COMMONWEALTH OF PENNSYLVANIA COUNTY OF MONTGOMERY
ON THE _____DAY OF _____, 20_____ BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA,

PERSONALLY APPEARED _____ WHO ACKNOWLEDGED

HIMSELF TO BE THE _____

A CORPORATION, AND THAT HE AS SUCH PRESIDENT BEING AUTHORIZED TO DO SO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF STREETS AND PROPERTY SHOWN THEREON, SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA AND DESIRED THAT THIS PLAN BE RECORDED ACCORDING TO LAW.
WITNESS MY HAND AND SEAL THE DAY AND YEAR AFORESAID.

_____ _____
NOTARY PUBLIC MY COMMISSION EXPIRES

MONTGOMERY COUNTY PLANNING COMMISSION

THIS SUBDIVISION/LAND DEVELOPMENT WAS REVIEWED BY THE MONTGOMERY COUNTY PLANNING COMMISSION ON THE _____ DAY OF _____, 20_____

(SEAL): _____
MCPC NUMBER: _____

CERTIFICATION OF TOWNSHIP APPROVAL

AT A MEETING HELD ON _____, 20_____ THE TOWNSHIP SUPERVISORS OF NEW HANOVER TOWNSHIP BY _____(RESOLUTION OR ORDINANCE No.) DULY ENACTED, APPROVED THE SUBDIVISION / LAND DEVELOPMENT PLAN OF THE PROPERTY OF RP WYNSTONE (PROPERTY OWNER)

_____ _____
(TOWNSHIP SECRETARY) (CHAIRMAN OF THE BOARD OF SUPERVISORS)

NEW HANOVER PLANNING COMMISSION

REVIEWED BY THE NEW HANOVER TOWNSHIP PLANNING COMMISSION AND RECOMMENDED FOR APPROVAL ON THE _____ DAY OF _____, 20_____

_____
(PLANNING COMMISSION CHAIRMAN)

NEW HANOVER TOWNSHIP ENGINEER

REVIEWED BY THE TOWNSHIP ENGINEER OF THE _____ DAY OF _____, 20_____

_____
(TOWNSHIP ENGINEER)

COUNTY RECORDER OF DEEDS

RECORD I THE OFFICE OF RECORDER OF DEEDS FOR MONTGOMERY COUNTY, AT NORRISTOWN, PENNSYLVANIA, THIS _____ DAY OF _____, 20_____

BY: _____ RECORDING CERTIFICATE:
RECORDER OF DEEDS

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12–13–19
7.	REVISED PER COMMENT LETTERS	11–09–18
6.	REVISED PER MCCD COMMENTS	6–01–18
5.	REVISED PER COMMENT LETTERS	1–31–18
4.	REVISED PER COMMENT LETTERS	11–08–17
3.	REVISED PER COMMENT LETTERS	8–04–17
2.	REVISED PER COMMENT LETTERS	4–07–17
1.	REVISED PER COMMENT LETTERS	11–04–16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JONATHAN F. HUMMEL LAND SURVEYOR NO. SU-057685-E

SIGNATURE DATE SIGNED
PROFESSIONAL LAND SURVEYOR FOR PA Lic. No. SU–057685–E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering & Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SUBDIVISION PLAN (RECORD PLAN)

Project No.	240038801
Date	05/31/16
Scale	1"=50
Drawn By	JDM
Submission Date	
Drawing No.	CB-101
Sheet	14 of 187

LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
PR. PROPERTY LINE	
PR. SETBACK LINE	
CONC. MONUMENT TO BE SET	
EX. EASEMENT	
EX. RIGHT–OF–WAY	
EX. EDGE OF ROAD	
EX. IRON PIN	

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

50 0 25 50
SCALE IN FEET

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

Filename: I:\langan.com\data\BET\data\240038801\Cadd Data - 240038801\Sheet\Files\240038801 CB101-109.dwg Date: 12/13/2019 Time: 14:43 User: wschaefer Style Table: Langan.stb Layout: CB-101
©2019 Langan

MATCHLINE-CB-101

MATCHLINE-CB-103

MATCHLINE-CB-104

MATCHLINE-CB-107

L=336.13'
R=1150.00'
CL=334.93'
CD=S57°39'06"E
D=16°44'48"

S49°16'42"E 515.10'

S66°01'30"E 181.13'

S37°35'31"W 298.77'

S66°03'29"E 200.00'

S37°35'31"W 157.17'

S64°13'29"E 99.74'

S61°47'52"E 511.73'

SWAMP PIKE
RIGHT-OF-WAY
AREA A
41,124 SF.

EXISTING ARTERIAL SIGHT DISTANCE TRIANGLE

TITLE LINE (TYP.)

RIGHT-OF-WAY LINE (TYP.)

IRON PIN (FOUND)

N66°00'44"W 172.58'

N40°44'04"E 3.78'

N49°15'56"W 114.90'

N8°34'28"E 92.44'

S78°39'21"E 109.00'

N64°54'44"E 20.00'

VH-20

VH-21

VH-22

VH-23

VH-24

VH-25

VH-26

VH-27

VH-28

VH-29

VH-30

VH-31

VH-32

VH-33

VH-34

VH-35

VH-36

VH-37

VH-38

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VH-66

VH-67

VH-68

VH-69

VH-70

VH-179

VH-180

VH-181

VH-182

VH-183

VH-184

VH-185

VH-186

VH-187

VH-188

VH-189

20.0' SIDE YARD SETBACK

15.0' PARKING SETBACK

20.0' REAR YARD SETBACK

ARTERIAL SIGHT TRIANGLE ACROSS CORNERS

SIGHT TRIANGLE ACROSS CORNERS

TN DISTRICT NON-RESIDENTIAL USE AREA 1 44,659 SF.

TN DISTRICT NON-RESIDENTIAL USE AREA 2 52,535 SF.

TN DISTRICT NON-RESIDENTIAL USE AREA 3 60,742 SF.

LEXINGTON DRIVE

BOWMAN COURT

WEST VIEW DRIVE

CLUBHOUSE

TILLMAN STREET

DAVENPORT DRIVE

VANDERBILT DRIVE

W. MAIN STREET

ALLEY AA

ALLEY BB

ALLEY CC

ALLEY DD

ALLEY FF

INTERNAL OPEN SPACE 1 13,380 SF.

INTERNAL OPEN SPACE 2 8,683 SF.

INTERNAL OPEN SPACE 4 1,641 SF.

INTERNAL OPEN SPACE 5 1,085 SF.

INTERNAL OPEN SPACE 6 29,030 SF.

INTERNAL OPEN SPACE 14 1,610 SF.

OPEN SPACE E 29,464 SF.

OPEN SPACE C 352,105 SF

RECREATION OPEN SPACE AREA 11 13,059 SF

RECREATION OPEN SPACE 5 4,157 SF.

RECREATION OPEN SPACE 6 4,200 SF.

RECREATION OPEN SPACE 7 24,179 SF.

RECREATION OPEN SPACE 16 63,226 SF.

RECREATION OPEN SPACE 1 120,821 SF.

STORMWATER MANAGEMENT EASEMENT AREA A 84,849 SF.

LIMIT OF STORMWATER MANAGEMENT EASEMENT

LIMIT OF INTERNAL OPEN SPACE

LIMIT OF RECREATION OPEN SPACE

PROPOSED MONUMENT (TYP.)

SIGHT DISTANCE FOR SPREAD OUT STOPPED CONDITION

LOCAL SIGHT DISTANCE

MINOR COLLECTOR SIGHT DISTANCE TRIANGLE

LIMIT OF RECREATION OPEN SPACE ALONG ZONING DISTRICT BOUNDARY

TC (TOWN CENTER DISTRICT)

TN (TOWN NEIGHBORHOOD DISTRICT)

CONC. MON (FOUND)

N/F Terry T. Jr. & Amy L. O'Donnell Block 52, Unit 008 Parcel #47-00-07264-006 Zone Code: TN Land Use: B1 Single Family

N/F Victoria Redmond Block 52 Unit 009 Parcel #47-00-07260-001 Zone Code: TN Land Use: B1 Single Family

N/F Wayne L. & Rebecca Block 52, Unit 010 Parcel #47-00-07256-009 Zone Code: TN Land Use: B1 Single Family

N/F Mark L. Halterman Block 52, Unit 011 Parcel #47-00-07252-009 Zone Code: TC Land Use: F34 Commercial

N/F Beth L. Klein Block 52, Unit 012 Parcel #47-00-07247-005 Zone Code: TN Land Use: B1 Residential

KEY MAP

SCALE 1"=1000'

CB-103 DOTTERER ROAD
CB-104 SWAMP PIKE
CB-105 N. CHARLOTTE STREET
CB-101 SWAMP PIKE
CB-102 TOWNSHIP LINE ROAD
CB-109
CB-106
CB-107
CB-108 STACE DRIVE

SITE

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'

NOTES

1. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS AS SHOWN HEREON.
2. SUBJECT PROPERTY CONSISTS OF TAX PARCEL IDENTIFICATION NO.:
   47-00-03916-006 DB 5798 PG 02506 TO 02511.1
   47-00-07308-007 DB 5798 PG 02506 TO 02511.1
   47-00-07316-008 DB 5798 PG 02506 TO 02511.1
   47-00-07240-003 DB 5826 PG 00947 TO 00954
   47-00-07244-008 DB 5826 PG 00947 TO 00954
   47-00-07060-003 DB 5826 PG 00947 TO 00954
   47-00-03948-001 DB 5826 PG 00947 TO 00954
   47-00-07268-002 DB 5824 PG 00397 TO 00404
   47-00-03908-005 DB 5939 PG 01775 TO 01780
   47-00-03948-109 DB 5736 PG 01212 TO 01216.1
3. EXISTING TOPOGRAPHIC INFORMATION TAKEN FROM THE FOLLOWING BOUCHER & JAMES INC. PLANS:
   – PLAN OF SURVEY, SHEET 1 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 06/12/08.
   – PLAN OF SURVEY, SHEET 2 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 02/27/08.
   – PLAN OF SURVEY, SHEET 1 OF 1, OF STOFFLET – T.M.P. 47-046-028, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES INC., AND PLAN DATE 12/28/04 (NO REVISIONS).
4. THIS PLAN WAS PREPARED WITH RESPECT TO THE FOLLOWING REFERENCE: PLAN ENTITLED "NEW HANOVER, BOUNDARY AND TOPOGRAPHIC SURVEY" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, SHEET No. VT–101, DATED 1/20/16, LAST REVISED 8/07/17.
5. BOUNDARY AND PARTIAL TOPOGRAPHIC INFORMATION SHOWN BASED ON A FIELD SURVEY PERFORMED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES DURING SEPTEMBER 2015 AND JUNE 2017.
6. BOUNDARY INFORMATION FOR BLOCK 53 UNIT 20 (47–00–03948–001) AND BLOCK 53 UNIT 71 (47–03948–109) WERE TAKEN FROM AN ANNEXATION PLAN OF THE KULP TRACT, PREPARED BY RICHARD C. MAST ASSOCIATES, P.C., DATED SEPTEMBER 28, 2005, AND LAST REVISED AUGUST 1, 2006.
7. WATERS OF THE UNITED STATES SHOWN HEREON WERE FIELD DELINEATED AND VERIFIED BY NOVA CONSULTANTS, LTD., IN APRIL 2005, AND SURVEY LOCATED BY BOUCHER & JAMES, INC., IN MARCH 2005.
8. PROPERTY THAT FALLS WITHIN ZONE "X" (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD), AS SHOWN ON FEMA FLOOD INSURANCE MAP PANEL #86 OF 451, MAP #42091C0086E MAP REVISED DECEMBER 19, 1996 AND FEMA FLOOD INSURANCE MAP PANEL #87 OF 451, MAP #42091C0087E MAP REVISED DECEMBER 19, 1996.
9. MERIDIAN IS REFERENCED TO PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, ZONE SOUTH, NAD 83.
10. VERTICAL DATUM IS BASED ON NAVD 88.
11. MONUMENTS SHALL BE PLACED IN THE GROUND AFTER FINAL GRADING IS COMPLETED, AT A TIME SPECIFIED BY THE TOWNSHIP ENGINEER. MONUMENTS SHALL BE CONCRETE, THE SIZE AND LENGTH APPROVED BY THE TOWNSHIP ENGINEER.
12. PK NAILS SHALL BE USED IN PLACE OF MONUMENTS WHICH ARE SHOWN IN PAVED AREAS.
13. REFER TO SHEET CB–110 FOR CURVE DATA TABLES.
14. REFER TO SHEET CB–111 FOR LOT AREA TABLES.
15. A BLANKET EASEMENT IS PROVIDED OVER THE ENTIRE PROPERTY FOR THE SANITARY SEWER MAINS, MANHOLES, AND APPURTENANCES.
16. THIS PLAN IS NOT VALID UNLESS STAMPED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONAL(S).
17. TOWNSHIP LINE ROAD SHALL BE RESURFACED THE FULL WIDTH OF THE ROADWAY AS INDICATED ON THE SITE PLAN.

CERTIFICATION OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PREPARED BY ME OR UNDER MY DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY. THE PERIMETER MONUMENTS SHALL BE ACCURATELY PLACED AS REQUIRED BY THE TOWNSHIP. _____, 20_____

_____
JASON ENGELHARDT
PROFESSIONAL ENGINEER PA LIC. NO. PE–057145–E

CERTIFICATION OF OWNERSHIP

(RP WYNSTONE, L.P., AT REALTY, LP. AND AKM PROPERTIES, LP., TROLLEYLINE ENTERPRISES, L.P., GENERAL HANCOCK PARTNERSHIP LP.)

I _____
HAVE LAID OUT UPON MY LAND SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED.

WITNESS MY HAND AND SEAL THIS _____DAY OF _____, 20_____.

_____ _____
PRINTED NAME SIGNATURE

COMMONWEALTH OF PENNSYLVANIA COUNTY OF MONTGOMERY
ON THE _____DAY OF _____, 20_____ BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA,

PERSONALLY APPEARED _____ WHO ACKNOWLEDGED

HIMSELF TO BE THE _____

A CORPORATION, AND THAT HE AS SUCH PRESIDENT BEING AUTHORIZED TO DO SO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF STREETS AND PROPERTY SHOWN THEREON, SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA AND DESIRED THAT THIS PLAN BE RECORDED ACCORDING TO LAW.

WITNESS MY HAND AND SEAL THE DAY AND YEAR AFORESAID.

_____ _____
NOTARY PUBLIC MY COMMISSION EXPIRES

MONTGOMERY COUNTY PLANNING COMMISSION

THIS SUBDIVISION/LAND DEVELOPMENT WAS REVIEWED BY THE MONTGOMERY COUNTY PLANNING COMMISSION ON THE _____ DAY OF _____, 20_____

(SEAL): _____
MCPC NUMBER: _____

CERTIFICATION OF TOWNSHIP APPROVAL

AT A MEETING HELD ON _____, 20_____ THE TOWNSHIP SUPERVISORS OF NEW HANOVER TOWNSHIP BY _____(RESOLUTION OR ORDINANCE No.) DULY ENACTED, APPROVED THE SUBDIVISION / LAND DEVELOPMENT PLAN OF THE PROPERTY OF RP WYNSTONE (PROPERTY OWNER)

_____ _____
(TOWNSHIP SECRETARY) (CHAIRMAN OF THE BOARD OF SUPERVISORS)

NEW HANOVER PLANNING COMMISSION

REVIEWED BY THE NEW HANOVER TOWNSHIP PLANNING COMMISSION AND RECOMMENDED FOR APPROVAL ON THE _____ DAY OF _____, 20_____.

_____
(PLANNING COMMISSION CHAIRMAN)

NEW HANOVER TOWNSHIP ENGINEER

REVIEWED BY THE TOWNSHIP ENGINEER OF THE _____ DAY OF _____, 20_____.

_____
(TOWNSHIP ENGINEER)

COUNTY RECORDER OF DEEDS

RECORED I THE OFFICE OF RECORDER OF DEEDS FOR MONTGOMERY COUNTY, AT NORRISTOWN, PENNSYLVANIA, THIS _____ DAY OF _____, 20_____.

BY:_____ RECORDING CERTIFICATE:
RECORDER OF DEEDS

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12–13–19
7.	REVISED PER COMMENT LETTERS	11–09–18
6.	REVISED PER MCCD COMMENTS	6–01–18
5.	REVISED PER COMMENT LETTERS	1–31–18
4.	REVISED PER COMMENT LETTERS	11–08–17
3.	REVISED PER COMMENT LETTERS	8–04–17
2.	REVISED PER COMMENT LETTERS	4–07–17
1.	REVISED PER COMMENT LETTERS	11–04–16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL LAND SURVEYOR SU-001058-E

SIGNATURE DATE SIGNED
PROFESSIONAL SURVEYOR PA Lic. No. SU-001058-E

LANGAN

One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com

NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO
WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SUBDIVISION PLAN (RECORD PLAN)

Project No. 240038801	Drawing No. CB-102
Date 05/31/16	
Scale 1"=50'	
Drawn By JDM	
Submission Date	Sheet 15 of 187

LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- PR. PROPERTY LINE
- PR. SETBACK LINE
- CONC. MONUMENT TO BE SET
- EX. EASEMENT
- EX. RIGHT–OF–WAY
- EX. EDGE OF ROAD
- EX. IRON PIN

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

50 0 25 50
SCALE IN FEET

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Filename: I:\langan.com\data\BET\data\P-240038801\Cadd Data - 240038801\SheetFiles\240038801 CB101-109.dwg, Date: 12/13/2019, Time: 14:43, User: wschaeffer, Style Table: Langan.stb, Layout: CB-102

LANGAN

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

NOTES

1. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS AS SHOWN HEREON.
2. SUBJECT PROPERTY CONSISTS OF TAX PARCEL IDENTIFICATION NO.:
   47-00-03916-006 DB 5798 PG 02506 TO 02511.1
   47-00-07308-007 DB 5798 PG 02506 TO 02511.1
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   – PLAN OF SURVEY, SHEET 1 OF 1, OF STOFFLET – T.M.P 47-046-028, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES INC., AND PLAN DATE 12/28/04 (NO REVISIONS).
4. THIS PLAN WAS PREPARED WITH RESPECT TO THE FOLLOWING REFERENCE: PLAN ENTITLED "NEW HANOVER, BOUNDARY AND TOPOGRAPHIC SURVEY" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, SHEET No. V1-101, DATED 1/20/16, LAST REVISED 8/07/17.
5. BOUNDARY AND PARTIAL TOPOGRAPHIC INFORMATION SHOWN BASED ON A FIELD SURVEY PERFORMED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES DURING SEPTEMBER 2015 AND JUNE 2017.
6. BOUNDARY INFORMATION FOR BLOCK 53 UNIT 20 (47-00-03948-001) AND BLOCK 53 UNIT 71 (47-03948-109) WERE TAKEN FROM AN ANNEXATION PLAN OF THE KULP TRACT, PREPARED BY RICHARD C. MAST ASSOCIATES, P.C., DATED SEPTEMBER 28, 2005, AND LAST REVISED AUGUST 1, 2006.
7. WATERS OF THE UNITED STATES SHOWN HEREON WERE FIELD DELINEATED AND VERIFIED BY NOVA CONSULTANTS, LTD., IN APRIL 2005, AND SURVEY LOCATED BY BOUCHER & JAMES, INC., IN MARCH 2005.
8. PROPERTY THAT FALLS WITHIN ZONE "X" (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD), AS SHOWN ON FEMA FLOOD INSURANCE MAP PANEL #86 OF 451, MAP #42091C0086E MAP REVISED DECEMBER 19, 1996 AND FEMA FLOOD INSURANCE MAP PANEL #87 OF 451, MAP #42091C0087E MAP REVISED DECEMBER 19, 1996.
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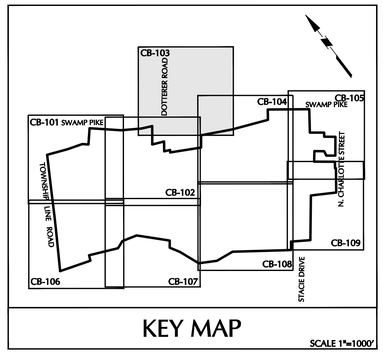
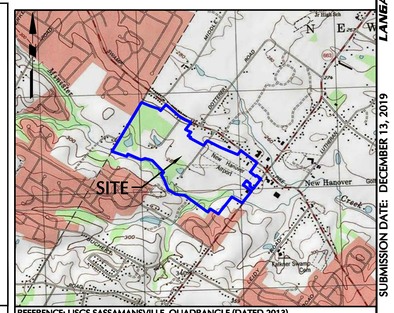
14. REFER TO SHEET CB-111 FOR LOT AREA TABLES.
15. A BLANKET EASEMENT IS PROVIDED OVER THE ENTIRE PROPERTY FOR THE SANITARY SEWER MAINS, MANHOLES, AND APPURTENANCES.
16. THIS PLAN IS NOT VALID UNLESS STAMPED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONAL(S).
17. TOWNSHIP LINE ROAD SHALL BE RESURFACED THE FULL WIDTH OF THE ROADWAY AS INDICATED ON THE SITE PLAN.



KEY MAP

SCALE 1"=1000'



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'

CERTIFICATION OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PREPARED BY ME OR UNDER MY DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY. THE PERIMETER MONUMENTS SHALL BE ACCURATELY PLACED AS REQUIRED BY THE TOWNSHIP. _____, 20_____

_____
JASON ENGELHARDT
PROFESSIONAL ENGINEER PA LIC. NO. PE-057145-E

CERTIFICATION OF OWNERSHIP

(RP WYNSTONE, L.P., AT REALTY, L.P. AND AKM PROPERTIES, LP., TROLLEYLINE ENTERPRISES, L.P., GENERAL HANCOCK PARTNERSHIP LP.)

I _____
HAVE LAID OUT UPON MY LAND SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED.

WITNESS MY HAND AND SEAL THIS _____DAY OF _____, 20_____.

_____ _____
PRINTED NAME SIGNATURE

COMMONWEALTH OF PENNSYLVANIA COUNTY OF MONTGOMERY
ON THE _____DAY OF _____, 20_____ BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA,

PERSONALLY APPEARED _____ WHO ACKNOWLEDGED

HIMSELF TO BE THE _____

A CORPORATION, AND THAT HE AS SUCH PRESIDENT BEING AUTHORIZED TO DO SO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF STREETS AND PROPERTY SHOWN THEREON, SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA AND DESIRED THAT THIS PLAN BE RECORDED ACCORDING TO LAW.
WITNESS MY HAND AND SEAL THE DAY AND YEAR AFORESAID.

_____ _____
NOTARY PUBLIC MY COMMISSION EXPIRES

MONTGOMERY COUNTY PLANNING COMMISSION

THIS SUBDIVISION/LAND DEVELOPMENT WAS REVIEWED BY THE MONTGOMERY COUNTY PLANNING COMMISSION ON THE _____ DAY OF _____, 20_____

(SEAL): _____
MCPC NUMBER: _____

CERTIFICATION OF TOWNSHIP APPROVAL

AT A MEETING HELD ON _____, 20_____, THE TOWNSHIP SUPERVISORS OF NEW HANOVER TOWNSHIP BY _____(RESOLUTION OR ORDINANCE No.) DULY ENACTED, APPROVED THE SUBDIVISION / LAND DEVELOPMENT PLAN OF THE PROPERTY OF RP WYNSTONE (PROPERTY OWNER)

_____ _____
(TOWNSHIP SECRETARY) (CHAIRMAN OF THE BOARD OF SUPERVISORS)

NEW HANOVER PLANNING COMMISSION

REVIEWED BY THE NEW HANOVER TOWNSHIP PLANNING COMMISSION AND RECOMMENDED FOR APPROVAL ON THE _____ DAY OF _____, 20____.

_____ _____
(PLANNING COMMISSION CHAIRMAN)

NEW HANOVER TOWNSHIP ENGINEER

REVIEWED BY THE TOWNSHIP ENGINEER OF THE _____ DAY OF _____, 20____.

_____
(TOWNSHIP ENGINEER)

COUNTY RECORDER OF DEEDS

RECORED I THE OFFICE OF RECORDER OF DEEDS FOR MONTGOMERY COUNTY, AT NORRISTOWN, PENNSYLVANIA, THIS _____ DAY OF _____, 20____.

BY: _____ RECORDING CERTIFICATE:
RECORDER OF DEEDS

LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
PR. PROPERTY LINE	
PR. SETBACK LINE	
CONC. MONUMENT TO BE SET	◎
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. IRON PIN	○

No.	Date	Description
8.	12-13-19	REVISED PER COMMENT LETTERS
7.	11-09-18	REVISED PER COMMENT LETTERS
6.	6-01-18	REVISED PER MCCD COMMENTS
5.	1-31-18	REVISED PER COMMENT LETTERS
4.	11-08-17	REVISED PER COMMENT LETTERS
3.	8-04-17	REVISED PER COMMENT LETTERS
2.	4-07-17	REVISED PER COMMENT LETTERS
1.	11-04-16	REVISED PER COMMENT LETTERS

REVISIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
PROFESSIONAL
SHAUN F. HUGHES
LAND SURVEYOR
SU-057088-E
SIGNATURE DATE SIGNED
PROFESSIONAL LAND SURVEYOR PA Lic. No. SU-057088-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan Treadwell LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SUBDIVISION PLAN (RECORD PLAN)

Project No. 240038801	Drawing No. CB-103
Date 05/31/16	
Scale 1"=50'	
Drawn By KG	
Submission Date	Sheet 16 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

SCALE IN FEET: 50 0 25 50

Filename: \\langan.com\data\BET\data8\240038801\Cadd Data - 240038801\Sheet Files\240038801 CB101-109.dwg Date: 12/13/2019 Time: 14:43 User: wschaefer Style Table: Langan.stb Layout: CB-103

NOTES

1. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS AS SHOWN HEREIN.
2. SUBJECT PROPERTY CONSISTS OF TAX PARCEL IDENTIFICATION NO.:
   47-00-03916-006 DB 5798 PG 02506 TO 02511.1
   47-00-07308-007 DB 5798 PG 02506 TO 02511.1
   47-00-07316-008 DB 5798 PG 02506 TO 02511.1
   47-00-07240-003 DB 5826 PG 00947 TO 00954
   47-00-07244-008 DB 5826 PG 00947 TO 00954
   47-00-07060-003 DB 5826 PG 00947 TO 00954
   47-00-03948-001 DB 5826 PG 00947 TO 00954
   47-00-07268-002 DB 5824 PG 00397 TO 00404
   47-00-03908-005 DB 5939 PG 01775 TO 01780
   47-00-03948-10-9 DB 5736 PG 01212 TO 01216.1
3. EXISTING TOPOGRAPHIC INFORMATION TAKEN FROM THE FOLLOWING BOUCHER & JAMES INC. PLANS:
   – PLAN OF SURVEY, SHEET 1 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 06/12/08.
   – PLAN OF SURVEY, SHEET 2 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 02/27/08.
   – PLAN OF SURVEY, SHEET 1 OF 1, OF STOFFLET – T.M.P 47-046-028, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES INC., AND PLAN DATE 12/28/04 (NO REVISIONS).
4. THIS PLAN WAS PREPARED WITH RESPECT TO THE FOLLOWING REFERENCE: PLAN ENTITLED "NEW HANOVER, BOUNDARY AND TOPOGRAPHIC SURVEY" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, SHEET No. VT-101, DATED 1/20/16, LAST REVISED 8/07/17.
5. BOUNDARY AND PARTIAL TOPOGRAPHIC INFORMATION SHOWN BASED ON A FIELD SURVEY PERFORMED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES DURING SEPTEMBER 2015 AND JUNE 2017.
6. BOUNDARY INFORMATION FOR BLOCK 53 UNIT 20 (47–00–03948–001) AND BLOCK 53 UNIT 71 (47–03948–109) WERE TAKEN FROM AN ANNEXATION PLAN OF THE KULP TRACT, PREPARED BY RICHARD C. MAST ASSOCIATES, P.C., DATED SEPTEMBER 28, 2005, AND LAST REVISED AUGUST 1, 2006.
7. WATERS OF THE UNITED STATES SHOWN HEREON WERE FIELD DELINEATED AND VERIFIED BY NOVA CONSULTANTS, LTD., IN APRIL 2005, AND SURVEY LOCATED BY BOUCHER & JAMES, INC., IN MARCH 2005.
8. PROPERTY THAT FALLS WITHIN ZONE "X" (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD), AS SHOWN ON FEMA FLOOD INSURANCE MAP PANEL #86 OF 451, MAP #42091C0086E MAP REVISED DECEMBER 19, 1996 AND FEMA FLOOD INSURANCE MAP PANEL #87 OF 451, MAP #42091C0087E MAP REVISED DECEMBER 19, 1996.
9. MERIDIAN IS REFERENCED TO PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, ZONE SOUTH, NAD 83.
10. VERTICAL DATUM IS BASED ON NAVD 88.
11. MONUMENTS SHALL BE PLACED IN THE GROUND AFTER FINAL GRADING IS COMPLETED, AT A TIME SPECIFIED BY THE TOWNSHIP ENGINEER. MONUMENTS SHALL BE CONCRETE, THE SIZE AND LENGTH APPROVED BY THE TOWNSHIP ENGINEER.
12. PK NAILS SHALL BE USED IN PLACE OF MONUMENTS WHICH ARE SHOWN IN PAVED AREAS.
13. REFER TO SHEET CB–110 FOR CURVE DATA TABLES.
14. REFER TO SHEET CB–111 FOR LOT AREA TABLES.
15. A BLANKET EASEMENT IS PROVIDED OVER THE ENTIRE PROPERTY FOR THE SANITARY SEWER MAINS, MANHOLES, AND APPURTENANCES.
16. THIS PLAN IS NOT VALID UNLESS STAMPED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONAL(S).
17. TOWNSHIP LINE ROAD SHALL BE RESURFACED THE FULL WIDTH OF THE ROADWAY AS INDICATED ON THE SITE PLAN.

MATCHLINE-CB-102

MATCHLINE-CB-103

MATCHLINE-CB-105

MATCHLINE-CB-108

SWAMP PIKE

500.0' EXISTING ARTERIAL CORNER SIGHT DISTANCE

S53°41'57"E 394.16'

N36°16'23"E 166.49'

EXISTING ARTERIAL SIGHT DISTANCE TRIANGLE

ARTERIAL SIGHT TRIANGLE ACROSS CORNERS

FLUHARTY DRIVE

TC DISTRICT NON–RESIDENTIAL USE AREA 1 1,032,361 SF.

S67°53'47"E 602.17'

S63°35'36"E 514.93'

489.48'

S63°35'36"E 364.89'

283.96'

318.21'

N23°51'30"E 40.33'

N36°15'57"E 184.76'

N36°15'57"E 140.00'

RESTAURANT 1

OPEN SPACE F 52,859 SF.

PROPOSED LOT LINE (TYP.)

PROPOSED MONUMENT (TYP.)

RECREATION OPEN SPACE 10 39,415 SF.

ANDOVER DRIVE S53°44'14"E 481.38'

N37°12'08"E 200.00'

INTERNAL OPEN SPACE 8 3,663 SF.

INTERNAL OPEN SPACE 9 3,670 SF.

INTERNAL OPEN SPACE 10 33,445 SF.

INTERNAL OPEN SPACE 11 4,099 SF.

INTERNAL OPEN SPACE 12 42,036 SF.

INTERNAL OPEN SPACE 4 1,641 SF.

INTERNAL OPEN SPACE 17 1,800 SF.

ALLEY BB

ALLEY KK

ALLEY Y

ALLEY M

ALLEY P

ALLEY Z

ALLEY JJ

N. MAIN STREET

S. MAIN STREET

E. MAIN STREET

ANDOVER DRIVE

VANDERBILT DRIVE

S. FLUHARTY DRIVE

W. FLUHARTY DRIVE

TH–1 through TH–63

TH–31

TH–32

TH–33

TH–34

TH–35

TH–36

TH–37

TH–38

TH–39

TH–40

TH–41

TH–42

TH–43

TH–44

TH–45

TH–46

TH–47

TH–48

TH–49

TH–50

TH–51

TH–52

TH–53

TH–54

TH–55

TH–56

TH–57

TH–58

TH–59

TH–60

TH–61

TH–62

TH–63

AH–79

T–1 through T–201

C–1 through C–422

OPEN SPACE 13 10,402 SF.

OPEN SPACE 15 29,382 SF.

OPEN SPACE 16 2,500 SF.

FLEX BLDG 4

FLEX BLDG 5

FLEX BLDG 6

FLEX BUILDING 7

BLDG. A MIXED USE

BLDG. B MIXED USE

RETAIL BLDG. 1

TERMINUS OF ROAD CENTER LINES (TYP.)

TERMINUS CENTER LINE (TYP.)

ROAD CENTER LINE (TYP.)

SIGHT TRIANGLE ACROSS CORNERS

SIGHT DISTANCE FOR SPREAD OUT STOPPED CONDITION

20.0' SIDE YARD SETBACK (TYP.)

20.0' REAR YARD SETBACK

MAJOR COLLECTOR SIGHT DISTANCE TRIANGLE

350' MAJOR COLLECTOR SIGHT DISTANCE

EXISTING ACCESS EASEMENT

IRON PIN (FOUND)

IRON PIN (FOUND)

IRON PIN (FOUND)

IRON PIN (FOUND)

IRON PIN (FOUND)

IRON PIN (FOUND)

N/F Kulp H. Inc. Block 53, Unit 62 Parcel #47-00-07555-009 DB 5795, Pg 2555 Zone Code: TC Land Use: F27 Repair Garage

N/F Kulp Rental Partnership Block 53, Unit 002 Parcel #47-00-07332-001 Zone Code: TC Land Use: Not listed

N/F Hanover Court Shopping Center Assoc. Block 46, Unit 034 Parcel #47-00-0693B-001 Zone Code: TC

N/F Edward W. & Jeanne M. Block 46, Unit 002 Parcel #47-00-0693A-002 Zone Code: TC

N/F HCSC Phase 2 LP Block 46, Unit 040 Parcel #47-00-0693C-006 Zone Code: TC

N/F Oliver H. Jr. & Lorraine S. Field Block 53, Unit 068 Parcel #47-00-07319-005 Zone Code: TC Land Use: F3 Retail

N/F Joseph J. & Block 53, Unit 003 Parcel #47-00-07339-005 Zone Code: TC Land Use: Single Family

N/F Blair S. & Joanna M. Bland Block 53, Unit 004 Parcel #47-00-07334-009 Zone Code: TC Land Use: B2 Duplex

N/F Teresa A. Purcell Block 53, Unit 005 Parcel #47-00-07329-004 Zone Code: TC Land Use: B1 Single Family

Beth L. Allen 52, Unit 328 47-00-07348-409 Code: TC B1 Single Family

N37°12'08"E 200.00'

N36°15'57"E 199.50'

N36°15'57"E 264.70'

N28°15'57"E 241.14'

S28°15'01"W 210.19'

S28°15'01"W 83.14'

S28°15'01"W 84.00'

S28°15'01"W 84.00'

S28°15'01"W 84.00

MATCHLINE-CB-104

MATCHLINE-CB-109

SWAMP PIKE

SWAMP PIKE RIGHT-OF-WAY AREA CC

TITLE LINE (TYP.)

TERMINUS CENTER LINE (TYP.)

500.0' EXISTING ARTERIAL CORNER SIGHT DISTANCE

S53°03'27"E 283.14'

S53°41'57"E 394.16'

15.0' CARTWAY SETBACK

RIGHT-OF-WAY LINE (TYP.)

20.0' MAX. FRONT YARD SETBACK

S52°43'08"E 149.08'

S51°54'22"E 98.87'

S50°14'23"E 51.27'

ARTERIAL SIGHT TRIANGLE ACROSS CORNERS

RESTAURANT 2

ROAD CENTER LINE (TYP.)

S35°40'26"W 384.11'

TC DISTRICT NON-RESIDENTIAL USE AREA 1 1,032,361 SF.

20.0' SIDE YARD SETBACK (TYP.)

N.VANDERBILT DRIVE

RESTAURANT 1

NORTH CHARLOTTE STREET S.R. 663 RIGHT-OF-WAY AREA C 4,480 SF.

S52°42'15"E 183.01'

N37°17'06"E 38.86'

S52°42'54"E 234.48'

CONC. MON (FOUND)

IRON PIN (FOUND)

N/F TROLLEYLINE ENTERPRISES, L.P. Block 53, Unit 012 Parcel #47-00-03902-007 Zone Code: TC Land Use: 81 Single Family

DD-2 14,918 SF. 0.342 AC.

TEMPORARY GRADING EASEMENT 3,053 SF

S52°42'15"E 140.73'

140.73'

42.27'

20.0' SIDE YARD SETBACK (TYP.)

S37°13'44"W 111.29'

S37°17'14"W 106.00'

NORTH CHARLOTTE STREET S.R. 663 RIGHT-OF-WAY AREA B 13,201 SF.

N/F Richard B. & Carolyn J. Freed Block 54, Unit 009 Parcel #47-00-03480-001 Zone Code: TC

N/F Richard B. & Carolyn J. Freed Block 54, Unit 010 Parcel #47-00-03484-006 Zone Code: TC

N/F Richard B. & Carolyn J. Freed Block 54, Unit 011

N/F Virginia M. Specht, Harold R. Specht & Donna S. Landis Block 54, Unit 012 Parcel #47-00-03488-002 Zone Code: TC

N/F Freeds Partnership Block 54, Unit 050 Parcel #47-00-07360-009 Zone Code: R25

S37°13'44"W 198.09'

500' EXISTING ARTERIAL CORNER SIGHT DISTANCE

15.0' CARTWAY SETBACK

TITLE LINE (TYP.)

S37°15'46"W 198.09'

S37°20'48"W 152.00'

S37°46'05"W 247.90'

N37°31'59"E 152.54'

N37°21'34"E 46.99'

104.04'

43.20'

N11°01'36"E 81.07'

N52°42'54"W 147.24'

N52°37'43"W 160.85'

S38°04'56"W 172.59'

PROPOSED MONUMENT (TYP.)

EXISTING ARTERIAL SIGHT DISTANCE TRIANGLE

S37°21'34"W 25.28'

303.01'

S52°10'02"E 346.23'

ARTERIAL SIGHT TRIANGLE ACROSS CORNERS

N37°20'48"E 2.50'

S52°39'12"E 80.37'

S52°39'12"E 202.36'

S52°39'12"E 408.42'

VANDERBILT DRIVE

S52°39'12"E 50.31'

S49°05'13"E 152.73'

S52°39'12"E 117.96'

SIGHT DISTANCE FOR SPREAD OUT STOPPED CONDITION

AREA EXCLUDED FROM RECREATION OPEN SPACE 9 DUE TO STEEP SLOPES 16,486 SF

RECREATION OPEN SPACE 9 54,739 SF

TITLE LINE (TYP.)

RIGHT-OF-WAY LINE (TYP.)

LIMIT OF RECREATION OPEN SPACE

EXISTING SANITARY EASEMENT

N52°39'18"W 527.45'

NORTH CHARLOTTE STREET S.R. 663 RIGHT-OF-WAY AREA A 21,649 SF.

S37°47'18"W 350.74'

127.46'

20.0' REAR YARD SETBACK

S53°44'16"E 354.01'

S53°44'16"E 238.43'

S53°44'16"E 24.53'

N81°15'44"E 11.30'

S08°44'41"E 11.30'

S53°44'16"E 75.06'

EXISTING SANITARY EASEMENT

TC DISTRICT NON-RESIDENTIAL NATURALIZED GREEN AREA 139,698 SF.

SERVICE DRIVE

FLEX BUILDING 7

FLEX BUILDING 8

E. MAIN STREET

S53°43'51"E 687.16'

ROAD CENTER LINE (TYP.)

338.66'

SUPER MARKET

RETAIL BLDG. 1

E. MAIN STREET

N53°44'29"W 282.45'

N19°10'16"E 67.40'

N70°49'44"W 19.41'

SIGHT DISTANCE FOR SPREAD OUT STOPPED CONDITION

S82°08'16"E 58.48'

SIGHT TRIANGLE ACROSS CORNERS

TERMINUS CENTER LINE (TYP.)

20.0' SIDE YARD SETBACK (TYP.)

20.0' MAX. FRONT YARD SETBACK

ROAD CENTER LINE (TYP.)

25.0'

C78 C79 C197 C229 C545 C339 C344 C340 C341 C342 C246 C336 C337 C12 C333 C334 C115 C247 C282

N/F Hanover Court Shopping Center Assoc. Block 46, Unit 024 Parcel #47-00-06928-009 Zone Code: TC

N/F HCSC Phase 2 LP Block 46, Unit 01 Parcel #47-00-06926-001 Zone Code: TC

N/F James N. & Loretta A. Faust Block 46, Unit 038 Parcel #47-00-06900-008 Zone Code: TC

N/F James N. & Loretta A. Faust Block 46, Unit 037 Parcel #47-00-03868-007 Zone Code: TC

N/F Joseph J. Cava Jr. Block 46, Unit 041 Parcel #47-00-03892-003 Zone Code: TC

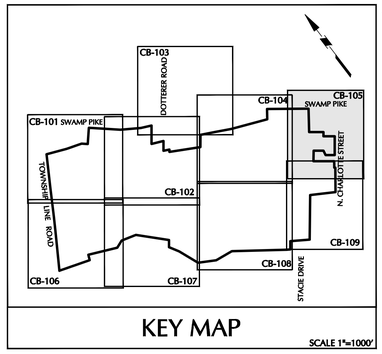
N/F Wawa, Inc. Block 53, Unit 007 Parcel #47-00-07312-003 Block 53, Unit 008 Parcel #47-00-07296-001 Block 53, Unit 069 Parcel #47-00-07308-016 Zone Code: TC Land Use: 735 Store Convenience

N/F RP Wynstone LP Block 53, Unit 036 Parcel #47-00-03912-001 Zone Code: TC Land Use: 81 Single Family

N/F SCP 2002E-54 LLC Block 54, Unit 001 Parcel #47-00-07380-007 Zone Code: TC

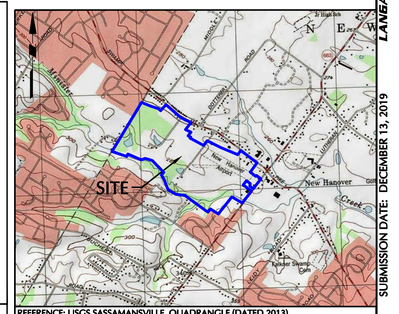
ROW AND PROPERTY BOUNDARY FOR CVS TAKEN FROM A PLAN ENTITLED "SITE PLAN" DRAWING No. C-4, PREPARED BY LITTLE AND ASSOCIATES INC., DATED 7/30/01 LAST REVISED 8/20/02.

35' 40' 100' 36' 60'



KEY MAP

SCALE 1"=1000'



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'

CERTIFICATION OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PREPARED BY ME OR UNDER MY DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY. THE PERIMETER MONUMENTS SHALL BE ACCURATELY PLACED AS REQUIRED BY THE TOWNSHIP. _____ 20_____

_____
JASON ENGELHARDT
PROFESSIONAL ENGINEER PA LIC. NO. PE-057145-E

CERTIFICATION OF OWNERSHIP

(RP WYNSTONE, L.P., AT REALTY, L.P. AND AKM PROPERTIES, LP., TROLLEYLINE ENTERPRISES, L.P., GENERAL HANCOCK PARTNERSHIP LP.)

I _____
HAVE LAID OUT UPON MY LAND SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED.

WITNESS MY HAND AND SEAL THIS _____DAY OF _____, 20_____.

_____ _____
PRINTED NAME SIGNATURE

COMMONWEALTH OF PENNSYLVANIA COUNTY OF MONTGOMERY
ON THE _____DAY OF _____, 20_____ BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA,

PERSONALLY APPEARED _____ WHO ACKNOWLEDGED

HIMSELF TO BE THE _____

A CORPORATION, AND THAT HE AS SUCH PRESIDENT BEING AUTHORIZED TO DO SO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF STREETS AND PROPERTY SHOWN THEREON, SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA AND DESIRED THAT THIS PLAN BE RECORDED ACCORDING TO LAW.

WITNESS MY HAND AND SEAL THE DAY AND YEAR AFORESAID.

_____ _____
NOTARY PUBLIC MY COMMISSION EXPIRES

MONTGOMERY COUNTY PLANNING COMMISSION

THIS SUBDIVISION/LAND DEVELOPMENT WAS REVIEWED BY THE MONTGOMERY COUNTY PLANNING COMMISSION ON THE _____ DAY OF _____, 20_____

(SEAL):_____
MCPC NUMBER: _____

CERTIFICATION OF TOWNSHIP APPROVAL

AT A MEETING HELD ON _____, 20_____, THE TOWNSHIP SUPERVISORS OF NEW HANOVER TOWNSHIP BY _____(RESOLUTION OR ORDINANCE No.) DULY ENACTED, APPROVED THE SUBDIVISION / LAND DEVELOPMENT PLAN OF THE PROPERTY OF RP WYNSTONE (PROPERTY OWNER)

_____ _____ _____
(TOWNSHIP SECRETARY) (CHAIRMAN OF THE BOARD OF SUPERVISORS)

NEW HANOVER PLANNING COMMISSION

REVIEWED BY THE NEW HANOVER TOWNSHIP PLANNING COMMISSION AND RECOMMENDED FOR APPROVAL ON THE _____ DAY OF _____, 20_____.

_____ _____
(PLANNING COMMISSION CHAIRMAN)

NEW HANOVER TOWNSHIP ENGINEER

REVIEWED BY THE TOWNSHIP ENGINEER OF THE _____ DAY OF _____, 20_____.

_____
(TOWNSHIP ENGINEER)

COUNTY RECORDER OF DEEDS

RECORED I THE OFFICE OF RECORDER OF DEEDS FOR MONTGOMERY COUNTY, AT NORRISTOWN, PENNSYLVANIA, THIS _____ DAY OF _____, 20_____.

BY:_____ RECORDING CERTIFICATE:
RECORDER OF DEEDS

NOTES

1. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS AS SHOWN HEREIN.
2. SUBJECT PROPERTY CONSISTS OF TAX PARCEL IDENTIFICATION NO.:
   47-00-03916-006 DB 5798 PG 02506 TO 02511.1
   47-00-07308-007 DB 5798 PG 02506 TO 02511.1
   47-00-07316-008 DB 5798 PG 02506 TO 02511.1
   47-00-07240-003 DB 5826 PG 00947 TO 00954
   47-00-07244-008 DB 5826 PG 00947 TO 00954
   47-00-07060-003 DB 5826 PG 00947 TO 00954
   47-00-03948-001 DB 5826 PG 00947 TO 00954
   47-00-07268-002 DB 5824 PG 00397 TO 00404
   47-00-03908-005 DB 5939 PG 01775 TO 01780
   47-00-03948-10-9 DB 5736 PG 01212 TO 01216.1
3. EXISTING TOPOGRAPHIC INFORMATION TAKEN FROM THE FOLLOWING BOUCHER & JAMES INC. PLANS:
   – PLAN OF SURVEY, SHEET 1 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 06/12/08.
   – PLAN OF SURVEY, SHEET 2 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 02/27/08.
   – PLAN OF SURVEY, SHEET 1 OF 1, OF STOFFLET – T.M.P 47-046-028, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES INC., AND PLAN DATE 12/28/04 (NO REVISIONS).
4. THIS PLAN WAS PREPARED WITH RESPECT TO THE FOLLOWING REFERENCE: PLAN ENTITLED "NEW HANOVER, BOUNDARY AND TOPOGRAPHIC SURVEY" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, SHEET No. VT-101, DATED 1/20/16, LAST REVISED 8/07/17.
5. BOUNDARY AND PARTIAL TOPOGRAPHIC INFORMATION SHOWN BASED ON A FIELD SURVEY PERFORMED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES DURING SEPTEMBER 2015 AND JUNE 2017.
6. BOUNDARY INFORMATION FOR BLOCK 53 UNIT 20 (47-00-03948-001) AND BLOCK 53 UNIT 71 (47-03948-109) WERE TAKEN FROM AN ANNEXATION PLAN OF THE KULP TRACT, PREPARED BY RICHARD C. MAST ASSOCIATES, P.C., DATED SEPTEMBER 28, 2005, AND LAST REVISED AUGUST 1, 2006.
7. WATERS OF THE UNITED STATES SHOWN HEREON WERE FIELD DELINEATED AND VERIFIED BY NOVA CONSULTANTS, LTD., IN APRIL 2005, AND SURVEY LOCATED BY BOUCHER & JAMES, INC., IN MARCH 2005.
8. PROPERTY THAT FALLS WITHIN ZONE "X" (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD), AS SHOWN ON FEMA FLOOD INSURANCE MAP PANEL #86 OF 451, MAP #42091C0086E MAP REVISED DECEMBER 19, 1996 AND FEMA FLOOD INSURANCE MAP PANEL #87 OF 451, MAP #42091C0087E MAP REVISED DECEMBER 19, 1996.
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10. VERTICAL DATUM IS BASED ON NAVD 88.
11. MONUMENTS SHALL BE PLACED IN THE GROUND AFTER FINAL GRADING IS COMPLETED, AT A TIME SPECIFIED BY THE TOWNSHIP ENGINEER. MONUMENTS SHALL BE CONCRETE, THE SIZE AND LENGTH APPROVED BY THE TOWNSHIP ENGINEER.
12. PK NAILS SHALL BE USED IN PLACE OF MONUMENTS WHICH ARE SHOWN IN PAVED AREAS.
13. REFER TO SHEET CB-110 FOR CURVE DATA TABLES.
14. REFER TO SHEET CB-111 FOR LOT AREA TABLES.
15. A BLANKET EASEMENT IS PROVIDED OVER THE ENTIRE PROPERTY FOR THE SANITARY SEWER MAINS, MANHOLES, AND APPURTENANCES.
16. THIS PLAN IS NOT VALID UNLESS STAMPED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONAL(S).
17. TOWNSHIP LINE ROAD SHALL BE RESURFACED THE FULL WIDTH OF THE ROADWAY AS INDICATED ON THE SITE PLAN.

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA — JASON T. HUGHES — REGISTERED PROFESSIONAL — LAND SURVEYOR — No. SU-073055-E

SIGNATURE DATE SIGNED

PROFESSIONAL SURVEYOR PA Lic. No. SU-073055-E

LANGAN

One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com

NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering, Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SUBDIVISION PLAN (RECORD PLAN)

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	JDM
Submission Date	
Drawing No.	CB-105
Sheet	18 of 187

LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
PR. PROPERTY LINE	
PR. SETBACK LINE	
CONC. MONUMENT TO BE SET	◎
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. IRON PIN	○

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

50 0 25 50
SCALE IN FEET

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

Filename: \\langan.com\data\BET\data\240038801\Cadd Data - 240038801\SheetFiles\240038801 CB101-109.dwg Date: 12/13/2019 Time: 14:44 User: wschaefer Style Table: Langan.stb Layout: CB-105

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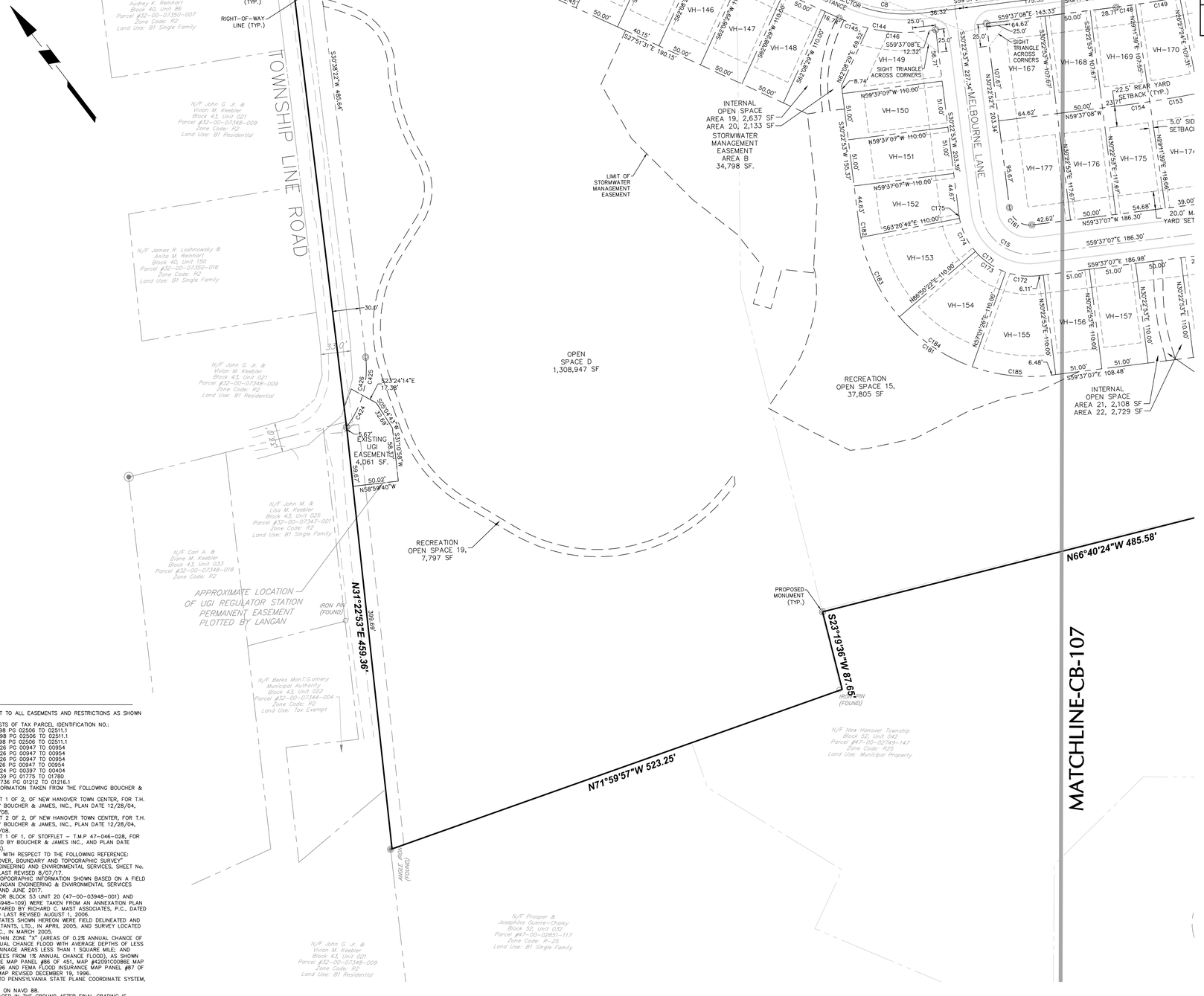
MATCHLINE-CB-101

MATCHLINE-CB-107


TOWNSHIP LINE ROAD
VANDERBILT DRIVE
MELBOURNE LANE
TITLE LINE (TYP.)
RIGHT-OF-WAY LINE (TYP.)
INTERNAL OPEN SPACE AREA 19, 2,637 SF AREA 20, 2,133 SF
STORMWATER MANAGEMENT EASEMENT AREA B 34,798 SF.
LIMIT OF STORMWATER MANAGEMENT EASEMENT
OPEN SPACE D 1,308,947 SF
RECREATION OPEN SPACE 15, 37,805 SF
RECREATION OPEN SPACE 19, 7,797 SF
INTERNAL OPEN SPACE AREA 21, 2,108 SF AREA 22, 2,729 SF
EMERGENCY ACCESS AREA 11,971 SF.
EXISTING UGI EASEMENT 4,061 SF.
APPROXIMATE LOCATION OF UGI REGULATOR STATION PERMANENT EASEMENT PLOTTED BY LANGAN
PROPOSED MONUMENT (TYP.)
IRON PIN (FOUND)
ANGLE IRON (FOUND)
N/F Gerald T. & Audrey K. Reinhart Block 40, Unit 86 Parcel #32-00-07350-007 Zone Code: R2 Land Use: B1 Single Family
N/F John G. Jr. & Vivian M. Keebler Block 43, Unit 021 Parcel #32-00-07348-009 Zone Code: R2 Land Use: B1 Single Family
N/F James R. Loshnowsky & Anita M. Reinhart Block 40, Unit 150 Parcel #32-00-07350-016 Zone Code: R2 Land Use: B1 Single Family
N/F John M. & Lisa M. Keebler Block 43, Unit 025 Parcel #32-00-07347-001 Zone Code: R2 Land Use: B1 Single Family
N/F Carl A. & Diane M. Keebler Block 43, Unit 033 Parcel #32-00-07348-018 Zone Code: R2
N/F Berks MonT.Gomery Municipal Authority Block 43, Unit 022 Parcel #32-00-07344-004 Zone Code: R2 Land Use: Tax Exempt
N/F John G. Jr. & Vivian M. Keebler Block 43, Unit 021 Parcel #32-00-07348-009 Zone Code: R2 Land Use: B1 Residential
N/F Prosper & Josephine Guerre-Chaley Block 52, Unit 032 Parcel #47-00-02851-117 Zone Code: R-25 Land Use: B1 Single Family
N/F New Hanover Township Block 52, Unit 042 Parcel #47-00-02749-147 Zone Code: R25 Land Use: Municipal Property
S30°19'28"W 485.64'
N33°22'53"E 459.36'
N71°59'57"W 523.25'
S23°19'36"W 87.65'
N66°40'24"W 485.58'
S59°23'14"E 215.90'
S59°23'14"E 227.94'
S59°23'14"E 150.33'
S59°37'08"E 211.65'
S59°37'08"E 175.33'
S59°23'14"E 117.00'
S59°38'17"E 150.00'
S30°22'52"W 227.34'
S30°22'52"W 203.39'
S30°22'52"W 155.37'
S30°22'52"W 110.67'
N59°37'07"W 110.00'
S59°37'07"E 186.30'
S59°37'07"E 186.98'
S59°37'07"E 108.48'
S63°26'42"E 110.00'
N86°50'22"E 110.00'
N30°22'52"E 110.00'
N30°22'52"E 117.00'
N30°22'52"E 117.00'
N30°22'52"E 110.00'
N30°22'52"E 101.00'
N30°22'52"E 203.34'
N30°22'52"E 117.00'
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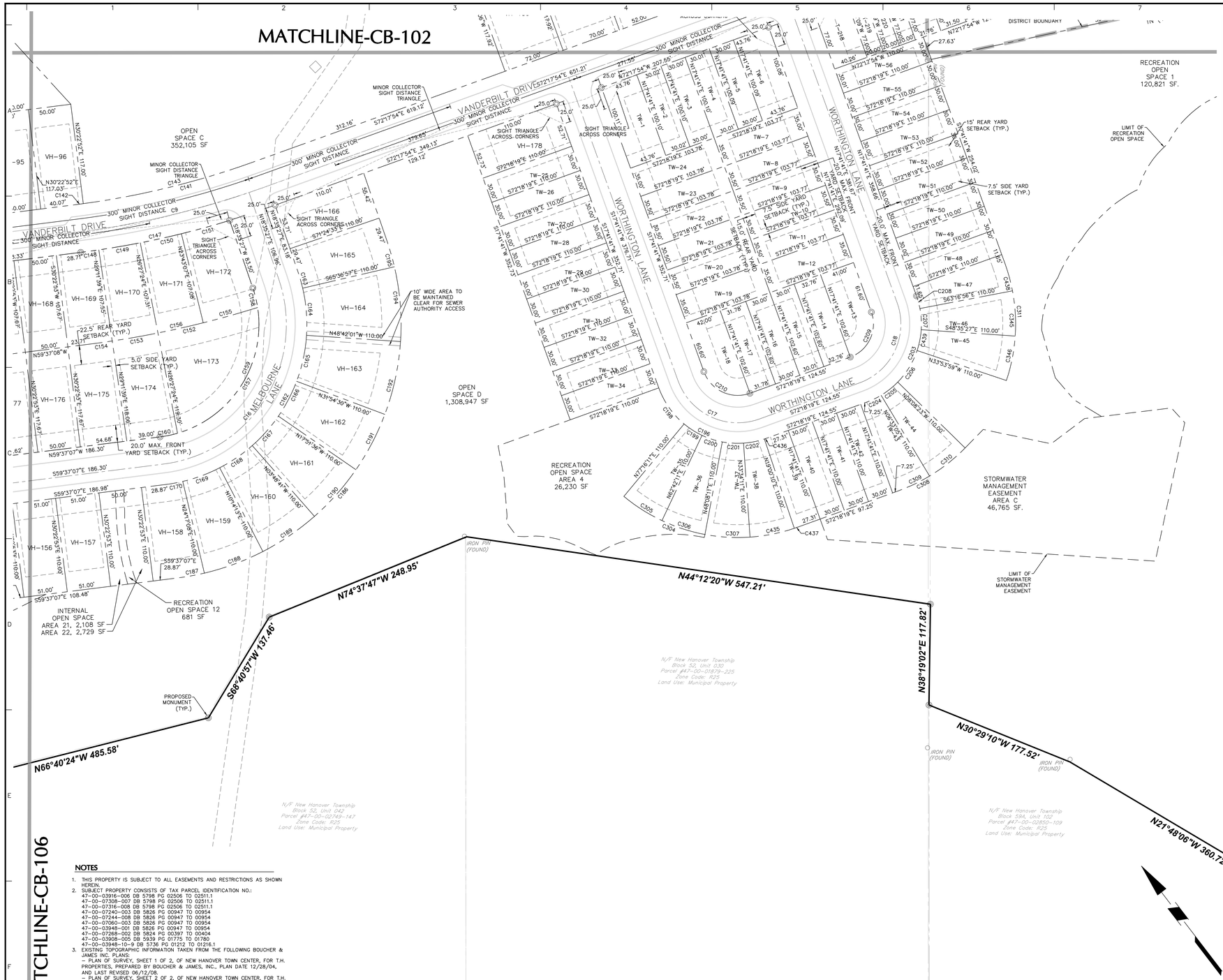
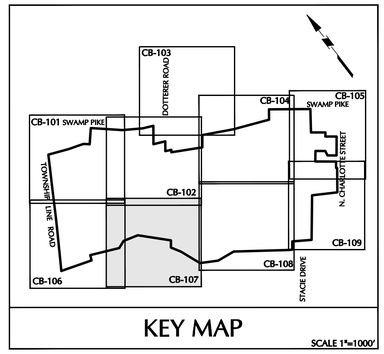
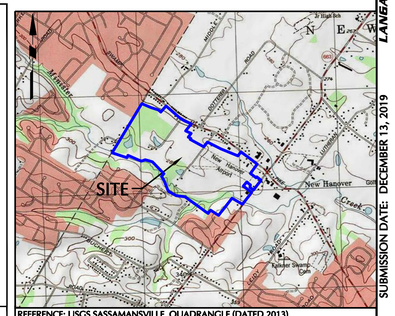
N30°22'52"E 117.00





KEY MAP

SCALE 1"=1000'



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'

PROJECT NO. 240038801

SUBMISSION DATE: DECEMBER 13, 2019

LANGAN

NOTES

1. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS AS SHOWN HEREIN.
2. SUBJECT PROPERTY CONSISTS OF TAX PARCEL IDENTIFICATION NO.:
   47-00-03916-006 DB 5798 PG 02506 TO 02511.1
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   – PLAN OF SURVEY, SHEET 1 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 06/12/08.
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4. THIS PLAN WAS PREPARED WITH RESPECT TO THE FOLLOWING REFERENCE: PLAN ENTITLED "NEW HANOVER, BOUNDARY AND TOPOGRAPHIC SURVEY" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, SHEET No. VT-101, DATED 1/20/16, LAST REVISED 8/07/17.
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16. THIS PLAN IS NOT VALID UNLESS STAMPED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONAL(S).
17. TOWNSHIP LINE ROAD SHALL BE RESURFACED THE FULL WIDTH OF THE ROADWAY AS INDICATED ON THE SITE PLAN.

CERTIFICATION OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PREPARED BY ME OR UNDER MY DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY. THE PERIMETER MONUMENTS SHALL BE ACCURATELY PLACED AS REQUIRED BY THE TOWNSHIP. _____ 20_____

_____
JASON ENGELHARDT
PROFESSIONAL ENGINEER PA LIC. NO. PE-057145-E

CERTIFICATION OF OWNERSHIP

(RP WYNSTONE, L.P., AT REALTY, L.P. AND AKM PROPERTIES, LP., TROLLEYLINE ENTERPRISES, L.P., GENERAL HANCOCK PARTNERSHIP LP.)

I _____
HAVE LAID OUT UPON MY LAND SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED.

WITNESS MY HAND AND SEAL THIS _____DAY OF _____ 20_____.

_____ _____
PRINTED NAME SIGNATURE

COMMONWEALTH OF PENNSYLVANIA COUNTY OF MONTGOMERY
ON THE _____DAY OF _____ 20_____, BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA,

PERSONALLY APPEARED _____ WHO ACKNOWLEDGED

HIMSELF TO BE THE _____

A CORPORATION, AND THAT HE AS SUCH PRESIDENT BEING AUTHORIZED TO DO SO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF STREETS AND PROPERTY SHOWN THEREON, SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA AND DESIRED THAT THIS PLAN BE RECORDED ACCORDING TO LAW.
WITNESS MY HAND AND SEAL THE DAY AND YEAR AFORESAID.

_____ _____
NOTARY PUBLIC MY COMMISSION EXPIRES

MONTGOMERY COUNTY PLANNING COMMISSION

THIS SUBDIVISION/LAND DEVELOPMENT WAS REVIEWED BY THE MONTGOMERY COUNTY PLANNING COMMISSION ON THE _____ DAY OF _____ 20_____

(SEAL): _____
MCPC NUMBER: _____

CERTIFICATION OF TOWNSHIP APPROVAL

AT A MEETING HELD ON _____ 20_____, THE TOWNSHIP SUPERVISORS OF NEW HANOVER TOWNSHIP BY _____(RESOLUTION OR ORDINANCE No.) DULY ENACTED, APPROVED THE SUBDIVISION / LAND DEVELOPMENT PLAN OF THE PROPERTY OF RP WYNSTONE (PROPERTY OWNER)

_____ _____ _____
(TOWNSHIP SECRETARY) (CHAIRMAN OF THE BOARD OF SUPERVISORS)

NEW HANOVER PLANNING COMMISSION

REVIEWED BY THE NEW HANOVER TOWNSHIP PLANNING COMMISSION AND RECOMMENDED FOR APPROVAL ON THE _____ DAY OF _____ 20_____

_____ _____
(PLANNING COMMISSION CHAIRMAN)

NEW HANOVER TOWNSHIP ENGINEER

REVIEWED BY THE TOWNSHIP ENGINEER OF THE _____ DAY OF _____ 20_____

_____
(TOWNSHIP ENGINEER)

COUNTY RECORDER OF DEEDS

RECORDED I THE OFFICE OF RECORDER OF DEEDS FOR MONTGOMERY COUNTY, AT NORRISTOWN, PENNSYLVANIA, THIS _____ DAY OF _____ 20_____

BY: _____ RECORDING CERTIFICATE:
RECORDER OF DEEDS

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
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3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

JASHAUN F. HUGHES — REGISTERED PROFESSIONAL — LAND SURVEYOR — No. SU-051058-E — COMMONWEALTH OF PENNSYLVANIA

SIGNATURE DATE SIGNED
PROFESSIONAL SURVEYOR PA Lic. No. SU-051058-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan US Inc.
Langan NY, LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SUBDIVISION PLAN (RECORD PLAN)

Project No. 240038801	Drawing No. CB-107
Date 05/31/16	
Scale 1"=50'	
Drawn By JDM	
Submission Date	Sheet 20 of 187

LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
PR. PROPERTY LINE	
PR. SETBACK LINE	
CONC. MONUMENT TO BE SET	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. IRON PIN	

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

50 0 25 50
SCALE IN FEET

Filename: I:\langan.com\data\BET\data\240038801\Cadd Data - 240038801\SheetFiles\240038801 CB101-109.dwg Date: 12/13/2019 Time: 14:45 User: wschaefer Style Table: Langan.stb Layout: CB-107

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MATCHLINE-CB-104

MATCHLINE-CB-107

MATCHLINE-CB-109

NOTES

1. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS AS SHOWN HEREON.
2. SUBJECT PROPERTY CONSISTS OF TAX PARCEL IDENTIFICATION NO.:
   47-00-03916-006 DB 5798 PG 02506 TO 02511.1
   47-00-07308-007 DB 5798 PG 02506 TO 02511.1
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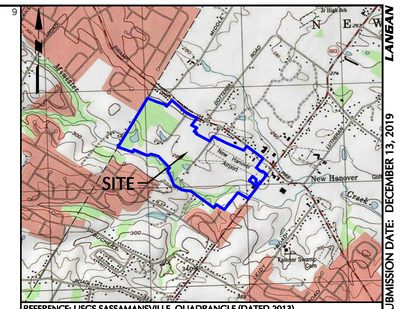
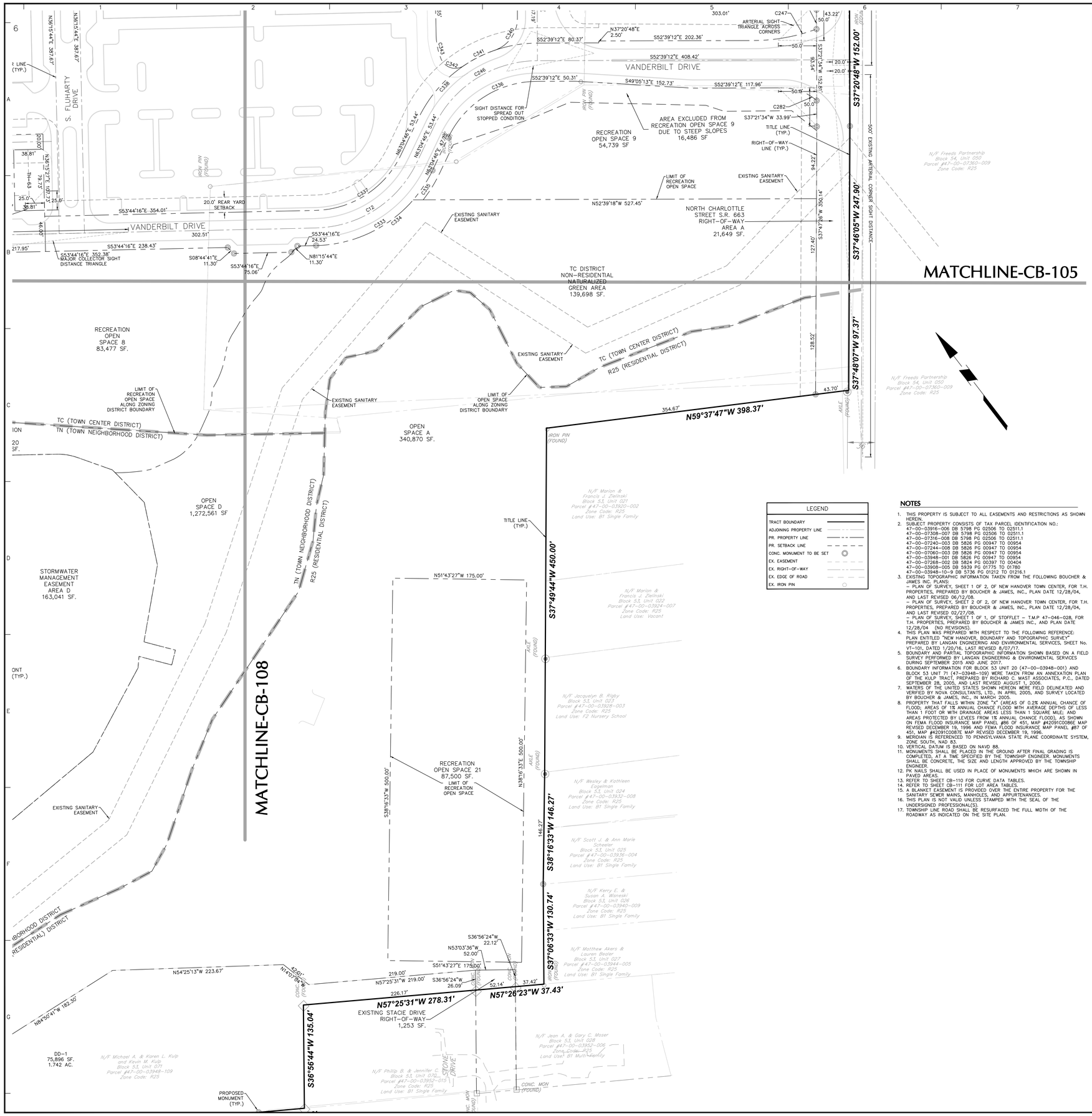
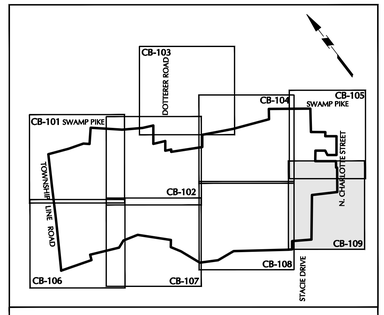
4. THIS PLAN WAS PREPARED WITH RESPECT TO THE FOLLOWING REFERENCE: PLAN ENTITLED "NEW HANOVER, BOUNDARY AND TOPOGRAPHIC SURVEY" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, SHEET No. VT–101, DATED 1/20/16, LAST REVISED 8/07/17.
5. BOUNDARY AND PARTIAL TOPOGRAPHIC INFORMATION SHOWN BASED ON A FIELD SURVEY PERFORMED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES DURING SEPTEMBER 2015 AND JUNE 2017.
6. BOUNDARY INFORMATION FOR BLOCK 53 UNIT 20 (47–00–03948–001) AND BLOCK 53 UNIT 71 (47–03948–109) WERE TAKEN FROM AN ANNEXATION PLAN OF THE KULP TRACT, PREPARED BY RICHARD C. MAST ASSOCIATES, P.C., DATED SEPTEMBER 28, 2005, AND LAST REVISED AUGUST 1, 2006.
7. WATERS OF THE UNITED STATES SHOWN HEREON WERE FIELD DELINEATED AND VERIFIED BY NOVA CONSULTANTS, LTD., IN APRIL 2005, AND SURVEY LOCATED BY BOUCHER & JAMES, INC., IN MARCH 2005.
8. PROPERTY THAT FALLS WITHIN ZONE "X" (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD), AS SHOWN ON FEMA FLOOD INSURANCE MAP PANEL #86 OF 451, MAP #42091C0086E MAP REVISED DECEMBER 19, 1996 AND FEMA FLOOD INSURANCE MAP PANEL #87 OF 451, MAP #42091C0087E MAP REVISED DECEMBER 19, 1996.
9. MERIDIAN IS REFERENCED TO PENNSYLVANIA STATE PLANE COORDINATE SYSTEM, ZONE SOUTH, NAD 83.
10. VERTICAL DATUM IS BASED ON NAVD 88.
11. MONUMENTS SHALL BE PLACED IN THE GROUND AFTER FINAL GRADING IS COMPLETED, AT A TIME SPECIFIED BY THE TOWNSHIP ENGINEER. MONUMENTS SHALL BE CONCRETE, THE SIZE AND LENGTH APPROVED BY THE TOWNSHIP ENGINEER.
12. PK NAILS SHALL BE USED IN PLACE OF MONUMENTS WHICH ARE SHOWN IN PAVED AREAS.
13. REFER TO SHEET CB–110 FOR CURVE DATA TABLES.
14. REFER TO SHEET CB–111 FOR LOT AREA TABLES.
15. A BLANKET EASEMENT IS PROVIDED OVER THE ENTIRE PROPERTY FOR THE SANITARY SEWER MAINS, MANHOLES, AND APPURTENANCES.
16. THIS PLAN IS NOT VALID UNLESS STAMPED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONAL(S).
17. TOWNSHIP LINE ROAD SHALL BE RESURFACED THE FULL WIDTH OF THE ROADWAY AS INDICATED ON THE SITE PLAN.


SITE
New Hanover
Keller Square Park
Creek
Rd
Rd
Rd

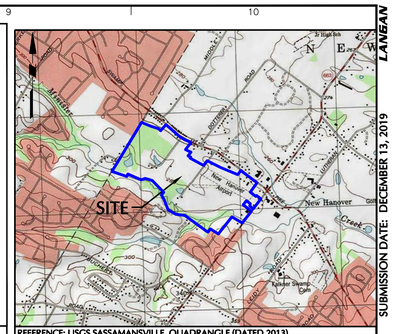


KEY MAP



SCALE 1"=1000'

SITE LOCATION MAP



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SCALE: 1"=2,000'

LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
PR. PROPERTY LINE	
PR. SETBACK LINE	
CONC. MONUMENT TO BE SET	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. IRON PIN	

NOTES

1. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS AS SHOWN HEREIN.
2. SUBJECT PROPERTY CONSISTS OF TAX PARCEL IDENTIFICATION NO.: 47-00-03916-006 DB 5798 PG 02506 TO 02511.1 47-00-07308-007 DB 5798 PG 02506 TO 02511.1 47-00-07316-008 DB 5798 PG 02506 TO 02511.1 47-00-07240-003 DB 5826 PG 00947 TO 00954 47-00-07244-008 DB 5826 PG 00947 TO 00954 47-00-07060-003 DB 5826 PG 00947 TO 00954 47-00-03948-001 DB 5826 PG 00947 TO 00954 47-00-07268-002 DB 5824 PG 00397 TO 00404 47-00-03908-005 DB 5939 PG 01775 TO 01780 47-00-03948-10-9 DB 5736 PG 01212 TO 01216.1
3. EXISTING TOPOGRAPHIC INFORMATION TAKEN FROM THE FOLLOWING BOUCHER & JAMES INC. PLANS:
   – PLAN OF SURVEY, SHEET 1 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 06/12/08.
   – PLAN OF SURVEY, SHEET 2 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 02/27/08.
   – PLAN OF SURVEY, SHEET 1 OF 1, OF STOFFLET – T.M.P. 47-046-028, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES INC., AND PLAN DATE 12/28/04 (NO REVISIONS)
4. THIS PLAN WAS PREPARED WITH RESPECT TO THE FOLLOWING REFERENCE: PLAN ENTITLED "NEW HANOVER, BOUNDARY AND TOPOGRAPHIC SURVEY", PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, SHEET No. VT-101, DATED 1/20/16, LAST REVISED 8/07/17.
5. BOUNDARY AND PARTIAL TOPOGRAPHIC INFORMATION SHOWN BASED ON A FIELD SURVEY PERFORMED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES DURING SEPTEMBER 2015 AND JUNE 2017.
6. BOUNDARY INFORMATION FOR BLOCK 53 UNIT 20 (47-00-03948-001) AND BLOCK 53 UNIT 71 (47-03948-109) WERE TAKEN FROM AN ANNEXATION PLAN OF THE KULP TRACT, PREPARED BY RICHARD C. MAST ASSOCIATES, P.C., DATED SEPTEMBER 28, 2005, AND LAST REVISED AUGUST 1, 2006.
7. WATERS OF THE UNITED STATES SHOWN HEREON WERE FIELD DELINEATED AND VERIFIED BY NOVA CONSULTANTS, LTD., IN APRIL 2005, AND SURVEY LOCATED BY BOUCHER & JAMES., INC., IN MARCH 2005.
8. PROPERTY THAT FALLS WITHIN ZONE "X" (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD), AS SHOWN ON FEMA FLOOD INSURANCE MAP PANEL #66 OF 451, MAP #42091C0086C MAP REVISED DECEMBER 19, 1996 AND FEMA FLOOD INSURANCE MAP PANEL #87 OF 451, MAP #42091C0087E MAP REVISED DECEMBER 19, 1996.
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12. PK NAILS SHALL BE USED IN PLACE OF MONUMENTS WHICH ARE SHOWN IN PAVED AREAS.
13. REFER TO SHEET CB-110 FOR CURVE DATA TABLES.
14. REFER TO SHEET CB-111 FOR LOT AREA TABLES.
15. A BLANKET EASEMENT IS PROVIDED OVER THE ENTIRE PROPERTY FOR THE SANITARY SEWER MAINS, MANHOLES, AND APPURTENANCES.
16. THIS PLAN IS NOT VALID UNLESS STAMPED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONAL(S).
17. TOWNSHIP LINE ROAD SHALL BE RESURFACED THE FULL WIDTH OF THE ROADWAY AS INDICATED ON THE SITE PLAN.

CERTIFICATION OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PREPARED BY ME OR UNDER MY DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY. THE PERIMETER MONUMENTS SHALL BE ACCURATELY PLACED AS REQUIRED BY THE TOWNSHIP. _____, 20_____

_____
JASON ENGELHARDT
PROFESSIONAL ENGINEER PA LIC. NO. PE-057145-E

CERTIFICATION OF OWNERSHIP

(RP WYNSTONE, L.P., AT REALTY, L.P. AND AKM PROPERTIES, LP., TROLLEYLINE ENTERPRISES, L.P., GENERAL HANCOCK PARTNERSHIP LP.)

I _____
HAVE LAID OUT UPON MY LAND SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED.

WITNESS MY HAND AND SEAL THIS _____DAY OF _____, 20_____.

_____ _____
PRINTED NAME SIGNATURE

COMMONWEALTH OF PENNSYLVANIA COUNTY OF MONTGOMERY
ON THE _____DAY OF _____, 20_____, BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA,

PERSONALLY APPEARED _____ WHO ACKNOWLEDGED

HIMSELF TO BE THE _____

A CORPORATION, AND THAT HE AS SUCH PRESIDENT BEING AUTHORIZED TO DO SO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF STREETS AND PROPERTY SHOWN THEREON, SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA AND DESIRED THAT THIS PLAN BE RECORDED ACCORDING TO LAW.

WITNESS MY HAND AND SEAL THE DAY AND YEAR AFORESAID.

_____ _____
NOTARY PUBLIC MY COMMISSION EXPIRES

MONTGOMERY COUNTY PLANNING COMMISSION

THIS SUBDIVISION/LAND DEVELOPMENT WAS REVIEWED BY THE MONTGOMERY COUNTY PLANNING COMMISSION ON THE _____ DAY OF _____, 20_____

(SEAL): _____
MCPC NUMBER: _____

CERTIFICATION OF TOWNSHIP APPROVAL

AT A MEETING HELD ON _____, 20_____ THE TOWNSHIP SUPERVISORS OF NEW HANOVER TOWNSHIP BY _____(RESOLUTION OR ORDINANCE No.) DULY ENACTED, APPROVED THE SUBDIVISION / LAND DEVELOPMENT PLAN OF THE PROPERTY OF RP WYNSTONE (PROPERTY OWNER)

_____ _____
(TOWNSHIP SECRETARY) (CHAIRMAN OF THE BOARD OF SUPERVISORS)

NEW HANOVER PLANNING COMMISSION

REVIEWED BY THE NEW HANOVER TOWNSHIP PLANNING COMMISSION AND RECOMMENDED FOR APPROVAL ON THE _____ DAY OF _____ 20____

_____
(PLANNING COMMISSION CHAIRMAN)

NEW HANOVER TOWNSHIP ENGINEER

REVIEWED BY THE TOWNSHIP ENGINEER OF THE _____ DAY OF _____, 20____

_____
(TOWNSHIP ENGINEER)

COUNTY RECORDER OF DEEDS

RECORDED I THE OFFICE OF RECORDER OF DEEDS FOR MONTGOMERY COUNTY, AT NORRISTOWN, PENNSYLVANIA, THIS _____ DAY OF _____, 20____.

BY: _____
RECORDER OF DEEDS

RECORDING CERTIFICATE:

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL SHAUN F. HUGHES LAND SURVEYOR 057088 SHAUN F. HUGHES

SIGNATURE DATE SIGNED

PROFESSIONAL LAND SURVEYOR PA Lic. No. SU-057088-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
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NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CO, Inc. Langan International LLC Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SUBDIVISION PLAN (RECORD PLAN)

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	JDM
Submission Date	
Drawing No.	CB-109
Sheet	22 of 187

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

50 0 25 50
SCALE IN FEET

Filename: I:\langan.com\data\BET\data\P240038801\Cadd Data - 240038801\SheetFiles\240038801 CB101-109.dwg Date: 12/13/2019 Time: 14:45 User: wschaefer Style Table: Langan.stb Layout: CB-109

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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CURVE TABLE					
CURVE	RADIUS	ARC LENTGH	DELTA	CHORD BEARING	CHORD LENGTH
C1	200.00'	44.58'	12°46'17"	N65°46'23"W	44.49'
C2	300.00'	61.40'	11°43'36"	N66°17'44"W	61.29'
C3	700.00'	66.52'	5°26'41"	N57°42'35"W	66.50'
C4	200.00'	42.81'	12°15'56"	N61°07'12"W	42.73'
C5	200.00'	19.22'	5°30'25"	N64°29'58"W	19.22'
C6	96.00'	21.40'	12°46'17"	S24°13'37"W	21.35'
C7	155.00'	158.18'	58°28'16"	S01°22'37"W	151.40'
C8	149.00'	82.59'	31°45'37"	S43°44'19"E	81.54'
C9	1004.00'	222.18'	12°40'46"	S65°57'31"E	221.73'
C10	2208.00'	490.55'	12°43'46"	S65°56'01"E	489.55'
C11	1249.99'	127.21'	5°49'51"	S56°39'12"E	127.16'
C12	150.00'	165.41'	63°10'58"	S85°19'45"E	157.16'
C13	54.00'	84.82'	90°00'00"	S14°23'14"E	76.37'
C14	154.00'	84.85'	31°34'12"	S46°23'52"W	83.78'
C15	54.00'	84.82'	90°00'00"	S14°37'07"E	76.37'
C16	164.00'	291.36'	101°47'26"	N69°29'10"E	254.53'
C17	74.00'	116.24'	90°00'00"	S27°18'19"E	104.65'
C18	73.00'	114.67'	90°00'00"	N62°41'41"E	103.24'
C19	173.00'	27.03'	8°57'09"	N65°48'31"E	27.00'
C20	43.50'	136.66'	179°59'59"	N55°03'08"W	87.00'
C21	173.00'	26.89'	8°54'22"	N74°44'16"E	26.86'
C22	52.00'	81.68'	90°00'00"	N16°44'45"W	73.54'
C23	1008.00'	141.01'	8°00'56"	N32°15'29"E	140.90'
C24	50.00'	78.54'	89°59'50"	N81°15'52"E	70.71'
C25	50.00'	78.54'	89°59'57"	S08°44'15"E	70.71'
C26	1000.00'	101.77'	5°49'51"	N56°39'12"W	101.73'
C27	150.00'	60.17'	22°59'05"	S18°56'20"W	59.77'
C28	53.00'	83.26'	90°00'15"	S14°34'00"E	74.96'
C29	150.00'	60.19'	22°59'30"	S71°03'53"E	59.79'
C30	150.00'	160.15'	61°10'29"	N66°51'08"E	152.66'
C31	100.00'	168.86'	96°45'06"	S13°21'47"E	149.50'
C32	173.00'	28.21'	9°20'33"	S87°13'54"E	28.18'
C33	277.00'	34.63'	7°09'45"	N39°50'46"E	34.61'
C34	277.00'	43.28'	8°57'09"	N47°54'13"E	43.24'
C35	277.00'	43.28'	8°57'09"	N56°51'22"E	43.24'
C36	277.00'	43.28'	8°57'09"	N56°51'22"E	43.24'
C37	277.00'	43.28'	8°57'09"	N65°48'31"E	43.24'
C38	277.00'	43.06'	8°54'22"	N74°44'16"E	43.01'
C39	277.00'	43.06'	8°54'22"	N83°38'38"E	43.01'
C40	76.00'	119.39'	90°00'15"	S14°34'00"E	107.48'
C41	76.00'	7.10'	5°21'03"	S27°45'36"W	7.10'
C42	76.00'	24.05'	18°08'01"	S16°01'04"W	23.95'
C43	76.00'	23.75'	17°54'18"	S02°00'05"E	23.65'
C44	76.00'	23.75'	17°54'18"	S19°54'23"E	23.65'
C45	76.00'	23.75'	17°54'18"	S37°48'41"E	23.65'
C46	76.00'	16.99'	12°48'18"	S53°09'59"E	16.95'
C47	173.00'	24.08'	7°58'27"	S76°31'30"E	24.06'
C48	173.00'	24.08'	7°58'27"	S68°33'03"E	24.06'
C49	173.00'	15.08'	4°59'41"	S62°03'58"E	15.08'
C50	172.00'	38.34'	12°46'17"	S65°46'23"E	38.26'
C51	172.00'	9.38'	3°07'23"	S60°56'56"E	9.37'
C52	172.00'	28.96'	9°38'54"	S67°20'04"E	28.93'
C53	328.00'	35.64'	6°13'31"	S69°02'46"E	35.62'
C54	328.00'	31.49'	5°30'05"	S63°10'58"E	31.48'
C55	328.00'	67.13'	11°43'36"	S66°17'44"E	67.01'
C56	728.00'	71.21'	5°36'15"	S57°47'14"E	71.18'
C57	728.00'	35.26'	2°46'31"	S59°12'06"E	35.26'
C58	728.00'	35.95'	2°49'45"	S56°23'58"E	35.94'
C59	64.50'	202.63'	179°59'59"	N55°03'08"W	129.00'
C60	64.50'	26.53'	23°34'11"	S46°43'58"W	26.35'
C61	64.50'	41.10'	36°30'36"	S76°46'22"W	40.41'
C62	64.50'	67.41'	59°53'04"	N55°01'48"W	64.39'
C63	64.50'	41.13'	36°31'55"	N06°49'18"W	40.43'
C64	64.50'	26.46'	23°30'13"	N23°11'45"E	26.27'
C65	513.03'	42.14'	4°42'22"	N32°31'59"E	42.13'
C66	80.00'	85.27'	61°04'20"	N04°37'46"W	81.29'
C67	51.00'	76.94'	86°26'34"	S74°31'51"W	69.85'
C68	289.00'	22.50'	4°27'36"	S29°04'47"W	22.49'
C69	73.00'	114.67'	89°59'59"	N16°44'45"W	103.24'
C70	73.00'	20.02'	15°42'57"	N53°53'17"W	19.96'
C71	73.00'	21.86'	17°09'22"	N37°27'07"W	21.78'
C72	73.00'	48.68'	38°12'23"	N09°46'15"W	47.78'
C73	73.00'	24.11'	18°55'18"	N18°47'36"E	24.00'
C74	31.00'	48.69'	90°00'00"	N16°44'45"W	43.84'
C75	173.00'	69.42'	22°59'30"	S71°03'53"E	68.96'
C76	22.50'	70.69'	179°59'59"	N55°03'08"W	45.00'
C77	173.00'	184.71'	61°10'29"	N66°51'08"E	176.06'
C78	252.00'	124.94'	28°24'25"	S67°56'04"E	123.66'
C79	320.00'	31.71'	5°40'41"	S79°17'55"E	31.70'
C80	173.00'	21.63'	7°09'45"	N39°50'46"E	21.61'
C81	173.00'	27.03'	8°57'09"	N47°54'13"E	27.00'
C82	173.00'	27.03'	8°57'09"	N56°51'22"E	27.00'
C83	43.50'	9.42'	12°24'27"	N30°03'43"E	9.40'
C84	56.50'	12.24'	12°24'27"	N30°03'43"E	12.21'
C85	173.00'	26.89'	8°54'22"	N83°38'38"E	26.86'
C86	672.00'	65.89'	5°37'03"	S57°47'36"E	65.86'
C87	672.00'	35.85'	3°03'24"	S56°30'47"E	35.85'
C88	672.00'	30.04'	2°33'39"	S59°19'18"E	30.03'
C89	264.00'	41.74'	9°03'31"	S64°59'36"E	41.70'
C90	228.00'	50.82'	12°46'17"	S65°46'23"E	50.72'

CURVE TABLE					
CURVE	RADIUS	ARC LENTGH	DELTA	CHORD BEARING	CHORD LENGTH
C91	228.00'	14.98'	3°45'49"	S61°16'09"E	14.97'
C92	228.00'	35.85'	9°00'29"	S67°39'17"E	35.81'
C93	35.00'	30.71'	50°16'23"	N74°09'32"W	29.73'
C94	35.00'	30.71'	50°16'23"	N74°09'32"W	29.73'
C95	35.00'	13.69'	22°24'12"	S69°30'10"W	13.60'
C96	35.00'	10.43'	17°04'52"	S49°45'38"W	10.40'
C97	173.50'	145.36'	48°00'17"	S58°57'01"W	141.15'
C98	173.50'	71.37'	23°34'11"	S46°43'58"W	70.87'
C99	173.50'	73.99'	24°26'05"	S70°44'07"W	73.43'
C100	173.50'	145.92'	48°11'21"	N10°51'11"E	141.66'
C101	173.50'	74.75'	24°41'08"	N00°53'55"W	74.17'
C102	173.50'	71.17'	23°30'13"	N23°11'45"E	70.67'
C103	1190.00'	347.82'	16°44'48"	N57°38'20"W	346.58'
C104	1190.00'	121.86'	5°52'03"	N52°11'58"W	121.81'
C105	1190.00'	147.77'	7°06'53"	N58°41'26"W	147.67'
C106	1190.00'	78.19'	3°45'53"	N64°07'48"W	78.17'
C107	77.00'	92.42'	68°46'24"	N27°21'08"W	86.98'
C108	123.00'	207.70'	96°45'04"	N13°21'48"W	183.89'
C109	123.00'	44.22'	20°35'55"	N08°58'07"W	43.98'
C110	123.00'	32.89'	15°19'20"	N08°59'31"E	32.80'
C111	123.00'	39.41'	18°21'33"	N25°49'57"E	39.24'
C112	128.00'	28.53'	12°46'17"	S24°13'37"W	28.47'
C113	238.00'	53.05'	12°46'17"	S24°13'37"W	52.94'
C114	78.00'	122.52'	90°00'00"	S14°23'14"E	110.31'
C115	78.00'	4.29'	3°09'03"	S57°48'43"E	4.29'
C116	78.00'	45.00'	33°03'19"	S39°42'32"E	44.38'
C117	78.00'	54.16'	39°46'58"	S03°17'24"E	53.08'
C118	78.00'	19.07'	14°00'40"	S23°36'26"W	19.03'
C119	180.00'	107.26'	34°08'27"	N42°19'01"W	105.68'
C120	180.00'	10.17'	3°14'16"	N57°46'06"W	10.17'
C121	180.00'	97.08'	30°54'11"	N40°41'53"W	95.91'
C122	185.52'	47.66'	14°43'14"	S23°16'17"W	47.53'
C123	178.00'	98.08'	31°34'14"	S46°23'52"W	96.84'
C124	178.00'	17.92'	5°46'07"	S33°29'48"W	17.91'
C125	178.00'	80.16'	25°48'07"	S49°16'55"W	79.48'
C126	122.00'	67.22'	31°34'12"	S46°23'52"W	66.38'
C127	22.00'	34.56'	90°00'00"	S14°23'14"E	31.11'
C128	122.00'	124.50'	58°28'16"	N01°22'37"E	119.17'
C129	122.00'	41.96'	19°42'30"	N18°00'16"W	41.76'
C130	122.00'	82.54'	38°45'46"	N11°13'52"E	80.97'
C131	72.00'	16.05'	12°46'17"	S24°13'37"W	16.02'
C132	179.01'	173.69'	55°35'43"	S00°02'45"W	166.96'
C133	179.01'	173.69'	55°35'43"	S00°02'45"W	166.96'
C134	179.01'	173.69'	55°35'43"	S00°02'45"W	166.96'
C135	179.01'	40.33'	12°54'36"	S03°11'10"W	40.25'
C136	179.01'	173.69'	55°35'43"	S00°02'45"W	166.96'
C137	179.01'	173.69'	55°35'43"	S00°02'45"W	166.96'
C138	117.00'	64.86'	31°45'37"	S43°44'19"E	64.03'
C139	117.00'	0.42'	0°12'27"	S27°57'44"E	0.42'
C140	117.00'	64.43'	31°33'10"	S43°50'33"E	63.62'
C141	972.00'	215.10'	12°40'46"	S65°57'31"E	214.66'
C142	972.00'	9.94'	0°35'08"	S59°54'42"E	9.94'
C143	972.00'	205.17'	12°05'38"	S66°15'05"E	204.79'
C144	173.00'	95.90'	31°45'37"	S43°44'19"E	94.67'
C145	173.00'	33.47'	11°05'02"	S33°24'02"E	33.41'
C146	173.00'	62.43'	20°40'35"	S49°16'50"E	62.09'
C147	1028.00'	178.01'	9°55'18"	S64°34'46"E	177.79'
C148	1028.00'	21.30'	1°11'13"	S60°12'44"E	21.30'
C149	1028.00'	49.12'	2°44'15"	S62°10'28"E	49.11'
C150	1028.00'	49.13'	2°44'17"	S64°54'44"E	49.12'
C151	1028.00'	58.47'	3°15'32"	S67°54'39"E	58.46'
C152	1135.67'	120.22'	6°03'55"	N66°49'39"W	120.17'
C153	1135.67'	54.25'	2°44'13"	N62°25'35"W	54.25'
C154	1135.67'	28.53'	1°26'21"	N60°20'18"W	28.52'
C155	1135.67'	65.97'	3°19'42"	N68°11'46"W	65.96'
C156	1135.67'	54.25'	2°44'13"	N65°09'48"W	54.25'
C157	132.00'	234.51'	101°47'26"	S69°29'10"W	204.86'
C158	132.00'	23.40'	10°09'18"	S23°40'06"W	23.36'
C159	132.00'	190.13'	82°31'37"	S70°00'33"W	174.11'
C160	132.00'	20.98'	9°06'31"	N64°10'23"W	20.96'
C161	22.00'	34.56'	90°00'00"	N14°37'08"W	31.11'
C162	188.00'	334.00'	101°47'26"	N69°29'10"E	291.77'
C163	188.00'	19.01'	5°47'37"	N21°29'15"E	19.00'
C164	188.00'	55.50'	16°54'55"	N32°50'31"E	55.30'
C165	188.00'	55.10'	16°47'31"	N49°41'44"E	54.90'
C166	188.00'	46.10'	14°02'55"	N65°06'57"E	45.98'
C167	188.00'	46.10'	14°02'55"	N79°09'52"E	45.98'
C168	188.00'	46.10'	14°02'55"	S86°47'14"E	45.98'
C169	188.00'	46.10'	14°02'55"	S72°44'19"E	45.98'
C170	188.00'	20.00'	6°05'45"	S62°40'00"E	19.99'
C171	78.00'	121.80'	89°28'20"	S14°23'10"E	109.80'
C172	78.00'	35.59'	26°08'40"	S46°03'00"E	35.28'
C173	78.00'	40.59'	29°49'06"	S18°04'07"E	40.14'
C174	78.00'	40.59'	29°49'05"	S11°44'58"W	40.14'
C175	78.00'	5.02'	3°41'28"	S28°30'15"W	5.02'
C176	289.01'	169.81'	33°39'54"	S10°56'31"E	167.38'
C177	289.01'	99.30'	19°41'14"	S06°34'29"W	98.82'
C178	289.01'	53.10'	10°31'40"	S11°09'16"W	53.03'
C179	289.01'	72.98'	14°28'05"	S10°30'11"E	72.79'
C180	289.01'	50.63'	10°02'15"	S22°45'21"E	50.57'

CURVE TABLE					
CURVE	RADIUS	ARC LENTGH	DELTA	CHORD BEARING	CHORD LENGTH
C181	188.00'	294.26'	89°40'49"	S14°27'32"E	265.13'
C182	188.00'	12.22'	3°43'29"	S28°31'08"W	12.22'
C183	188.00'	97.83'	29°49'00"	S11°44'53"W	96.73'
C184	188.00'	97.84'	29°49'00"	S18°04'07"E	96.73'
C185	188.00'	86.37'	26°19'19"	S46°08'17"E	85.61'
C186	298.00'	529.42'	101°47'26"	N69°29'10"E	462.49'
C187	298.00'	31.70'	6°05'45"	S62°40'00"E	31.69'
C188	298.00'	73.07'	14°02'55"	S72°44'19"E	72.88'
C189	298.00'	73.07'	14°02'55"	S86°47'14"E	72.88'
C190	298.00'	73.07'	14°02'55"	N79°09'52"E	72.88'
C191	298.00'	73.07'	14°02'55"	N65°06'57"E	72.88'
C192	298.00'	87.34'	16°47'31"	N49°41'44"E	87.02'
C193	150.00'	47.58'	18°10'32"	N28°15'32"E	47.38'
C194	298.00'	87.98'	16°54'55"	N32°50'31"E	87.66'
C195	298.00'	30.13'	5°47'37"	N21°29'15"E	30.12'
C196	98.00'	153.94'	90°00'00"	S27°18'19"E	138.59'
C197	320.00'	40.52'	7°15'20"	N74°27'24"W	40.50'
C198	98.00'	52.04'	30°25'30"	S02°28'56"W	51.43'
C199	98.00'	24.92'	14°34'00"	S20°00'49"E	24.85'
C200	98.00'	24.92'	14°34'00"	S34°34'49"E	24.85'
C201	98.00'	24.92'	14°34'00"	S49°08'49"E	24.85'
C203	97.00'	152.37'	90°00'00"	N62°41'41"E	137.18'
C204	97.00'	18.87'	11°08'35"	S77°52'37"E	18.84'
C205	97.00'	24.87'	14°41'28"	N89°12'21"E	24.80'
C206	97.00'	43.61'	25°45'36"	N68°58'49"E	43.24'
C207	97.00'	24.87'	14°41'28"	N34°03'49"E	24.80'
C208	97.00'	15.28'	9°01'24"	N22°12'23"E	15.26'
C209	41.00'	64.40'	90°00'00"	N62°41'41"E	57.98'
C210	42.00'	65.97'	90°00'00"	S27°18'19"E	59.40'
C211	9.00'	14.14'	90°00'00"	N16°44'59"W	12.73'
C212	9.00'	14.14'	90°00'00"	N73°15'01"E	12.73'
C213	5.00'	7.85'	90°00'00"	S73°15'01"W	7.07'
C214	5.00'	7.85'	90°00'00"	N16°44'59"W	7.07'
C215	2238.99'	324.56'	8°18'19"	N68°08'44"W	324.27'
C216	2238.99'	67.73'	1°43'59"	N71°25'54"W	67.72'
C217	2238.99'	20.00'	0°30'42"	N70°18'34"W	20.00'
C218	2238.99'	236.83'	6°03'38"	N67°01'23"W	236.72'
C219	2216.84'	103.87'	2°41'05"	N62°27'10"W	103.86'
C220	2216.85'	5.86'	0°09'05"	N63°43'10"W	5.86'
C221	2216.84'	20.01'	0°31'02"	N63°23'06"W	20.01'
C222	2216.84'	78.01'	2°00'58"	N62°07'07"W	78.00'
C223	1023.00'	116.54'	6°31'38"	S32°35'55"W	116.48'
C224	1023.00'	84.38'	4°43'33"	S33°29'57"W	84.35'
C225	1023.00'	20.02'	1°07'16"	S30°34'33"W	20.02'
C226	1023.00'	12.15'	0°40'49"	S29°40'31"W	12.15'
C227	1039.00'	11.52'	0°38'07"	S28°34'05"W	11.52'
C228	15.00'	22.73'	86°49'01"	S71°33'54"W	20.62'
C229	308.00'	91.86'	17°05'16"	N62°17'07"W	91.52'
C230	14.00'	21.99'	90°00'00"	N16°44'59"W	19.80'
C231	14.00'	21.99'	90°00'00"	S73°14'57"W	19.80'
C232	590.00'	87.83'	8°31'44"	S23°59'09"W	87.75'
C233	590.00'	11.29'	1°05'48"	S27°42'07"W	11.29'
C234	590.00'	20.01'	1°56'37"	S26°10'55"W	20.01'
C235	590.00'	25.07'	2°26'05"	S23°59'34"W	25.07'
C236	590.00'	31.45'	3°03'15"	S21°14'54"W	31.45'
C237	610.00'	90.81'	8°31'48"	S23°59'07"W	90.73'
C238	610.00'	5.75'	0°32'24"	S19°59'25"W	5.75'
C239	610.00'	25.18'	2°21'54"	S21°26'34"W	25.18'
C240	610.00'	20.07'	1°53'06"	S23°34'04"W	20.07'
C241	610.00'	20.02'	1°52'51"	S25°27'02"W	20.02'
C242	610.00'	19.79'	1°51'33"	S27°19'14"W	19.79'
C243	15.00'	23.56'	90°00'01"	N16°44'58"W	21.21'
C244	73.00'	114.66'	89°59'50"	N81°15'52"E	103.24'
C245	213.50'	63.70'	17°05'41"	N27°43'06"E	63.46'
C246	150.00'	168.25'	64°16'02"	S84°47'13"E	159.57'
C247	239.00'	84.19'	20°11'01"	S62°46'27"E	83.76'
C248	969.00'	36.50'	2°09'29"	N58°29'23"W	36.50'
C249	119.00'	47.74'	22°59'05"	S18°56'20"W	47.42'
C250	119.00'	8.79'	4°13'48"	S28°18'58"W	8.78'
C251	9.00'	14.14'	89°59'44"	N81°15'45"E	12.73'
C252	19.00'	29.84'	89°59'50"	N81°15'52"E	26.87'
C253	19.00'	29.84'	90°00'00"	S08°44'15"E	26.87'
C254	28.00'	20.87'	42°41'48"	N75°05'48"W	20.39'
C255	28.00'	11.31'	23°08'52"	N42°10'28"W	11.24'
C256	28.00'	11.31'	23°08'20"	S65°18'23"E	11.23'
C257	28.00'	20.87'	42°42'53"	S32°22'46"E	20.39'
C258	119.00'	38.95'	18°45'17"	S16°49'26"W	38.78'
C259	1009.53'	37.93'	2°09'09"	S56°02'31"E	37.92'
C260	1009.53'	37.93'	2°09'09"	S56°02'31"E	37.92'
C261	1009.53'	21.59'	1°13'30"	S54°21'11"E	21.59'
C262	990.00'	57.48'	3°19'35"	N55°24'16"W	57.47'
C263	9.00'	13.22'	84°10'21"	S11°39'18"E	12.06'
C264	50.00'	98.60'	112°59'17"	S26°03'46"E	83.38'
C265	50.00'	16.30'	18°40'23"	S21°05'41"W	16.22'
C266	50.00'	20.04'	22°57'58"	S00°16'30"W	19.91'
C267	985.00'	94.98'	5°31'30"	S31°00'46"W	94.95'
C268	985.00'	2.84'	0°09'55"	S28°19'59"W	2.84'
C269	985.00'	92.14'	5°21'35"	S31°05'44"W	92.11'
C270	15.00'	24.27'	92°43'03"	N10°40'53"W	21.71'
C271	20.00'	31.62'	90°35'08"	S80°58'12"W	28.43'

CURVE TABLE					
CURVE	RADIUS	ARC LENTGH	DELTA	CHORD BEARING	CHORD LENGTH
C272	290.00'	20.04'	3°57'36"	S32°42'26"W	20.04'
C273	310.00'	40.08'	7°24'25"	N31°58'26"E	40.05'
C274	310.00'	2.43'	0°26'54"	N28°29'40"E	2.43'
C275	310.00'	20.02'	3°42'01"	N30°34'07"E	20.02'
C276	310.00'	17.63'	3°15'30"	N34°02'53"E	17.63'
C277	1031.00'	50.61'	2°48'46"	N58°09'45"W	50.61'
C278	1031.00'	50.61'	2°48'46"	N58°09'45"W	50.61'
C279	20.00'	31.42'	90°00'25"	N08°44'01"W	28.29'
C280	15.00'	23.56'	89°59'35"	S81°15'59"W	21.21'
C281	1031.00'	20.00'	1°06'42"	N58°54'52"W	20.00'
C282	69.00'	49.21'	40°51'59"	S32°13'12"E	48.18'
C283	1273.00'	68.75'	3°05'40"	S58°04'03"E	68.74'
C284	1273.00'	48.72'	2°11'34"	S58°31'06"E	48.72'
C285	1273.00'	20.03'	0°54'06"	S56°58'16"E	20.03'
C286	1273.00'	61.82'	2°46'57"	S55°07'45"E	61.81'
C287	1031.00'	20.01'	1°06'43"	N57°48'09"W	20.01'
C288	1226.96'	124.87'	5°49'52"	S56°39'12"E	124.82'
C289	1226.96'	43.01'	2°00'30"	S58°33'53"E	43.01'
C290	1226.96'	20.03'	0°56'08"	S57°05'34"E	20.03'
C291	1227.01'	61.83'	2°53'13"	S55°10'53"E	61.82'
C292	1023.00'	45.49'	2°32'52"	N55°00'42"W	45.49'
C293	1023.00'	16.06'	0°53'58"	N55°50'10"W	16.06'
C294	1023.00'	20.00'	1°07'13"	N54°49'34"W	20.00'
C295	1023.00'	9.43'	0°31'41"	N54°00'07"W	9.43'
C296	9.00'	14.14'	90°00'00"	S14°34'08"E	12.73'
C297	9.00'	13.57'	86°25'08"	N77°13'37"E	12.32'
C298	510.00'	19.46'	2°11'12"	N35°10'35"E	19.46'
C299	490.00'	18.70'	2°11'12"	N35°10'35"E	18.70'
C300	490.00'	12.96'	1°30'54"	N35°30'44"E	12.96'
C301	490.00'	5.74'	0°40'18"	N34°25'08"E	5.74'
C302	9.00'	14.14'	90°00'00"	S75°25'52"W	12.73'
C303	9.00'	14.71'	93°39'07"	N12°44'34"W	13.13'
C304	208.00'	216.27'	59°34'30"	S42°31'04"E	206.66'
C305	208.00'	52.88'	14°34'00"	S20°00'49"E	52.74'
C306	208.00'	52.88'	14°34'00"	S34°34'49"E	52.74'
C307	208.00'	52.88'	14°34'00"	S49°08'49"E	52.74'
C308	207.00'	93.34'	25°50'04"	S85°13'21"E	92.55'
C309	207.00'	40.26'	11°08'35"	S77°52'37"E	40.20'
C310	207.00'	53.08'	14°41'28"	N89°12'21"E	52.93'
C311	207.00'	138.75'	38°24'21"	S36°53'51"W	136.17'
C312	2185.00'	433.84'	11°22'34"	S66°36'37"E	433.13'
C313	2185.00'	342.74'	8°59'15"	S67°48'16"E	342.39'
C314	2185.00'	342.74'	8°59'15"	S67°48'16"E	342.39'
C315	2185.00'	91.10'	2°23'20"	S62°06'59"E	91.09'
C316	22.00'	34.55'	89°59'36"	N14°34'17"W	31.11'
C317	119.00'	47.92'	23°04'14"	N71°01'30"W	47.59'
C318	119.00'	26.74'	12°52'27"	N65°55'37"W	26.68'
C319	119.00'	21.18'	10°11'48"	N77°27'44"W	21.15'
C320	181.00'	72.61'	22°59'05"	S18°56'20"W	72.12'
C321	9.00'	14.14'	90°00'00"	S14°34'08"E	12.73'
C322	9.00'	14.14'	90°00'00"	N75°25'52"E	12.73'
C323	119.00'	33.26'	16°00'55"	N89°26'20"E	33.15'
C324	119.00'	8.26'	3°58'36"	S84°32'30"E	8.26'
C325	119.00'	25.00'	12°02'19"	N87°27'02"E	24.96'
C326	127.00'	92.84'	41°53'11"	N57°12'29"E	90.79'
C327	127.00'	1.40'	0°37'55"	N77°50'07"E	1.40'
C328	127.00'	69.55'	31°22'36"	N61°49'52"E	68.68'
C329	127.00'	21.89'	9°52'40"	N41°12'14"E	21.87'
C330	969.00'	98.61'	5°49'51"	N56°39'12"W	98.57'
C331	969.00'	25.03'	1°28'47"	N54°28'40"W	25.02'
C332	969.00'	37.09'	2°11'35"	N56°18'51"W	37.09'
C333	173.00'	190.78'	63°11'07"	N85°19'45"W	181.25'
C334	173.00'	144.48'	47°51'02"	N77°39'48"W	140.32'
C335	173.00'	46.29'	15°19'55"	S70°44'44"W	46.16'
C336	129.00'	144.70'	64°16'02"	S84°47'13"E	137.23'
C337	127.00'	140.05'	63°10'58"	S85°19'45"E	133.06'
C338	173.00'	194.05'	64°16'02"	S84°47'13"E	184.04'
C339	31.00'	64.65'	119°29'04"	N22°23'44"W	53.55'
C340	44.00'	55.03'	71°39'52"	N73°10'44"E	51.52'
C341	159.97'	45.04'	16°08'00"	S79°03'20"E	44.90'
C342	20.00'	35.37'	101°20'07"	S35°50'18"E	30.94'
C343	83.50'	31.24'	21°26'14"	S25°32'53"W	31.06'
C344	42.50'	48.14'	64°53'43"	S68°42'52"W	45.60'
C345	831.50'	43.17'	2°58'28"	N80°20'21"W	43.16'
C345	207.00'	53.08'	14°41'28"	S34°03'49"W	52.93'
C346	207.00'	53.08'	14°41'29"	S48°45'17"W	52.93'
C370	50.00'	26.06'	29°51'38"	S26°08'18"E	25.76'
C371	50.00'	28.34'	32°28'23"	S57°18'19"E	27.96'
C372	50.00'	7.87'	9°00'54"	S78°02'57"E	7.86'
C373	60.00'	64.07'	61°11'03"	N66°51'04"E	61.07'
C374	60.00'	20.33'	19°24'47"	N87°44'12"E	20.23'
C375	60.00'	15.40'	14°42'22"	N70°40'38"E	15.36'
C376	60.00'	22.57'	21°33'19"	N52°32'47"E	22.44'
C377	60.00'	5.77'	5°30'36"	N39°00'50"E	5.77'
C378	9.00'	14.14'	89°59'59"	N81°15'32"E	12.73'
C379	13.50'	21.66'	91°55'53"	N07°35'02"W	19.41'
C380	40.00'	24.05'	34°26'41"	N53°28'53"E	23.69'
C381	4.00'	8.15'	116°44'22"	S50°55'35"E	6.81'
C382	4.00'	6.28'	90°00'25"	S81°15'19"W	5.66'
C383	4.00'	6.28'	90°00'00"	N52°26'36"E	5.66'

CERTIFICATION OF ACCURACY

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PREPARED BY ME OR UNDER MY DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY. THE PERIMETER MONUMENTS SHALL BE ACCURATELY PLACED AS REQUIRED BY THE TOWNSHIP. _____, 20_____

_____
JASON ENGELHARDT
PROFESSIONAL ENGINEER PA LIC. NO. PE-057145-E

CERTIFICATION OF OWNERSHIP

(RP WYNSTONE, L.P., AT REALTY, LP. AND AKM PROPERTIES, LP., TROLLEYLINE ENTERPRISES, L.P., GENERAL HANCOCK PARTNERSHIP LP.)

I _____
HAVE LAID OUT UPON MY LAND SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED.

WITNESS MY HAND AND SEAL THIS _____DAY OF _____, 20_____.

_____ _____
PRINTED NAME SIGNATURE

COMMONWEALTH OF PENNSYLVANIA COUNTY OF MONTGOMERY
ON THE _____DAY OF _____, 20_____ BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA,

PERSONALLY APPEARED _____ WHO ACKNOWLEDGED

HIMSELF TO BE THE _____

A CORPORATION, AND THAT HE AS SUCH PRESIDENT BEING AUTHORIZED TO DO SO ACKNOWLEDGED THIS PLAN TO BE THE OFFICIAL PLAN OF

VILLAGE HOUSE LOT AREA TABLE

LOT NUMBER	LOT AREA (SF)	LOT AREA (AC.)	IMPERVIOUS AREA (SF)	SOIL AMENDMENT AREA (SF)
VH-1	6,319 SF	0.145	2,987	0
VH-2	5,504 SF	0.126	3,270	0
VH-3	6,010 SF	0.138	3,422	685
VH-4	6,777 SF	0.156	3,476	1,015
VH-5	5,609 SF	0.129	3,282	678
VH-6	5,493 SF	0.126	3,282	562
VH-7	5,495 SF	0.126	3,282	565
VH-8	5,499 SF	0.126	3,282	569
VH-9	5,976 SF	0.137	3,283	643
VH-10	6,287 SF	0.144	3,272	1,034
VH-11	6,123 SF	0.141	3,282	772
VH-12	5,636 SF	1.000	3,165	151
VH-13	5,836 SF	0.134	3,282	873
VH-14	6,048 SF	0.139	3,282	806
VH-15	6,541 SF	0.150	3,282	1,018
VH-16	5,450 SF	0.125	3,282	320
VH-17	5,450 SF	0.125	3,282	510
VH-18	6,988 SF	0.160	3,283	1,145
VH-19	6,627 SF	0.152	3,286	900
VH-20	6,663 SF	0.153	3,323	720
VH-21	7,000 SF	0.161	3,292	1,061
VH-22	5,450 SF	0.125	3,282	256
VH-23	5,450 SF	0.125	3,282	256
VH-24	6,541 SF	0.150	3,282	837
VH-25	6,305 SF	0.145	3,364	202
VH-26	5,351 SF	0.123	3,364	158
VH-27	5,349 SF	0.123	3,364	157
VH-28	7,812 SF	0.179	3,376	1,838
VH-29	7,198 SF	0.165	3,324	665
VH-30	5,352 SF	0.123	3,274	443
VH-31	5,351 SF	0.123	3,274	430
VH-32	5,336 SF	0.122	3,274	421
VH-33	7,201 SF	0.165	3,738	1,478
VH-34	5,588 SF	0.128	3,290	611
VH-35	5,588 SF	0.128	3,282	629
VH-36	5,587 SF	0.128	3,282	613
VH-37	6,720 SF	0.154	3,282	772
VH-38	6,594 SF	0.151	3,281	1,216
VH-39	5,507 SF	0.126	3,281	578
VH-40	5,507 SF	0.126	3,281	578
VH-41	5,507 SF	0.126	3,281	589
VH-42	5,507 SF	0.126	3,281	261
VH-43	5,507 SF	0.126	3,281	519
VH-44	5,507 SF	0.126	3,281	579
VH-45	7,309 SF	0.168	3,281	1,860
VH-46	6,940 SF	0.159	3,273	1,552
VH-47	5,453 SF	0.125	3,273	430
VH-48	5,454 SF	0.125	3,273	434
VH-49	5,451 SF	0.125	3,273	437
VH-50	6,522 SF	0.150	3,273	1,157
VH-51	6,524 SF	0.150	3,273	1,456
VH-52	5,451 SF	0.125	3,273	437
VH-53	5,453 SF	0.125	3,273	441
VH-54	5,443 SF	0.125	3,273	441
VH-55	7,190 SF	0.165	3,260	1,744
VH-56	5,880 SF	0.135	3,149	0
VH-57	5,480 SF	0.126	3,160	61
VH-58	5,400 SF	0.124	3,282	320
VH-59	5,940 SF	0.136	3,282	370
VH-60	5,940 SF	0.136	3,282	370
VH-61	5,400 SF	0.124	3,282	320
VH-62	5,400 SF	0.124	3,282	320
VH-63	5,401 SF	0.124	3,282	320
VH-64	6,481 SF	0.149	3,282	926
VH-65	5,500 SF	0.126	3,282	481
VH-66	5,500 SF	0.126	3,282	586
VH-67	5,500 SF	0.126	3,282	586
VH-68	5,500 SF	0.126	3,282	586
VH-69	6,474 SF	0.149	3,282	721
VH-70	5,830 SF	0.134	3,282	1,363
VH-71	5,872 SF	0.135	3,282	670
VH-72	5,996 SF	0.138	3,282	697
VH-73	5,876 SF	0.135	3,288	604
VH-74	5,500 SF	0.126	3,289	571
VH-75	5,500 SF	0.126	3,265	510
VH-76	8,074 SF	0.185	3,279	1,734
VH-77	5,720 SF	0.131	3,281	342
VH-78	6,885 SF	0.158	3,282	1,218
VH-79	5,350 SF	0.123	3,264	280
VH-80	5,553 SF	0.127	3,264	282
VH-81	7,672 SF	0.176	3,245	236
VH-82	7,003 SF	0.161	3,447	573
VH-83	5,850 SF	0.134	3,466	256
VH-84	5,850 SF	0.134	3,466	256
VH-85	5,850 SF	0.134	3,466	256
VH-86	5,850 SF	0.134	3,466	256
VH-87	5,850 SF	0.134	3,466	256
VH-88	5,850 SF	0.134	3,466	256
VH-89	5,850 SF	0.134	3,466	256
VH-90	5,850 SF	0.134	3,466	256
VH-91	8,408 SF	0.193	3,466	1,665
VH-92	6,678 SF	0.153	3,239	724
VH-93	8,661 SF	0.199	3,276	210
VH-94	5,850 SF	0.134	3,485	0
VH-95	5,851 SF	0.134	3,484	237
VH-96	5,852 SF	0.134	3,484	300
VH-97	6,650 SF	0.153	3,228	1,149
VH-98	5,250 SF	0.121	3,228	261
VH-99	5,250 SF	0.121	3,228	260

VILLAGE HOUSE LOT AREA TABLE

LOT NUMBER	LOT AREA (SF)	LOT AREA (AC.)	IMPERVIOUS AREA (SF)	SOIL AMENDMENT AREA (SF)
VH-100	6,546 SF	0.150	3,228	1,410
VH-101	5,667 SF	0.130	3,421	749
VH-102	5,667 SF	0.130	3,421	792
VH-103	5,667 SF	0.130	3,421	820
VH-104	5,667 SF	0.130	3,421	847
VH-105	5,667 SF	0.130	3,421	872
VH-106	7,568 SF	0.174	3,255	2,440
VH-107	7,031 SF	0.161	3,250	1,730
VH-108	5,309 SF	0.122	3,250	461
VH-109	6,424 SF	0.147	3,194	1,159
VH-110	7,403 SF	0.170	3,347	2,164
VH-111	5,667 SF	0.130	3,421	820
VH-112	5,667 SF	0.130	3,421	817
VH-113	5,667 SF	0.130	3,421	815
VH-114	5,667 SF	0.130	3,421	818
VH-115	5,667 SF	0.130	3,421	818
VH-116	7,031 SF	0.161	3,502	1,796
VH-117	5,850 SF	0.134	3,481	587
VH-118	5,849 SF	0.134	3,481	651
VH-119	5,847 SF	0.134	3,481	651
VH-120	5,846 SF	0.134	3,481	651
VH-121	5,845 SF	0.134	3,481	651
VH-122	5,844 SF	0.134	3,481	651
VH-123	5,843 SF	0.134	3,481	651
VH-124	5,842 SF	0.134	3,481	651
VH-125	5,840 SF	0.134	3,481	650
VH-126	5,839 SF	0.134	3,481	585
VH-127	6,130 SF	0.141	3,191	0
VH-128	5,659 SF	0.130	3,182	0
VH-129	5,659 SF	0.130	3,182	36
VH-130	6,626 SF	0.152	3,222	1,156
VH-131	5,850 SF	0.134	3,481	1,012
VH-132	5,850 SF	0.134	3,481	939
VH-133	5,850 SF	0.134	3,481	939
VH-134	5,850 SF	0.134	3,481	704
VH-135	5,850 SF	0.134	3,481	651
VH-136	5,850 SF	0.134	3,481	651
VH-137	5,850 SF	0.134	3,481	651
VH-138	5,850 SF	0.134	3,481	651
VH-139	5,850 SF	0.134	3,481	651
VH-140	5,836 SF	0.134	3,481	586
VH-141	7,363 SF	0.169	2,376	2,929
VH-142	6,500 SF	0.149	3,285	243
VH-143	6,200 SF	0.142	3,285	250
VH-144	5,500 SF	0.126	3,282	260
VH-145	5,500 SF	0.126	3,282	320
VH-146	5,500 SF	0.126	3,282	320
VH-147	5,500 SF	0.126	3,282	320
VH-148	5,500 SF	0.126	3,282	320
VH-149	5,788 SF	0.133	2,196	0
VH-150	5,610 SF	0.129	3,246	0
VH-151	5,610 SF	0.129	3,246	0
VH-152	5,860 SF	0.135	3,280	0
VH-153	7,614 SF	0.175	3,257	1,094
VH-154	7,614 SF	0.175	3,257	1,406
VH-155	7,400 SF	0.170	3,257	1,361
VH-156	5,610 SF	0.129	3,246	767
VH-157	5,610 SF	0.129	3,246	765
VH-158	6,020 SF	0.138	3,249	895
VH-159	6,554 SF	0.150	3,244	1,058
VH-160	6,554 SF	0.150	3,256	1,058
VH-161	6,554 SF	0.150	3,256	1,058
VH-162	6,554 SF	0.150	3,256	750
VH-163	7,834 SF	0.180	3,256	0
VH-164	7,891 SF	0.181	3,210	0
VH-165	5,944 SF	0.136	3,277	0
VH-166	6,002 SF	0.138	3,282	0
VH-167	6,957 SF	0.160	3,228	0
VH-168	5,383 SF	0.124	3,229	216
VH-169	5,503 SF	0.126	3,228	264
VH-170	5,552 SF	0.127	3,214	254
VH-171	5,541 SF	0.127	3,217	260
VH-172	6,748 SF	0.155	3,230	214
VH-173	10,939 SF	0.251	2,347	0
VH-174	6,799 SF	0.156	3,470	0
VH-175	6,294 SF	0.144	3,466	0
VH-176	5,884 SF	0.135	3,466	0
VH-177	7,500 SF	0.172	3,466	0
VH-178	5,799 SF	0.133	2,704	399
VH-179	8,581 SF	0.197	3,265	1,756
VH-180	8,383 SF	0.192	3,265	1,633
VH-181	6,393 SF	0.147	3,273	743
VH-182	6,136 SF	0.141	3,273	702
VH-183	6,136 SF	0.141	3,273	702
VH-184	7,311 SF	0.168	3,273	638
VH-185	8,491 SF	0.195	3,229	720
VH-186	8,255 SF	0.190	3,229	1,115
VH-187	6,132 SF	0.141	3,229	828
VH-188	6,132 SF	0.141	3,229	828
VH-189	7,864 SF	0.181	3,229	648

TWIN LOT AREA TABLE

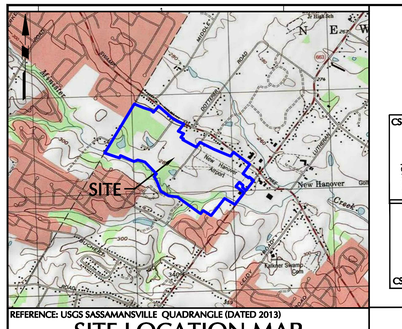
LOT NUMBER	LOT AREA (SF)	LOT AREA (AC.)	IMPERVIOUS AREA (SF)	SOIL AMENDMENT AREA (SF)
TW-1	4,381 SF	0.101	1,458	1,074
TW-2	3,005 SF	0.069	1,458	490
TW-3	3,003 SF	0.069	1,458	490
TW-4	3,004 SF	0.069	1,458	487
TW-5	3,003 SF	0.069	1,458	492
TW-6	4,380 SF	0.101	1,458	1,682
TW-7	3,632 SF	0.083	1,458	942
TW-8	3,165 SF	0.073	1,458	614
TW-9	3,165 SF	0.073	1,458	614
TW-10	3,165 SF	0.073	1,458	614
TW-11	3,165 SF	0.073	1,458	614
TW-12	3,632 SF	0.083	1,458	945
TW-13	3,846 SF	0.088	1,453	1,147
TW-14	3,361 SF	0.077	1,458	629
TW-15	3,079 SF	0.071	1,458	569
TW-16	3,078 SF	0.071	1,458	568
TW-17	3,261 SF	0.075	1,458	608
TW-18	3,930 SF	0.090	1,454	1,200
TW-19	3,632 SF	0.083	1,458	946
TW-20	3,165 SF	0.073	1,458	614
TW-21	3,165 SF	0.073	1,458	616
TW-22	3,165 SF	0.073	1,458	615
TW-23	3,165 SF	0.073	1,458	615
TW-24	3,633 SF	0.083	1,458	948
TW-25	3,300 SF	0.076	1,458	140
TW-26	3,300 SF	0.076	1,458	200
TW-27	3,300 SF	0.076	1,458	200
TW-28	3,300 SF	0.076	1,458	200
TW-29	3,300 SF	0.076	1,458	200
TW-30	3,300 SF	0.076	1,458	200
TW-31	3,300 SF	0.076	1,458	200
TW-32	3,300 SF	0.076	1,458	200
TW-33	3,300 SF	0.076	1,458	200
TW-34	3,300 SF	0.076	1,458	202
TW-35	4,279 SF	0.098	1,454	175
TW-36	4,279 SF	0.098	1,454	297
TW-37	4,279 SF	0.098	1,458	452
TW-38	4,279 SF	0.098	1,458	114
TW-39	3,388 SF	0.078	1,458	194
TW-40	3,300 SF	0.076	1,458	200
TW-41	3,300 SF	0.076	1,458	200
TW-42	3,300 SF	0.076	1,458	203
TW-43	4,049 SF	0.093	1,454	127
TW-44	4,287 SF	0.098	1,454	177
TW-45	4,287 SF	0.098	1,454	179
TW-46	4,287 SF	0.098	1,454	140
TW-47	3,279 SF	0.075	1,458	160
TW-48	3,300 SF	0.076	1,458	200
TW-49	3,300 SF	0.076	1,458	200
TW-50	3,300 SF	0.076	1,458	200
TW-51	3,300 SF	0.076	1,458	200
TW-52	3,300 SF	0.076	1,458	200
TW-53	3,300 SF	0.076	1,458	200
TW-54	3,300 SF	0.076	1,458	200
TW-55	3,300 SF	0.076	1,458	200
TW-56	3,301 SF	0.076	1,458	202
TW-57	3,654 SF	0.084	1,436	1,286
TW-58	3,068 SF	0.070	1,404	680
TW-59	3,068 SF	0.070	1,436	629
TW-60	3,068 SF	0.070	1,404	640
TW-61	3,068 SF	0.070	1,436	626
TW-62	3,653 SF	0.084	1,404	1,217
TW-63	3,004 SF	0.069	1,521	485
TW-64	3,005 SF	0.069	1,505	524
TW-65	3,007 SF	0.069	1,578	560
TW-66	3,130 SF	0.072	1,573	587
TW-67	3,047 SF	0.070	1,484	404
TW-68	3,004 SF	0.069	1,514	472
TW-69	3,004 SF	0.069	1,514	473
TW-70	3,004 SF	0.069	1,484	472
TW-71	3,464 SF	0.080	1,441	1,104
TW-72	3,049 SF	0.070	1,414	393
TW-73	4,216 SF	0.097	1,469	1,504
TW-74	3,140 SF	0.072	1,456	528
TW-75	3,140 SF	0.072	1,469	528
TW-76	3,026 SF	0.069	1,457	291
TW-77	3,568 SF	0.082	1,447	702
TW-78	4,176 SF	0.096	1,463	1,370
TW-79	4,160 SF	0.096	1,456	1,327
TW-80	4,160 SF	0.096	1,454	1,438
TW-81	3,455 SF	0.079	1,456	776
TW-82	3,249 SF	0.075	1,454	573
TW-83	3,637 SF	0.084	1,453	933
TW-84	3,637 SF	0.084	1,465	961
TW-85	3,656 SF	0.084	1,453	993
TW-86	3,656 SF	0.084	1,465	980
TW-87	3,656 SF	0.084	1,453	981
TW-88	3,549 SF	0.081	1,465	762
TW-89	3,120 SF	0.072	1,456	609
TW-90	3,120 SF	0.072	1,469	609
TW-91	3,120 SF	0.072	1,456	609
TW-92	3,120 SF	0.072	1,469	609
TW-93	3,120 SF	0.072	1,456	609
TW-94	3,120 SF	0.072	1,469	609
TW-95	3,120 SF	0.072	1,405	197
TW-96	3,120 SF	0.072	1,405	140
TW-97	3,120 SF	0.072	1,405	140
TW-98	3,120 SF	0.072	1,405	140

TOWNHOUSE LOT AREA TABLE

LOT NUMBER	LOT AREA (SF)	LOT AREA (AC.)	IMPERVIOUS AREA (SF)	SOIL AMENDMENT AREA (SF)
T-1	2,730 SF	0.063	1,124	390.0
T-2	1,560 SF	0.036	1,102	0.0
T-3	1,560 SF	0.036	1,122	0.0
T-4	2,457 SF	0.056	1,104	0.0
T-5	2,457 SF	0.056	1,124	0.0
T-6	1,560 SF	0.036	1,102	0.0
T-7	1,560 SF	0.036	1,122	0.0
T-8	2,449 SF	0.056	1,104	0.0
T-9	2,457 SF	0.056	1,124	76.0
T-10	1,560 SF	0.036	1,102	70.0
T-11	1,567 SF	0.036	1,122	72.0
T-12	2,450 SF	0.056	1,104	74.0
T-13	2,457 SF	0.056	1,124	76.0
T-14	1,560 SF	0.036	1,102	71.0
T-15	1,560 SF	0.036	1,122	71.0
T-16	1,950 SF	0.045	1,104	76.0
T-17	2,311 SF	0.053	1,130	0.0
T-18	1,540 SF	0.035	1,102	0.0
T-19	1,540 SF	0.035	1,122	0.0
T-20	2,426 SF	0.056	1,102	0.0
T-21	2,310 SF	0.053	1,272	55.0
T-22	2,059 SF	0.047	1,386	92.0
T-23	1,601 SF	0.037	1,373	0.0
T-24	1,575 SF	0.036	1,319	0.0
T-25	2,459 SF	0.056	1,345	345.0
T-26	2,457 SF	0.056	1,340	336.0
T-27	1,560 SF	0.036	1,310	54.0
T-28	2,457 SF	0.056	1,346	0.0
T-29	2,457 SF	0.056	1,316	0.0
T-30	1,560 SF	0.036	1,340	0.0
T-31	1,560 SF	0.036	1,310	0.0
T-32	2,649 SF	0.061	1,346	0.0
T-33	2,790 SF	0.064	1,364	214.0
T-34	1,680 SF	0.039	1,388	132.0
T-35	1,680 SF	0.039	1,358	132.0
T-36	2,646 SF	0.061	1,394	372.0
T-37	2,646 SF	0.061	1,364	362.0
T-38	1,680 SF	0.039	1,388	132.0
T-39	1,680 SF	0.039	1,358	132.0
T-40	2,100 SF	0.048	1,394	226.0
T-41	2,100 SF	0.048	1,364	247.0
T-42	1,680 SF	0.039	1,388	132.0
T-43	1,680 SF	0.039	1,358	132.0
T-44	2,646 SF	0.061	1,394	370.0
T-45	2,646 SF	0.061	1,364	367.0
T-46	1,680 SF	0.039	1,388	132.0
T-47	1,680 SF	0.039	1,358	132.0
T-48	3,843 SF	0.088	1,394	1,710.0
T-49	2,770 SF	0.064	1,356	489.0
T-50	1,560 SF	0.036	1,315	48.0
T-51	2,457 SF	0.056	1,347	221.0
T-52	2,457 SF	0.056	1,316	218.0
T-53	1,560 SF	0.036	1,340	54.0
T-54	1,560 SF	0.036	1,310	54.0
T-55	2,457 SF	0.056	1,346	247.0
T-56	2,457 SF	0.056	1,356	242.0
T-57	1,620 SF	0.037	1,315	49.0
T-58	2,529 SF	0.058	1,347	448.0
T-59	1,950 SF	0.045	1,316	139.0
T-60	1,560 SF	0.036	1,340	0.0
T-61	1,560 SF	0.036	1,310	0.0
T-62	1,560 SF	0.036	1,340	0.0
T-63	1,950 SF	0.045	1,316	148.0
T-64	2,748 SF	0.063	1,355	563.0
T-65	1,620 SF	0.037	1,379	0.0
T-66	1,620 SF	0.037	1,349	0.0
T-67	2,025 SF	0.046	1,337	0.0
T-68	2,025 SF	0.046	1,337	0.0
T-69	1,620 SF	0.037	1,349	0.0
T-70	1,620 SF	0.037	1,379	0.0
T-71	2,748 SF	0.063	1,355	172.0
T-72	1,950 SF	0.045	1,351	116.0
T-73	1,560 SF	0.036	1,375	27.0
T-74	1,560 SF	0.036	1,345	27.0
T-75	1,552 SF	0.036	1,368	27.0
T-76	1,908 SF	0.044	1,324	104.0
T-77	2,319 SF	0.053	1,362	254.0
T-78	1,663 SF	0.038	1,385	118.0
T-79	1,663 SF	0.038	1,355	118.0
T-80	1,663 SF	0.038	1,385	113.0
T-81	2,768 SF	0.064	1,362	194.0
T-82	2,828 SF	0.065	1,385	219.0
T-83	1,663 SF	0.038	1,355	118.0
T-84	1,663 SF	0.038	1,385	113.0
T-85	2,619 SF	0.060	1,362	335.0
T-86	2,619 SF	0.060	1,362	329.0
T-87	1,663 SF	0.038	1,385	118.0
T-88	1,663 SF	0.038	1,355	113.0
T-89	1,663 SF	0.038	1,385	118.0
T-90	2,078 SF	0.048	1,362	148.0
T-91	2,078 SF	0.048	1,362	212.0
T-92	1,663 SF	0.038	1,385	118.0
T-93	1,663 SF	0.038	1,355	118.0
T-94	1,663 SF	0.038	1,385	118.0
T-95	2,619 SF	0.060	1,362	350.0
T-96	2,619 SF	0.060	1,385	349.0
T-97	1,663 SF	0.038	1,355	118.0
T-98	1,663 SF	0.038	1,385	118.0
T-99	2,078 SF	0.048	1,362	210.0

TOWNHOUSE LOT AREA TABLE

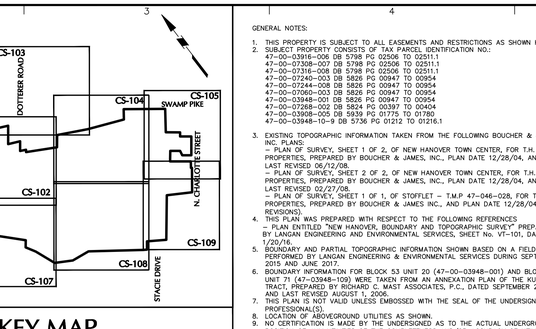
LOT NUMBER	LOT AREA (SF)	LOT AREA (AC.)	IMPERVIOUS AREA (SF)	SOIL AMENDMENT AREA (SF)
T-100	2,520 SF	0.058	1,130	156.0
T-101	1,600 SF	0.037	1,102	0.0
T-102	1,600 SF	0.037	1,122	0.0
T-103	1,600 SF	0.037	1,102	0.0
T-104	2,520 SF	0.058	1,130	118.7
T-105	2,520 SF	0.058	1,130	118.7
T-106	1,600 SF	0.037	1,102	0.0
T-107	1,600 SF	0.037	1,122	0.0
T-108	1,600 SF	0.037	1,102	0.0
T-109	2,000 SF	0.046	1,130	53.0
T-110	2,520 SF	0.058	1,322	269.0
T-111	1,600 SF	0.037	1,346	99.0
T-112	1,600 SF	0.037	1,316	99.0
T-113	1,600 SF	0.037	1,346	99.0
T-114	2,000 SF	0.046	1,322	140.0
T-115	2,000 SF	0.046	1,322	163.0
T-116	1,600 SF	0.037	1,346	99.0
T-117	1,600 SF	0.037	1,316	99.0
T-118	1,600 SF	0.037	1,346	99.0
T-119	2,520 SF	0.058	1,322	161.0
T-120	2,525 SF	0.058	1,323	258.0
T-121	1,603 SF	0.037	1,347	101.0
T-122	1,603 SF	0.037	1,317	101.0
T-123	1,603 SF	0.037	1,347	101.0
T-124	2,004 SF	0.046	1,323	166.0
T-125	2,004 SF	0.046	1,323	167.0
T-126	1,603 SF	0.037	1,347	101.0
T-127	1,603 SF	0.037	1,317	101.0
T-128	1,603 SF	0.037	1,347	101.0
T-129	2,525 SF	0.058	1,323	258.0
T-130	2,567 SF	0.059	1,327	322.0
T-131	1,630 SF	0.037	1,351	124.0
T-132	1,630 SF	0.037	1,321	124.0
T-133	1,630 SF	0.037	1,351	124.0
T-134	2,038 SF	0.047	1,327	207.0
T-135	2,038 SF	0.047	1,327	207.0
T-136	1,630 SF	0.037	1,351	124.0
T-137	1,630 SF	0.037	1,321	124.0
T-138	1,630 SF	0.037	1,351	124.0
T-139	2,567 SF	0.059	1,327	321.0
T-140	2,864 SF	0.066	1,417	607.0
T-141	1,555 SF	0.036	1,336	0.0
T-142	1,525 SF	0.035	1,340	0.0
T-143	2,393 SF	0.055	1,310	119.0
T-144	2,392 SF	0.055	1,340	137.0
T-145	1,519 SF	0.035	1,304	0.0
T-146	1,519 SF	0.035	1,334	0.0
T-147	1,898 SF	0.044	1,310	53.0
T-148	2,342 SF	0.054	1,350	263.0
T-149	1,631 SF	0.037	1,363	177.0
T-150	1,670 SF	0.038	1,428	215.0
T-151	3,294 SF	0.076	1,415	376.0
T-152	3,006 SF	0.069	1,302	0.0
T-153	1,540 SF	0.035	1,266	0.0
T-154	1,540 SF	0.035	1,296	0.0
T-155	2,891 SF	0.066	1,337	757.9
T-156	1,502 SF	0.034	1,300	0.0
T-157	1,503 SF	0.034	1,300	0.0
T-158	2,367 SF	0.054	1,307	102.0
T-159	2,467 SF	0.057	1,337	211.0
T-160	1,503 SF	0.034	1,300	0.0
T-161	1,503 SF	0.034	1,300	0.0
T-162	2,742 SF	0.063	1,307	582.0
T-163	3,471 SF	0.080	1,310	1,366.0
T-164	1,520 SF	0.035	1,334	0.0
T-165	1,520 SF	0.035	1,304	0.0
T-166	1,520 SF	0.035	1,334	0.0
T-167	2,394 SF	0.055	1,310	119.0
T-168	2,394 SF	0.055	1,310	119.0
T-169	1,520 SF	0.035	1,334	0.0
T-170	1,520 SF	0.035	1,304	0.0
T-171	1,528 SF	0.035	1,334	35.0
T-172	3,702 SF	0.085	1,334	1,550.0
T-173	3,350 SF	0.077	1,307	1,250.0
T-174	1,500 SF	0.034	1,331	0.0
T-175	1,500 SF	0.034	1,301	0.0
T-176	1,500 SF	0.034	1,331	0.0
T-177	2,363 SF	0.054	1,307	119.0
T-178	2,363 SF	0.054	1,307	119.0
T-179	2,364 SF	0.054	1,307	0.0
T-180	2,365 SF	0.054	1,307	0.0
T-181	2,366 SF	0.054	1,307	0.0
T-182	2,367 SF	0.054	1,307	760.0
T-183	2,368 SF	0.054	1,307	108.0
T-184	2,369 SF	0.054	1,307	58.0
T-185	2,370 SF	0.054	1,307	58.0
T-186	2,371 SF	0.054	1,307	58.0
T-187	2,372 SF	0.054	1,307	241.0
T-188	2,373 SF	0.054	1,307	242.



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'



KEY MAP

SCALE 1"=1000'

GENERAL SITE NOTES:

1. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor is solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all specific instructions required for sitework construction. The Contractor is responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction,
2. The Contractor shall accept the site as is, The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner and Engineer make no guarantee in regard to the accuracy of any information that was obtained during investigations. The Contractor shall make a thorough site inspection in order to field check existing conditions. Any construction conditions with the drawings; and, resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall perform additional topographic surveys he/she deems necessary, provided they are coordinated with the Owner, Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.
3. The Contractor shall, when he/she deems necessary, provide a written Request for Information (RFI) to the Owner and/or Owner's designated representative, and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and/or Owner's designated representative, and Engineer and shall allow for a minimum of three work days for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.
4. Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to bid. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the form of an RFI prior to bid,
5. There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.
6. Contractor is specifically cautioned that all construction stakeout for this project must be completed from the site specific survey control (horizontal and vertical) upon which the design is based. The contractor should not rely on or re-establish survey control by GPS or other methods for use in construction stakeout or any other purpose for this project. Any discrepancies between the existing horizontal or vertical data shown on these drawings and that encountered in the field must be reported to the design team prior to construction for resolution.

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

PENNSYLVANIA ONE CALL SYSTEM, INC. PENNSYLVANIA'S ONE CALL BEFORE YOU DIG

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
*** IT'S THE LAW ***

WAIVERS LIST
SUBDIVISION AND LAND DEVELOPMENT ORDINANCE – CHAPTER 22

Section 809A.1.D(3):
A WAIVER IS REQUESTED TO ALLOW CARTWAY WIDTHS GREATER THAN 18 FEET FOR REAR ACCESS LANES.

Section 809A.1.A(3)(e)
A WAIVER IS REQUESTED TO ALLOW ON-STREET PARALLEL PARKING ALONG MAJOR COLLECTOR STREETS.

Section 813.6.G.(3), & Section 813.7.F.(3):
A WAIVER IS REQUESTED TO REDUCE HORIZONTAL CURVE REQUIREMENTS.

Section 813.8.C.(1)
A WAIVER IS REQUESTED TO ALLOW CARTWAY WIDTHS THAT DO NOT EQUAL 36 FEET ALONG MAJOR COLLECTOR STREETS INTERIOR TO THE SITE.

Section 813.8.D
A WAIVER IS REQUESTED TO NOT REQUIRE A SHOULDER ALONG MAJOR COLLECTOR STREETS INTERIOR TO THE SITE.

Section 813.8.E
A WAIVER IS REQUESTED TO NOT PROVIDE TWO MOVING LANES ALONG MAJOR COLLECTOR STREETS.

Section 813.8.F
A WAIVER IS REQUESTED TO ALLOW ON-STREET PARALLEL PARKING ALONG MAJOR COLLECTOR STREETS.

Section 813.8.G
A WAIVER IS REQUESTED TO REDUCE HORIZONTAL CURVES ALONG MAJOR COLLECTOR STREETS.

Section 813.8.G.(4)
A WAIVER IS REQUESTED TO REDUCE TANGENT LENGTHS BETWEEN REVERSE CURVES ALONG MAJOR COLLECTOR STREETS.

Section 813.8.G.(7)
A WAIVER IS REQUESTED TO ALLOW ROAD GRADES GREATER THAN 3% AT INTERSECTIONS OF MAJOR COLLECTOR STREETS.

Section 817.1.A:
A WAIVER IS REQUESTED TO ALLOW SINGLE-FAMILY DRIVEWAYS TO BE LESS THAN 40 FEET FROM STREET INTERSECTIONS.

Section 817.2.A:
A WAIVER IS REQUESTED TO ALLOW ATRIUM, TOWNHOUSE AND TWIN DRIVEWAYS TO BE LESS THAN 40 FEET FROM STREET INTERSECTIONS.

Section 823.7:
A WAIVER IS REQUESTED TO ALLOW SLOPES GREATER THAN 3% IN PARKING LOTS WITH 20 OR MORE SPACES.

Section 813.6.G.(6), Section 813.7.F.(6), Section 813.8.G.(7):
A WAIVER IS REQUESTED TO ALLOW INTERSECTION APPROACH GRADES GREATER THAN 4% WITHIN 50 FEET OF INTERSECTIONS AND GREATER THAN 3% IF ROADWAY IS CONSIDERED A MAJOR COLLECTOR.

Section 818.3:
A WAIVER IS REQUESTED TO PERMIT INTERSECTION SEPARATION DISTANCES TO BE LESS THAN THE REQUIREMENTS OF THIS SECTION.

Section 803.1:
A WAIVER IS REQUESTED FROM CALCULATING LOT AREAS AND DIMENSIONS EXCLUSIVE OF ALL EASEMENTS.

Section 806.3.C(1):
A WAIVER IS REQUESTED FROM DESIGNING THE STORMWATER DETENTION AREAS BASED UPON CRITERIA SET FORTH IN THE LATEST EDITION OF "URBAN HYDROLOGY FOR SMALL WATERSHEDS," TECHNICAL RELEASE 55 AND "NATIONAL ENGINEERING HANDBOOK," §4, "HYDROLOGY," AS PUBLISHED BY THE U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE.

Section 806.5.G:
A WAIVER IS REQUESTED TO PERMIT THE DETENTION BASIN EMBANKMENT SLOPES OF 3:1 MAXIMUM SLOPE AS IT APPEARS THERE WAS A MORE RESTRICTIVE REQUIREMENT AT THE TIME OF THE ORIGINAL PLAN APPROVAL.

Section 806.5.I:
A WAIVER IS REQUESTED TO ALLOW FLAT BOTTOM BASINS.

Section 807.2.F.(1):
A PARTIAL WAIVER OF THIS REQUIREMENT IS REQUESTED IN ORDER TO PERMIT THE MATCHING OF PIPE INVERTS AT SEVERAL LOCATIONS WITHIN STORM SEWER PIPING.

Section 809A.1.C.:
A WAIVER IS REQUESTED TO PERMIT ALTERNATE DESIGN STANDARDS FOR LOCAL ROADS. ALL ROADS NOT CONSIDERED COLLECTOR ROADS OR ALLEYS ARE CONSIDERED "LOCAL ROADS."

Section 809.D:
A WAIVER IS REQUESTED TO ALLOW RIGHT-OF-WAY WIDTH TO BE LESS THAN THE REQUIREMENTS OF THIS SECTION.

Section 817.1.D:
A WAIVER IS REQUESTED TO ALLOW SINGLE-FAMILY AND TOWNHOUSE DRIVEWAYS TO BE LOCATED CLOSER THAN FIVE FEET TO THE PROPERTY LINE.

Section 818.4:
A WAIVER IS REQUESTED TO ALLOW STREET INTERSECTIONS AT ANGLES SLIGHTLY GREATER THAN AND LESS THAN 90 DEGREES.

Section 820.2 & 820.8:
A PARTIAL WAIVER IS REQUESTED FROM THESE REQUIREMENTS IN ORDER TO UTILIZE TREE SPECIES THAT ARE NOT INCLUDED ON THE LIST OF APPROVED TREES.

Section 823.5.G & 823.5.K.:
A WAIVER IS REQUESTED TO PERMIT PARKING AREAS CLOSER THAN 10 FEET TO THE PROPERTY LINES AND 15 FEET TO BUILDINGS DUE TO THE TN/TC DESIGN CONCEPT.

Section 825.F:
A WAIVER IS REQUESTED TO PERMIT A MULTI-USE TRAIL (WHICH IS PROPOSED ALONG THE MINISTER CREEK STREAM CORRIDOR), LIMITED GRADING, SECTIONS OF SANITARY SEWER MAIN, LIMITED STORM SEWERS (WITH RIMS ABOVE THE FLOODPLAIN) AND A RETAINING WALL, WITHIN THE 100 YEAR FLOODPLAIN.

Section 829:
A WAIVER FROM THE BUFFER YARD REQUIREMENTS OF THIS SECTION IS REQUESTED IN ORDER TO PERMIT BUFFER PLANTINGS AND YARDS CONSISTENT WITH THE TC/TN ZONING DISTRICT DESIGN CRITERIA.

GENERAL NOTES:

1. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS AS SHOWN HEREIN.
2. SUBJECT PROPERTY CONSISTS OF TAX PARCEL IDENTIFICATION NO.:
   47-00-03916-006 DB 5798 PG 02506 TO 02511.1
   47-00-07308-007 DB 5798 PG 02506 TO 02511.1
   47-00-07316-009 DB 5798 PG 02506 TO 02511.1
   47-00-07240-003 DB 5826 PG 00947 TO 00954
   47-00-07244-002 DB 5826 PG 00947 TO 00954
   47-00-07060-003 DB 5826 PG 00947 TO 00954
   47-00-03948-003 DB 5826 PG 00947 TO 00954
   47-00-07268-002 DB 5824 PG 00397 TO 00404
   47-00-03909-003 DB 5838 PG 01793 TO 01795
   47-00-03948-10-9 DB 5736 PG 01212 TO 01216.1
3. EXISTING TOPOGRAPHIC INFORMATION TAKEN FROM THE FOLLOWING BOUCHER & JAMES INC. PLANS:
   – PLAN OF SURVEY, SHEET 1 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 02/27/08.
   – PLAN OF SURVEY, SHEET 2 OF 2, OF NEW HANOVER TOWN CENTER, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES, INC., PLAN DATE 12/28/04, AND LAST REVISED 02/27/08.
   – PLAN OF SURVEY, SHEET 1 OF 1, OF STOFFLET – T.M.P. 47-046-028, FOR T.H. PROPERTIES, PREPARED BY BOUCHER & JAMES INC., AND PLAN DATE 12/28/04 (NO REVISIONS).
4. THIS PLAN WAS PREPARED WITH RESPECT TO THE FOLLOWING REFERENCES
   – PLAN ENTITLED 'NEW HANOVER, BOUNDARY AND TOPOGRAPHIC SURVEY' PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, SHEET No. VT-101, DATED 1/20/16.
5. BOUNDARY AND PARTIAL TOPOGRAPHIC INFORMATION SHOWN BASED ON A FIELD SURVEY PERFORMED BY LANGAN ENGINEERING & ENVIRONMENTAL SERVICES DURING SEPTEMBER 2015 AND JUNE 2017.
6. BOUNDARY INFORMATION FOR BLOCK 53 UNIT 20 (47-00-03948-001) AND BLOCK 53 UNIT 71 (47-00394B-109) WERE TAKEN FROM AN ANNEXATION PLAN OF THE KULP TRACT, PREPARED BY RICHARD C. MAST ASSOCIATES, P.C., DATED SEPTEMBER 28, 2005, AND LAST REVISED MARCH 1, 2006.
7. THIS PLAN IS NOT VALID UNLESS EMBOSSED WITH THE SEAL OF THE UNDERSIGNED PROFESSIONS(S).
8. LOCATION OF ABOVEGROUND UTILITIES AS SHOWN.
9. NO CERTIFICATION GIVEN BY THE UNDERSIGNED AS TO THE ACTUAL UNDERGROUND POSITION OF ANY UTILITIES OF THE COMPLETENESS AND/OR ACCURACY OF UTILITY INFORMATION PROVIDED BY OTHERS.
10. PROPERTY LIES IN FLOOD ZONE "X" (AREAS OF 0.2% ANNUAL CHANCE OF FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD), AS SHOWN ON FEMA FLOOD INSURANCE MAP PANEL #86 OF 451, MAP #42091C0086G MAP REVISED MARCH 2, 2016 AND FEMA FLOOD INSURANCE MAP PANEL #87 OF 451, MAP #42091C0087G MAP REVISED MARCH 2, 2016.
11. WATERS OF THE UNITED STATES SHOWN HEREON WERE FIELD DELINEATED AND VERIFIED BY NOVA CONSULTANTS, LTD. IN APRIL 2005, AND SURVEY LOCATED BY BOUCHER & JAMES, INC., IN MARCH 2005.
12. THE POST-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY SHOWN IS BASED ON THE 100-YEAR FLOODPLAIN ANALYSIS REPORT PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, DATED
13. CONTRACTOR SHALL PROVIDE WRITTEN REQUESTS FOR INFORMATION TO THE OWNER AND OWNER'S DESIGNATED REPRESENTATIVE PRIOR TO THE CONSTRUCTION OF ANY SITEWORK ITEM IF ANY SPECIFIC SITEWORK ITEM DEPICTED ON THE PLANS WARRANTS ADDITIONAL INFORMATION REQUIRED FOR CONSTRUCTION BY THE CONTRACTOR IN HIS MEANS AND METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SPECIFIC SITE WORK ITEMS INSTALLED DIFFERENTLY THAN INTENDED AS DEPICTED ON THE PLANS IN THE ABSENCE OF SUBMITTING AND ADDRESSING WRITTEN REQUESTS FOR INFORMATION.
14. DEVELOPER RESERVES THE RIGHT TO ENTER ALL LOTS, PRIVATE STREETS, EASEMENTS AND OPEN SPACE AREAS CREATED BY THE SUBDIVISION/LAND DEVELOPMENT SUBSEQUENT TO THEIR CONVEYANCE TO THE HOMEOWNER'S ASSOCIATION, AND DEVELOPER IS RELEASED OF ALL RESPONSIBILITY PURSUANT TO THE DEVELOPER'S AGREEMENTS. DEVELOPER MAINTAINS THESE RIGHTS UNDER SECTION 509 OF THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE AS AMENDED P.S. 10509. THIS RIGHT IS GRANTED FOR THE PURPOSE OF COMPLETING SITE LANDSCAPING AND TO MAKE ANY MODIFICATIONS TO GRADING AND/OR DRAINAGE AS MAY BE DEEMED NECESSARY BY THE DEVELOPER, AND/OR THE TOWNSHIP ENGINEER FOR THE PURPOSE OF OBTAINING SATISFACTORY STORMWATER MANAGEMENT.
15. STREET TREES TO BE FIELD ADJUSTED TO AVOID POTENTIAL UTILITY CONFLICTS.
16. THE DWELLINGS SHOWN ON THESE PLANS ARE SUBJECT TO ALL TOWNSHIP ZONING & SUBDIVISION ORDINANCE REQUIREMENTS. INDIVIDUAL HOUSING UNITS AS DEPICTED ON THE CONSTRUCTION DRAWINGS ARE APPROXIMATE ONLY. ACTUAL HOUSE LOCATION AND ELEVATIONS SHALL BE DETERMINED WHEN APPLICATION FOR THE INDIVIDUAL BUILDING PERMIT IS MADE.
17. ALL STORM SEWERS WILL BE MAINTAINED BY THE HOMEOWNER'S ASSOCIATION. A BLANKET EASEMENT IS PROVIDED TO NEW HANOVER TOWNSHIP TO ENSURE THE TOWNSHIP'S RIGHT OF ACCESS SHOULD THE HOMEOWNER'S ASSOCIATION NOT FULFILL THIS REQUIREMENT.
18. ALL TRAILS SHALL BE OFFERED TO THE TOWNSHIP FOR DEDICATION BUT THE HOMEOWNERS ASSOCIATION SHALL BE RESPONSIBLE FOR ALL TRAIL MAINTENANCE. PORTIONS OF THE TRAIL NETWORK WHICH ARE LABELED ON THE SITE PLAN SHEETS CS-106 THROUGH CS-108 SHALL BE DESIGNED FOR PERIODIC UTILITY VEHICLE TRAFFIC IN ORDER TO ACCESS SANITARY SEWER FACILITIES.
19. THE PERMANENT STORMWATER BMPs SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
20. AS-BUILT PLANS OF DEDICATED IMPROVEMENTS FOR EACH PHASE OF CONSTRUCTION PRIOR TO THE OFFER OF DEDICATION OF THOSE IMPROVEMENTS.
21. WHEREVER SIDEWALKS ARE TO BE PROVIDED, ABUTTING PROPERTY OWNERS ARE RESPONSIBLE TO MAINTAIN SIDEWALKS FOR THE WIDTH OF THEIR PROPERTY.
22. ALL PROPOSED UTILITIES SHALL BE PLACED UNDERGROUND.
23. THE RETENTION/DETENTION BASINS AND STORMWATER FACILITIES (AS SHOWN ON THIS PLAN) ARE A BASIC AND PERPETUAL PLAN OF THE STORM DRAINAGE SYSTEM OF THE TOWNSHIP OF NEW HANOVER, AND AS SUCH ARE TO BE PROTECTED AND PRESERVED, IN ACCORDANCE WITH THE APPROVED FINAL PLAN BY THE OWNER(S) ON WHOSE LANDS THE STRUCTURE(S) IS (ARE) LOCATED. THE TOWNSHIP OF NEW HANOVER AND/OR ITS AGENTS RESERVES THE RIGHT AND THE PRIVILEGE TO ENTER UPON SUCH LANDS FROM TIME TO TIME FOR THE PURPOSE OF INSPECTION OF SAID RETENTION/DETENTION BASIN(S) IN ORDER TO DETERMINE THAT THE STRUCTURAL AND DESIGN INTEGRITY ARE BEING MAINTAINED BY THE OWNER(S).
24. IN THE EVENT THAT MAINTENANCE AND STRUCTURAL INTEGRITY ARE NOT MAINTAINED BY THE OWNER AS REQUIRED BY THE TOWNSHIP, THE OWNER HEREBY GRANTS TO THE TOWNSHIP THE RIGHT TO ENTER UPON SUCH PROPERTY AND TO PERFORM ANY AND ALL IMPROVEMENTS, REVISIONS OR MAINTENANCE AS MAY BE DETERMINED NECESSARY BY THE TOWNSHIP AND TO RECOVER THE COSTS THEREOF FROM THE PROPERTY OWNER BY ALL LAWFUL MEANS INCLUDING, BUT NOT LIMITED TO, THE IMPOSITION OF A MUNICIPAL LIEN ON THE SUBJECT PROPERTY.
25. OPEN SPACE LAND MAY NOT BE SEPARATELY SOLD, NOR SHALL SUCH LAND BE FURTHER DEVELOPED OR SUBDIVIDED.
26. ALL DEVELOPMENT ACTIVITIES, SUCH AS CLEARING, GRADING, REGRADING, DRIVEWAYS, ROADS, BUILDINGS, SEPTIC SYSTEMS, RETENTION/DETENTION BASINS AND UTILITY EASEMENTS SHALL BE LIMITED TO THE NATURAL RESOURCE PROTECTION STANDARD AS SPECIFIED IN THE NEW HANOVER TOWNSHIP ZONING ORDINANCE AS AS LAST AMENDED. THE REMAINING RESOURCES SHALL REMAIN IN ITS NATURAL CONDITION, INCLUDING THE NATURAL FOREST GROUND COVER. THIS RESTRICTION SHALL RUN WITH THE LAND AND BE BINDING ON THE PRESENT AND ALL FUTURE OWNERS AND/OR LESSEES.
27. THE PROPOSED DESIGN ELEMENTS WITHIN THE TN DISTRICT, INCLUDING PEDESTRIAN FACILITIES, BUILDINGS, AND PARKING, WILL COMPLY WITH ALL STANDARDS DESCRIBED IN NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE SECTION 22-837 IN PLACE AT THE TIME OF PRELIMINARY PLAN SUBMISSION ON JUNE 30TH, 2005, UNLESS A WAIVER IS GRANTED.
28. NON-RESIDENTIAL SETBACKS ARE SHOWN ON SHEETS CB-101 THROUGH CB-109 AND CS-101 THROUGH CS-109. NON-RESIDENTIAL SETBACKS SHOWN FOR TN DISTRICT NON-RESIDENTIAL USE AREAS 1, 2, 3, AND 4 AND TC DISTRICT NON-RESIDENTIAL USE AREA 1 LOTS ARE AS FOLLOWS: 20 FT MAXIMUM FRONT YARD SETBACK, 20 FT MINIMUM SIDE YARD SETBACK AND 20 FT MINIMUM REAR YARD SETBACK. NON-RESIDENTIAL SETBACKS SHOWN FOR TN DISTRICT NON-RESIDENTIAL USE AREA 4 AND TC DISTRICT NON-RESIDENTIAL USE AREA 2 LOTS ARE AS FOLLOWS: 20 FT MAXIMUM FRONT YARD SETBACK, MINIMUM 7.5 FT SIDE YARD SETBACK AND 15 FT MINIMUM REAR YARD SETBACK.
29. THE DRIVE THROUGH BUILDING DESIGN SHOULD HAVE AN ARCHITECTURAL STYLE THAT IS CONSISTENT WITH THE MAIN GROUP OF BUILDINGS IN TERMS OF MATERIALS, COLOR, LANDSCAPE, AND SCALE.
30. SHOP DRAWINGS OF WEATHER PROTECTION (CAPOPIES, AWNINGS, ETC.) SHALL BE SUBMITTED TO THE TOWNSHIP ENGINEER FOR THE COMMERCIAL PLAZA AREAS WHEN TENANTS ARE SELECT.
31. THE WIDTH OF THE VILLAGE HOUSE GARAGE SHALL NOT BE MORE THAN 10 FEET WIDE.
32. CROSSWALKS ARE REQUIRED AT ALL TRAFFIC SIGNALS ALONG SWAMP PIKE. REFER TO THE ROAD IMPROVEMENTS PLANS FOR DETAILED CROSSWALKS AND LOCATIONS.
33. WHEN A RESIDENTIAL GARAGE FACES A STREET, THE GARAGE SHALL COMPRISE NO MORE THAN 30% OF THE TOTAL AREA OF THE FRONT FACADE ELEVATION OF A DWELLING UNIT, MEASURED FROM GRADE LEVEL TO THE LOWER EDGE OF THE ROOF. THE PROPOSED RESIDENTIAL BUILDINGS ILLUSTRATED ON THE RECORD PLAN COMPLY WITH THIS REQUIREMENT AND ALL MODELS OFFERED FOR SALE MUST ADHERE TO THIS REQUIREMENT.
34. NO MORE THAN TWO RESIDENTIAL GARAGE DOORS FACING A STREET ARE LOCATED IN A GROUP, AND SUCH GROUP OF GARAGE DOORS ARE SEPARATED FROM ANY OTHER GARAGE DOOR FACING A STREET BY AT LEAST 10 FEET.
35. A DISTRICT BOUNDARY LINE EXTENSION CAN BE USED WHERE A TC/TN DISTRICT BOUNDARY LINE DIVIDES A TRACT OF LAND. THE REGULATIONS AS TO THE USE IN ONE DISTRICT MAY EXTEND OVER A PORTION OF THE TRACT IN THE OTHER DISTRICT WITHIN THE DISTRICT BOUNDARY LINE EXTENSION LIMIT.
36. RESIDENTIAL HOMES MAY HAVE A BASEMENT, IF THEY DO THEN THEY WILL BE PROVIDED WITH A FOUNDATION DRAIN SYSTEM INCLUDING A SUMP PUMP. COMMERCIAL BUILDINGS WILL HAVE DOWNSPOUTS THAT CONNECT DIRECTLY TO THE STORM SEWER SYSTEM.

Refuse Collection Table

Building Type	Collection Type
Village House	Curbside
Townhouse (on alley)	Alley
Townhouse (on street)	Curbside
Twin (on alley)	Alley
Twin (on street)	Curbside
Twin (on alley)	Alley
Atrium House (on alley)	Alley
Atrium House (on street)	Curbside
Mixed Use	Dumpster
Flex Building	Dumpster
Comercial	Dumpster

RECORD PLAN NOTES & COVENANTS:

1. PERMANENT MARKERS AND MONUMENTS WILL BE INSTALLED UPON COMPLETION OF FINAL GRADING.
2. DEVELOPMENT TO BE SERVICED BY PUBLIC WATER AND SEWER.
3. THE PUBLIC WATER SERVICE WILL BE PROVIDED BY AQUA PA.
4. ALL PROPOSED ALLEYS AND SHARED DRIVEWAYS WILL REMAIN PRIVATE AND WILL NOT BE DEDICATED FOR PUBLIC USE.
5. TRAFFIC SIGNS SHALL BE IN ACCORDANCE WITH THE "PennDOT GUIDELINES FOR LOCAL ROADWAYS".
6. A BLANKET EASEMENT IS PROPOSED TO ALLOW NEW HANOVER TOWNSHIP AND NEW HANOVER TOWNSHIP SEWER AUTHORITY ACCESS TO THE STORMWATER AND SANITARY SEWER FACILITIES.
7. NO BUILDING OR OBSTRUCTION THAT WOULD OBSCURE THE VISION OF A MOTORIST SHALL BE PERMITTED WITHIN THE CLEAR SIGHT TRIANGLES.
8. THE OWNERSHIP AND MAINTENANCE OF THE PROPOSED RETAINING WALLS ON SITE SHALL BE THE RESPONSIBILITY OF THE HOMEOWNER'S ASSOCIATION.
9. ALL MAINTENANCE OF THE STORMWATER FACILITIES (AS SHOWN ON THIS PLAN) ARE A BASIC AND PERPETUAL PLAN OF THE STORM DRAINAGE SYSTEM OF THE TOWNSHIP OF NEW HANOVER, AND AS SUCH ARE TO BE PROTECTED AND PRESERVED, IN ACCORDANCE WITH THE APPROVED FINAL PLAN BY THE OWNER(S) ON WHOSE LANDS THE STRUCTURE(S) IS (ARE) LOCATED. THE TOWNSHIP OF NEW HANOVER AND/OR ITS AGENTS RESERVES THE RIGHT AND THE PRIVILEGE TO ENTER UPON SUCH LANDS FROM TIME TO TIME FOR THE PURPOSE OF INSPECTION OF SAID RETENTION/DETENTION BASIN(S) IN ORDER TO DETERMINE THAT THE STRUCTURAL AND DESIGN INTEGRITY ARE BEING MAINTAINED BY THE OWNER(S).
10. IN THE EVENT THAT MAINTENANCE AND STRUCTURAL INTEGRITY ARE NOT MAINTAINED BY THE OWNER AS REQUIRED BY THE TOWNSHIP, THE OWNER HEREBY GRANTS TO THE TOWNSHIP THE RIGHT TO ENTER UPON SUCH PROPERTY AND TO PERFORM ANY AND ALL IMPROVEMENTS, REVISIONS OR MAINTENANCE AS MAY BE DETERMINED NECESSARY BY THE TOWNSHIP AND TO RECOVER THE COSTS THEREOF FROM THE PROPERTY OWNER BY ALL LAWFUL MEANS INCLUDING, BUT NOT LIMITED TO, THE IMPOSITION OF A MUNICIPAL LIEN ON THE SUBJECT PROPERTY.
11. THE PROPERTY OWNER, ITS SUCCESSORS AND/OR ASSIGNS OFFERS ANY CONTINUING DEDICATION TO NEW HANOVER TOWNSHIP, A 8' WIDE EASEMENT CENTERED ON ALL TRAILS. THIS CONDITION SHALL BE A RESTRICTIVE COVENANT THAT RUNS WITH THE LAND.
12. THE TOWNSHIP IS NOT RESPONSIBLE FOR CONSTRUCTION OF MAINTENANCE OF ANY AREA NOT DEDICATED FOR PUBLIC USE. THE HOMEOWNER'S ASSOCIATION IS RESPONSIBLE FOR SUCH MAINTENANCE.
13. THE HOMEOWNERS ASSOCIATION IS RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPED ISLANDS LOCATED WITHIN THE PRIVATE STREETS.
14. OPEN SPACE LAND MAY NOT BE SEPARATELY SOLD, NOR SHALL SUCH LAND BE FURTHER DEVELOPED OR SUBDIVIDED. THE OPEN SPACE SHALL BE MAINTAINED FOR THE BENEFIT OF THE GENERAL PUBLIC AND SHALL BE USED AS OPEN SPACE ONLY IN PERPETUITY. THIS CONDITION SHALL BE A RESTRICTIVE COVENANT THAT RUNS WITH THE LAND AND SHALL BE ENFORCED BY THE TOWNSHIP AND IS BINDING AGAINST THE OWNER'S SUCCESSORS AND ASSIGNS IN TITLE OF THE LAND.
15. THE OPEN SPACE MANAGEMENT PLAN SHALL BE RECORDED WITH THE FINAL SUBDIVISION PLAN IN THE OFFICE OF THE RECORDER OF DEEDS OF MONTGOMERY COUNTY.
16. THE HOMEOWNERS ASSOCIATION SHALL OWN AND MAINTAIN ALL STREET LIGHTS AND ILLUMINATED BOLLARDS.
17. REFER TO THE WAIVER REQUEST LETTER DATED 12/13/19 FOR WAIVERS PREVIOUSLY GRANTED IN RESOLUTION 66-07 AND ADDITIONAL WAIVERS REQUESTED.
18. ALL PROPOSED ROADWAYS SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
19. THERE ARE NO TENANTS FOR THE COMMERCIAL SPACE AT THIS TIME. ONCE TENANTS ARE SECURED THE PLAN MAY BE MODIFIED, AT WHICH POINT THE MODIFIED PLAN MUST BE REEVALUATED FOR COMPLIANCE.
20. WHEN USERS ARE SELECTED AND THE BUILDING ARCHITECTURE IS DESIGNED THE APPLICANT SHALL PROVIDE ELEVATIONS SHOWING WINDOW DISPLAYS ON THE BUILDING FACADES THAT INDICATE COMPLIANCE WITH THE GUIDELINES SET FORTH IN THE NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE SECTION 22-836 CRITERION #2.
21. WHEN BUILDING ARCHITECTURE IS DESIGNED IN THE PLAZA AREAS THE APPLICANT SHALL PROVIDE PLANS SHOWING WEATHER PROTECTIONS (CANOPIES & AWNINGS) ON THE BUILDING FACADES THAT INDICATE COMPLIANCE WITH THE GUIDELINES SET FORTH IN THE NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE SECTION 22-836 CRITERION #3.
22. WHEN THE BUILDING ARCHITECTURE IS DESIGNED THE APPLICANT SHALL PROVIDE ARCHITECTURAL ELEVATIONS, PERSPECTIVES OR DETAILS THAT INDICATE COMPLIANCE WITH THE GUIDELINES SET FORTH IN THE ALONG NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE SECTION 22-836 CRITERION #5.
23. WHEN ATRIUM BUILDING ARCHITECTURE IS DESIGNED THE APPLICANT SHALL PROVIDE PLANS THAT INDICATE COMPLIANCE WITH THE GUIDELINES SET FORTH IN THE NEW HANOVER TOWNSHIP ZONING ORDINANCE SECTION 27-305.2.B.(7).
24. TOWNSHIP LINE ROAD SHALL BE RESURFACED THE FULL WIDTH OF THE ROADWAY AS INDICATED ON THE SITE PLAN.
25. FINAL DUMPSTER LOCATIONS TO BE COORDINATED WITH THE TRASH PROVIDER IN CONJUNCTION WITH FINAL PLANS.
26. BLANKET CROSS ACCESS EASEMENTS WILL BE PROVIDED FOR SNOW REMOVAL AND WILL BE INCLUDED IN ALL ASSOCIATION DOCUMENTS FOR BOTH THE RESIDENTIAL AND COMMERCIAL PORTION OF THE PROJECT.
26. A MASTER ASSOCIATION WILL BE PROVIDED FOR THE ENTIRE COMMUNITY (BOTH RESIDENTIAL AND COMMERCIAL AREAS) THAT OVERSEES ALL MAINTENANCE INCLUDING ALL ACCESS ROADWAYS AND DRIVEWAYS BETWEEN THE RESIDENTIAL AND COMMERCIAL AREAS.

SURVEYOR CERTIFICATION:

I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL DRAWINGS BEARING MY SEAL, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE NEW HANOVER TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PROPARED BY ME OR UNDER MY DIRECTION AND FOR WHICH I ACCEPT FULL RESPONSIBILITY. THE PERIMETER MONUMETNS SHALL BE ACCURATELY PLACED AS REQUIRED BY THE TOWNSHIP.

I DO CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE NEW HANOVER TOWNSHIP SUBDIVISION AND ZONING ORDINANCE.

_____
JASON ENGELHARDT
PROFESSIONAL ENGINEER PA LIC. NO. PE–057145–E

CERTIFICATION OF OWNERSHIP

(RP WYNSTONE, L.P., AT REALTY, LP. AND AKM PROPERTIES, LP., TROLLEYLINE ENTERPRISES, L.P., GENERAL HANCOCK PARTNERSHIP LP.)

I _____
HAVE LAID OUT UPON MY LAND SITUATE IN NEW HANOVER TOWNSHIP, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED.

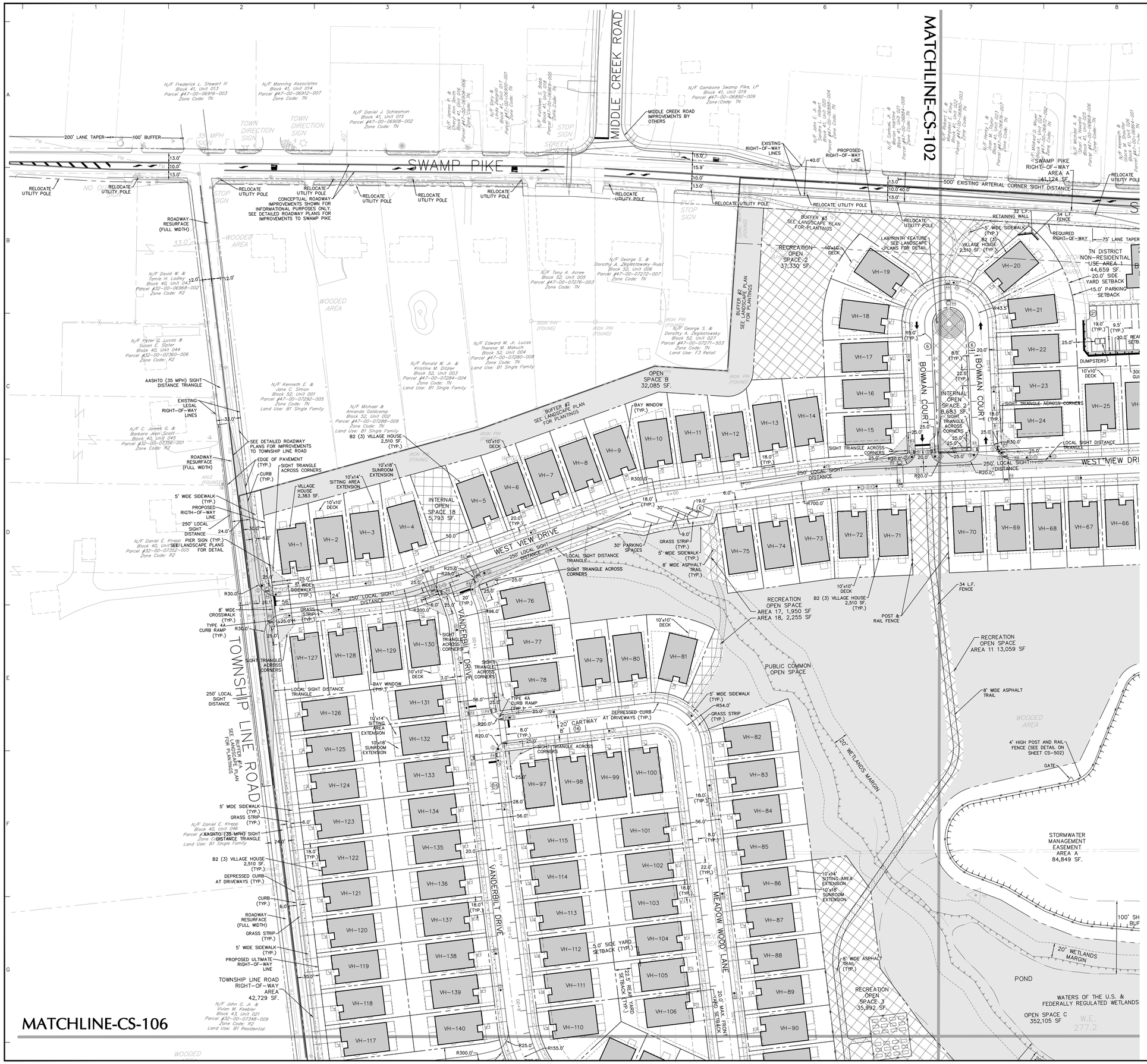
WITNESS MY HAND AND SEAL THIS _____DAY OF _____, 20_____.

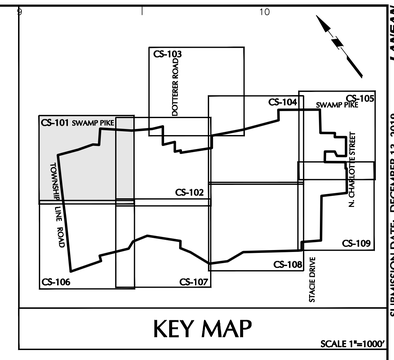
_____ _____
PRINTED NAME SIGNATURE

COMMONWEALTH OF PENNSYLVANIA COUNTY OF MONTGOMERY

ON THE _____DAY OF _____, 20_____ BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA,

PERSONALLY APPEARED _____ WHO ACKNOWLE





KEY MAP

SCALE 1"=1000'

GENERAL SITE NOTES:

1. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor is solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all specific instructions required for sitework construction. The Contractor is responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction.
2. The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner and Engineer make no guarantee in regard to the accuracy of any information that was obtained during investigations. The Contractor shall: make a thorough site inspection in order to field check existing site conditions; correlate conditions with the drawings; and, resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall perform additional topographic surveys he/she deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.
3. The Contractor shall, when he/she deems necessary, provide a written Request for Information (RFI) to the Owner and/or Owner's designated representative, and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and/or Owner's designated representative, and Engineer and shall allow for a minimum of three work days for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.
4. Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to bid. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the format of an RFI prior to bid.
5. There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.
6. Contractor is specifically cautioned that all construction stakeout for this project must be completed from the site specific survey control (horizontal and vertical) upon which the design is based. The contractor should not rely on or re-establish survey control by GPS or other methods for use in construction stakeout or any other purpose for this project. Any discrepancies between the existing horizontal or vertical data shown on these drawings and that encountered in the field must be reported to the design team prior to construction for resolution.

SIGN LEGEND

- STOP (R1-1, 30"X30")
- STOP (R1-1, 30"X30")& ALL WAY (R1-3P)
- STOP (R1-1, 30"X30")& CROSS TRAFFIC DOES NOT STOP (W44bP)
- STREET SIGN (D3-1, VAR. X 8")
- SPEED LIMIT (R2-1, 24"X30")
- PEDESTRIAN CROSSING (W11-2, 30"X30")
- DO NOT ENTER (R5-1, 30"X30")
- KEEP RIGHT (R4-7B, 24"X30")
- ACCESSIBLE PARKING (R7-8, 12"X18")
- NO PARKING THIS SIDE (R7-3-1, 12"X18")
- ONE WAY (R6-1L/R6-1R, 12"X18")
- DOWNWARD ARROW (W16-7P, 12"X24")
- ALL TRAFFIC MUST (R3-7-1R, 30"X30") TURN RIGHT
- ALL TRAFFIC MUST (R3-7-1L, 30"X30") TURN LEFT
- SPEED HUMP (W17-1, 30"X30")
- NO PARKING (R8-3, 12"X18")
- NO RIGHT TURN (R3-1, 30"X30")
- OBJECT MARKER (OM1-3, 18"X18")
- DELIVERY VEHICLES ONLY (12"X18")

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN
- PR. WATER MAIN
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR
- PR. SPOT ELEVATION
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRIAL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

CURB RAMP LEGEND

CURB RAMP SYMBOL

1 — TYPE 1 CURB RAMP

2 — TYPE 2 CURB RAMP

4A — TYPE 4A CURB RAMP

NOTE: SEE SHEET CS-501 FOR RAMP DETAILS

Date	Description	No.
12–13–19	REVISED PER COMMENT LETTERS	8.
11–09–18	REVISED PER COMMENT LETTERS	7.
6–01–18	REVISED PER MCCD COMMENTS	6.
1–31–18	REVISED PER COMMENT LETTERS	5.
11–08–17	REVISED PER COMMENT LETTERS	4.
8–04–17	REVISED PER COMMENT LETTERS	3.
4–07–17	REVISED PER COMMENT LETTERS	2.
11–04–16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE — JASON SCOTT ENGELHARDT, PE — DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN

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NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CO, Inc.
Langan International LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SITE PLAN

Project No. 240038801	Drawing No. CS-101
Date 05/31/16	
Scale 1"=50'	
Drawn By JDM	
Submission Date	Sheet 26 of 187

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

50 0 25 50
SCALE IN FEET

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

Filenames: I:\langan.com\data\BET\data\8\240038801\Cadd Data - 240038801\Sheet Files\240038801 CS101-109.dwg Date: 12/13/2019 Time: 14:47 User: wschaefer Style Table: Langan.stb Layout: CS-101
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MATCHLINE-CS-101

MATCHLINE-CS-103

MATCHLINE-CS-104

MATCHLINE-CS-107

SWAMP PIKE

SWAMP PIKE RIGHT-OF-WAY AREA A 41,124 SF.

500' EXISTING ARTERIAL CORNER SIGHT DISTANCE

RELOCATE UTILITY POLE

DEVELOPMENT SIGN SEE LANDSCAPE PLANS FOR DETAIL

CONCEPTUAL ROADWAY IMPROVEMENTS SHOWN FOR INFORMATIONAL PURPOSES ONLY. SEE DETAILED ROADWAY PLANS FOR IMPROVEMENTS TO SWAMP PIKE

EXISTING LEGAL RIGHT-OF-WAY LINES

PROPOSED ULTIMATE RIGHT-OF-WAY LINE

REQUIRED RIGHT-OF-WAY

STOP BAR

RELOCATE UTILITY POLE

LEGAL R.O.W. LINE

EASEMENT

EXISTING TO BE A CONN DEVELO NETWO

EXISTING ACCESS EASEME

TN (TOWN NEIGHBORHOOD DISTRICT)

TC (TOWN CENTER DISTRICT)

N/F Michael D. & Diane C. Jacobs Block 41, Unit 045 Parcel #47-00-08837-001 Zone Code: TN

N/F Henry L. & Mary C. Taylor Block 41, Unit 031 Parcel #47-00-08678-003 Zone Code: TN

N/F Michael A. & Jeanne M. Block 41, Unit 035 Parcel #47-00-08678-006 Zone Code: TN

N/F Kenneth & Grace M. Block 41, Unit 036 Parcel #47-00-08664-001 Zone Code: TN

N/F Jeffrey S. Reinhart & Sherri L. Block 41, Unit 037 Parcel #47-00-08680-005 Zone Code: TN

N/F Paul F. Grey Block 41, Unit 038 Parcel #47-00-08680-009 Zone Code: TN

N/F Frank M. & Jeanne M. Block 41, Unit 039 Parcel #47-00-08680-010 Zone Code: TN

N/F Robert E. & Elaine C. Hine Block 41, Unit 040 Parcel #47-00-08680-003 Zone Code: TN

N/F Richard & Jeanne Block 41, Unit 041 Parcel #47-00-08680-002 Zone Code: TN

N/F C. Fennell & Block 41, Unit 042 Parcel #47-00-08680-002 Zone Code: TN

N/F William H. Jones Block 41, Unit 034 Parcel #47-00-08680-006 Zone Code: TN

N/F Beth L. Allen Block 52, Unit 028 Parcel #47-00-07248-409 Zone Code: TC Land Use: B1 Single Family

N/F Terry T. Jr. & Amy L. O'Connor Block 52, Unit 008 Parcel #47-00-07264-006 Zone Code: TN Land Use: B1 Single Family

N/F Victoria Redmond Block 52, Unit 009 Parcel #47-00-07260-001 Zone Code: TN Land Use: B1 Single Family

N/F Beth L. Allen Block 52, Unit 025 Parcel #47-00-07247-005 Zone Code: TC Land Use: B1 Residential

N/F Wayne L. & Rebecca L. Block 52, Unit 010 Parcel #47-00-07256-005 Zone Code: TN Land Use: B1 Single Family

N/F Mark L. Halteman Block 52, Unit 011 Parcel #47-00-07252-009 Zone Code: TC Land Use: F34 Commercial

N/F Amy L. Wooster Block 52, Unit 024 Parcel #47-00-07252-006 Zone Code: TC

N/F Wyncrest Properties, L.P. Block 52, Unit 007 Parcel #47-00-07252-007 Zone Code: TC

IRON PIN (FOUND)

CONC. MON (FOUND)

NO PARKING SIGN

STOP SIGN

35 MPH SIGN

2-STORY OFFICE BUILDING A 8,000 SF TOTAL

TN DISTRICT NON-RESIDENTIAL USE AREA 1 44,659 SF.

20.0' SIDE YARD SETBACK

15.0' PARKING SETBACK

20.0' REAR YARD SETBACK

2-STORY OFFICE BUILDING B 8,800 SF TOTAL

TN DISTRICT NON-RESIDENTIAL USE AREA 2 52,535 SF.

20.0' MAX. FRONT YARD SETBACK

ARTERIAL SIGHT TRIANGLE ACROSS CORNERS

BUFFER #4A SEE LANDSCAPE PLAN FOR PLANTINGS

DUMPSTERS FOR TRASH AND RECYCLING

245 L.F. RETAINING WALL

44 SPACES

40 SPACES

37 SPACES

32 L.F. RETAINING WALL

34 L.F. FENCE

5' WIDE SIDEWALK (TYP.)

82 (3) VILLAGE HOUSE 2,310 SF. (TYP.)

75' LANE TAPER

75' RIGHT TURN LANE

4' WIDE SIDEWALK (TYP.)

GRASS STRIP (TYP.)

7.0'

9.5' (TYP.)

19.0' (TYP.)

24.0'

10'x10' DECK

300 L.F. GUIDERAIL

267 L.F. RETAINING WALL

DUMPSTERS

LEXINGTON DRIVE ONE WAY

LEXINGTON DRIVE

WEST VIEW DRIVE

BOWMAN COURT

INTERNAL OPEN SPACE 2 8,683 SF.

SIGHT TRIANGLE ACROSS CORNERS

SIGHT TRIANGLE ACROSS CORNERS

LOCAL SIGHT DISTANCE TRIANGLE

250' LOCAL SIGHT DISTANCE

SIGHT DISTANCE FOR SPREAD OUT STOPPED CONDITION

OPEN SPACE E 29,464 SF.

BUFFER #4A SEE LANDSCAPE PLAN FOR PLANTINGS

TN DISTRICT NON-RESIDENTIAL USE AREA 3 60,742 SF.

1,910 SF

AMENITY AREA

CLUBHOUSE

20.0' SIDE YARD SETBACK

20.0' MAX. FRONT YARD SETBACK

20.0' REAR YARD SETBACK

GRASS STRIP (TYP.)

5' WIDE SIDEWALK (TYP.)

10'x10' DECK

DISTRICT BOUNDARY LINE EXTENSION (SEE NOTE #35 ON SHEET CS-100)

PROPOSED CONNECTION TO EXISTING SIDEWALK ON ADJACENT PROPERTY

PROPOSED CONCRETE SIDEWALK

B2 (10) TOWNHOUSE 842 SF. (TYP.)

BUFFER #4B SEE LANDSCAPE PLAN FOR PLANTINGS

8' WIDE ASPHALT TRAIL (TYP.)

POST & RAIL FENCE (TYP.)

EDGE OF PAVEMENT (TYP.)

20' MAX. FRONT YARD SETBACK

15' REAR YARD SETBACK

INTERNAL OPEN SPACE 4 1,641 SF.

APPROXIMATE LOCATION OF SIDEWALK

IRON PIN (FOUND)

EDGE OF PAVEMENT (TYP.)

ALLEY AA

ALLEY CC

ALLEY DD

ALLEY EE

ALLEY FH

W. MAIN STREET

TILLMAN STREET

DAVENPORT DRIVE

ANDOVER DRIVE

VANDERBILT DRIVE

300' MINOR COLLECTOR SIGHT DISTANCE

DEPRESSED CURB AT ALLEYS (TYP.)

DEPRESSED CURB AT DRIVEWAYS (TYP.)

RECREATION OPEN SPACE 5 41,597 SF.

RECREATION OPEN SPACE 6 4,200 SF.

RECREATION OPEN SPACE 7 29,179 SF.

RECREATION OPEN SPACE 16 63,226 SF.

RECREATION OPEN SPACE 11 13,059 SF

INTERNAL OPEN SPACE 5 1,081 SF.

INTERNAL OPEN SPACE 6 29,030 SF.

INTERNAL OPEN SPACE 14 1,610 SF.

INTERNAL OPEN SPACE 1 120,821 SF.

INTERNAL OPEN SPACE 15 1,296 SF.

PICNIC PAVILION

PLAY GROUND AREA

CONCRETE GRILL PAD (TYP.)

8' WIDE ASPHALT TRAIL (TYP.)

10' WIDE CROSSWALKS

MAILBOX PAD (TYP.)

15' REAR YARD FENCE (TYP.)

5' WIDE SIDEWALK (TYP.)

8' WIDE ASPHALT TRAIL (TYP.)

B2 (3) VILLAGE HOUSE 2,510 SF. (TYP.)

B2 (10) TOWNHOUSE 842 SF. (TYP.)

BOUNDARY TOLERANCE LIMIT

DAY WINDOW (TYP.)

125' DISTRICT BOUNDARY LINE EXTENSION

T-1 T-2 T-3 T-4 T-5 T-6 T-7 T-8 T-9 T-10 T-11 T-12 T-13 T-14 T-15 T-16 T-17 T-18 T-19 T-20 T-22 T-23 T-24 T-25 T-26 T-27 T-28 T-29 T-30 T-31 T-32 T-33 T-34 T-35 T-36 T-37 T-38 T-39 T-40 T-41 T-42 T-43 T-44 T-45 T-46 T-47 T-48 T-49 T-50 T-51 T-52 T-53 T-54 T-55 T-56 T-57 T-59 T-60 T-61 T-62 T-63 T-64 T-65 T-66 T-67 T-68 T-69 T-70 T-71 T-72 T-73 T-74 T-75 T-76 T-78 T-79 T-80 T-81 T-82 T-83 T-84 T-85 T-86 T-87 T-88 T-89 T-90 T-91 T-92 T-93 T-94 T-95 T-96 T-97 T-98 T-99 T-218 T-219 T-220 T-222

VH-20 VH-21 VH-22 VH-23 VH-24 VH-25 VH-26 VH-27 VH-28 VH-29 VH-30 VH-31 VH-32 VH-33 VH-34 VH-35 VH-36 VH-37 VH-38 VH-39 VH-40 VH-41 VH-42 VH-43 VH-44 VH-45 VH-46 VH-47 VH-48 VH-49 VH-50 VH-51 VH-52 VH-53 VH-54 VH-55 VH-56 VH-57 VH-58 VH-59 VH-60 VH-61 VH-62 VH-63 VH-64 VH-65 VH-66 VH-67 VH-68 VH-69 VH-70 VH-179 VH-180 VH-181 VH-182 VH-183 VH-184 VH-185 VH-186 VH-187 VH-188 VH-189

TW-1 TW-2 TW-3 TW-4 TW-5 TW-6 TW-55 TW-56

STORMWATER MANAGEMENT EASEMENT AREA A 84,849 SF.

4' HIGH POST AND RAIL FENCE (SEE DETAIL ON SHEET CS-502)

GATE

100' SHORELINE BUFFER

20' WETLANDS MARGIN

POND

WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS

OPEN SPACE C 352,105 SF

WOODED AREA

230 L.F. RETAINING WALL

125 L.F. GUIDERAIL

GRASS STRIP (TYP.)

LOCAL SIGHT DISTANCE TRIANGLE

300' MINOR COLLECTOR SIGHT DISTANCE

KEY MAP

SCALE 1"=1000'

CS-101 SWAMP PIKE
CS-102
CS-103 DOTTERER ROAD
CS-104 SWAMP PIKE
CS-105 N. CHARLOTTE STREET
CS-106
CS-107
CS-108 STACEY DRIVE
CS-109
TOWNSHIP LINE ROAD

GENERAL SITE NOTES:

1. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor is solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all specific instructions required for sitework construction. The Contractor is responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction.

2. The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner and Engineer make no guarantee in regard to the accuracy of any information that was obtained during investigations. The Contractor shall: make a thorough site inspection in order to field check existing site conditions; correlate conditions with the drawings; and, resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall perform additional topographic surveys he/she deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.

3. The Contractor shall, when he/she deems necessary, provide a written Request for Information (RFI) to the Owner and/or Owner's designated representative, and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and/or Owner's designated representative, and Engineer and shall allow for a minimum of three work days for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.

4. Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to bid. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the format of an RFI prior to bid.

5. There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.

6. Contractor is specifically cautioned that all construction stakeout for this project must be completed from the site specific survey control (horizontal and vertical) upon which the design is based. The contractor should not rely on or re-establish survey control by GPS or other methods for use in construction stakeout or any other purpose for this project. Any discrepancies between the existing horizontal or vertical data shown on these drawings and that encountered in the field must be reported to the design team prior to construction for resolution.

EXISTING LEGEND

TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

PROPOSED LEGEND

PR. CURB LINE
PR. BUILDING
PROPERTY LINE
CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
PR. SANITARY FORCE MAIN — U F M
PR. WATER MAIN — U W
PR. CLEANOUT/CURB STOP
PR. CONTOUR — 253
PR. SPOT ELEVATION — x 360.3
PR. RETAINING WALL
PR. GUIDERAIL
PR. BASIN LIMITS
PR. CONCRETE SIDEWALK
PR. TRAIL
PR. TRAIL (VEHICLE LOADING)
PR. OPEN SPACE
PR. ACTIVE/REC. OPEN SPACE

SIGN LEGEND

- STOP (R1-1, 30"X30")
- STOP (R1-1, 30"X30")& ALL WAY (R1-3P)
- STOP (R1-1, 30"X30")& CROSS TRAFFIC DOES NOT STOP (W44aP)
- STREET SIGN (D3-1, VAR. X 8")
- SPEED LIMIT (R2-1, 24"X30")
- PEDESTRIAN CROSSING (W11-2, 30"X30")
- DO NOT ENTER (R5-1, 30"X30")
- KEEP RIGHT (R4-7B, 24"X30")
- ACCESSIBLE PARKING (R7-8, 12"X18")
- NO PARKING THIS SIDE (R7-3-1, 12"X18")
- ONE WAY (R6-1L/R6-1R, 12"X18")
- DOWNWARD ARROW (W16-7P, 12"X24")
- ALL TRAFFIC MUST (R3-7-1R, 30"X30") TURN RIGHT
- ALL TRAFFIC MUST (R3-7-1L, 30"X30") TURN LEFT
- SPEED HUMP (W17-1, 30"X30")
- NO PARKING (R8-3, 12"X18")
- NO RIGHT TURN (R3-1, 30"X30")
- OBJECT MARKER (OM1-3, 18"X18")
- DELIVERY VEHICLES ONLY (12"X18")

50 0 25 50
SCALE IN FEET

CURB RAMP LEGEND

CURB RAMP SYMBOL

1 — TYPE 1 CURB RAMP

2 — TYPE 2 CURB RAMP

4A — TYPE 4A CURB RAMP

NOTE: SEE SHEET CS-501 FOR RAMP DETAILS

No.	Date	Description
8.	12-13-19	REVISED PER COMMENT LETTERS
7.	11-09-18	REVISED PER COMMENT LETTERS
6.	6-01-18	REVISED PER MCCD COMMENTS
5.	1-31-18	REVISED PER COMMENT LETTERS
4.	11-08-17	REVISED PER COMMENT LETTERS
3.	8-04-17	REVISED PER COMMENT LETTERS
2.	4-07-17	REVISED PER COMMENT LETTERS
1.	11-04-16	REVISED PER COMMENT LETTERS

REVISIONS

JASON SCOTT ENGELHARDT — REGISTERED PROFESSIONAL ENGINEER — COMMONWEALTH OF PENNSYLVANIA

SIGNATURE — JASON SCOTT ENGELHARDT PE — DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
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NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan I.C. Inc. Langan International LLC Collectively known as Langan

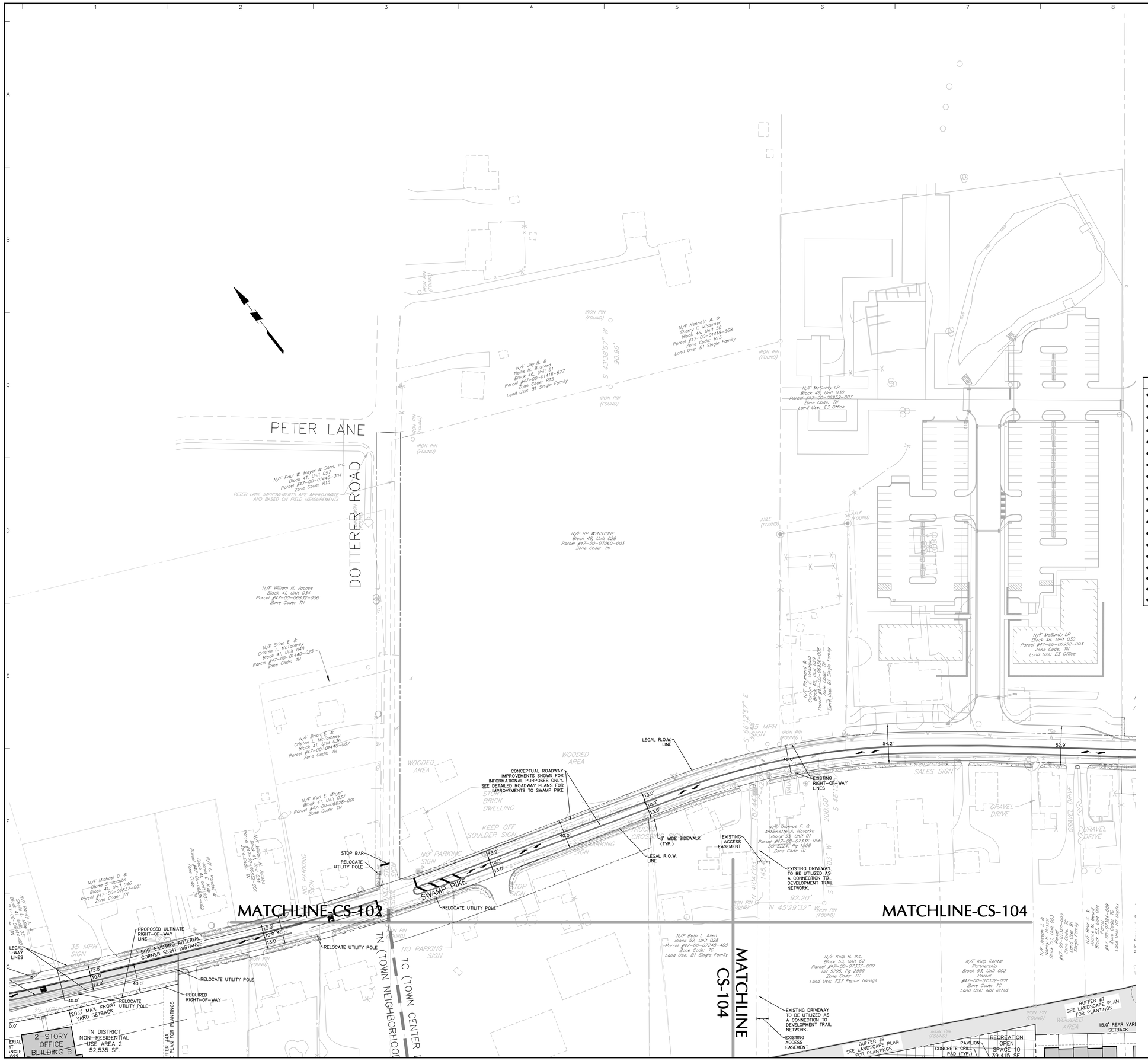
Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

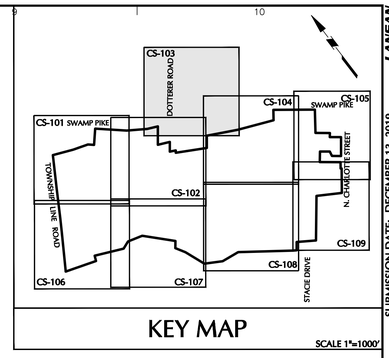
Drawing Title
SITE PLAN

Project No. 240038801	Drawing No. CS-102
Date 05/31/16	
Scale 1"=50'	
Drawn By JDM	
Submission Date	Sheet 27 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

Filename: I:\langan.com\data\BET\data8\240038801\Cadd Data - 240038801\Sheet Files\240038801 CS101-109.dwg Date: 12/13/2019 Time: 14:47 User: wschaefer Style Table: Langan.stb Layout: CS-102
© 2015 Langan





KEY MAP

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- STOP (R1-1, 30"X30")& CROSS TRAFFIC DOES NOT STOP (W4-4P)
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- OBJECT MARKER (OM1-3, 18"X18")
- DELIVERY VEHICLES ONLY (12"X18")

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN
- PR. WATER MAIN
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR
- PR. SPOT ELEVATION
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRIAL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

CURB RAMP LEGEND

CURB RAMP SYMBOL

1 — TYPE 1 CURB RAMP

2 — TYPE 2 CURB RAMP

4A — TYPE 4A CURB RAMP

NOTE: SEE SHEET CS-501 FOR RAMP DETAILS

50 0 25 50
SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT

SIGNATURE — JASON SCOTT ENGELHARDT PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E — DATE SIGNED

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.864.8500 F: 610.864.8501 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan International LLC Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SITE PLAN

Project No.	**240038801**
Date	**05/31/16**
Scale	**1"=50'**
Drawn By	**JDM**
Submission Date	
Drawing No.	**CS-103**
	Sheet 28 of 187

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

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MATCHLINE-CS-103

MATCHLINE-CS-102

MATCHLINE-CS-108

MATCHLINE CS-105

SWAMP PIKE

ANDOVER DRIVE

ALLEY BB

ALLEY KK

ALLEY Y

ALLEY JJ

ALLEY EE

ALLEY M

ALLEY Z

N. MAIN STREET

S. MAIN STREET

W. MAIN STREET

E. MAIN STREET

W. FLUHARTY DRIVE

E. FLUHARTY DRIVE

VANDERBILT DRIVE

GRAVEL DRIVE

MACADAM DRIVE

N/F McSurdy LP
Block 46, Unit 030
Parcel #47-00-06952-003
Zone Code: TN
Land Use: E3 Office

N/F Windlestroe Associates
Block 46, Unit 031
Parcel #47-00-06948-007
Zone Code: R15

N/F Edward W. & Rhonda L. Dietrich
Block 46, Unit 032
Parcel #47-00-06944-002
Zone Code: TC

N/F HCSC Phase 2 LP
Block 46, Unit 033
Parcel #47-00-06936-006
Zone Code: TC

N/F Hanover Court Shopping Center Assoc.
Block 46, Unit 034
Parcel #47-00-06936-001
Zone Code: TC

N/F HCSC Phase 2 LP
Block 46, Unit 035
Parcel #47-00-06932-005
Zone Code: TC

N/F Raymond & Catherine Hoffman
Block 46, Unit 029
Parcel #47-00-06952-028
Zone Code: TN
Land Use: B1 Single Family

N/F Thomas F. & Antoinette A. Hovorka
Block 53, Unit 01
Parcel #47-00-07336-006
DB 5224, Pg 1508
Zone Code: TC

N/F Beth L. Allen
Block 52, Unit 028
Parcel #47-00-01248-409
Zone Code: TC
Land Use: B1 Single Family

N/F Beth L. Allen
Block 52, Unit 025
Parcel #47-00-07247-005
Zone Code: TC
Land Use: B1 Residential

N/F Kulp H. Inc.
Block 53, Unit 62
Parcel #47-00-07333-009
DB 5795, Pg 2555
Zone Code: TC
Land Use: T27 Repair Garage

N/F Kulp Rental Partnership
Block 53, Unit 002
Parcel #47-00-07332-001
Zone Code: TC
Land Use: Not listed

N/F Joseph J. & Nancy E. Hudock
Block 53, Unit 005
Parcel #47-00-07324-005
Zone Code: TC
Land Use: B1 Single Family

N/F Blair S. & Heather Gilbert
Block 53, Unit 004
Parcel #47-00-07324-009
Zone Code: TC
Land Use: B1 Duplex

N/F Tanya A. Russell
Block 53, Unit 003
Parcel #47-00-07320-004
Zone Code: TC
Land Use: B1 Single Family

N/F Oliver H. Jr. & Lorraine S. Reid
Block 53, Unit 068
Parcel #47-00-07319-005
Zone Code: TC
Land Use: F3 Retail

N/F Hanover Shopping Center Assoc.
Block 46, Unit 01
Parcel #47-00-06932-001
Zone Code: TC

N/F Hanover Shopping Center Assoc.
Block 46, Unit 02
Parcel #47-00-06932-002
Zone Code: TC

N/F Hanover Shopping Center Assoc.
Block 46, Unit 03
Parcel #47-00-06932-003
Zone Code: TC

N/F Hanover Shopping Center Assoc.
Block 46, Unit

MATCHLINE CS-104

MATCHLINE-CS-109

WAMP PIKE

SWAMP PIKE

SWAMP PIKE RIGHT-OF-WAY AREA CC 23,819 SF.

40' HALF WIDTH ROW

15.0' CARTWAY SETBACK

500.0' EXISTING ARTERIAL CORNER SIGHT DISTANCE

DEVELOPMENT SIGN SEE LANDSCAPE PLANS FOR DETAIL

BUFFER #9 SEE LANDSCAPE PLAN FOR PLANTINGS

LINEAR PARK

RESTAURANT 2 7,000 SF

OUTDOOR DINING

261 SPACES

TC DISTRICT NON-RESIDENTIAL USE AREA 1,032,361 SF.

RESTAURANT 1 2,000 SF

SUPER MARKET 68,000 SF

OUTDOOR DINING

GREEN

1-STORY RETAIL BLDG. 1 17,800 SF

ACCESSIBLE SPACES WILL BE PROVIDED WHEN TENANTS AND DOOR LOCATIONS ARE FINALIZED

INTERNAL OPEN SPACE 15 29,382 SF.

117 SPACES

RESTAURANT 3 8,000 SF

LOADING

PLAZA

E. MAIN STREET

4-STORY FLEX BUILDING 7 1st floor 13,500 SF RETAIL 2nd, 3rd & 4th floors 32 DWELLING UNITS TOTAL

4-STORY FLEX BUILDING 8 1st floor 12,400 SF RETAIL 2nd, 3rd & 4th floors 29 DWELLING UNITS TOTAL

217 SPACES

INTERNAL OPEN SPACE 16 18,606 SF.

VANDERBILT DRIVE

N. VANDERBILT DRIVE

E. VANDERBILT DRIVE

SERVICE DRIVE

FLUHARTY DRIVE

ONE WAY

NORTH CHARLOTTE STREET S.R. 663 RIGHT-OF-WAY AREA C 4,480 SF.

NORTH CHARLOTTE STREET S.R. 663 RIGHT-OF-WAY AREA B 13,201 SF.

NORTH CHARLOTTE STREET S.R. 663 RIGHT-OF-WAY AREA A 21,649 SF.

EXISTING LOT TO REMAIN

OUT PARCEL

N/F RP Wynstone LP Block 53, Unit 036 Parcel #47-00-03912-001 Zone Code: TC Land Use: 81 Single Family

N/F Hanover Court Shopping Center Assoc. Block 46, Unit 024 Parcel #47-00-06928-009 Zone Code: TC

N/F HCSC Phase 2 LP Block 46, Unit 035 Parcel #47-00-06932-003 Zone Code: TC

N/F James N. & Loretta A. Faust Block 46, Unit 038 Parcel #47-00-06920-008 Zone Code: TC

N/F James N. & Loretta A. Faust Block 46, Unit 037 Parcel #47-00-06904-004 Zone Code: TC

N/F James N. & Loretta A. Faust Block 46, Unit 040 Parcel #47-00-03888-007 Zone Code: TC

N/F Joseph J. Cava Jr. Block 46, Unit 041 Parcel #47-00-03892-005 Zone Code: TC

N/F Wawa, Inc. Block 53, Unit 007 Parcel #47-00-07312-003 Block 53, Unit 008 Parcel #47-00-03226E-001 Block 53, Unit 009 Parcel #47-00-03230A-016 Zone Code: TC Land Use: F35 Store Convenience

N/F SCP 2002E-54 LLC Block 54, Unit 001 Parcel #47-00-07380-007 Zone Code: TC

N/F Richard B. & Carolyn J. Freed Block 54, Unit 009 Parcel #47-00-03480-001 Zone Code: TC

N/F Richard B. & Carolyn J. Freed Block 54, Unit 010 Parcel #47-00-03484-006 Zone Code: TC

N/F Richard B. & Carolyn J. Freed Block 54, Unit 011

N/F Virginia M. Specht, Harold R. Specht & Donna S. Landis Block 54, Unit 012 Parcel #47-00-03488-002 Zone Code: TC

N/F Treeds Partnership Block 54, Unit 030 Parcel #47-00-07360-009 Zone Code: 425

CONCEPTUAL ROADWAY IMPROVEMENTS SHOWN FOR INFORMATIONAL PURPOSES ONLY. SEE DETAILED ROADWAY PLANS FOR IMPROVEMENTS TO SWAMP PIKE

SIDEWALK CONNECTION TO BE DETAILED ON THE ROADWAY IMPROVEMENT PLANS AND COORDINATED WITH WAWA

REPLACE EXISTING CURB RAMP.

2" CURB CUT FOR DRAINAGE

POSSIBLE FUTURE CONNECTION

TEMPORARY EASEMENT FOR PLANTINGS

BUFFER #10 SEE LANDSCAPE PLAN GRADING FOR PLANTINGS

CONCEPTUAL ROADWAY IMPROVEMENTS SHOWN FOR INFORMATIONAL PURPOSES ONLY. SEE DETAILED ROADWAY PLANS FOR IMPROVEMENTS TO NORTH CHARLOTTE STREET

100' LEFT TURN LANE

490' LEFT TURN LANE

150' RIGHT TURN LANE

500' EXISTING ARTERIAL CORNER SIGHT DISTANCE

250' LEFT TURN LANE

60' HALF WIDTH ROW

RELOCATE UTILITY POLE

SIGHT DISTANCE FOR SPREAD OUT STOPPED CONDITION

EXACT LOCATION OF PROPOSED DRIVEWAY TO BE COORDINATED WITH PROPERTY OWNER

PROPOSED DRIVEWAY CONNECTION

SIGHT TRIANGLE ACROSS CORNERS

15.0' CARTWAY SETBACK

20.0' SIDE YARD SETBACK (TYP.)

20.0' MAX. FRONT YARD SETBACK

ULTIMATE R.O.W. LINE

LEGAL R.O.W. LINE

SIGHT DISTANCE TRIANGLE

BUFFER #11A SEE LANDSCAPE PLAN FOR PLANTINGS

BUFFER #12 SEE LANDSCAPE PLAN FOR PLANTINGS

280 L.F. GUIDERAIL

ARTERIAL SIGHT TRIANGLE ACROSS CORNERS

455 L.F. GUIDERAIL

DELIVERY TRAFFIC ONLY SIGNS

RECREATION OPEN SPACE 9 54,739 SF

AREA EXCLUDED FROM RECREATION OPEN SPACE 9 DUE TO STEEP SLOPES 16,486 SF.

DEVELOPMENT SIGN SEE LANDSCAPE PLANS FOR DETAIL

BUFFER #8 SEE LANDSCAPE PLAN FOR PLANTINGS

100' STREAM CORRIDOR SETBACK

POST-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

20' WETLAND MARGIN

TC DISTRICT NON-RESIDENTIAL NATURALIZED GREEN AREA 139,698 SF.

132 L.F. RETAINING WALL

270 L.F. GUIDERAIL

100 L.F. GUIDERAIL STAIRS WITH HAND RAILS

WIDE SIDEWALK (TYP.)

20.0' REAR YARD SETBACK

STOP BAR (TYP.)

SITTING AREA LANDSCAPE PLANS

DEPRESSED CURB FOR SANITARY SEWER ACCESS

CLOCK FEATURE SEE LANDSCAPE PLANS FOR DETAIL

NO PARKING LOADING ZONE SIGN INSTALLED ON BUILDING

EDGE OF PAVEMENT

DUMPSTERS FOR TRASH AND RECYCLING

TYPE 1 CURB RAMP (TYP.)

TYPE 2 CURB RAMP (TYP.)

TYPE 4A CURB RAMP (TYP.)

TYPE 4A CURB RAMP (TYP.)

5' WIDE SIDEWALK

CART CORRAL (TYP.)

TREE GRATE (TYP.)

SPEED TABLE (TYP.)

SIGHT TRIANGLE ACROSS CORNERS

SIGHT DISTANCE TRIANGLE (TYP.)

75 L.F. GUIDERAIL

105' L.F. GUIDERAIL

"LOADING ZONE" PAVEMENT MARKING (TYP.)

LOADING ZONE

DUMPSTERS

ULTIMATE R.O.W. LINE

20.0' SIDE YARD SETBACK (TYP.)

20.0' MAX. FRONT YARD SETBACK

SIGHT DISTANCE FOR SPREAD OUT STOPPED CONDITION

ARTERIAL SIGHT TRIANGLE ACROSS CORNERS

DEVELOPMENT SIGN SEE LANDSCAPE PLANS FOR DETAIL

SIGHT TRIANGLE ACROSS CORNERS

INTERNAL OPEN SPACE 15 29,382 SF.

ACCESSIBLE SPACES WILL BE PROVIDED WHEN TENANTS AND DOOR LOCATIONS ARE FINALIZED

1 STORY FRAME BUILDING FF=262.12

1 STORY BLOCK BUILDING

2 1/2 STORY WOOD FRAME General Hardware Partnership LP

2' CONC. WALK

WOODED AREA

SHED

CURB RAMP LEGEND

CURB RAMP SYMBOL	
1	TYPE 1 CURB RAMP
2	TYPE 2 CURB RAMP
4A	TYPE 4A CURB RAMP

NOTE: SEE SHEET CS-501 FOR RAMP DETAILS

SIGN LEGEND

R1-1	STOP
R1-1, R1-3P	STOP & ALL WAY
R1-3P	CROSS TRAFFIC DOES NOT STOP
D3-1	STREET SIGN
R2-1	SPEED LIMIT
W11-2	PEDESTRIAN CROSSING
R5-1	DO NOT ENTER
R4-7B	KEEP RIGHT
R7-8	ACCESSIBLE PARKING
R7-8, R7-8P	NO PARKING THIS SIDE
R6-1L, R6-1R	ONE WAY
W16-7P	DOWNWARD ARROW
R3-7R, R3-7P	ALL TRAFFIC MUST TURN RIGHT
R3-7L, R3-7P	ALL TRAFFIC MUST TURN LEFT
W17-1, R2-1	SPEED HUMP
R8-3	NO PARKING
R3-1	NO RIGHT TURN
OM1-3	OBJECT MARKER
R3-7P	DELIVERY VEHICLES ONLY

EXISTING LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND

PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	UFM
PR. WATER MAIN	UW
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	100
PR. SPOT ELEVATION	x 360.5
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRAIL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

KEY MAP

SCALE 1"=1000'

CS-101 SWAMP PIKE; CS-102; CS-103 DOTTERER ROAD; CS-104; CS-105 SWAMP PIKE; CS-106; CS-107; CS-108; CS-109; TOWNSHIP LINE ROAD; N. CHARLOTTE STREET; STACIE DRIVE

GENERAL SITE NOTES:

1. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor is solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all specific instructions required for sitework construction. The Contractor is responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction.
2. The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner and Engineer make no guarantee in regard to the accuracy of any information that was obtained during investigations. The Contractor shall: make a thorough site inspection in order to field check existing site conditions; correlate conditions with the drawings; and, resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall perform additional topographic surveys he/she deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.
3. The Contractor shall, when he/she deems necessary, provide a written Request for Information (RFI) to the Owner and/or Owner's designated representative, and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and/or Owner's designated representative, and Engineer and shall allow for a minimum of three work days for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.
4. Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to bid. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the format of an RFI prior to bid.
5. There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.
6. Contractor is specifically cautioned that all construction stakeout for this project must be completed from the site specific survey control (horizontal and vertical) upon which the design is based. The contractor should not rely on or re-establish survey control by GPS or other methods for use in construction stakeout or any other purpose for this project. Any discrepancies between the existing horizontal or vertical data shown on these drawings and that encountered in the field must be reported to the design team prior to construction for resolution.

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER PE057145

SIGNATURE JASON S. ENGELHARDT, PE DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN

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NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan NJ, Inc. Langan NY, LLC CoreCivic known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SITE PLAN

Project No. 240038801	Drawing No. CS-105
Date 05/31/16	
Scale 1"=50'	
Drawn By JDM	
Submission Date	Sheet 30 of 187

SCALE IN FEET 50 0 25 50

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

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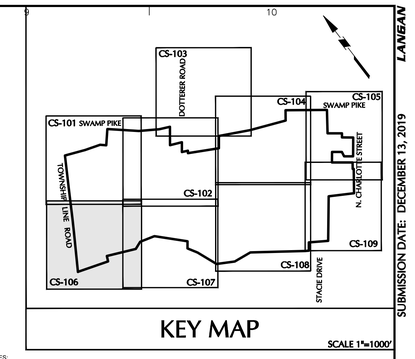
MATCHLINE-CS-101



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2. The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner and Engineer make no guarantee in regard to the accuracy of any information that was obtained during investigations. The Contractor shall: make a thorough site inspection in order to field check existing site conditions; correlate conditions with the drawings; and, resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall perform additional topographic surveys he/she deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start-of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.
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SIGN LEGEND

- STOP (R1-1, 30"X30")
- STOP (R1-1, 30"X30") & ALL WAY (R1-3P)
- STOP (R1-1, 30"X30") & CROSS TRAFFIC DOES NOT STOP (W44bP)
- STREET SIGN (D3-1, VAR. X 8")
- SPEED LIMIT (R2-1, 24"X30")
- PEDESTRIAN CROSSING (W11-2, 30"X30")
- DO NOT ENTER (R5-1, 30"X30")
- KEEP RIGHT (R4-7B, 24"X30")
- ACCESSIBLE PARKING (R7-8, 12"X18")
- NO PARKING THIS SIDE (R7-3-1, 12"X18")
- ONE WAY (R6-1L/R6-1R, 12"X18")
- DOWNWARD ARROW (W16-7P, 12"X24")
- ALL TRAFFIC MUST (R3-7-1R, 30"X30") TURN RIGHT
- ALL TRAFFIC MUST (R3-7-1L, 30"X30") TURN LEFT
- SPEED HUMP (W17-1, 30"X30")
- NO PARKING (R8-3, 12"X18")
- NO RIGHT TURN (R3-1, 30"X30")
- OBJECT MARKER (OM1-3, 18"X18")
- DELIVERY VEHICLES ONLY (12"X18")

EXISTING LEGEND

TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

PROPOSED LEGEND

PR. CURB LINE
PR. BUILDING
PROPERTY LINE
CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
PR. SANITARY FORCE MAIN — U/F M
PR. WATER MAIN — U/F W
PR. CLEANOUT/CURB STOP
PR. CONTOUR — 000
PR. SPOT ELEVATION — x 360.3
PR. RETAINING WALL
PR. GUIDERAIL
PR. BASIN LIMITS
PR. CONCRETE SIDEWALK
PR. TRAIL
PR. TRAIL (VEHICLE LOADING)
PR. OPEN SPACE
PR. ACTIVE/REC. OPEN SPACE

CURB RAMP LEGEND

CURB RAMP SYMBOL

1 — TYPE 1 CURB RAMP (CONCRETE)

2 — TYPE 2 CURB RAMP (LAWN, CONCRETE, CONCRETE)

4A — TYPE 4A CURB RAMP (CONCRETE, LAWN, LAWN)

NOTE: SEE SHEET CS-501 FOR RAMP DETAILS

50 0 25 50
SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2313 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

MATCHLINE-CS-107

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
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8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT PE-057145-E

SIGNATURE — JASON ENGELHARDT PE — DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
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NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan US, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SITE PLAN

Project No.	**240038801**
Date	**05/31/16**
Scale	**1"=50'**
Drawn By	**JDM**
Submission Date	
Drawing No.	**CS-106**
Sheet	31 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

Filename: \\langan.com\data\BET\data\240038801\Cadd Data - 240038801\SheetFiles\240038801 CS101-109.dwg Date: 12/13/2019 Time: 14:48 User: wschaefer Style Table: Langan.stb Layout: CS-106
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MATCHLINE-CS-102

MATCHLINE-CS-106

MATCHLINE-CS-108

100' SHORELINE BUFFER

20' WETLANDS MARGIN

POND

WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS

OPEN SPACE C
352,105 SF

VANDERBILT DRIVE

300' MINOR COLLECTOR SIGHT DISTANCE

LOCAL SIGHT DISTANCE TRIANGLE

SIGHT TRIANGLE ACROSS CORNERS

POST & RAIL FENCE (TYP.)

5' WIDE SIDEWALK (TYP.)

125 L.F. RETAINING WALL

230 L.F. GUIDERAIL

GRASS STRIP (TYP.)

150 L.F. GUIDERAIL

115 L.F. RETAINING WALL

B2 (3) VILLAGE HOUSE
1,863 SF (TYP.)

OPTIONAL FIRE PLACE

10'x16' MORNING ROOM EXTENSION

10'x10' DECK

7.5' SIDE YARD SETBACK (TYP.)

15.0' REAR YARD SETBACK (TYP.)

20.0' MAX. FRONT YARD SETBACK

10' WIDE AREA TO BE MAINTAINED CLEAR FOR SEWER AUTHORITY ACCESS

DEPRESSED CURB FOR SANITARY SEWER ACCESS

DEPRESSED CURB AT DRIVEWAYS (TYP.)

WORTHINGTON LANE

WORTHINGTON DRIVE

MELBOURNE LANE

CORNERS STOP BAR (TYP.)

SPACE 14
11,610 SF

PICNIC PAVILION

PLAY GROUND AREA

RECREATION OPEN SPACE 16
53,226 SF.

8' WIDE ASPHALT TRAIL (TYP.)

CONCRETE GRILL PAD (TYP.)

B2 (10) TOWNHOUSE
842 SF (TYP.)

TC (TOWN CENTER DISTRICT)

TN (TOWN NEIGHBORHOOD DISTRICT)

15' REAR YARD SETBACK

RECREATION OPEN SPACE 1
120,821 SF.

125' DISTRICT BOUNDARY LINE EXTENSION

20' WETLAND MARGIN

100' SHORELINE BUFFER

B2 (4) TWIN
1,075 SF (TYP.)

75' STREAM CORRIDOR SETBACK

GRASS STRIP (TYP.)

5' SIDEWALK (TYP.)

8' WIDE ASPHALT TRAIL (TYP.)

POST & RAIL FENCE (TYP.)

GATE

STORMWATER MANAGEMENT EASEMENT AREA C
46,765 SF.

4' HIGH POST AND RAIL FENCE (SEE DETAIL ON SHEET CS-502)

RECREATION OPEN SPACE 13
848 SF

10'x10' DECK

DEPRESSED CURB

10' WIDE ASPHALT TRAIL

INTERNAL OPEN SPACE
AREA 21, 2,108 SF
AREA 22, 2,729 SF

RECREATION OPEN SPACE 12
681 SF

COMMUNITY GARDEN AREA

8' WIDE ASPHALT TRAIL (TYP.)

BUFFER AREA SEE LANDSCAPE PLANS FOR PLANTINGS

100' STREAM CORRIDOR SETBACK

THIS PORTION OF THE TRAIL SHALL BE DESIGNED TO WITHSTAND SANITARY SEWER AUTHORITY VEHICLE LOADING. THE CONTRACTOR SHALL SUBMIT CALCULATIONS TO THE DESIGN ENGINEER VERIFYING THE PROPOSED TRAIL SECTION IS ADEQUATE FOR THE JET/VAC TRUCK LOADS OR SHALL PROPOSE AN AMENDED SECTION FOR THE PROPOSED VEHICLE LOADING

THIS PORTION OF THE TRAIL SHALL BE DESIGNED TO WITHSTAND SANITARY SEWER AUTHORITY VEHICLE LOADING. THE CONTRACTOR SHALL SUBMIT CALCULATIONS TO THE DESIGN ENGINEER VERIFYING THE PROPOSED TRAIL SECTION IS ADEQUATE FOR THE JET/VAC TRUCK LOADS OR SHALL PROPOSE AN AMENDED SECTION FOR THE PROPOSED VEHICLE LOADING

POST-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

N/F New Hanover Township
Block 52, Unit 030
Parcel #47-00-01879-225
Zone Code: R25
Land Use: Municipal Property

N/F New Hanover Township
Block 52, Unit 042
Parcel #47-00-02749-147
Zone Code: R25
Land Use: Municipal Property

N/F New Hanover Township
Block 59A, Unit 102
Parcel #47-00-02850-109
Zone Code: R25
Land Use: Municipal Property

THIS PORTION OF THE TRAIL SHALL BE DESIGNED TO WITHSTAND SANITARY SEWER AUTHORITY VEHICLE LOADING. THE CONTRACTOR SHALL SUBMIT CALCULATIONS TO THE DESIGN ENGINEER VERIFYING THE PROPOSED TRAIL SECTION IS ADEQUATE FOR THE JET/VAC TRUCK LOADS OR SHALL PROPOSE AN AMENDED SECTION FOR THE PROPOSED VEHICLE LOADING

PEDESTRIAN TRAIL LEADING TO BRIDGE AND OFF-SITE TRAIL CONNECTION SHOWN FOR INFORMATIONAL PURPOSES (PERMITTED SEPARATELY UNDER TOWNSHIP APPLICATION)

CONNECT TRAIL TO THE EXISTING DISC GOLF HOLE #6

WOODED AREA

IRON PIN (FOUND)

KEY MAP

SCALE 1"=1000'

CS-101 SWAMP PIKE
CS-102
CS-103
CS-104
CS-105 SWAMP PIKE
CS-106
CS-107
CS-108
CS-109
DOTTERER ROAD
TOWNSHIP LINE ROAD
N. CHARLOTTE STREET
STACKS DRIVE

GENERAL SITE NOTES:

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EXISTING LEGEND

TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

PROPOSED LEGEND

PR. CURB LINE
PR. BUILDING
PROPERTY LINE
CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
PR. SANITARY FORCE MAIN
PR. WATER MAIN
PR. CLEANOUT/CURB STOP
PR. CONTOUR
PR. SPOT ELEVATION
PR. RETAINING WALL
PR. GUIDERAIL
PR. BASIN LIMITS
PR. CONCRETE SIDEWALK
PR. TRAIL
PR. TRAIL (VEHICLE LOADING)
PR. OPEN SPACE
PR. ACTIVE/REC. OPEN SPACE

SIGN LEGEND

- STOP (R1-1, 30"X30")
- STOP (R1-1, 30"X30") & ALL WAY (R1-3P)
- STOP (R1-1, 30"X30") & CROSS TRAFFIC DOES NOT STOP (W44dP)
- STREET SIGN (D3-1, VAR. X 8")
- SPEED LIMIT (R2-1, 24"X30")
- PEDESTRIAN CROSSING (W11-2, 30"X30")
- DO NOT ENTER (R5-1, 30"X30")
- KEEP RIGHT (R4-7B, 24"X30")
- ACCESSIBLE PARKING (R7-8, 12"X18")
- NO PARKING THIS SIDE (R7-3-1, 12"X18")
- ONE WAY (R6-1L/R6-1R, 12"X18")
- DOWNWARD ARROW (W16-7P, 12"X24")
- ALL TRAFFIC MUST (R3-7-1R, 30"X30") TURN RIGHT
- ALL TRAFFIC MUST (R3-7-1L, 30"X30") TURN LEFT
- SPEED HUMP (W17-1, 30"X30")
- NO PARKING (R8-3, 12"X18")
- NO RIGHT TURN (R3-1, 30"X30")
- OBJECT MARKER (OM1-3, 18"X18")
- DELIVERY VEHICLES ONLY (12"X18")

OWNER
RP WYNSTONE, L.P.
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CONTACT: BENJAMIN GOLDTHORP

50 0 25 50
SCALE IN FEET

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
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4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JASON SCOTT ENGELHARDT
ENGINEER

SIGNATURE JASON ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
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NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
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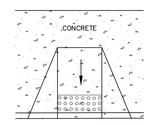
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying, Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan Treadwell LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SITE PLAN

CURB RAMP LEGEND

CURB RAMP SYMBOL

1 — TYPE 1 CURB RAMP


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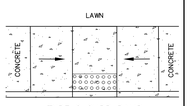

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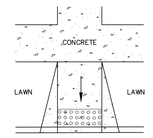

NOTE: SEE SHEET CS-501 FOR RAMP DETAILS

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	JDM
Submission Date	
Drawing No.	CS-107
Sheet	32 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

Filename: \\langan.com\data\BET\data8\240038801\Cadd Data - 240038801\SheetFiles\240038801 CS101-109.dwg Date: 12/13/2019 Time: 14:48 User: wschaefer Style Table: Langan.stb Layout: CS-107
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MATCHLINE-CS-104

MATCHLINE-CS-107

MATCHLINE-CS-109

VANDERBILT DRIVE

HUDSON LANE

SOUTH GATE DRIVE

VANDOVER DRIVE

ALLEY 01

ALLEY 02

ALLEY S

ALLEY R

OAKLAND WAY

TC (TOWN CENTER DISTRICT)

TN (TOWN NEIGHBORHOOD DISTRICT)

R25 (RESIDENTIAL DISTRICT)

INTERNAL OPEN SPACE 7 14,976 SF.

INTERNAL OPEN SPACE 25 2,194 SF.

INTERNAL OPEN SPACE 26 1,821 SF.

INTERNAL OPEN SPACE 27 1,820 SF.

INTERNAL OPEN SPACE 24 1,138 SF.

INTERNAL OPEN SPACE 23 4,057 SF.

INTERNAL OPEN SPACE 3 6,760 SF.

RECREATION OPEN SPACE 8 83,477 SF.

RECREATION OPEN SPACE 20 13,396 SF.

RECREATION OPEN SPACE 14 743 SF.

OPEN SPACE D 1,308,947 SF

STORMWATER MANAGEMENT EASEMENT AREA D 163,041 SF.

EXISTING LOT TO REMAIN

DD-1 75,896 SF. 1.742 AC.

EXISTING SANITARY EASEMENT (IN THE R25 DISTRICT) 3,840 SF.

EXISTING SANITARY EASEMENT

POST-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

100' STREAM CORRIDOR SETBACK

20' WETLAND MARGIN

BUFFER #16 SEE LANDSCAPE PLANS FOR PLANTINGS

PUBLIC COMMON OPEN SPACE

THIS PORTION OF THE TRAIL SHALL BE DESIGNED TO WITHSTAND SANITARY SEWER AUTHORITY VEHICLE LOADING. THE CONTRACTOR SHALL SUBMIT CALCULATIONS TO THE DESIGN ENGINEER VERIFYING THE PROPOSED TRAIL SECTION IS ADEQUATE FOR THE JET/VAC TRUCK LOADS OR SHALL PROPOSE AN AMENDED SECTION FOR THE PROPOSED VEHICLE LOADING

4' HIGH POST AND RAIL FENCE (SEE DETAIL ON SHEET CS-502)

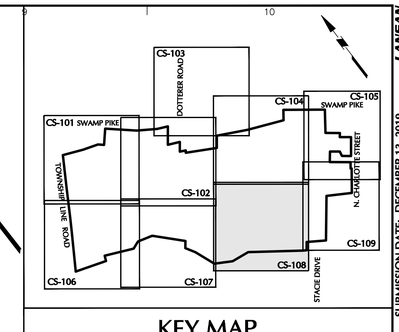
N/F RP WYNSTONE, LP T.M.P.#47-00-03-220

N/F Michael A. & Karen L. Kulp Block 53, Unit 034 Parcel #47-00-02856-004 Zone Code: R25 Land Use: B1 Single Family

N/F Michael A. & Karen L. Kulp and Kevin M. King Block 53, Unit 017 Parcel #47-00-03948-109 Zone Code: R25

N/F Dennis & Michele Kulp Block 53, Unit 050 Parcel #47-00-06780-004 Zone Code: R25 Land Use: B1 Single Family

N/F New Hanover Township Block 59A, Unit 102 Parcel #47-00-02850-109 Zone Code: R25 Land Use: Municipal Property



KEY MAP

SCALE 1"=1000'

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CURB RAMP LEGEND

CURB RAMP SYMBOL

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2 — TYPE 2 CURB RAMP

4A — TYPE 4A CURB RAMP

NOTE: SEE SHEET CS-501 FOR RAMP DETAILS

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COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

50 0 25 50
SCALE IN FEET

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2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE — JASON SCOTT ENGELHARDT — DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN

One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com

NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.K. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SITE PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	JDM
Submission Date	
Drawing No.	CS-108
	Sheet 33 of 187

LANGAN

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

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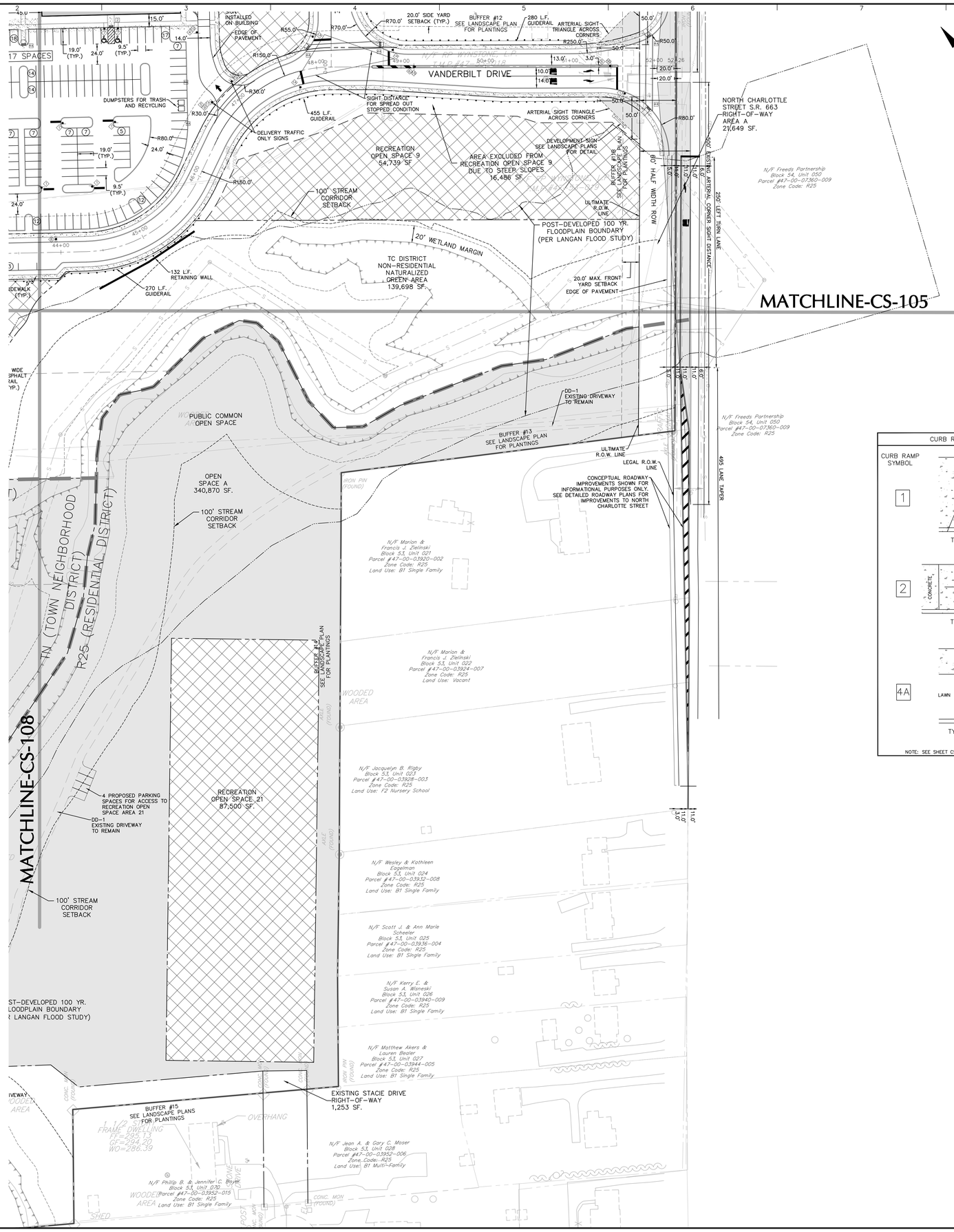

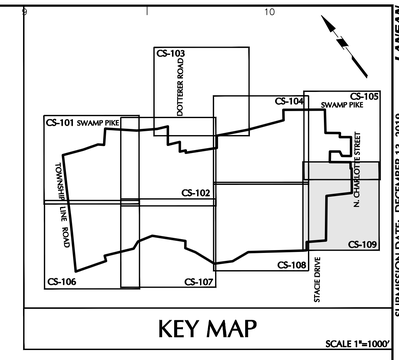

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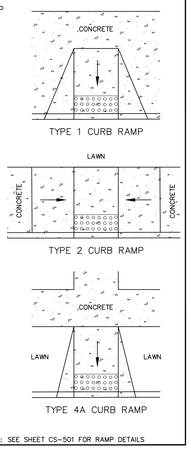
CURB RAMP SYMBOL



NOTE: SEE SHEET CS-501 FOR RAMP DETAILS

SIGN LEGEND

- STOP (R1-1, 30"X30")
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PROPOSED LEGEND

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- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
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2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

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SIGNATURE | JASON SCOTT ENGELHARDT | DATE SIGNED
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Project
NEW HANOVER TOWN CENTER
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Drawing Title
SITE PLAN

Project No. 240038801	Drawing No. CS-109
Date 05/31/16	
Scale 1"=50'	
Drawn By JDM	
Submission Date	Sheet 34 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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Filename: \\langan.com\data\BETV\data\240038801\Cadd Data - 240038801\SheetFiles\240038801 CS101-109.dwg Date: 12/13/2019 Time: 14:49 User: wschaefer Style Table: Langan.stb Layout: CS-109

PHASING TABLE						
Proposed Residential	PHASE 1 No. Units	PHASE 2 No. Units	PHASE 3 No. Units	PHASE 4 No. Units	PHASE 5 No. Units	Total
B1 Detached Dwelling	0	0	0	0	0	2
B2(3) Village House	91	0	98	0	0	189
B2(4) Twins	56	0	0	42	0	98
B2(8) Atrium House	0	0	0	81	0	81
B2(10) Townhouse	77	72	0	103	33	285
B2(12) Mixed Use Multi-family	0	8	0	6	0	14
Totals:	224	80	98	232	33	669

NOTES:
1. The proposed detached dwelling total includes two existing lots to remain and are not listed in a specific phase.
2. The application for the pedestrian bridge permit(s) shall be submitted prior to the start of Phase 1 construction. Construction of the pedestrian bridge shall be tied to the construction of Phase 2.
3. Phase 2 will commence after Phase 1, after Phase 2 the remaining phases may not be built sequentially. Phase 2 includes the necessary infrastructure to support the commercial center. Once Phase 2 begins construction we will be aggressively marketing the site to retail and commercial users but ultimately market conditions will determine the timing of construction of Phase 2a.

PHASE - 1
PHASE - 2
PHASE - 2A
PHASE - 3
PHASE - 4
PHASE - 5
PHASE - 5
BASIN TO BE CONSTRUCTED AS PART OF PHASE 2
PEDESTRIAN BRIDGE (SEE PHASING TABLE NOTE #2)
PHASE 2 SANITARY CONNECTION
PHASE 1 SANITARY CONNECTION

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

150 0 75 150
SCALE IN FEET

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE DATE SIGNED
JASON SCOTT ENGELHARDT PE PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
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ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
PHASING PLAN

Project No. 240038801	Drawing No. CS-200
Date 05/31/16	
Scale 1"=150'	
Drawn By JDM	
Submission Date	Sheet 35 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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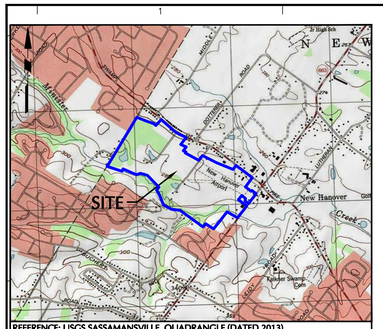

SITE LOCATION MAP SCALE: 1"=2,000'

EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND	
PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	U F M
PR. WATER MAIN	U W
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	360
PR. SPOT ELEVATION	x 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRIAL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

ROAD LEGEND

- RESIDENTIAL LOCAL ROADS
- RESIDENTIAL MINOR COLLECTOR
- RESIDENTIAL MAJOR COLLECTOR
- ALLEY (REAR ACCESS LANE)

NOTE:
1) SEE SHEET CS-502 FOR PAVEMENT SECTIONS
2) SEE SHEET CS-502 & CS-503 FOR ROADWAY SECTIONS

SWAMP PIKE
TOWNSHIP LINE ROAD
BOWMAN COURT
WEST VIEW DRIVE
LEXINGTON DRIVE
TILLMAN STREET
WEST VIEW DRIVE
ALLEY AK
ANDOVER DRIVE
N. MAIN STREET
ALLEY CC
ALLEY FF
ALLEY EE
ALLEY DD
BAVENPORT DRIVE
WEST VIEW DRIVE
VANDERBILT DRIVE
VANDERBILT DRIVE
MEADOW WOOD LANE
VANDERBILT DRIVE
WASHINGTON LANE
WASHINGTON LANE
MELBOURNE LANE
MINSTER CREEK
ANDOVER DRIVE
ALLEY BB
ALLEY KK
N. MAIN STREET
N. MAIN STREET
ALLEY Y
ALLEY Y
ALLEY JJ
ALLEY W
ALLEY V
ALLEY U
ALLEY T
ALLEY OO
ALLEY QQ
ALLEY S
ALLEY R
ANDOVER DRIVE
SOUTH GATE DRIVE
HUDSON LANE
OAKLAND WAY
SOUTH GATE DRIVE
SWAMP PIKE
ANDOVER DRIVE
ALLEY CCC
ALLEY BB
ALLEY KK
E. MAIN STREET
E. MAIN STREET
MAIN STREET
E. MAIN STREET
VANDERBILT DRIVE
VANDERBILT DRIVE
MINSTER CREEK
MINSTER CREEK
MINSTER CREEK
N. CHARLOTTE STREET (S. R. 663)

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

SCALE IN FEET
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REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT

SIGNATURE JASON S. ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROAD CLASS PLAN

Project No. 240038801	Drawing No. CS-201
Date 05/31/16	
Scale 1"=150'	
Drawn By MZ	
Submission Date	Sheet 36 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801
LANGAN

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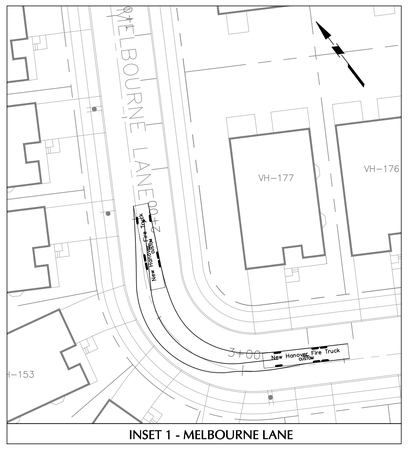
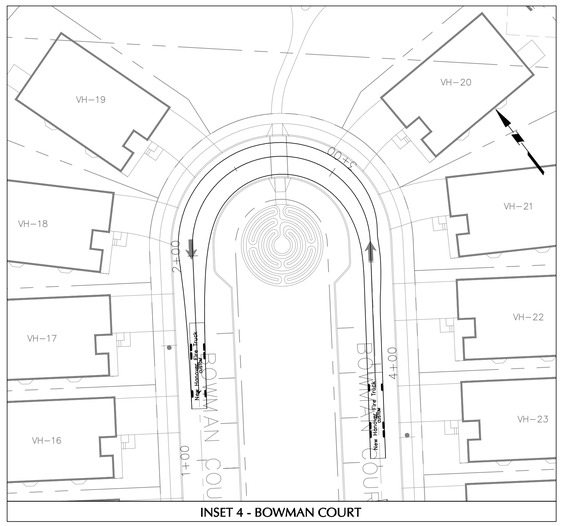
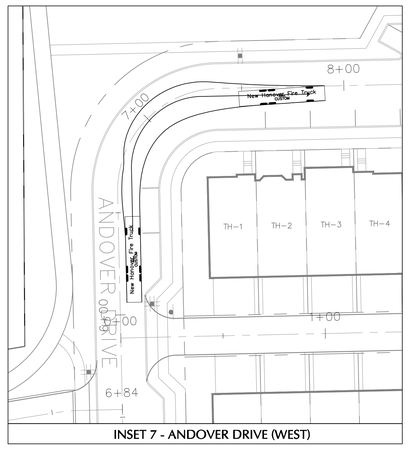


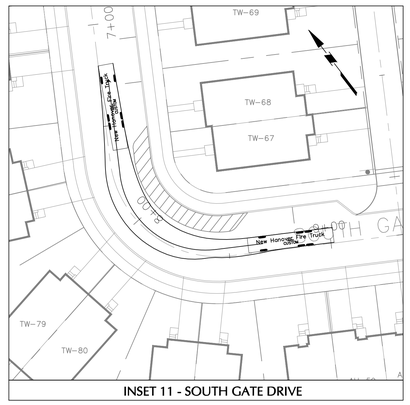
INSET 1 - MELBOURNE LANE



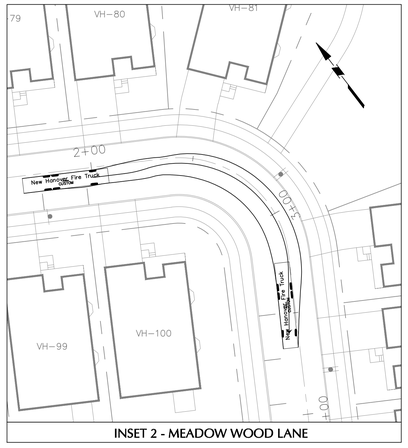
INSET 4 - BOWMAN COURT



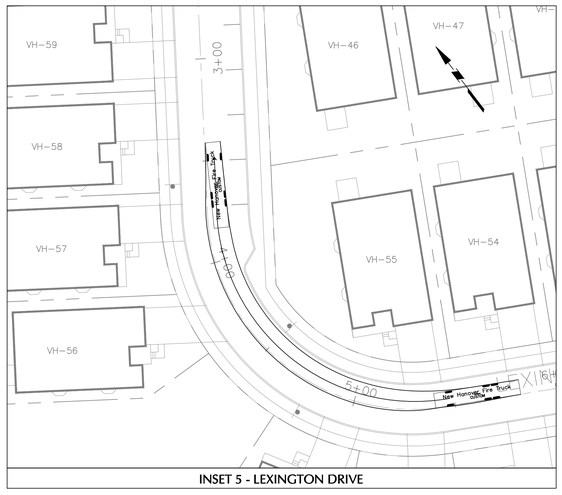
INSET 7 - ANDOVER DRIVE (WEST)



INSET 11 - SOUTH GATE DRIVE



INSET 2 - MEADOW WOOD LANE



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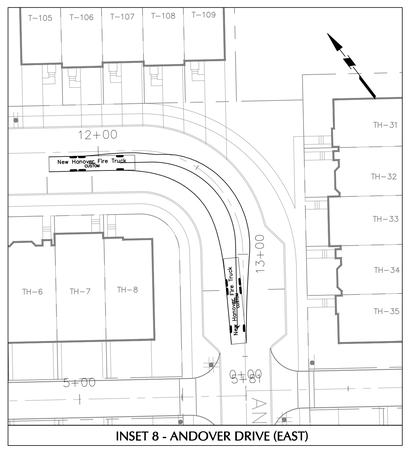
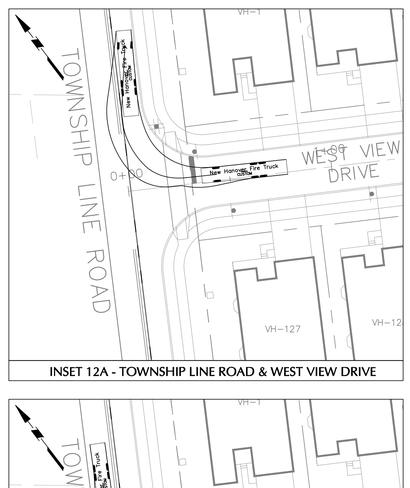
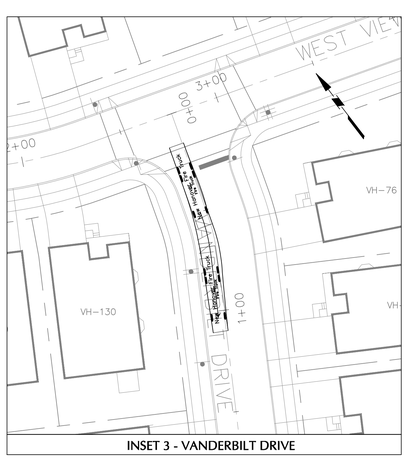


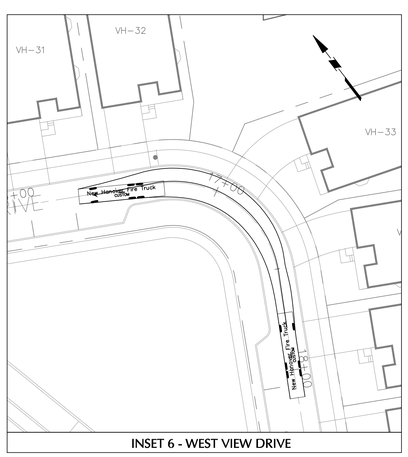
INSET 8 - ANDOVER DRIVE (EAST)



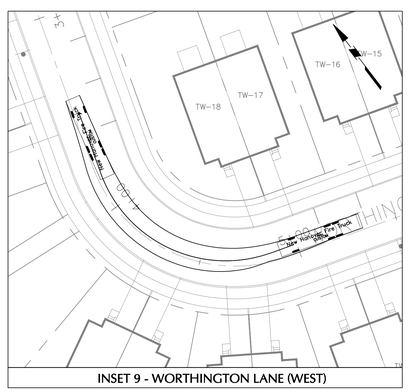
INSET 12A - TOWNSHIP LINE ROAD & WEST VIEW DRIVE



INSET 3 - VANDERBILT DRIVE

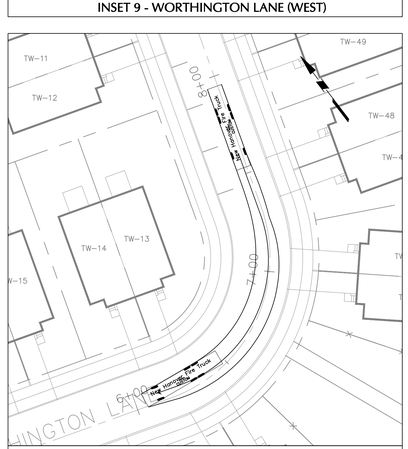


INSET 6 - WEST VIEW DRIVE

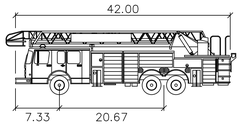


INSET 9 - WORTHINGTON LANE (WEST)

INSET 12B - TOWNSHIP LINE ROAD & WEST VIEW DRIVE



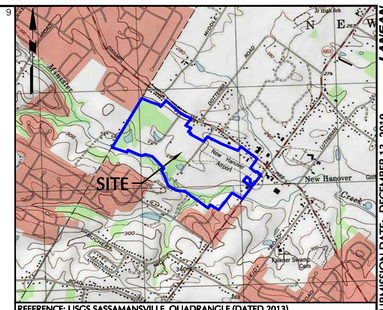
INSET 10 - WORTHINGTON LANE (EAST)



New Hanover Fire Truck

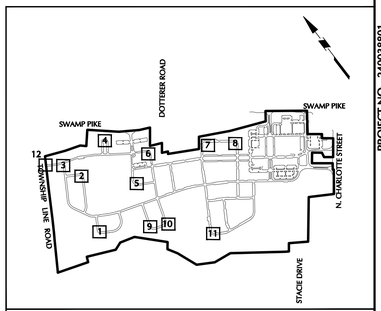
	feet
Width	: 7.30
Track	: 7.30
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

NEW HANOVER FIRE TRUCK DIMENSIONS N.T.S.



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
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EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND	
PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	UF M
PR. WATER MAIN	UW
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	360
PR. SPOT ELEVATION	x 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRIAL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
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8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON S. ENGELHARDT DATE SIGNED

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Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

EMERGENCY TRUCK TURN PLAN

Project No. 240038801	Drawing No. CS-301
Date 05/31/16	
Scale 1"=30'	
Drawn By WLS	
Submission Date	Sheet 37 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
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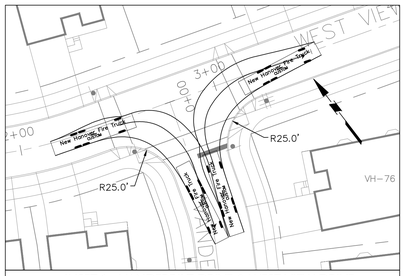
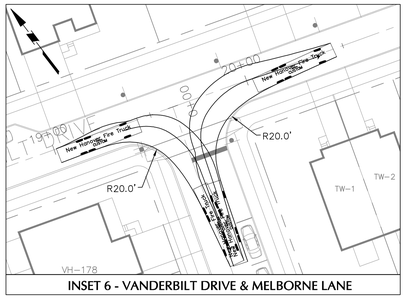
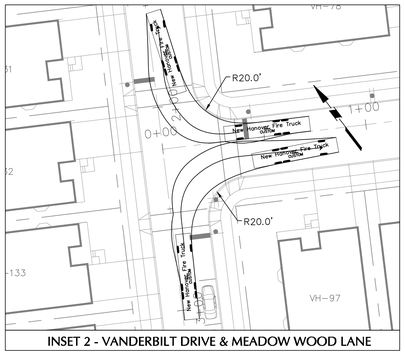


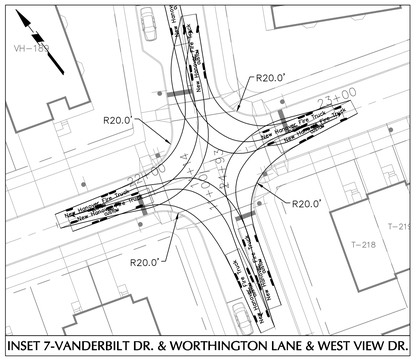
INSET 1 - VANDERBILT DRIVE & WEST VIEW DRIVE



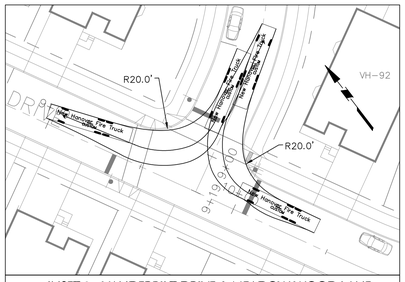
INSET 6 - VANDERBILT DRIVE & MELBORNE LANE



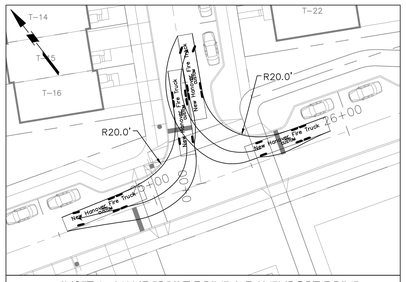
INSET 2 - VANDERBILT DRIVE & MEADOW WOOD LANE



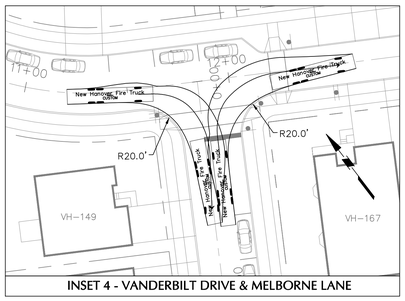
INSET 7-VANDERBILT DR. & WORTHINGTON LANE & WEST VIEW DR.



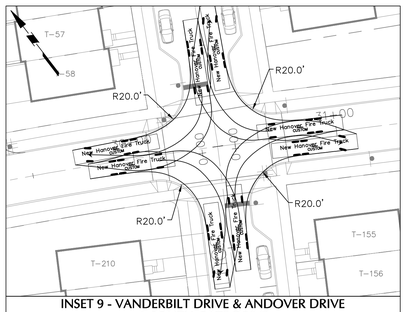
INSET 3 - VANDERBILT DRIVE & MEADOW WOOD LANE



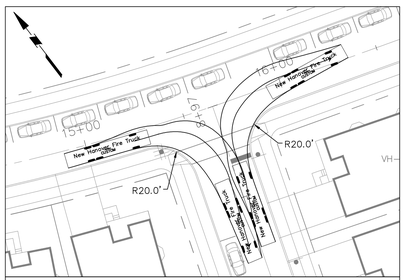
INSET 8 - VANDERBILT DRIVE & DAVENPORT DRIVE



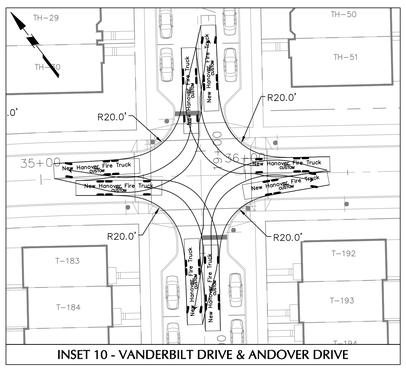
INSET 4 - VANDERBILT DRIVE & MELBORNE LANE



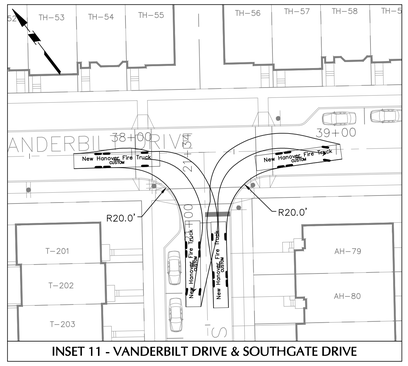
INSET 9 - VANDERBILT DRIVE & ANDOVER DRIVE & SOUTH GATE DRIVE



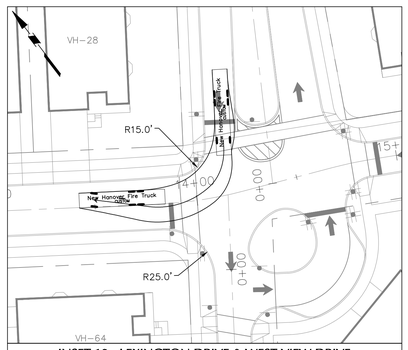
INSET 5 - VANDERBILT DRIVE & MELBORNE LANE



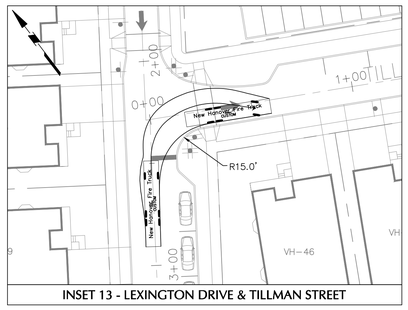
INSET 10 - VANDERBILT DRIVE & ANDOVER DRIVE



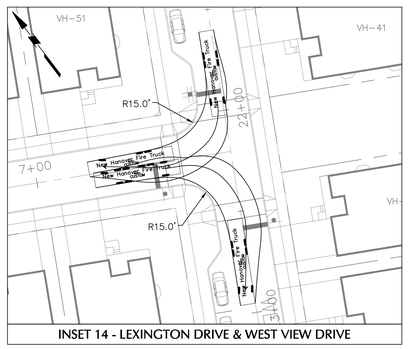
INSET 11 - VANDERBILT DRIVE & SOUTHGATE DRIVE



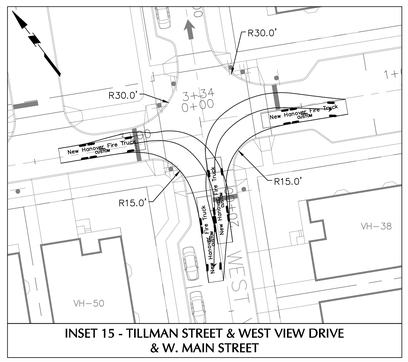
INSET 12 - LEXINGTON DRIVE & WEST VIEW DRIVE



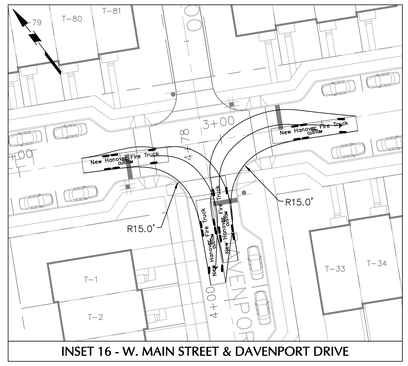
INSET 13 - LEXINGTON DRIVE & TILLMAN STREET



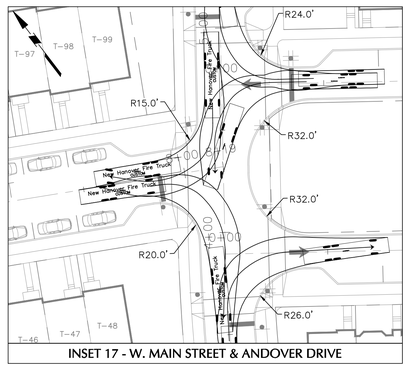
INSET 14 - LEXINGTON DRIVE & WEST VIEW DRIVE



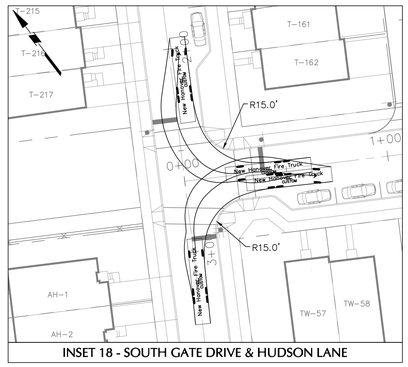
INSET 15 - TILLMAN STREET & WEST VIEW DRIVE & W. MAIN STREET



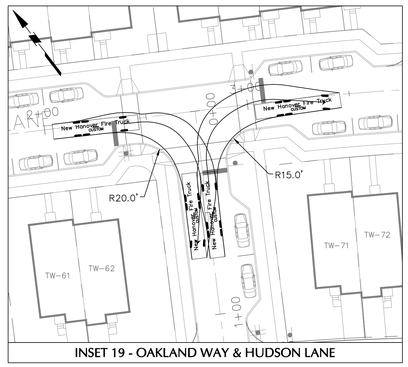
INSET 16 - W. MAIN STREET & DAVENPORT DRIVE



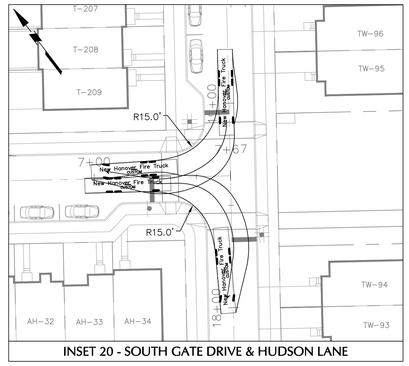
INSET 17 - W. MAIN STREET & ANDOVER DRIVE



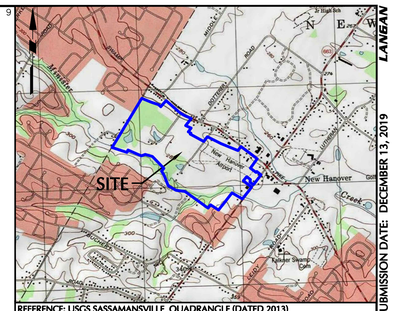
INSET 18 - SOUTH GATE DRIVE & HUDSON LANE



INSET 19 - OAKLAND WAY & HUDSON LANE



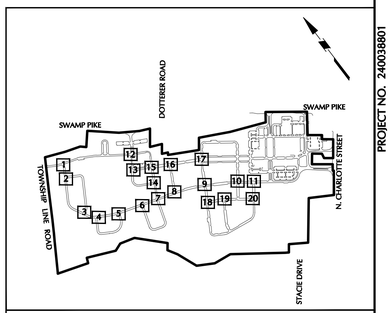
INSET 20 - SOUTH GATE DRIVE & HUDSON LANE



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'

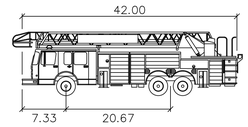


KEY MAP

SCALE 1"=1000'

EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND	
PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	UF M
PR. WATER MAIN	UW
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	
PR. SPOT ELEVATION	x 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRAIL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	



New Hanover Fire Truck

	feet
Width	: 7.30
Track	: 7.30
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

NEW HANOVER FIRE TRUCK DIMENSIONS N.T.S.

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGLEHARDT

SIGNATURE JASON SCOTT ENGLEHARDT, P.E. DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

EMERGENCY TRUCK TURN PLAN

Project No. 240038801	Drawing No. CS-302
Date 05/31/16	
Scale 1"=30'	
Drawn By JDM	
Submission Date	Sheet 38 of 187

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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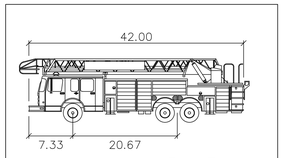
Filename: \\langan.com\data\BE\data\#240038801\cadd data - 240038801\sheetfiles\240038801 CS301-302.dwg Date: 12/13/2019 Time: 14:54 User: wschaefer Style Table: Langan.stb Layout: CS-302



New Hanover Fire Truck

feet

Width	: 7.30
Track	: 7.30
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

N.T.S.

NEW HANOVER FIRE TRUCK DIMENSIONS

EXISTING LEGEND
TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

PROPOSED LEGEND
PR. CURB LINE
PR. BUILDING
PROPERTY LINE
CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
PR. SANITARY FORCE MAIN
PR. WATER MAIN
PR. CLEANOUT/CURB STOP
PR. CONTOUR
PR. SPOT ELEVATION
PR. RETAINING WALL
PR. GUIDERAIL
PR. BASIN LIMITS
PR. CONCRETE SIDEWALK
PR. TRAIL
PR. TRIAL (VEHICLE LOADING)
PR. OPEN SPACE
PR. ACTIVE/REC. OPEN SPACE

MATCHLINE SEE SHEET EX.2

FIRE HYDRANT (TYP)

SWAMP PIKE

WEST VIEW DRIVE

LEXINGTON DRIVE

TILLMAN STREET

W. MAIN STREET

ALLEY 4A

ALLEY 4B

ANDOVER DRIVE

SOUTH GATE DRIVE

VANDERBILT DRIVE

MORRINGTON LANE

TOWNSHIP LINE ROAD

MINISTER CREEK

W.E. 277.2

W.E. 275.8

SCALE IN FEET 80 0 40 80

12-13-19	REVISED PER COMMENT LETTERS	2.
11-09-18	REVISED PER COMMENT LETTERS	1.
Date	Description	No.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT, PE DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project

NEW HANOVER TOWN CENTER

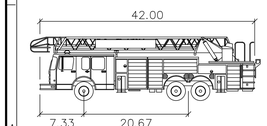
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

42' FIRE TRUCK TURN PLAN

Project No. 240038801	Drawing No. CS-303
Date 10/12/2017	
Scale 1"=80'	
Drawn By WLS	
Submission Date	Sheet 39 of 187

Filename: \\langan.com\data\BE\data\#240038801\cadd data - 240038801\sheetfiles\240038801 CS303-304.dwg Date: 12/13/2019 Time: 14:55 User: wschaefer Style Table: Langan.stb Layout: CS-303



New Hanover Fire Truck

feet

Width	: 7.30
Track	: 7.30
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

N.T.S.

NEW HANOVER FIRE TRUCK DIMENSIONS

EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	S
EX. STORM SEWER LINE	D

PROPOSED LEGEND	
PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	F M
PR. WATER MAIN	W
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	350
PR. SPOT ELEVATION	× 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRAIL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

MATCHLINE
SEE SHEET EX.1

FIRE HYDRANT (TYP)

SWAMP PIKE

DOUBLE YELLOW LINE

NO PARKING SIGN

MEADOW DRIVE

RESTAURANT 2

N. VANDERBILT DRIVE

DD-2
14,918 SF.
0.342 AC.

RESTAURANT 3

SUPER MARKET

E. MAIN STREET

MAIN STREET

ANDOVER DRIVE

ALLEY BB

ALLEY KK

ALLEY II

ALLEY JJ

ALLEY DD

ALLEY CC

ALLEY AA

3-STORY FLEX BLDG 4 1st floor RETAIL 2nd & 3rd floors

3-STORY FLEX BLDG 5 1st floor RETAIL 2nd & 3rd floors

BLDG. A MIXED USE MULTIFAMILY OFFICE

BLDG. B MIXED USE MULTIFAMILY OFFICE

1-STORY RETAIL BLDG. 1

3-STORY FLEX BLDG 6 1st floor RETAIL 2nd & 3rd floors

4-STORY FLEX BUILDING 7 1st floor RETAIL 2nd, 3rd & 4th floors DWELLING UNITS

4-STORY FLEX BUILDING 8 1st floor RETAIL 2nd, 3rd & 4th floors DWELLING UNITS

VANDERBILT DRIVE

ALLEY G1

ALLEY G2

HUDSON LANE

ALLEY F

ALLEY E

ALLEY S

SOUTH GATE DRIVE

OAKLAND WAY

MINISTER CREEK

FIRE HYDRANT (TYP)

80 0 40 80
SCALE IN FEET

12-13-19	REVISED PER COMMENT LETTERS	2.
11-09-18	REVISED PER COMMENT LETTERS	1.
Date	Description	No.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JASON SCOTT ENGELHARDT
PE-057145-E

SIGNATURE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No.

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan Treadwell LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

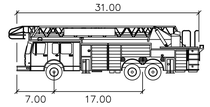
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

42' FIRE TRUCK TURN PLAN

Project No. 240038801	Drawing No. CS-304
Date 10/12/2017	
Scale 1"=80'	
Drawn By WLS	
Submission Date	Sheet 40 of 187

Filename: I:\langan.com\data\BE\data8\240038801\cadd data - 240038801\sheetfiles\240038801 CS303-304.dwg Date: 12/13/2019 Time: 14:55 User: wschaefer Style Table: Langan.stb Layout: CS-304



New Hanover 31 FT Fire Truck

	feet
Width	: 7.30
Track	: 7.30
Lock to Lock Time	: 6.0
Steering Angle	: 39.0

N.T.S.

NEW HANOVER FIRE TRUCK DIMENSIONS

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN — U F M —
- PR. WATER MAIN — U W —
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR
- PR. SPOT ELEVATION × 360.3
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRAIL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

FIRE HYDRANT (TYP)

FIRE HYDRANT (TYP)

FIRE HYDRANT (TYP)

SWAMP PIKE

SWAMP PIKE

FLUHARTY DRIVE

W. FLUHARTY DRIVE

E. FLUHARTY DRIVE

S. FLUHARTY DRIVE

ANDOVER DRIVE

W. MAIN STREET

N. MAIN STREET

S. MAIN STREET

E. MAIN STREET

E. MAIN STREET

E. MAIN STREET

VANDERBILT DRIVE

VANDERBILT DRIVE

VANDERBILT DRIVE

VANDERBILT DRIVE

HUDSON LANE

SOUTH GATE DRIVE

SOUTH GATE DRIVE

SOUTH GATE DRIVE

OAKLAND WAY

ALLEY "A"

ALLEY "B"

ALLEY "C"

ALLEY "D"

ALLEY "E"

ALLEY "F"

ALLEY "G"

ALLEY "H"

ALLEY "I"

ALLEY "J"

ALLEY "K"

ALLEY "L"

ALLEY "M"

ALLEY "N"

ALLEY "O"

ALLEY "P"

ALLEY "Q"

ALLEY "R"

ALLEY "S"

ALLEY "T"

ALLEY "U"

ALLEY "V"

ALLEY "W"

ALLEY "X"

ALLEY "Y"

ALLEY "Z"

ALLEY "AA"

ALLEY "BB"

ALLEY "CC"

ALLEY "DD"

ALLEY "EE"

ALLEY "FF"

ALLEY "GG"

ALLEY "HH"

ALLEY "II"

ALLEY "JJ"

ALLEY "KK"

ALLEY "LL"

ALLEY "MM"

ALLEY "NN"

ALLEY "OO"

ALLEY "PP"

ALLEY "QQ"

ALLEY "RR"

ALLEY "SS"

ALLEY "TT"

ALLEY "UU"

ALLEY "VV"

ALLEY "WW"

ALLEY "XX"

ALLEY "YY"

ALLEY "ZZ"

RESTAURANT 2

RESTAURANT 3

SUPER MARKET

1-STORY RETAIL BLDG. 1

3-STORY FLEX BLDG 4 1st floor RETAIL 2nd & 3rd floors

3-STORY FLEX BLDG 5 1st floor RETAIL 2nd & 3rd floors

BLDG. A MIXED USE MULTIFAMILY OFFICE

BLDG. B MIXED USE MULTIFAMILY OFFICE

3-STORY FLEX BLDG 6 1st floor RETAIL 2nd & 3rd floors

4-STORY FLEX BUILDING 7 1st floor RETAIL 2nd, 3rd & 4th floors DWELLING UNITS

4-STORY FLEX BUILDING 8 1st floor RETAIL 2nd, 3rd & 4th floors DWELLING UNITS

DD-2 14,918 SF. 0.342 AC.

80 0 40 80
SCALE IN FEET

No.	Date	Description
2.	12-13-19	REVISED PER COMMENT LETTERS
1.	11-09-18	REVISED PER COMMENT LETTERS

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE DATE SIGNED

JASON ENGELHARDT PA
PROFESSIONAL ENGINEER PA Lic. No.
PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying, Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CS, Inc.
Langan International LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

31' FIRE TRUCK TURN PLAN

Project No. 240038801	Drawing No. CS-305
Date 10/12/2017	
Scale 1"=80'	
Drawn By WLS	
Submission Date	Sheet 41 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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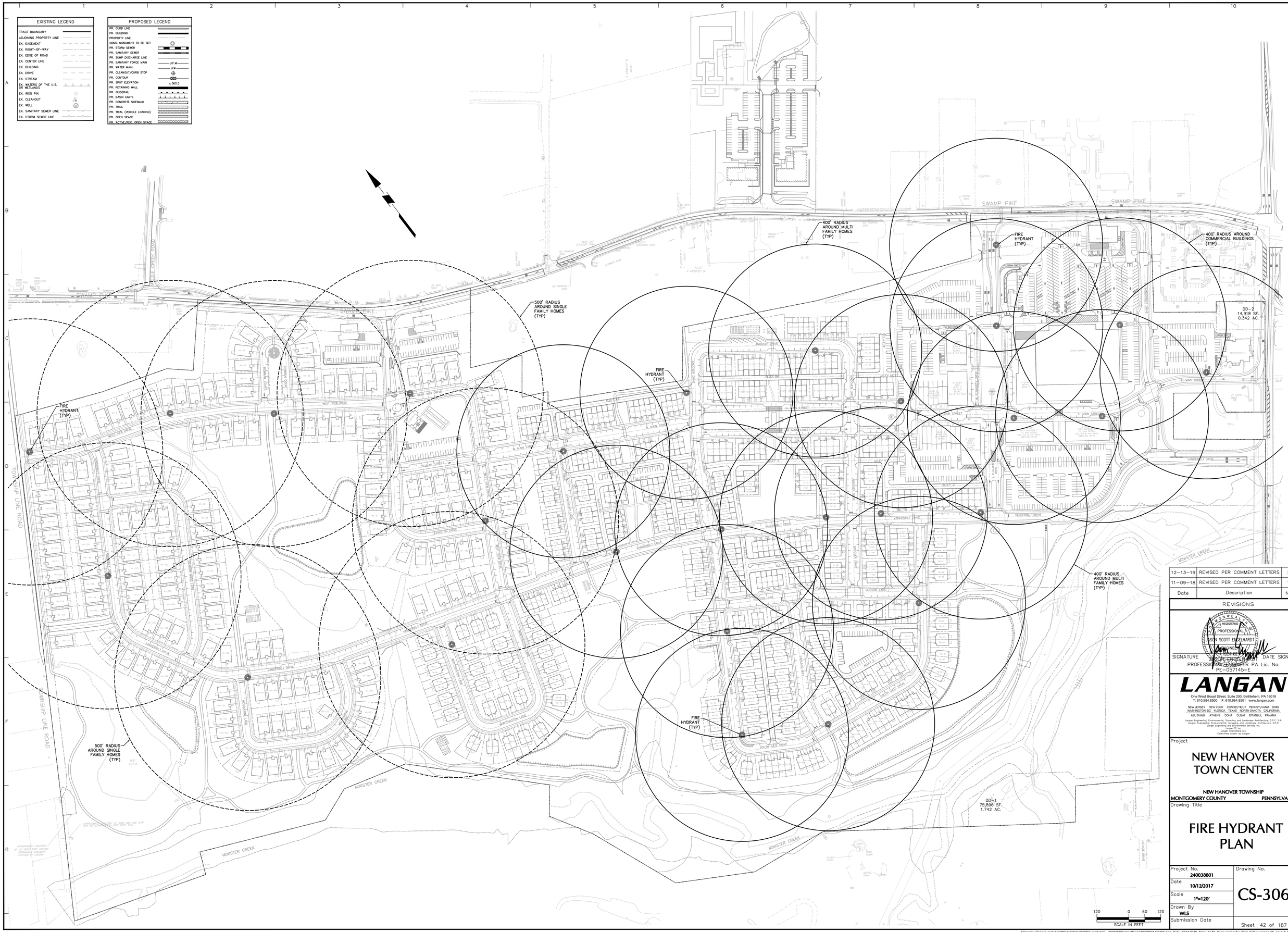
Filename: I:\langan.com\data\BE\data\240038801\caddd data - 240038801\sheetfiles\240038801 CS305.dwg Date: 12/13/2019 Time: 14:56 User: wschaefer Style Table: Langan.stb Layout: CS-305



PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

LANGAN

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	2.
11-09-18	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN

One West Broad Street, Suite 200, Bethlehem, PA 18018
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NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

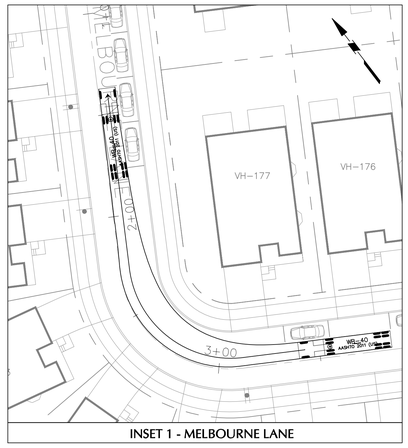
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

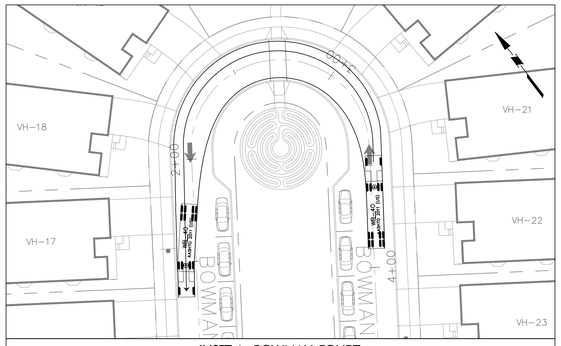
FIRE HYDRANT PLAN

Project No. 240038801	Drawing No. CS-306
Date 10/12/2017	
Scale 1"=120'	
Drawn By WLS	
Submission Date	Sheet 42 of 187

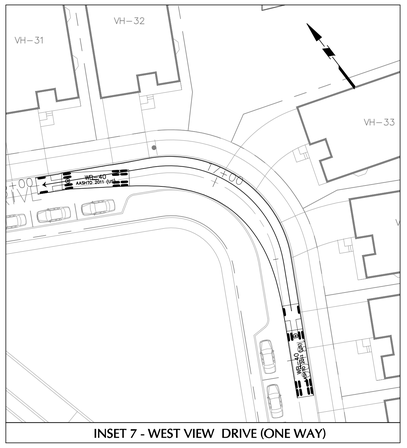
Filename: \\langan.com\data\BE\data\240038801\cadd data - 240038801\sheetfiles\240038801 CS306.dwg Date: 12/13/2019 Time: 14:56 User: wschaefer Style Table: Langan.stb Layout: CS-306



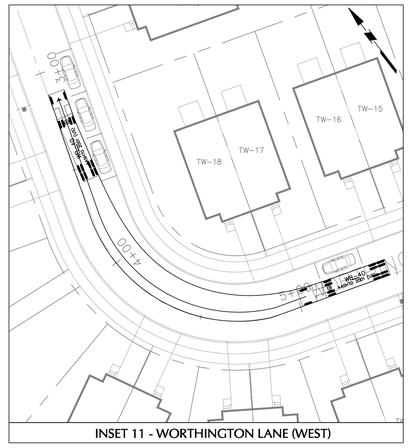
INSET 1 - MELBOURNE LANE



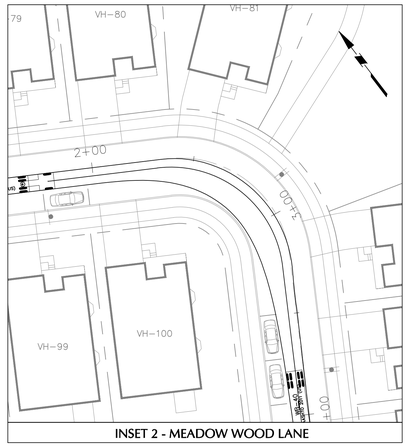
INSET 4 - BOWMAN COURT



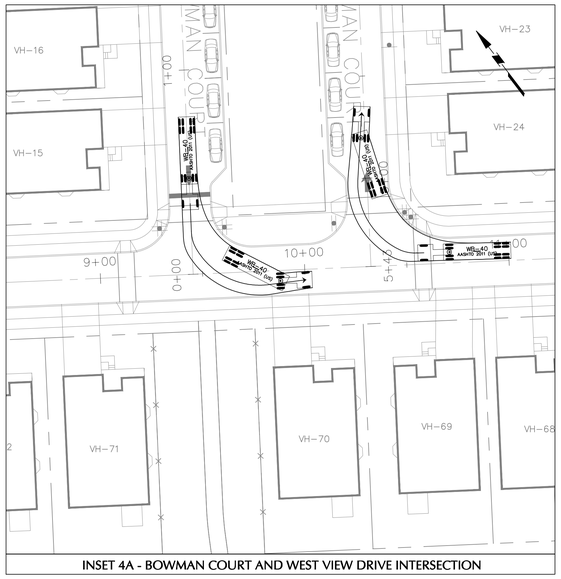
INSET 7 - WEST VIEW DRIVE (ONE WAY)



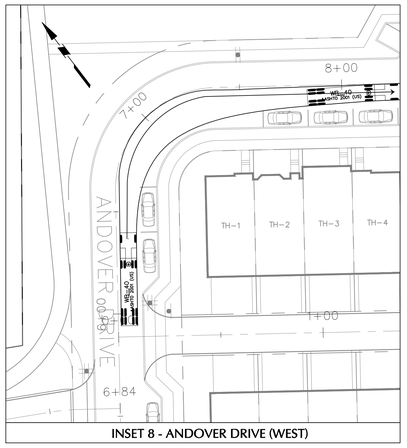
INSET 11 - WORTHINGTON LANE (WEST)



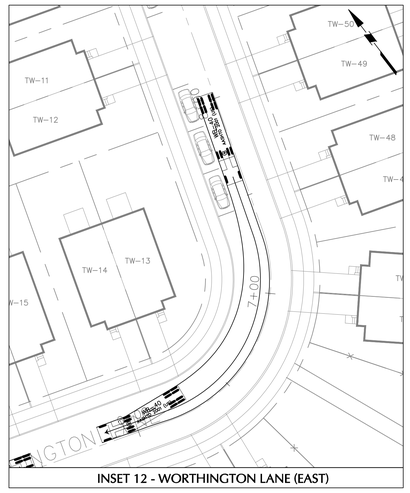
INSET 2 - MEADOW WOOD LANE



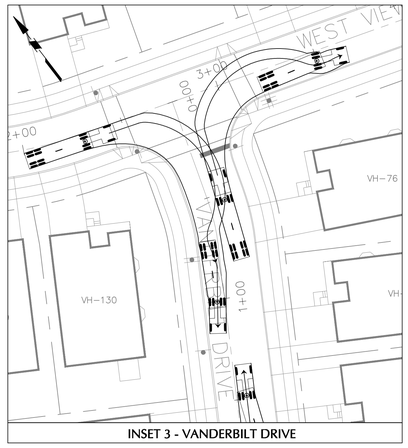
INSET 4A - BOWMAN COURT AND WEST VIEW DRIVE INTERSECTION



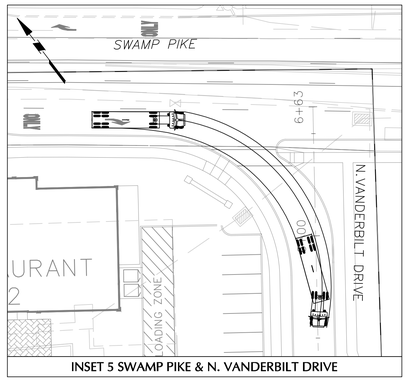
INSET 8 - ANDOVER DRIVE (WEST)



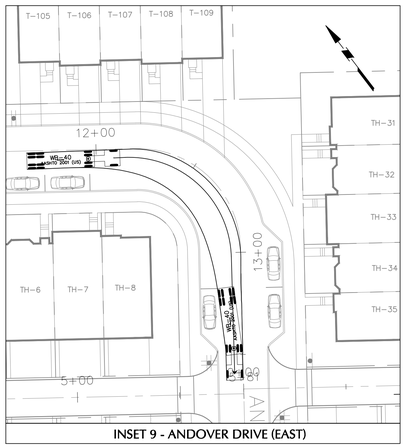
INSET 12 - WORTHINGTON LANE (EAST)



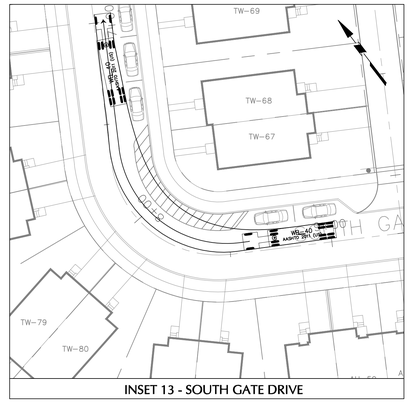
INSET 3 - VANDERBILT DRIVE



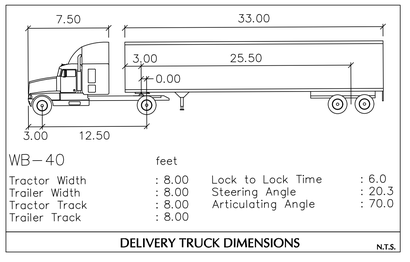
INSET 5 SWAMP PIKE & N. VANDERBILT DRIVE



INSET 9 - ANDOVER DRIVE (EAST)

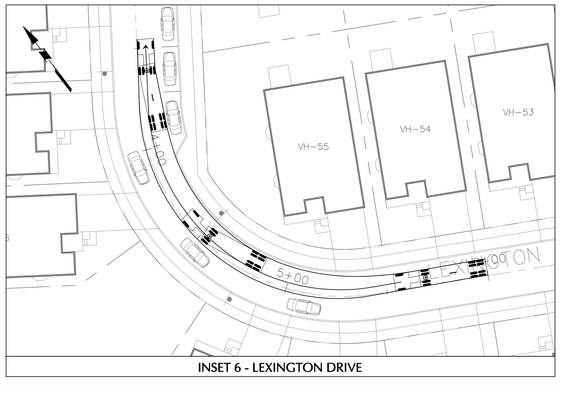


INSET 13 - SOUTH GATE DRIVE

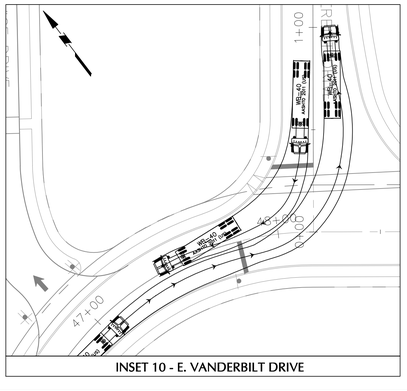


WB-40	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.00	Steering Angle	: 20.3
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.00		

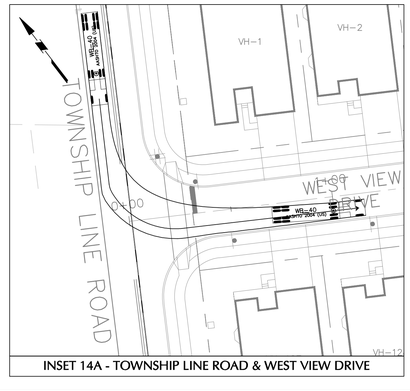
DELIVERY TRUCK DIMENSIONS N.T.S.



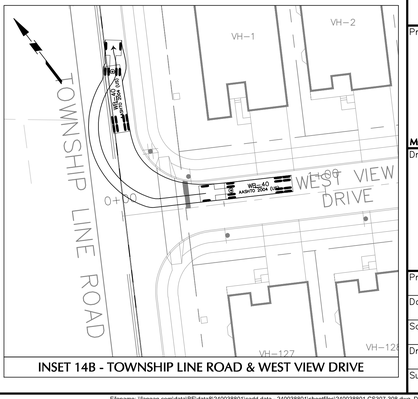
INSET 6 - LEXINGTON DRIVE



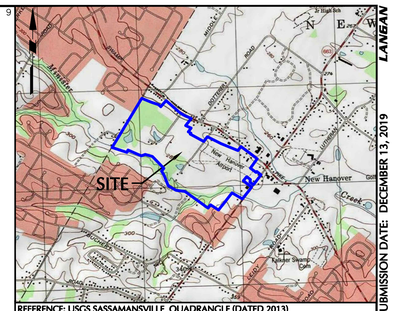
INSET 10 - E. VANDERBILT DRIVE



INSET 14A - TOWNSHIP LINE ROAD & WEST VIEW DRIVE

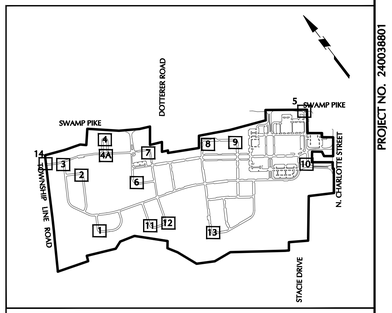


INSET 14B - TOWNSHIP LINE ROAD & WEST VIEW DRIVE



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND	
PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	UF M
PR. WATER MAIN	UW
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	
PR. SPOT ELEVATION	x 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRAIL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT

SIGNATURE JASON S. ENGELHARDT DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan Treadwell LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
DELIVERY TRUCK TURN PLAN

Project No.	Drawing No.
240038801	CS-307
Date: 05/31/16	
Scale: 1"= 30'	
Drawn By: JDM	
Submission Date	Sheet 43 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

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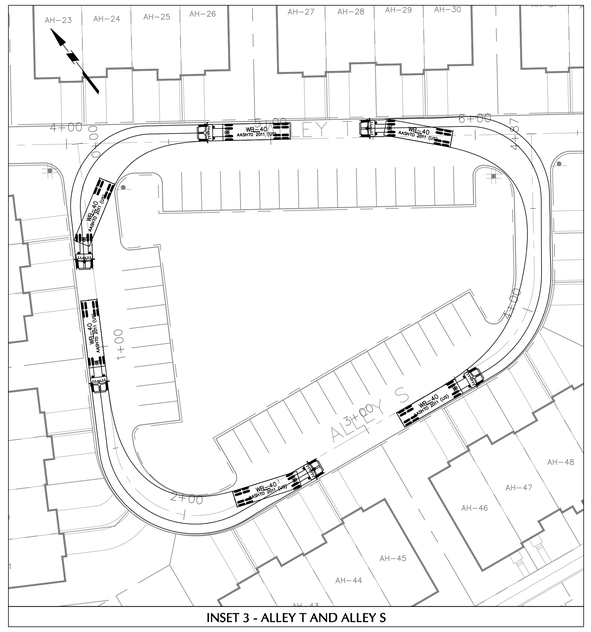
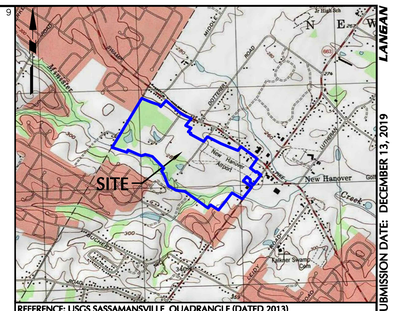
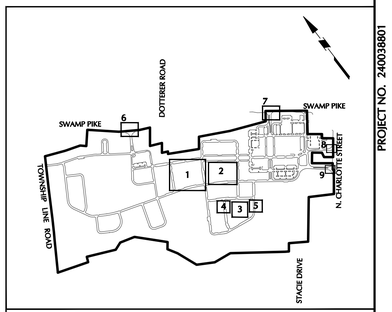
INSET 1 - ALLEY DD, ALLEY FF, ALLEY EE, AND ALLEY CC



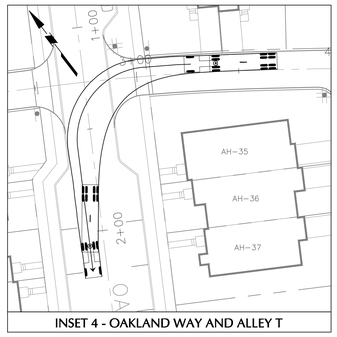
INSET 3 - ALLEY T AND ALLEY S



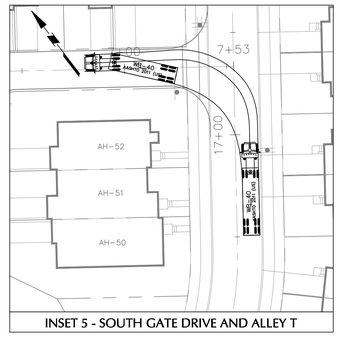
SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'



INSET 4 - OAKLAND WAY AND ALLEY T

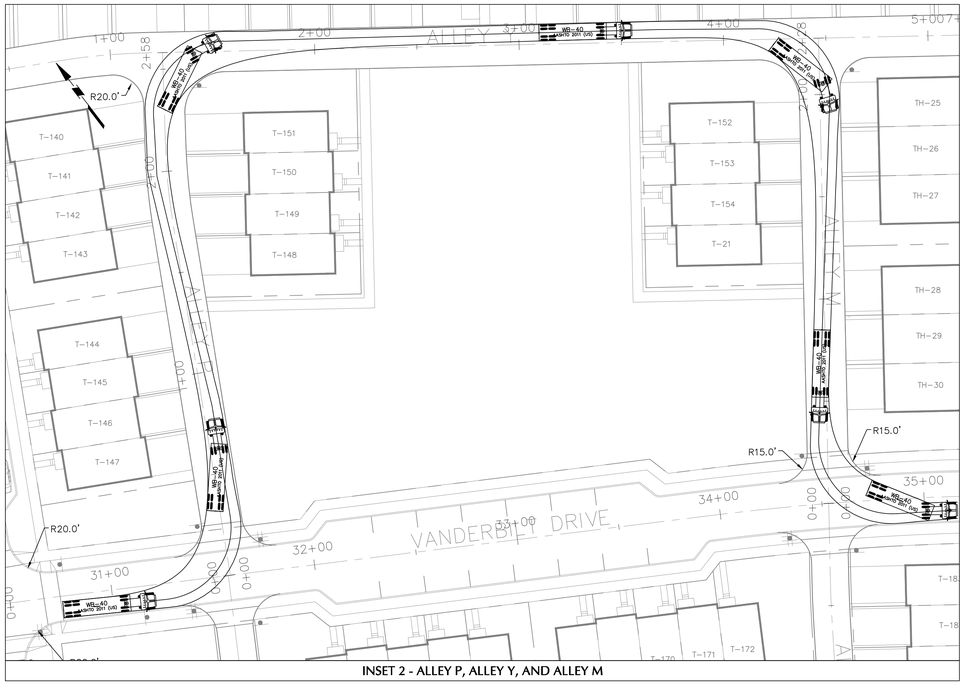


INSET 5 - SOUTH GATE DRIVE AND ALLEY T

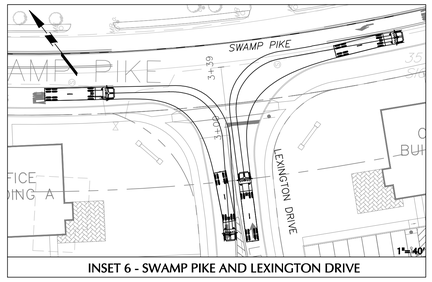
EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND	
PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	U/F M
PR. WATER MAIN	U/W
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	
PR. SPOT ELEVATION	x 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRAIL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

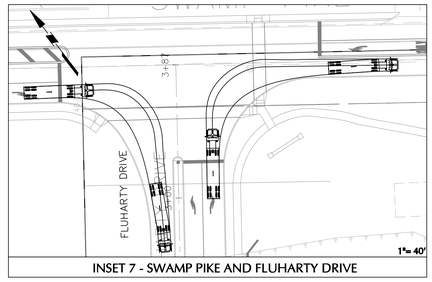
NOTE: SEE SHEET CS-308 FOR DELIVERY TRUCK DIMENSIONS



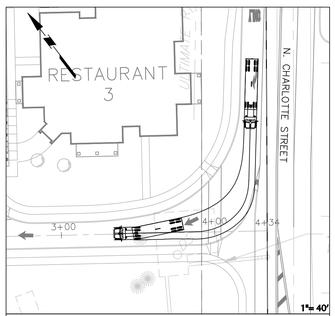
INSET 2 - ALLEY P, ALLEY Y, AND ALLEY M



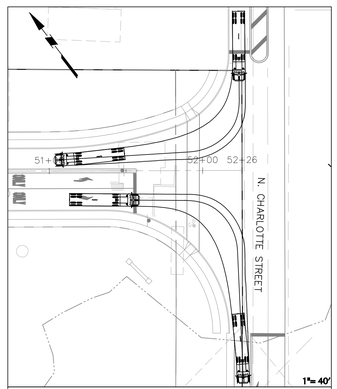
INSET 6 - SWAMP PIKE AND LEXINGTON DRIVE



INSET 7 - SWAMP PIKE AND FLUHARTY DRIVE



INSET 8 - N. CHARLOTTE STREET & E. MAIN STREET



INSET 9 - N. CHARLOTTE STREET & VANDERBILT DRIVE

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE DATE SIGNED

JASON SCOTT ENGELHARDT, P.E. PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan UK Ltd.
Langan International LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

DELIVERY TRUCK TURN PLAN

Project No. 240038801	Drawing No. CS-308
Date 05/31/16	
Scale 1"= 30'	
Drawn By JDM	
Submission Date	Sheet 44 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

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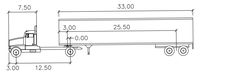

N.T.S.

WB-40 DELIVERY TRUCK TURN DIMENSIONS

EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND	
PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	—LFM—
PR. WATER MAIN	—LW—
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	
PR. SPOT ELEVATION	x 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRAIL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

SWAMP PIKE

SWAMP PIKE

DOUBLE YELLOW LINE?

S 47°15'44" E
480.21

35 MPH SIGN

GAS BOX

FLUHARTY DRIVE

RESTAURANT 2

STOP SIGN

CONC. PAD

GAS METER

SHARON HILL 663 AHEAD SIGN

RT 663 AHEAD SIGN

CONC. PAD

DO NOT ENTER SIGNS

CONC. PAD

GAS PUMP ISLANDS (TYP)

OVERHANG

FILL CAPS

WIRES SIGN

N. VANDERBILT DRIVE

RESTAURANT 1

CONC. PARKING AREA

CONC. PARKING AREA

N 46°58'55" W
163.00

S 47°15'44" E
480.21

FLEX BLDG 4

SUPER MARKET

RESTAURANT 3

W. FLUHARTY DRIVE

E. FLUHARTY DRIVE

RETAIL BLDG. 1

BLDG. A

FLEX BLDG 5

2' CONC. WALK

E. MAIN STREET

E. MAIN STREET

2' CONC. WALK

BLDG. B

FLEX BLDG 6

FLEX BUILDING 7

FLEX BUILDING 8

ESSENCE DRIVE

E. VANDERBILT DRIVE

S. FLUHARTY DRIVE

PARKING AREA

ALLEY JJ

ALLEY KK

VANDERBILT DRIVE

VANDERBILT DRIVE

50 0 25 50
SCALE IN FEET

No.	Description	Date
3.	REVISED PER COMMENT LETTERS	12-13-19
2.	REVISED PER COMMENT LETTERS	11-09-18
1.	REVISED CURBING AND MOVEMENTS	1-31-18

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan Holdings LLC Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
WB-40 TRUCK TURN PLAN

Project No. 240038801	Drawing No. CS-309
Date 1/10/2018	
Scale 1"=50'	
Drawn By WLS	
Submission Date	Sheet 45 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019 LANGAN

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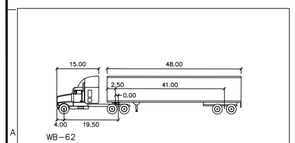
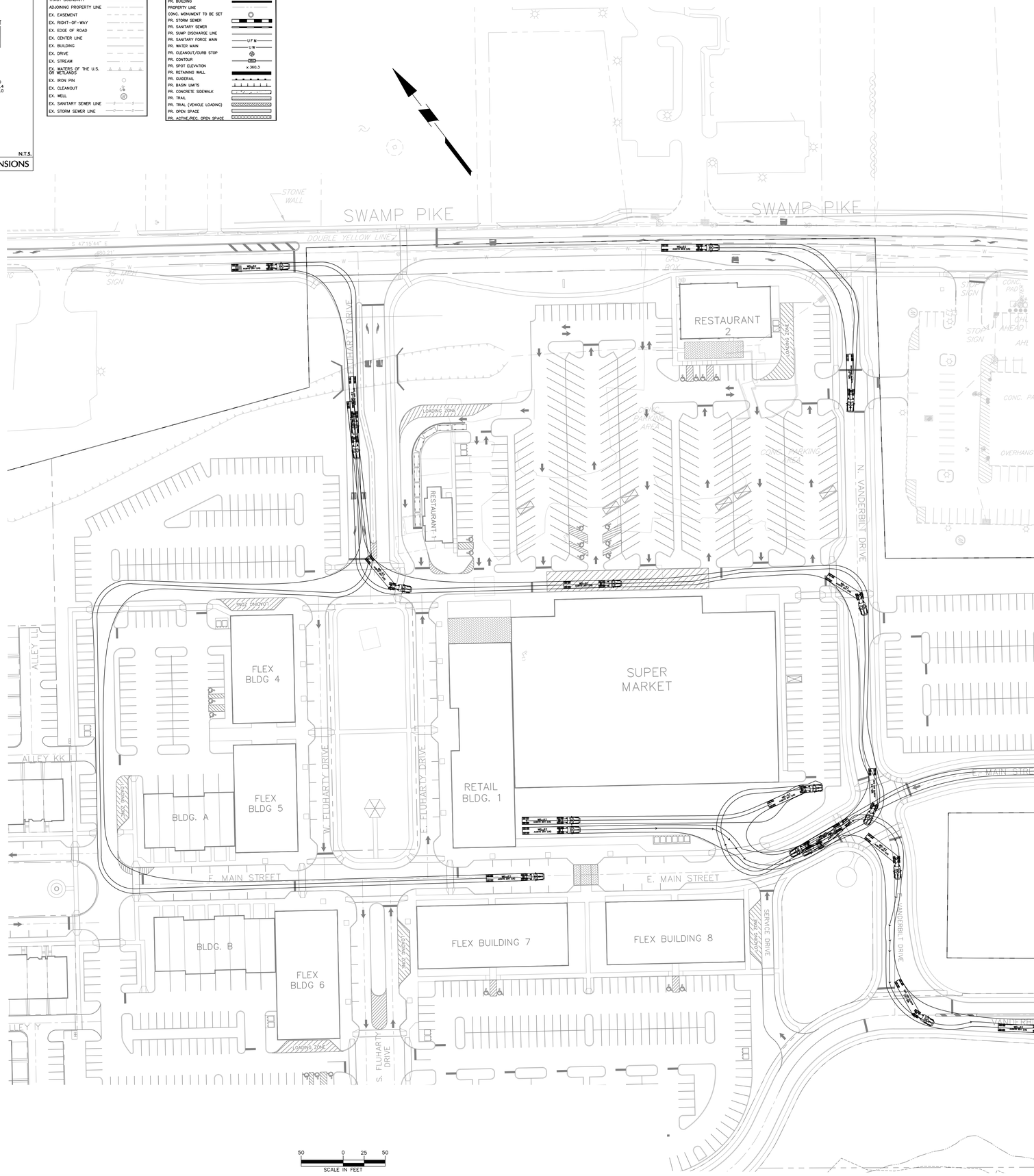
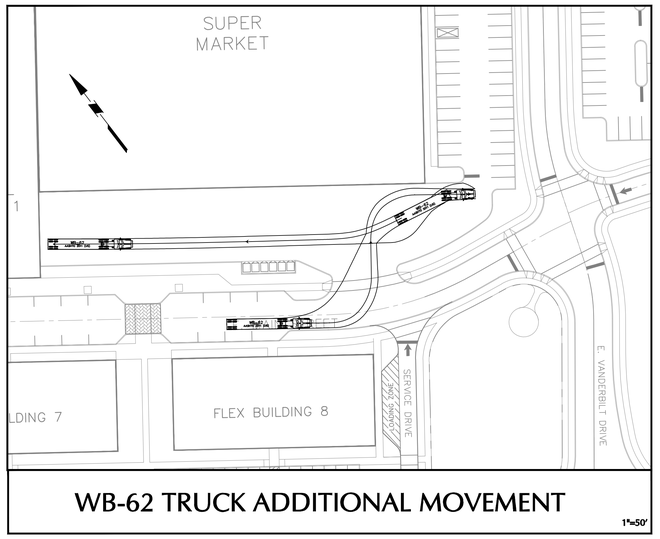


WB-62 DELIVERY TRUCK TURN DIMENSIONS

EXISTING LEGEND
TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

PROPOSED LEGEND
PR. CURB LINE
PR. BUILDING
PROPERTY LINE
CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
PR. SANITARY FORCE MAIN
PR. WATER MAIN
PR. CLEANOUT/CURB STOP
PR. CONTOUR
PR. SPOT ELEVATION
PR. RETAINING WALL
PR. GUIDERAIL
PR. BASIN LIMITS
PR. CONCRETE SIDEWALK
PR. TRAIL
PR. TRAIL (VEHICLE LOADING)
PR. OPEN SPACE
PR. ACTIVE/REC. OPEN SPACE





WB-62 TRUCK ADDITIONAL MOVEMENT

1"=50'

No.	Description	Date
3.	REVISED PER COMMENT LETTERS	12-13-19
2.	REVISED PER COMMENT LETTERS	11-09-18
1.	REVISED CURBING AND MOVEMENTS	1-31-18

REVISIONS

JASON SCOTT ENGELHARDT — REGISTERED PROFESSIONAL ENGINEER — COMMONWEALTH OF PENNSYLVANIA

SIGNATURE — DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying, Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc.
Langan CS, Inc.
Langan International, LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

WB-62 TRUCK TURN PLAN

Project No. 240038801	Drawing No. CS-310
Date 1/10/2018	
Scale 1"=50'	
Drawn By WLS	
Submission Date	Sheet 46 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019 LANGAN

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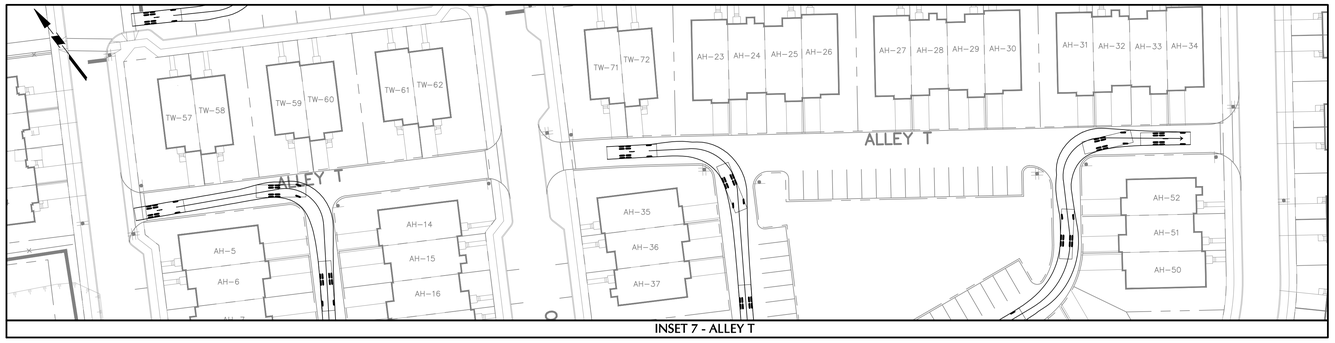
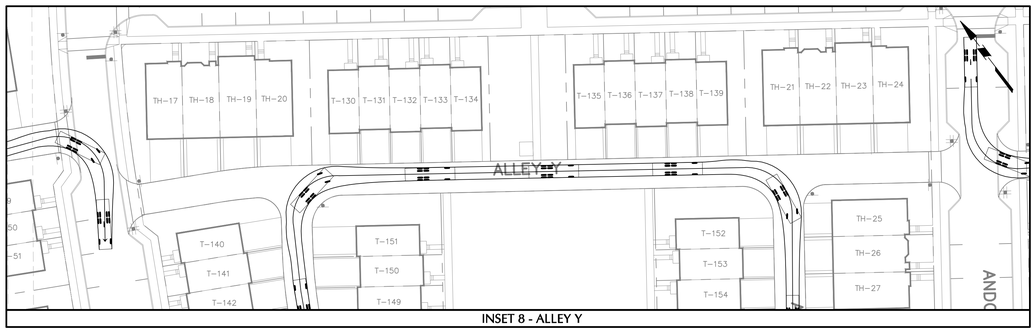
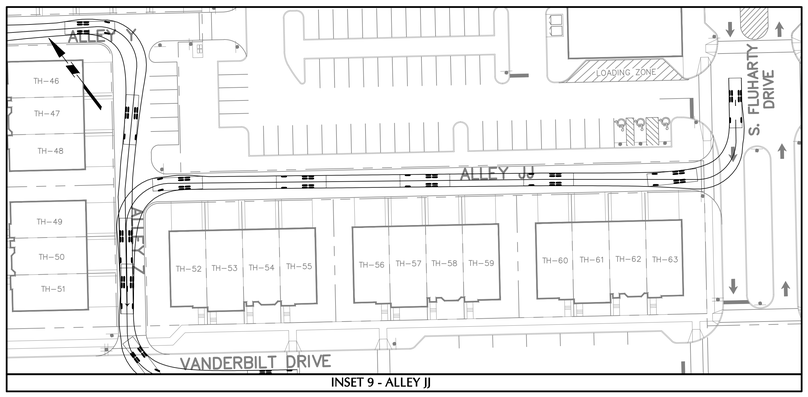


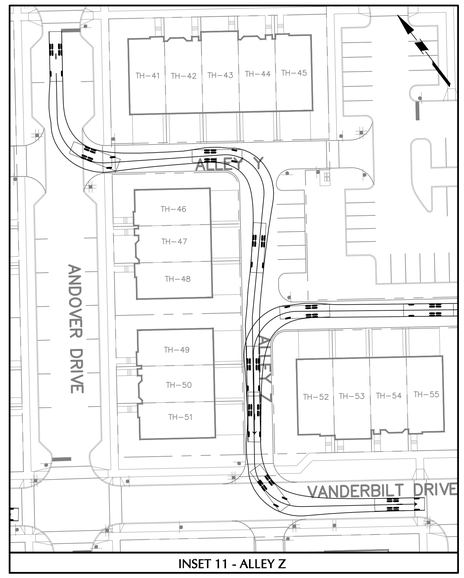
INSET 7 - ALLEY T



INSET 8 - ALLEY Y

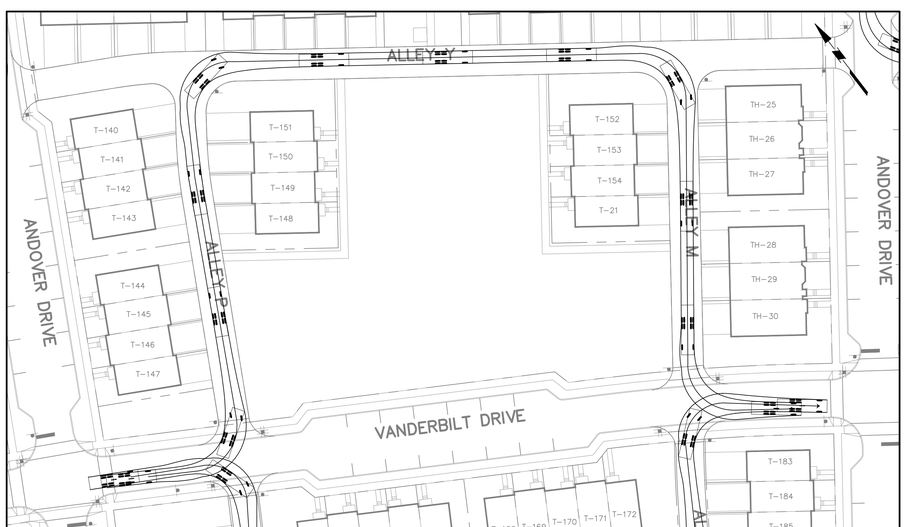


INSET 9 - ALLEY JJ

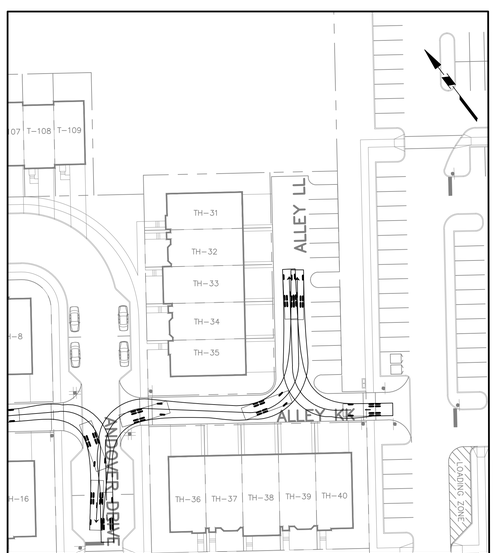


INSET 11 - ALLEY Z

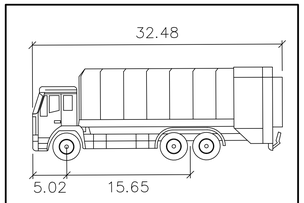
INSET 12 - ALLEY R



INSET 10 - ALLEY P AND ALLEY M



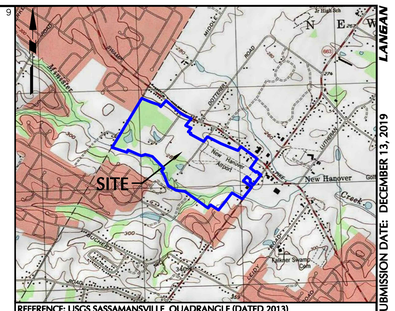
INSET 13 - ALLEY KK AND ALLEY LL



GARBAGE TRUCK
feet

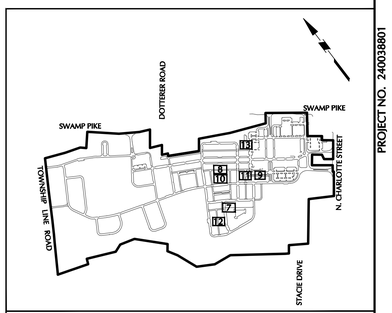
Width	: 8.20
Track	: 8.20
Lock to Lock Time	: 6.0
Steering Angle	: 34.9

GARBAGE TRUCK DIMENSIONS N.T.S.



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP
SCALE: 1"=2,000'



KEY MAP
SCALE 1"=1000'

EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND	
PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	U F M
PR. WATER MAIN	U/G
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	325
PR. SPOT ELEVATION	x 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRAIL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering and Environmental Services, Inc.
Langan UK Ltd.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
GARBAGE TRUCK TURN PLAN

40 0 10 25 40
SCALE IN FEET

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Project No.	240038801
Date	05/31/16
Scale	1"=40'
Drawn By	DPS
Submission Date	
Drawing No.	CS-311
	Sheet 47 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019
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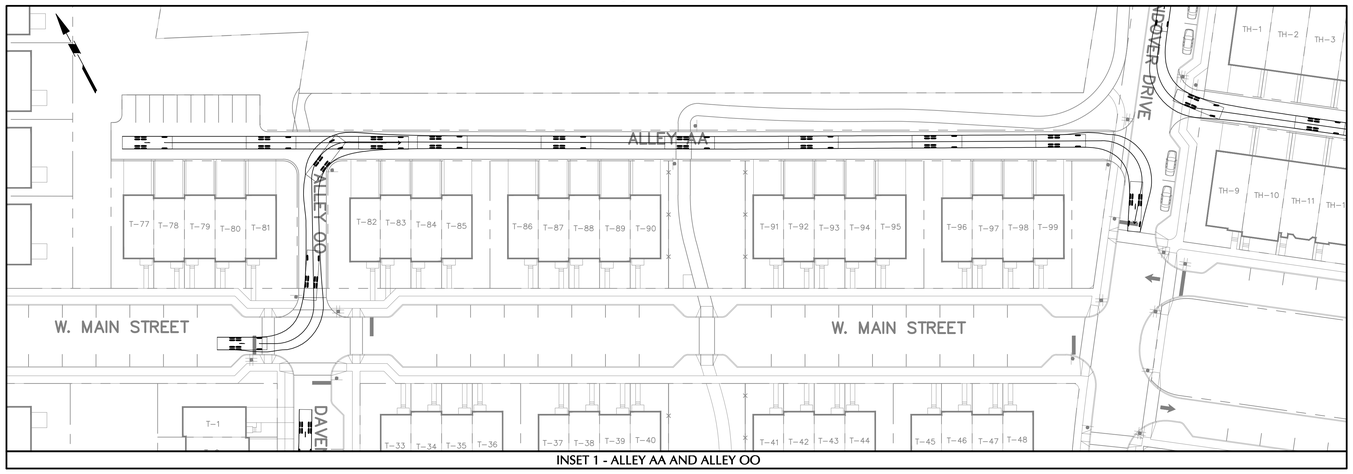
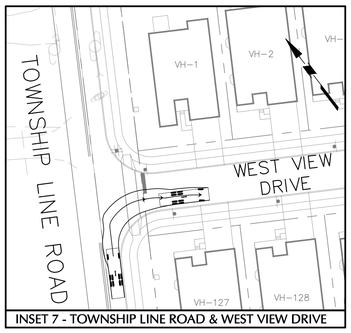
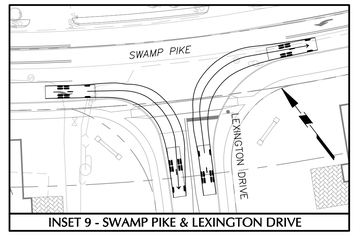


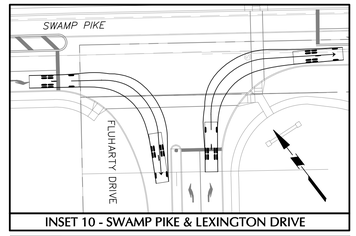
INSET 1 - ALLEY AA AND ALLEY OO



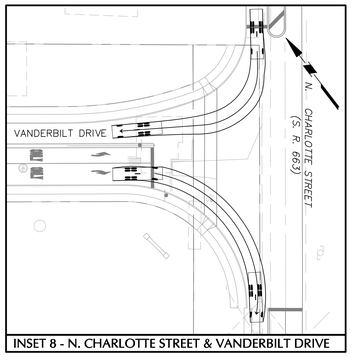
INSET 7 - TOWNSHIP LINE ROAD & WEST VIEW DRIVE



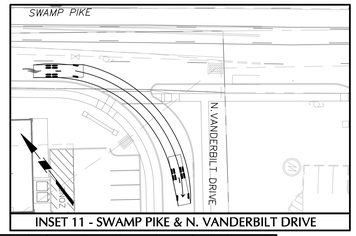
INSET 9 - SWAMP PIKE & LEXINGTON DRIVE



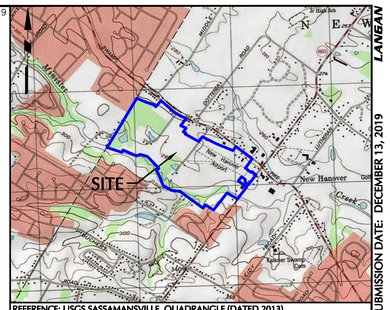
INSET 10 - SWAMP PIKE & LEXINGTON DRIVE



INSET 8 - N. CHARLOTTE STREET & VANDERBILT DRIVE



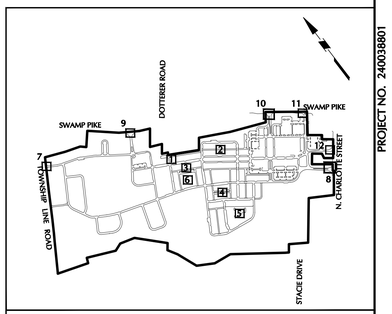
INSET 11 - SWAMP PIKE & N. VANDERBILT DRIVE



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

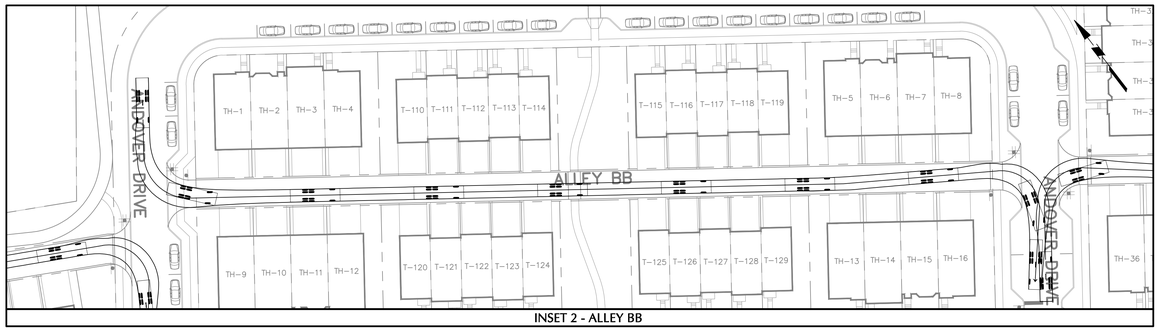
SITE LOCATION MAP

SCALE: 1"=2,000'

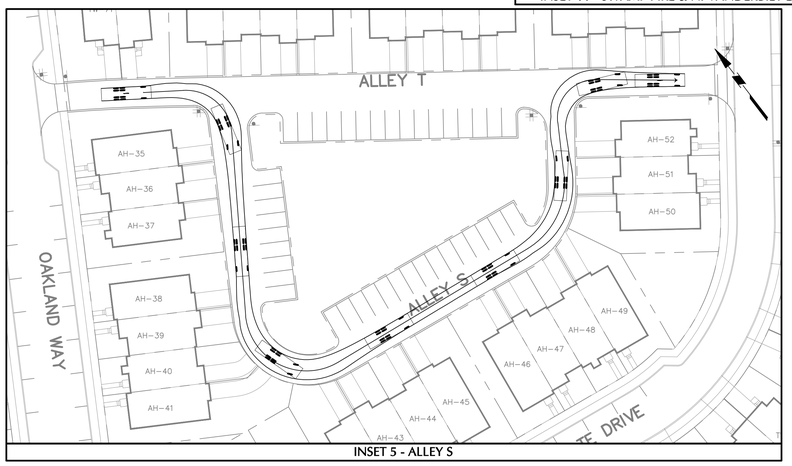


KEY MAP

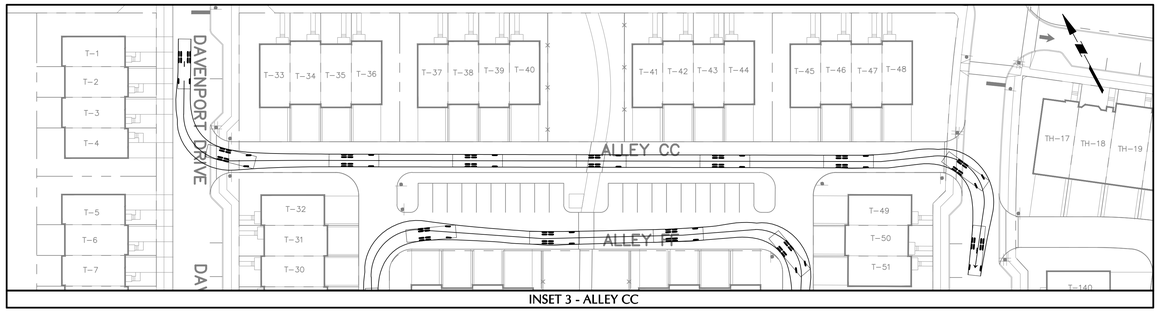
SCALE 1"=1000'



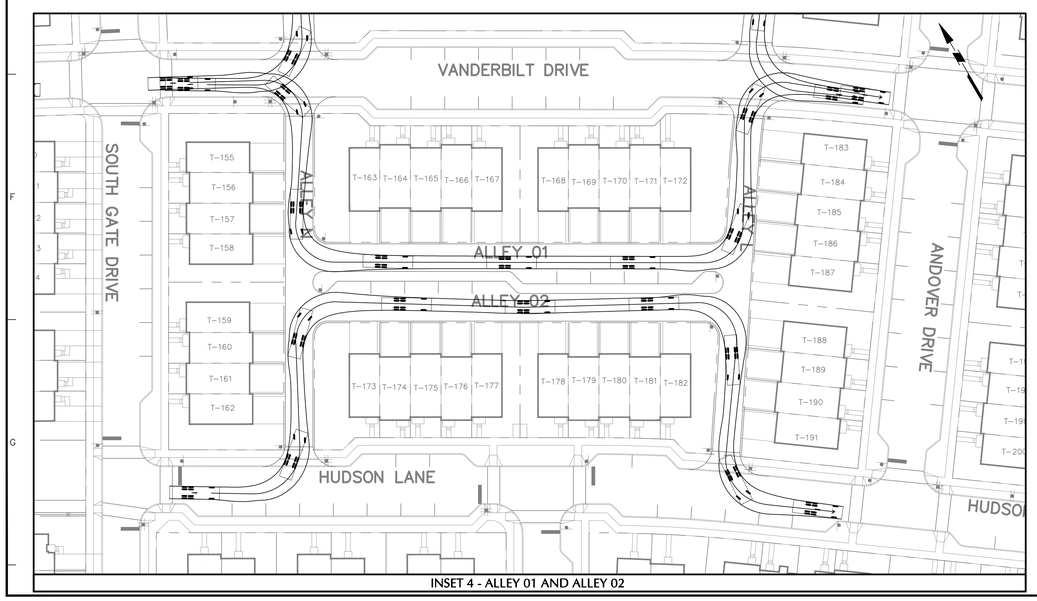
INSET 2 - ALLEY BB



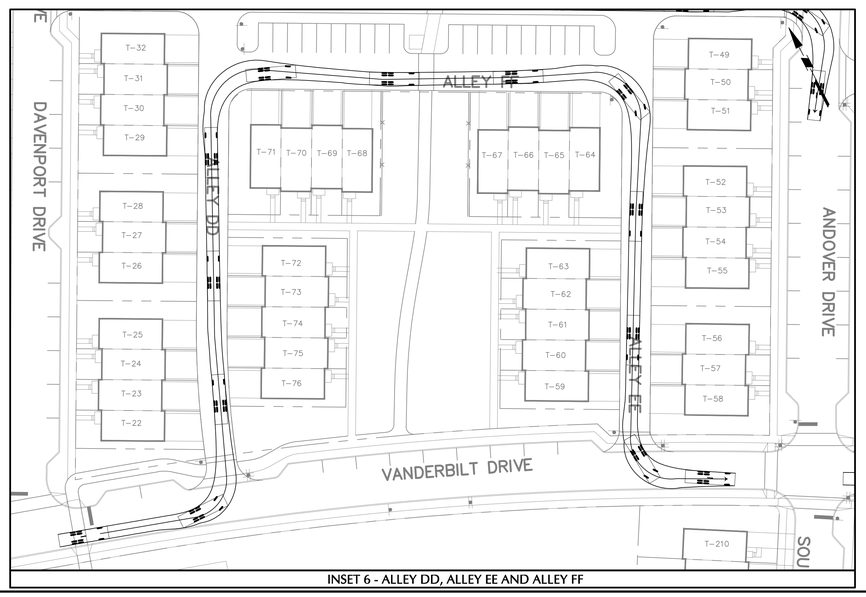
INSET 5 - ALLEY S



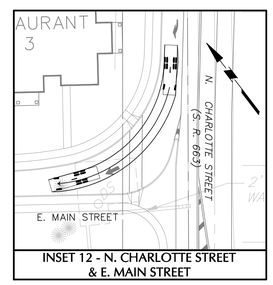
INSET 3 - ALLEY CC



INSET 4 - ALLEY 01 AND ALLEY 02



INSET 6 - ALLEY DD, ALLEY EE AND ALLEY FF



INSET 12 - N. CHARLOTTE STREET & E. MAIN STREET

EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND	
PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	U F M
PR. WATER MAIN	U/G
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	
PR. SPOT ELEVATION	x 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRAIL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

NOTE: SEE SHEET CS-312 FOR GARBAGE TRUCK DIMENSIONS

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER 057145 JASON SCOTT ENGELHARDT 12-13-19 SIGNATURE DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan UK Ltd.
Langan International LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

GARBAGE TRUCK TURN PLAN

SCALE IN FEET: 40 0 10 25 40

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Project No.	240038801
Date	05/31/16
Scale	1"=40'
Drawn By	DPS
Submission Date	
Drawing No.	CS-312
Sheet	48 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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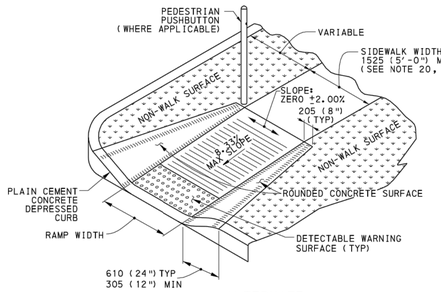
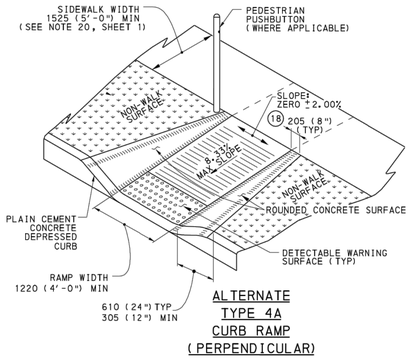


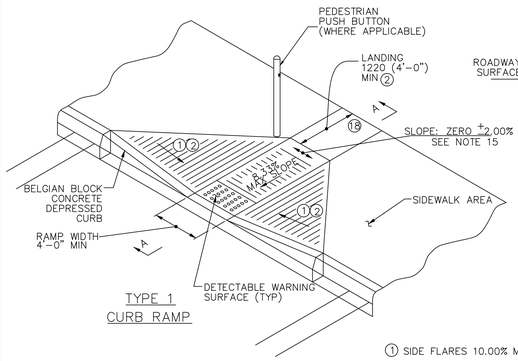
ALTERNATE
TYPE 4A
CURB RAMP
(PARALLEL)



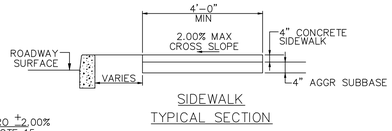
ALTERNATE
TYPE 4A
CURB RAMP
(PERPENDICULAR)

NOTE: THE CONTRACTOR MUST OBTAIN COPIES OF THE MOST CURRENT APPLICABLE RC DRAWINGS FROM PENNDOT PUBLICATION 72M PRIOR TO CONSTRUCTION AND FOLLOW REQUIREMENTS.

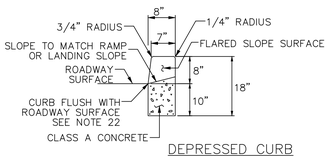
TYPE 4A CURB RAMP



TYPE 1
CURB RAMP



SIDEWALK
TYPICAL SECTION

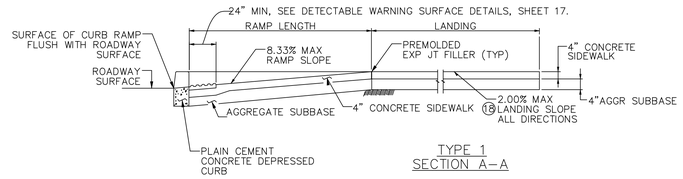


DEPRESSED CURB

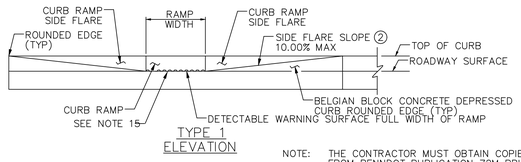
(1) SIDE FLARES 10.00% MAX SLOPE

(2) IF THE LANDING IS INDICATED TO BE LESS THAN 4'-0", CONSTRUCT SIDE FLARES 8.33% MAX. SLOPE.

(18) CURB RAMPS REQUIRE A 4'-0" MINIMUM LANDING WITH A MAXIMUM SLOPE OF 2.00% IN ALL DIRECTIONS WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS.



TYPE 1
SECTION A-A



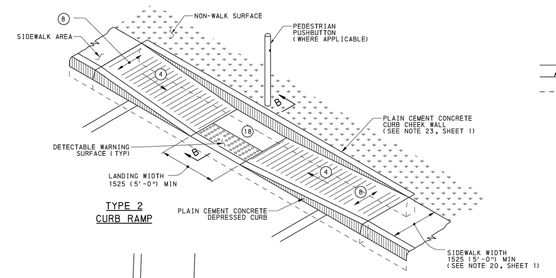
TYPE 1
ELEVATION

PERCENT SLOPE	EQUIVALENT SLOPE
10.00%	1:10
8.33%	1:12
7.14%	1:14
2.00%	1:50
1.00%	1:100

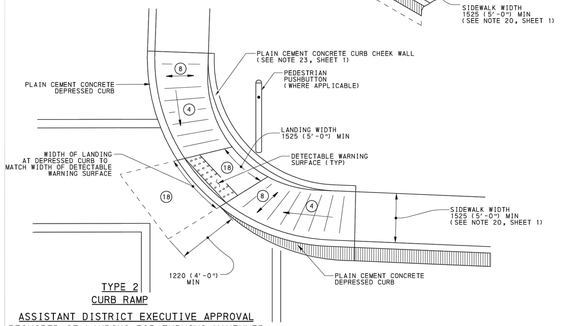
EQUIVALENT SLOPES

NOTE: THE CONTRACTOR MUST OBTAIN COPIES OF THE MOST CURRENT APPLICABLE RC DRAWINGS FROM PENNDOT PUBLICATION 72M PRIOR TO CONSTRUCTION AND FOLLOW REQUIREMENTS.

TYPE 1 CURB RAMP

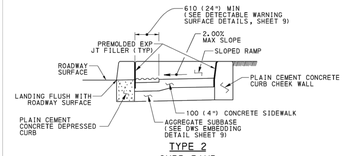


TYPE 2
CURB RAMP



TYPE 2
CURB RAMP

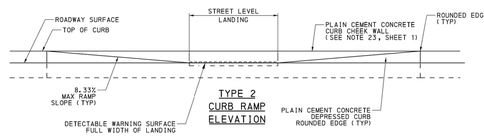
ASSISTANT DISTRICT EXECUTIVE APPROVAL REQUIRED IF LANDING FOR TURNING MANEUVER IS NOT ENTIRELY ON SIDEWALK



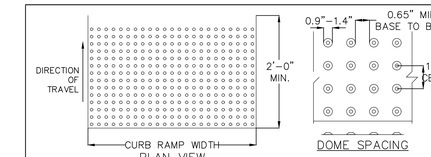
TYPE 2
CURB RAMP
SECTION B-B

NOTE: THE CONTRACTOR MUST OBTAIN COPIES OF THE MOST CURRENT APPLICABLE RC DRAWINGS FROM PENNDOT PUBLICATION 72M PRIOR TO CONSTRUCTION AND FOLLOW REQUIREMENTS.

TYPE 2 CURB RAMP

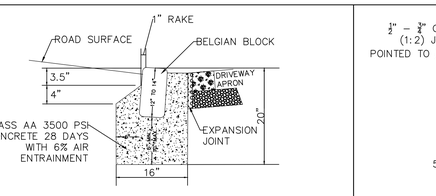


TYPE 2
CURB RAMP
ELEVATION

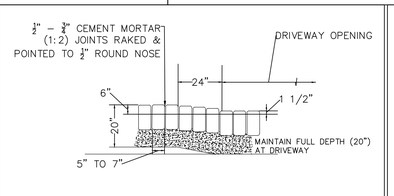


NOTES:
1. DETECTABLE WARNINGS SHALL BE CONSTRUCTED PER MANUFACTURER'S SPECIFICATIONS.
2. DETECTABLE WARNINGS SHALL BE 24" MINIMUM IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
3. DETECTABLE WARNING AREA CAN BE SQUARE WHERE USED IN A CURB RADIUS.
4. DETECTABLE WARNING DOMES SHALL BE ALIGNED ON A SQUARE GRID PARALLEL ALIGNMENT IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO TRAVEL BETWEEN DOMES.
5. DETECTABLE WARNING DOMES SHALL BE PLACED SO THE EDGE NEAREST THE CURB IS 6 INCHES TO 8 INCHES FROM CURB LINE.
6. DETECTABLE WARNING SURFACES AT PLATFORM EDGES SHALL BE 24 INCHES WIDE AND SHALL EXTEND THE FULL LENGTH OF THE PUBLIC USE AREA OF THE PLATFORM.
7. MAT EDGES SHALL BE BEVELED TO ELIMINATE TRIP HAZARD.
8. DETECTABLE WARNING COLOR SHALL CONTRAST WITH ADJOINING SURFACES PER CURRENT ADA REGULATIONS. CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR APPROVAL.
9. CONTRACTOR SHALL OBTAIN LOCAL AUTHORITY, OWNER'S ENGINEER, AND OWNER'S APPROVAL FOR COLOR AND MANUFACTURER PRIOR TO INSTALLATION.

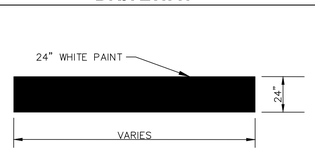
ADA DETECTABLE WARNING SURFACE



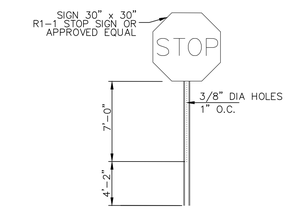
BELGIAN BLOCK - TYPICAL SECTION AT DRIVEWAY



BELGIAN BLOCK - TYPICAL ELEVATION AT DRIVEWAY

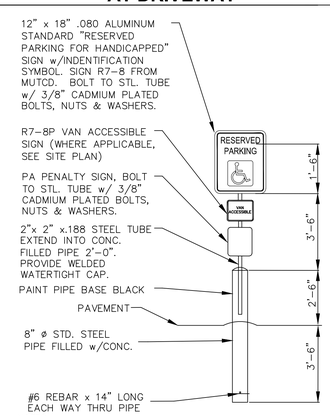


STOP BAR



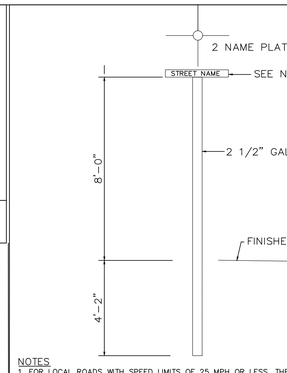
NOTES
1. ALL POSTS SHALL BE OF ADEQUATE LENGTH TO MEET THE REQUIREMENTS FOR ERECTION AS STATED IN THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
2. ALL POSTS SHALL BE EMBEDDED 4'-2" MINIMUM BELOW GRADE.
3. ALL STEEL POSTS AND BRACKETS SHALL BE CUT, BENT, AND HOLES PUNCHED AND DRILLED BEFORE GALVANIZING. GALVANIZING SHALL BE IN CONFORMANCE WITH CURRENT A.S.T.M. SPECIFICATION A123-78 (OR LATEST REVISED).
4. SIGN POSTS SHALL BE U-CHANNEL WITH BREAKAWAY POSTS.
5. SIGN PANEL SIZES SHALL DETERMINE POST TYPE AND NUMBERS AS SHOWN ON THIS DETAIL AND DIRECTIONAL SIGN SHEET.
6. BOLTS SHALL NOT PROTRUDE MORE THAN 3/4" BEYOND THE NUT WHEN TIGHT BUT SHALL ENGAGE ALL THREADS IN THE NUT.
7. ALL TRAFFIC AND PEDESTRIAN SIGNAGE AND LOCATION SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ALL CURRENT AMENDMENTS.

STOP SIGN



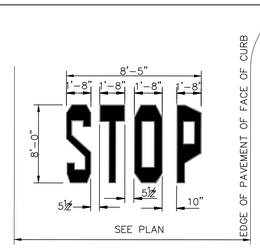
NOTES:
1. HANDICAPPED PARKING SIGN SHALL CONFORM WITH CURRENT STATE & LOCAL CODES AND REGULATIONS.
2. THE BOTTOM OF R7-8 SIGN SHALL BE MOUNTED APPROXIMATELY 60 INCHES ABOVE THE PARKING LOT OR SIDEWALK SURFACE WHEN SIGN IS PARALLEL TO SIDEWALK AND APPROXIMATELY 72 INCHES ABOVE THE PARKING LOT OR SIDEWALK SURFACE WHEN SIGN IS PERPENDICULAR TO SIDEWALK.
3. THE R7-8 SIGN SHALL BE CENTERED AND MOUNTED AT THE HEAD OF EACH PARKING SPACE.
4. WHERE PARKING SPACES RESERVED FOR PERSONS WITH DISABILITIES ARE DESIGNATED TO ACCOMMODATE WHEEL CHAIR VANS, SIGN R7-8P SHOULD BE MOUNTED BELOW THE R7-8 SIGN.

ACCESSIBLE PARKING SIGN



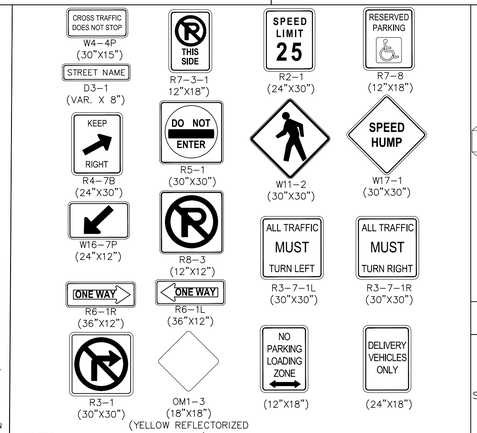
NOTES
1. FOR LOCAL ROADS WITH SPEED LIMITS OF 25 MPH OR LESS, THE LETTERING HEIGHT MAY BE A MINIMUM OF 4 INCH.
2. THE STREET NAME SIGN SHALL BE RETROREFLECTIVE.
3. STREET SIGNS SHALL BE MADE WITH ENGINEER GRADE MATERIAL, DOUBLE-EXTRUDED, WITH A BLUE BACKGROUND AND THE DESIGN OF STREET SIGNS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
   A. SIZE. THE SIGN SHALL BE NINE INCHES HIGH AND NO LONGER THAN 36 INCHES IN LENGTH.
   B. LETTERING. ALL LETTERING SHALL BE WHITE AND THE SIZE OF THE LETTERING SHALL BE AS FOLLOWS:
      I. SIX INCH CAPITAL LETTERS FOR STREET NAME.
      II. FOUR INCH CAPITAL LETTERS FOR SUPPLEMENTAL LETTERS.
4. ALL SIGN POSTS SHALL BE U-CHANNEL WITH BREAKAWAY POTS.

STREET SIGN



GENERAL NOTES:
1. MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408, UNLESS NOTED OTHERWISE.
2. REFLECTORIZE ALL PAVEMENT MARKINGS
3. EDGE LINES SHOULD BE 4" WIDE SOLID LINE OF THE COLOR INDICATED AND PLACED 4 INCHES INSIDE THE EDGE OF THE PAVEMENT SHOULDER
4. APPLY ALL PAINTED CENTER LINES, LANE LINES, AND LEGENDS AT 15 MILS WET THICKNESS
5. APPLY PAINTED EDGE LINES AT 12 MILS WET THICKNESS

STOP LEGEND DETAIL



NOTES
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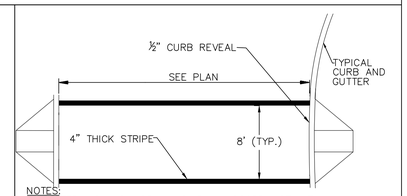
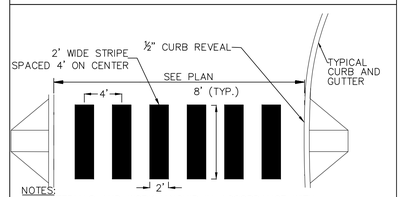
7. ALL TRAFFIC AND PEDESTRIAN SIGNAGE AND LOCATION SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ALL CURRENT AMENDMENTS.
8. ALL SIGNS SHALL BE HI-INTENSITY.
9. ALL "NO PARKING" SIGNS SHALL BE DOUBLE-SIDED.

TRAFFIC CONTROL SIGNS



NOTES:
1. MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408, MOST RECENTLY REVISED.
2. REFLECTORIZE ALL PAVEMENT MARKINGS.
3. APPLY ALL PAINTED CENTER LINES, LANE LINES AND LEGENDS AT 15 MILS WET THICKNESS.
4. CROSSWALK MARKING GEOMETRY AND PAINT SPECIFICATIONS TO COMPLY WITH ALL PADOT REQUIREMENTS AS WELL AS PUB. 408, MOST RECENTLY REVISED.

CROSSWALK MARKING



NOTES:
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4. CROSSWALK MARKING GEOMETRY AND PAINT SPECIFICATIONS TO COMPLY WITH ALL PADOT REQUIREMENTS AS WELL AS PUB. 408, MOST RECENTLY REVISED.

CONTINENTAL CROSSWALK MARKING

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SITE DETAILS

Project No. 240038801	Drawing No. CS-501
Date 05/31/16	
Scale N.T.S.	
Drawn By KG	
Submission Date	Sheet 49 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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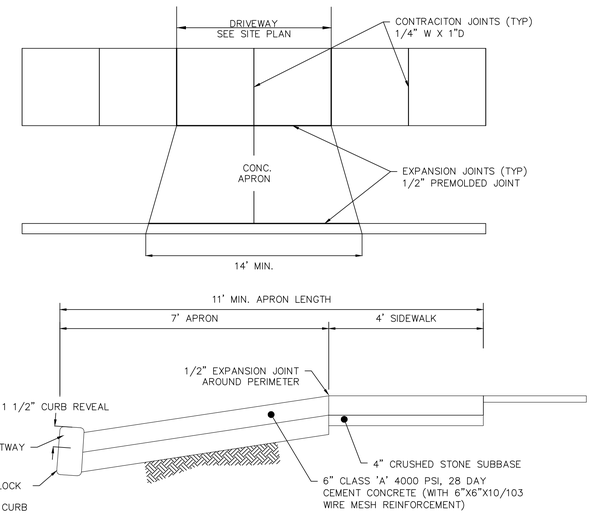
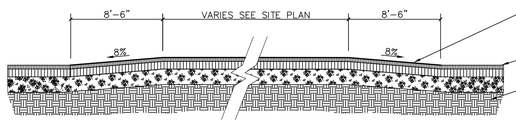
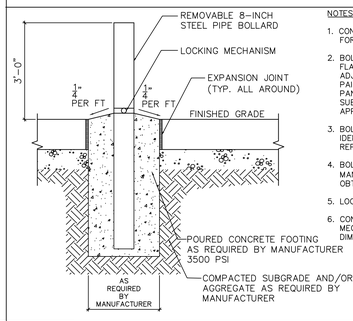
Filename: \\langan.com\data\BET\data\240038801\Cadd Data - 240038801\SheetFiles\240038801 CS501-503.dwg Date: 12/13/2019 Time: 15:04 User: wschaefer Style Table: Langan.stb Layout: 240038801 CS501-503 - CS-501



TYPICAL DRIVEWAY AND APRON DETAIL

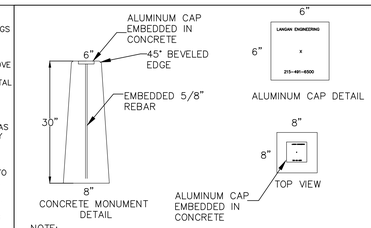


STAMPED ASPHALT SPEED TABLE



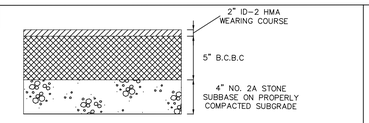
NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ALL BOLLARDS.
2. BOLLARDS TO BE: CYLINDRICAL WITH FLAT TOP, 3-FT MAXIMUM HEIGHT ABOVE ADJACENT GRADE. POWDER COATED PAINT COLOR TO MATCH EXTERIOR METAL PANELS, COLOR SAMPLES ARE TO BE SUBMITTED TO THE OWNER FOR APPROVAL.
3. BOLLARDS TO BE K-4 CRASH RATED AS IDENTIFIED WITHIN THE KROLL SECURITY REPORT.
4. BOLLARDS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS TO OBTAIN REQUIRED K-4 CRASH RATING.
5. LOCKING MECHANISM WITH KNOX LOCK.
6. CONTRACTOR TO COORDINATE LOCKING MECHANISM AND BOLT DIAMETER DIMENSION WITH FIRE DEPARTMENT CHIEF.

REMOVABLE BOLLARD

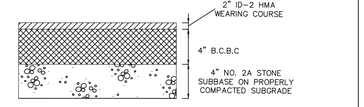


NOTE:
1. MONUMENTS TO BE SET FOR OUTBOUND PROPERTY LINE AND ULTIMATE RIGHT-OF-WAYS.

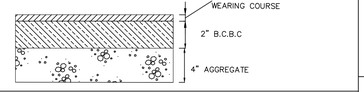
CONCRETE MONUMENT



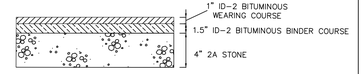
INTERNAL ROADWAY PAVEMENT DETAIL



ALLEY (REAR ACCESS LANE) PAVEMENT DETAIL

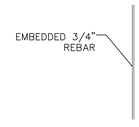


PARKING LOT PAVEMENT DETAIL



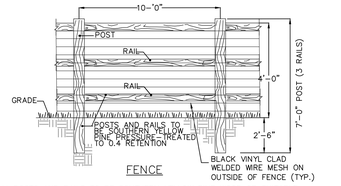
NOTE:
1) THE WEARING COURSE SHALL BE CONSTRUCTED AFTER ALL HOUSE CONSTRUCTION IS COMPLETED.

RESIDENTIAL DRIVEWAY PAVEMENT DETAIL



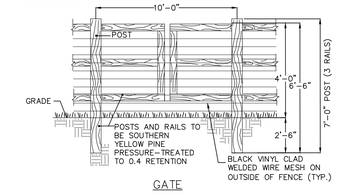
NOTE:
1. PINS TO BE SET AS MARKERS FOR ALL INTERIOR LOTS.

PIN MARKER

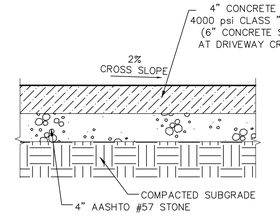


** POSTS AND RAILS TO BE SOUTHERN YELLOW PINE WOOD OR SUITABLE EQUIVALENT MATERIAL.
** POSTS AND RAILS TO BE PRESSURE TREATED TO 0.4 RETENTION

HEIGHT	4'-0"	HEIGHT OF TOP RAIL OUT OF GROUND
DEPTH	2'-6"	DEPTH SET INTO GROUND
LENGTH	10'-0"	POST SPACING, CENTER TO CENTER
RAILS	3-1/2" sq x 11'	3 EACH
SPACE	10-1/2"	BETWEEN RAILS
STEEL REINFORCEMENT	NO	
POST SIZE	5-1/2" SQUARE	



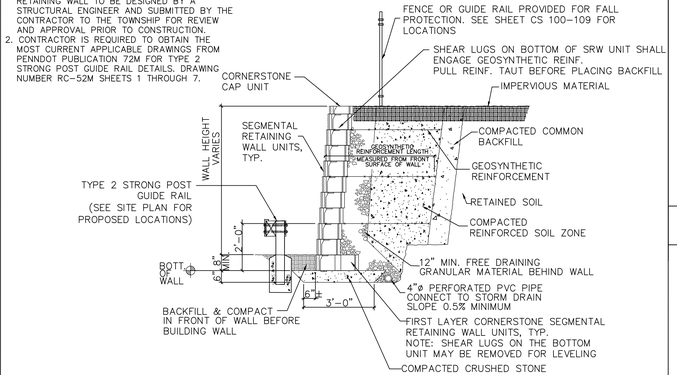
POST AND RAIL FENCE & GATE



NOTES:
1. SIDEWALK WIDTH VARIES. REFER TO PLANS FOR WIDTH.
2. SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH PENNDOT'S FORM 408, SECTION 676 PERTAINING TO CEMENT CONCRETE SIDEWALKS.
3. 1" JOINTS ARE REQUIRED EVERY 5' AND EXPANSION JOINTS EVERY 30'
4. 6" X 6" WELDED WIRE FABRIC SHALL BE USED AT ALL DRIVEWAY CROSSINGS

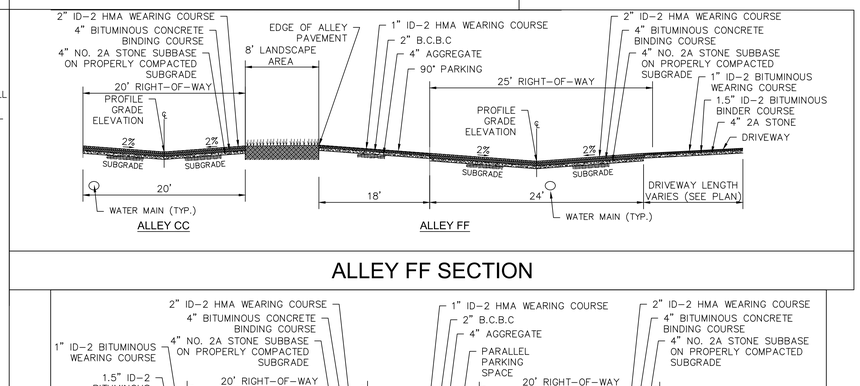
CONCRETE SIDEWALK

NOTES:
1. RETAINING WALL DETAIL PROVIDED FOR INFORMATIONAL PURPOSES ONLY. ACTUAL RETAINING WALL TO BE DESIGNED BY A STRUCTURAL ENGINEER AND SUBMITTED BY THE CONTRACTOR TO THE TOWNSHIP FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
2. CONTRACTOR IS REQUIRED TO OBTAIN THE MOST CURRENT APPLICABLE DRAWINGS FROM PENNDOT PUBLICATION 72M FOR TYPE 2 STRONG POST GUIDE RAIL DETAILS. DRAWING NUMBER RC-52M SHEETS 1 THROUGH 7.

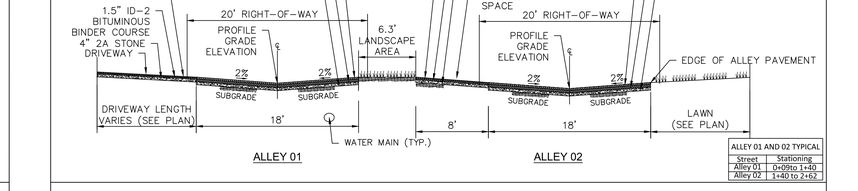


SEGMENTAL RETAINING WALL CONSTRUCTION DETAILS AND SPECIFICATIONS TO BE PREPARED BY A FIRM SPECIFIED BY THE DEVELOPERS. PLANS ARE TO BE USED SOLELY TO PROVIDE RETAINING WALL LOCATIONS AND ELEVATIONS. PRIOR TO TOWNSHIP PERMITTING SITE CONSTRUCTION TO BEGIN, SHOP DRAWINGS AND SPECIFICATIONS (INCLUDING COLOR PHOTOGRAPHS OF WALL MATERIAL) PREPARED, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER SHALL BE SUBMITTED TO THE TOWNSHIP ENGINEER FOR REVIEW AND APPROVAL. THE DEVELOPER IS TO RETAIN THE SERVICES OF A PROFESSIONAL EXPERIENCED GEOTECHNICAL ENGINEER TO INSPECT AND CERTIFY COMPLIANCE WITH WALL CONSTRUCTION, RETAINING WALL BACKFILL, STRUCTURAL SPECIFICATIONS AND SUBGRADE BEARING CAPACITY. TOWNSHIP IS TO BE NOTIFIED AS TO WHO WILL BE PERFORMING THIS SERVICE PRIOR TO CONSTRUCTION OF WALL.

TYPICAL SEGMENTAL RETAINING WALL SECTION

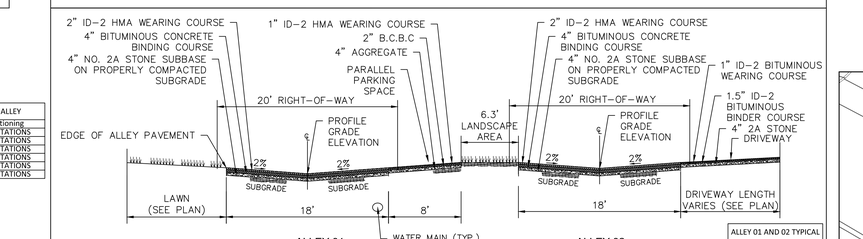


ALLEY FF SECTION



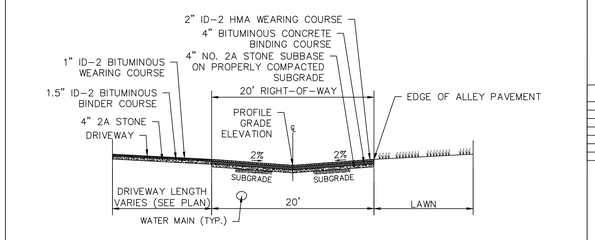
ALLEY 01 AND 02 TYPICAL	
Street	Stationing
Alley 01	0+09to 1+40
Alley 02	1+40 to 2+62

ALLEY 01 AND 02 SECTION



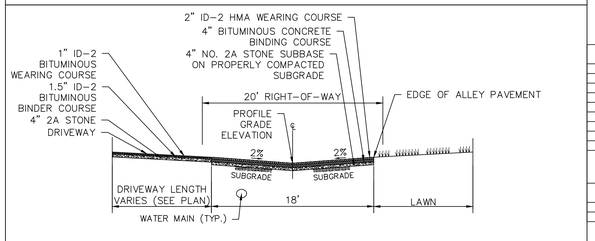
ALLEY 01 AND 02 TYPICAL	
Street	Stationing
Alley 01	1+40 to 2+62
Alley 02	0+09 to 1+40

ALLEY 01 AND 02 SECTION



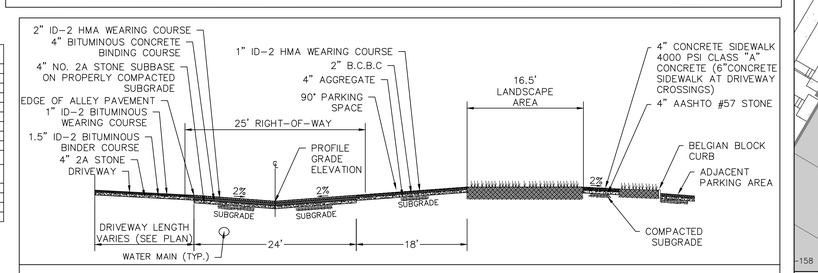
20' PAVEMENT ALLEY	
Street	Stationing
Alley CC	ALL STATIONS
Alley DD	ALL STATIONS
Alley EE	ALL STATIONS
Alley M	ALL STATIONS
Alley P	ALL STATIONS
Alley Y	ALL STATIONS

TYPICAL 20' PAVEMENT ALLEY (REAR ACCESS LANE) SECTION

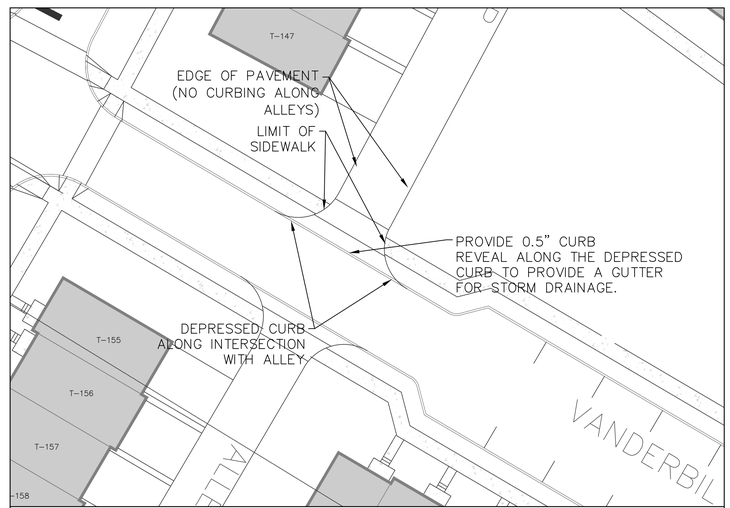


18' PAVEMENT ALLEY	
Street	Stationing
Alley AA	1+00 to 6+50
Alley BB	ALL STATIONS
Alley JJ	ALL STATIONS
Alley KK	ALL STATIONS
Alley L	ALL STATIONS
Alley N	ALL STATIONS
Alley OO	ALL STATIONS
Alley R	ALL STATIONS
Alley S	0+00 to 0+50 1+50 to 2+25 3+75 to 4+50
Alley T	0+00 to 4+50 6+00 to 7+50
Alley U	ALL STATIONS
Alley Z	0+00 to 1+50

TYPICAL 18' PAVEMENT ALLEY (REAR ACCESS LANE) SECTION



ALLEY LL SECTION



TYPICAL ALLEY INTERSECTION DETAIL

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

JASON SCOTT ENGELHARDT
REGISTERED PROFESSIONAL ENGINEER
SIGNATURE JASON ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
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ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan CT, Inc.
Langan Holdings, LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SITE DETAILS

Project No. 240038801	Drawing No. CS-502
Date 05/31/16	
Scale N.T.S.	
Drawn By KG	
Submission Date	Sheet 50 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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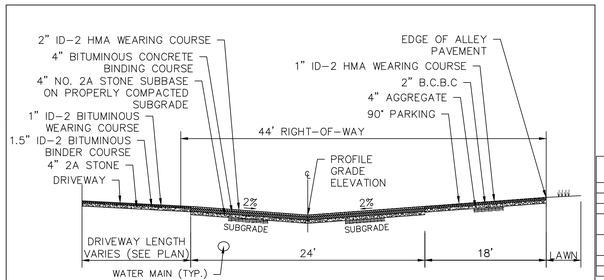
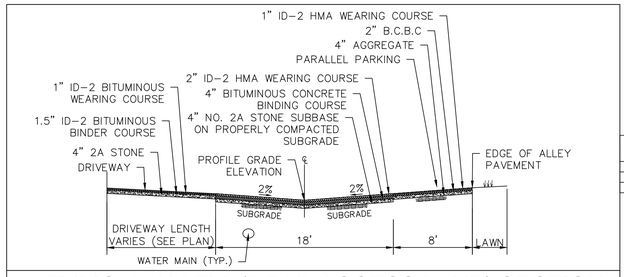
Filename: I:\langan.com\data\BET\data8\240038801\Cadd Data - 240038801\Sheet Files\240038801 CS501-503.dwg Date: 12/13/2019 Time: 15:04 User: wschaefer Style Table: Langan.stb Layout: 240038801 CS501-503 - CS-502



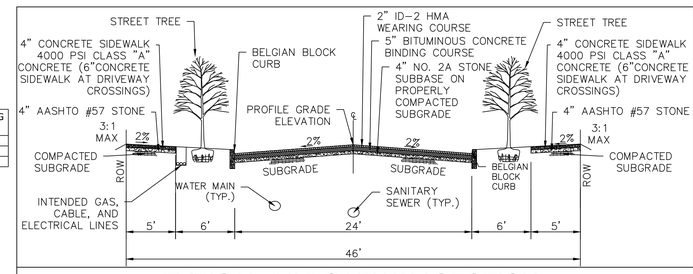
ALLEY WITH 90 DEGREE PARKING ON ONE SIDE	
Street	Stationing
Alley AA	0+00 to 1+00
Alley FF	0+00 to 2+50
Alley LL	0+00 to 1+25
	1+50 to 2+50
Alley S	0+50 to 1+50
	2+25 to 3+75
Alley T	4+50 to 6+00
Alley Z	1+50 to 2+00

TYPICAL ALLEY (REAR ACCESS LANE) SECTION WITH 90° PARKING ON ONE SIDE



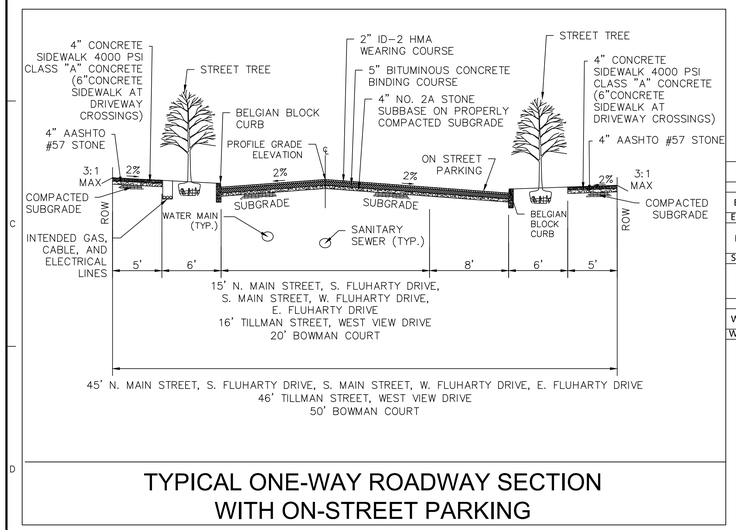
ALLEY WITH PARALLEL PARKING ON ONE SIDE	
Street	Stationing
ALLEY 01	1+50 to 2+50
ALLEY 02	0+00 to 1+50

TYPICAL ALLEY (REAR ACCESS LANE) SECTION WITH PARALLEL PARKING ON ONE SIDE



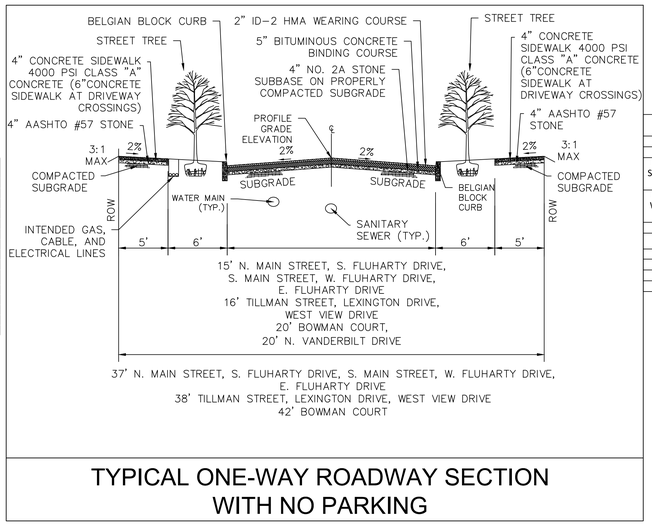
NO PARKING	
Street	Stationing
Andover Drive	2+50 to 5+00
	6+75 to 7+50
	9+50 to 10+00
	12+00 to 12+75
	13+50 to 14+00
	14+50 to 16+00
	16+75 to 17+00
	18+75 to 19+50
Davenport Drive	3+25 to 3+75
E. Main Street	2+00 to 4+00
	6+50 to 7+50
Vanderbilt Drive	22+50 to 23+70
	24+75 to 25+70
	29+00 to 32+00
	33+71 to 37+30
Fluharty Drive	ALL STATIONS
Main Street	0+00 to 2+50
	8+75 to 10+50
	21+75 to 23+75
	24+75 to 25+75
	26+25 to 27+00
	29+00 to 31+75
	34+25 to 36+25
	40+50 to 43+25
	44+00 to 47+50
N. Vanderbilt Drive	0+00 to 5+00
Oakland Way	1+00 to 1+75
South Gate Drive	2+00 to 4+25
	7+50 to 8+50
	10+75 to 13+00
	15+25 to 19+00
W. Main Street	2+50 to 3+50
	5+25 to 5+75
West View Drive	0+00 to 5+25
	6+25 to 15+00
	21+75 to 24+75

TYPICAL 24' ROADWAY SECTION WITH NO PARKING

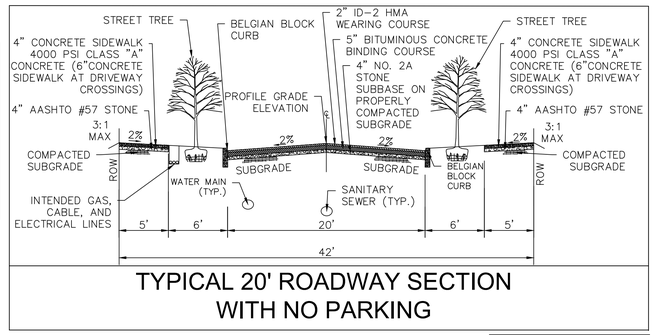


ONE-WAY WITH ON-STREET PARKING	
Street	Stationing
Bowman Court	0+50 to 2+00
E. Fluharty Drive	3+50 to 5+00
N. Main Street	0+25 to 3+25
	0+25 to 2+50
	3+25 to 5+50
	6+25 to 7+50
S. Fluharty Drive	2+00 to 3+50
S. Main Street	0+25 to 2+50
	3+25 to 5+50
	6+25 to 7+50
Tillman Street	0+50 to 2+00
West View Drive	15+00 to 16+50
	17+75 to 19+25
W. Fluharty Drive	0+25 to 3+25

TYPICAL ONE-WAY ROADWAY SECTION WITH ON-STREET PARKING

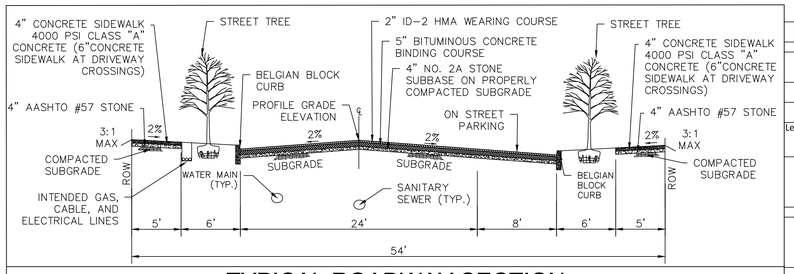


ONE-WAY NO PARKING	
Street	Stationing
Bowman Court	2+00 to 3+50
Lexington Drive (between Swamp Pike and West View Drive)	ALL STATIONS
Lexington Drive (between West View Drive and West View Drive)	0+00 to 2+50
	4+00 to 7+50
N. Main Street	2+50 to 3+25
S. Fluharty Drive	0+00 to 2+00
S. Main Street	2+50 to 3+25
Tillman Street	2+00 to 3+00
West View Drive	16+50 to 17+75
N. Vanderbilt Drive	5+00 to 6+63



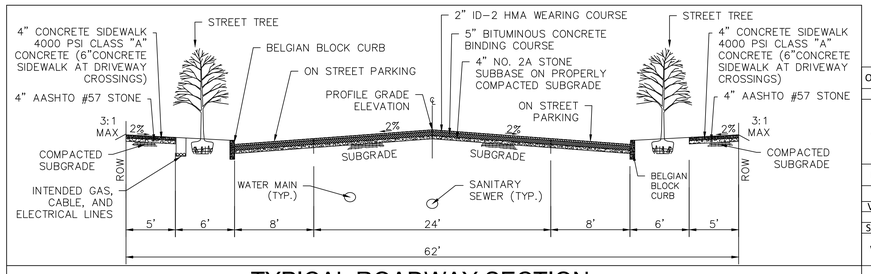
NO PARKING	
Street	Stationing
Vanderbilt Drive	12+20 to 13+50
	19+00 to 22+50

TYPICAL ONE-WAY ROADWAY SECTION WITH NO PARKING



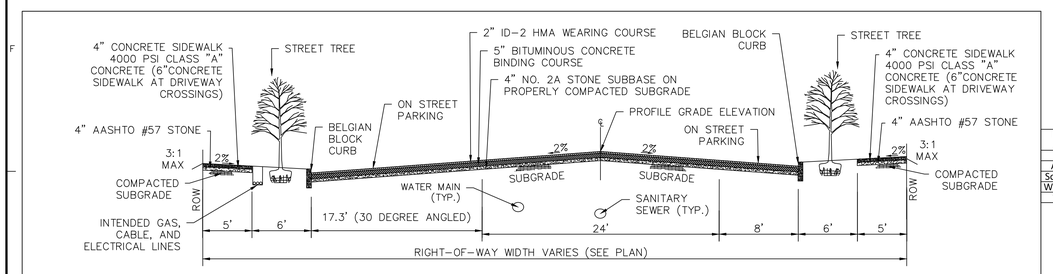
ONE SIDE ON STREET PARKING	
Street	Stationing
Andover Drive	5+00 to 6+75
	7+50 to 8+50
	10+00 to 12+00
Davenport Drive	0+50 to 3+25
	3+75 to 4+50
Hudson Lane	0+50 to 1+50
	2+50 to 7+00
Lexington Drive (between West View Drive and West View Drive)	2+50 to 4+00
Vanderbilt Drive	23+70 to 24+75
	25+70 to 26+30
	26+90 to 29+00
	37+30 to 40+50
	43+25 to 44+00
Oakland Way	0+50 to 1+00
South Gate Drive	0+50 to 2+00
	4+25 to 5+25
	6+00 to 7+50
	8+50 to 10+75
	13+00 to 15+25
West View Drive	20+00 to 21+75

TYPICAL ROADWAY SECTION WITH ON-STREET PARKING



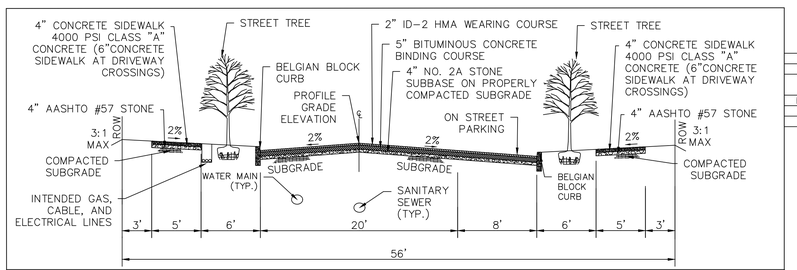
ON-STREET PARKING ON BOTH SIDES	
Street	Stationing
Andover Drive	0+50 to 2+50
	8+50 to 9+50
	14+00 to 14+50
	16+00 to 16+75
	17+00 to 18+75
	19+50 to 21+50
E. Main Street	0+00 to 2+00
	4+00 to 6+50
Hudson Lane	1+50 to 2+50
Vanderbilt Drive	32+00 to 33+71
Oakland Way	1+75 to 5+00
South Gate Drive	19+00 to 21+00
W. Main Street	0+50 to 2+50
	3+50 to 5+25
	5+75 to 7+75

TYPICAL ROADWAY SECTION WITH ON-STREET PARKING ON BOTH SIDES



PARALLEL AND 90 DEGREE OR ANGLED ON-STREET PARKING	
Street	Stationing
Andover Drive	8+50 to 9+50
South Gate Drive	5+25 to 6+00
West View Drive*	5+25 to 6+25
*No Parallel On-Street Parking	

TYPICAL ROADWAY SECTION WITH 30 DEGREE ANGLED ON-STREET PARKING



ONE SIDE ON STREET PARKING	
Street	Stationing
Vanderbilt Drive	0+00 to 12+20
	13+50 to 19+00
Meadow Wood Lane	0+00 to 9+19
Melbourne Lane	0+00 to 8+97
Worthington Lane	0+00 to 11+14

TYPICAL ROADWAY SECTION WITH ON-STREET PARKING

NOTE:
1) ADDITIONAL INFORMATION ON THE PAVING TYPE AND THICKNESS FOR ROADWAYS, DRIVEWAYS, AND SIDEWALKS CAN BE FOUND ON SHEET CS-502.

No.	Date	Description
8.	12-13-19	REVISED PER COMMENT LETTERS
7.	11-09-18	REVISED PER COMMENT LETTERS
6.	6-01-18	REVISED PER MCCD COMMENTS
5.	1-31-18	REVISED PER COMMENT LETTERS
4.	11-08-17	REVISED PER COMMENT LETTERS
3.	8-04-17	REVISED PER COMMENT LETTERS
2.	4-07-17	REVISED PER COMMENT LETTERS
1.	11-04-16	REVISED PER COMMENT LETTERS

REVISIONS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JASON SCOTT ENGELHARDT — ENGINEER
SIGNATURE — JASON SCOTT ENGELHARDT — DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering and Environmental Services, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International, LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY SECTION PLAN

Project No.	240038801
Date	05/31/16
Scale	N.T.S.
Drawn By	KG
Submission Date	
Drawing No.	CS-503
Sheet	51 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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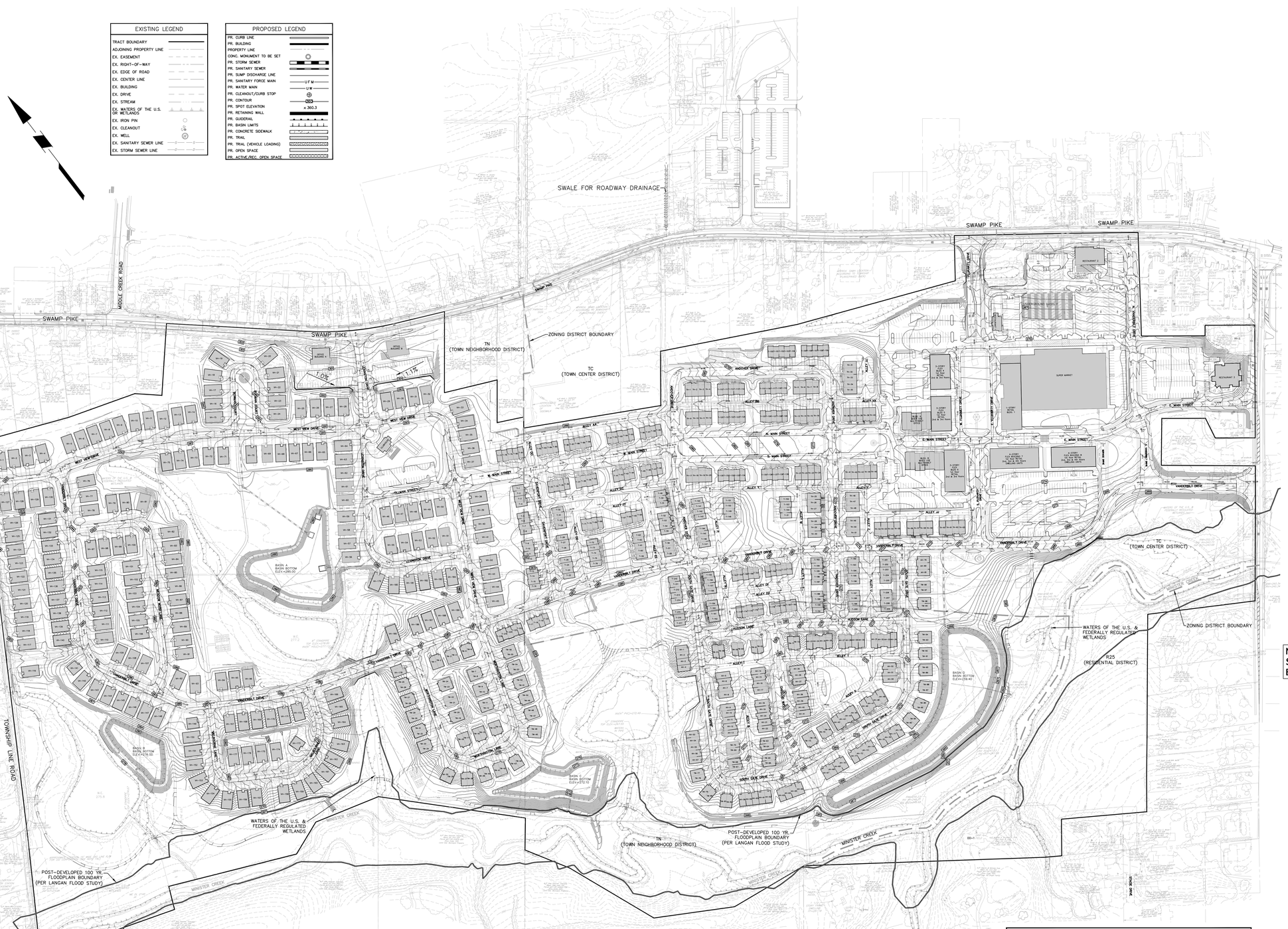
Filename: I:\langan.com\data\BET\data8\240038801\Cadd Data - 240038801\Sheet Files\240038801 CS501-503.dwg Date: 12/13/2019 Time: 15:04 User: wschaefer Style Table: Langan.stb Layout: 240038801 CS501-503 - CS-503


EXISTING LEGEND
TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE
PROPOSED LEGEND
PR. CURB LINE
PR. BUILDING
PROPERTY LINE
CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
PR. SANITARY FORCE MAIN
PR. WATER MAIN
PR. CLEANOUT/CURB STOP
PR. CONTOUR
PR. SPOT ELEVATION
PR. RETAINING WALL
PR. GUIDERAIL
PR. BASIN LIMITS
PR. CONCRETE SIDEWALK
PR. TRAIL
PR. TRAIL (VEHICLE LOADING)
PR. OPEN SPACE
PR. ACTIVE/REC. OPEN SPACE
SWALE FOR ROADWAY DRAINAGE
SWAMP PIKE
MIDDLE CREEK ROAD
TOWNSHIP LINE ROAD
ZONING DISTRICT BOUNDARY
TN (TOWN NEIGHBORHOOD DISTRICT)
TC (TOWN CENTER DISTRICT)
R25 (RESIDENTIAL DISTRICT)
WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS
POST-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)
MINSTER CREEK
BASIN A BASIN BOTTOM ELEV.=285.00
BASIN B BASIN BOTTOM ELEV.=278.50
BASIN C BASIN BOTTOM ELEV.=272.70
BASIN D BASIN BOTTOM ELEV.=259.60
WEST VIEW DRIVE
LONGFORD DRIVE
HAMPTON DRIVE
WINDSOR DRIVE
SOUTH DALE DRIVE
HUDSON LANE
ALLEY IX
ALLEY X
ALLEY XI
ALLEY XII
E. MAIN STREET
W. MAIN STREET
N. MAIN STREET
S. MAIN STREET
N. CLEMENT STREET
S. CLEMENT STREET
HANOVER SHOPPING CENTER
SUPER MARKET
RESTAURANT 2
RESTAURANT 7
BANK
HANOVER DRIVE
HANOVER TOWN DRIVE
MAGNOLIA DRIVE
BROADWAY DRIVE
ALLEY I
ALLEY II
ALLEY III
ALLEY IV
ALLEY V
ALLEY VI
ALLEY VII
ALLEY VIII
ALLEY IX
ALLEY XIII
ALLEY XIV
ALLEY XV
ALLEY XVI
ALLEY XVII
ALLEY XVIII
ALLEY XIX
ALLEY XX
ALLEY XXI
ALLEY XXII
ALLEY XXIII
ALLEY XXIV
ALLEY XXV
ALLEY XXVI
ALLEY XXVII
ALLEY XXVIII
ALLEY XXIX
ALLEY XXX
ALLEY XXXI
ALLEY XXXII
ALLEY XXXIII
ALLEY XXXIV
ALLEY XXXV
ALLEY XXXVI
ALLEY XXXVII
ALLEY XXXVIII
ALLEY XXXIX
ALLEY XL
ALLEY XLI
ALLEY XLII
ALLEY XLIII
ALLEY XLIV
ALLEY XLV
ALLEY XLVI
ALLEY XLVII
ALLEY XLVIII
ALLEY XLIX
ALLEY L
ALLEY LI
ALLEY LII
ALLEY LIII
ALLEY LIV
ALLEY LV
ALLEY LVI
ALLEY LVII
ALLEY LVIII
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ALLEY LX
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ALLEY LXXIII
ALLEY LXXIV
ALLEY LXXV
ALLEY LXXVI
ALLEY LXXVII
ALLEY LXXVIII
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ALLEY LXXX
ALLEY LXXXI
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ALLEY LXXXIII
ALLEY LXXXIV
ALLEY LXXXV
ALLEY LXXXVI
ALLEY LXXXVII
ALLEY LXXXVIII
ALLEY LXXXIX
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ALLEY XCI
ALLEY XCII
ALLEY XCIII
ALLEY XCIV
ALLEY XCV
ALLEY XCVI
ALLEY XCVII
ALLEY XCVIII
ALLEY XCIX
ALLEY C
ALLEY CI
ALLEY CII
ALLEY CIII
ALLEY CIV
ALLEY CV
ALLEY CVI
ALLEY CVII
ALLEY CVIII
ALLEY CIX
ALLEY CX
ALLEY CXI
ALLEY CXII
ALLEY CXIII
ALLEY CXIV
ALLEY CXV
ALLEY CXVI
ALLEY CXVII
ALLEY CXVIII
ALLEY CXIX
ALLEY CXX
ALLEY CXXI
ALLEY CXXII
ALLEY CXXIII
ALLEY CXXIV
ALLEY CXXV
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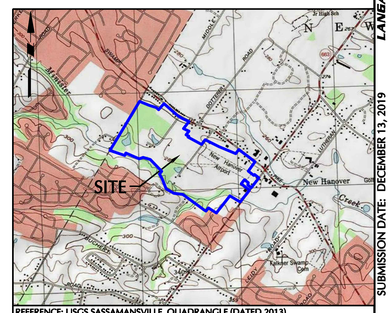
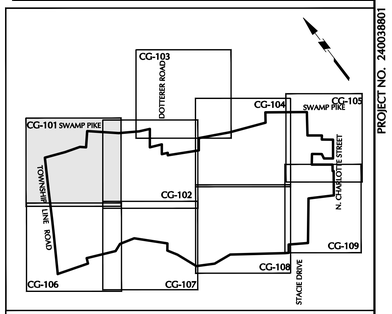


SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

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Date	Description	No.
12–13–19	REVISED PER COMMENT LETTERS	9.
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11–08–17	REVISED PER COMMENT LETTERS	4.
8–04–17	REVISED PER COMMENT LETTERS	3.
4–07–17	REVISED PER COMMENT LETTERS	2.
11–04–16	REVISED PER COMMENT LETTERS	1.

REVISIONS

EXISTING LEGEND

TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

PROPOSED LEGEND

PR. CURB LINE
PR. BUILDING
PROPERTY LINE
CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
PR. SANITARY FORCE MAIN — LF M
PR. WATER MAIN — U W
PR. CLEANOUT/CURB STOP
PR. CONTOUR — 290
PR. SPOT ELEVATION — x 360.3
PR. RETAINING WALL
PR. GUIDERAIL
PR. BASIN LIMITS
PR. CONCRETE SIDEWALK
PR. TRAIL
PR. TRAIL (VEHICLE LOADING)
PR. OPEN SPACE
PR. ACTIVE/REC. OPEN SPACE

NOTE:
SEE SHEET CG-110 FOR BUILDING ELEVATIONS TABLE

SCALE IN FEET: 50 0 25 50

ACT 287 AS AMENDED

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PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
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RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT

SIGNATURE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE–057145–E

LANGAN

One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com

NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH CAROLINA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan UK Ltd.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
GRADING PLAN

Project No. 240038801	Drawing No. CG-101
Date 05/31/16	
Scale 1"=50'	
Drawn By KG	
Submission Date X	Sheet 53 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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MATCHLINE-CG-101

MATCHLINE-CG-103

MATCHLINE-CG-104

MATCHLINE-CG-107

SWAMP PIKE

OFFICE BUILDING A
FFE: 301.58

OFFICE BUILDING B
FFE: 302.55

CLUBHOUSE
FFE: 295.25

LEXINGTON DRIVE

WEST VIEW DRIVE

TILLMAN STREET

W. MAIN STREET

BOWMAN COURT

DAVENPORT DRIVE

ANDOVER DRIVE

VANDERBILT DRIVE

ALLEY AA

ALLEY BB

ALLEY CC

ALLEY DD

ALLEY EE

ALLEY FF

STACIE DRIVE

VH-20 FFE: 304.00
VH-21 FFE: 300.00
VH-22 FFE: 300.00
VH-23 FFE: 299.00
VH-24 FFE: 299.00
VH-25 FFE: 294.86
VH-26 FFE: 294.31
VH-27 FFE: 294.29
VH-28 FFE: 294.67
VH-29 FFE: 295.36
VH-30 FFE: 295.65
VH-31 FFE: 295.20
VH-32 FFE: 294.95
VH-33 FFE: 294.50
VH-34 FFE: 294.50
VH-35 FFE: 294.50
VH-36 FFE: 294.50
VH-37 FFE: 294.50
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VH-41 FFE: 293.50
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VH-43 FFE: 293.50
VH-44 FFE: 293.50
VH-45 FFE: 293.50
VH-46 FFE: 291.30
VH-47 FFE: 291.92
VH-48 FFE: 293.20
VH-49 FFE: 293.30
VH-50 FFE: 292.93
VH-51 FFE: 292.68
VH-52 FFE: 292.93
VH-53 FFE: 290.96
VH-54 FFE: 289.80
VH-55 FFE: 289.63
VH-56 FFE: 288.80
VH-57 FFE: 288.80
VH-58 FFE: 290.00
VH-59 FFE: 290.00
VH-60 FFE: 290.00
VH-61 FFE: 290.00
VH-62 FFE: 290.00
VH-63 FFE: 290.00
VH-64 FFE: 290.00
VH-69 FFE: 293.65
VH-70 FFE: 295.28
VH-68 FFE: 295.34
VH-67 FFE: 294.66
VH-66 FFE: 294.34
VH-65 FFE: 294.22
VH-179 FFE: 289.50
VH-180 FFE: 289.31
VH-181 FFE: 289.50
VH-182 FFE: 290.42
VH-183 FFE: 291.74
VH-184 FFE: 292.31
VH-185 FFE: 290.10
VH-186 FFE: 289.00
VH-187 FFE: 289.00
VH-188 FFE: 289.21
VH-189 FFE: 289.84

TW: 301.70 BW: 300.46
TW: 302.65 BW: 299.75
TW: 299.63 BW: 299.41
TW: 302.28 BW: 295.74
TW: 301.98 BW: 296.21
TW: 300.49 BW: 292.35
TW: 299.63 BW: 290.67
TW: 301.76 BW: 293.88
TW: 299.05 BW: 294.82
TW: 297.11 BW: 292.35
BW: 275.35 TW: 282.32
TW: 283.52 BW: 273.87

1.0%
1.17%

BASIN A
BASIN BOTTOM
ELEV.=285.00

20' WETLAND MARGIN
100' SHORELINE BUFFER
WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS W.E. 277.2

APPROXIMATE LOCATION OF SIDEWALK

N/F Michael D. & Bonnie Gemmell Block 41, Unit 045 Parcel #47-00-04817-001 Zone Code: TC

N/F Michael D. & Bonnie Gemmell Block 41, Unit 046 Parcel #47-00-04826-006 Zone Code: TC

N/F Wayne L. & Rebecca L. Block 52, Unit 010 Parcel #47-00-07256-005 Zone Code: TC Land Use: B1 Single Family

N/F Mark L. Halteman Block 52, Unit 011 Parcel #47-00-07252-009 Zone Code: TC Land Use: F34 Commercial

N/F Terry T. Jr. & Affy L. O'Connor Block 52, Unit 004 Parcel #47-00-07264-006 Zone Code: TC Land Use: B1 Single Family

N/F Victoria Wedgefield Block 52, Unit 009 Parcel #47-00-07260-001 Zone Code: TC Land Use: B1 Single Family

N/F Beth L. Allen Block 52, Unit 008 Parcel #47-00-07248-009 Zone Code: TC Land Use: B1 Single Family

N/F Beth L. Allen Block 52, Unit 005 Parcel #47-00-07247-005 Zone Code: TC Land Use: B1 Residential

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN — FM —
- PR. WATER MAIN — W —
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR
- PR. SPOT ELEVATION × 360.3
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
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- PR. TRAIL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

SITE

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP
SCALE: 1"=2,000'

KEY MAP
SCALE 1"=1000'

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PHONE: (215)822-8899
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No.	Description	Date
9.	REVISED PER COMMENT LETTERS	12-13-19
8.	REVISED PER COMMENT LETTERS	11-09-18
7.	REVISED PER MCCD COMMENTS	10-22-18
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3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE — DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying, Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc.
Langan CS, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
GRADING PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	KG
Submission Date	X
Drawing No.	CG-102
	Sheet 54 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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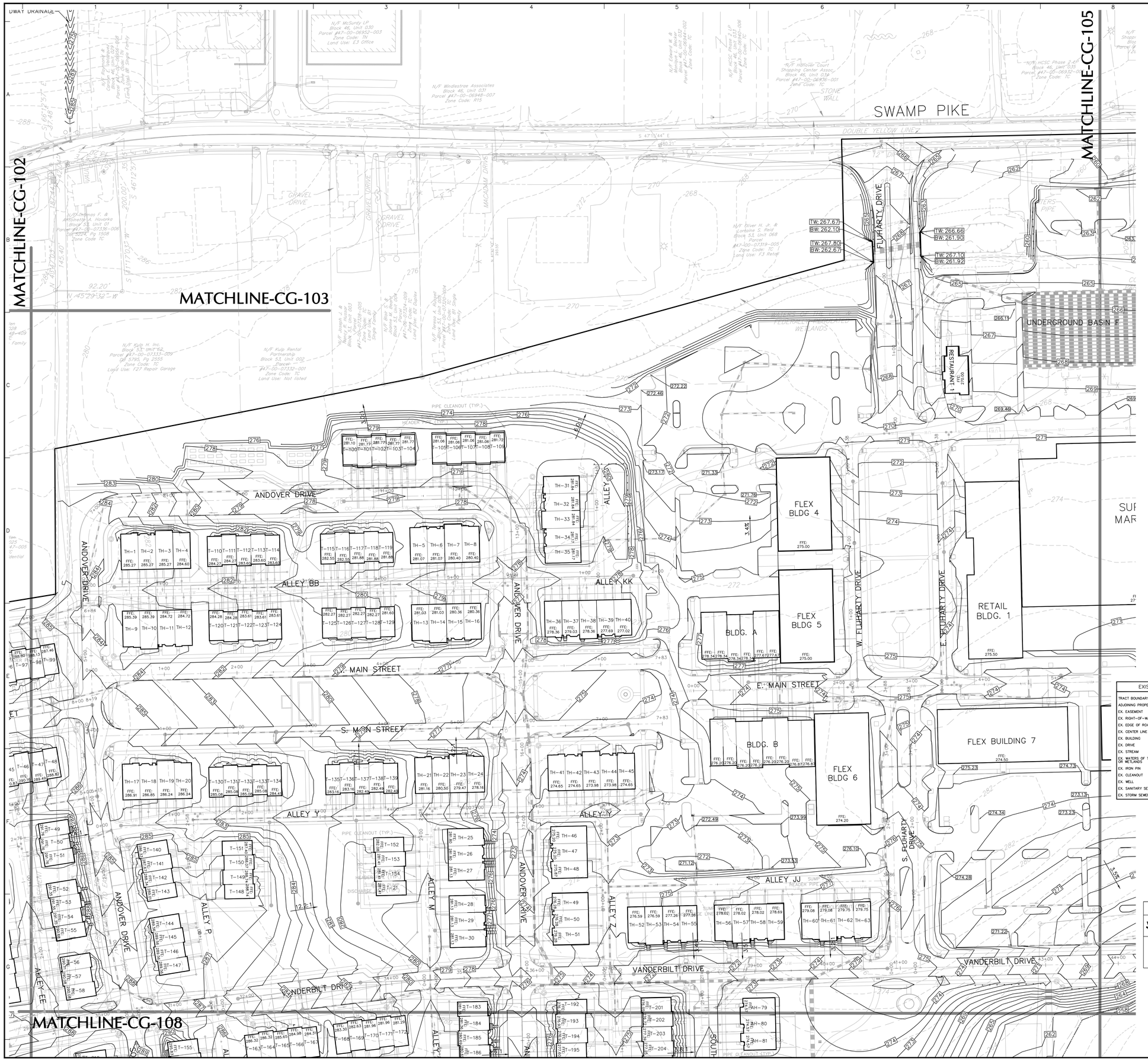
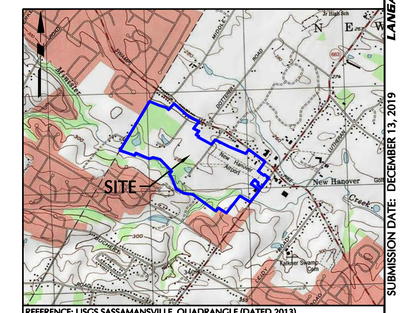
Filename: \\langan.com\data\BE\data\240038801\cadd data - 240038801\sheetfiles\240038801 CG101-109.dwg. Date: 12/13/2019 Time: 15:10 User: wschaefer Style Table: Langan.stb Layout: CG-102

DOTTERER ROAD
SWAMP PIKE
MATCHLINE-CG-102
MATCHLINE-CG-104
SWALE FOR ROADWAY DRAINAGE
DOUBLE YELLOW LINE
ULTIMATE R/W
GRAVEL DRIVE
OFFICE BUILDING B
N/F Paul W. Meyer, & Sons, Inc.
Block 41, Unit 040
Parcel #47-00-01440-304
Zone Code: R15
N/F Jay R. & Nelle H. Burchill
Block 4A, Unit 76
Parcel #47-00-01410-877
Zone Code: R15
Land Use: 81-Single Family
N/F Kenneth A. & Sherry L. Mosemiller
Block 4A, Unit 50
Parcel #47-00-01418-658
Zone Code: R15
Land Use: 81-Single Family
N/F McSurdy LP
Block 4A, Unit 030
Parcel #47-00-06922-001
Zone Code: TN
Land Use: E3 Office
N/F RP WYNSTONE
Block 4C, Unit 028
Parcel #47-00-07069-003
Zone Code: TN
N/F William H. Jacobs
Block 41, Unit 034
Parcel #47-00-06832-006
Zone Code: TN
N/F Brian T. & Cristen L. McTomney
Block 41, Unit 036
Parcel #47-00-01440-025
Zone Code: TN
N/F Brian T. & Cristen L. McTomney
Block 41, Unit 036
Parcel #47-00-01440-007
Zone Code: TN
N/F Karl E. Meyer
Block 41, Unit 057
Parcel #47-00-06828-001
Zone Code: TN
N/F Michael D. & Bonnie A. Smith
Block 41, Unit 046
Parcel #47-00-06827-001
Zone Code: TN
N/F Thomas F. & Antonietta A. Jaworko
Block 52, Unit 01
Parcel #47-00-07136-006
Zone Code: TC
N/F Beth L. Allen
Block 52, Unit 020
Parcel #47-00-07244
Zone Code: TC
Land Use: 81 Single Family
N/F Kyle H. Inc.
Block 53, Unit 02
Parcel #47-00-07333-009
Zone Code: TC
N/F Kulp Rental Partnership
Block 53, Unit 002
Parcel #47-00-07332-001
Zone Code: TC
Land Use: Not Listed
N/F Joseph J. & Mary M. Smith
Block 53, Unit 003
Parcel #47-00-07334-009
Zone Code: TC
Land Use: RD Duplex
N/F Elsie M. Smith
Block 53, Unit 004





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3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

EXISTING LEGEND

TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

PROPOSED LEGEND

PR. CURB LINE
PR. BUILDING
PROPERTY LINE
CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
PR. SANITARY FORCE MAIN
PR. WATER MAIN
PR. CLEANOUT/CURB STOP
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PR. SPOT ELEVATION
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50 0 25 50
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SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

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* IT'S THE LAW *

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RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

JASON SCOTT ENGELHARDT
REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER P.A. Lic. No.
PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
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ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
GRADING PLAN

Project No. 240038801	Drawing No. CG-104
Date 05/31/16	
Scale 1"=50'	
Drawn By KG	
Submission Date X	Sheet 56 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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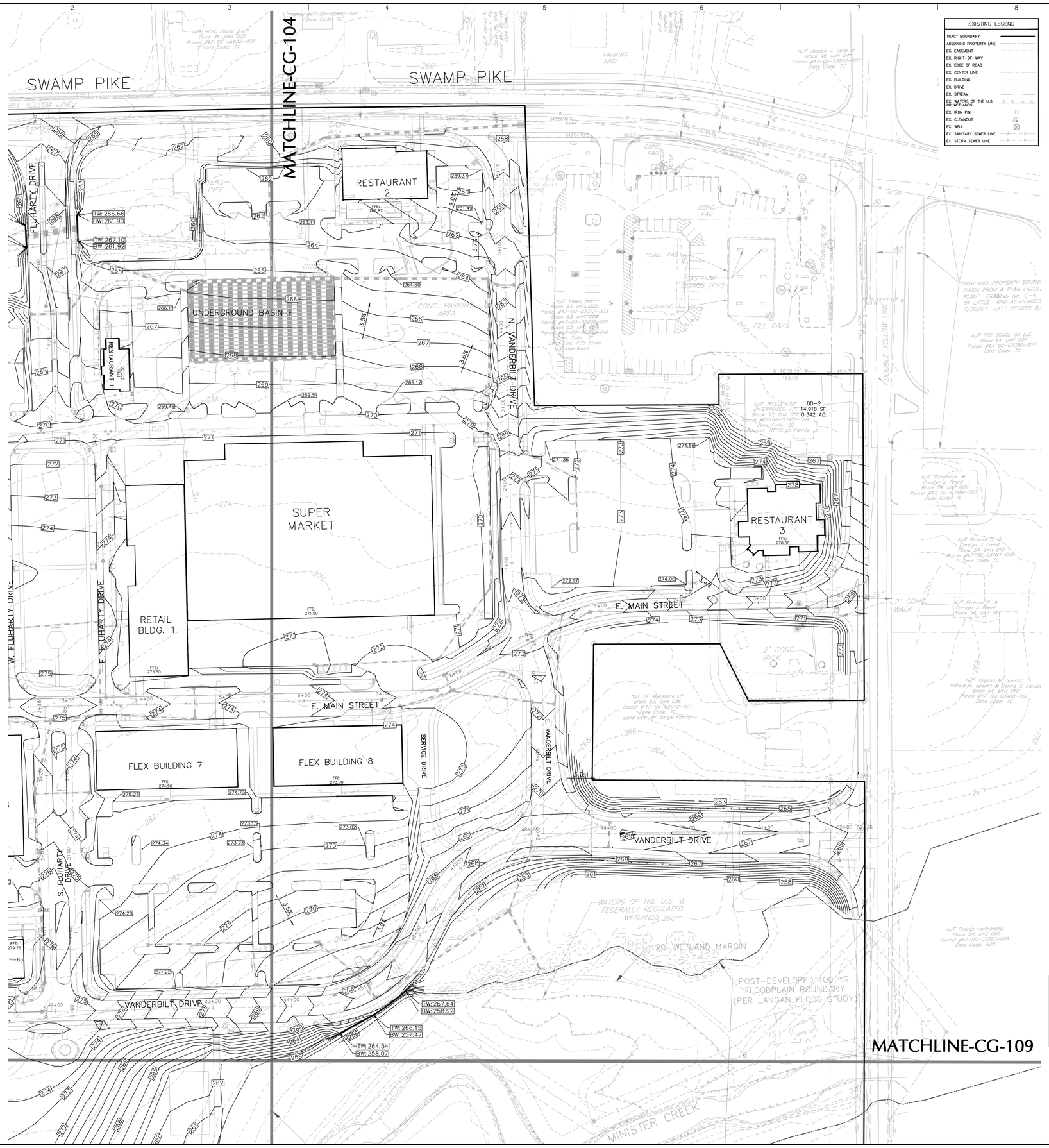
Filename: \\langan.com\data\BE\data\240038801\cadd data - 240038801\sheetfiles\240038801 CG101-109.dwg Date: 12/13/2019 Time: 15:11 User: wschaefer Style Table: Langan.stb Layout: CG-104


MATCHLINE-CG-104
MATCHLINE-CG-109
SWAMP PIKE
SWAMP PIKE
W. FLUHARTY DRIVE
E. FLUHARTY DRIVE
S. FLUHARTY DRIVE
RESTAURANT 2
FFE: 264.67
UNDERGROUND BASIN F
RESTAURANT 1
FFE: 270.00
N. VANDERBILT DRIVE
SUPER MARKET
FFE: 271.50
RETAIL BLDG. 1
FFE: 275.50
FFE: 279.75
FLEX BUILDING 7
FFE: 274.50
FLEX BUILDING 8
FFE: 273.00
SERVICE DRIVE
E. VANDERBILT DRIVE
E. MAIN STREET
E. MAIN STREET
VANDERBILT DRIVE
RESTAURANT 3
FFE: 278.00
DD-2
14,918 SF.
0.342 AC.
N/F TROLLEYLINE ENTERPRISES, LP
Parcel #47-00-03902-00
Zone Code: TC
Land Use: 31 Single Family
PARKING AREA
CONC. PAD
GAS PUMP ISLANDS (TYP)
OVERHANG
CONC. PARKING AREA
FILL CAPS
DOUBLE YELLOW LINE
ROW AND PROPERTY BOUND. TAKEN FROM A PLAN ENTITLED "PLAN" DRAWING No. C-4, BY LITTLE AND ASSOCIATES 7/30/01 LAST REVISED 8/
N/F SDP 2002E-54 LLC
Block 54, Unit 007
Parcel #47-00-07380-007
Zone Code: TC
N/F Richard B. & Carolyn L. Freed
Block 54, Unit 009
Parcel #47-00-03480-001
Zone Code: TC
N/F Richard B. & Carolyn L. Freed
Block 54, Unit 010
Parcel #47-00-03480-008
Zone Code: TC
N/F Richard B. & Carolyn L. Freed
Block 54, Unit 011
2' CONC. WALK
N/F Virginia M. Specht, Harold R. Specht & Donna S. Landis
Block 54, Unit 012
Parcel #47-00-03468-002
Zone Code: TC
N/F RP Wynstone LP
Block 53, Unit 036
Parcel #47-00-02912-001
Land Use: 81 Single Family
N/F Wawa, Inc.
Block 53, Unit 002
Parcel #47-00-07312-003
Block 53, Unit 028
Parcel #47-00-02912-001
Block 53, Unit 029
Parcel #47-00-02912-016
Zone Code: TC
Land Use: 135 Store Convenience
N/F Joseph J. Cava, Jr.
Block 46, Unit 04A
Parcel #47-00-03892-003
Zone Code: TC
N/F Jon Block 46, Parcel #47-00-
N/F Emma N. Loretta A. Fo Block 46, Parcel #47-00- Zone Code:
N/F Freeds Partnership
Block 54, Unit 050
Parcel #47-00-07360-009
Zone Code: R25
WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS 260
20' WETLAND MARGIN
POST-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)
MINISTER CREEK
TW: 267.64
BW: 258.92
TW: 266.15
BW: 257.47
TW: 264.54
BW: 258.07
TW: 266.66
BW: 261.90
TW: 267.10
BW: 261.92
259.37
261.48
264.55
269.12
269.51
269.46
271.36
272.17
274.00
274.56
274.58
275.24
274.73
273.13
273.02
274.14
273.23
274.28
271.22
3.72%
3.58%
3.58%
3.58%
3.72%
3.58%
3.58%
3.58

MATCHLINE-CG-101

MATCHLINE-CG-107

BASIN A
BASIN BOTTOM
ELEV.=285.00

BASIN B
BASIN BOTTOM
ELEV.=276.00

20' WETLAND MARGIN

WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS W.E. 277.2

WETLAND MARGIN

20' SHORELINE BUFFER

100' STREAM CORRIDOR SETBACK

100' SHORELINE BUFFER

APPROXIMATE LOCATION 15' WIDE GAS LINE R/W FOR UGI CORPORATION (SEE NOTE 14C)

APPROXIMATE LOCATION OF UGI REGULATOR STATION PERMANENT EASEMENT PLOTTED BY LANGAN

POST-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

VANDERBILT DRIVE

MEADOWOOD LANE

MELBOURNE LANE

TOWNSHIP LINE ROAD

MINISTER CREEK

VH-84 through VH-176 (lots)

N/F Daniel E. Knapp, Block 40, Unit 046, Parcel #32-00-02332-005, Zone Code: R2, Land Use: 81 Single Family

N/F John G. Jr. & Vivian M. Keebler, Block 43, Unit 021, Parcel #32-00-07348-009, Zone Code: R2, Land Use: 81 Residential

N/F Gerald T. & Audrey K. Reinhart, Block 40, Unit 86, Parcel #32-00-07350-062, Zone Code: R2, Land Use: 81 Single Family

N/F John G. Jr. & Vivian M. Keebler, Block 43, Unit 021, Parcel #32-00-01348-009, Zone Code: R2, Land Use: 81 Residential

N/F James R. Leshnowsky & Anita M. Reinhart, Block 40, Unit 150, Parcel #32-00-07350-016, Zone Code: R2, Land Use: 81 Single Family

N/F John G. Jr. & Vivian M. Keebler, Block 43, Unit 021, Parcel #32-00-07348-009, Zone Code: R2, Land Use: 81 Residential

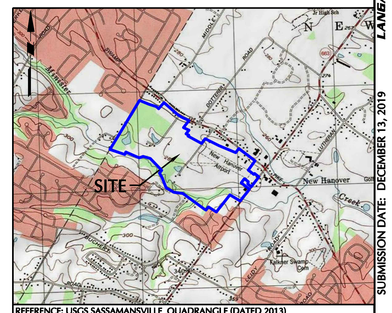
N/F John M. & Lisa M. Keebler, Block 43, Unit 025, Parcel #32-00-07347-001, Zone Code: V2, Land Use: 81 Single Family

N/F Carl A. & Diane M. Keebler, Block 43, Unit 033, Parcel #32-00-07346-018, Zone Code: R2

N/F Berks Mont Montgomery Municipal Authority, Block 43, Unit 022, Parcel #32-00-07344-004, Zone Code: R2, Land Use: Tax Exempt

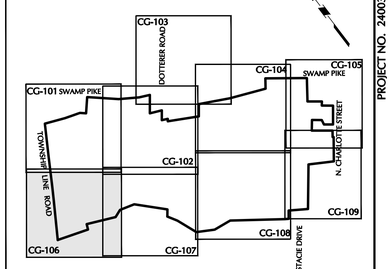
N/F New Hanover Township, Block 52, Unit 0421, Parcel #47-00-02749-147, Zone Code: R2S, Land Use: Municipal Property

N/F New Hanover Township, Block 52, Unit 0421, Parcel #47-00-02749-147, Zone Code: R2S, Land Use: Municipal Property



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP
SCALE: 1"=2,000'



KEY MAP
SCALE 1"=1000'

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NOTE:
SEE SHEET CG-110 FOR BUILDING ELEVATIONS TABLE

50 0 25 50
SCALE IN FEET

ACT 287 AS AMENDED

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SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

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OWNER
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2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

EXISTING LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND

PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	U F M
PR. WATER MAIN	U W
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	
PR. SPOT ELEVATION	x 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRAIL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

No.	Date	Description
9.	12-13-19	REVISED PER COMMENT LETTERS
8.	11-09-18	REVISED PER COMMENT LETTERS
7.	10-22-18	REVISED PER MCCD COMMENTS
6.	6-01-18	REVISED PER MCCD COMMENTS
5.	1-31-18	REVISED PER COMMENT LETTERS
4.	11-08-17	REVISED PER COMMENT LETTERS
3.	8-04-17	REVISED PER COMMENT LETTERS
2.	4-07-17	REVISED PER COMMENT LETTERS
1.	11-04-16	REVISED PER COMMENT LETTERS

REVISIONS

JASON SCOTT ENGELHARDT — REGISTERED PROFESSIONAL ENGINEER — COMMONWEALTH OF PENNSYLVANIA
SIGNATURE — DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Delaware, LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
GRADING PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50
Drawn By	KG
Submission Date	X
Drawing No.	CG-106
Sheet	58 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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MATCHLINE-CG-102

MATCHLINE-CG-106

MATCHLINE-CG-108

WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS W.F.

100' SHORELINE BUFFER

20' WETLAND MARGIN

VANDERBILT DRIVE

WORTHINGTON LANE

SWELBOURNE LANE

STACIE DRIVE

MINISTER CREEK

N/F New Hanover Township Block 52, Unit 030 Parcel #47-00-01879-225 Zone Code: R25 Land Use: Municipal Property

N/F New Hanover Township Block 52, Unit 042 Parcel #47-00-02794-147 Zone Code: R25 Land Use: Municipal Property

N/F New Hanover Township Block 57A, Unit 002 Parcel #47-00-02950-109 Zone Code: R25 Land Use: Municipal Property

BASIN C
BASIN BOTTOM
ELEV.= 272.10

NOTE:
SEE SHEET CG-110 FOR BUILDING ELEVATIONS TABLE

SCALE IN FEET
50 0 25 50

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN — U F M —
- PR. WATER MAIN — U W —
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- PR. CONTOUR
- PR. SPOT ELEVATION x 360.3
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
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PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'

KEY MAP

CG-101 SWAMP PIKE
CG-102
CG-103 DOTTERER ROAD
CG-104
CG-105 SWAMP PIKE
CG-106
CG-107
CG-108 STACIE DRIVE
CG-109 N. CHARLOTTE STREET
TOWNSHIP LINE ROAD

SCALE 1"=1000'

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No.	Description	Date
9.	REVISED PER COMMENT LETTERS	12-13-19
8.	REVISED PER COMMENT LETTERS	11-09-18
7.	REVISED PER MCCD COMMENTS	10-22-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering and Environmental Services, Inc.
Langan UK Ltd.
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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
GRADING PLAN

Project No. 240038801	Drawing No. CG-107
Date 05/31/16	
Scale 1"=50'	
Drawn By KG	
Submission Date X	Sheet 59 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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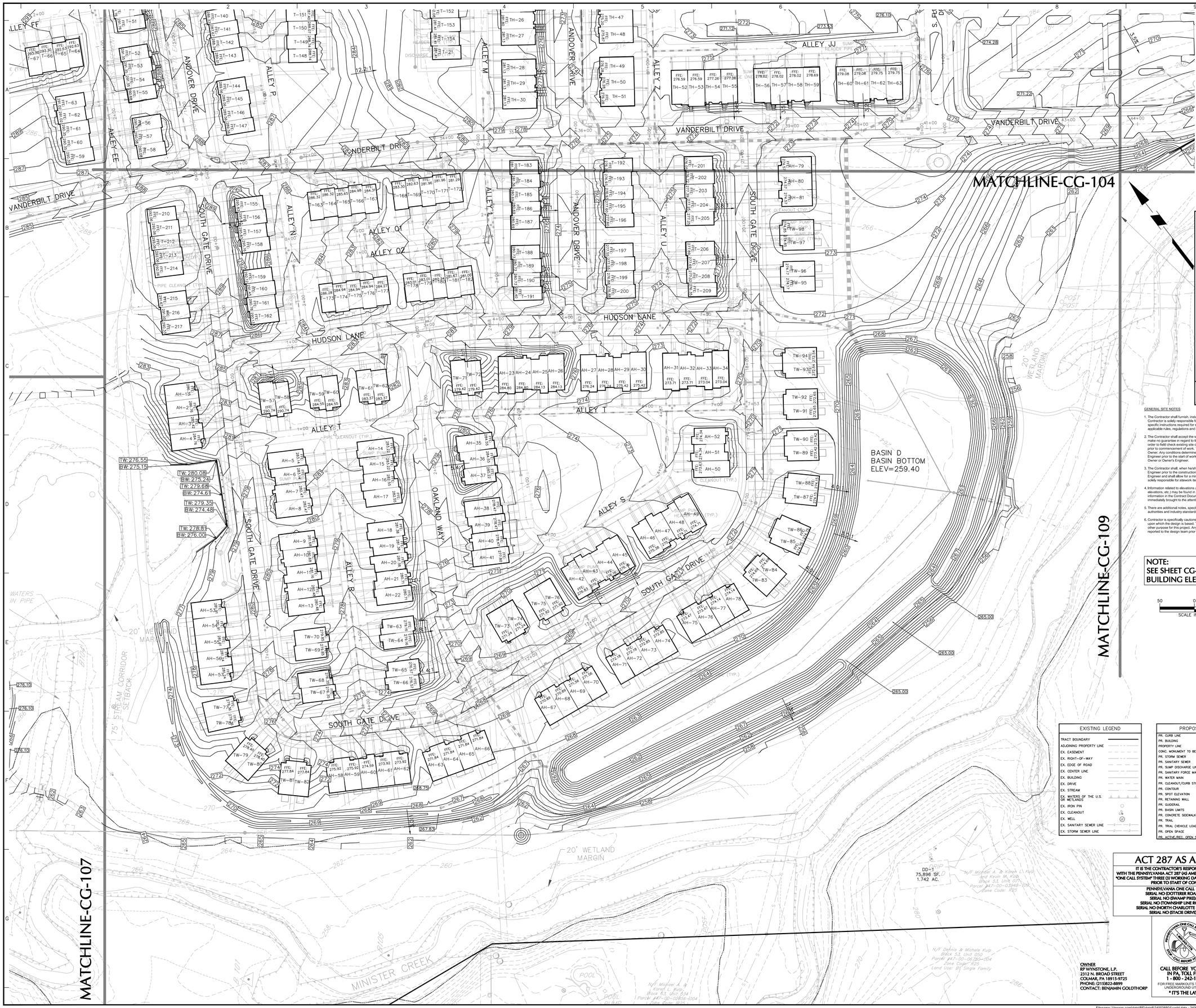
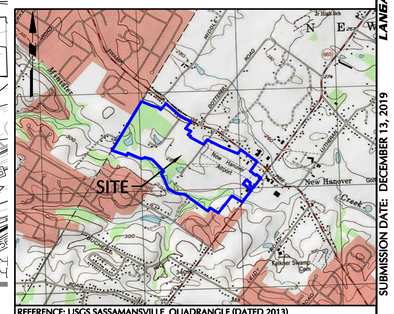
Filename: \\langan.com\data\BE\data\240038801\cadd data - 240038801\sheetfiles\240038801 CG101-109.dwg Date: 12/13/2019 Time: 15:12 User: wschaefer Style Table: Langan.stb Layout: CG-107

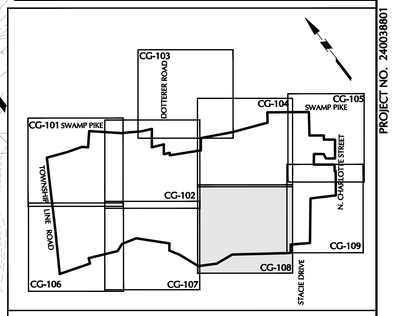




REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'



KEY MAP

SCALE 1"=1000'

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2. The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner and Engineer make no guarantee in regard to the accuracy of any information that was obtained during investigations. The Contractor shall: make a thorough site inspection in order to field check existing site conditions; correlate conditions with the drawings; and, resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall perform additional topographic surveys he/she deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.

3. The Contractor shall, when he/she deems necessary, provide a written Request for Information (RFI) to the Owner and/or Owner's designated representative, and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and/or Owner's designated representative, and Engineer and shall allow for a minimum of three work days for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.

4. Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to bid. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the format of an RFI prior to bid.

5. There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.

6. Contractor is specifically cautioned that all construction stakeout for this project must be completed from the site specific survey control (horizontal and vertical) upon which the design is based. The contractor should not rely on or re-establish survey control by GPS or other methods for use in construction stakeout or any other purpose for this project. Any discrepancies between the existing horizontal or vertical data shown on these drawings and that encountered in the field must be reported to the design team prior to construction for resolution.

NOTE:
SEE SHEET CG-110 FOR BUILDING ELEVATIONS TABLE

50 0 25 50
SCALE IN FEET

No.	Description	Date
9.	REVISED PER COMMENT LETTERS	12-13-19
8.	REVISED PER COMMENT LETTERS	11-09-18
7.	REVISED PER MCCD COMMENTS	10-22-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA
JASON SCOTT ENGELHARDT
REGISTERED PROFESSIONAL ENGINEER
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN
- PR. WATER MAIN
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR
- PR. SPOT ELEVATION
- PR. RETAINING WALL
- PR. QUADRAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRAIL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL: 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

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FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8999
CONTACT: BENJAMIN COLDTHORP

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering and Environmental Services, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International, LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
GRADING PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	KG
Submission Date	X
Drawing No.	CG-108
Sheet	60 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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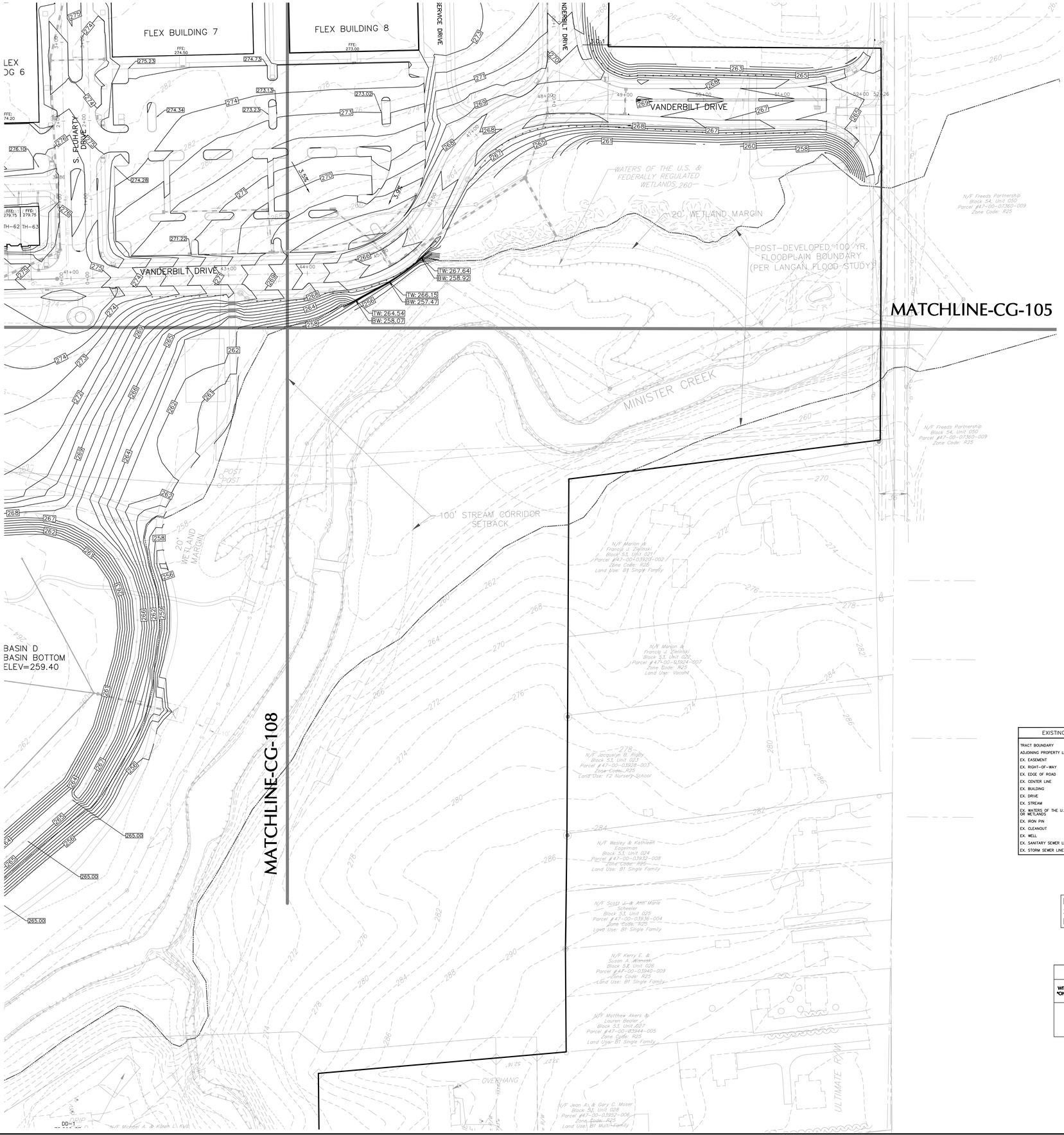
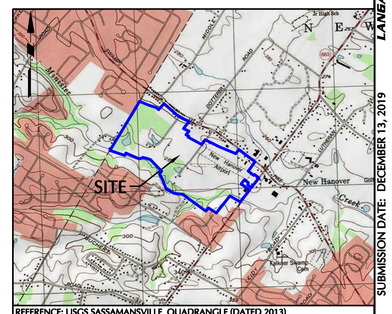
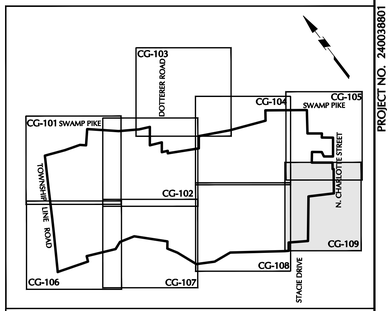
Filename: I:\langan.com\data\BE\data\B240038801\cadd data - 240038801\sheetfiles\240038801 CG101-109.dwg Date: 12/13/2019 Time: 15:12 User: wschaefer Style Table: Langan.stb Layout: CG-108





SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

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Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	9.
11-09-18	REVISED PER COMMENT LETTERS	8.
10-22-18	REVISED PER MCCD COMMENTS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

EXISTING LEGEND

TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

PROPOSED LEGEND

PR. CURB LINE
PR. BUILDING
PROPERTY LINE
CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
PR. SANITARY FORCE MAIN — U F M —
PR. WATER MAIN — U W —
PR. CLEANOUT/CURB STOP
PR. CONTOUR 260
PR. SPOT ELEVATION × 360.3
PR. RETAINING WALL
PR. GUIDERAIL
PR. BASIN LIMITS
PR. CONCRETE SIDEWALK
PR. TRAIL
PR. TRAIL (VEHICLE LOADING)
PR. OPEN SPACE
PR. ACTIVE/REC. OPEN SPACE

NOTE:
SEE SHEET CG-110 FOR BUILDING ELEVATIONS TABLE

50 0 25 50
SCALE IN FEET

ACT 287 AS AMENDED

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PENNSYLVANIA ONE CALL: 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
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SERIAL NO (STACIE DRIVE): 20130441751

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 DIAL 811 BEFORE YOU DIG

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PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JASON SCOTT ENGELHARDT
ENGINEER
PE-057145-E

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
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NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.K. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
GRADING PLAN

Project No. 240038801	Drawing No. CG-109
Date 05/31/16	
Scale 1"=50'	
Drawn By KG	
Submission Date X	Sheet 61 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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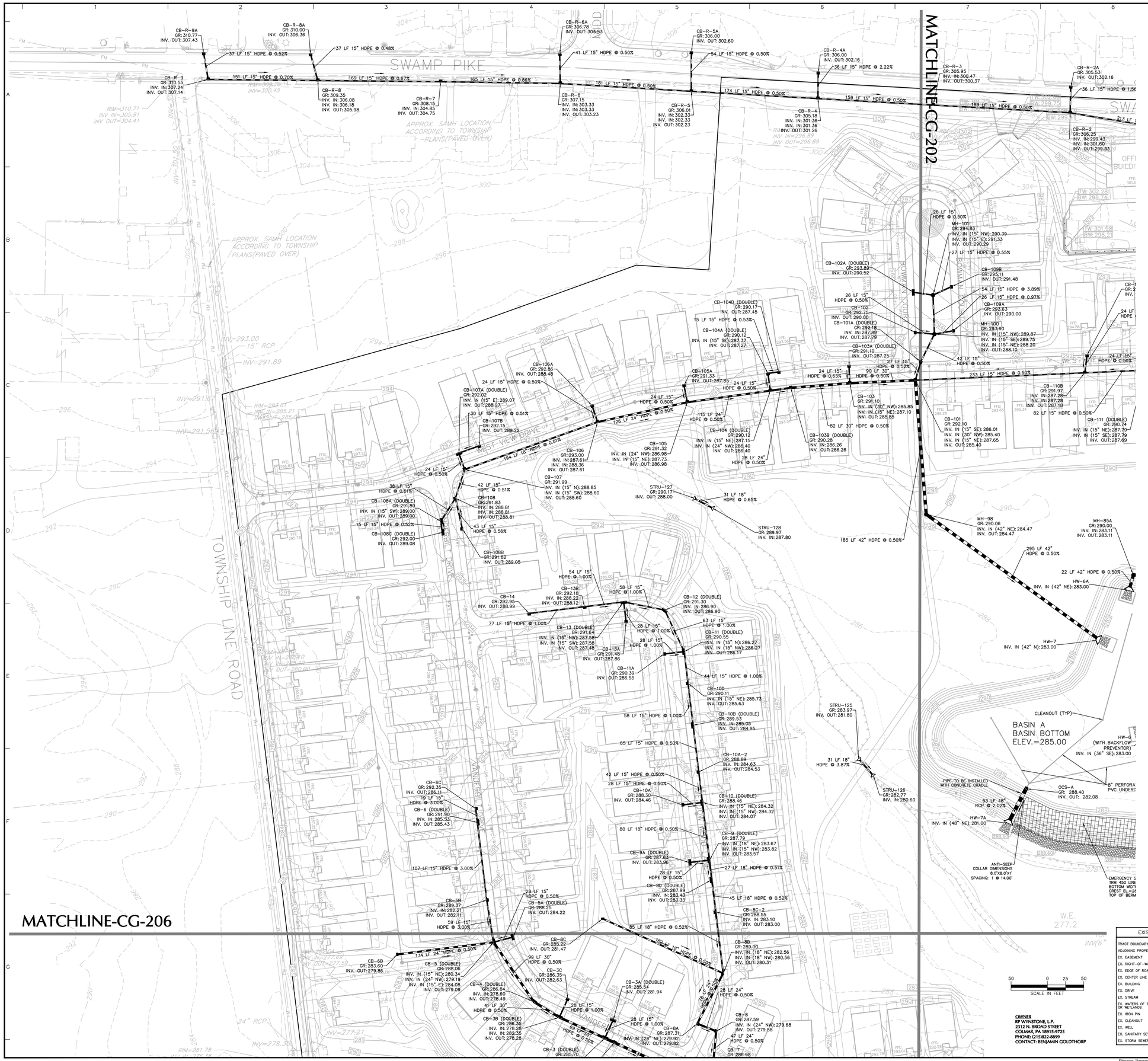
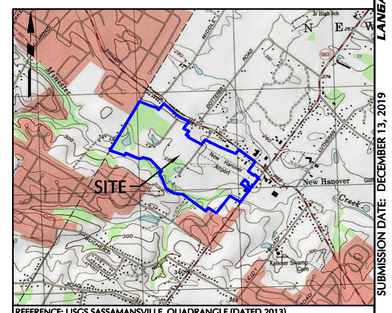
NEW HANOVER
VILLAGE HOUSE BUILDING ELEVATIONS

Lot Number	Driveway Elevation (DE)	Garage Floor Elevation (GE = DE)	Top of Foundation Elevation (TF = DE+1.0 ft)	First Floor Elevation (FF = TF + 0.67 ft)	Basement Floor Elevation (BF = FF- 8.67 ft)	Max Front Tie-in Elevation	Max Rear/Side Tie-in Elevation	Rear Walkout Tie-in Elevation	Basement Type	Driveway Slope
						FF-2 ft	FF-2 ft	FF-0.33 ft		
VH-1	294.16	294.16	295.16	295.83	287.16	293.83	293.83	N/A	STANDARD	2.7%
VH-2	295.10	295.10	296.10	296.77	288.10	294.77	294.77	N/A	STANDARD	3.1%
VH-3	295.46	295.46	296.46	297.13	288.46	295.13	295.13	N/A	STANDARD	3.5%
VH-4	294.73	294.73	295.73	296.40	287.73	294.40	294.40	N/A	STANDARD	3.0%
VH-5	293.71	293.71	294.71	295.38	286.71	293.38	293.38	N/A	STANDARD	3.5%
VH-6	293.71	293.71	294.71	295.38	286.71	293.38	293.38	N/A	STANDARD	2.0%
VH-7	294.63	294.63	295.63	296.30	287.63	294.30	294.30	N/A	STANDARD	3.2%
VH-8	294.78	294.78	295.78	296.45	287.78	294.45	294.45	N/A	STANDARD	3.1%
VH-9	294.21	294.21	295.21	295.88	287.21	293.88	293.88	N/A	STANDARD	2.5%
VH-10	293.49	293.49	294.49	295.16	286.49	293.16	293.16	N/A	STANDARD	1.4%
VH-11	293.10	293.10	294.10	294.77	286.10	292.77	292.77	N/A	STANDARD	3.1%
VH-12	292.21	292.21	293.21	293.88	285.21	291.88	291.88	N/A	STANDARD	2.7%
VH-13	291.89	291.89	292.89	293.56	284.89	291.56	291.56	N/A	STANDARD	3.2%
VH-14	291.89	291.89	292.89	293.56	284.89	291.56	291.56	N/A	STANDARD	2.7%
VH-15	294.98	294.98	295.98	296.65	287.98	294.65	294.65	N/A	STANDARD	2.6%
VH-16	295.98	295.98	296.98	297.65	288.98	295.65	295.65	N/A	STANDARD	2.6%
VH-17	296.98	296.98	297.98	298.65	289.98	296.65	296.65	N/A	STANDARD	2.4%
VH-18	298.00	298.00	299.00	299.67	291.00	297.67	297.67	N/A	STANDARD	2.8%
VH-19	298.52	298.52	299.52	300.19	291.52	298.19	298.19	N/A	STANDARD	3.0%
VH-20	299.18	299.18	300.18	300.85	292.18	298.85	298.85	N/A	STANDARD	3.1%
VH-21	299.06	299.06	300.06	300.73	292.06	298.73	298.73	N/A	STANDARD	3.0%
VH-22	298.37	298.37	299.37	300.04	291.37	298.04	298.04	N/A	STANDARD	2.6%
VH-23	297.15	297.15	298.15	298.82	290.15	296.82	296.82	N/A	STANDARD	2.6%
VH-24	295.93	295.93	296.93	297.60	288.93	295.60	295.60	N/A	STANDARD	2.4%
VH-25	293.19	293.19	294.19	294.86	286.19	292.86	292.86	N/A	STANDARD	3.1%
VH-26	292.64	292.64	293.64	294.31	285.64	292.31	292.31	N/A	STANDARD	2.7%
VH-27	292.57	292.57	293.57	294.24	285.57	292.24	292.24	N/A	STANDARD	3.6%
VH-28	292.00	292.00	293.00	293.67	285.00	291.67	291.67	N/A	STANDARD	3.5%
VH-29	294.71	294.71	295.71	296.38	287.71	294.38	294.38	N/A	STANDARD	3.1%
VH-30	293.95	293.95	294.95	295.62	286.95	293.62	293.62	N/A	STANDARD	1.0%
VH-31	293.59	293.59	294.59	295.26	286.59	293.26	293.26	N/A	STANDARD	1.8%
VH-32	293.28	293.28	294.28	294.95	286.28	292.95	292.95	N/A	STANDARD	2.4%
VH-33	292.75	292.75	293.75	294.42	285.75	292.42	292.42	N/A	STANDARD	2.8%
VH-34	292.54	292.54	293.54	294.21	285.54	292.21	292.21	N/A	STANDARD	2.8%
VH-35	292.20	292.20	293.20	293.87	285.20	291.87	291.87	N/A	STANDARD	2.9%
VH-36	291.64	291.64	292.64	293.31	284.64	291.31	291.31	N/A	STANDARD	2.6%
VH-37	290.10	290.10	291.10	291.77	283.10	289.77	289.77	N/A	STANDARD	2.6%
VH-38	291.83	291.83	292.83	293.50	284.83	291.50	291.50	N/A	STANDARD	2.6%
VH-39	292.13	292.13	293.13	293.80	285.13	291.80	291.80	N/A	STANDARD	2.0%
VH-40	292.63	292.63	293.63	294.30	285.63	292.30	292.30	N/A	STANDARD	2.0%
VH-41	293.13	293.13	294.13	294.80	286.13	292.80	292.80	N/A	STANDARD	2.0%
VH-42	292.61	292.61	293.61	294.28	285.61	292.28	292.28	N/A	STANDARD	3.4%
VH-43	292.02	292.02	293.02	293.69	285.02	291.69	291.69	N/A	STANDARD	3.0%
VH-44	291.12	291.12	292.12	292.79	284.12	290.79	290.79	N/A	STANDARD	3.0%
VH-45	290.24	290.24	291.24	291.91	283.24	289.91	289.91	N/A	STANDARD	3.8%
VH-46	289.63	289.63	290.63	291.30	282.63	289.30	289.30	N/A	STANDARD	1.6%
VH-47	290.25	290.25	291.25	291.92	283.25	289.92	289.92	N/A	STANDARD	2.1%
VH-48	291.54	291.54	292.54	293.21	284.54	291.21	291.21	N/A	STANDARD	2.0%
VH-49	291.63	291.63	292.63	293.30	284.63	291.30	291.30	N/A	STANDARD	2.0%
VH-50	291.26	291.26	292.26	292.93	284.26	290.93	290.93	N/A	STANDARD	3.3%
VH-51	290.99	290.99	291.99	292.66	283.99	290.66	290.66	N/A	STANDARD	3.3%
VH-52	290.35	290.35	291.35	292.02	283.35	290.02	290.02	N/A	STANDARD	3.3%
VH-53	289.29	289.29	290.29	290.96	282.29	288.96	288.96	N/A	STANDARD	2.9%
VH-54	288.22	288.22	289.22	289.89	281.22	287.89	287.89	N/A	STANDARD	3.1%
VH-55	287.36	287.36	288.36	289.03	280.36	287.03	287.03	N/A	STANDARD	3.2%
VH-56	287.46	287.46	288.46	289.13	280.46	287.13	287.13	N/A	STANDARD	3.2%
VH-57	287.72	287.72	288.72	289.39	280.72	287.39	287.39	N/A	STANDARD	3.6%
VH-58	288.39	288.39	289.39	290.06	281.39	288.06	288.06	N/A	STANDARD	3.3%
VH-59	288.64	288.64	289.64	290.31	281.64	288.31	288.31	N/A	STANDARD	3.2%
VH-60	289.62	289.62	290.62	291.29	282.62	289.29	289.29	N/A	STANDARD	3.0%
VH-61	290.68	290.68	291.68	292.35	283.68	290.35	290.35	N/A	STANDARD	3.0%
VH-62	291.71	291.71	292.71	293.38	284.71	291.38	291.38	N/A	STANDARD	2.9%
VH-63	293.23	293.23	294.23	294.90	286.23	292.90	292.90	N/A	STANDARD	2.6%
VH-64	293.47	293.47	294.47	295.14	286.47	293.14	293.14	N/A	STANDARD	3.4%
VH-65	292.55	292.55	293.55	294.22	285.55	292.22	292.22	N/A	STANDARD	3.4%
VH-66	292.67	292.67	293.67	294.34	285.67	292.34	292.34	N/A	STANDARD	3.5%
VH-67	292.99	292.99	293.99	294.66	285.99	292.66	292.66	N/A	STANDARD	3.3%
VH-68	293.67	293.67	294.67	295.34	286.67	293.34	293.34	N/A	STANDARD	3.3%
VH-69	291.98	291.98	292.98	293.65	284.98	291.65	291.65	N/A	STANDARD	2.2%
VH-70	293.61	293.61	294.61	295.28	286.61	293.28	293.28	N/A	STANDARD	2.2%
VH-71	292.57	292.57	293.57	294.24	285.57	292.24	292.24	N/A	STANDARD	2.0%
VH-72	291.97	291.97	292.97	293.64	284.97	291.64	291.64	N/A	STANDARD	2.0%
VH-73	291.64	291.64	292.64	293.51	284.64	291.51	291.51	N/A	STANDARD	3.4%
VH-74	292.00	292.00	293.00	293.67	285.00	291.67	291.67	N/A	STANDARD	3.2%
VH-75	292.58	292.58	293.58	294.25	285.58	292.25	292.25	N/A	STANDARD	2.7%
VH-76	293.12	293.12	294.12	294.79	286.12	292.79	292.79	N/A	STANDARD	2.7%
VH-77	293.70	293.70	294.70	295.37	286.70	293.37	293.37	N/A	STANDARD	3.0%
VH-78	294.21	294.21	295.21	295.88	287.21	293.88	293.88	N/A	STANDARD	2.6%
VH-79	293.83	293.83	294.83	295.50	286.83	293.50	293.50	N/A	STANDARD	2.5%
VH-80	293.33	293.33	294.33	295.00	286.33	293.00	293.00	N/A	STANDARD	3.3%
VH-81	292.92	292.92	293.92	294.59	285.92	292.59	292.59	N/A	STANDARD	3.3%
VH-82	292.22	292.22	293.22	293.89	285.22	291.89	291.89	N/A	STANDARD	3.1%
VH-83	291.81	291.81	292.81	293.48	284.81	291.48	291.48	N/A	STANDARD	3.1%
VH-84	291.24	291.24	292.24	292.91	284.24	290.91	290.91	N/A	STANDARD	3.4%
VH-85	290.81	290.81	291.81	292.48	283.81	290.48	290.48	N/A	STANDARD	3.4%
VH-86	290.31	290.31	291.31	291.98	283.31	289.98	289.98	N/A	STANDARD	3.4%
VH-87	289.81	289.81	290.81	291.48	282.81	289.48	289.48	N/A	STANDARD	3.2%
VH-88	289.34	289.34	290.34	291.01	282.34	289.01	289.01	N/A	STANDARD	3.2%
VH-89	289.80	289.80	290.80	291.47	282.80	289.47	289.47	N/A	STANDARD	3.2%
VH-90	290.24	290.24	291.24	291.91	283.24	289.91	289.91	N/A	STANDARD	3.2%
VH-91	290.30	290.30	291.30	291.97	283.30	289.97	289.97	N/A	STANDARD	3.2%
VH-92	288.86	288.86	289.86	290.53	281.86	288.53	288.53	N/A	STANDARD	3.1%
VH-93	290.09	290.09	291.09	291.76	283.09	289.76	289.76	N/A	STANDARD	2.9%
VH-94	291.12	291.12	292.12	292.79	284.12	290.79	290.79	N/A	STANDARD	2.0%
VH-95	291.34	291.34	292.34	293.01	284.34	291.01	291.01	N/A	STANDARD	2.4%
VH-96	290.92	290.92	291.92	292.59	283.92	290.59	290.59	N/A	STANDARD	2.6%
VH-97	294.38	294.38	295.38	296.05	287.38	294.05	294.05	N/A	STANDARD	3.1%
VH-98	294.08	294.08	295.08	295.75	287.08	293.75	293.75	N/A	STANDARD	3.1%
VH-99	293.58	293.58	294.58	295.25	286.58	293.25	293.25	N/A	STANDARD	3.1%
VH-100	293.08	293.08	294.08	294.75	286.08	292.75	292.75	N/A	STANDARD	3.1%
VH-101	290.95	290.95	291.95	292.62	283.95	290.62	290.62	N/A	STANDARD	3.3%
VH-102	290.35	290.35	291.35	292.02	283.35	290.02	290.02	N/A	STANDARD	2.8%
VH-103	289.85	289.85	290.85	291.52	282.85	289.52	289.52	N/A	STANDARD	2.9%
VH-104	289.58	289.58	290.58	291.25	282.58	289.25	289.25	N/A	STANDARD	2.9%
VH-105	289.05	289.05	290.05	290.72	282.05	288.72	288.72	N/A	STANDARD	2.9%
VH-106	289.40	289.40	290.40	291.07	282.40	289.07	289.07	N/A	STANDARD	2.6%
VH-107	287.23	287.23	288.23	288.90	280.23	286.90	286.90	N/A	STANDARD	3.1%
VH-108	287.14	287.14	288.14	288.81	280.14	286.81	286.81	N/A	STANDARD	3.3%
VH-109	287.48	287.48	288.48	289.15	280.48	287.15	287.15	N/A	STANDARD	2.9%
VH-110	289.07	289.07	290.07	290.74	281.64	289.04	289.04	N/A	STANDARD	3.2%
VH-111	291.15	291.15	292.15	292.82	284.15	290.82	290.82	N/A	STANDARD	3.2%
VH-112	292.33	292.33	293.33	294.00	285.33	292.00	292.00	N/A	STANDARD	3.1%
VH-113	293.50	293.50	294.50	295.17	286.50	293.17	293.17	N/A	STANDARD	3.1%
VH-114	294.68	294.68	295.68	296.35	287.68	294.35	294.35	N/A	STANDARD	3.2%
VH-115	295.64	295.64	296.64	297.31	288.64	295.31	295.31	N/A	STANDARD	2.4%
VH-116	282.43	282.43	283.43	284.10	275.43	282.10	282.10	N/A	STANDARD	3.6%
VH-117	283.73	283.73	284.71	285.38	276.71	283.38	283.38	N/A	STANDARD	3.2%
VH-118	284.23	284.23	285.23	285.90	277.23	283.90	283.90	N/A	STANDARD	3.4%
VH-119	284.88	284.88	285.88	286.55	277.88	284.55	284.55	N/A	STANDARD	3.5%
VH-120	285.58	285.58	286.58	287.25	278.58	285.25	285.25	N/A	STANDARD	3.5%
VH-121	286.25	286.25	287.25	287.92	279.25	285.92	285.92	N/A	STANDARD	3.5%
VH-122	287.51	287.51	288.51	289.18	280.51	287.18	287.18	N/A	STANDARD	3.4%
VH-123	287.57	287.57	288.57	289.24	280.57	287.24	287.24	N/A	STANDARD	3.0%
VH-124	288.35	288.35	289.35	290.02	281.35	288.02	288.02	N/A	STANDARD	3.5%
VH-125	289.50	289.50	290.50	291.17	282.50	289.17	289.17	N/A	STANDARD	3.4%
VH-126	290.16	290.16	291.16	291.83	283.16	289.83	289.83	N/A	STANDARD	2.7%
VH-127	294.13	294.13	295.13	295.80	287.13	293.80	293.78	N/A	STANDARD	2.7%
VH-128	294.91	294.91	295.91	296.58	287.91	294.58	294.58	N/A	STANDARD	3.2%
VH-129	295.19	295.19	296.19	296.86	288.19	294.86	294.86	N/A	STANDARD	3.1%
VH-130	294.85	294.85	295.85	296.52	287.85	294.52	294.52	N/A	STANDARD	3.2%
VH-131	294.69	294.69	295.69	296.36	287.69	294.36	294.36	N/A	STANDARD	3.5%
VH-132	295.48	295.48	296.48	297.15	288.48	295.15	295.15	N/A	STANDARD	3.7%
VH-133	296.56	296.56	297.56	298.23	289.56	296.23	296.23	288.90	WALKOUT	2.2%
VH-134	296.66	296.66	297.66	298.33	289.66	296.33	296.33	289.00	WALKOUT	3.4%
VH-135	296.27	296.27	297.27	297.94	289.27	295.94	295.94	288.61	WALKOUT	2.9%
VH-136	295.10	295.10	296.10	296.77	288.10	294.77	294.77	287.44	WALKOUT	2.9%
VH-137	293.92	293.92	294.92	295.59	286.92	293.59	293.59	286.26	WALKOUT	2.8%
VH-138	292.75	292.75	293.75	294.42	285.75	292.42	292.42	285.09	WALKOUT	2.8%
VH-139	291.57	291.57	292.57	293.24	284.57	291.24	291.24	283.91	WALKOUT	2.8%
VH-140	290.38	290.38	291.38	292.05	283.38	290.05	290.05	282.72	WALKOUT	2.8%
VH-141	288.89	288.89	289.89	290.56	281.89	288.56	288.56	N/A	STANDARD	3.0%
VH-142	288.52	288.52	289.52	290.19	281.52	288.19	288.19	N/A	STANDARD	3.4%
VH-143	288.10	288.10	289.10	289.77	281.10	287.77	287.77	N/A	STANDARD	3.1%
VH-144	287.61	287.61	288.61	289.28	280.61	287.28	287.28	N/A	STANDARD	3.3%
VH-145	287.41	287.41	288.41	289.08	280.41	287.08	287.08	N/A	STANDARD	3.2%
VH-146	287.66	287.66	288.66	289.33	280.66	287.33	287.33	N/A	STANDARD	2.3%
VH-147	288.24	288.24	289.24	289.91	281.24	287.91	287.91	N/A	STANDARD	3.1%
VH-148	288.97	288.97	289.97	290.64	281.97	288.64	288.64	N/A	STANDARD	3.1%
VH-149	288.56	288.56	289.56	290.23	281.56	288.23	288.23	N/A	STANDARD	2.8%
VH-150	287.78	287.78	288.78	289.45	280.78	287.45	287.45	N/A	STANDARD	2.0%
VH-151	286.38	286.38	287.38	288.05	279.38	286.05	286.05	N/A	STANDARD	2.0%
VH-152	286.06	286.06	287.06	287.73	278.06	284.73	284.73	N/A	STANDARD	2.0%
VH-153	284.08	284.08	285.08	285.75	277.08	283.75	283.75	276.42	WALKOUT	3.0%
VH-154	283.33	283.33	284.33	285.00	276.33	283.00	283.00	275.67	WALKOUT	3.0%
VH-155	282.27	282.27	283.27	283.94	275.27	282.24	282.24	274.91	WALKOUT	2.1%
VH-156	281.45	281.45	282.45	283.12	274.45	281.12	281.12	273.79	WALKOUT	2.3%
VH-157	277.92	277.92	278.92	279.59	270.92	277.59	277.59	270.26	WALKOUT	2.3%
VH-158	275.75	275.75	276.75	277.42	268.75	275.42	275.42	268.09	WALKOUT	3.0%
VH-159	275.59	275.59	276.59	277.26	268.59	275.26	275.26	267.93	WALKOUT	2.7%
VH-160	279.98	279.98	280.98	281.65	272.98	279.65	279.65	272.32	WALKOUT	1.9%
VH-161	277.16	277.16	278.16	278.83	270.16	276.83	276.83	269.50	WALKOUT	2.5%
VH-162	280.23	280.23	281.23	281.90	273.23	279.90	279.90	272.57	WALKOUT	2.5%
VH-163	280.77	280.77	281.77	282.44	273.77	280.44	280.44	273.11	WALKOUT	3.1%
VH-164	279.62	279.62	280.62	281.29	272.62	279.29	279.29	271.96	WALKOUT	2.9%
VH-165	285.14	285.14	286.14	286.81	278.14	284.81	284.81	277.48	WALKOUT	2.6%
VH-166	286.18	286.18	287.18	287.85	278.18	285.85	285.85	N/A	STANDARD	3.2%
VH-167	291.30	291.30	292.30	292.97	284.30	290.97	290.97	283.64	WALKOUT	3.2%
VH-168	291.41	291.41	292.41	293.08	284.41	291.08	291.08	283.75	WALKOUT	3.3%
VH-169	290.93	290.93	291.93	292.60	283.93	290.60	290.60	283.27	WALKOUT	3.3%
VH-170	290.27	290.27	291.27	291.94	283.27	289.94	289.94	282.61	WALKOUT	3.4%
VH-171	289.61	289.61	290.61	291.28	282.61	289.28	289.28	281.95	WALKOUT	3.2%
VH-172	288.91	288.91	289.91	290.58	281.91	288.58	288.58	281.25	WALKOUT	3.0%
VH-173	279.41	279.41	280.41	281.08	272.41	279.08	279.08	N/A	STANDARD	1.1%
VH-174	275.73	275.73	276.73	277.40	268.73	275.40	275.40	N/A	STANDARD	2.8%
VH-175	276.79	276.79	277.79	278.46	269.79	276.46	276.46	N/A	STANDARD	2.7%
VH-176	279.06	279.06	280.06	280.73	272.06	278.73	278.73	N/A	STANDARD	2.8%
VH-177	280.92	280.92	281.92	282.59	273.92	280.59	280.59	N/A	STANDARD	3.9%
VH-178	280.39	280.39	281.39	282.06	273.39	279.06	279.06	N/A	STANDARD	2.6%
VH-179	287.11	287.11	288.11	288.78	280.11	286.78	286.78	279.45	WALKOUT	1.6%
VH-180	287.44	287.44	288.44	289.11	280.44	287.11	287.11	279.78	WALKOUT	2.6%
VH-181	288.23	288.23	289.23	289.90	281.23	287.90	287.90	280.57	WALKOUT	1.7%
VH-182	288.75	288.75	289.75	290.42	281.75	288.42	288.42	281.09	WALKOUT	1.6%
VH-183	290.07	290.07	291.07	291.74	283.07	289.74	289.74	282.41	WALKOUT	1.7%
VH-184	290.64	290.64	291.64	292.31	283.64	290.31	290.31	N/A	STANDARD	2.9%
VH-185	283.99	283.99	284.99	285.26	276.59	283.26	283.26	275.93	WALKOUT	2.2%
VH-186	285.50	285.50	286.50	287.17	278.50	285.17	285.17	N/A	STANDARD	2.0%
VH-187	286.52	286.52	287.52	288.19	279.52	286.19	286.19	N/A	STANDARD	2.0%
VH-188	287.54	287.54	288.54	289.21	280.54	287.21	287.21	N/A	STANDARD	1.9%
VH-189	288.17	288.17	289.17	289.84	281.17	287.84	287.84	N/A	STANDARD	1.9%

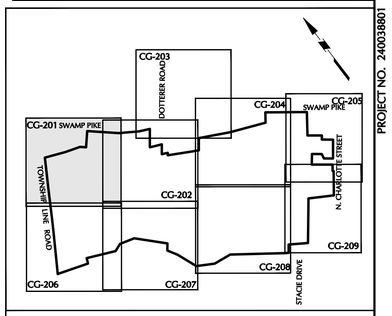
NEW HANOVER DEVELOPMENT
TOWNHOUSE BUILDING ELEVATIONS

Lot Number	Driveway Elevation (DE = FF -1.67) SD (DE=FF -9.33) WO (DE = FF -2.34) SD*	Top of Foundation Elevation (TF=FF-0.67)	First Floor Elevation (FF)	Basement Floor Elevation (BF = FF - 8.67 ft.)	Max Front Tie-in Elevation (MAX = FF - 2 ft.)	Basement Type	Driveway Slope
T-1	292.03	293.03	293.70	285.03	291.70	STANDARD	0.7%
T-2	292.03	293.03	293.70	285.03	291.70	STANDARD	0.8%
T-3	292.70	293.70	294.37	285.70	292.37	STANDARD	3.3%
T-4	292.70	293.70	294.37	285.70	292.37	STANDARD	3.3%
T-5	293.04	294.04	294.71	286.04	292.71	STANDARD	2.2%
T-6	293.04	294.04	294.71	286.04	292.71	STANDARD	1.5%
T-7	293.71	294.71	295.38	286.71	293.38	STANDARD	3.3%
T-8	293.71	294.71	295.38	286.71	293.38	STANDARD	2.3%
T-9	294.17	295.17	295.84	287.17	293.84	STANDARD	3.1%
T-10	293.50	294.50	295.17	286.50	293.17	STANDARD	1.5%
T-11	293.50	294.50	295.17	286.50	293.17	STANDARD	2.4%
T-12	292.83	293.83	294.50	285.83	292.50	STANDARD	2.0%
T-13	291.99	292.99	293.66	284.99	291.66	STANDARD	3.3%
T-14	291.23	292.23	292.90	284.23	290.90	STANDARD	2.8%
T-15	290.65	291.65	292.32	283.65	290.32	STANDARD	2.6%
T-16	289.98	290.98	291.65	282.98	289.65	STANDARD	3.2%
T-17	289.81	290.81	291.48	282.81	289.48	STANDARD	2.7%
T-18	289.81	290.81	291.48	282.81	289.48	STANDARD	2.7%
T-19	289.81	290.81	291.48	282.81	289.48	STANDARD	3.2%
T-20	289.14	290.14	290.81	282.14	288.81	STANDARD	2.6%
T-21	289.74	290.74	291.41	272.74	279.41	STANDARD	3.5%
T-22	288.84	289.84	290.51	281.84	288.51	STANDARD	2.4%
T-23	289.51	290.51	291.18	282.51	289.18	STANDARD	2.4%
T-24	290.18	291.18	291.85	283.18	289.85	STANDARD	2.2%
T-25	290.85	291.85	292.52	283.85	290.52	STANDARD	2.1%
T-26	292.68	293.68	294.35	285.68	292.35	STANDARD	2.0%
T-27	292.68	293.68	294.35	285.68	292.35	STANDARD	3.3%
T-28	293.35	294.35	295.02	286.35	293.02	STANDARD	3.5%
T-29	293.54	294.54	295.21	286.54	293.21	STANDARD	1.9%
T-30	294.21	295.21	295.88	287.21	293.88	STANDARD	3.4%
T-31	294.21	295.21	295.88	287.21	293.88	STANDARD	2.4%
T-32	294.21	295.21	295.88	287.21	293.88	STANDARD	3.5%
T-33	292.42	293.42	294.09	285.42	292.09	STANDARD	2.6%
T-34	293.09	294.09	294.76	286.09	292.76	STANDARD	3.2%
T-35	293.09	294.09	294.76	286.09	292.76	STANDARD	2.0%
T-36	293.76	294.76	295.43	286.76	293.43	STANDARD	3.8%
T-37	293.20	294.20	294.87	286.20	292.87	STANDARD	3.0%
T-38	292.53	293.53	294.20	285.53	292.20	STANDARD	1.3%
T-39	292.53	293.53	294.20	285.53	292.20	STANDARD	2.9%
T-40	292.53	293.53	294.20	285.53	292.20	STANDARD	3.4%
T-41	292.53	293.53	294.20	285.53	292.20	STANDARD	3.4%
T-42	290.88	291.88	292.55	283.88	290.55	STANDARD	3.8%
T-43	290.21	291.21	291.88	283.21	289.88	STANDARD	3.7%
T-44	290.21	291.21	291.88	283.21	289.88	STANDARD	3.7%
T-45	289.16	290.16	290.83	282.16	288.83	STANDARD	2.9%
T-46	288.49	289.49	290.16	281.49	288.16	STANDARD	2.6%
T-47	287.82	288.82	289.49	280.82	287.49	STANDARD	2.6%
T-48	287.15	288.15	288.82	280.15	286.82	STANDARD	2.7%
T-49	290.09	291.09	291.76	283.09	289.76	STANDARD	2.9%
T-50	290.09	291.09	291.76	283.09	289.76	STANDARD	3.4%
T-51	290.09	291.09	291.76	283.09	289.76	STANDARD	3.4%
T-52	289.68	290.68	291.35	282.68	289.35	STANDARD	1.9%
T-53	289.68	290.68	291.35	282.68	289.35	STANDARD	3.8%
T-54	289.68	290.68	291.35	282.68	289.35	STANDARD	3.8%
T-55	289.01	290.01	290.68	282.01	288.68	STANDARD	1.5%
T-56	289.04	290.04	290.71	282.04	288.71	STANDARD	3.5%
T-57	288.41	289.41	290.08	281.41	288.08	STANDARD	3.7%
T-58	288.41	289.41	290.08	281.41	288.08	STANDARD	2.5%
T-59	288.68	289.68	290.35	281.68	288.35	STANDARD	3.6%
T-60	288.68	289.68	290.35	281.68	288.35	STAN





SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

GENERAL SITE NOTES:

1. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor is solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all specific instructions required for sitework construction. The Contractor is responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction.
2. The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner and Engineer make no guarantee in regard to the accuracy of any information that was obtained during investigations. The Contractor shall make a thorough site inspection in order to field check existing site conditions; correlate conditions with the drawings; and, resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall perform additional topographic surveys he/she deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.
3. The Contractor shall, when he/she deems necessary, provide a written Request for Information (RFI) to the Owner and/or Owner's designated representative, and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and/or Owner's designated representative, and Engineer and shall allow for a minimum of three work days for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.
4. Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to bid. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the format of an RFI prior to bid.
5. There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.
6. Contractor is specifically cautioned that all construction stakeout for this project must be completed from the site specific survey control (horizontal and vertical) upon which the design is based. The contractor should not rely on or re-establish survey control by GPS or other methods for use in construction stakeout or any other purpose for this project. Any discrepancies between the existing horizontal or vertical data shown on these drawings and that encountered in the field must be reported to the design team prior to construction for resolution.

No.	Description	Date
9.	REVISED PER COMMENT LETTERS	12–13–19
8.	REVISED PER MCCD COMMENTS	12–10–18
7.	REVISED PER MCCD COMMENTS	10–22–18
6.	REVISED PER MCCD COMMENTS	6–01–18
5.	REVISED PER COMMENT LETTERS	1–31–18
4.	REVISED PER COMMENT LETTERS	11–08–17
3.	REVISED PER COMMENT LETTERS	8–04–17
2.	REVISED PER COMMENT LETTERS	4–07–17
1.	REVISED PER COMMENT LETTERS	11–04–16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL: 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO STACIE DRIVE: 20130441751

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *

LANGAN

One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com

NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CC, Inc. Langan Intlemidaad LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
DRAINAGE PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	KG
Submission Date	X
Drawing No.	CG-201
	Sheet 63 of 187

EXISTING LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	S S
EX. STORM SEWER LINE	

PROPOSED LEGEND

PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	U F M
PR. WATER MAIN	U W
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	300
PR. SPOT ELEVATION	x 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRIAL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

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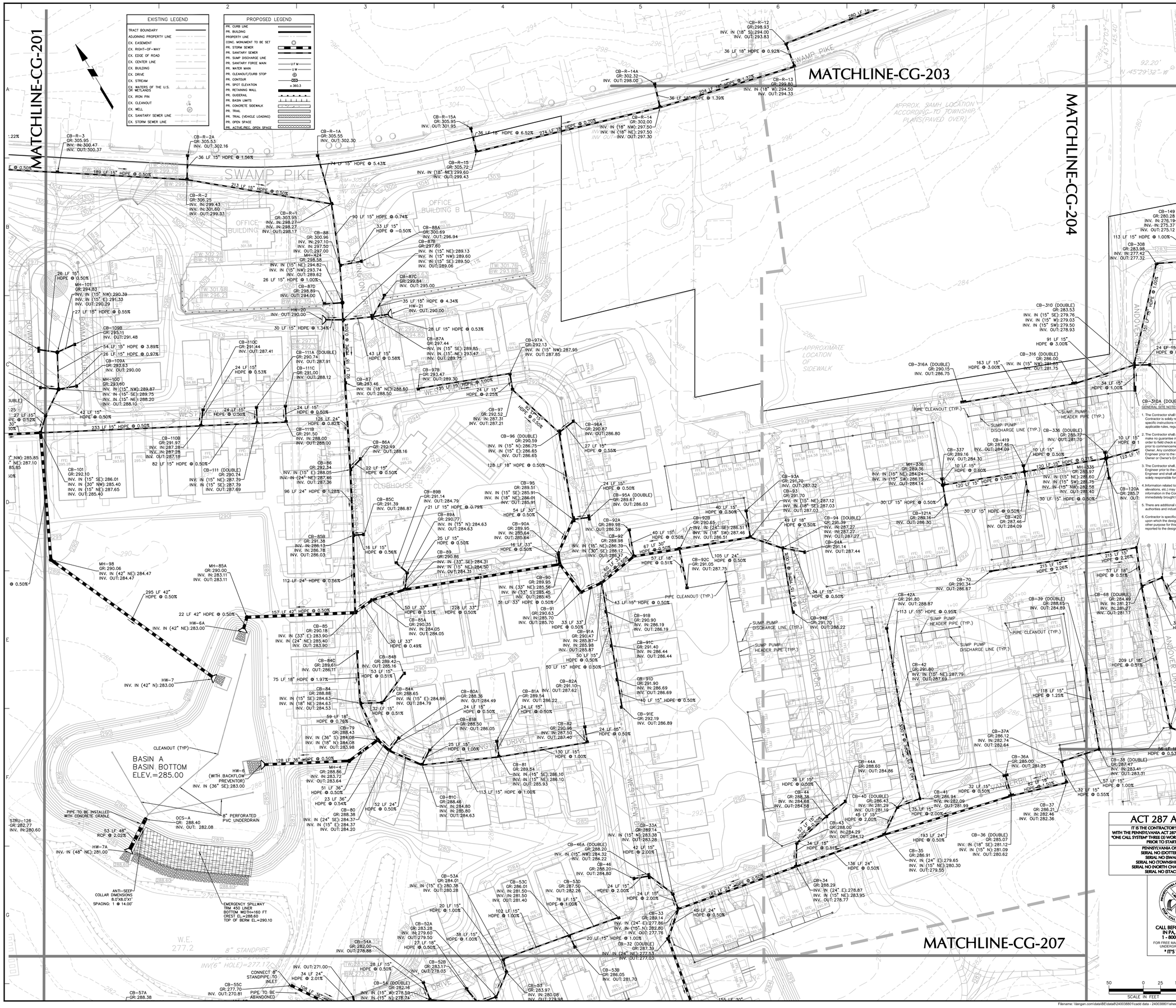
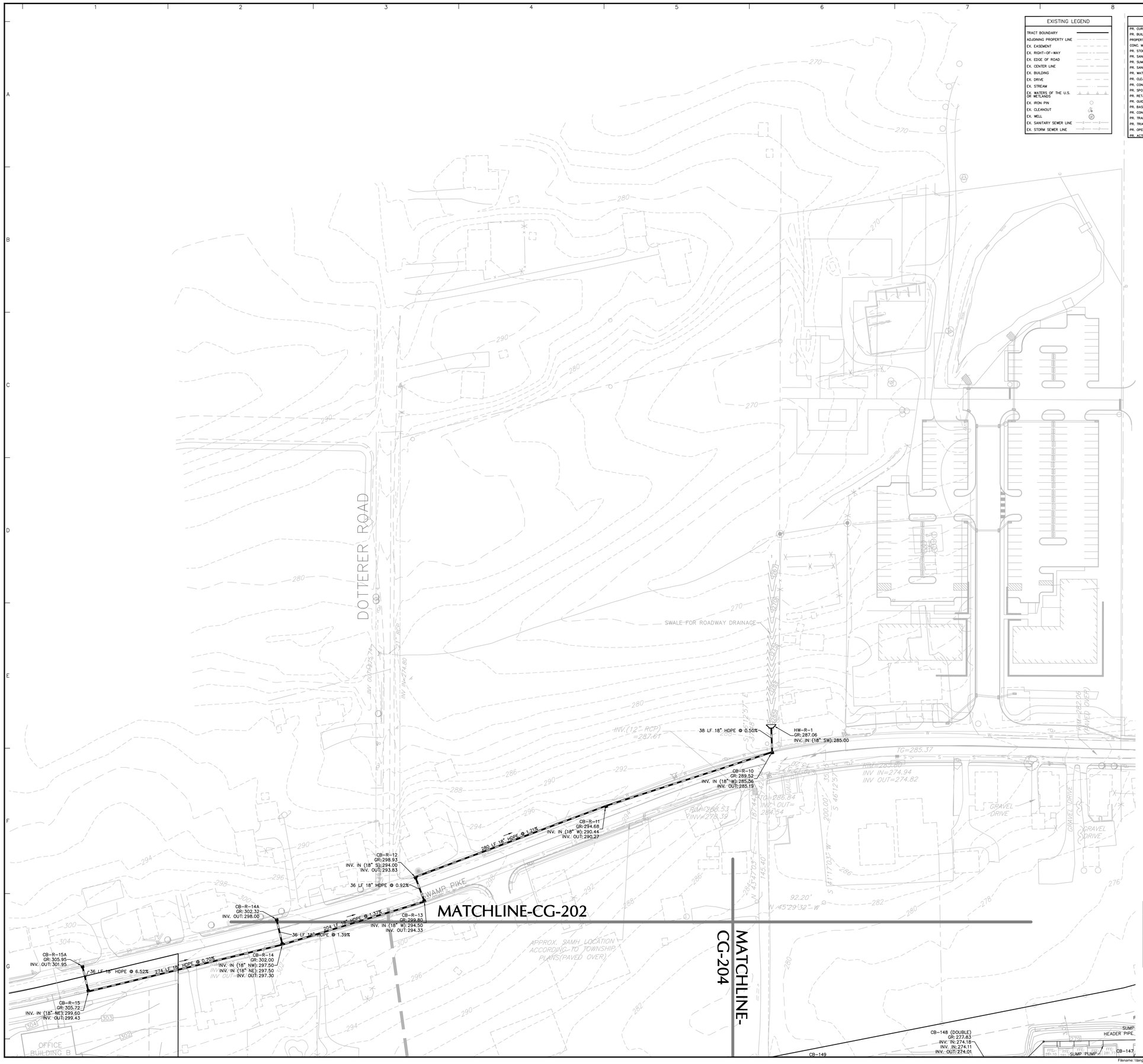
Filename: \\langan.com\data\BE\data\B240038801\acadd data - 240038801\sheetfiles\240038801 CG201-209.dwg Date: 12/13/2019 Time: 14:45 User: dmoyer Style Table: Langan.stb Layout: 240038801 CG201-209 - CG-201

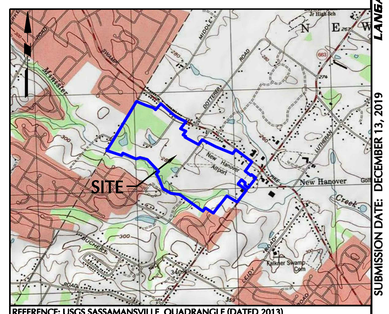
PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019


EXISTING LEGEND
TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE
PROPOSED LEGEND
PR. CURB LINE
PR. BUILDING
PROPERTY LINE
CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
PR. SANITARY FORCE MAIN
PR. WATER MAIN
PR. CLEANOUT/CURB STOP
PR. CONTOUR
PR. SPOT ELEVATION
PR. RETAINING WALL
PR. GUIDERAIL
PR. BASIN LIMITS
PR. CONCRETE SIDEWALK
PR. TRAIL
PR. TRAIL (VEHICLE LOADING)
PR. OPEN SPACE
PR. ACTIVE/REC. OPEN SPACE
MATCHLINE-CG-201
MATCHLINE-CG-203
MATCHLINE-CG-204
MATCHLINE-CG-207
SWAMP PIKE
DOTTERER ROAD
CLUBHOUSE DRIVE
WESTVIEW DRIVE
DAVENPORT DRIVE
ANDOVER DRIVE
ALLEY FF
OFFICE BUILDING A
OFFICE BUILDING B
APPROX. SAMH LOCATION ACCORDING TO TOWNSHIP PLANS(PAVED OVER)
APPROXIMATE LOCATION OF SIDEWALK
BASIN A
BASIN BOTTOM
ELEV.=285.00
CB-R-1 GR: 303.95 INV. IN: 298.27 INV. IN: 298.27 INV. OUT: 298.17
CB-R-2 GR: 306.25 INV. IN: 299.43 INV. IN: 301.60 INV. OUT: 299.33
CB-R-2A GR: 305.53 INV. OUT: 302.16
CB-R-3 GR: 305.95 INV. IN: 300.47 INV. OUT: 300.37
CB-R-1A GR: 305.55 INV. OUT: 302.30
CB-R-14A GR: 302.32 INV. OUT: 298.00
CB-R-14 GR: 302.00 INV. IN (16" NW): 297.50 INV. IN (18" NE): 297.50 INV. OUT: 297.30
CB-R-13 GR: 299.80 INV. IN (18" W): 294.50 INV. OUT: 294.33
CB-R-12 GR: 298.93 INV. IN (18" S): 294.00 INV. OUT: 293.83
CB-R-15A GR: 305.95 INV. OUT: 301.95
CB-R-15 GR: 305.72 INV. IN (18" NE): 299.60 INV. OUT: 299.43
CB-88 GR: 300.96 INV. IN: 297.10 INV. IN: 297.50 INV. OUT: 297.00
MH-424 GR: 298.58 INV. IN (15" NE): 294.82 INV. IN (15" NW): 293.74 INV. OUT: 289.62
CB-87D GR: 298.89 INV. OUT: 294.00
CB-87C GR: 299.84 INV. OUT: 295.00
CB-88A GR: 300.69 INV. OUT: 296.94
CB-87B GR: 297.60 INV. IN (15" NE): 289.13 INV. IN (15" NW): 289.60 INV. IN (15" SE): 289.50 INV. OUT: 289.06
CB-87A GR: 297.44 INV. IN (15" SE): 289.85 INV. IN (15" NE): 293.47 INV. OUT: 289.75
CB-97B GR: 293.47 INV. OUT: 289.30
CB-97A GR: 292.13 INV. IN (15" NW): 287.95 INV. OUT: 287.85
CB-87 GR: 293.46 INV. IN (18" NE): 288.60 INV. OUT: 288.50
CB-96 (DOUBLE) GR: 290.59 INV. IN (15" N): 286.75 INV. IN (15" E): 286.65 INV. OUT: 286.65
CB-96A GR: 290.87 INV. OUT: 286.80
CB-97 GR: 292.52 INV. IN: 287.31 INV. OUT: 287.21
CB-95 GR: 291.01 INV. IN (15" SE): 285.91 INV. IN (18" NE): 286.01 INV. OUT: 285.91
CB-95A (DOUBLE) GR: 289.67 INV. OUT: 286.03
CB-86A GR: 292.49 INV. OUT: 288.16
CB-86 GR: 292.34 INV. IN (15" E): 288.05 INV. OUT: 287.36
CB-85C GR: 291.39 INV. OUT: 286.87
CB-85B GR: 291.38 INV. IN: 286.13 INV. IN: 286.78 INV. OUT: 286.03
CB-89B GR: 291.14 INV. OUT: 284.79
CB-89A GR: 290.77 INV. IN (15" N): 284.63 INV. OUT: 284.63
CB-89 GR: 290.86 INV. IN (33" SE): 284.31 INV. IN (15" NE): 284.50 INV. OUT: 284.31
CB-90A GR: 289.95 INV. IN: 285.64 INV. OUT: 285.64
CB-90 GR: 289.95 INV. IN (33" NE): 285.56 INV. IN (33" S): 285.45 INV. OUT: 285.45
CB-92A GR: 289.98 INV. OUT: 286.59
CB-92 GR: 289.98 INV. IN (15" NE): 286.39 INV. IN (30" SE): 286.17 INV. OUT: 286.17
CB-91 GR: 290.63 INV. IN: 285.70 INV. OUT: 285.70
CB-91A GR: 290.47 INV. IN: 285.87 INV. IN: 285.98 INV. OUT: 285.87
CB-91B GR: 290.90 INV. IN: 286.19 INV. OUT: 286.19
CB-91C GR: 291.40 INV. IN: 286.44 INV. OUT: 286.44
CB-91D GR: 291.90 INV. IN: 286.69 INV. OUT: 286.69
CB-91E GR: 292.19 INV. OUT: 286.89
CB-92B GR: 290.65 INV. IN (24" SE): 286.51 INV. IN (18" SW): 287.46 INV. OUT: 286.51
CB-92C GR: 291.05 INV. OUT: 287.75
CB-94 (DOUBLE) GR: 291.39 INV. IN: 287.27 INV. IN: 287.27 INV. OUT: 287.27
CB-94A GR: 291.14 INV. OUT: 287.44
CB-94B GR: 291.70 INV. OUT: 288.22
CB-82A GR: 291.10 INV. OUT: 287.62
CB-82 GR: 290.98 INV. IN: 287.50 INV. OUT: 287.40
CB-81A GR: 289.54 INV. OUT: 286.22
CB-81 GR: 289.54 INV. IN (15" SE): 286.10 INV. IN (15" NE): 286.10 INV. OUT: 285.93
CB-81B GR: 288.50 INV. OUT: 286.05
CB-81C GR: 288.46 INV. IN: 284.80 INV. IN: 285.80 INV. OUT: 284.63
CB-80 GR: 288.38 INV. IN (24" SE): 284.37 INV. IN (15" E): 284.37 INV. OUT: 284.20
CB-80A GR: 288.36 INV. OUT: 284.49
CB-84 GR: 288.88 INV. IN (15" SE): 284.63 INV. IN (18" NE): 284.63 INV. OUT: 284.53
CB-84A GR: 288.65 INV. IN (15" E): 284.89 INV. OUT: 284.79
CB-84B GR: 289.42 INV. OUT: 285.16
CB-84C GR: 289.61 INV. OUT: 286.11
CB-85 GR: 290.18 INV. IN (33" E): 283.90 INV. IN (24" NE): 285.40 INV. OUT: 283.90
CB-85A GR: 290.35 INV. IN: 284.05 INV. OUT: 284.05
CB-79 GR: 288.43 INV. IN (36" S): 284.08 INV. IN (18" N): 284.08 INV. OUT: 283.98
CB-78 GR: 288.86 INV. IN (24" SE): 284.37 INV. IN (15" E): 284.37 INV. OUT: 284.27
CB-53A GR: 284.01 INV. IN (15" E): 280.38 INV. OUT: 280.28
CB-53B GR: 286.05 INV. OUT: 281.70
CB-53C GR: 286.01 INV. IN: 281.50 INV. IN: 281.50 INV. OUT: 281.40
CB-53D GR: 287.50 INV. OUT: 282.26
CB-52A GR: 283.28 INV. IN: 279.60 INV. OUT: 279.50
CB-52B GR: 283.17 INV. OUT: 278.03
CB-54 (DOUBLE) GR: 282.16 INV. IN (15" W): 278.59 INV. IN (15" NE): 278.74
CB-54A GR: 282.00 INV. OUT: 278.88
CB-53 GR: 283.97 INV. IN: 280.08 INV. OUT: 279.98
CB-55C GR: 277.70 INV. OUT: 270.81
CB-57A GR: 288.38
CB-93A GR: 291.70 INV. OUT: 287.32
CB-93 GR: 291.70 INV. IN (15" NE): 287.12 INV. IN (18" SE): 287.03 INV. OUT: 287.03
CB-33A GR: 289.14 INV. IN (15" NE): 283.35 INV. OUT: 283.28
CB-46A (DOUBLE) GR: 288.20 INV. IN (15" NW): 284.32 INV. OUT: 284.22
CB-46 GR: 288.20 INV. OUT: 284.80
CB-33 GR: 289.14 INV. IN (24" E): 277.86 INV. IN (15" N): 282.80 INV. OUT: 277.76
CB-32 (DOUBLE) GR: 287.39 INV. IN (24" NE): 277.53 INV. OUT: 277.03
CB-34 GR: 288.29 INV. IN (24" E): 278.87 INV. IN (15" NE): 283.95 INV. OUT: 278.77
CB-35 GR: 286.91 INV. IN (24" E): 279.65 INV. IN (15" NE): 280.30 INV. OUT: 279.55
CB-36 (DOUBLE) GR: 285.07 INV. IN (18" SE): 281.12 INV. IN (15" N): 281.09 INV. OUT: 280.62
CB-37 GR: 286.27 INV. IN: 282.46 INV. OUT: 282.36
CB-37A GR: 286.12 INV. IN: 282.74 INV. OUT: 282.64
CB-38 (DOUBLE) GR: 287.47 INV. IN: 283.41 INV. OUT: 283.31
CB-38A (DOUBLE) GR: 287.57 INV. IN: 283.51 INV. OUT: 283.41
CB-39 (DOUBLE) GR: 288.65 INV. OUT: 284.89
CB-40 (DOUBLE) GR: 286.43 INV. IN: 281.29 INV. OUT: 281.19
CB-41 GR: 286.94 INV. IN: 282.09 INV. OUT: 281.99
CB-42 GR: 291.80 INV. IN (15" NE): 287.79 INV. OUT: 287.69
CB-42A GR: 291.80 INV. OUT: 288.87
CB-43 GR: 288.00 INV. IN: 284.29 INV. OUT: 284.12
CB-44 GR: 288.38 INV. IN: 284.68 INV. OUT: 284.58
CB-44A GR: 288.60 INV. OUT: 284.86
CB-68 (DOUBLE) GR: 284.49 INV. IN: 281.27 INV. IN: 281.27 INV. OUT: 281.17
CB-70 GR: 290.34 INV. OUT: 286.67
CB-120A GR: 285.7 INV. OUT:
CB-121A GR: 289.16 INV. OUT: 286.30
CB-149 GR: 280.28 INV. IN: 276.19 INV.- IN: 275.37 INV. OUT: 275.12
CB-308 GR: 283.98 INV. IN: 277.42 INV. OUT: 277.32
CB-310 (DOUBLE) GR: 283.53 INV. IN (15" SE): 279.76 INV. IN (15" W): 279.03 INV. IN (15" SW): 279.50 INV. OUT: 278.93
CB-316 (DOUBLE) GR: 286.00 INV. IN (15" NW): 281.92 INV. OUT: 281.75
CB-316A (DOUBLE) GR: 290.15 INV. OUT: 286.75
CB-336 (DOUBLE) GR: 285.77 INV. OUT: 281.70
CB-337 GR: 289.16 INV. OUT: 284.30
CB-419 GR: 287.46 INV. OUT: 284.09
CB-420 GR: 287.46 INV. OUT: 284.09
MH-335 GR: 289.36 INV. IN (15" NE): 284.24 INV. IN (15" SW): 286.15 INV. OUT: 284.14
MH-336 GR: 289.36 INV. IN (15" NE): 286.60 INV. IN (15" SW): 286.75 INV. IN (15" NW): 286.58 INV. OUT: 286.40
SUMP PUMP DISCHARGE LINE (TYP.)
SUMP PUMP HEADER PIPE (TYP.)
PIPE CLEANOUT (TYP.)
CLEANOUT (TYP)
HW-1 INV. IN (42" NE): 283.00
HW-2 INV. IN (42" NE): 283.00
HW-3 INV. IN (42" NE): 283.00
HW-4 INV. IN (42" NE): 283.00
HW-5 INV. IN (42" N): 283.00
HW-6 (WITH BACKFLOW PREVENTOR) INV. IN (36" SE): 283.00
HW-6A INV. IN (42" NE): 283.00
HW-7 INV. IN (42" N): 283.00
HW-20 INV. OUT: 290.00
HW-21 INV. OUT: 290.00
MH-1 GR: 288.86 INV. IN: 283.72 INV. OUT: 283.64
MH-4 GR: 288.86 INV. IN: 283.72 INV. OUT: 283.64
MH-98 GR: 290.06 INV. IN (42" NE): 284.47 INV. OUT: 284.47
MH-85A GR: 290.00 INV. IN: 283.11 INV. OUT: 283.11
MH-100 GR: 293.60 INV. IN (15" NW): 289.87 INV. IN (15" SE): 289.75 INV. IN (15" NE): 288.20 INV. OUT: 288.10
MH-101 GR: 294.83 INV. IN (15" NW): 290.39 INV. IN (15" E): 291.33 INV. OUT: 290.29
MH-109A GR: 293.63 INV. OUT: 290.00
MH-109B GR: 295.11 INV. OUT: 291.48
CB-101 GR: 292.10 INV. IN (15" SE): 286.01 INV. IN (30" NW): 285.40 INV. IN (15" NE): 287.65 INV. OUT: 285.40
CB-110B GR: 291.97 INV. IN: 287.28 INV. IN: 287.28 INV. OUT: 287.18
CB-110C GR: 291.44 INV. OUT: 287.41
CB-111 (DOUBLE) GR: 290.74 INV. IN (15" SE): 287.79 INV. OUT: 287.69
CB-111A (DOUBLE) GR: 290.74 INV. OUT: 287.91
CB-111B GR: 291.50 INV. IN: 288.00 INV. OUT: 288.00
CB-111C GR: 291.00 INV. OUT: 288.12
CB-149 GR: 280.28 INV. IN: 276.19 INV.- IN: 275.37 INV. OUT: 275.12
113 LF 15" HDPE @ 1.00%
91 LF 15" HDPE @ 3.00%
163 LF 15" HDPE @ 3.00%
34 LF 15" HDPE @ 1.00%
24 LF 15" HDPE @ 0.5
209 LF 18" HDPE @ 0.51%
118 LF 15" HDPE @ 1.25%
215 LF 15" HDPE @ 2.26%
57 LF 18" HDPE @ 0.51%
32 HDP
56 LF 18" HDPE @ 0.53%
57 LF 15" HDPE @ 1.00%
32 LF 15" HDPE @ 0.55%
82 LF 15" HDPE @ 1.50%
193 LF 24" HDPE @ 0.50%
136 LF 24" HDPE @ 0.50%
182 LF 24" HDPE @ 0.50%
45 LF 24" HDPE @ 0.50%
123 LF 15" HDPE @ 1
10 LF 15" HDPE @ 1
120 LF 15" HDPE @ 0.50%
30 LF 15" HDPE @ 0.50%
10 LF 15" HDPE @ 0.50%
10 LF 15" HDPE @ 0.60%
40 LF 15" HDPE @ 0.50%
49 LF 18" HDPE @ 0.50%
105 LF 24" HDPE @ 0.50%
34 LF 15" HDPE @ 0.50%
113 LF 15" HDPE @ 0.95%
57 LF 18" HDPE @ 0.51%
34 LF 15" HDPE @ 0.51%
42 LF 15" HDPE @ 2.00%
24 LF 15" HDPE @ 2.00%
76 LF 15" HDPE @ 1.00%
102 LF 15" HDPE @ 1.00%
38 LF 15" HDPE @ 1.00%
20 LF 15" HDPE @ 1.00%
20 LF 15" HDPE @ 1.00%
28 LF 15" HDPE @ 0.50%
34 LF 24" HDPE @ 2.01%
106 LF 36" HDPE @ 0.50%
130 LF 15" HDPE @ 1.00%
113 LF 15" HDPE @ 1.00%
128 LF 36" HDPE @ 0.50%
51 LF 36" HDPE @ 0.54%
23 LF 36" HDPE @ 0.50%
52 LF 24" HDPE @ 0.50%
126 LF 24" HDPE @ 0.82%
24 LF 15" HDPE @ 0.50%
24 LF 15" HDPE @ 0.53%
42 LF 15" HDPE @ 0.50%
233 LF 15" HDPE @ 0.50%
189 LF 15" HDPE @ 0.50%
213 LF 15" HDPE @ 0.50%
74 LF 15" HDPE @ 5.43%
36 LF 15" HDPE @ 1.56%
26 LF 15" HDPE @ 0.50%
27 LF 15" HDPE @ 0.55%
54 LF 15" HDPE @ 3.89%
26 LF 15" HDPE @ 0.97%
26 LF 15" HDPE @ 1.00%
30 LF 15" HDPE @ 1.34%
82 LF 15" HDPE @ 0.50%
22 LF 15" HDPE @ 0.50%
16 LF 15" HDPE @ 0.56%
25 LF 15" HDPE @ 0.50%
16 LF 33" HDPE @ 0.50%
50 LF 33" HDPE @ 0.51%
228 LF 33" HDPE @ 0.50%
30 LF 33" HDPE @ 0.49%
75 LF 18" HDPE @ 1.97%
53 LF 15" HDPE @ 0.51%
32 LF 15" HDPE @ 0.51%
59 LF 18" HDPE @ 0.76%
25 LF 15" HDPE @ 1.00%
285 LF 42" HDPE @ 0.50%
22 LF 42" HDPE @ 0.50%
157 LF 42" HDPE @ 0.50%
112 LF 24" HDPE @ 0.56%
90 LF 15" HDPE @ 0.74%
33 LF 15" HDPE @ -0.50%
35 LF 15" HDPE @ 4.34%
43 LF 15" HDPE @ 0.58%
92 LF 18" HDPE @ 0.55%
135 LF 15" HDPE @ 1.00%
24 LF 15" HDPE @ 2.25%
24 LF 15" HDPE @ 0.50%
24 LF 15" HDPE @ 0.50%
24 LF 15" HDPE @ 0.50



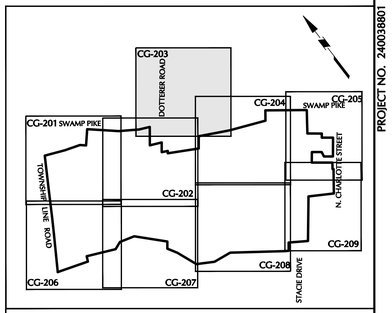
EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND	
PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	U F M
PR. WATER MAIN	U W
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	000
PR. SPOT ELEVATION	x 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRIAL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP
SCALE: 1"=2,000'



KEY MAP
SCALE 1"=1000'

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50 0 25 50
SCALE IN FEET

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 CALL BEFORE YOU DIG

CALL BEFORE YOU DIG
IN PA, TOLL FREE
1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
" IT'S THE LAW "

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (213)822-8899
CONTACT: BENJAMIN GOLDTHORP

Date	Description	No.
11-04-16	REVISED PER COMMENT LETTERS	1.
4-07-17	REVISED PER COMMENT LETTERS	2.
8-04-17	REVISED PER COMMENT LETTERS	3.
11-08-17	REVISED PER COMMENT LETTERS	4.
1-31-18	REVISED PER COMMENT LETTERS	5.
6-01-18	REVISED PER MCCD COMMENTS	6.
10-22-18	REVISED PER MCCD COMMENTS	7.
12-10-18	REVISED PER MCCD COMMENTS	8.
12-13-19	REVISED PER COMMENT LETTERS	9.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER PE057145 E

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
DRAINAGE PLAN

Project No. **240038801**	Drawing No. **CG-203**
Date **05/31/16**	
Scale **1"=50'**	
Drawn By **KG**	
Submission Date **X**	Sheet 65 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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Filename: \\langan.com\data\BE\data\B240038801\cadd data - 240038801\sheetfiles\240038801 CG201-209.dwg Date: 12/13/2019 Time: 14:46 User: dmoyer Style Table: Langan.stb Layout: 240038801 CG201-209 - CG-203

MATCHLINE-CG-202

MATCHLINE-CG-203

MATCHLINE-CG-205

MATCHLINE-CG-208

SWAMP PIKE

ANDOVER DRIVE

MAIN STREET

ALLEY KK

ALLEY JJ

ALLEY II

ALLEY HH

ALLEY GG

S. FLOHARTY DRIVE

WELSH RUN DRIVE

VANDERBILT DRIVE

GRAVEL DRIVE

MACADAM DRIVE

STONE WALL

APPROX. SAMH. LOCATION ACCORDING TO TOWNSHIP PLANS(PAVED OVER)

UNDERGROUND BASIN F

UNDERGROUND STORMWATER BASIN 21 STICKS OF 182 LF, 48" PIPES AT ELEVATION 258.30.

FLEX BLDG. 1

FLEX BLDG. 2

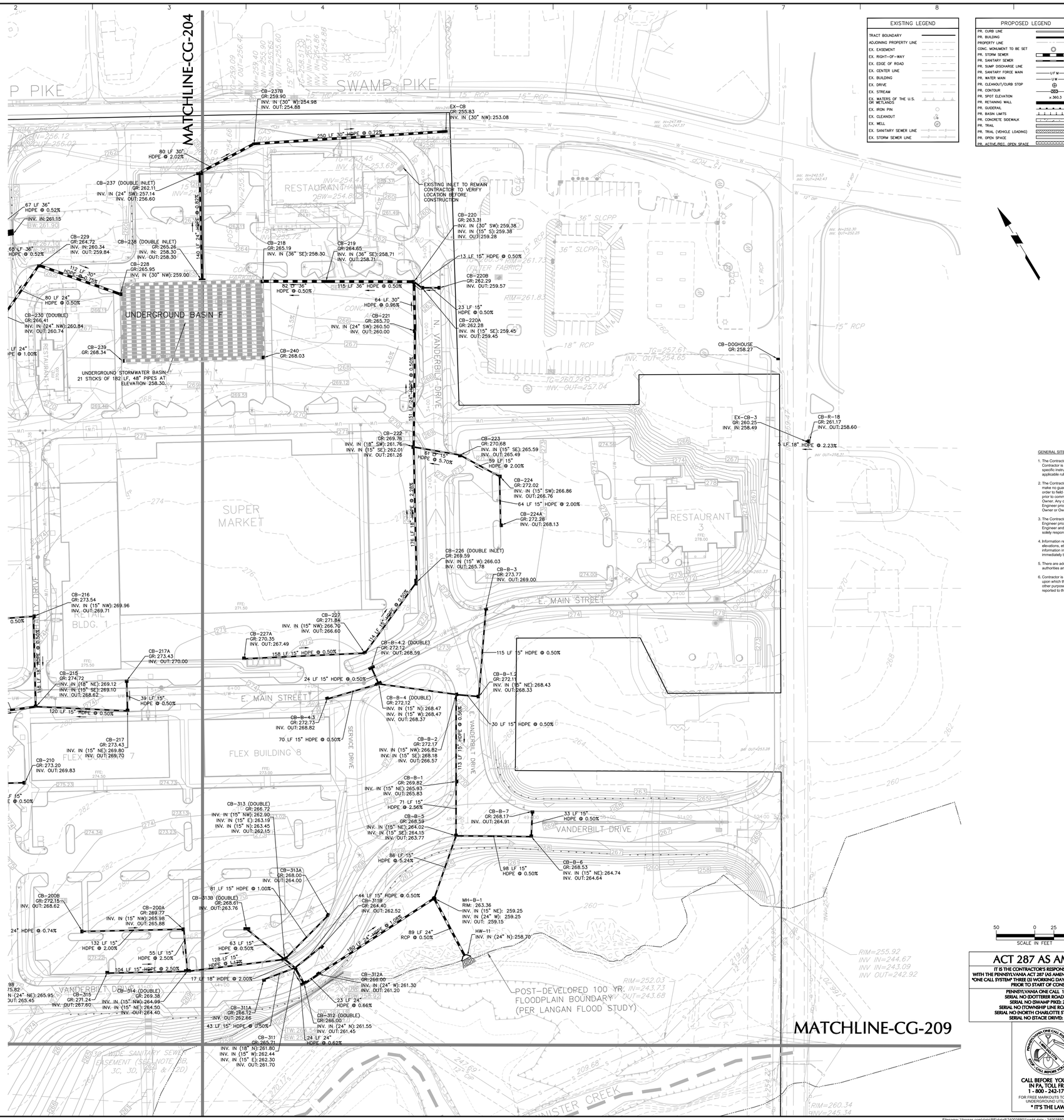
FLEX BLDG. 3

FLEX BLDG. 4

SUP MARK

8" HDPE @ 0.50%
HW-R-1
GR: 287.06
INV. IN (18" SW): 285.00
CB-R-10
GR: 289.52
(18" W): 285.36
INV. OUT: 285.19

CB-148 (DOUBLE)
GR: 277.83
INV. IN: 274.18
INV. IN: 274.11
INV. OUT: 274.01
20 LF 18" HDPE @ 0.50%
CB-148A
GR: 277.91
INV. IN: 274.38
INV. OUT: 274.28
CB-147 (DOUBLE)
GR: 278.00
INV. IN: 272.96
INV. IN: 274.00
INV. OUT: 272.86
PIPE CLEANOUT (TYP.)
SUMP PUMP HEADER PIPE (TYP.)
SUMP PUMP DISCHARGE LINE (TYP.)
CB-147A
GR: 278.04
INV. IN: 273.04
INV. OUT: 273.04
106 LF 24" HDPE @ 0.81%
CB-149
GR: 280.28
INV. IN: 276.19
INV. IN: 275.37
INV. OUT: 275.12
113 LF 15" HDPE @ 1.00%
CB-308
GR: 283.98
INV: IN: 277.42
INV. OUT: 277.32
148 LF 18" HDPE @ 0.50%
194 LF 24" HDPE @ 0.50%
32 LF 15" HDPE @ 0.50%
CB-149B
GR: 278.85
INV. OUT: 275.99
25 LF 15" HDPE @ 1.53%
CB-148C
GR: 277.74
INV. OUT: 274.90
15 LF 24" HDPE @ 0.51%
32 LF 15" HDPE @ 1.64%
CB-149A
GR: 280.20
INV. IN: 275.63
INV. OUT: 275.53
71 LF 15" HDPE @ 0.50%
CB-148B (DOUBLE)
GR: 277.86
INV. IN (15" SE): 274.75
INV. OUT: 274.49
15 LF 15" HDPE @ 1.00%
CB-147B (DOUBLE)
GR: 277.79
INV. OUT: 274.53
CB-145
GR: 278.43
INV. IN (24" N): 272.00
INV. OUT: 271.90
CB-191C
GR: 279.11
INV. OUT: 277.00
99 LF 15" HDPE @ 3.00%
CB-234A (DOUBLE)
GR: 278.95
INV. OUT: 272.33
CB-191D
GR: 282.00
INV. OUT: 278.45
24 LF 15" HDPE @ 0.52%
129 LF 15" HDPE @ 1.00%
134 LF 12" HDPE @ 0.54%
CB-144B
GR: 276.60
INV. OUT: 272.40
40 LF 15" HDPE @ 1.00%
CB-144A (DOUBLE)
GR: 276.09
INV. IN: 272.00
INV. OUT: 271.90
40 LF 15" HDPE @ 1.00%
CB-118A
GR: 283.55
INV. OUT: 279.89
CB-310A (DOUBLE)
GR: 283.78
INV. OUT: 279.84
34 LF 15" HDPE @ 1.00%
CB-191B (DOUBLE)
GR: 280.58
INV. IN (12" SE): 276.28
INV. IN (15" NW): 277.19
INV. OUT: 276.78
CB-190A
GR: 277.24
INV. IN: 273.71
INV. OUT: 273.61
CB-190
GR: 276.35
INV. IN: 272.10
INV. OUT: 272.00
CB-144
GR: 276.08
INV. IN (24" NE): 271.18
INV. IN (15" NW): 271.50
INV. OUT: 271.08
84 LF 24" HDPE @ 0.58%
CB-153
GR: 275.26
INV. IN (24" NE): 270.59
INV. IN (24" NW): 270.50
INV. OUT: 270.00
60 LF 30" HDPE @ 2.81%
CB-205
GR: 274.57
INV. IN (18" SE): 269.31
INV. IN (15" NW): 269.89
INV. IN (30" NE): 268.31
INV. OUT: 268.21
CB-123
GR: 273.54
INV. IN (30" NE): 267.85
INV. IN (15" W): 269.68
INV. OUT: 267.75
MH-154
GR: 273.33
INV. IN (18" S): 270.20
INV. OUT: 270.00
16 LF 18" HDPE @ 0.50%
CB-154
GR: 272.97
INV. OUT: 270.28
CB-209B
GR: 272.96
INV. OUT: 269.59
80 LF 15" HDPE @ 1.01%
CB-209A (DOUBLE)
GR: 271.75
INV. IN (15" NE): 268.78
INV. OUT: 268.68
CB-207B
GR: 273.09
INV. OUT: 269.58
66 LF 15" HDPE @ 0.65%
CB-159 (DOUBLE)
GR: 271.79
INV. IN (15" E): 268.25
INV. OUT: 268.15
CB-294
GR: 274.03
INV. IN (18" NE): 267.62
INV. IN (24" SE): 267.26
INV. OUT: 267.16
20 LF 18" HDPE @ 0.53%
120 LF 24" HDPE @ 0.50%
CB-208A
GR: 275.13
INV. IN (18" NE): 267.96
INV. OUT: 267.86
75 LF 15" HDPE @ 2.51%
CB-207A (DOUBLE)
GR: 271.08
INV. IN: 267.69
INV. IN: 268.16
INV. OUT: 268.06
CB-206A (DOUBLE)
GR: 273.57
INV. OUT: 269.64
104 LF 15" HDPE @ 1.43%
CB-122
GR: 272.98
INV. IN (36" NE): 267.23
INV. IN (15" NW): 268.89
INV. OUT: 267.13
CB-158
GR: 273.11
INV. IN: 266.62
INV. OUT: 266.52
SUMP PUMP DISCHARGE LINE (TYP.)
CB-118 (DOUBLE)
GR: 272.99
INV. IN (42" NW): 265.45
INV. IN: (24" NE): 266.40
INV. IN: (18" SW): 266.00
INV. OUT: 265.35
CB-117A
GR: 271.42
INV. OUT: 266.06
CB-208B
GR: 272.15
INV. OUT: 268.62
CB-200A
GR: 269.77
INV. IN (15" NW): 265.98
INV. OUT: 265.88
CB-313B (DOUBLE)
GR: 263.61
INV. OUT: 263.76
81 LF 15" HDPE @ 1.00%
242 LF 24" HDPE @ 0.74%
CB-117 (DOUBLE)
GR: 271.28
INV. IN: 264.85
INV. IN: 265.82
INV. OUT: 264.75
CB-297A
GR: 272.15
INV. OUT: 265.08
CB-297
GR: 272.13
INV. IN (15" W): 266.90
INV. IN (42" NW): 264.32
INV. IN (15" NE): 264.75
INV. OUT: 264.29
CB-298
GR: 275.82
INV. IN (24" NE): 265.95
INV. OUT: 265.45
CB-315
GR: 271.24
INV. OUT: 267.60
CB-314 (DOUBLE)
GR: 269.38
INV. IN: 264.99
INV. IN (15" NE): 264.50
INV. OUT: 264.40
132 LF 15" HDPE @ 2.00%
55 LF 15" HDPE @ 2.50%
104 LF 15" HDPE @ 2.50%
63 LF HDPE @ 0.5
128 LF 15" HDPE @ 1.43%
17 LF 18" HDPE @ 2.0
CB-31 GR: 266. INV. OUT: 262.
43 LF 15" HDPE
INV. IN (15 INV. IN (15 INV.
CB-216
GR: 273.54
INV. IN (15" NW): 269.96
INV. OUT: 269.71
108 LF 15" HDPE @ 0.50%
CB-214 (DOUBLE)
GR: 273.89
INV. OUT: 270.50
CB-213A (DOUBLE)
GR: 273.18
INV. IN: 269.53
INV. IN: 269.53
INV. OUT: 269.43
14 LF 15" HDPE @ 0.50%
CB-213C
GR: 273.50
INV. OUT: 269.74
CB-213
GR: 273.18
INV. IN (18" NE): 269.23
INV. OUT: 269.13
CB-212
GR: 274.79
INV. IN (18" NW): 268.33
INV. IN (24" SE): 268.30
INV. OUT: 268.30
CB-211
GR: 273.38
INV. IN (24" NE): 267.43
INV. IN (15" SE): 269.48
INV. OUT: 267.73
CB-210
GR: 273.20
INV. OUT: 269.83
CB-217A
GR: 273.43
INV. OUT: 270.00
CB-215
GR: 274.72
INV. IN (18" NE): 269.12
INV. IN (15" SE): 269.10
INV. OUT: 268.62
CB-217
GR: 273.43
INV. IN (15" NE): 269.80
INV. OUT: 269.70
39 LF 18" HDPE @ 0.50%
64 LF 24" HDPE @ 0.50%
160 LF 18" HDPE @ 0.50%
120 LF 15" HDPE @ 0.50%
39 LF 15" HDPE @ 0.50%
70 LF 15" HDPE @ 0.50%
80 LF 30" HDPE @ 2.02%
CB-237 (DOUBLE INLET)
GR: 262.11
INV. IN (24" SW): 257.14
INV. OUT: 256.60
67 LF 36" HDPE @ 0.52%
INV. IN: 261.15
SW: 261.90
INV. OUT: 261.50
68 LF 36" HDPE @ 0.52%
CB-229
GR: 264.72
INV. IN: 260.34
INV. OUT: 259.84
CB-238 (DOUBLE INLET)
GR: 265.26
INV. IN: 258.30
INV. OUT: 258.30
72 LF 30" HDPE @ 0.75%
CB-228
GR: 265.95
INV. IN (30" NW): 259.00
CB-231 (DOUBLE)
GR: 266.26
INV. IN (24" SW): 261.42
INV. OUT: 261.32
80 LF 24" HDPE @ 0.50%
CB-230 (DOUBLE)
GR: 266.41
INV. IN (24" NW): 260.84
INV. OUT: 260.74
48 LF 24" HDPE @ 1.00%
CB-239
GR: 268.34
CB-233
GR: 270.74
INV. IN (18" SW): 266.11
INV. OUT: 265.61
63 LF 24" HDPE @ 1.00%
173 LF 24" HDPE @ 2.00%
CB-232 (DOUBLE)
GR: 269.81
INV. IN (24" NW): 262.15
INV. OUT: 262.05
CB-235
GR: 270.47
INV. IN (15" SW): 266.94
INV. IN (15" SE): 265.35
INV. OUT: 266.69
77 LF 18" HDPE @ 0.75%
55 LF 15" HDPE @ 1.50%
99 LF 15" HDPE @ 1.00%
CB-235A
GR: 269.72
INV. OUT: 266.34
CB-236
GR: 271.69
INV. IN (15" SW): 267.47
INV. OUT: 267.77
55 LF 15" HDPE @ 1.50%
CB-234
GR: 273.92
INV. IN (15" NW): 269.35
INV. OUT: 269.25
51 LF 15" HDPE @ 0.50%
CB-236A
GR: 271.77
INV. IN (15" W): 268.79
INV. OUT: 268.69
99 LF 15" HDPE @ 3.00%
CB-234A (DOUBLE)
GR: 278.95
INV. OUT: 272.33
CB-191C
GR: 279.11
INV. OUT: 277.00

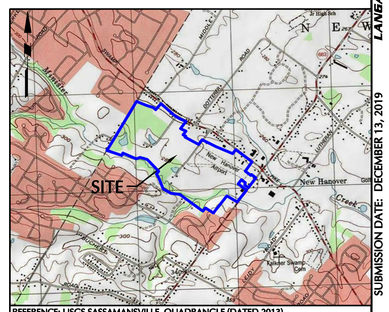


EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

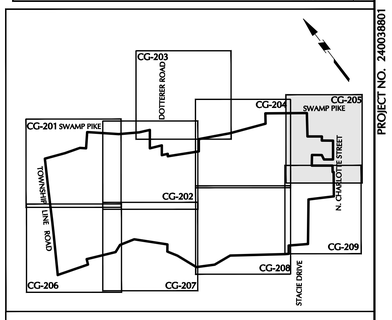
- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN — U F M
- PR. WATER MAIN — U W
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR — 360
- PR. SPOT ELEVATION — x 360.3
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRAIL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'



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50 0 25 50
SCALE IN FEET

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SERIAL NO (DOTTIBER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

PENNSYLVANIA ONE CALL SYSTEM, INC. 811 KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776
FOR FIBER MARKOUTS TO LOCATE UNDERGROUND UTILITIES
*** IT'S THE LAW ***

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
9.	REVISED PER COMMENT LETTERS	12–13–19
8.	REVISED PER MCCD COMMENTS	12–10–18
7.	REVISED PER MCCD COMMENTS	10–22–18
6.	REVISED PER MCCD COMMENTS	6–01–18
5.	REVISED PER COMMENT LETTERS	1–31–18
4.	REVISED PER COMMENT LETTERS	11–08–17
3.	REVISED PER COMMENT LETTERS	8–04–17
2.	REVISED PER COMMENT LETTERS	4–07–17
1.	REVISED PER COMMENT LETTERS	11–04–16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE — JASON SCOTT ENGELHARDT — DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE–057145–E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan Delaware, LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
DRAINAGE PLAN

Project No. 240038801	Drawing No. CG-205
Date 05/31/16	
Scale 1"=50'	
Drawn By KG	
Submission Date X	Sheet 67 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

Filename: I:\langan.com\data\BE\data8\240038801\cadd data - 240038801\sheetfiles\240038801 CG201-209.dwg Date: 12/13/2019 Time: 14:47 User: dmoyer Style Table: Langan.stb Layout: 240038801 CG201-209 - CG-205
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MATCHLINE-CG-201

MATCHLINE-CG-207

BASIN A
BASIN BOTTOM
ELEV.=285.00

BASIN B
BASIN BOTTOM
ELEV.=276.00

POST-DEVELOPED 100 YR FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)
RIM=279.55
INV IN=272.15
INV OUT=272.05

APPROXIMATE LOCATION OF UGI REGULATOR STATION PERMANENT EASEMENT PLOTTED BY LANGAN

MINISTER CREEK

W.E. 275.8

W.E. 277.2

8" STANDPIPE TOP ELEV.=277.17

TOP OF PIPE ELEV.=277.17

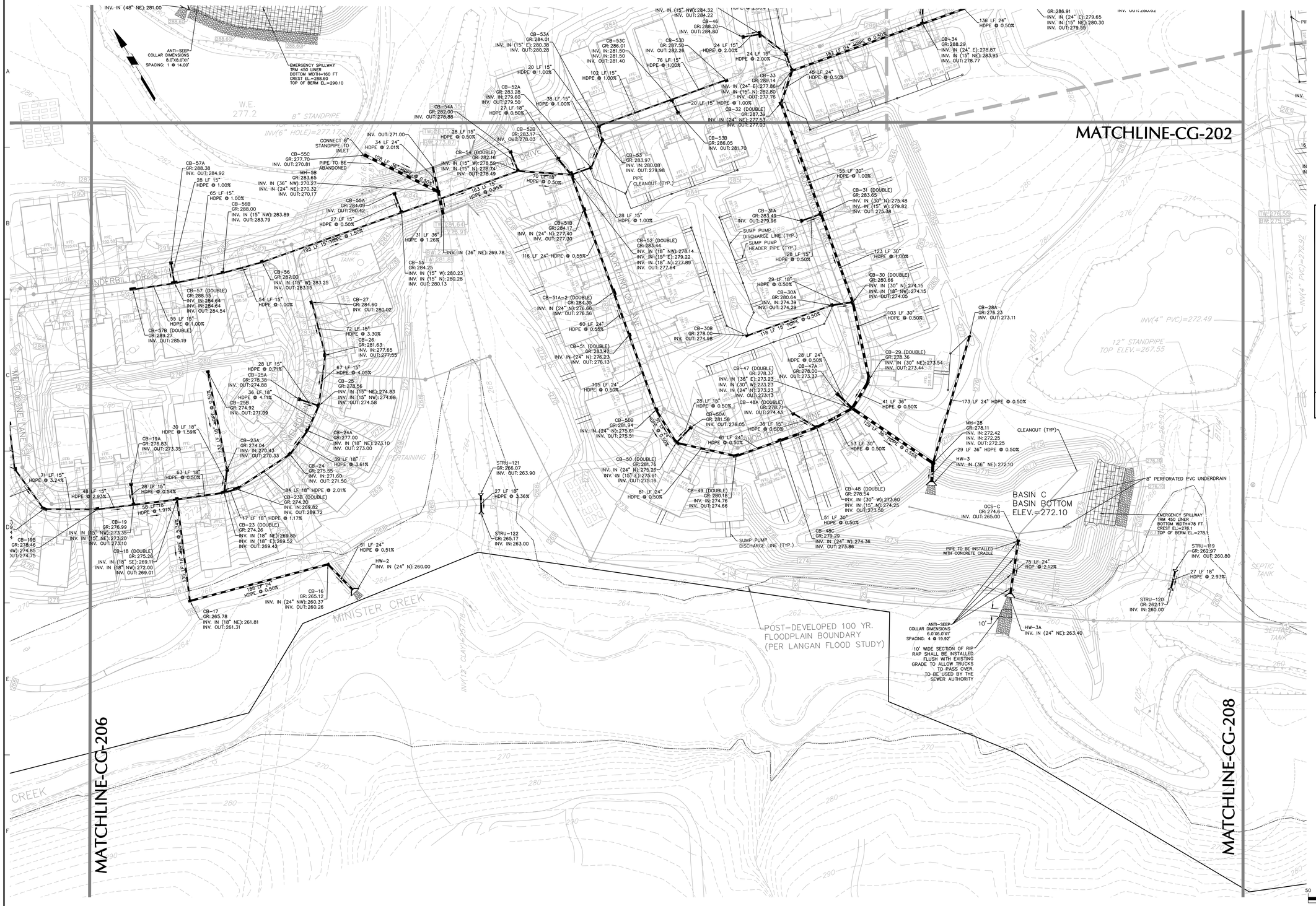
INV(6" HOLE)=277.17

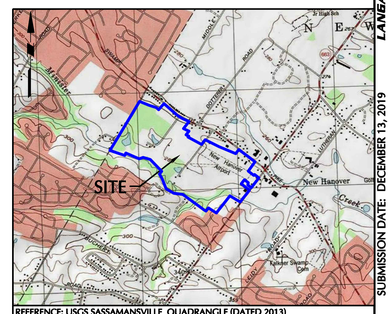
TOP OF THE U.S.

TOP OF PIPE ELEV.=277.17

TOP OF PIPE ELEV.=277.17

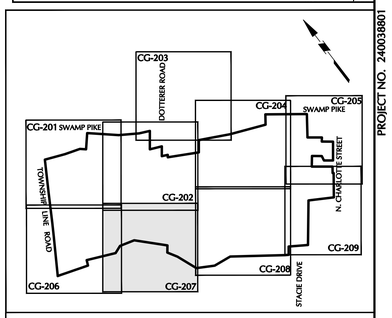
TOP OF PIPE ELEV.=277.17





SITE LOCATION MAP

SCALE: 1"=2,000'



KEY MAP

SCALE 1"=1000'

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN
- PR. WATER MAIN
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR
- PR. SPOT ELEVATION
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRAIL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

No.	Description	Date
9.	REVISED PER COMMENT LETTERS	12-13-19
8.	REVISED PER MCCD COMMENTS	12-10-18
7.	REVISED PER MCCD COMMENTS	10-22-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON ENGELHARDT DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN

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Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

DRAINAGE PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	KG
Submission Date	X
Drawing No.	CG-207
	Sheet 69 of 187

GENERAL SITE NOTES:

1. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor is solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all specific instructions required for sitework construction. The Contractor is responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction.
2. The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner and Engineer make no guarantee in regard to the accuracy of any information that was obtained during investigations. The Contractor shall: make a thorough site inspection in order to field check existing site conditions; correlate conditions with the drawings; and, resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall perform additional topographic surveys he/she deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.
3. The Contractor shall, when he/she deems necessary, provide a written Request for Information (RFI) to the Owner and/or Owner's designated representative, and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and/or Owner's designated representative, and Engineer and shall allow for a minimum of three work days for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.
4. Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to bid. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the format of an RFI prior to bid.
5. There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.
6. Contractor is specifically cautioned that all construction stakeout for this project must be completed from the site specific survey control (horizontal and vertical) upon which the design is based. The contractor should not rely on or re-establish survey control by GPS or other methods for use in construction stakeout or any other purpose for this project. Any discrepancies between the existing horizontal or vertical data shown on these drawings and that encountered in the field must be reported to the design team prior to construction for resolution.

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL: 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

PENNSYLVANIA ONE CALL SYSTEM, INC. SERIAL NUMBER 20130441548 DIGGING? CALL BEFORE YOU DIG!

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
*** IT'S THE LAW ***

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (213)822-8899
CONTACT: BENJAMIN GOLDTHORP

Filename: \\langan.com\data\BE\data\240038801\caddd data - 240038801\sheetfiles\240038801 CG201-209.dwg Date: 12/13/2019 Time: 14:48 User: dmoyer Style Table: Langan.stb Layout: 240038801 CG201-209 - CG-207

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PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

MATCHLINE-CG-204

MATCHLINE-CG-209

MATCHLINE-CG-207

BASIN D
BASIN BOTTOM
ELEV=259.40

POST-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

MINISTER CREEK

12" STANDPIPE TOP ELEV.=267.55

SEPTIC TANK

DRIP FIELD

POOL

POOL PUMP

CLEANOUT (TYP)

8" PERFORATED PVC UNDERDRAIN

EMERGENCY SPILLWAY TRM 450 LINER BOTTOM WIDTH=165 FT CREST EL.=265.00 TOP OF BERM EL.=267.00

PIPE CLEANOUT (TYP.)

SUMP PUMP HEADER PIPE (TYP.)

SUMP PUMP DISCHARGE LINE (TYP.)

ANDOVER DRIVE

SOUTH GATE DRIVE

OAKLAND WAY

HUDSON LANE

VANDERBILT DRIVE

ALLEY N

ALLEY O

ALLEY P

ALLEY Q

ALLEY R

ALLEY S

ALLEY T

ALLEY U

ALLEY V

ALLEY W

ALLEY X

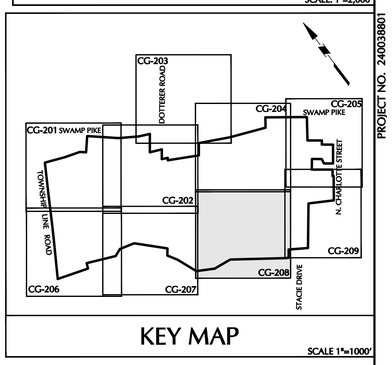
ALLEY Y

ALLEY Z

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'



KEY MAP

SCALE 1"=1000'

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5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN — U/F M —
- PR. WATER MAIN — U/ M —
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR 283
- PR. SPOT ELEVATION x 360.3
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRAIL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

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SERIAL NO (STACIE DRIVE): 20130441751

PENNSYLVANIA ONE CALL SYSTEM, INC. — PA ONE CALL REPORT NO. 20130441751

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *

50 0 25 50
SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — ENGINEER — JASON SCOTT ENGELHARDT — 078356 — ENGINEER'S SEAL

SIGNATURE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN

One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com

NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO
WASHINGTON, DC FLORIDA TEXAS NORTH CAROLINA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

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Langan Engineering and Environmental Services, Inc.
Langan UK Ltd.
Langan International LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

DRAINAGE PLAN

Project No. 240038801	Drawing No. CG-208
Date 05/31/16	
Scale 1"=50'	
Drawn By KG	
Submission Date X	Sheet 70 of 187

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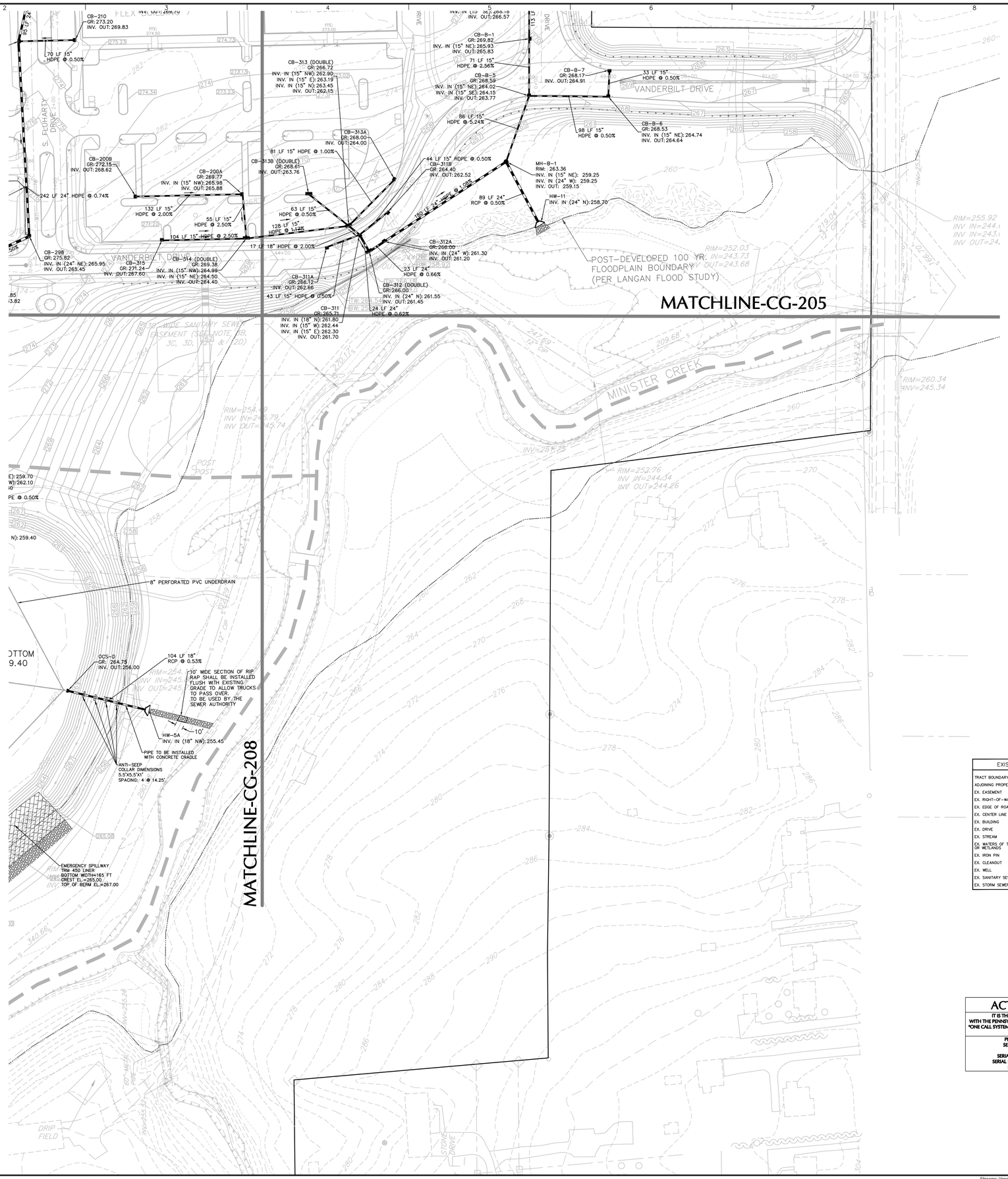
MATCHLINE-CG-205
MATCHLINE-CG-208
VANDERBILT DRIVE
S. FEDHARTY DRIVE
MINISTER CREEK
WIDE SANITARY SEWER EASEMENT (SEE NOTE 2B, 3C, 3D, 12B & 12D)
POST-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)
CB-210
GR: 273.20
INV. OUT: 269.83
93 LF 24"
70 LF 15" HDPE @ 0.50%
CB-313 (DOUBLE)
GR: 266.72
INV. IN (15" NW): 262.80
INV. IN (15" E): 263.19
INV. IN (15" N): 263.45
INV. OUT: 262.15
CB-313A
GR: 268.00
INV. OUT: 264.00
81 LF 15" HDPE @ 1.00%
CB-313B (DOUBLE)
GR: 268.61
INV. OUT: 263.76
CB-200B
GR: 272.15
INV. OUT: 268.62
CB-200A
GR: 269.27
INV. IN (15" NW): 265.98
INV. OUT: 265.88
242 LF 24" HDPE @ 0.74%
132 LF 15" HDPE @ 2.00%
55 LF 15" HDPE @ 2.50%
104 LF 15" HDPE @ 2.50%
63 LF 15" HDPE @ 0.50%
128 LF 15" HDPE @ 1.13%
17 LF 18" HDPE @ 2.00%
CB-298
GR: 275.82
INV. IN (24" NE): 265.95
INV. OUT: 265.45
CB-315
GR: 271.24
INV. OUT: 267.60
CB-314 (DOUBLE)
GR: 269.38
INV. IN (15" NW): 264.99
INV. IN (15" NE): 264.50
INV. OUT: 264.40
CB-311A
GR: 266.12
INV. OUT: 262.66
43 LF 15" HDPE @ 0.50%
CB-311
GR: 265.71
INV. IN (18" N): 261.80
INV. IN (15" W): 262.44
INV. IN (15" E): 262.30
INV. OUT: 261.70
CB-312A
GR: 266.00
INV. IN (24" W): 261.30
INV. OUT: 261.20
23 LF 24" HDPE @ 0.66%
CB-312 (DOUBLE)
GR: 266.00
INV. IN (24" N): 261.55
INV. OUT: 261.45
24 LF 24" HDPE @ 0.62%
CB-311B
GR: 264.40
INV. OUT: 262.52
44 LF 15" HDPE @ 0.50%
180 LF 24" HDPE @ 0.56%
89 LF 24" RCP @ 0.50%
MH-B-1
RIM: 263.36
INV. IN (15" NE): 259.25
INV. IN (24" W): 259.25
INV. OUT: 259.15
HW-11
INV. IN (24" N): 258.70
CB-B-1
GR: 269.82
INV. IN (15" NE): 265.93
INV. OUT: 265.83
71 LF 15" HDPE @ 2.56%
CB-B-5
GR: 268.59
INV. IN (15" NE): 264.02
INV. IN (15" SE): 264.15
INV. OUT: 263.77
86 LF 15" HDPE @ 5.24%
CB-B-7
GR: 268.17
INV. OUT: 264.91
33 LF 15" HDPE @ 0.50%
98 LF 15" HDPE @ 0.50%
CB-B-6
GR: 268.53
INV. IN (15" NE): 264.74
INV. OUT: 264.64
115 LF
INV. IN (15" SE): 266.16
INV. OUT: 266.07
RIM=255.92
INV IN=244.(
INV IN=243.(
INV OUT=24.
RIM=252.03
INV IN=243.73
INV OUT=243.68
RIM=260.34
INV=245.34
RIM=252.76
INV IN=244.34
INV OUT=244.26
INV=255.75
RIM=254.39
INV IN=246.79
INV OUT=245.74
E): 259.70
W): 262.10
0
PE @ 0.50%
N): 259.40
8" PERFORATED PVC UNDERDRAIN
OTTOM
9.40
OCS-D
GR: 264.75
INV. OUT: 256.00
104 LF 18" RCP @ 0.53%
10' WIDE SECTION OF RIP RAP SHALL BE INSTALLED FLUSH WITH EXISTING GRADE TO ALLOW TRUCKS TO PASS OVER. TO BE USED BY THE SEWER AUTHORITY
INV IN=245
INV OUT=245
10'
HW-5A
INV. IN (18" NW): 255.45
PIPE TO BE INSTALLED WITH CONCRETE CRADLE
ANTI-SEEP COLLAR DIMENSIONS 5.5'X5.5'X1' SPACING: 4 @ 14.25'
EMERGENCY SPILLWAY TRM 450 LINER BOTTOM WIDTH=165 FT CREST EL=265.00 TOP OF BERM EL.=267.00
DRIP FIELD
INV=255.24
INV=255.41
340.66
S 12° 08' 12" E
209.68
S 24° 59' 12" E
S 20° 03' 12" E
S 15° 07' 12" E
S 10° 11' 12" E
S 5° 15' 12" E
S 0° 19' 12" W
S 4° 36' 12" W
S 9° 32' 12" W
S 14° 28' 12" W
S 19° 24' 12" W
S 24° 20' 12" W
S 29° 16' 12" W
S 34° 12' 12" W
S 39° 08' 12" W
S 44° 04' 12" W
S 49° 00' 12" W
S 53° 56' 12" W
S 58° 52' 12" W
S 63° 48' 12" W
S 68° 44' 12" W
S 73° 40' 12" W
S 78° 36' 12" W
S 83° 32' 12" W
S 88° 28' 12" W
S 93° 24' 12" W
S 98° 20' 12" W
S 103° 16' 12" W
S 108° 12' 12" W
S 113° 08' 12" W
S 118° 04' 12" W
S 123° 00' 12" W
S 127° 56' 12" W
S 132° 52' 12" W
S 137° 48' 12" W
S 142° 44' 12" W
S 147° 40' 12" W
S 152° 36' 12" W
S 157° 32' 12" W
S 162° 28' 12" W
S 167° 24' 12" W
S 172° 20' 12" W
S 177° 16' 12" W
S 182° 12' 12" W
S 187° 08' 12" W
S 192° 04' 12" W
S 197° 00' 12" W
S 201° 56' 12" W
S 206° 52' 12" W
S 211° 48' 12" W
S 216° 44' 12" W
S 221° 40' 12" W
S 226° 36' 12" W
S 231° 32' 12" W
S 236° 28' 12" W
S 241° 24' 12" W
S 246° 20' 12" W
S 251° 16' 12" W
S 256° 12' 12" W
S 261° 08' 12" W
S 266° 04' 12" W
S 271° 00' 12" W
S 275° 56' 12" W
S 280° 52' 12" W
S 285° 48' 12" W
S 290° 44' 12" W
S 295° 40' 12" W
S 300° 36' 12" W
S 305° 32' 12" W
S 310° 28' 12" W
S 315° 24' 12" W
S 320° 20' 12" W
S 325° 16' 12" W
S 330° 12' 12" W
S 335° 08' 12" W
S 340° 04' 12" W
S 345° 00' 12" W
S 349° 56' 12" W
S 354° 52' 12" W
S 359° 48' 12" W
S 4° 44' 12" W
S 9° 40' 12" W
S 14° 36' 12" W
S 19° 32' 12" W
S 24° 28' 12" W
S 29° 24' 12" W
S 34° 20' 12" W
S 39°

BMP MAINTENANCE PLAN

AN ANNUAL REPORT SHALL BE SUBMITTED TO THE TOWNSHIP STATING THE FOLLOWING MAINTENANCE HAS BEEN PERFORMED, THE PCSM PLAN, INSPECTION REPORTS, AND MONITORING RECORDS MUST BE AVAILABLE FOR REVIEW AND INSPECTION BY THE PADEP OR CONSERVATION DISTRICT.

THE HOMEOWNERS ASSOCIATION IS RESPONSIBLE FOR MAINTENANCE OF THE STORMWATER CONVEYANCE SYSTEM, AND ALL OTHER PROPOSED BMP'S AS THE PROPERTY OWNER.

SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS, WOODLANDS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL STOCKPILES, VEHICLES SHALL NOT BE PARKED OR DRIVEN OVER INFILTRATION BMPs.

1) STORMWATER CONVEYANCE SYSTEM
- CATCH BASINS, MANHOLES AND PIPES TO BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST TWO TIMES PER YEAR AND AFTER RUNOFF EVENTS.
- ALL STRUCTURAL COMPONENTS MUST BE INSPECTED FOR CRACKING, SUBSIDENCE, BREACHING, WEARING, AND DETERIORATION AT LEAST ANNUALLY.
- **FAILURE** OF THIS BMP OCCURS IF A STORM PIPE BECOMES CLOGGED AND NON FUNCTIONAL IN CONVEYING STORMWATER OR IF A PIPE STRUCTURALLY FAILS (STARTS TO COLLAPSE).
- **IN THE EVENT OF FAILURE** A CLOGGED PIPE SHOULD BE FLUSHED AND ENSURED THAT THE ENTIRE SYSTEM IS FREE OF DEBRIS. IN THE EVENT OF A STRUCTURAL FAILURE, THE PIPE MUST BE EXCAVATED, REMOVED, AND REPLACED.

2) VEGETATED FILTER STRIP
- VEGETATED FILTER STRIP COMPONENTS THAT RECEIVE OR TRAP SEDIMENT AND DEBRIS SHOULD BE INSPECTED FOR CLOGGING, DENSITY OF VEGETATION, DAMAGE BY FOOT OR VEHICULAR TRAFFIC, EXCESSIVE ACCUMULATIONS, AND CHANNELIZATION. INSPECTIONS SHOULD BE MADE ON A QUARTERLY BASIS FOR THE FIRST TWO YEARS FOLLOWING INSTALLATION, AND THEN ON A BIANNUAL BASIS THEREAFTER. INSPECTIONS SHOULD ALSO BE MADE AFTER EVERY STORM EVENT GREATER THAN 1 IN DURING THE ESTABLISHMENT PERIOD. GUIDANCE INFORMATION, USUALLY IN WRITTEN MANUAL FORM, FOR OPERATING AND MAINTAINING FILTER STRIPS SHOULD BE PROVIDED TO ALL FACILITY OWNERS AND TENANTS. FACILITY OWNERS ARE ENCOURAGED TO KEEP AN INSPECTION LOG, WHERE THEY CAN RECORD ALL INSPECTION DATES, OBSERVATIONS, AND MAINTENANCE ACTIVITIES.
- SEDIMENT AND DEBRIS SHOULD BE ROUTINELY REMOVED (BUT NEVER LESS THAN BIANNUALLY), OR UPON OBSERVATION, WHEN BUILDUP EXCEEDS 2 INCHES IN DEPTH IN EITHER THE STRIP ITSELF OR THE LEVEL SPREADER. IF EROSION IS OBSERVED, MEASURES SHOULD BE TAKEN TO IMPROVE THE LEVEL SPREADER OR OTHER DISPERSION METHOD TO ADDRESS THE SOURCE OF EROSION. RILLS AND GULLIES OBSERVED ALONG THE STRIP MAY BE FILLED WITH TOPSOIL, STABILIZED WITH EROSION CONTROL MATTING, AND EITHER SEEDED OR SODDED, AS DESIRED. FOR CHANNELS LESS THAN 12 INCHES WIDE, FILLING WITH CRUSHED GRAVEL, WHICH ALLOWS GRASS TO CREEP IN OVER TIME, IS ACCEPTABLE. FOR WIDER CHANNELS, I.E. GREATER THAN 12 INCHES, REGRADING AND RESEEDING MAY BE NECESSARY. (SMALL BARE AREAS MAY ONLY REQUIRE OVERSEEDING) REGRADING MAY ALSO BE REQUIRED WHEN POOLS OF STANDING WATER ARE OBSERVED ALONG THE SLOPE. (IN NO CASE SHOULD STANDING WATER BE TOLERATED FOR LONGER THAN 48-72 HOURS.) IF CHECK DAMS ARE PROPOSED, THEY SHOULD BE INSPECTED FOR CRACKS, ROT, STRUCTURAL DAMAGE, OBSTRUCTIONS, OR ANY OTHER FACTORS THAT CAUSE ALTERED FLOW PATTERNS OR CHANNELIZATION. INLETS OR SEDIMENT SUMPS THAT DRAIN TO FILTER STRIPS SHOULD BE CLEANED PERIODICALLY OR AS NEEDED.
- SEDIMENT SHOULD BE REMOVED WHEN THE FILTER STRIP IS THOROUGHLY DRY. TRASH AND DEBRIS REMOVED FROM THE SITE SHOULD BE DEPOSITED ONLY AT SUITABLE DISPOSAL/RECYCLING SITES AND MUST COMPLY WITH APPLICABLE LOCAL, STATE, AND FEDERAL WASTE REGULATIONS. IN THE CASE WHERE A FILTER STRIP IS USED FOR SEDIMENT CONTROL, IT SHOULD BE REGRADED AND RESEEDED IMMEDIATELY AFTER CONSTRUCTION HAS CONCLUDED.
- MAINTAINING A VIGOROUS VEGETATIVE COVER ON A FILTER STRIP IS CRITICAL FOR MAXIMIZING POLLUTANT REMOVAL EFFICIENCY AND EROSION PREVENTION. GRASS COVER SHOULD BE MOWED, WITH LOW GROUND PRESSURE EQUIPMENT, AS NEEDED TO MAINTAIN A HEIGHT OF 4-8 INCHES. MOWING SHOULD BE DONE ONLY WHEN THE SOIL IS DRY, IN ORDER TO PREVENT TRACKING DAMAGE TO VEGETATION, SOIL COMPACTION, AND FLOW CONCENTRATIONS. GENERALLY SPEAKING, GRASSES SHOULD BE ALLOWED TO GROW AS HIGH AS POSSIBLE, BUT MOWED FREQUENTLY ENOUGH TO AVOID TROUBLESOME INSECTS OR NOXIOUS WEEDS. FALL MOWING SHOULD BE CONTROLLED TO A GRASS HEIGHT OF 6 INCHES, TO PROVIDE ADEQUATE WILDLIFE WINTER HABITAT. (WHEN AND WHERE EXISTING IS DESIRED FOR AESTHETIC REASONS THAT DRAIN TO FILTER STRIPS SHOULD BE CLEANED PERIODICALLY OR AS NEEDED.
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- IF VEGETATIVE COVER IS NOT FULLY ESTABLISHED WITHIN THE DESIGNATED TIME, IT SHOULD BE REPLACED WITH AN ALTERNATIVE SPECIES. UNWANTED OR INVASIVE GROWTH SHOULD BE REMOVED ON AN ANNUAL BASIS. BIWEEKLY INSPECTIONS ARE RECOMMENDED FOR AT LEAST THE FIRST GROWING SEASON, OR UNTIL THE VEGETATION IS PERMANENTLY ESTABLISHED. ONCE THE VEGETATION IS ESTABLISHED, INSPECTIONS OF HEALTH, DIVERSITY, AND DENSITY SHOULD BE PERFORMED AT LEAST ONCE PER YEAR, DURING BOTH THE GROWING AND NONGROWING SEASON. VEGETATIVE COVER SHOULD BE SUSTAINED AT 85% AND REESTABLISHED IF DAMAGE GREATER THAN 50% IS OBSERVED, WHENEVER POSSIBLE. DEFICIENCIES IN VEGETATION ARE TO BE MODLIFIED WITHOUT THE USE OF FERTILIZERS OR PESTICIDES. THESE TREATMENT OPTIONS, AS WELL AS ANY OTHER METHODS USED TO ACHIEVE OPTIMUM VEGETATIVE HEALTH, SHOULD ONLY BE USED UNDER SPECIAL CIRCUMSTANCES AND IF THEY DO NOT COMPROMISE THE FUNCTIONALITY OF THE FILTER STRIP.
- **FAILURE** OF THE VEGETATIVE FILTER STRIP OCCURS IF THE SOIL NO LONGER INFILTRATES WATER AND HAS POOR DRAINAGE. OR IF SHEET FLOW CONDITIONS NO LONGER OCCUR AND RILLS AND GULLIES START TO FORM.
- **IN THE EVENT OF A FILTER STRIP FAILURE**, IF IT EXHIBITS SIGNS OF POOR DRAINAGE AND/OR VEGETATIVE COVER, PERIODIC SOIL AERATION MAY BE NEEDED. IN ADDITION, DEPENDING ON SOIL CHARACTERISTICS, THE STRIP MAY NEED PERIODIC LIMING. IF THERE IS STANDING WATER FOR OVER 72 HOURS MEASURES SHOULD BE TAKEN TO REESTABLISH THE DRAIN DOWN TIME OF THE SYSTEM. IF RILLS AND GULLIES ARE OBSERVED ALONG THE STRIP THEY MAY BE FILLED WITH TOPSOIL, STABILIZED WITH EROSION CONTROL MATTING, AND EITHER SEEDED OR SODDED AS DESIRED. FOR CHANNELS LESS THAN 12 INCHES WIDE, FILLING WITH CRUSHED GRAVEL, WHICH ALLOWS GRASS TO CREEP IN OVER TIME, IS ACCEPTABLE. FOR WIDER CHANNELS, I.E. GREATER THAN 12 INCHES, REGRADING AND RESEEDING MAY BE NECESSARY. (SMALL BARE AREAS MAY ONLY REQUIRE RESEEDING)

3) RAIN GARDEN
- WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MAY BE REQUIRED.
- DETRITUS MAY ALSO NEED TO BE REMOVED EVERY YEAR. PERENNIAL PLANTINGS MAY BE CUT DOWN AT THE END OF THE GROWING SEASON.
- MULCH SHOULD BE RE-SPREAD WHEN EROSION IS EVIDENT AND BE REPLENISHED AS NEEDED. ONCE EVERY 2 TO 3 YEARS THE ENTIRE AREA MAY REQUIRE MULCH REPLACEMENT.
- BIORETENTION AREAS SHOULD BE INSPECTED AT LEAST TWO TIMES PER YEAR FOR SEDIMENT BUILDUP, EROSION, VEGETATIVE CONDITIONS, ETC.
- DURING PERIODS OF EXTENDED DROUGHT, BIORETENTION AREAS MAY REQUIRE WATERING.
- TREES AND SHRUBS SHOULD BE INSPECTED TWICE PER YEAR TO EVALUATE HEALTH.
- **FAILURE** OF A RAIN GARDEN OCCURS WHEN THERE IS STANDING WATER IN THE RAIN GARDEN FOR MORE THAN 72 HOURS.
- **IN THE EVENT OF FAILURE** OF A RAIN GARDEN, REMOVE AND REPLACE UNDER DRAIN, REPLACE MULCH, TOPSOIL AND PLANTINGS.

4) SLOW RELEASE BASIN
- CATCH BASINS AND INLETS (UPGRADIENT OF SLOW RELEASE BASIN) SHOULD BE INSPECTED AND CLEANED AT LEAST TWO TIMES PER YEAR AND AFTER RUNOFF EVENTS.
- THE VEGETATION ALONG THE SURFACE OF THE SLOW RELEASE BASIN SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED AS SOON AS POSSIBLE.
- VEHICLES SHOULD NOT BE PARKED OR DRIVEN ON THE SLOW RELEASE BASIN, AND CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS.
- INSPECT THE BASIN AFTER RUNOFF EVENTS AND MAKE SURE THAT RUNOFF DRAINS DOWN WITHIN 72 HOURS. MOSQUITO'S SHOULD NOT BE A PROBLEM IF THE WATER DRAINS IN 72 HOURS. MOSQUITOES REQUIRE A CONSIDERABLY LONG BREEDING PERIOD WITH RELATIVELY STATIC WATER LEVELS.
- ALSO INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION CONTROL MEASURES, SIGNS OF WATER CONTAMINATION/SPILLS, AND SLOPE STABILITY IN BERMS.
- MOW ONLY AS APPROPRIATE FOR VEGETATIVE COVER SPECIES.
- REMOVE ACCUMULATED SEDIMENT FROM BASIN AS REQUIRED, PROPERLY DISPOSE OF SEDIMENT.
- **FAILURE** OF A SLOW RELEASE BASIN OCCURS WHEN THERE IS NO FILTRATION THROUGH THE FILTER MEDIA, AND THERE IS STANDING WATER IN THE BASIN FOR MORE THAN 72 HOURS.
- **IN THE EVENT OF FAILURE**, RESTORE ORIGINAL CROSS SECTION OF BASIN, AND INFILTRATION RATE OF FILTER MEDIA.

5) SOIL AMENDMENT & RESTORATION
- THE SOIL RESTORATION PROCESS MAY NEED TO BE REPEATED OVER TIME, DUE TO COMPACTION BY USE AND/OR SETTLING.
- TESTS SHALL BE PERFORMED ANNUALLY TO DETERMINE THE BULK DENSITY OF THE SOIL AMENDED AREAS. TESTING SHALL BE PERFORMED ANNUALLY UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL. IF SOIL DENSITIES ARE OUTSIDE THE RECOMMENDED RANGE FOR SOIL AMENDED AREAS, THE RESPONSIBLE ENTITY SHALL CONSULT THE TOWNSHIP AND A LICENSED PROFESSIONAL ON PROPER REMEDIATION AND FUTURE MAINTENANCE OF THIS BMP.
- IT IS NOTED THAT SOIL AMENDMENTS ARE NOT PROPOSED WITHIN 20' OF THE REAR OF ANY UNIT OR 10 FEET FROM THE FRONT OR SIDES OF ANY UNIT.
- **FAILURE** OF THE SOIL AMENDMENT & RESTORATION OCCURS WHEN SOIL IS COMPACTED TO A POINT WHERE AIRSPACE DROPS TO 10-15% OF THE TOTAL SOIL VOLUME.
- **IN THE EVENT OF FAILURE** OF THE SOIL AMENDMENT & RESTORATION, REPEAT SOIL AMENDMENT AND RESTORATION PROCESS.

6) PROPOSED TREES (REVEGETATE AND REFOREST)
- PROPOSED TREES AND WOODLAND AREAS WITHIN THE OPEN SPACE AND RIGHT-OF-WAY SHALL BE INSPECTED YEARLY BY A QUALIFIED PROFESSIONAL (I.E. ARBORIST, LANDSCAPE ARCHITECT). MORE FREQUENT INSPECTIONS MAY BE NECESSARY DUE TO NATURAL EVENTS (I.E. SIGNIFICANT RAINFALL, WINDSTORM). AN ANNUAL HAZARD TREE INSPECTION SHALL ALSO BE PERFORMED TO IDENTIFY POTENTIAL THREATS TO HEALTH, SAFETY, AND WELFARE OF THE TOWNSHIP RESIDENTS. THE CONSULTANT SHALL RECOMMEND THE REMOVAL OF POISON IVY, INVASIVE SPECIES, DEAD OR DISEASED PLANTINGS, AND PRUNING WHERE APPROPRIATE. POISON IVY AND INVASIVE PLANT MATERIAL IDENTIFIED DURING THE CONSULTANT'S INSPECTION SHALL BE REMOVED BY CUTTING OR DIGGING. HERBICIDES SHALL ONLY BE USED WHERE LARGE POPULATIONS OF INVASIVE SPECIES EXIST. IN SUCH CASES, SPOT TREATMENT OF THE INFESTED AREA WILL BE ACCEPTABLE.
- **FAILURE** OF THIS BMP OCCURS IF A TREE DIES.
- **IN THE EVENT OF FAILURE** A REPLACEMENT TREE MUST BE PLANTED IN THE SAME LOCATION.

7) SUBSURFACE BASIN
- THE SUBSURFACE BASIN MUST BE INSPECTED FOR CLOGGING AND EXCESSIVE DEBRIS AND SEDIMENT ACCUMULATION AT LEAST ONCE A SEASON (FOUR TIMES A YEAR) AS WELL AS AFTER EVERY STORM EXCEEDING 1-INCH OF RAINFALL WITHIN ONE HOUR.
- SEDIMENT REMOVAL SHOULD TAKE PLACE WHEN ALL RUNOFF HAS DRAINED FROM AND THE BASIN IS REASONABLY DRY. DISPOSAL OF DEBRIS, TRASH, SEDIMENT, AND OTHER WASTE MATERIAL SHALL BE DONE AT SUITABLE DISPOSAL/RECYCLING SITES AND IN COMPLIANCE WITH ALL APPLICABLE LOCAL, COUNTY, STATE AND FEDERAL WASTE REGULATIONS.
- ALL STRUCTURAL COMPONENTS MUST BE INSPECTED FOR CRACKING, SUBSIDENCE, BREACHING, WEARING, AND DETERIORATION DURING ANY INSPECTIONS. THE CONDITION OF SURROUNDING ABOVEGROUND AREAS SHALL BE INSPECTED FOR EVIDENCE OF POTENTIAL FAILURES OR DETERIORATION OF THE UNDERGROUND SYSTEM.
- **FAILURE** OF THIS BMP OCCURS IF THERE IS STANDING WATER IN THE BASIN AND THE OUTLETS ARE CLOGGED.
- **IN THE EVENT OF FAILURE** OF THE SUBSURFACE BASINS STANDING WATER, THE WATER SHALL BE PUMPED DOWNSTREAM THROUGH A SEDIMENT FILTER BAG, AFTER STANDING WATER IS REMOVED, THE BASIN SHALL BE INSPECTED AS USUAL. IF MODIFICATIONS TO THE BASIN ARE REQUIRED TO ALLEVIATE STANDING WATER, THE HOA SHALL HIRE A PROFESSIONAL ENGINEER TO REMEDY THE STANDING WATER ISSUE. ANY REMEDIES MUST BE APPROVED BY THE TOWNSHIP PRIOR TO START OF CONSTRUCTION.
- IN THE EVENT OF COMPLETE STRUCTURAL BMP FAILURE, THE SUBSURFACE BASIN SHALL BE REMOVED AND REPLACED.

8) ROOFTOP DISCONNECTION
- MAINTENANCE OF THE PLANTED AREAS WHERE THE ROOF DRAINS ONTO THE LAWN SHALL BE MAINTAINED BY THE HOMEOWNER. ROUTINE MAINTENANCE INCLUDES A BIANNUAL HEALTH EVALUATION OF THE VEGETATION AND SUBSEQUENT REMOVAL OF ANY DEAD OR DISEASED VEGETATION PLUS MULCH REPLENISHMENT, IF APPLICABLE.
- **FAILURE** OF THIS BMP OCCURS IF THERE IS STANDING WATER AT THE DISCHARGE LOCATION OF THE ROOF DOWNSPOUTS.
- **IN THE EVENT OF FAILURE** THE AREA OF THE DISCHARGE LOCATION SHALL BE REGRADED TO SLOPE AWAY FROM THE HOUSE.

9) STREET SWEEPING
- THE FOLLOWING ROADS SHOULD BE CLEANED BI-WEEKLY (EVERY OTHER WEEK):
  WEST VIEW DRIVE, DAVENPORT DRIVE, VANDERBILT DRIVE, WORTHINGTON LANE, MELBOURNE LANE, AND ALLEY DD, ALLEY FF, ALLEY EE.
- TO LIMIT THE DISRUPTION TO THE USE OF THE PROPERTY, SWEEPING SHALL OCCUR DURING OFF HOURS. TYPICALLY, THE EARLY MORNING IS THE OPTIMAL TIME.
- THE HOA SHALL POST SIGNS TO RESTRICT PARKING AND NOTIFY TENANTS OF THE DATE AND APPROXIMATE TIME OF THE SWEEPING. NOTIFICATION SHOULD OCCUR NO LESS THAN 2 DAYS PRIOR TO SWEEPING. THE HOA SHALL ALSO KEEP A LOG DOCUMENTING WHEN STREET SWEEPING HAS OCCURRED.
- **FAILURE** OF THIS BMP OCCURS WHEN THE POLLUTANT REMOVAL RATES ARE NOT ACHIEVED FOR THE ROAD LISTED ABOVE.
- **IN THE EVENT OF FAILURE** IT MUST BE ENSURED THAT THE ROADS LISTED ABOVE ARE BEING SWEPT BI WEEKLY AND THE SWEEPERS ARE FUNCTIONING PROPERLY.

BMP FAILURE:

BMP FAILURE IS DEFINED AS WHEN THE DESIGN NO LONGER PROVIDES THE BENEFIT OR PERFORMANCE ANTICIPATED. IN THE CASE OF STORMWATER INFILTRATION BMPS FAILURE MAY BE A REDUCTION IN THE VOLUME OF RUNOFF ANTICIPATED OR THE DISCHARGE OF STORMWATER WITH EXCESSIVE LEVELS OF SOME POLLUTANTS, FOR PREVENTATIVE AND CORRECTIVE MEASURES FOR THE SPECIFIC BMPS SEE THE BMP MAINTENANCE PLAN ON THIS SHEET.

NOTE:
SEE SHEETS CG-401 THROUGH CG-409 FOR DETAILED POST CONSTRUCTION STORMWATER MANAGEMENT PLAN.

BMP LEGEND

- VEGETATED FILTER STRIP
- SLOW RELEASE BASIN
- SUBSURFACE BASIN
- SOIL AMENDMENT AND RESTORATION
- STREET SWEEPING
- PROTECTED WATERBODIES
- PROTECTED WOODLANDS
- POST-DEVELOPMENT 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)
- FLOODWAY
- PROPOSED TREE LINE
- NPDES BOUNDARY
- LIMIT OF DISTURBANCE

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN
- PR. WATER MAIN
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR
- PR. SPOT ELEVATION x 360.3
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. SIGN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRAIL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

OWNERS ACKNOWLEDGEMENT

I ACKNOWLEDGED THAT ANY REVISION TO THE APPROVED SWM SITE PLAN SHALL BE SUBMITTED TO A NO APPROVED BY THE MUNICIPALITY, AND THAT A REVISED EROSIONS AND SEDIMENT CONTROL PLAN SHALL BE SUBMITTED TO, AND APPROVED BY, THE CONSERVATION DISTRICT OR MUNICIPALITY (AS APPLICABLE) FOR A DETERMINATION OF ADEQUACY PRIOR TO CONSTRUCTION OF THE REVISED FEATURES

OWNER

RECORDING CERTIFICATE:

PROFESSIONAL ENGINEER'S CERTIFICATION

I _____ ON THE DATE _____ HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE EAST NEW HANOVER TOWNSHIP ORDINANCE, BEING THE "NEW HANOVER TOWNSHIP STORMWATER MANAGEMENT ORDINANCE"

JASON ENGELHARDT
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

PRINCIPLES OF PCSM PLANNING AND DESIGN

THE MANAGEMENT OF POST CONSTRUCTION STORMWATER WILL BE UNDERTAKEN IN ACCORDANCE WITH THE FOLLOWING PRINCIPLES:

- PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE RECEIVING STREAM
- PREVENT AN INCREASE IN THE RATE OF STORMWATER RUNOFF
- MINIMIZE AN INCREASE IN STORMWATER VOLUME
- MINIMIZE IMPERVIOUS AREAS
- MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION
- MINIMIZE LAND CLEARING AND GRADING
- MINIMIZE SOIL COMPACTION
- UTILIZE OTHER STRUCTURAL OR NONSTRUCTURAL BMPS THAT PREVENT OR MINIMIZE CHANGES IN STORMWATER RUNOFF

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

CALL BEFORE YOU DIG
IN PA, TOLL FREE
1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
"IT'S THE LAW"

PROJECT WASTES
ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. THE CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASHES, ETC. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

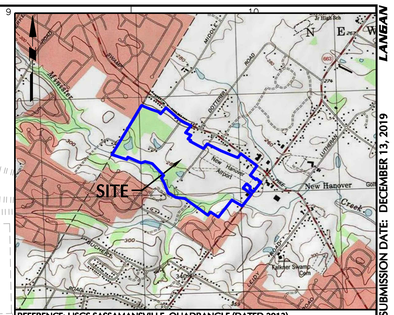
RECEIVING WATERS AND CLASSIFICATION
RECEIVING WATERS:
MINISTER CREEK- CLASSIFICATION: TSF, MF

GEOLOGIC FORMATIONS AND SOIL CONDITIONS
NO KNOWN NATURALLY-OCCURRING, POLLUTANT CAUSING GEOLOGIC FORMATION OR SOIL CONDITIONS EXIST WITHIN THE LIMITS OF DISTURBANCE FOR THE SUBJECT PROPERTY. SHALLOW BEDROCK MAY BE LOCATED ON SITE, ROCK SHALL BE RIPPED TO MAXIMUM EXTENT POSSIBLE. IF ROCK IS NOT RIPPABLE , AND BLASTING IS REQUIRED, ALL BLASTING SHALL MEET LOCAL, COUNTY, STATE AND FEDERAL REQUIREMENTS.

LAND COVER
THE EXISTING LAND COVER OF THE SUBJECT PROPERTY IS MOSTLY AGRICULTURAL LAND WITH SOME WOODED AREAS. THE SITE ALSO HAS A FEW EXISTING HOUSES WITH ACCESS DRIVES.

NOTES:
1) SEE SHEET L1.0 "POST CONSTRUCTION STORMWATER MANAGEMENT OVERALL LANDSCAPING PLAN" FOR LOCATION AND TYPES OF PROPOSED TREES FROM THE "REVEGETATE AND REFOREST" BMP.
2) ALL RESIDENTIAL UNITS ARE TO MAINTAIN ROOFTOP DISCONNECT.

CRITICAL STAGES OF PCSM PLAN IMPLEMENTATION
THE CRITICAL STAGES OF PCSM PLAN IMPLEMENTATION ARE THE FOLLOWING: THE INSTALLATION OF THE SLOW RELEASE BASINS, RAIN GARDENS, SOIL AMENDMENT AND RESTORATION, VEGETATED FILTER STRIP, CONVEYANCE SYSTEM, SUBSURFACE BASIN, PROPOSED TREE PLANTINGS AND ALL ASSOCIATED COMPONENTS (AND AT ALL OTHER TIMES AS DEEMED APPROPRIATE BY THE DEPARTMENT OR MONTGOMERY COUNTY CONSERVATION DISTRICT) SHALL BE CONSTRUCTED WITH OVERSIGHT BY A LICENSED PROFESSIONAL OR THEIR DESIGNEE.



SITE LOCATION MAP
SCALE: 1"=2,000'

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

No.	Date	Description
11.	12-13-19	REVISED PER COMMENT LETTERS
10.	9-11-19	REVISED FOR MINOR MOD TO LOD
9.	11-09-18	REVISED PER COMMENT LETTERS
8.	10-22-18	REVISED PER MCCD COMMENTS
7.	6-1-18	REVISED PER MCCD COMMENTS
6.	1-31-18	REVISED PER COMMENT LETTERS
5.	12-15-17	REVISED PER MCCD COMMENTS
4.	11-08-17	REVISED PER COMMENT LETTERS
3.	6-07-17	REVISED PER NPDES SUBMISSION
2.	4-07-17	REVISED PER COMMENT LETTERS
1.	11-04-16	REVISED PER COMMENT LETTERS

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan Treadwell Rollo, LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
MASTER POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

Project No. 240038801
Date 05/31/16
Scale 1"=150'
Drawn By KG
Submission Date
Drawing No. CG-400
Sheet 72 of 187

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (2153822-8899
CONTACT: BENJAMIN GOLDTHORP

NEW HANOVER TOWN CENTER
SOIL DESCRIPTIONS AND LIMITATIONS

SOIL SYM.	NAME (TYPE)	HYDROLOGIC SOIL GROUP	HYDRIC	DEPTH OF WATERTABLE	DEPTH TO BEDROCK	SOIL LIMITATIONS
AnA	ABBOTT SILT LOAM, 0 TO 3 PERCENT SLOPES	D	N	0 to 18 inches	10 to 40 inches	SEASONAL WETNESS
AnB	ABBOTT SILT LOAM, 3 TO 8 PERCENT SLOPES	D	N	0 to 18 inches	10 to 40 inches	SEASONAL WETNESS
Bo	BOWMANSVILLE SILT LOAM	C/D	Y	0 to 18 inches	10 to 88 inches	SEASONAL HIGH WATER TABLE
BuA	BUCKINGHAM SILT LOAM, 0 TO 3 PERCENT SLOPES	B/D	Y	0 to 18 inches	20 to 88 inches	SEASONAL HIGH WATER TABLE
LnA	LINDEN SILT LOAM, 0 TO 3 PERCENT SLOPES	C	N	0 to 6 inches	10 to 84 inches	SEASONAL HIGH WATER TABLE
PkB	PENNS SILT LOAM, 3 TO 8 PERCENT SLOPES	C	N	0 to 6 inches	10 to 23 inches	SEASONAL HIGH WATER TABLE
PkC	PENNSVILLE CHANNERY SILT LOAM, 8 TO 15 PERCENT SLOPES	D	N	more than 80 inches	10 to 23 inches	SEASONAL HIGH WATER TABL

MATCHLINE-CG-402

MATCHLINE-CG-406

SWAMP PIKE

LIMIT OF PROPOSED TREE LINE (TYP.)

NPDES BOUNDARY (TYP)

SOIL AMENDMENT AND RESTORATION (TYP)

INF-A10-4'
ROCK 2.75' B.G.S.

INF-A9-3'
ROCK 2.50' B.G.S.

INF-A6-5'
ROCK 2.83' B.G.S.

INF-A5-5'
ROCK 1.58' B.G.S.

INF-A8-3'
ROCK 1.17' B.G.S.
CW 1.17' B.G.S.

INF-A27-3'
ROCK 1.33

BASIN A
SLOW
RELEASE BASIN

PIPE TO BE INSTALLED WITH CONCRETE CRADLE

ANTI-SEEP COLLAR DIMENSIONS 6.0'X6.0'X1' SPACING: 1 @ 14.00'

EMERGENCY SPILLWAY TRW (450) LINER BOTTOM WIDTH=160 FT CREST EL.=288.00 TOP OF BERM EL.=290.10

0.1 IN/HR TP2052

1.82 IN/HR TP2053

N/A TP1020

1.42 IN/HR TP2051

0.26 IN/HR TP2006 24"

1.18 IN/HR TP1019

0.1 IN/HR TP2007 24"

0 IN/HR TP2015

0 IN/HR TP2014

0 IN/HR TP2016

0 IN/HR TP2013

0.26 IN/HR TP2012

0 IN/HR TP201T

0.80 IN/HR TP1021

0.43 IN/HR TP2017

0 IN/HR TP2010

N/A TP1018

0 IN/HR T

RsB2

RsB3

RsA2

CrA

AbA

BrA

CrB2

WOODED AREA

RECREATION OPEN SPACE 3 37,530 SF.

OPEN SPACE 2 35,992 SF.

OFFICE BUILDING

STORY WOOD BARN

STORY BLOCK GARAGE

STORY STONE DWELLING

DENSE GRASS

BOWMAN COURT

WEST VIEW DRIVE

VANDERBILT DRIVE

TOWNSHIP LINE ROAD

TOWNSHIP LINE ROAD RIGHT-OF-WAY AREA 42,729 SF.

SWAMP PIKE RIGHT-OF-WAY AREA A

SOIL AMENDMENT AND RESTORATION (TYP)

LIMIT OF PROPOSED TREE LINE (TYP.)

50 0 25 50
SCALE IN FEET

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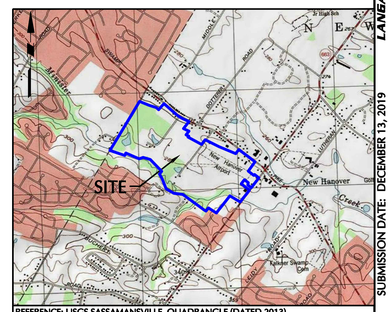
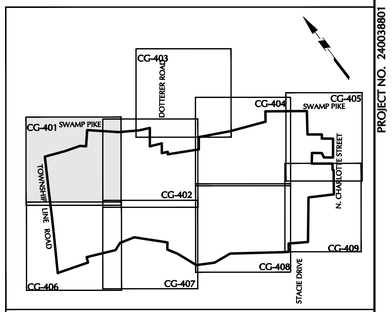


REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

BMP LEGEND

- VEGETATED FILTER STRIP
- SLOW RELEASE BASIN
- SUBSURFACE BASIN
- SOIL AMENDMENT AND RESTORATION
- STREET SWEEPING
- PROTECTED WATERBODIES
- PROTECTED WOODLANDS
- POST-DEVELOPMENT 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)
- FLOODWAY
- PROPOSED TREE LINE
- NPDES BOUNDARY
- LIMIT OF DISTURBANCE

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

CALL BEFORE YOU DIG IN PA, TOLL FREE 1-800-242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN (U F M)
- PR. WATER MAIN (U M)
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR (295)
- PR. SPOT ELEVATION (× 360.3)
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRAIL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

No.	Date	Description
7.	12-13-19	REVISED PER COMMENT LETTERS
6.	12-10-18	REVISED PER MCCD COMMENTS
5.	10-22-18	REVISED PER MCCD COMMENTS
4.	6-1-18	REVISED PER MCCD COMMENTS
3.	1-31-18	REVISED PER COMMENT LETTERS
2.	12-15-17	REVISED PER MCCD COMMENTS
1.	11-08-17	REVISED PER COMMENT LETTERS

REVISIONS

JASON SCOTT ENGELHARDT
REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA

SIGNATURE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering and Environmental Services, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

Project No. 240038801	Drawing No. CG-401
Date 09/29/17	
Scale 1"=50	
Drawn By MZ	
Submission Date X	Sheet 73 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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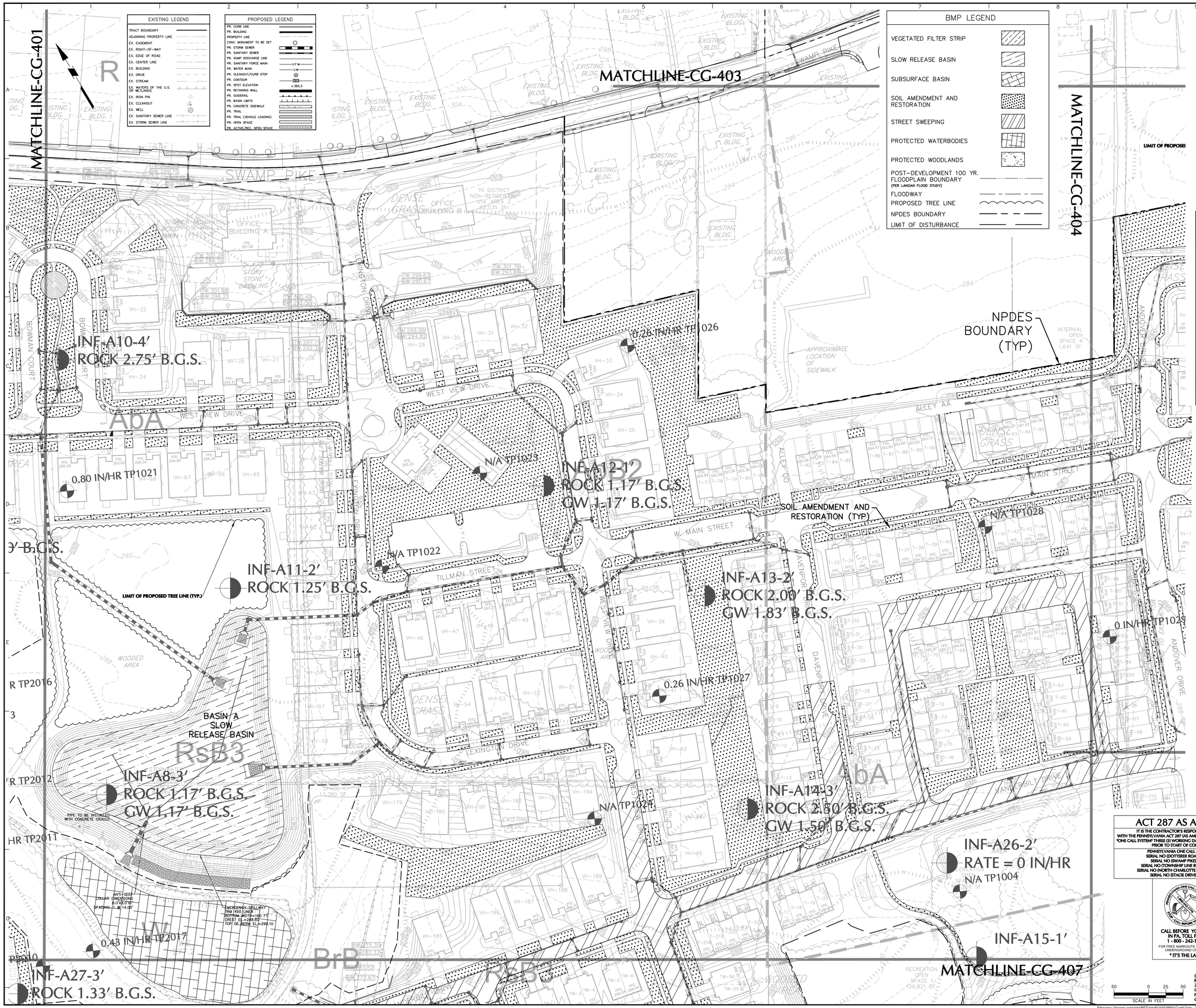

No.	Date	Description
8.	12-13-19	REVISED PER COMMENT LETTERS
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4.	6-1-18	REVISED PER MCCD COMMENTS
3.	1-31-18	REVISED PER COMMENT LETTERS
2.	12-15-17	REVISED PER MCCD COMMENTS
1.	11-08-17	REVISED PER COMMENT LETTERS

REVISIONS

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

ACT 287 AS AMENDED

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JASON SCOTT ENGELHARDT
REGISTERED PROFESSIONAL ENGINEER
SIGNATURE — JASON ENGELHARDT — DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan CT, Inc.
Langan Treadwell Rollo, LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

Project No. 240038801	Drawing No. CG-402
Date 09/29/17	
Scale 1"=50'	
Drawn By MZ	
Submission Date	Sheet 74 of 187

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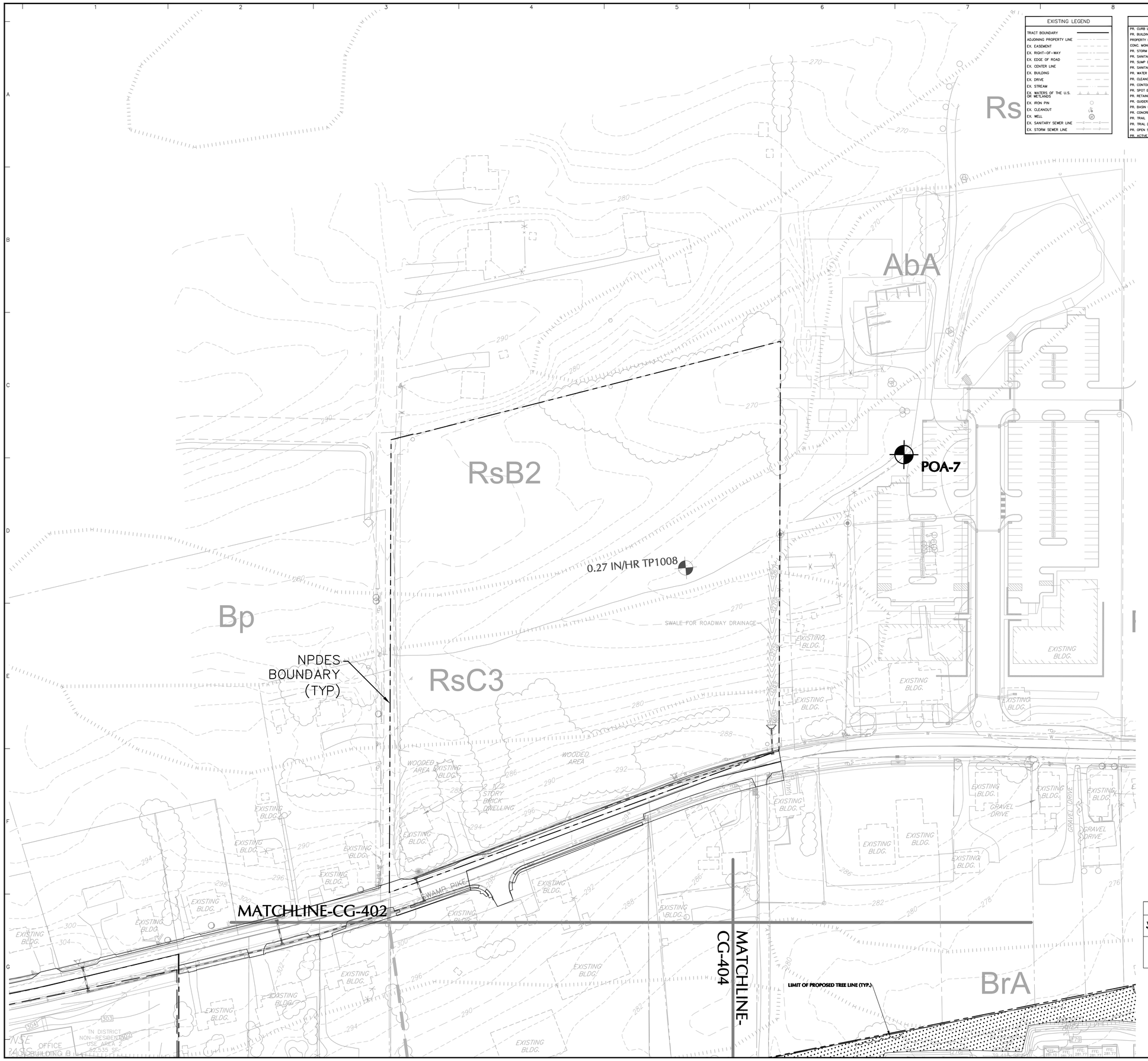
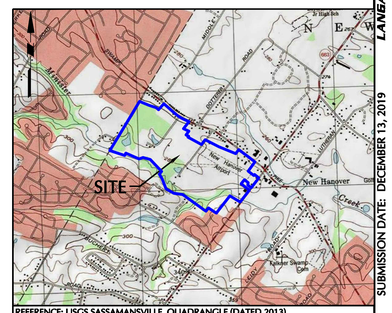


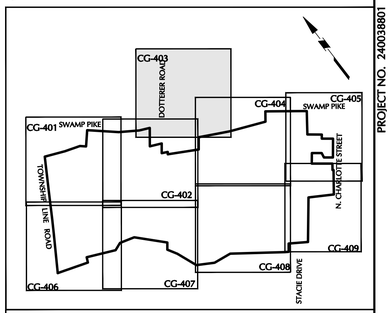
EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND	
PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	U F M
PR. WATER MAIN	U R
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	000
PR. SPOT ELEVATION	x 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRIAL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP
SCALE: 1"=2,000'



KEY MAP
SCALE 1"=1000'

BMP LEGEND	
VEGETATED FILTER STRIP	
SLOW RELEASE BASIN	
SUBSURFACE BASIN	
SOIL AMENDMENT AND RESTORATION	
STREET SWEEPING	
PROTECTED WATERBODIES	
PROTECTED WOODLANDS	
POST-DEVELOPMENT 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)	
FLOODWAY	
PROPOSED TREE LINE	
NPDES BOUNDARY	
LIMIT OF DISTURBANCE	

50 0 25 50
SCALE IN FEET

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

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Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	7.
12-10-18	REVISED PER MCCD COMMENTS	6.
10-22-18	REVISED PER MCCD COMMENTS	5.
6-1-18	REVISED PER MCCD COMMENTS	4.
1-31-18	REVISED PER COMMENT LETTERS	3.
12-15-17	REVISED PER MCCD COMMENTS	2.
11-08-17	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

Project No. 240038801	Drawing No. CG-403
Date 09/29/17	
Scale 1"=50'	
Drawn By MZ	
Submission Date X	Sheet 75 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

Filename: I:\langan.com\data\BETI\data8\240038801\Cadd Data - 240038801\SheetFiles\240038801 CG401-409.dwg, Date: 12/13/2019 Time: 14:56 User: dmoyer Style Table: Langan.stb Layout: CG403
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MATCHLINE-CG-402

MATCHLINE-CG-403

MATCHLINE-CG-405

MATCHLINE-CG-408

SWAMP PIKE

NPDES BOUNDARY (TYP)

LIMIT OF PROPOSED TREE LINE (TYP.)

BrA

RsB2

0 IN/HR TP2029

0 IN/HR TP1030

0 IN/HR TP1029 18"

0 IN/HR TP1031 36"

0.03 IN/

INF-A24-1'
RATE = 0 IN/HR
ROCK 2.25' B.G.S.

INF-A23-4'
ROCK 1.92' B.G.S.

INF-A20-1'
RATE = 0.06 IN/HR
ROCK 1.58' B.G.S.

INF-A21-2'
RATE = 0 IN/HR
ROCK 3.25' B.G.S.

INF-A19-1'
RATE = 1.81 IN/HR
ROCK 0.83'-1.00' B.G.S.

SOIL AMENDMENT AND RESTORATION (TYP)

ANDOVER DRIVE

VANDERBILT DRIVE

E. MAIN STREET

W. MAIN STREET

FLEX BUILDING 7

FLEX BLDG 6

FLEX BLDG 5

FLEX BLDG 4

BLDG. A

BLDG. B

RETAIL BLDG. 1

ALLEY JJ

ALLEY KK

ALLEY LL

ALLEY MM

SITE

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'

CG-401 SWAMP PIKE
CG-402
CG-403
CG-404
CG-405 SWAMP PIKE
CG-406
CG-407
CG-408
CG-409
DOTTERER ROAD
TOWNSHIP LINE ROAD
N. CHARLOTTE STREET
STACIE DRIVE

KEY MAP

SCALE 1"=1000'

BMP LEGEND

- VEGETATED FILTER STRIP
- SLOW RELEASE BASIN
- SUBSURFACE BASIN
- SOIL AMENDMENT AND RESTORATION
- STREET SWEEPING
- PROTECTED WATERBODIES
- PROTECTED WOODLANDS
- POST-DEVELOPMENT 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)
- FLOODWAY
- PROPOSED TREE LINE
- NPDES BOUNDARY
- LIMIT OF DISTURBANCE

EXISTING LEGEND

- TRACT BOUNDARY
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- EX. EASEMENT
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- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN — U F M —
- PR. WATER MAIN — U W —
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR — 260 —
- PR. SPOT ELEVATION × 260.3
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRAIL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

50 0 25 50
SCALE IN FEET

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No.	Description	Date
7.	REVISED PER COMMENT LETTERS	12-13-19
6.	REVISED PER MCCD COMMENTS	12-10-18
5.	REVISED PER MCCD COMMENTS	10-22-18
4.	REVISED PER MCCD COMMENTS	6-1-18
3.	REVISED PER COMMENT LETTERS	1-31-18
2.	REVISED PER MCCD COMMENTS	12-15-17
1.	REVISED PER COMMENT LETTERS	11-08-17

REVISIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JASON SCOTT ENGELHARDT
ENGINEER
PE-057145-E

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

Project No. 240038801	Drawing No. CG-404
Date 09/29/17	
Scale 1"=50'	
Drawn By MZ	
Submission Date X	Sheet 76 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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Filename: I:\langan.com\data\BET\Data\8\240038801\Cadd Data - 240038801\Sheet Files\240038801 CG401-409.dwg Date: 12/13/2019 Time: 14:57 User: dmoyer Style Table: Langan.stb Layout: CG404

MATCHLINE-CG-404

INF-A25-5'
ROCK 3.75' B.G.S.
INF-A25-4'
ROCK 3.75' B.G.S.

0.03 IN/HR TP1009 6"

SUBSURFACE SYSTEM NO INFILTRATION

NPDES BOUNDARY (TYP)

INF-A24-1'
RATE = 0 IN/HR
ROCK 2.25' B.G.S.

INF-A23-4'
ROCK 1.92' B.G.S.

0 IN/HR TP1031 36"

INF-A22-5'

0.85 IN/HR TP1010 42"

0.16 IN/HR TP2032

1.32 IN/HR TP2031

0.1 IN/HR TP2030

0.59 IN/HR TP2045

LIMIT OF PROPOSED TREE LINE (TYP.)

POA-4

MATCHLINE-CG-409

POA-5

RsB2

RsC3

Rt

SWAMP PIKE

N. VANDERBILT DRIVE

E. MAIN STREET

VANDERBILT DRIVE

NORTH CHARLOTTE STREET S.R. 663 RIGHT-OF-WAY AREA C 1,456 SF.

NORTH CHARLOTTE STREET S.R. 663 RIGHT-OF-WAY AREA B 13,201 SF.

NORTH CHARLOTTE STREET S.R. 663 RIGHT-OF-WAY AREA A 22,649 SF.

SWAMP PIKE RIGHT-OF-WAY AREA CC 23,819 SF.

USE AREA II 1,032,361 SF.

INTERNAL OPEN SPACE 34,600 SF.

DD-2 FILTER SF. 0.94 AC.

RETAIL BLDG. 1

RESTAURANT 3

FLEX BUILDING 7

FLEX BUILDING 8

SUPER MARKET

2 STORY STONE DWELLING

1 STORY BLOCK BUILDING

2 1/2 STORY FRAME DWELLING

CONC. PARKING AREA

DELAWARE GRASS

WOODED AREA

EXISTING BLDG.

RESTAURANT

SHED

EXISTING LEGEND

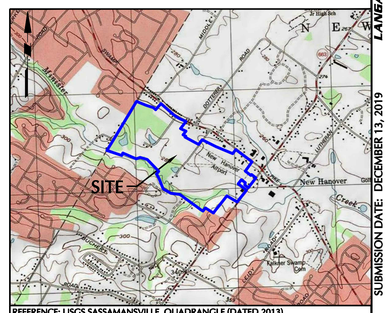
- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN — U F M —
- PR. WATER MAIN — U W —
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR
- PR. SPOT ELEVATION ×360.3
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRAIL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

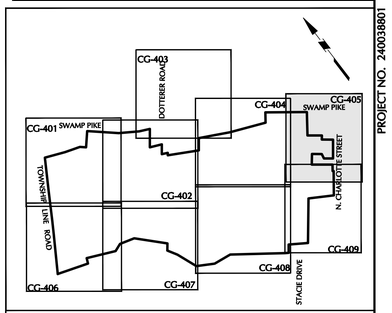
BMP LEGEND

- VEGETATED FILTER STRIP
- SLOW RELEASE BASIN
- SUBSURFACE BASIN
- SOIL AMENDMENT AND RESTORATION
- STREET SWEEPING
- PROTECTED WATERBODIES
- PROTECTED WOODLANDS
- POST-DEVELOPMENT 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)
- FLOODWAY
- PROPOSED TREE LINE
- NPDES BOUNDARY
- LIMIT OF DISTURBANCE



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

50 0 25 50
SCALE IN FEET

ACT 287 AS AMENDED

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PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

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2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	7.
12-10-18	REVISED PER MCCD COMMENTS	6.
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6-1-18	REVISED PER MCCD COMMENTS	4.
1-31-18	REVISED PER COMMENT LETTERS	3.
12-15-17	REVISED PER MCCD COMMENTS	2.
11-08-17	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT

SIGNATURE JASON S. ENGELHARDT, P.E. DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
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ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering Environmental Services, Inc. Langan CO, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

Project No. 240038801	Drawing No. CG-405
Date 09/29/17	
Scale 1"=50'	
Drawn By MZ	
Submission Date X	Sheet 77 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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Filename: I:\langan.com\data\BET\data8\240038801\Cadd Data - 240038801\SheetFiles\240038801 CG401-409.dwg Date: 12/13/2019 Time: 14:58 User: dmoyer Style Table: Langan.stb Layout: CG405

MATCHLINE-CG-401

MATCHLINE-CG-407

0.26 IN/HR TP2006 24"

1.18 IN/HR TP1019

0.1 IN/HR TP2007 24"

INF-A5-5'
ROCK 1.58' B.G.S.

SOIL AMENDMENT AND RESTORATION (TYP)

1.25 IN/HR TP2001

2.15 IN/HR TP2002

BASIN B
SLOW RELEASE BASIN

EMERGENCY SPILLWAY
TRM 450 LINER
BOTTOM WIDTH=78 FT
CREST EL.=280.50
TOP OF BERM EL.=282.50

VEGETATED FILTER STRIP 1

4.45 IN/HR TP2003

0.5 IN/HR TP2004

2.41 IN/HR TP2005

PIPE TO BE INSTALLED WITH CONCRETE CRADLE

ANTI-SEEP COLLAR DIMENSIONS
5'5"x5'5"x1'
SPACING: @ 14.58'

INF-A4-4'
ROCK 3.33' B.G.S.
GW 3.67' B.G.S.

VEGETATED FILTER STRIP 2

0.16 IN/HR TP2022

LIMIT OF PROPOSED TREE LINE (TYP.)

0.26 IN/HR TP2012

0 IN/HR TP2011

PIPE TO BE INSTALLED WITH CONCRETE CRADLE

INF-A8-3'
ROCK 1.17' B.G.S.
GW 1.17' B.G.S.

ANTI-SEEP COLLAR DIMENSIONS
8.0'x8.0'x1'
SPACING: @ 14.00'

EMERGENCY SPILLWAY
TRM 450 LINER
BOTTOM WIDTH=160 FT
CREST EL.=288.50
TOP OF BERM EL.=290.10

0.43 IN/HR TP2017

0 IN/HR TP2010

INF-A27-3'
ROCK 1.33' B.G.S.

N/A TP1018

0 IN/HR TP2009

0.85 IN/HR TP2008 42"

0.43 IN/HR TP2020

1.32 IN/HR TP2019

0.16 IN/HR TP2018

N/A TP1017

0 IN/HR TP2021

0.59 IN/HR TP2

1.81 IN/HR TP1015 36"

INF-A9-3'
ROCK 1.16' B.G.S.
GW 1.16' B.G.S.

N/A TP1016

FLOODWAY (TYP)

POA-1

NPDES BOUNDARY (TYP)

FLOODWAY (TYP)

RsA2 RsB2 BrA BrB GfB2 RsB3 EsC3 W AbB2 PeC3 Rt RsB2 Bp RsB3 KsE3 KsC3 RsC3

VANDERBILT DRIVE
DOTTERER ROAD
MELBOURN DRIVE
TOWNSHIP LINE ROAD
WINDING WAY
MINISTER CREEK

EXISTING BLDG.
WOODED AREA
APPROXIMATE LOCATION OF UGI REGULATOR STATION PERMANENT EASEMENT PLOTTED BY LANGAN

50 0 25 50
SCALE IN FEET

ACT 287 AS AMENDED

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BMP LEGEND

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- NPDES BOUNDARY
- LIMIT OF DISTURBANCE

EXISTING LEGEND

TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

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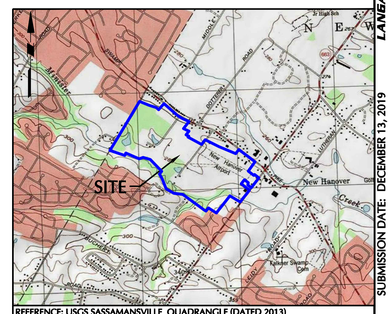
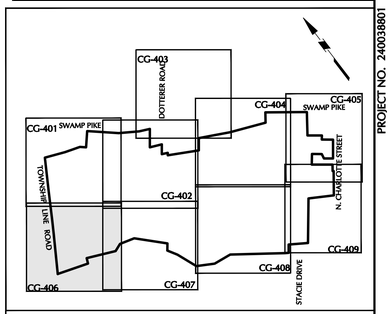
PR. CURB LINE
PR. BUILDING
PROPERTY LINE
CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
PR. SANITARY FORCE MAIN — U F M
PR. WATER MAIN — U W
PR. CLEANOUT/CURB STOP
PR. CONTOUR — 260
PR. SPOT ELEVATION — x 360.3
PR. RETAINING WALL
PR. GUIDERAIL
PR. BASIN LIMITS
PR. CONCRETE SIDEWALK
PR. TRAIL
PR. TRAIL (VEHICLE LOADING)
PR. OPEN SPACE
PR. ACTIVE/REC. OPEN SPACE



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

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1.	11-08-17	REVISED PER COMMENT LETTERS

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE — DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

Project No. 240038801	Drawing No. CG-406
Date 09/29/17	
Scale 1"=50'	
Drawn By MZ	
Submission Date X	Sheet 78 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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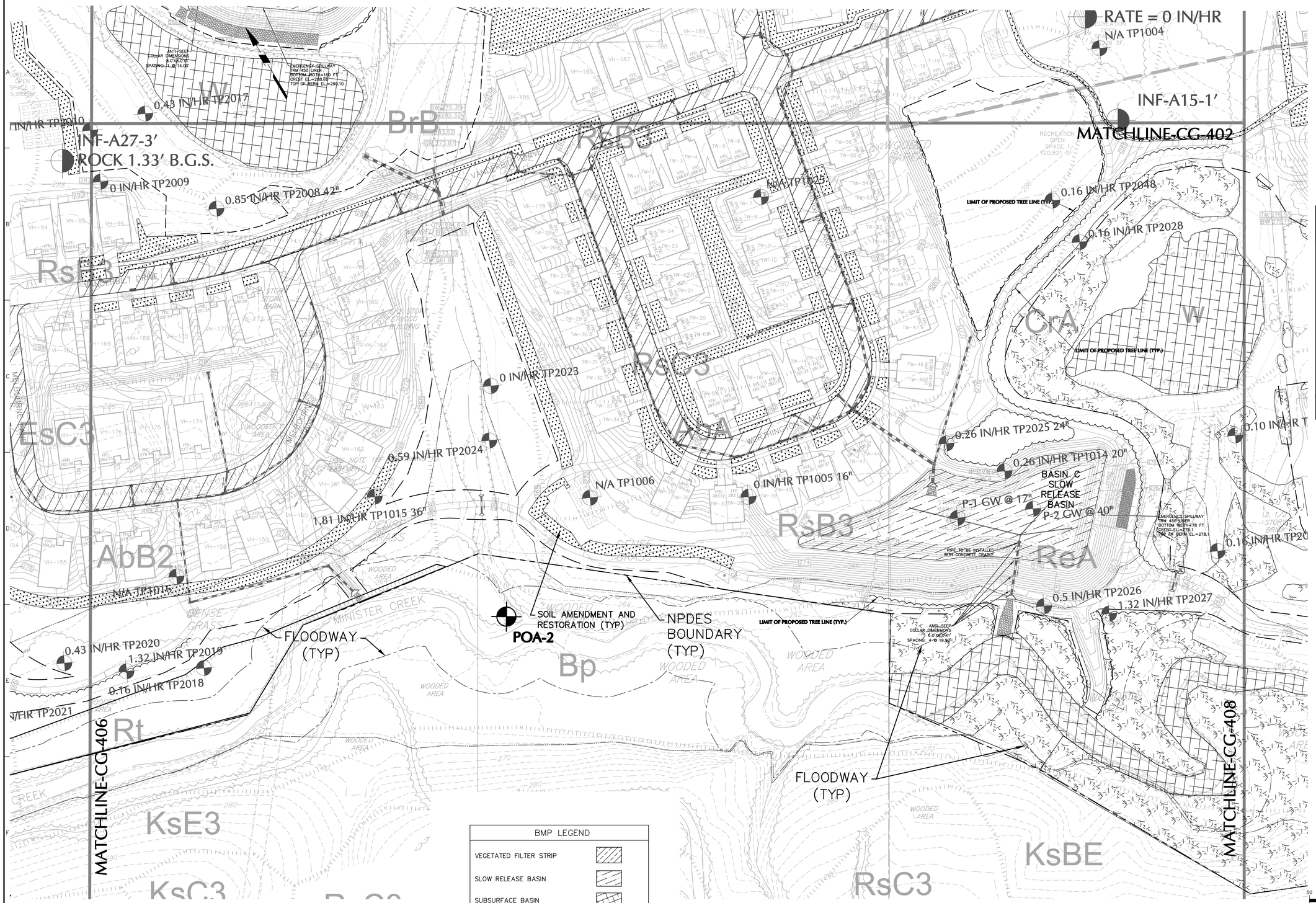

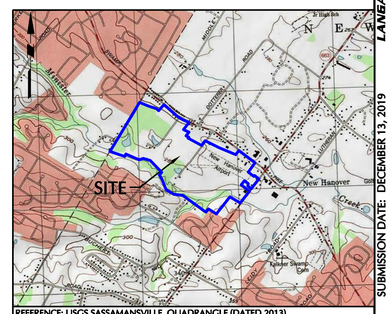

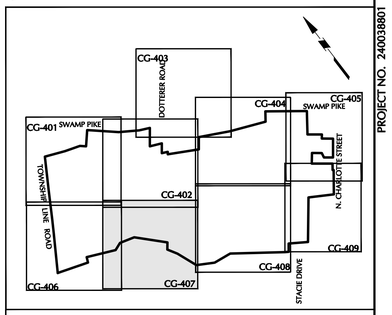

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

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- PR. SPOT ELEVATION
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRAIL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

BMP LEGEND

- VEGETATED FILTER STRIP
- SLOW RELEASE BASIN
- SUBSURFACE BASIN
- SOIL AMENDMENT AND RESTORATION
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- POST-DEVELOPMENT 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)
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REVISIONS

JASON SCOTT ENGELHARDT REGISTERED PROFESSIONAL ENGINEER
SIGNATURE — JASON SCOTT ENGELHARDT — DATE SIGNED
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Langan Engineering Environmental Services, Inc.
Langan CG Holdings, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

Project No. 240038801	Drawing No. CG-407
Date 09/29/17	
Scale 1"=50'	
Drawn By MZ	
Submission Date X	Sheet 79 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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INF-A19-1
RATE = 1.81 IN/HR
ROCK 0.83'-1.00' B.G.S.

MATCHLINE-CG-404

MATCHLINE-CG-409

INF-A18-4'
ROCK 3.17' B.G.S.
N/A TP1011

BASIN D
SLOW RELEASE BASIN
0.12 IN/HR TP1001 48"

0.33 IN/HR TP2043

2.47 IN/HR TP

INF-A17-4'
ROCK 2.50' B.G.S.
GW 3.00' B.G.S.

SOIL AMENDMENT AND RESTORATION (TYP)

INF-A3-4'
ROCK 3.25' B.G.S.
GW 3.25' B.G.S.

0.03 IN/HR TP 1002 36"

0 IN/HR TP2041

0.59 IN/HR TP2040

0.10 IN/HR TP2055

0.33 IN/HR TP2039

0.66 IN/HR TP2038

3.23 IN/HR TP2054

0.26 IN/HR TP2037

0.66 IN/HR TP2036

0.10 IN/HR TP2047

0.15 IN/HR TP2046

0 IN/HR TP2042

0.26 IN/HR TP2056

0.59

0 IN/HR TP2044

T42 IN/HR TP204

1.58 IN/HR TP2033

1.49 IN/HR TP2035

0.83 IN/HR TP2034

POA-3

LIMIT OF PROPOSED TREE LINE (TYP.)

LIMIT OF DISTURBANCE

NPDES BOUNDARY (TYP)

FLOODWAY (TYP)

PIPE TO BE INSTALLED WITH CONCRETE CRADLE

ANTI-SEEP COLLAR DIMENSIONS 2'X5.5'X1' SPACING: 4 @ 14.25'

EMERGENCY SPILLWAY FOR 450 LINER BOTTOM WIDTH=165 FT CREST EL.=265.00 TOP OF BERM EL.=267.00

SPILLWAY ER TH=78 FT 76.1 M EL.=278.

EXISTING SANITARY EASEMENT (IN THE R25 DISTRICT) 3,840 SF

EXISTING SEPTIC FIELD

EXISTING BLDG.

POOL

PUMP

DRIP

WOODED AREA

A16A

CgA

RsB2

PeB2

PeC3

PeB3

Bp

Br

SOUTH GATE DRIVE

ANDOVER DRIVE

VANDERBILT DRIVE

HUDSON LANE

OAKLAND WAY

ALLEY D

ALLEY M

ALLEY T

ALLEY Y

STACIE DRIVE

MATCHLINE-CG-407

SITE LOCATION MAP

SCALE: 1"=2,000'

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE

KEY MAP

SCALE 1"=1000'

CG-401 SWAMP PIKE
CG-402
CG-403 DOTTERER ROAD
CG-404
CG-405 SWAMP PIKE
CG-406
CG-407
CG-408
CG-409
N. CHARLOTTE STREET
STACIE DRIVE
NORTH CHARLOTTE STREET (TOWNSHIP LINE ROAD)

BMP LEGEND

- VEGETATED FILTER STRIP
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- PR. SANITARY FORCE MAIN (UF M)
- PR. WATER MAIN (UW)
- PR. CLEANOUT/DURB STOP
- PR. CONTOUR (250)
- PR. SPOT ELEVATION (×360.3)
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
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SERIAL NO (STACIE DRIVE): 20130441751

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776

CALL BEFORE YOU DIG IN PA, TOLL FREE 1-800-242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
*** IT'S THE LAW ***

50 0 25 50
SCALE IN FEET

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
7.	REVISED PER COMMENT LETTERS	12-13-19
6.	REVISED PER MCCD COMMENTS	12-10-18
5.	REVISED PER MCCD COMMENTS	10-22-18
4.	REVISED PER MCCD COMMENTS	6-1-18
3.	REVISED PER COMMENT LETTERS	1-31-18
2.	REVISED PER MCCD COMMENTS	12-15-17
1.	REVISED PER COMMENT LETTERS	11-08-17

REVISIONS

JASON SCOTT ENGELHARDT
REGISTERED PROFESSIONAL ENGINEER
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN

One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com

NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

Project No.	240038801
Date	09/29/17
Scale	1"=50'
Drawn By	MZ
Submission Date	X
Drawing No.	CG-408
	Sheet 80 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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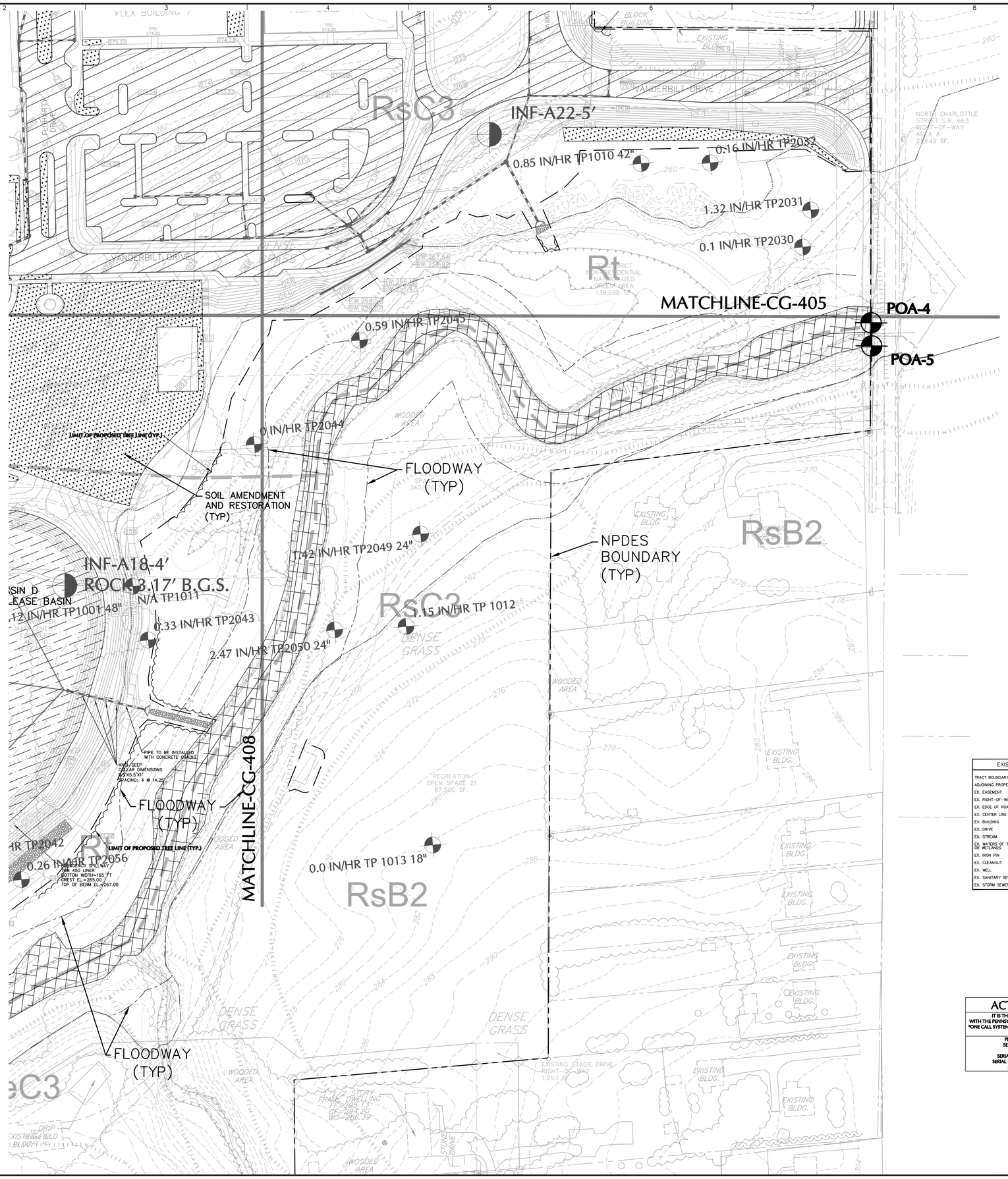
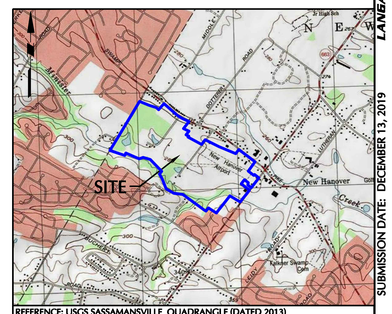
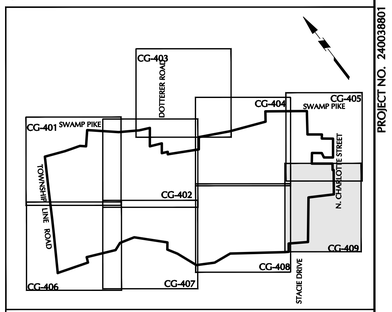
Filename: I:\langan.com\data\BET\data8\240038801\Cadd Data - 240038801\Sheet\files\240038801 CG401-409.dwg Date: 12/13/2019 Time: 15:00 User: dmoyer Style Table: Langan.stb Layout: CG408





SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

BMP LEGEND	
VEGETATED FILTER STRIP	
SLOW RELEASE BASIN	
SUBSURFACE BASIN	
SOIL AMENDMENT AND RESTORATION	
STREET SWEEPING	
PROTECTED WATERBODIES	
PROTECTED WOODLANDS	
POST-DEVELOPMENT 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)	
FLOODWAY	
PROPOSED TREE LINE	
NPDES BOUNDARY	
LIMIT OF DISTURBANCE	

EXISTING LEGEND
TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

PROPOSED LEGEND
PR. CURB LINE
PR. BUILDING
PROPERTY LINE
CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
PR. SANITARY FORCE MAIN
PR. WATER MAIN
PR. CLEANOUT/CURB STOP
PR. CONTOUR
PR. SPOT ELEVATION
PR. RETAINING WALL
PR. GUIDERAIL
PR. BASIN LIMITS
PR. CONCRETE SIDEWALK
PR. TRAIL
PR. TRAIL (VEHICLE LOADING)
PR. OPEN SPACE
PR. ACTIVE/REC. OPEN SPACE

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441510
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

CALL BEFORE YOU DIG IN PA, TOLL FREE - 800 - 242-1776
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12-15-17	REVISED PER MCCD COMMENTS	2.
11-08-17	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CO, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
POST CONSTRUCTION STORMWATER MANAGEMENT PLAN

Project No. 240038801	Drawing No. CG-409
Date 09/29/17	
Scale 1"=50'	
Drawn By MZ	
Submission Date X	Sheet 81 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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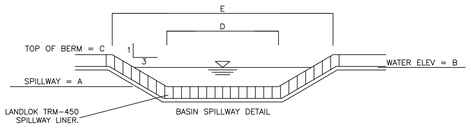
Filename: I:\langan.com\data\BET\data\8240038801\Cadd Data - 240038801\Sheet Files\240038801 CG401-409.dwg Date: 12/13/2019 Time: 15:00 User: dmoyer Style Table: Langan.stb Layout: CG409

NOTE:
1. BASIN OUTLET PIPES SHALL BE "O" RING REINFORCED CONCRETE PIPE WITH WATER TIGHT JOINTS.
2. BASIN BERM TO BE PLACED IN 8 INCH LIFTS AND COMPACTED TO 95% OF MODIFIED DRY DENSITY AS ESTABLISHED BY ASTMD-1557 PRIOR TO PROCEEDING TO THE NEXT LIFT.



BASIN	A	B	C	D	E	VELOCITY	d_{50}	RIP-RAP SIZE	FILTER SIZE	STONE THICKNESS
	(FT)	(FT)	(FT)	(FT)	(FT)	(FPS)	(IN)	NSA NO.	NSA NO.	NSA NO.
A	288.60	288.95	290.10	160.0	169.0	1.76	N/A	* N/A	N/A	N/A
B	280.50	280.85	282.00	78.0	87.0	1.75	N/A	* N/A	N/A	N/A
C	276.10	276.50	278.10	78.0	89.4	1.87	N/A	* N/A	N/A	N/A
D	265.00	265.44	267.00	165.0	177.0	1.98	N/A	* N/A	N/A	N/A

(NOT TO SCALE)

EMERGENCY SPILLWAY DETAIL

BASIN NAME	STONE BED INVERT	PIPE INVERT	NUMBER, LENGTH, AND DIA. OF PIPE ROWS
SUBSURFACE DETENTION BASIN F	INV=257.80	INV=258.30	21 ROWS - 182 LF 48-INCH HDPE PIPES

NOTES:

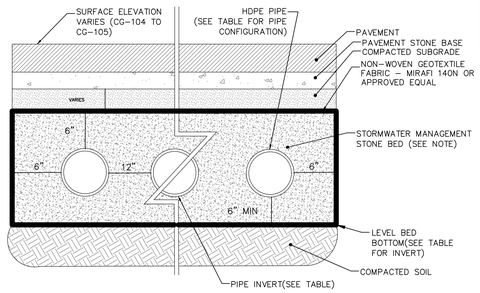
1) STORMWATER MANAGEMENT STONE BED SHALL BE 2-INCH TO 1-INCH UNIFORMLY GRADED COARSE AGGREGATE, WITH A WASH LOSS OF NO MORE THAN 0.5%, AASHTO SIZE NUMBER 3 PER AASHTO SPECIFICATIONS, PART I, 19TH ED., 1998, OR LATER AND SHALL HAVE VOIDS 40% AS MEASURED BY ASTM-C29.

2) SEE DRAWING CG-204 TO CG-205 FOR PIPE LAYOUT, CONNECTIONS AND CLEAN-OUTS.

3) THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF THE STORMWATER SYSTEM TO THE DESIGN ENGINEER FOR REVIEW PRIOR TO ORDERING/ CONSTRUCTION. THIS SUBMITTAL MUST INCLUDE THE WITHDRAWAL STRUCTURES AND CONNECTION TO THE UNDERGROUND STORMWATER SYSTEM.

4) PIPE CONNECTIONS SHALL UTILIZE WATER TIGHT JOINTS.

5) THERE IS NO "OUTFALL CONTROL STRUCTURE" FOR BASIN F. THE 24" PIPE AT ELEVATION 258.3 IS THE BASIN OUTFLOW, AND IS AN ORIFICE FOR STORMWATER LEAVING THE BASIN.



(CLOSED SYSTEM - NO INFILTRATION)

SUBSURFACE DETENTION BASIN

TenCate Mirafi®

Mirafi® 140N

Mirafi® 140N is a needlepunched nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. Mirafi® 140N is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids. Mirafi® 140N meets Aashto M288-06 Class 3 for elongation > 50%.

Mechanical Properties	Test Method	Unit	Minimum Average Roll Value	
			MD	CD
Grab Tensile Strength	ASTM D4632	lbs (N)	120 (534)	120 (534)
Grab Tensile Elongation	ASTM D4632	%	50	50
Trapezoid Tear Strength	ASTM D4533	lbs (N)	50 (223)	50 (223)
CBR Puncture Strength	ASTM D6241	lbs (N)	310 (1380)	
Apparent Opening Size (AOS)[1]	ASTM D4751	U.S. Sieve (mm)	70 (0.212)	
Permittivity	ASTM D4491	sec^{-1}	1.7	
Flow Rate	ASTM D4491	gal/min/ft² (l/min/m²)	135 (5500)	
UV Resistance (at 500 hours)	ASTM D4355	% strength retained	70	

[1] ASTM D4751: AOS is a Maximum Opening Diameter Value

Physical Properties	Unit	Typical Value	
Roll Dimensions (width x length)	ft (m)	12.5 x 360 (3.8 x 110)	15 x 360 (4.5 x 110)
Roll Area	yd^2 (m^2)	500 (418)	600 (502)
Estimated Roll Weight	lb (kg)	133 (60)	160 (72)

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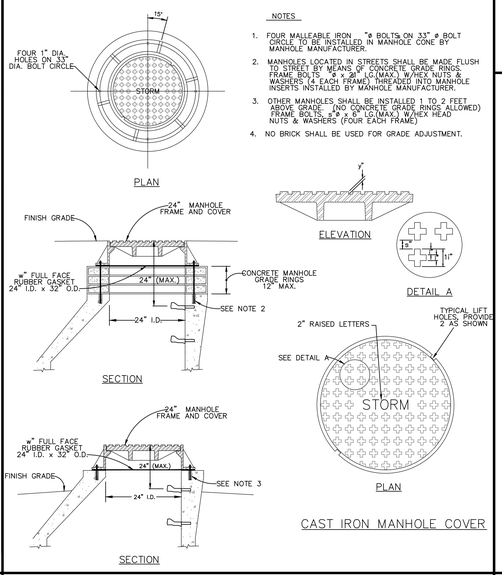
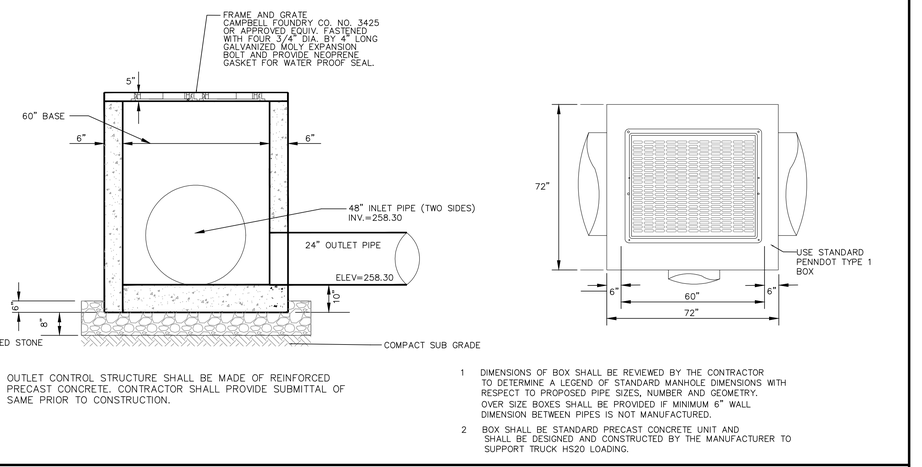
GEOTEXTILE



NOTES

1. FOUR MALLEABLE IRON - "Ø BOLTS ON 33" Ø BOLT CIRCLE TO BE INSTALLED IN MANHOLE CONE BY MANHOLE MANUFACTURER.
2. MANHOLES LOCATED IN STREETS SHALL BE MADE FLUSH TO STREET BY MEANS OF CONCRETE GRADE RINGS. FRAME BOLTS - Ø x 2Ø" LG.(MAX.) W/HEX NUTS & WASHERS (4 EACH FRAME) THREADED INTO MANHOLE INSERTS INSTALLED BY MANHOLE MANUFACTURER.
3. OTHER MANHOLES SHALL BE INSTALLED 1 TO 2 FEET ABOVE GRADE. (NO CONCRETE GRADE RINGS ALLOWED) FRAME BOLTS, Ø"Ø x 6" LG.(MAX.) W/HEX HEAD NUTS & WASHERS (FOUR EACH FRAME)
4. NO BRICK SHALL BE USED FOR GRADE ADJUSTMENT.

MANHOLE FRAME AND COVER

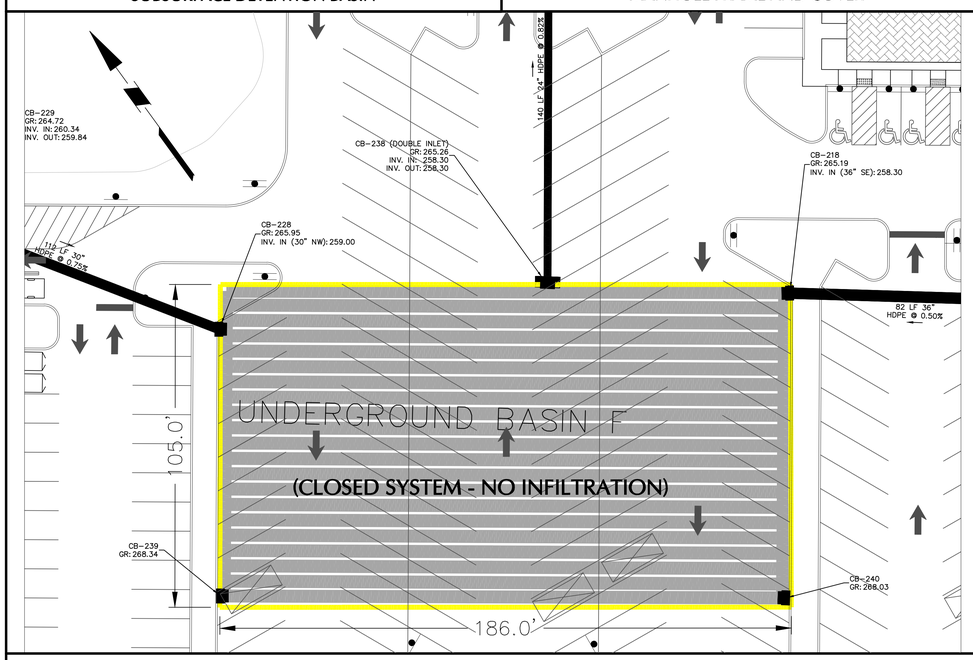


OUTLET CONTROL STRUCTURE SHALL BE MADE OF REINFORCED PRECAST CONCRETE. CONTRACTOR SHALL PROVIDE SUBMITTAL OF SAME PRIOR TO CONSTRUCTION.

1 DIMENSIONS OF BOX SHALL BE REVIEWED BY THE CONTRACTOR TO DETERMINE A LEGEND OF STANDARD MANHOLE DIMENSIONS WITH RESPECT TO PROPOSED PIPE SIZES, NUMBER AND GEOMETRY. OVER SIZE BOXES SHALL BE PROVIDED IF MINIMUM 6" WALL DIMENSION BETWEEN PIPES IS NOT MANUFACTURED.

2 BOX SHALL BE STANDARD PRECAST CONCRETE UNIT AND SHALL BE DESIGNED AND CONSTRUCTED BY THE MANUFACTURER TO SUPPORT TRUCK HS20 LOADING.

SUBSURFACE DETENTION BASIN OUTLET CONTROL STRUCTURE (CB-238)



SUBSURFACE DETENTION BASIN

SCALE 1"=20'

DETAILS OTHER THAN THOSE INDICATED ARE ON THE FOLLOWING STANDARD DETAILS FROM PENNDOT PUBLICATION 72M:

STANDARD DETAILS	
STANDARD DRAWING NUMBER	DRAWING DATE
RC-39M	JUNE 1, 2010
RC-45M	JUNE 1, 2010
RC-46M	JUNE 1, 2010

THE CONTRACTOR IS REQUIRED TO OBTAIN THE THE MOST CURRENT APPLICABLE RC DRAWINGS FROM PENNDOT PUBLICATION 72M.

LANGAN

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	12.
12-10-18	REVISED PER MCCD COMMENTS	11.
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12-15-17	REVISED PER MCCD COMMENTS	7.
11-08-17	REVISED PER COMMENT LETTERS	6.
9-29-17	REVISED PER MCCD COMMENTS	5.
8-04-17	REVISED PER COMMENT LETTERS	4.
6-07-17	REVISED PER NPDES SUBMISSION	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan CS, Inc.
Langan International LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS

Project No. 240038801	Drawing No. CG-501
Date 05/31/16	
Scale N.T.S.	
Drawn By KG	
Submission Date	Sheet 82 of 187

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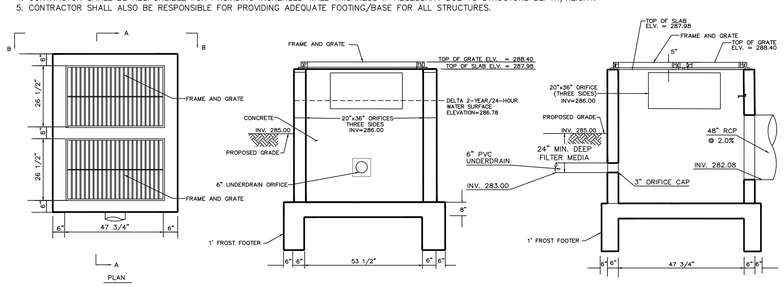
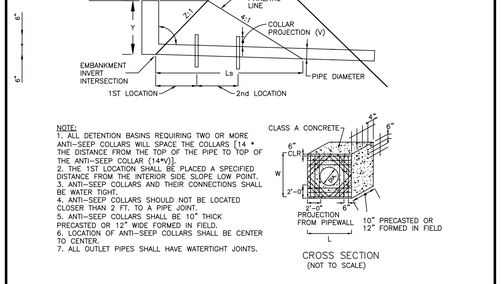
NOTES:
1. OUTLET CONTROL STRUCTURE SHALL BE MADE OF REINFORCED PRECAST CONCRETE. CONTRACTOR SHALL PROVIDE SUBMITTAL OF SAME PRIOR TO CONSTRUCTION.
2. ALL ORIFICES TO BE BLOCKED WITH STEEL PLATE AND WATERTIGHT SEAL (MARINE GRADE PLYWOOD IS ACCEPTABLE SUBSTITUTE) UNTIL BASIN IS CONVERTED FROM SEDIMENT BASIN TO PCSM BASIN.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO DESIGN ENGINEER AND TOWNSHIP ENGINEER FOR APPROVAL PRIOR TO ORDERING STRUCTURE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING INCREASED WALL THICKNESS IF NECESSARY DUE TO STRUCTURE DEPTH/HEIGHT.
5. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PROVIDING ADEQUATE FOOTING/BASE FOR ALL STRUCTURES.



NTS

OUTLET CONTROL STRUCTURE (OCS) FOR SLOW RELEASE BASIN A

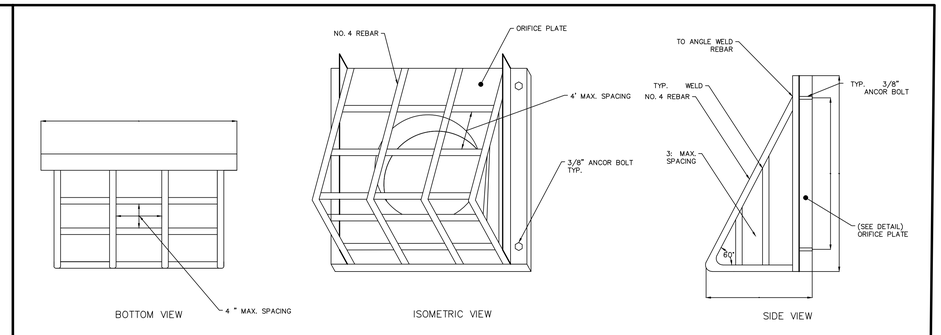


NOTE:
1. ALL DETENTION BASINS REQUIRING TWO OR MORE ANTI-SEEP COLLARS WILL SPACE THE COLLARS (14 * THE DISTANCE FROM THE TOP OF THE PIPE TO TOP OF THE ANTI-SEEP COLLAR (14*V)).
2. THE 1ST LOCATION SHALL BE PLACED A SPECIFIED DISTANCE FROM THE INTERIOR SIDE SLOPE LOW POINT.
3. ANTI-SEEP COLLARS AND THEIR CONNECTIONS SHALL BE WATER TIGHT.
4. ANTI-SEEP COLLARS SHOULD NOT BE LOCATED CLOSER THAN 2 FT. TO A PIPE JOINT.
5. ANTI-SEEP COLLARS SHALL BE 10" THICK PRECASTED OR 12" WIDE FORMED IN FIELD.
6. LOCATION OF ANTI-SEEP COLLARS SHALL BE CENTER TO CENTER.
7. ALL OUTLET PIPES SHALL HAVE WATERTIGHT JOINTS.

*Ls=LENGTH OF PIPE IN THE SATURATED ZONE.

NTS

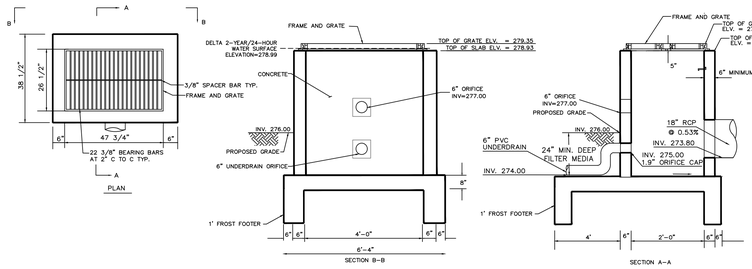
ANTI-SEEP COLLARS



NOTES: RACK TO BE CONSTRUCTED WITH STRAINLESS STEEL MATERIAL. AFTER RACK IS CONSTRUCTED (WELDED) THE ASSEMBLY SHALL BE PAINTED WITH A RUST FROOF COATING. TRASH RACK TO BE INSTALLED OVER ORIFICE OPENING ON THE BASIN OUTFALL STRUCTURE.

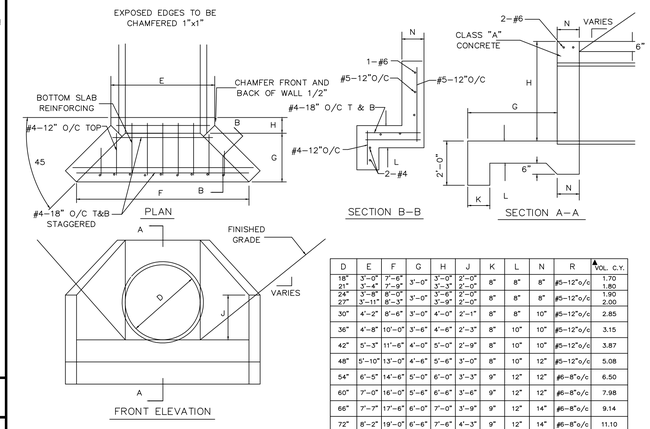
TRASH RACK DETAIL (FOR PERMANANT OUTFALL STRUCTURES)

NOTES:
1. OUTLET CONTROL STRUCTURE SHALL BE MADE OF REINFORCED PRECAST CONCRETE. CONTRACTOR SHALL PROVIDE SUBMITTAL OF SAME PRIOR TO CONSTRUCTION.
2. ALL ORIFICES TO BE BLOCKED WITH STEEL PLATE AND WATERTIGHT SEAL (MARINE GRADE PLYWOOD IS ACCEPTABLE SUBSTITUTE) UNTIL BASIN IS CONVERTED FROM SEDIMENT BASIN TO PCSM BASIN.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO DESIGN ENGINEER AND TOWNSHIP ENGINEER FOR APPROVAL PRIOR TO ORDERING STRUCTURE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING INCREASED WALL THICKNESS IF NECESSARY DUE TO STRUCTURE DEPTH/HEIGHT.
5. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PROVIDING ADEQUATE FOOTING/BASE FOR ALL STRUCTURES.



NTS

OUTLET CONTROL STRUCTURE (OCS) FOR SLOW RELEASE BASIN B

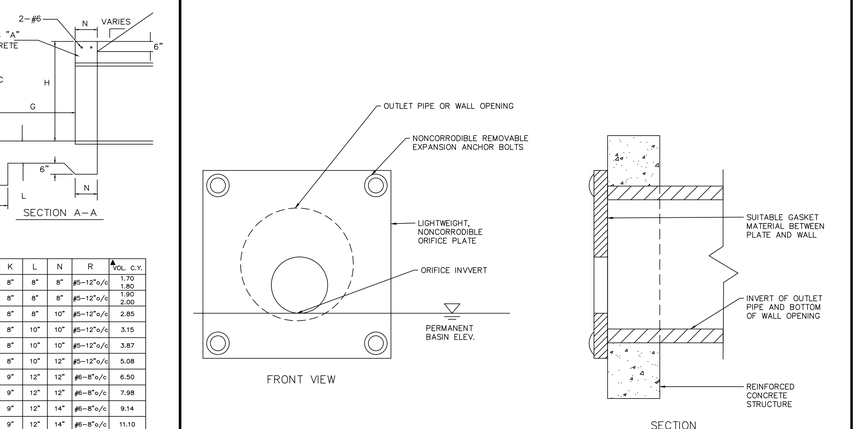


D	E	F	G	H	J	K	L	N	R	▲ VOL. C.Y.
18"	3'-0"	7'-6"	3'-0"	3'-0"	2'-0"	8"	8"	8"	#5-12"o/c	1.70
21"	3'-4"	7'-9"	3'-0"	3'-3"	2'-0"	8"	8"	8"	#5-12"o/c	1.80
24"	3'-8"	8'-0"	3'-0"	3'-6"	2'-0"	8"	8"	8"	#5-12"o/c	1.90
27"	3'-11"	8'-3"	3'-0"	3'-9"	2'-0"	8"	8"	8"	#5-12"o/c	2.00
30"	4'-2"	8'-6"	3'-0"	4'-0"	2'-1"	8"	8"	10"	#5-12"o/c	2.85
36"	4'-8"	10'-0"	3'-6"	4'-6"	2'-3"	8"	10"	10"	#5-12"o/c	3.15
42"	5'-3"	11'-6"	4'-0"	5'-0"	2'-9"	8"	10"	10"	#5-12"o/c	3.87
48"	5'-10"	13'-0"	4'-6"	5'-6"	3'-0"	8"	10"	12"	#5-12"o/c	5.08
54"	6'-5"	14'-6"	5'-0"	6'-0"	3'-3"	9"	12"	12"	#6-8"o/c	6.50
60"	7'-0"	16'-0"	5'-6"	6'-6"	3'-6"	9"	12"	12"	#6-8"o/c	7.98
66"	7'-7"	17'-6"	6'-0"	7'-0"	3'-9"	9"	12"	14"	#6-8"o/c	9.14
72"	8'-2"	19'-0"	6'-6"	7'-6"	4'-3"	9"	12"	14"	#6-8"o/c	11.10

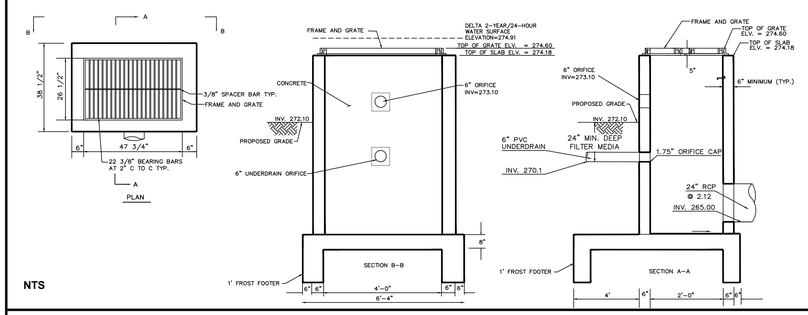
▲ BASED ON 3:1 CHANNEL SIDE SLOPES.

THE FOLLOWING HEADWALLS WILL REQUIRE ENERGY DISSIPATION: HW-1, HW-1A, HW-2, HW-3, HW-3A, HW-4, HW-5, HW-5A, HW-6, HW-6A, HW-7, HW-7A, HW-11

HEADWALL DETAIL

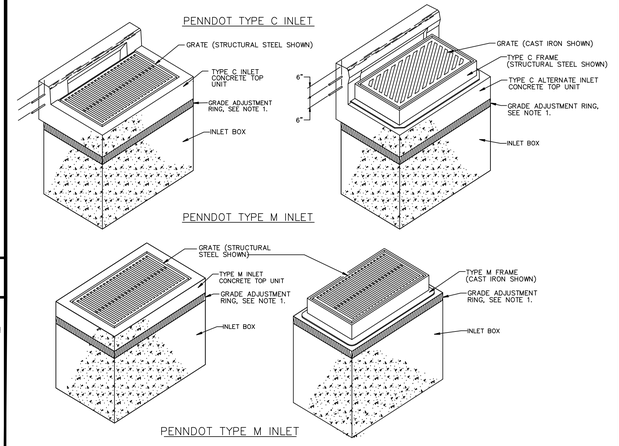


ORIFICE PLATE DETAIL



NTS

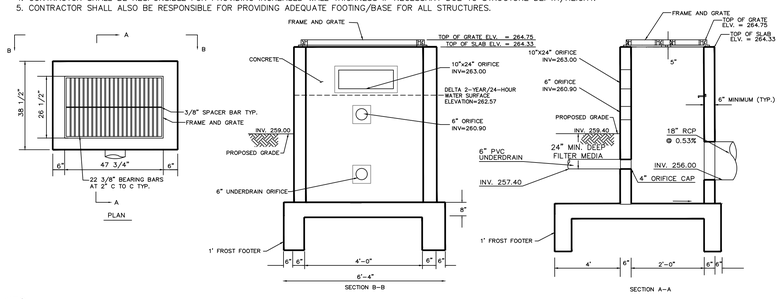
OUTLET CONTROL STRUCTURE (OCS) FOR SLOW RELEASE BASIN C



NOTE 1) PROVIDE GRADE ADJUSTMENT WHICH IS FLUSH WITH THE INLET TOP AND DOES NOT ALLOW EXCESSIVE MOVEMENT. GRADE ADJUSTMENT RINGS SHALL USE MINIMUM 4,000 PSI CONCRETE.

INLET DETAIL

NOTES:
1. OUTLET CONTROL STRUCTURE SHALL BE MADE OF REINFORCED PRECAST CONCRETE. CONTRACTOR SHALL PROVIDE SUBMITTAL OF SAME PRIOR TO CONSTRUCTION.
2. ALL ORIFICES TO BE BLOCKED WITH STEEL PLATE AND WATERTIGHT SEAL (MARINE GRADE PLYWOOD IS ACCEPTABLE SUBSTITUTE) UNTIL BASIN IS CONVERTED FROM SEDIMENT BASIN TO PCSM BASIN.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO DESIGN ENGINEER AND TOWNSHIP ENGINEER FOR APPROVAL PRIOR TO ORDERING STRUCTURE.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING INCREASED WALL THICKNESS IF NECESSARY DUE TO STRUCTURE DEPTH/HEIGHT.
5. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR PROVIDING ADEQUATE FOOTING/BASE FOR ALL STRUCTURES.



NTS

OUTLET CONTROL STRUCTURE (OCS) FOR SLOW RELEASE BASIN D

No.	Date	Description
12.	12-13-19	REVISED PER COMMENT LETTERS
11.	12-10-18	REVISED PER MCCD COMMENTS
10.	10-22-18	REVISED PER MCCD COMMENTS
9.	6-1-18	REVISED PER MCCD COMMENTS
8.	1-31-18	REVISED PER COMMENT LETTERS
7.	12-15-17	REVISED PER MCCD COMMENTS
6.	11-08-17	REVISED PER COMMENT LETTERS
5.	9-29-17	REVISED PER MCCD COMMENTS
4.	8-04-17	REVISED PER COMMENT LETTERS
3.	6-07-17	REVISED PER NPDES SUBMISSION
2.	4-07-17	REVISED PER COMMENT LETTERS
1.	11-04-16	REVISED PER COMMENT LETTERS

REVISIONS

JASON SCOTT ENGELHARDT
REGISTERED PROFESSIONAL ENGINEER
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CC, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS

Project No. 240038801	Drawing No. CG-502
Date 05/31/16	
Scale N.T.S.	
Drawn By KG	
Submission Date	Sheet 83 of 187

OWNER
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LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

Filename: \\Langan.com\data\BE\data9\240038801\Cadd Data - 240038801\SheetFiles\240038801 CG501-503.dwg Date: 12/16/2019 Time: 08:58 User: wschaefer Style Table: Langan.stb Layout: 240038801 CG501-503 - CG-502
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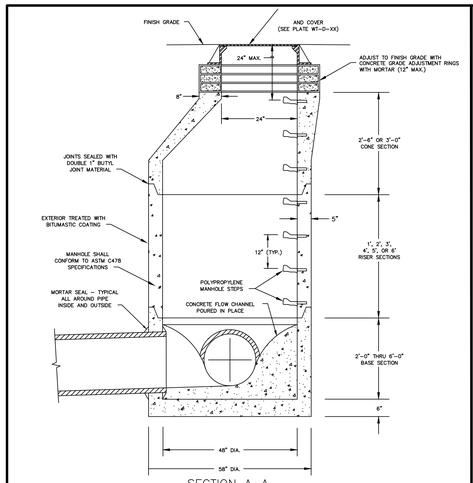
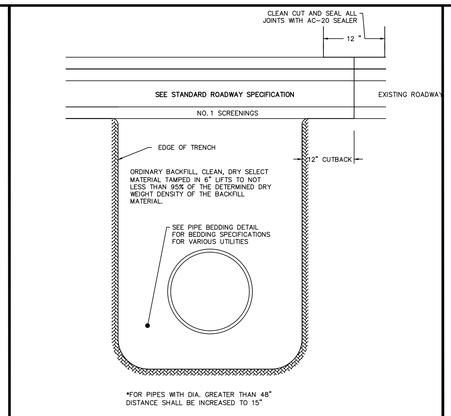


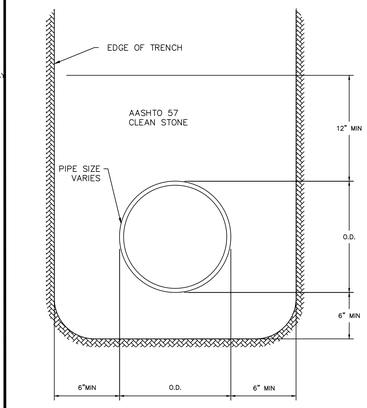
SECTION A–A

PRECAST STORM CONCRETE MANHOLE

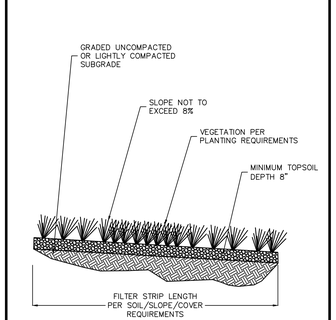


NOTES:
1. ALL WORK TO CONFORM TO NEW HANOVER TOWNSHIP SPECIFICATIONS AND PADOT PUB. 408, CURRENT EDITION.
2. WITHIN AREAS OF EXISTING PAVEMENT 2A MODIFIED SHALL BE USED FOR BACKFILL MATERIAL FOR THE ENTIRE DEPTH

TRENCH BACKFILL DETAIL WITHIN PUBLIC RIGHT-OF-WAYS (STORM SEWER)



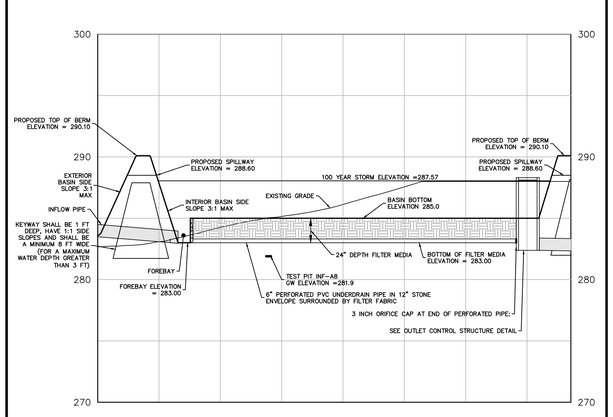
STANDARD PIPE BEDDING FOR STORM SEWER INSTALLATION



* ALL FILTER STRIPS ARE DESIGNED FOR TYPE C HYDROLOGIC SOIL GROUP

VEGETATED STRIP #	FILTER STRIP SLOPE	MIN. STRIP LENGTH	FILTER STRIP VEGETATION
1	5.5%	52 FT.	INDIGENOUS WOODS
2	5%	49 FT.	INDIGENOUS WOODS

VEGETATIVE FILTER STRIP DETAIL

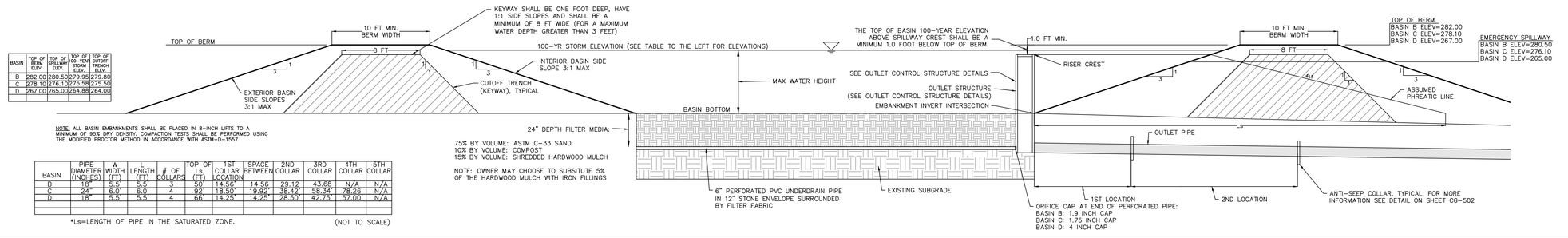


NOTE: SEE SLOW RELEASE BASIN DETAIL FOR BASINS B, C, AND D FOR MORE SPECIFIC CONSTRUCTION INFORMATION AND FILTER MEDIA MATERIAL SPECIFICATIONS.

N.T.S

SLOW RELEASE BASIN A CROSS SECTION

BASIN	TOP OF BERM ELEV.	TOP OF SPILLWAY ELEV.	TOP OF 100-YEAR STORM ELEV.	TOP OF CUTOFF TRENCH ELEV.
B	282.00	280.50	279.95	279.80
C	278.10	276.10	275.58	275.50
D	267.00	265.00	264.88	264.00



NOTE: ALL BASIN EMBANKMENTS SHALL BE PLACED IN 8-INCH LIFTS TO A MINIMUM OF 95% DRY DENSITY. COMPACTION TESTS SHALL BE PERFORMED USING THE MODIFIED PROCTOR METHOD IN ACCORDANCE WITH ASTM-D-1557

BASIN	PIPE DIAMETER (INCHES)	W WIDTH (FT)	L LENGTH (FT)	# OF COLLARS	TOP OF Ls (FT)	1ST COLLAR LOCATION	SPACE BETWEEN	2ND COLLAR	3RD COLLAR	4TH COLLAR	5TH COLLAR
B	18"	5.5'	5.5'	3	50'	14.56'	14.56	29.12	43.68	N/A	N/A
C	24"	6.0'	6.0'	4	92'	18.50'	19.92'	38.42'	58.34'	78.26'	N/A
D	18"	5.5'	5.5'	4	66'	14.25'	14.25'	28.50'	42.75'	57.00'	N/A

*Ls=LENGTH OF PIPE IN THE SATURATED ZONE. (NOT TO SCALE)

SLOW RELEASE BASIN B, C, AND D CROSS SECTION

BMP FAILURE:

BMP FAILURE IS DEFINED AS WHEN THE DESIGN NO LONGER PROVIDES THE BENEFIT OR PERFORMANCE ANTICIPATED. IN THE CASE OF STORMWATER INFILTRATION BMPS FAILURE MAY BE A REDUCTION IN THE VOLUME OF RUNOFF ANTICIPATED OR THE DISCHARGE OF STORMWATER WITH EXCESSIVE LEVELS OF SOME POLLUTANTS. FOR PREVENTATIVE AND CORRECTIVE MEASURES FOR THE SPECIFIC BMPS SEE THE BMP MAINTENANCE PLAN ON THIS SHEET.

BMP EROSION:

ANY EROSION CAUSED BY DISCHARGES FROM BMPS WITHIN THE SITE SHALL BE REPAIRED AND STABILIZED.

BMP CONSTRUCTION SEQUENCE

NOTE IN THE EVENT THAT UNFAVORABLE CONDITIONS (GROUNDWATER, BEDROCK, ETC.) ARE ENCOUNTERED DURING CONSTRUCTION OF THE INFILTRATION BMPS, THE OWNER/ENGINEER SHALL BE NOTIFIED IMMEDIATELY TO DETERMINE A MORE SUITABLE LOCATION FOR THE BMP.

MINIMIZE SOIL COMPACTION IN DISTURBED AREAS - CONSTRUCTION SEQUENCE

1. AT THE START OF CONSTRUCTION, PROTECTED AND MINIMAL DISTURBANCE AREAS MUST BE IDENTIFIED WITH SIGNAGE AND FENCED AS SHOWN ON THE CONSTRUCTION DRAWINGS.
2. PROTECTED AND MINIMAL DISTURBANCE AREAS SHOULD BE STRICTLY ENFORCED.
3. PROTECTED AND MINIMAL DISTURBANCE AREAS SHOULD BE PROTECTED FROM EXCESSIVE SEDIMENT AND STORMWATER LOADS WHILE UPGRADIENT AREAS REMAIN IN A DISTURBED STATE.
4. TOPSOIL STORAGE AREAS SHOULD BE MAINTAINED AND PROTECTED AT ALL TIMES. WHEN TOPSOIL IS SPREAD TO DISTURBED AREAS IT MUST BE "ROUGHED" WITH THE SUBSOIL. THIS CAN BE DONE BY SPREADING A THIN LAYER OF TOPSOIL (2 TO 3 INCHES), TILLING IT INTO THE SUBSOIL, AND THEN APPLYING THE REMAINING TOPSOIL.

SOIL AMENDMENT & RESTORATION - CONSTRUCTION SEQUENCE

1. ALL CONSTRUCTION SHOULD BE COMPLETED AND STABILIZED BEFORE BEGINNING SOIL RESTORATION.
2. SOIL AMENDMENT CONSTRUCTION SHALL FOLLOW DETAIL ON SHEET CG-502.

VEGETATED FILTER STRIP - CONSTRUCTION SEQUENCE

1. BEGIN FILTER STRIP CONSTRUCTION ONLY WHEN THE UPGRADIENT SITE HAS BEEN SUFFICIENTLY STABILIZED AND TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE IN PLACE. (EROSION AND SEDIMENT CONTROL METHODS SHALL ADHERE TO THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, MARCH 2000 OR LATEST EDITION.) THE STRIP SHOULD BE INSTALLED AT A TIME OF THE YEAR WHEN SUCCESSFUL ESTABLISHMENT (GREATER THAN 70% COVER) IS LIKELY. HOWEVER, TEMPORARY IRRIGATION MAY BE NEEDED IN PERIODS OF LITTLE RAIN OR DROUGHT.
2. FOR PLANTED (NOT INDIGENOUS FILTER STRIPS) CLEAR AND GRUB SITE AS NEEDED, CARE SHOULD BE TAKEN TO DISTURB AS LITTLE EXISTING VEGETATION AS POSSIBLE, WHETHER IN THE DESIGNATED FILTER STRIP AREA OR IN ADJACENT AREAS, AND TO AVOID SOIL COMPACTION. GRADING A LEVEL SLOPE MAY REQUIRE REMOVAL OF EXISTING VEGETATION.
3. ROUGH GRADE THE FILTER STRIP AREA, INCLUDING THE BERM AT THE TOE OF THE SLOPE, IF PROPOSED, USE THE LIGHTEST, LEAST DISRUPTIVE EQUIPMENT TO AVOID EXCESSIVE COMPACTION AND/OR LAND DISTURBANCE.
4. CONSTRUCT LEVEL SPREADER DEVICE AT THE UPGRADIENT EDGE OF THE STRIP. FOR GRAVEL TRENCHES, DO NOT COMPACT SUBGRADE (FOLLOW CONSTRUCTION SEQUENCE FOR INFILTRATION BMPS).
5. FINE GRADE THE FILTER STRIP AREA. ACCURATE GRADING IS CRUCIAL FOR FILTER STRIPS. EVEN THE SMALLEST IRREGULARITIES MAY COMPROMISE SHEET FLOW CONDITIONS.
6. SEED OR SOD, AS DESIRED. PLANT MORE SUBSTANTIAL VEGETATION, SUCH AS TREES AND SHRUBS, IF PROPOSED. IF SOD IS PROPOSED, PLACE TILES TIGHTLY ENOUGH TO AVOID GAPS AND STAGGER THE ENDS TO PREVENT CHANNELIZATION ALONG THE STRIP. USE A ROLLER ON SOD TO PREVENT AIR POCKETS BETWEEN THE SOD AND SOIL FROM FORMING.
7. CONCURRENT WITH IRI, STABILIZE SEEDED FILTER STRIPS WITH APPROPRIATE PERMANENT SOIL STABILIZATION METHODS, SUCH AS EROSION CONTROL MATTING OR BLANKETS. PROTECT NEWLY SEEDED AREAS FROM TRAFFIC AND KEEP OFF UNTIL ESTABLISHED FOR AT LEAST THE FIRST 70 DAYS FOLLOWING THE FIRST STORM EVENT OF THE SEASON.
8. ONCE THE FILTER STRIP IS SUFFICIENTLY STABILIZED, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS. IT IS VERY IMPORTANT THAT FILTER STRIP VEGETATION BE FULLY ESTABLISHED BEFORE RECEIVING UPLAND STORMWATER FLOW. ONE FULL GROWING SEASON IS THE RECOMMENDED MINIMUM TIME FOR ESTABLISHMENT. SOME SEED MIXTURES MAY REQUIRE A LONGER TIME PERIOD TO BECOME ESTABLISHED.

SLOW RELEASE BASIN - CONSTRUCTION SEQUENCE

1. AT THE START OF CONSTRUCTION, TEMPORARY EROSION AND SEDIMENTATION CONTROLS: THE AREA IMMEDIATELY ADJACENT TO THE BASIN MUST BE STABILIZED IN ACCORDANCE WITH THE PADEP'S EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (2000 OR LATEST EDITION) PRIOR TO BASIN CONSTRUCTION.
2. PREPARE SITE FOR EXCAVATION AND/OR EMBANKMENT CONSTRUCTION.
   A. ALL EXISTING VEGETATION SHOULD REMAIN IF FEASIBLE AND SHOULD ONLY BE REMOVED IF NECESSARY FOR CONSTRUCTION.
   B. CARE SHOULD BE TAKEN TO PREVENT COMPACTION OF BASIN BOTTOM.
   C. IF EXCAVATION IS REQUIRED, CLEAR THE AREA TO BE EXCAVATED OF ALL VEGETATION. EXCAVATE TO ALL TREE ROOTS, ROCKS, AND BOULDERS ONLY IN EXCAVATION AREA.
3. EXCAVATE BOTTOM OF THE SEDIMENT BASIN AND MAINTAIN PER THE EROSION AND SEDIMENT CONTROL PLAN.
4. INSTALL SURROUNDING EMBANKMENTS AND INLET AND OUTLET CONTROL STRUCTURES.
5. CRITICAL STAGE-CONVERT BASIN FROM SEDIMENT BASIN TO SLOW RELEASE BASIN PER THE BASIN CONVERSION SEQUENCE ON SHEET CG-503.
6. COMPACT SURROUNDING EMBANKMENT AREAS AND AROUND INLET AND OUTLET STRUCTURES.EXCAVATE TO THE ELEVATION OF THE BOTTOM OF THE "FILTER MEDIA" IN THE SLOW RELEASE BASIN.
7. INSTALL PERFORATED PVC UNDERDRAIN AND APPLY FILTER MEDIA IN THE BOTTOM OF THE BASIN.
8. APPLY GEO-TEXTILES AND OTHER EROSION CONTROL MEASURES.
9. SEED, PLANT AND MULCH ACCORDING TO PLANTING PLAN.
10. INSTALL ANY ANTI-GRAZING MEASURES, IF NECESSARY.

RE-VEGETATE AND RE-FOREST DISTURBED AREAS, USING NATIVE SPECIES - CONSTRUCTION SEQUENCE

1. DURING THE INITIAL CONCEPTUAL DESIGN PHASE OF A PROJECT, THE DESIGN ENGINEER SHOULD DEVELOP A MINIMUM DISTURBANCE/MINIMUM MAINTENANCE CONCEPT PLAN THAT INCLUDES AREAS OF EXISTING VEGETATION BEING PRESERVED, AREAS TO BE RE-VEGETATED/LANDSCAPED BY TYPE AND A LANDSCAPE MAINTENANCE PLAN THAT AVOIDS/MINIMIZES MOWING AND OTHER MAINTENANCE, EXCEPT FOR LIMITED AREAS OF HIGH VISIBILITY, SPECIAL NEEDS, ETC.
2. THIS INFORMATION NEEDS TO APPEAR ON THE PLAN DRAWINGS AND RECEIVE MUNICIPAL REVIEW AND APPROVAL. EXISTING VEGETATION BEING PRESERVED MUST BE FLAGGED OR FENCED IN THE FIELD.
3. IN TERMS OF SPECIFIC CONSTRUCTION SEQUENCING, ALL PLANTINGS INCLUDING NATIVE SPECIES SHOULD BE INSTALLED DURING THE FINAL CONSTRUCTION PHASE OF THE PROJECT.

ALTERATION OF BMP NOTES:

NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE, OBSTRUCT, OR ALTER ANY EXISTING STORMWATER CONTROL OR BMP UNLESS IT IS PART OF AN APPROVED MAINTENANCE PROGRAM WITHOUT THE PRIOR WRITTEN APPROVAL OF NEW HANOVER TOWNSHIP.

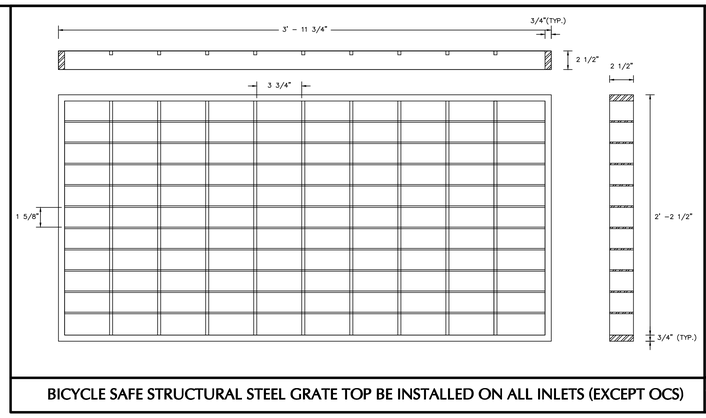
NO PERSON SHALL PLACE ANY STRUCTURE, FILL, LANDSCAPING , OR VEGETATION INTO A STORMWATER CONTROL OR BMP OR WITHIN A DRAINAGE EASEMENT THAT WOULD LIMIT OR ALTER THE FUNCTIONING OF THE STORMWATER CONTROL OR BMP WITHOUT THE PRIOR WRITTEN APPROVAL OF NEW HANOVER TOWNSHIP.

CLUSTER USES AT EACH SITE: BUILD ON THE SMALLEST AREA POSSIBLE - CONSTRUCTION SEQUENCE

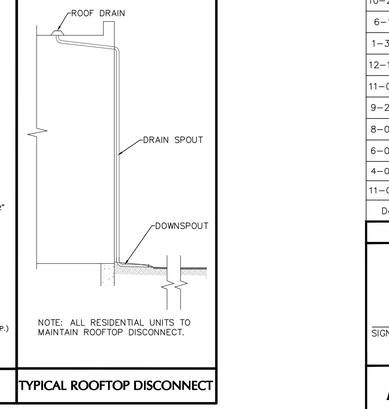
1. APPLICATION OF THIS BMP IS REQUIRED FORM THE START OF THE SITE PLANNING AND DEVELOPMENT PROCESS.
2. ANY AREAS TO BE PROTECTED FROM DEVELOPMENT MUST BE CLEARLY MARKED IN THE FIELD PRIOR TO BEGINNING OF CONSTRUCTION.

PROTECT SENSITIVE AND SPECIAL VALUE FEATURES - CONSTRUCTION SEQUENCE

1. APPLICATION OF THIS BMP IS REQUIRED FORM THE START OF THE SITE PLANNING AND DEVELOPMENT PROCESS.



BICYCLE SAFE STRUCTURAL STEEL GRATE TOP BE INSTALLED ON ALL INLETS (EXCEPT OCS)



NOTE: ALL RESIDENTIAL UNITS TO MAINTAIN ROOFTOP DISCONNECT.

TYPICAL ROOFTOP DISCONNECT

No.	Description	Date
12.	REVISED PER COMMENT LETTERS	12–13–19
11.	REVISED PER MCCD COMMENTS	12–10–18
10.	REVISED PER MCCD COMMENTS	10–22–18
9.	REVISED PER MCCD COMMENTS	6–1–18
8.	REVISED PER COMMENT LETTERS	1–31–18
7.	REVISED PER MCCD COMMENTS	12–15–17
6.	REVISED PER COMMENT LETTERS	11–08–17
5.	REVISED PER MCCD COMMENTS	9–29–17
4.	REVISED PER COMMENT LETTERS	8–04–17
3.	REVISED PER NPDES SUBMISSION	6–07–17
2.	REVISED PER COMMENT LETTERS	4–07–17
1.	REVISED PER COMMENT LETTERS	11–04–16

REVISIONS

JASON SCOTT ENGELHARDT — REGISTERED PROFESSIONAL — COMMONWEALTH OF PENNSYLVANIA

SIGNATURE — JASON SCOTT ENGELHARDT — DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan U.K. Langan International LLC Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS

Project No. 240038801	Drawing No. CG-503
Date 05/31/16	
Scale N.T.S.	
Drawn By KG	
Submission Date	Sheet 84 of 187

OWNER
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CONTACT: BENJAMIN GOLDTHORP

LANGAN

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

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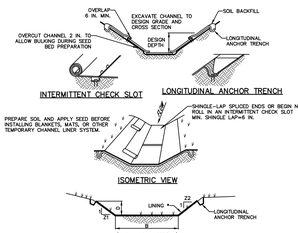
Filename: I:\langan.com\data\BET\data8\240038801\Cadd Data - 240038801\SheetFiles\240038801 CG501-503.dwg Date: 12/13/2019 Time: 15:07 User: dmoyer Style Table: Langan.stb Layout: 240038801 CG501-503 - CG-503



* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING *
1	ENTIRE CHANNEL	4	1	20	8	8	S2
2	ENTIRE CHANNEL	2	2	30	7	7	S2
3	ENTIRE CHANNEL	2	1	26	12	12	S2
4	ENTIRE CHANNEL	0	2	40	10	10	S2
5	ENTIRE CHANNEL	0	2	20	5	5	S2
6	ENTIRE CHANNEL	5	1	11	3	3	S2
7	ENTIRE CHANNEL	2	1	8	3	3	S2

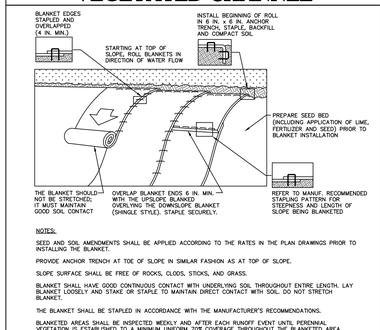
NOTES:

ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION.
SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL, WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.
NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

STANDARD CONSTRUCTION DETAIL #6-1
VEGETATED CHANNEL
NOT TO SCALE

VEGETATED CHANNEL



NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

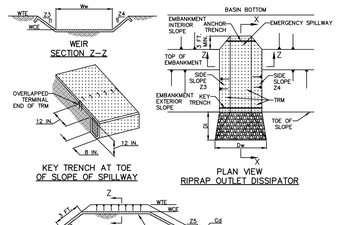
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-1
EROSION CONTROL BLANKET INSTALLATION

EROSION CONTROL MATTING



BASIN NO.	Z3 (FT)	Z4 (FT)	WEIR TOP ELEV WE (FT)	WEIR CREST ELEV WCE (FT)	WEIR WIDTH Ww (FT)	LINING TRM TYPE	CHANNEL STAPLE PATTERN	CHANNEL Z5 (FT)	CHANNEL DEPTH Cd (FT)	CHANNEL LENGTH Lt (FT)	DISSIPATOR WIDTH Dw (FT)	DISSIPATOR RIPRAP SIZE (In.—)	RIPRAP THICK. DR1 (IN)
A	3	3	288.00	286.50	160	450 LINER	SEE DETAIL	3	1.0	15	160	3	8
B	3	3	282.00	280.50	78	450 LINER	SEE DETAIL	3	1.0	15	78	3	8
C	3	3	278.10	276.10	78	450 LINER	SEE DETAIL	3	1.0	15	78	3	8
D	3	3	267.00	265.00	165	450 LINER	SEE DETAIL	3	1.0	15	165	3	8

NOTES:

HEAVY EQUIPMENT SHALL NOT CROSS OVER SPILLWAY WITHOUT PRECAUTIONS TAKEN TO PROTECT TRM LINING.

DISPLACED LINER WITHIN THE SPILLWAY AND/OR OUTLET CHANNEL SHALL BE REPLACED IMMEDIATELY.

RIPRAP AT TOE OF EMBANKMENT SHALL BE EXTENDED A SUFFICIENT LENGTH IN BOTH DIRECTIONS TO PREVENT SCOUR.

THE USE OF BAFFLES THAT REQUIRE SUPPORT POSTS ARE RESTRICTED FROM USE IN BASINS REQUIRING IMPERVIOUS LINERS.

STANDARD CONSTRUCTION DETAIL #7-13
SEDIMENT BASIN EMERGENCY SPILLWAY WITH TRM LINING
NOT TO SCALE

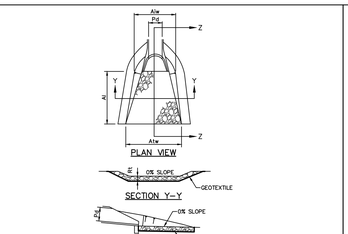
EMERGENCY SPILLWAY

NOTES:

A CONCRETE CRADLE MAY BE USED IN CONJUNCTION WITH ANTI-SEEP COLLARS AND/OR FILTER DIAPHRAGM.
ANTI-SEEP COLLAR NUMBER, SIZE AND SPACING SHALL BE AS SHOWN ELSEWHERE IN PLAN.
FILTER DIAPHRAGM LOCATION (Lfd) SHALL BE AS SHOWN IN FIGURE 7.8 OF THE PA DEP EROSION CONTROL MANUAL.

STANDARD CONSTRUCTION DETAIL #7-17
CONCRETE CRADLE FOR BASIN OR TRAP OUTLET BARREL
NOT TO SCALE

CONCRETE CRADLE



OUTLET NO.	PIPE DIA PA (IN)	RIPRAP SIZE R——	THICK. Rt (IN)	LENGTH At (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
1	48	R-4	18	18	12	19.2
1a	18	R-5	24	24	4.5	14.1
2	36	R-3	9	12	9	13.8
3	36	R-3	30	13	9	14.2
3a	24	R-6	30	21.5	6	14.6
4	30	R-5	24	12	7.5	12.3
5	60	R-5	24	22	15	23.8
5a	18	R-3	9	8	4.5	6.9
6	36	R-3	9	13	9	14.2
6a	18	R-4	18	15	12	18
7	42	R-4	18	15	10.5	16.5
7a	48	R-6	30	18	12	19.2
11	24	R-4	18	9	6	9.6

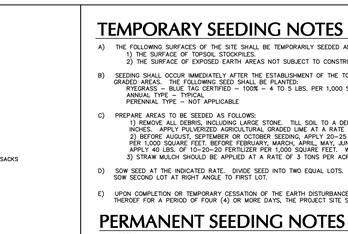
NOTES:

ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

STANDARD CONSTRUCTION DETAIL #9-1
RIPRAP APRON AT PIPE OUTLET
WITH FLARED END SECTION OR ENDWALL
NOT TO SCALE

RIP RAP APRON



PA DEP EROSION CONTROL MANUAL TABLE 13.1
MAXIMUM SPACING AND MATERIALS FOR TRENCH PLUGS

TRENCH SLOPE (%)	SPACING L (FT)	PLUG MATERIAL
< 5	1000	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
5 – 15	500	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
15 – 25	300	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
25 – 35	200	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
35 – 100	100	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
> 100	50	CEMENT BAGS (WETTED) OR MORTARED STONE

* TOPSOIL MAY NOT BE USED TO FILL SACKS

NOTES:

IMPERVIOUS TRENCH PLUGS ARE REQUIRED FOR ALL STREAM, RIVER, WETLAND, OR OTHER WATER BODY CROSSINGS.

STANDARD CONSTRUCTION DETAIL #13-4
TRENCH PLUG INSTALLATION

TRENCH PLUG

TEMPORARY SEEDING NOTES

A) THE FOLLOWING SURFACES OF THE SITE SHALL BE TEMPORARILY SEEDED AND MULCHED
   1) THE SURFACE OF TOPSOIL STOCKPILES.
   2) THE SURFACE OF EXPOSED EARTH AREAS NOT SUBJECT TO CONSTRUCTION

B) SEEDING SHALL OCCUR IMMEDIATELY AFTER THE ESTABLISHMENT OF THE TOPSOIL STOCKPILES OR ROUGH GRADED AREAS. THE FOLLOWING SEED SHALL BE PLANTED:
   RYEGRASS – BLUE TAG CERTIFIED – 100% – 4 TO 5 LBS. PER 1,000 SQUARE FOOT.
   ANNUAL TYPE – TYPICAL
   PERENNIAL TYPE – NOT APPLICABLE

C) PREPARE AREAS TO BE SEEDED AS FOLLOWS:
   1) REMOVE ALL DEBRIS, INCLUDING LARGE STONE. TILL SOIL TO A DEPTH OF FOUR INCHES TO SIX INCHES. APPLY PULVERIZED AGRICULTURAL GRADED LIME AT A RATE OF 2 TONS PER ACRE.
   2) BEFORE AUGUST, SEPTEMBER OR OCTOBER SEEDING, APPLY 20–25 LBS. OF 10–20–20 FERTILIZER PER 1,000 SQUARE FEET. BEFORE FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY OR NOVEMBER SEEDING, APPLY 40 LBS. OF 10–20–20 FERTILIZER PER 1,000 SQUARE FEET. WORK INTO TOP INCH OF SOIL.
   3) STRAW MULCH SHOULD BE APPLIED AT A RATE OF 3 TONS PER ACRE.

D) SOW SEED AT THE INDICATED RATE. DIVIDE SEED INTO TWO EQUAL LOTS. SOW ONE LOT IN ONE DIRECTION. SOW SECOND LOT AT RIGHT ANGLE TO FIRST LOT.

E) UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF FOR A PERIOD OF FOUR (4) OR MORE DAYS, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED.

PERMANENT SEEDING NOTES

LAWN SEED MIX

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 1/2" DIAMETER.
2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
3. SEEDING RATES:

PERENNIAL RYEGRASS	1 LB/1000 SQ FT
KENTUCKY BLUEGRASS	1 1/2 LB/1000 SQ FT
RED FESCUE	1 1/2 LB/1000 SQ FT
SPREADING FESCUE	1 LB/1000 SQ FT

4. SEEDING DATES FOR THIS MIXTURE SHALL BE BETWEEN MARCH 15TH TO MAY 15TH OR AUGUST 15TH TO OCTOBER 30TH.
5. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL A STAND OF COVER IS ESTABLISHED AND FOUND ACCEPTABLE TO THE OWNER.

MEADOW SEED MIX

MEADOW SEED MIX A – ERNST SEED MIX ERNMX–183 "NATIVE DETENTION AREA MIX"

32%	PANICUM VIRGATUM "SHAWNEE"	"SHAWNEE" SWITCHGRASS	
32%	PANICUM RIGIDULUM	REDTOP PANICGRASS	
20%	ELYMUS VIRGINICUS	VIRGINIA WILDRYE	
5%	SCIRPUS ATROVIRENS	GREEN BULRUSH	
5%	AGROSTIS PERENNANS	AUTUMN BENTGRASS	
2%	JUNCUS EFFUSUS	SOFT RUSH	
2%	AGROSTIS SCABRA	TALL BENTGRASS	
1%	JUNCUS TENUS	PATH RUSH	

NOTES:

1. SEED AT A RATE OF 20 LBS./ACRE.

GENERAL SEEDING NOTES:

1. SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 1) OR THE FALL (SEPTEMBER 1 TO OCTOBER 30).
2. ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A BROAD–SPECTRUM NON–SELECTIVE HERBICIDE PER MANUFACTURER'S SPECIFICATIONS.
3. SEEDBED SHALL BE INSTALL SEED MIXTURE USING A NO–TILL TRUAX–TYPE DRILL IN AREAS TO BE SEEDED WITH MEADOW MIX.
4. CONTRACTOR SHALL IMMEDIATELY ROLL NEWLY SEEDED AREAS WITH CULTI–PACKER OR SIMILAR DEVICE TO ENSURE PROPER SEED/SOIL CONTACT.
5. CONTINUOUS MOISTURE FOR 4 – 6 WEEKS MUST BE INSURED TO ALLOW PROPER GERMINATION, IF RAIN DOES NOT OCCUR CONTRACTOR SHALL PROVIDE SUPPLEMENTAL IRRIGATION TO NEWLY SEEDED AREAS PER INSTRUCTIONS INCLUDED IN SEEDING SPECIFICATION.
6. REMOVE ALL DEBRIS, INCLUDING LARGE STONES. TILL SOIL TO A DEPTH OF FOUR INCHES TO SIX INCHES. APPLY AGRICULTURAL PULVERIZED GRADED LIME AT A RATE OF 6 TONS PER ACRE. BEFORE JUNE 15, APPLY 1,000 lbs. OF 10–10–20 FERTILIZER PER ACRE. WORK FERTILIZER INTO TOP INCH OF SOIL. STRAW MULCH SHOULD BE APPLIED AT A RATE OF 3 TONS PER ACRE.

WEED CONTROL / MAINTENANCE

1. DURING THE ESTABLISHMENT YEAR, CONTRACTOR SHALL MOW SEEDED AREAS IF WEED HEIGHT EXCEEDS MEADOW MIX HEIGHT. MOW AT A HEIGHT OF 8"–10". DO NOT MOW CLOSE, THE MEADOW MIX MAY BE DAMAGED.
2. AFTER THE FIRST GROWING SEASON, AND IF MEADOW MIX IS WELL ESTABLISHED, THE MEADOW MIX SHALL BE MOWED ONLY ONCE ANNUALLY. ANNUAL MAINTENANCE MOWING SHALL BE DONE IN LATE WINTER DURING THE MONTH OF MARCH.

SEEDING NOTES

SEQUENCE OF CONSTRUCTION - PERMANENT WETLAND CROSSING FOR TRAIL/ROADWAY CROSSINGS

1. REFER TO SHEET GP-101 FOR PERMANENT WETLAND CROSSINGS AT THE LOCATION INDICATED ON SHEETS CE-201 TO CE-209. EXCAVATE TOPSOIL WITH THE VEGETATIVE ROOT MASS AS INDICATED ON SHEETS CE-201 TO CE-209. CAREFULLY REMOVE AND STOCKPILE SEPARATELY FROM THE SUBSOIL, UNLESS THERE IS STANDING WATER OR SOIL IS TOO SATURATED TO SEGREGATE.
2. INSTALL TRENCH PLUGS AS INDICATED ON DETAIL 13-4 ALONG THE LENGTH OF THE STORM PIPE, IF TRENCH IS NECCESARY, BENEATH THE TRAIL/ROADWAY CROSSING.
3. INSTALL STORM PIPE SYSTEM FROM DOWNSTREAM TO UPSTREAM INCLUDING HEADWALLS, PIPES AND RIP-RAP APRON. WETLAND CROSSINGS WITH CONSTRUCTION VEHICLES MUST BE AVOIDED.
4. BACKFILL ABOVE STORM PIPE AND GRADE TRAIL ACCORDING TO SHEETS CE-201 TO CE-209. FILL ADJACENT TO TRAIL/ROADWAY WITH PREVIOUSLY REMOVED TOPSOIL WITH THE VEGETATIVE ROOT MASS.
5. INSTALL TRAIL/ROADWAY ACROSS WETLAND AREA.
6. ANY DISTURBED AREAS MUST BE PERMANENTLY STABILIZED. EROSION CONTROL BLANKETS SHALL BE INSTALLED FOR ALL SEEDED AREAS WITHIN 50 FT OF THE WATER BODY. ALL SEEDED AREAS SHALL BE PLANTED WITH A NATIVE MIX CONSISTENT WITH EXISTING VEGETATION CONDITIONS.

SEQUENCE OF CONSTRUCTION - PERMANENT WETLAND CROSSINGS FOR UTILITY CROSSINGS

1. REFER TO SHEET GP-101 FOR PERMANENT WETLAND CROSSINGS AT THE LOCATION INDICATED ON SHEETS CE-201 TO CE-209. EXCAVATE TOPSOIL WITH THE VEGETATIVE ROOT MASS AS INDICATED ON SHEETS CE-201 TO CE-209. CAREFULLY REMOVE AND STOCKPILE SEPARATELY FROM THE SUBSOIL, UNLESS THERE IS STANDING WATER OR SOIL IS TOO SATURATED TO SEGREGATE.
2. INSTALL TRENCH PLUGS AS INDICATED ON DETAIL 13-4 ALONG THE LENGTH OF THE UTILITY TRENCH.
3. INSTALL DESIGNATED UTILITY, WETLAND CROSSINGS WITH CONSTRUCTION VEHICLES MUST BE AVOIDED.
4. BACKFILL TRENCH AND GRADE THE AREA AS INDICATED ON SHEETS CE-201 TO CE-209 WITH PREVIOUSLY REMOVED TOPSOIL WITH THE VEGETATIVE ROOT MASS.
5. ANY DISTURBED AREAS MUST BE PERMANENTLY STABILIZED. EROSION CONTROL BLANKETS SHALL BE INSTALLED FOR ALL SEEDED AREAS WITHIN 50 FT OF THE WATER BODY. ALL SEEDED AREAS SHALL BE PLANTED WITH A NATIVE MIX CONSISTENT WITH EXISTING VEGETATION CONDITIONS.

NOTE: SEE SHEETS CE–200 THROUGH CE–209 FOR LOCATIONS OF SPILLWAYS AND SLOPE LININGS.

LANDLOK® EROSION CONTROL BLANKET PERFORMANCE VALUES ENGLISH & METRIC UNITS

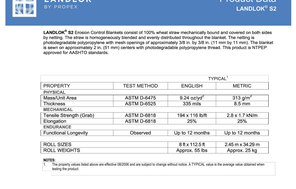
MATERIAL	FUNCTIONAL LONGEVITY	MAXIMUM SHORT-TERM SHEAR STRESS AND VELOCITY (UNVEGETATED)[2]		MANNING'S "n"	C-FACTOR
		SHEAR STRESS	VELOCITY	0-6 in (0-150 mm)	
LANDLOK® 407	SHORT-TERM DEGRADABLE (1 YEAR)	–	–	–	–
LANDLOK S1	SHORT-TERM DEGRADABLE (1 YEAR)	2.0 lb/ft² 96 N/m²	n/r	n/r	0.14
LANDLOK S2	SHORT-TERM DEGRADABLE (1 YEAR)	2.0 lb/ft² 96 N/m²	5.0 - 6.0 ft/sec 1.5 - 1.8 m/sec	0.027	0.21
LANDLOK SUPERGRO®	EXTENDED-TERM DEGRADABLE (1.5 YEARS)	2.0 lb/ft² 96 N/m²	–	–	–
LANDLOK CS2	EXTENDED-TERM DEGRADABLE (2 YEARS)	2.0 lb/ft² 96 N/m²	5.0 - 6.0 ft/sec 1.5 - 1.8 m/sec	0.021	0.09
LANDLOK C2	LONG-TERM DEGRADABLE (3 YEARS)	2.0 lb/ft² 96 N/m²	5.0 - 6.0 ft/sec 1.5 - 1.8 m/sec	0.018	0.06

NOTES: 1. "n/r" not recommended for use in swales and low-flow channels.
2. Typical design limits for natural vegetation are a maximum shear stress of 2.0 lb/ft² (96 N/m²) and a velocity limit of 5.0 to 6.0 ft/sec (1.5 to 1.8 m/sec).

LANDLOK® TURF REINFORCEMENT MAT PERFORMANCE VALUES ENGLISH & METRIC UNITS

MATERIAL	FUNCTIONAL LONGEVITY	SHORT-TERM MAXIMUM SHEAR STRESS AND VELOCITY				MANNING'S "n"		
		VEGETATED[4, 7]		PARTIALLY[5]	UNVEGETATED[6]	0"-6"	6"-12"	12"-24"
LANDLOK® 450	PERMANENT	10 lb/ft² 479 N/m²	18 ft/sec 5.5 m/sec	8 lb/ft² 383 N/m²	15 lb/ft² 4.6 m/sec 239 N/m² 3.7 m/sec	0.035	0.025	0.021
LANDLOK 1051	PERMANENT	10 lb/ft² 479 N/m²	18 ft/sec 5.5 m/sec	n/a	n/a 5 lb/ft² 239 N/m² 3.7 m/sec	0.036	0.026	0.020
LANDLOK 300	PERMANENT	12 lb/ft² 576 N/m²	20 ft/sec 6.1 m/sec	–	– –	0.030	0.028	0.018

NOTES: 4. Maximum permissible shear stress has been obtained through fully vegetated (70% to 100% density) testing programs featuring specific soil types, vegetation classes, flow conditions and failure criteria. These conditions may not be relevant to every project nor are they replicated by other manufacturers. Please contact Propex for further information. 7. Maximum permissible shear stress achieved after only 14 weeks of vegetative establishment versus the industry standard of two full growing seasons.



LANDLOK® S2 Erosion Control Blankets consist of 100% wheat straw mechanically bound and covered on both sides with a UV stabilized, photodegradable polypropylene mesh. The straw is sewn on 2 in. (51 mm) centers with photodegradable polypropylene thread. This product is NTPEP approved for AASHTO standards.

TYPICAL[1]

PROPERTY	TEST METHOD	ENGLISH	METRIC
PHYSICAL			
Mass/Unit Area	ASTM D-6475	0.24 oz/yd²	313 g/m²
Thickness	ASTM D-6525	335 mils	8.5 mm
MECHANICAL			
Tensile Strength (Grab)	ASTM D-6818	194 x 116 lb/ft	2.8 x 1.7 kN/m
Elongation	ASTM D-6818	25%	25%
ENDURANCE			
Functional Longevity	Observed	Up to 12 months	Up to 12 months
ROLL SIZES		8 ft x 112.5 ft	2.45 m x 34.29 m
ROLL WEIGHTS		Approx. 65 lbs.	Approx. 29 kg

NOTE:
1. The property values listed above are effective 06/2009 and are subject to change without notice. 2. TYPICAL value is the average value obtained when testing the product.

Propex Geotextile Systems

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www.geotextile.com

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ph 423 899 0444 · ph 800 621 1273 · fax 423 899 7619

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7,144,265; 7,144,266; 7,144,267; 7,144,268; 7,144,269; 7,144,270; 7,144,271; 7,144,272; 7,144,273; 7,144,274; 7,144,275; 7,144,276; 7,144,277; 7,144,278; 7,144,279; 7,144,280; 7,144,281; 7,144,282; 7,144,283; 7,144,284; 7,144,285; 7,144,286; 7,144,287; 7,144,288; 7,144,289; 7,144,290; 7,144,291; 7,144,292; 7,144,293; 7,144,294; 7,144,295; 7,144,296; 7,144,297; 7,144,298; 7,144,299; 7,144,300; 7,144,301; 7,144,302; 7,144,303; 7,144,304; 7,144,305; 7,144,306; 7,144,307; 7,144,308; 7,144,309; 7,144,310; 7,144,311; 7,144,312; 7,144,313; 7,144,314; 7,144,315; 7,144,316; 7,144,317; 7,144,318; 7,144,319; 7,144,320; 7,144,321; 7,144,322; 7,144,323; 7,144,324; 7,144,325; 7,144,326; 7,144,327; 7,144,328; 7,144,329; 7,144,330; 7,144,331; 7,144,332; 7,144,333; 7,144,334; 7,144,335; 7,144,336; 7,144,337; 7,144,338; 7,144,339; 7,144,340; 7,144,341; 7,144,342; 7,144,343; 7,144,344; 7,144,345; 7,144,346; 7,144,347; 7,144,348; 7,144,349; 7,144,350; 7,144,351; 7,144,352; 7,144,353; 7,144,354; 7,144,355; 7,144,356; 7,144,357; 7,144,358; 7,144,359; 7,144,360; 7,144,361; 7,144,362; 7,144,363; 7,144,364; 7,144,365; 7,144,366; 7,144,367; 7,144,368; 7,144,369; 7,144,370; 7,144,371; 7,144,372; 7,144,373; 7,144,374; 7,144,375; 7,144,376; 7,144,377; 7,144,378; 7,144,379; 7,144,380; 7,144,381; 7,144,382; 7,144,383; 7,144,384; 7,144,385; 7,144,386; 7,144,387; 7,144,388; 7,144,389; 7,144,390; 7,144,391; 7,144,392; 7,144,393; 7,144,394; 7,144,395; 7,144,396; 7,144,397; 7,144,398; 7,144,399; 7,144,400; 7,144,401; 7,144,402; 7,144,403; 7,144,404; 7,144,405; 7,144,406; 7,144,407; 7,144,408; 7,144,409; 7,144,410; 7,144,411; 7,144,412; 7,144,413; 7,144,414; 7,144,415; 7,144,416; 7,144,417; 7,144,418; 7,144,419; 7,144,420; 7,144,421; 7,144,422; 7,144,423; 7,144,424; 7,144,425; 7,144,426; 7,144,427; 7,144,428; 7,144,429; 7,144,430; 7,144,431; 7,144,432; 7,144,433; 7,144,434; 7,144,435; 7,144,436; 7,144,437; 7,144,438; 7,144,439; 7,144,440; 7,144,441; 7,144,442; 7,144,443; 7,144,444; 7,144,445; 7,144,446; 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7,144,538; 7,144,539; 7,144,540; 7,144,541; 7,144,542; 7,144,543; 7,144,544; 7,144,545; 7,144,546; 7,144,547; 7,144,548; 7,144,549; 7,144,550; 7,144,551; 7,144,552; 7,144,553; 7,144,554; 7,144,555; 7,144,556; 7,144,557; 7,144,558; 7,144,559; 7,144,560; 7,144,561; 7,144,562; 7,144,563; 7,144,564; 7,144,565; 7,144,566; 7,144,567; 7,144,568; 7,144,569; 7,144,570; 7,144,571; 7,144,572; 7,144,573; 7,144,574; 7,144,575; 7,144,576; 7,144,577; 7,144,578; 7,144,579; 7,144,580; 7,144,581; 7,144,582; 7,144,583; 7,144,584; 7,144,585; 7,144,586; 7,144,587; 7,144,588; 7,144,589; 7,144,590; 7,144,591; 7,144,592; 7,144,593; 7,144,594; 7,144,595; 7,144,596; 7,144,597; 7,144,598; 7,144,599; 7,144,600; 7,144,601; 7,144,602; 7,144,603; 7,144,604; 7,144,605; 7,144,606; 7,144,607; 7,144,608; 7,144,609; 7,144,610; 7,144,611; 7,144,612; 7,144,613; 7,144,614; 7,144,615; 7,144,616; 7,144,617; 7,144,618; 7,144,619; 7,144,620; 7,144,621; 7,144,622; 7,144,623; 7,144,624; 7,144,625; 7,144,626; 7,144,627; 7,144,628; 7,144,629; 7,144,630; 7,144,631; 7,144,632; 7,144,633; 7,144,634; 7,144,635; 7,144,

NOTE: SEQUENCE OF CONSTRUCTION STEPS 1 THROUGH 16 SHALL BE REFERRED TO, AS NECESSARY, THROUGHOUT THE CONSTRUCTION PROCESS.

1. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE, EACH STAGE SHALL BE COMPLETED BEFORE ANY OF THE FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
2. AN ON-SITE PRE-CONSTRUCTION MEETING IS REQUIRED TO OCCUR NO LESS THAN 7-DAYS PRIOR TO ANY EARTH DISTURBANCE UNLESS NOTIFIED OTHERWISE BY SERO DEP OR THE MONTGOMERY COUNTY CONSERVATION DISTRICT. PERMITTEES, CO-PERMITTEES, OPERATORS, ALL APPROPRIATE MUNICIPAL OFFICIALS, REPRESENTATIVES FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT AND THE SERO DEP, AND LICENSED PROFESSIONALS OR DESIGNEES RESPONSIBLE FOR THE EARTH DISTURBANCE ACTIVITY, INCLUDING IMPLEMENTATION OF E&S AND PCSM PLANS AND CRITICAL STAGES OF IMPLEMENTATION OF THE APPROVED PCSM PLAN, SHALL ATTEND A PRECONSTRUCTION MEETING.
3. THE CRITICAL STAGES OF PCSM PLAN IMPLEMENTATION SHALL BE CONSTRUCTED WITH OVERSIGHT BY A LICENSED PROFESSIONAL OR THEIR DESIGNEE.
4. UPON INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.
5. TREE PROTECTION FENCING SHALL BE INSTALLED CONCURRENT WITH THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS.
6. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
7. EACH STAGE OF THE SEQUENCE OF CONSTRUCTION MUST BE COMPLETED PRIOR TO INITIATION OF THE NEXT STAGE OF THE SEQUENCE OF CONSTRUCTION. CONSTRUCTION ACTIVITIES WITHIN EACH STAGE MAY OVERLAP PROVIDED THAT WORK WITHIN EACH AREA IS CARRIED OUT IN SEQUENCE.
8. ALL BLASTING ACTIVITY, IF REQUIRED, SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS, CONTRACTOR SHALL NOTIFY OWNER AND ALL REGULATORY AGENCIES IN WRITING PRIOR AND OBTAIN ANY NECESSARY PERMITS PRIOR TO ANY BLASTING ACTIVITIES.
9. IN ORDER TO PROTECT INFILTRATION BMPS FROM SEDIMENT DAMAGE, THE PROPOSED INFILTRATION BMPS SHALL NOT BE INSTALLED UNTIL THE UPSLOPE DRAINAGE AREAS HAVE A UNIFORM 70% STABILIZATION. ADDITIONALLY, PROTECTIVE CONSTRUCTION FENCING SHALL BE PROVIDED AROUND THE BMPS SO THAT EXCESSIVE COMPACTION DOES NOT TAKE PLACE IN THESE AREAS. THESE AREAS ARE THE VEGETATED FILTER STRIPS. WATER PUMPED FROM WORK AREAS MUST BE TREATED FOR SEDIMENT REMOVAL PRIOR TO DISCHARGING TO A SURFACE WATER. A PUMPED WATER FILTER BAG DETAIL HAS BEEN PROVIDED ON CE-501 - SOIL EROSION AND SEDIMENT CONTROL DETAILS.
10. LIMIT CLEARING AND GRUBBING TO ACCESS ROAD TO THE SEDIMENT BASINS AND TRAP AREAS. ALL SEDIMENT BASINS AND TRAP AREAS MUST BE CLEARED AND GRUBBED FIRST, AND THESE EROSION CONTROL MEASURES INSTALLED BEFORE THE TRIBUTARY AREAS TO THESE BASINS AND TRAPS CAN BE CLEARED AND GRUBBED. IF ADDITIONAL FILL IS NECESSARY FOR THE SEDIMENT BASIN INSTALLATION, THE BORROW FILL SHALL BE TAKEN FROM AREAS IMMEDIATELY UPSTREAM OF THE BASIN LOCATION IN ORDER TO MINIMIZE DISTURBANCE. CLEAR AND GRUB AREA OF PROPOSED DISTURBED AREA FOR EACH APPROPRIATE CONSTRUCTION SECTION, ONE AT A TIME.
11. SEDIMENT BASINS SHALL REMAIN FUNCTIONAL UNTIL ALL UPSLOPE CONTRIBUTING DRAINAGE AREAS ARE STABILIZED. SEDIMENT BASINS AND TRAPS ARE TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER DISTURBANCE ACTIVITIES. UPON INSTALLATION OF THE TEMPORARY SEDIMENT BASINS RISER(S), SKIMMER, OR CONCRETE RISER WITH TEMPORARY DEWATERING HOLES, AN IMMEDIATE INSPECTION OF THE RISER(S), SKIMMER OR CONCRETE RISER WITH TEMPORARY DEWATERING HOLES SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER EROSION CONTROL DEVICE IS INSTALLED AND SEALED, PER THE SOIL EROSION AND SEDIMENT CONTROL PLANS. SEDIMENT BASINS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES. THE SEDIMENT BASIN AS INDICATED ON DETAILS. THE SEDIMENT BASIN SHALL REMAIN FUNCTIONAL UNTIL ALL UPSLOPE CONTRIBUTING DRAINAGE AREAS ARE STABILIZED. THE SEDIMENT BASIN IS TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER DISTURBANCE ACTIVITIES. UPON INSTALLATION OF THE SEDIMENT BASINS AND TRAPS, AN IMMEDIATE INSPECTION OF THE RISER SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER EROSION CONTROL DEVICE IS INSTALLED AND SEALED, PER THE SOIL EROSION AND SEDIMENT CONTROL PLANS. SEDIMENT BASINS AND TRAPS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.
12. ONCE ALL THE TEMPORARY EROSION CONTROLS HAVE BEEN CONSTRUCTED AND STABILIZED, THE CONTRACTOR CAN PROCEED WITH FURTHER CONSTRUCTION WITHIN THE CURRENT STAGE. THE CONTRACTOR CAN ONLY WORK WITHIN THE CURRENT STAGE AND THE BORROW AREA DELINEATED BY THE CURRENT STAGE BOUNDARY. IF FOR ANY REASON, EARTH DISTURBANCE IS REQUIRED WITHIN THE A SEPARATE STAGE, THE CONTRACTOR MUST NOTIFY THE CONSERVATION DISTRICT. ONCE THE CURRENT STAGE HAS BEEN TEMPORARILY STABILIZED, CONSTRUCTION MAY BEGIN IN THE FURTHER STAGES, WITH APPROVAL FROM THE CONSERVATION DISTRICT.
13. PLACE TOPSOIL AND EXCESS FILL MATERIAL IN AREAS DESIGNATED ON THE PLAN, WITHIN THE CURRENT STAGE BOUNDARY. INSTALL LANDLOK S-2 MATTING ON ALL 3:1 SLOPES IMMEDIATELY AFTER ANY 3:1 GRADING HAS BEEN COMPLETED. PERFORM TEMPORARY STABILIZATION AND/OR PERMANENT STABILIZATION PROCEDURES IMMEDIATELY AFTER ANY EARTHMOVING ACTIVITIES HAVE BEEN COMPLETED. STABILIZATION OF FILL SLOPES SHALL BE IN 15 TO 25 FOOT VERTICAL INCREMENTS, NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA SHALL REACH FINAL GRADE BEFORE INITIATING SEEDING AND MULCHING OPERATIONS, UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED FOUR DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. THE UNDERGROUND UTILITIES WITHIN THE ROADWAY SHALL BE INSTALLED AT THE SAME TIME OF THE ROAD GRADING TO AVOID POTENTIAL CONFLICTS.
14. THE EARTH MOVING ACTIVITY SHALL BEGIN IN AREAS OF CUT SO THAT THE CUTS CAN BE PLACED IN AREAS OF FILL. PLACE TOPSOIL AND EXCESS FILL MATERIAL IN AREAS DESIGNATED ON THE PLAN. ANY FILL IMPORTED TO THE SITE SHALL BE PLACED IN THE AREAS DESIGNATED ON THE PLANS. IMMEDIATELY INSTALL EROSION CONTROL BLANKETS (LANDLOK S2) IN ALL AREAS EXCEEDING 3:1 SLOPE AS SHOWN ON THE PLANS. STABILIZATION OF FILL SLOPES SHALL BE IN 15 TO 25 FOOT VERTICAL INCREMENTS. ALL UNDISTURBED AREAS SHALL BE STABILIZED IMMEDIATELY WITH TEMPORARY SEED AND MULCH AS PER NOTED ON DRAWING CE-502.
15. AS PAVED SECTIONS OF ROADWAY ARE COMPLETED THROUGHOUT THE SITE, RELOCATE THE ROCK CONSTRUCTION ENTRANCES WITH WHEEL WASHES AS NECESSARY, TO CONTAIN ANY SEDIMENT ON-SITE AND OFF OF THE FINISHED PAVEMENT SECTION TO THE GREATEST EXTEND POSSIBLE.
16. TOPSOIL SHALL BE REPLACED IMMEDIATELY FOLLOWING ANY MASS GRADING ON-SITE AND STABILIZED WITH GRASS. THE MAXIMUM UNSTABILIZED DISTURBED AREA SHALL BE LIMITED TO 40 ACRES AT A TIME.
17. FOR ALL BMP CONSTRUCTION, REFER TO THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR SPECIFIC BMP INSTALLATION GUIDELINES AND SEQUENCING.
18. UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITY AND INSTALLATION OF BMPS, THE PERMITTEE AND/OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION (NOT) TO THE DEPARTMENT OR AUTHORIZED MONTGOMERY COUNTY CONSERVATION DISTRICT.

SEQUENCE OF CONSTRUCTION - PHASE 1

STAGE 1

19. INSTALL CONSTRUCTION ENTRANCE #1 OFF OF SWAMP PIKE WHERE SHOWN ON CE-100.
20. INSTALL COMPOST FILTER SOCKS 22b, 22c, 22e, 22f, 23, 23a, 23b, 23c, 23d, 24, 53, 54, 54a, 55, 56.
21. INSTALL TREE PROTECTION FENCE WHERE SHOWN ON SHEETS CE-100 - CE-109.
22. INSTALL SOIL STOCKPILES IN PHASE 1 AS SHOWN ON CE-100 - CE-105.
23. **CRITICAL STAGE - SEDIMENT BASIN A, BASIN C, AND COMPOST SOCK SEDIMENT TRAP 2 SHOULD BE EXCAVATED TO ELEVATIONS SHOWN ON DRAWINGS CE-101 - CE-109. INSTALL THE LAST SECTIONS OF THE STORM PIPE NETWORKS THAT DRAIN INTO THE SEDIMENT BASINS AND TRAPS ALONG WITH THE RIP RAP APRONS. INSTALL THE OUTLET PIPE BARREL AND CONNECTION TO OUTLET CONTROL STRUCTURE. INSTALL ANTI-SEEP COLLARS AND CONCRETE CRADLE ALONG OUTLET PIPE FROM BASIN AND WATERTIGHT SEALS ON ALL STRUCTURES WITHIN THE BASIN. INSTALL THE PERMANENT OUTLET STRUCTURE AND PLATE ORIFICES. INSTALL THE TEMPORARY PERFORATED RISER. THE CLEANOUT STAKE SHALL BE PLACED. CONSTRUCT EMERGENCY SPILLWAY AND INSTALL EMERGENCY SPILLWAY LINER. INSTALL BAFFLES IN THE SEDIMENT BASIN. ONCE COMPLETED, STABILIZE THE SEDIMENT BASINS AS INDICATED ON DETAILS. THE SEDIMENT BASINS AND TRAPS SHALL REMAIN FUNCTIONAL UNTIL ALL UPSLOPE CONTRIBUTING DRAINAGE AREAS ARE STABILIZED. THE SEDIMENT BASIN IS TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER DISTURBANCE ACTIVITIES. UPON INSTALLATION OF THE SEDIMENT BASINS OR TRAP RISER, AN IMMEDIATE INSPECTION OF THE RISER SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER EROSION CONTROL DEVICE IS INSTALLED AND SEALED, PER THE SOIL EROSION AND SEDIMENT CONTROL PLANS.**
24. THE COMPLETION OR CESSATION OF EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF FOR A PERIOD OF FOUR (4) OR MORE DAYS REQUIRES TEMPORARY STABILIZATION. STABILIZE WITH TEMPORARY SEED AND MULCH AS PER NOTES ON DRAWING CE-503.
25. INSPECTIONS WILL BE REQUIRED FOR THE CRITICAL INSTALLATION PERIODS OF THE VARIOUS PCSM BMPS.

STAGE 2

26. INSTALL COMPOST FILTER SOCKS 25, 26, 27, 28, 29, 30, 49, 50, 52, 59, 58, 60, 61, 62, 74, 75, 76, 77, 78
27. ROUGH GRADE PHASE 1 AS IDENTIFIED ON DRAWINGS CE-200 - CE-209. AFTER BULK GRADING IS COMPLETE, THE DISTURBED AREAS SHOULD RECEIVE TOPSOIL AND BE STABILIZED. BEGIN CONSTRUCTION OF TRAILS AND OTHER RECREATIONAL IMPROVEMENTS IN PHASE 1. REMOVE ALL NOXIOUS VEGETATION (POISON IVY AND OTHER INVASIVE PLANTS, PER PADCNR). THE TEMPORARY RISER IN EACH SEDIMENT BASIN SHALL REMAIN INSTALLED UNTIL THE CONTRIBUTING DRAINAGE AREA TO THE BASIN HAS BEEN AND STABILIZED.
28. BEGIN CONSTRUCTION OF THE PHASE 1 ON-SITE UTILITIES AS IDENTIFIED ON DRAWING CE-200 TO CE-209 OF THE E&S PLANS AND CU-100 TO CU-109 OF THE LAND DEVELOPMENT PLANS. ON-SITE SUBSURFACE UTILITIES SHALL CONSIST OF GAS, ELECTRIC, TELEPHONE, CABLE, WATER, AND SANITARY SEWERS. ADVANCE TRENCH EXCAVATION SHALL BE LIMITED TO THE LENGTH OF PIPE THAT CAN BE COMPLETED IN THE SAME DAY. ON THE DAY FOLLOWING UTILITY INSTALLATION, THE TRENCH AREA SHALL BE GRADED TO SUBGRADE ELEVATION. HYDROSEEDING AND/OR LIQUID MULCHING OF DISTURBED AREAS SHALL BE COMPLETED AT THE END OF EACH WORK DAY.
29. ROUGH GRADE THE PHASE 1 PROPOSED ROADWAYS AS IDENTIFIED ON DRAWINGS CE-200 - CE-209. CONSTRUCT CURBING ALONG ROADWAYS. WHERE CROSSING WETLAND AREAS, AS SHOWN ON SHEETS CE-201 TO CE-209, REFER TO SHEET CE-503 FOR THE SEQUENCE OF CONSTRUCTION FOR SPECIFICS ON THE CONSTRUCTION OF PERMANENT WETLANDS CROSSINGS.
30. PLACE GRAVEL SUBBASE AND BITUMINOUS BASE COURSE IN AREAS OF PROPOSED PAVEMENT.
31. THE INDIVIDUAL BUILDING LOTS WILL BE CONSTRUCTED IN CONCENTRATED GROUPING TO THE MAXIMUM EXTENT POSSIBLE. INDIVIDUAL LOT BMPS MAY BE REQUIRED TO PROTECT ALREADY COMPLETED LOTS AND OTHER SENSITIVE AREAS. INSTALL DRIVEWAY APRON AND GRAVEL SUBBASE FOR DRIVEWAYS. INSTALL NECESSARY FOUNDATIONS AND CONSTRUCT HOUSES. INSTALL DRIVEWAY PAVING. COMPLETE FINAL LOT GRADING AND IMMEDIATELY STABILIZE WITH PERMANENT SEED AND MULCH AS PER NOTES ON DRAWINGS CE-503.
32. COMPLETE FINAL PHASE 2 GRADING AND LANDSCAPE OF ALL APPROPRIATE AREAS. ONCE SLOPES, CHANNELS, DITCHES, AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. STABILIZE WITH PERMANENT SEED AND MULCH AS PER NOTES ON DRAWING CE-503. REFER TO CG-401 OF THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR SPECIFIC BMP INSTALLATION GUIDELINES AND SEQUENCING.
33. **CRITICAL STAGE - INSTALL REMAINING PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS (INCLUDING ROOFTOP DISCONNECTS, VEGETATED FILTER STRIPS, SLOW RELEASE BASINS, SOIL AMENDMENTS, AND TREE PLANTINGS (REVEGETATING/REFORESTING). THE CONSERVATION DISTRICT SHALL BE CONTACTED PRIOR TO PCSM BMP INSTALLATION TO CONFIRM ADEQUATE VEGETATIVE COVERAGE ON-SITE. REFER TO CG-401 OF THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS, FOR SPECIFIC BMP INSTALLATION GUIDELINES AND SEQUENCING.**
34. CONSTRUCTION ENTRANCE, COMPOST FILTER SOCK, TREE PROTECTION FENCE, INLET PROTECTION, SILT FENCE, SEDIMENT TRAP AND SEDIMENT BASINS SHALL BE MAINTAINED UNTIL ALL IMPROVEMENTS TO THE SITE ARE COMPLETED, ROAD AREAS ARE PAVED, AND UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NONVEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION HAS BEEN ESTABLISHED.
35. **CRITICAL STAGE - ONCE ALL PERMANENT MEASURES HAVE BEEN INSTALLED, CLEAN OUT ACCUMULATED SILT FROM THE SEDIMENT BASIN, GRADE SEDIMENT BASIN AND SPILLWAY FOR SEDIMENT BASINS TO THE PERMANENT ELEVATIONS SHOWN FOR THE PERMANENT BASINS, REMOVE THE CONSTRUCTION ENTRANCES, SILT FENCE,COMPOST FILTER SOCK, AND INLET PROTECTION. ALL DISTURBED AREAS CAUSED BY THE REMOVAL OF TEMPORARY SEDIMENT POLLUTION CONTROL DEVICES MUST BE PERMANENTLY STABILIZED. CONTRACTOR MUST SCHEDULE A SITE INSPECTION WITH MONTGOMERY COUNTY CONSERVATION DISTRICT PRIOR TO REMOVAL OR CONVERSION OF E&S BMPS.**
36. **CRITICAL STAGE - PCSM BMPS SHALL BE INSPECTED BY A LICENSED PROFESSIONAL TO ENSURE THAT THEY HAVE NOT BEEN IMPACTED BY CONSTRUCTION ACTIVITIES.**
37. **CRITICAL STAGE - CONVERSION OF SEDIMENT BASINS AND TRAPS TO PERMANENT BASINS:**
38. INSPECTIONS WILL BE REQUIRED FOR THE CRITICAL INSTALLATION PERIODS OF THE VARIOUS PCSM BMPS.

NOTE: THE EXISTING SUBGRADE OF THE PROPOSED BASIN BED AREAS SHALL NOT BE SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC. WHERE POSSIBLE GRADING WORK AND INSTALLATION OF UNDERDRAIN SHALL BE DONE USING LIGHT WEIGHT EQUIPMENT. EQUIPMENT SHALL BE KEPT OFF OF BED BOTTOM AREAS AS MUCH AS POSSIBLE TO PREVENT COMPACTION.

SEQUENCE FOR SEDIMENT BASIN CONVERSION

38.1. CLEAN OUT ACCUMULATED SILT FROM THE SEDIMENT BASIN.
38.2. REMOVE BAFFLES AND CLEANOUT STAKE.
38.3. REMOVE ORIFICE PLATES FROM PERMANENT OUTLET STRUCTURE
38.4. REMOVE TEMPORARY RISER
38.5. REMOVE ALL TEMPORARY TRASH RACKS.
38.6. EXCAVATE TO BOTTOM OF FILTER MEDIA ELEVATION, AND IN THE CASE OF BASIN A RAISE EMERGENCY SPILLWAY AND TOP OF BERM TO PCSM ELEVATIONS.
38.7. INSTALL PROPOSED UNDERDRAIN AND CONNECT TO THE PERMANENT OUTLET CONTROL STRUCTURE.
38.8. INSTALL FILTER MEDIA IN BOTTOM OF SLOW RELEASE BASINS.

SEQUENCE OF CONSTRUCTION - PHASE 2 & 2A

STAGE 1

39. INSTALL CONSTRUCTION ENTRANCES #2 AND #3 OFF OF SWAMP PIKE AND NORTH CHARLOTTE STREET WHERE SHOWN ON CE-100.
40. INSTALL COMPOST FILTER SOCKS 1, 2, 13, 14, 17, 18, 19.
41. INSTALL SOIL STOCKPILES IN PHASE 2 AS SHOWN ON CE-100 - CE-109.
42. **CRITICAL STAGE - SEDIMENT BASIN D SHOULD BE EXCAVATED TO ELEVATIONS SHOWN ON DRAWINGS CE-101 - CE-109. INSTALL THE LAST SECTIONS OF THE STORM PIPE NETWORKS THAT DRAIN INTO THE SEDIMENT BASIN ALONG WITH THE RIP RAP APRONS. INSTALL THE OUTLET PIPE BARREL AND CONNECTION TO OUTLET CONTROL STRUCTURE. INSTALL ANTI-SEEP COLLARS AND CONCRETE CRADLE ALONG OUTLET PIPE FROM BASIN AND WATERTIGHT SEALS ON ALL STRUCTURES WITHIN THE BASIN. INSTALL THE PERMANENT OUTLET STRUCTURE AND PLATE ORIFICES. INSTALL THE TEMPORARY PERFORATED RISER. THE CLEANOUT STAKE SHALL BE PLACED. CONSTRUCT EMERGENCY SPILLWAY AND INSTALL EMERGENCY SPILLWAY LINER. INSTALL BAFFLES IN THE SEDIMENT BASIN. ONCE COMPLETED, STABILIZE THE SEDIMENT BASIN AS INDICATED ON DETAILS. THE SEDIMENT BASIN AND TRAPS SHALL REMAIN FUNCTIONAL UNTIL ALL UPSLOPE CONTRIBUTING DRAINAGE AREAS ARE STABILIZED. THE SEDIMENT BASIN IS TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER DISTURBANCE ACTIVITIES. UPON INSTALLATION OF THE SEDIMENT BASIN OR TRAP RISER, AN IMMEDIATE INSPECTION OF THE RISER SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER EROSION CONTROL DEVICE IS INSTALLED AND SEALED, PER THE SOIL EROSION AND SEDIMENT CONTROL PLANS. SEDIMENT BASIN MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.**
43. THE COMPLETION OR CESSATION OF EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF FOR A PERIOD OF FOUR (4) OR MORE DAYS REQUIRES TEMPORARY STABILIZATION. STABILIZE WITH TEMPORARY SEED AND MULCH AS PER NOTES ON DRAWING CE-503.
44. INSPECTIONS WILL BE REQUIRED FOR THE CRITICAL INSTALLATION PERIODS OF THE VARIOUS PCSM BMPS.

STAGE 2

45. INSTALL COMPOST FILTER SOCKS 3, 3a, 3b, 3c, 4, 5, 6, 7, 7a, 82, 82a, 82b, 82c, 82d.
46. ROUGH GRADE PHASE 2 AS IDENTIFIED ON DRAWINGS CE-200 - CE-209. AFTER BULK GRADING IS COMPLETE, THE DISTURBED AREAS SHOULD RECEIVE TOPSOIL AND BE STABILIZED. BEGIN CONSTRUCTION OF TRAILS AND OTHER RECREATIONAL IMPROVEMENTS IN PHASE 2. REMOVE ALL NOXIOUS VEGETATION (POISON IVY AND OTHER INVASIVE PLANTS, PER PADCNR). THE TEMPORARY RISER IN EACH SEDIMENT BASIN SHALL REMAIN INSTALLED UNTIL THE CONTRIBUTING DRAINAGE AREA TO THE BASIN HAS BEEN AND STABILIZED.
47. INSTALL REMAINING PORTION OF THE PHASE 2 PERMANENT STORM DRAINAGE SYSTEM . THE STORM DRAINAGE SYSTEM MUST BE INSTALLED FROM DOWNSTREAM POINT OF DISCHARGE INTO SEDIMENT BASINS AND TRAPS TO UPSTREAM POINTS. ADVANCE TRENCH EXCAVATION SHOULD BE LIMITED TO THE LENGTH OF PIPE THAT CAN BE COMPLETED IN THE SAME DAY. INSTALL INLET PROTECTION WHERE SHOWN ON DRAWINGS CE-200 - CE-209 AS PER DETAIL PROVIDED ON DRAWING CE-501. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE ROADS RECEIVE THE FINAL WEARING COURSE. A BERM SHALL BE CONSTRUCTED AT EACH INLET IN THE PROPOSED ROAD TO DIRECT WATER INTO THE INLETS UNTIL THE FINAL WEARING COURSE OF PAVEMENT IS PLACED, SEE DETAIL ON SHEET CE-502.
48. BEGIN CONSTRUCTION OF THE PHASE 2 ON-SITE UTILITIES AS IDENTIFIED ON DRAWING CE-200 TO CE-209 OF THE E&S PLANS AND CU-100 TO CU-109 OF THE LAND DEVELOPMENT PLANS. ON-SITE SUBSURFACE UTILITIES SHALL CONSIST OF GAS, ELECTRIC, TELEPHONE, CABLE, WATER, AND SANITARY SEWERS. ADVANCE TRENCH EXCAVATION SHALL BE LIMITED TO THE LENGTH OF PIPE THAT CAN BE COMPLETED IN THE SAME DAY. ON THE DAY FOLLOWING UTILITY INSTALLATION, THE TRENCH AREA SHALL BE GRADED TO SUBGRADE ELEVATION. HYDROSEEDING AND/OR LIQUID MULCHING OF DISTURBED AREAS SHALL BE COMPLETED AT THE END OF EACH WORK DAY.
49. ROUGH GRADE THE PHASE 2 PROPOSED ROADWAYS AS IDENTIFIED ON DRAWINGS CE-200 - CE-209. CONSTRUCT CURBING ALONG ROADWAYS. WHERE CROSSING WETLAND AREAS, AS SHOWN ON SHEETS CE-201 TO CE-209, REFER TO SHEET CE-503 FOR THE SEQUENCE OF CONSTRUCTION FOR SPECIFICS ON THE CONSTRUCTION OF PERMANENT WETLANDS CROSSINGS.
50. PLACE GRAVEL SUBBASE AND BITUMINOUS BASE COURSE IN AREAS OF PROPOSED PAVEMENT.
51. THE INDIVIDUAL BUILDING LOTS WILL BE CONSTRUCTED IN CONCENTRATED GROUPING TO THE MAXIMUM EXTENT POSSIBLE. INDIVIDUAL LOT BMPS MAY BE REQUIRED TO PROTECT ALREADY COMPLETED LOTS AND OTHER SENSITIVE AREAS. INSTALL DRIVEWAY APRON AND GRAVEL SUBBASE FOR DRIVEWAYS. INSTALL NECESSARY FOUNDATIONS AND CONSTRUCT HOUSES. INSTALL DRIVEWAY PAVING. COMPLETE FINAL LOT GRADING AND IMMEDIATELY STABILIZE WITH PERMANENT SEED AND MULCH AS PER NOTES ON DRAWINGS CE-503.
52. COMPLETE FINAL PHASE 2 GRADING AND LANDSCAPE OF ALL APPROPRIATE AREAS. ONCE SLOPES, CHANNELS, DITCHES, AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. STABILIZE WITH PERMANENT SEED AND MULCH AS PER NOTES ON DRAWING CE-503. REFER TO CG-401 OF THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR SPECIFIC BMP INSTALLATION GUIDELINES AND SEQUENCING.
53. **CRITICAL STAGE - INSTALL REMAINING PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS (INCLUDING ROOFTOP DISCONNECTS, SOIL AMENDMENTS, TREE PLANTINGS (REVEGETATING/REFORESTING), AND SUBSURFACE DETENTION BASIN. THE CONSERVATION DISTRICT SHALL BE CONTACTED PRIOR TO PCSM BMP INSTALLATION TO CONFIRM UNIFORM 70% PERENNIAL VEGETATIVE COVER ON-SITE. REFER TO CG-401 OF THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS, FOR SPECIFIC BMP INSTALLATION GUIDELINES AND SEQUENCING.**
54. CONSTRUCTION ENTRANCE, COMPOST FILTER SOCK, TREE PROTECTION FENCE, INLET PROTECTION, SILT FENCE, SEDIMENT TRAPS, SEDIMENT BASINS, AND VEGETATIVE FILTER STRIPS SHALL BE MAINTAINED UNTIL ALL IMPROVEMENTS TO THE SITE ARE COMPLETED, ROAD AREAS ARE PAVED, AND UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NONVEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION HAS BEEN ESTABLISHED.
55. **CRITICAL STAGE - ONCE ALL PERMANENT MEASURES HAVE BEEN INSTALLED, CLEAN OUT ACCUMULATED SILT FROM THE SEDIMENT BASIN, GRADE SEDIMENT BASIN AND SPILLWAY FOR SEDIMENT BASINS TO THE PERMANENT ELEVATIONS SHOWN FOR THE PERMANENT BASINS, REMOVE THE CONSTRUCTION ENTRANCES, SILT FENCE,COMPOST FILTER SOCK, AND INLET PROTECTION. ALL DISTURBED AREAS CAUSED BY THE REMOVAL OF TEMPORARY SEDIMENT POLLUTION CONTROL DEVICES MUST BE PERMANENTLY STABILIZED. CONTRACTOR MUST SCHEDULE A SITE INSPECTION WITH MONTGOMERY COUNTY CONSERVATION DISTRICT PRIOR TO REMOVAL OR CONVERSION OF E&S BMPS.**
56. **CRITICAL STAGE - PCSM BMPS SHALL BE INSPECTED BY A LICENSED PROFESSIONAL TO ENSURE THAT THEY HAVE NOT BEEN IMPACTED BY CONSTRUCTION ACTIVITIES.**
57. NOTE : SEDIMENT BASIN D TO BE MAINTAINED AS IT WILL BE USED AS A SEDIMENT BASIN IN PHASE 4 AS WELL.

SEQUENCE OF CONSTRUCTION - PHASE 3

STAGE 1

58. INSTALL CONSTRUCTION ENTRANCE #5 OFF OF WEST VIEW DRIVE, AND ROCK CONSTRUCTION ENTRANCES #9 AND #10 OFF TOWNSHIP LINE ROAD AS SHOWN ON SHEETS CE-200 TO CE-209.
59. INSTALL COMPOST FILTER SOCKS 45, 47, 47a, 48, 66, 70.
60. INSTALL TREE PROTECTION FENCE WHERE SHOWN ON SHEETS CE-100 - CE-109.
61. INSTALL SOIL STOCKPILES IN PHASE 3 AS SHOWN ON CE-100 - CE-105.
62. **CRITICAL STAGE - SEDIMENT BASIN B, AND COMPOST SOCK SEDIMENT TRAP 1 SHOULD BE EXCAVATED TO ELEVATIONS SHOWN ON DRAWINGS CE-101 - CE-109. INSTALL THE LAST SECTIONS OF THE STORM PIPE NETWORKS THAT DRAIN INTO THE SEDIMENT BASINS AND TRAPS ALONG WITH THE RIP RAP APRONS. INSTALL THE OUTLET PIPE BARREL AND CONNECTION TO OUTLET CONTROL STRUCTURE. INSTALL ANTI-SEEP COLLARS AND CONCRETE CRADLE ALONG OUTLET PIPE FROM BASIN AND WATERTIGHT SEALS ON ALL STRUCTURES WITHIN THE BASIN. INSTALL THE PERMANENT OUTLET STRUCTURE AND PLATE ORIFICES. INSTALL THE TEMPORARY PERFORATED RISER. THE CLEANOUT STAKE SHALL BE PLACED. CONSTRUCT EMERGENCY SPILLWAY AND INSTALL EMERGENCY SPILLWAY LINER. INSTALL BAFFLES IN THE SEDIMENT BASIN. ONCE COMPLETED, STABILIZE THE SEDIMENT BASINS AS INDICATED ON DETAILS. THE SEDIMENT BASINS AND TRAPS SHALL REMAIN FUNCTIONAL UNTIL ALL UPSLOPE CONTRIBUTING DRAINAGE AREAS ARE STABILIZED. THE SEDIMENT BASIN IS TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER DISTURBANCE ACTIVITIES. UPON INSTALLATION OF THE SEDIMENT BASINS OR TRAP RISER, AN IMMEDIATE INSPECTION OF THE RISER SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER EROSION CONTROL DEVICE IS INSTALLED AND SEALED, PER THE SOIL EROSION AND SEDIMENT CONTROL PLANS. SEDIMENT BASINS AND TRAPS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.**
63. THE COMPLETION OR CESSATION OF EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF FOR A PERIOD OF FOUR (4) OR MORE DAYS REQUIRES TEMPORARY STABILIZATION. STABILIZE WITH TEMPORARY SEED AND MULCH AS PER NOTES ON DRAWING CE-503.

SEQUENCE OF CONSTRUCTION - PHASE 3 CONTINUED

64. INSPECTIONS WILL BE REQUIRED FOR THE CRITICAL INSTALLATION PERIODS OF THE VARIOUS PCSM BMPS.

STAGE 2

65. INSTALL COMPOST FILTER SOCK

E&S PLAN LEGEND

- BAFFLE
- COMPOST FILTER SOCK
- 18" SILT FENCE FOR STOCKPILES
- PERMANENT STORM SEWER
- EXISTING CONTOUR — 360 —
- PROPOSED CONTOUR — 360 —
- TEMP. CONSTRUCTION FENCE
- TREE PROTECTION FENCE
- SOIL TYPE BOUNDARY
- SOIL TYPE — CpB
- LIMIT OF DISTURBANCE
- NPDES LIMIT
- CONCRETE WASHOUT
- CLEAN OUT STAKE
- FILTER BAG INLET PROTECTION
- BLOCK AND STONE INLET PROTECTION
- TEMPORARY RISER
- RIP-RAP APRON
- LANDLOK TRM 450/KENTUCKY BLUEGRASS LINING FOR EMERGENCY SPILLWAY
- LANDLOK S2 MATTING FOR STEEP SLOPES AND SWALES
- CONSTRUCTION ENTRANCE

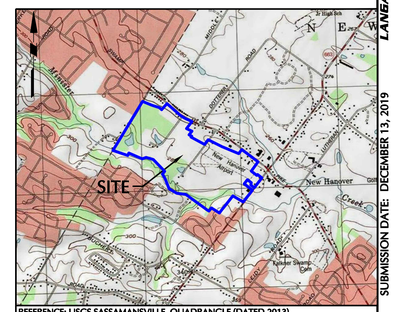
NOTE:

1. SEE GRADING AND DRAINAGE PLANS CG-200 TO CG-209 FOR ALL STORM DRAINAGE INFORMATION REGARDING PIPE SIZE, MATERIAL, SLOPES, PIPE INVERTS, FINAL GRATE & RIM ELEVATIONS, ETC.
2. REFER TO DRAWINGS CE-501 TO CE-503 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

NPDES AREA = 203 ACRES
LIMIT OF DISTURBANCE = 149 ACRES
RECEIVING WATERS: MINISTER CREEK
CLASSIFICATION: TSF & MF

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP
SCALE: 1"=2,000'

THIS ENTRANCE IS NOT TO BE USED FOR CONSTRUCTION ACCESS.

32" COMPOST FILTER SOCK #2
32" COMPOST FILTER SOCK #1
25' X 50' ROCK CONSTRUCTION ENTRANCE 2
18" COMPOST FILTER SOCK #81
TREE PROTECTION FENCE
TEMPORARY SOIL STOCKPILE
CONCRETE WASHOUT (TYP)
25'X50' ROCK CONSTRUCTION ENTRANCE 1
25'X50' ROCK CONSTRUCTION ENTRANCE 3
WATERBAR (TYP)
12" COMPOST FILTER SOCK #66
TREE PROTECTION FENCE (TYP)
CLEAN OUT STAKE ELEV=284.00
HW-7
HW-6
HW-7A
SEDIMENT BASIN A BOTTOM ELEV.=283.0
12" COMPOST FILTER SOCK #53
12" COMPOST FILTER SOCK #56
12" COMPOST FILTER SOCK #55
12" COMPOST FILTER SOCK #54a
12" COMPOST FILTER SOCK #54
12" COMPOST FILTER SOCK #70
24" COMPOST FILTER SOCK #45
12" COMPOST FILTER SOCK #47a
SEDIMENT BASIN B BOTTOM ELEV.=274.0
HW-1
BAFFLES (TYP)
CLEAN OUT STAKE ELEV=277.00
12" COMPOST FILTER SOCK #47
HW-1A
24" COMPOST FILTER SOCK #48
COMPOST SOCK SEDIMENT TRAP 1
24", 18" AND 12" COMPOST SOCKS STACKED IN PYRAMIDAL FORM
FLOODWAY (TYP)
12" COMPOST FILTER SOCK #22d
COMPOST SOCK SEDIMENT TRAP 2
12" COMPOST FILTER SOCK #23
12" COMPOST FILTER SOCK #23a
12" COMPOST FILTER SOCK #22a
12" COMPOST FILTER SOCK #22e
12" COMPOST FILTER SOCK #23b
12" COMPOST FILTER SOCK #23c
HW-3
SEDIMENT BASIN C BOTTOM ELEV.=272.1
12" COMPOST FILTER SOCK #22
TEMPORARY HEADWALL AT ELEVATION 262.3
HW-4
18" COMPOST FILTER SOCK #24
HW-3A
18" COMPOST FILTER SOCK #23d
CLEAN OUT STAKE ELEV =274.00
TREE PROTECTION FENCE
18" COMPOST FILTER SOCK #19
18" COMPOST FILTER SOCK #18
HW-5
SEDIMENT BASIN D BOTTOM ELEV.=259.0
18" COMPOST FILTER SOCK #13
HW-5A
CLEAN OUT STAKE ELEV=260.00
18" COMPOST FILTER SOCK #14
18" COMPOST FILTER SOCK #17
BAFFLES (TYP)
Swamp Pike
Township Line Road
New Hanover Township
Bow Lane
Gail Drive
St. Anthony Way
Stacie Drive
Kleman Road
N. Charlotte Street SR 663
MINISTER CREEK

150 0 75 150
SCALE IN FEET

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO STACIE DRIVE): 20130441751

CALL BEFORE YOU DIG
IN PA, TOLL FREE
1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Date	Description
9.	12-13-19	REVISED PER COMMENT LETTERS
8.	9-11-19	REVISED FOR MINOR MOD TO LOD
7.	11-09-18	REVISED PER COMMENT LETTERS
6.	10-22-18	REVISED PER MCCD COMMENTS
5.	6-1-18	REVISED PER MCCD COMMENTS
4.	1-31-18	REVISED PER COMMENT LETTERS
3.	11-08-17	REVISED PER COMMENT LETTERS
2.	9-29-17	REVISED PER MCCD COMMENTS
1.	8-04-17	REVISED PER COMMENT LETTERS

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying, Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CS, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
MASTER SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 1

Project No. 240038801	Drawing No. CE-100
Date 06/07/17	
Scale 1"=150'	
Drawn By KG	
Submission Date 6/9/2017	Sheet 87 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

Filename: \\langan.com\data\BE\data\P240038801\cadd data - 240038801\sheetfiles\240038801 CE100.dwg Date: 12/13/2019 Time: 15:13 User: dmoyer Style Table: Langan.stb Layout: 240038801 CE100 - CE-100
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MATCHLINE-CE-102

MATCHLINE-CE-106

TREE PROTECTION FENCE

TEMPORARY SOIL STOCKPILE

CONCRETE WASHOUT (TYP)

TREE PROTECTION FENCE (TYP)

12" COMPOST FILTER SOCK #66

12" COMPOST FILTER SOCK #56

12" COMPOST FILTER SOCK #70

25'X50' ROCK CONSTRUCTION ENTRANCE 9

WATERBAR (TYP)

SEDIMENT BASIN A BOTTOM ELEV.=283

CLEAN OUT STAKE ELEV=284.00

HW-7

HW-7A

12" COMPOST FILTER SOCK #55

12" COMPOST FILTE

ANTI-SEEP COLLAR DIMENSIONS 8.0'X8.0'X1' SPACING: 1 @ 14.00'

TOWN DIRECTION SIGN

35 MPH SIGN

STOP SIGN

STREET SIGN

NO OUTLET SIGN

BUS STOP SIGN

ULTIMATE R/W

CURVE AHEAD SIGN

DRIVE YEARLY TRAFFIC

2 STORY WOOD BARN

1 STORY BLOCK GARAGE

INSTALLED HEADLIGHT

WOODED AREA

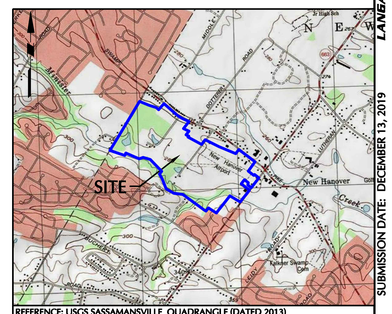
IRON PIN (FOUND)

AXLE (FOUND)

SPIKE (FOUND)

WATERS OF THE U.S. FEDERALLY REGULATED WETLANDS

FM


SITE
New Hanover
New Hanover Airport
Keiser Shopping Center
Creek
Mingo
Mingo Creek
Mingo Creek Park
Mingo Creek Golf Course
Mingo Creek Middle School
Mingo Creek Elementary School
Mingo Creek Apartments
Mingo Creek Estates
Mingo Creek Manor
Mingo Creek Meadows

MATCHLINE-CE-101

MATCHLINE-CE-103

MATCHLINE-CE-104

MATCHLINE-CE-107

DOTTERER ROAD (T-1016) (VARIABLE WIDTH)

25'X50' ROCK CONSTRUCTION ENTRANCE 1

2 STORY WOOD BARN

1 STORY CBLOCK GARAGE

2 1/2 STORY STONE DWELLING

CONCRETE WASHOUT (TYP)

TEMPORARY SOIL STOCKPILE

TEMPORARY SOIL STOCKPILE

CONCRETE WASHOUT (TYP)

APPROXIMATE LOCATION OF SIDEWALK

WOODED AREA

IRON PIN (FOUND)

CONC. MON (FOUND)

NO PARKING SIGN

STOP SIGN

ULTIMATE R/W

35 MPH SIGN

CONCRETE WASHOUT (TYP)

HW-7

HW-6

SEDIMENT BASIN A BOTTOM ELEV.=283.0

CLEAN OUT STAKE ELEV=284.00

INSTALLED 4' RISER

ANTI-SEEP COLLAR DIMENSIONS 8.0'X8.0'X1' SPACING 1 @ 14.00'

HW-7A

EMERGENCY SPILLWAY TRM 450 LINER BOTTOM WIDTH=160 FT CREST EL.=286.50 TOP OF BERM EL.=288.00

12" COMPOST FILTER SOCK #53

12" COMPOST FILTER SOCK #54

12" COMPOST FILTER SOCK #55

12" COMPOST FILTER SOCK #54a

TREE PROTECTION FENCE (TYP)

WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS

W.E. 277.2

ACCESS EASEMENT

TEMPORARY SOIL STOCKPILE

COMPOST SOCK SEDIMENT TRAP 2

SITE

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'

CE-103 DOTTERER ROAD

CE-104

CE-105 SWAMP PIKE

CE-101 SWAMP PIKE

CE-102

N. CHARLOTTE STREET

TOWNSHIP LINE ROAD

CE-109

CE-108

CE-106

CE-107

STACIE DRIVE

KEY MAP

SCALE 1"=1000'

50 0 25 50

SCALE IN FEET

EXISTING LEGEND

TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

E&S PLAN LEGEND

BAFFLE
COMPOST FILTER SOCK
18" SILT FENCE FOR STOCKPILES
PERMANENT STORM SEWER
EXISTING CONTOUR
PROPOSED CONTOUR
TEMP. CONSTRUCTION FENCE
TREE PROTECTION FENCE
SOIL TYPE BOUNDARY
SOIL TYPE
LIMIT OF DISTURBANCE
NPDES LIMIT
CONCRETE WASHOUT
CLEAN OUT STAKE
FILTER BAG INLET PROTECTION
BLOCK AND STONE INLET PROTECTION
TEMPORARY RISER
RIP-RAP APRON
LANDLOK TRM 450/KENTUCKY BLUEGRASS LINING FOR EMERGENCY SPILLWAY
LANDLOK S2 MATTING FOR STEEP SLOPES AND SWALES
CONSTRUCTION ENTRANCE

NOTE:

1. SEE GRADING AND DRAINAGE PLANS CG-200 TO CG-209 FOR ALL STORM DRAINAGE INFORMATION REGARDING PIPE SIZE, MATERIAL, SLOPES, PIPE INVERTS, FINAL GRATE & RIM ELEVATIONS, ETC.
2. REFER TO DRAWINGS CE-501 TO CE-503 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

NPDES AREA = 203 ACRES
LIMIT OF DISTURBANCE = 149 ACRES
RECEIVING WATERS: MINISTER CREEK
CLASSIFICATION: TSF & MF

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

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PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
9.	REVISED PER COMMENT LETTERS	12-13-19
8.	REVISED FOR MINOR MOD TO LOD	9-11-19
7.	REVISED PER MCCD COMMENTS	12-10-18
6.	REVISED PER MCCD COMMENTS	10-22-18
5.	REVISED PER MCCD COMMENTS	6-1-18
4.	REVISED PER COMMENT LETTERS	1-31-18
3.	REVISED PER COMMENT LETTERS	11-08-17
2.	REVISED PER MCCD COMMENTS	9-29-17
1.	REVISED PER COMMENT LETTERS	8-04-17

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CC, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 1

Project No.	240038801
Date	06/07/17
Scale	1"=50'
Drawn By	KG
Submission Date	6/9/2017
Drawing No.	CE-102
	Sheet 89 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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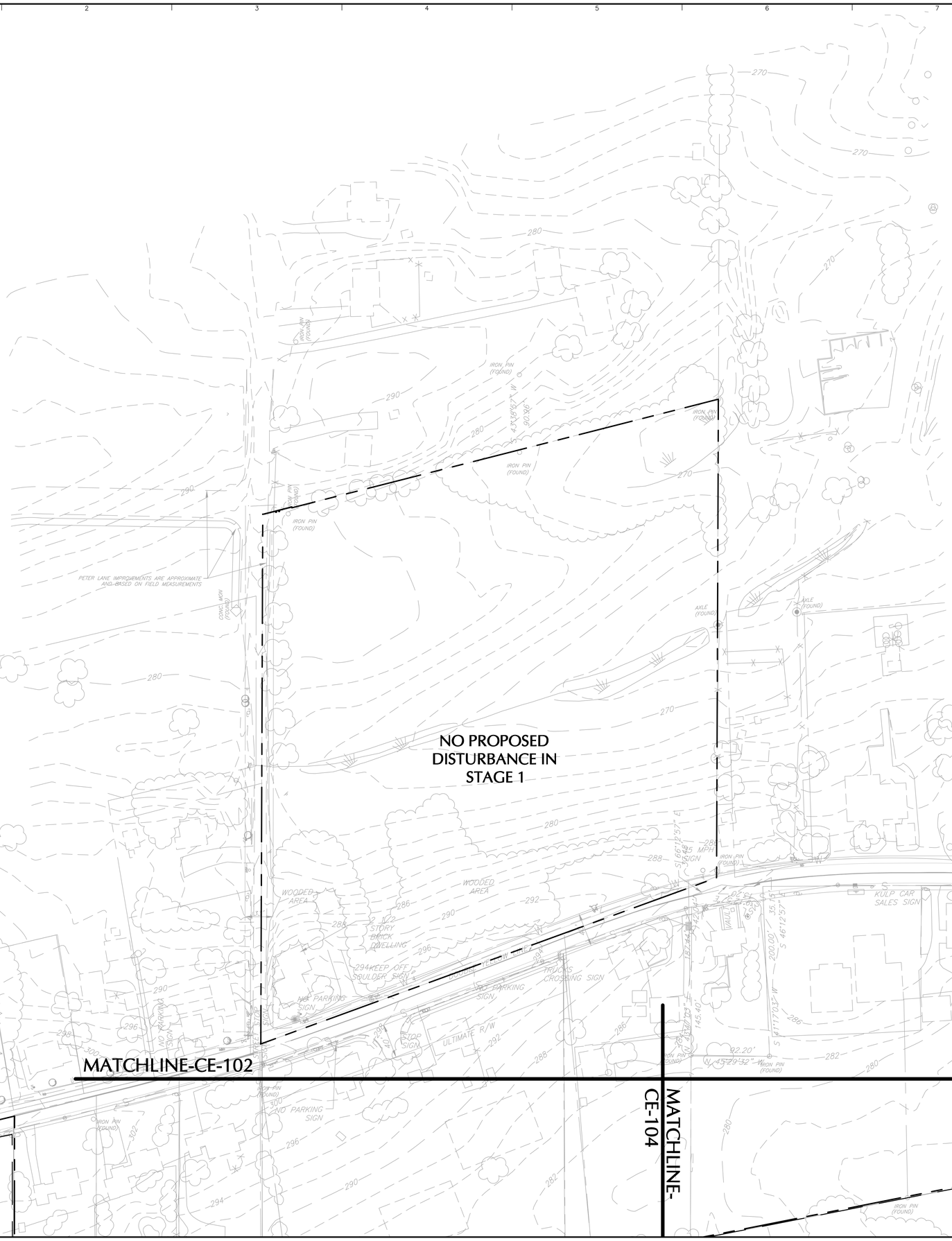
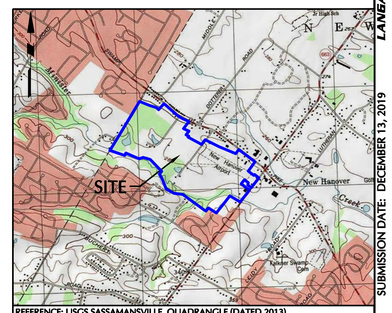
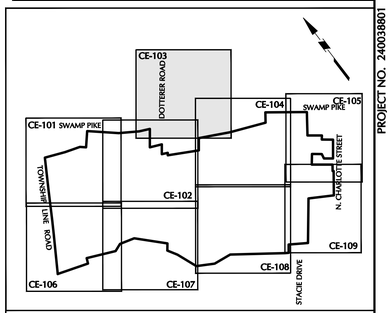
Filename: \\langan.com\data\BE\data\P240038801\cadd data - 240038801\sheetfiles\240038801 CE101-109.dwg Date: 12/13/2019 Time: 15:18 User: dmoyer Style Table: Langan.stb Layout: CE-102





SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

EXISTING LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

E&S PLAN LEGEND

BAFFLE	
COMPOST FILTER SOCK	
18" SILT FENCE FOR STOCKPILES	
PERMANENT STORM SEWER	
EXISTING CONTOUR	100
PROPOSED CONTOUR	100
TEMP. CONSTRUCTION FENCE	
TREE PROTECTION FENCE	
SOIL TYPE BOUNDARY	
SOIL TYPE	CpB
LIMIT OF DISTURBANCE	
NPDES LIMIT	
CONCRETE WASHOUT	
CLEAN OUT STAKE	
FILTER BAG INLET PROTECTION	
BLOCK AND STONE INLET PROTECTION	
TEMPORARY RISER	
RIP-RAP APRON	
LANDLOK TRM 450/KENTUCKY BLUEGRASS LINING FOR EMERGENCY SPILLWAY	
LANDLOK S2 MATTING FOR STEEP SLOPES AND SWALES	
CONSTRUCTION ENTRANCE	

NOTE:

1. SEE GRADING AND DRAINAGE PLANS CG-200 TO CG-209 FOR ALL STORM DRAINAGE INFORMATION REGARDING PIPE SIZE, MATERIAL, SLOPES, PIPE INVERTS, FINAL GRATE & RIM ELEVATIONS, ETC.
2. REFER TO DRAWINGS CE-501 TO CE-503 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

NPDES AREA = 203 ACRES
LIMIT OF DISTURBANCE = 149 ACRES
RECEIVING WATERS: MINISTER CREEK
CLASSIFICATION: TSF & MF

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

PENNSYLVANIA ONE CALL SYSTEM, INC. STOP! CALL BEFORE YOU DIG 811 OR 1-800-242-1776

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
" IT'S THE LAW "

SCALE IN FEET 50 0 25 50

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COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
9.	REVISED PER COMMENT LETTERS	12-13-19
8.	REVISED FOR MINOR MOD TO LOD	9-11-19
7.	REVISED PER MCCD COMMENTS	12-10-18
6.	REVISED PER MCCD COMMENTS	10-22-18
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3.	REVISED PER COMMENT LETTERS	11-08-17
2.	REVISED PER MCCD COMMENTS	9-29-17
1.	REVISED PER COMMENT LETTERS	8-04-17

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER PROVINCE OF PENNSYLVANIA

SIGNATURE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
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Langan Engineering and Environmental Services, Inc.
Langan UK Ltd.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 1

Project No. 240038801	Drawing No. CE-103
Date 06/07/17	
Scale 1"=50'	
Drawn By KG	
Submission Date 6/9/2017	Sheet 90 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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MATCHLINE-CE-102

MATCHLINE-CE-103

MATCHLINE-CE-105

MATCHLINE-CE-108

25' X 50' ROCK CONSTRUCTION ENTRANCE 2

18" COMPOST FILTER SOCK #81

TREE PROTECTION FENCE

TEMPORARY SOIL STOCKPILE

TEMPORARY SOIL STOCKPILE

TEMPORARY SOIL STOCKPILE

TEMPORARY SOIL STOCKPILE

CONCRETE WASHOUT (TYP)

CONCRETE WASHOUT (TYP)

CONCRETE WASHOUT (TYP)

KULP CAR SALES SIGN

NO PARKING SIGN

35 MPH SIGN

CURVE AHEAD SIGN

DOUBLE YELLOW LINE

2 STORY STONE DWELLING

2 STORY WOOD BARN

STONE WALL

WATERS IN PIPE

WATERS OF THE U.S. & CENTRALLY REGULATED WETLANDS

WOODED AREA

GRAVEL DRIVE

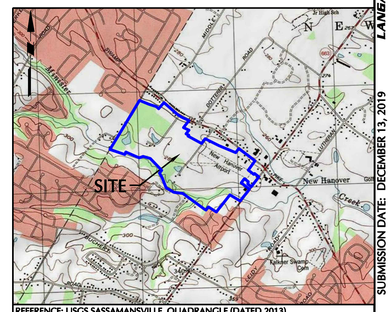
MACADAM DRIVE

ACCESS EASEMENT

IRON PIN (FOUND)

50 0 25 50

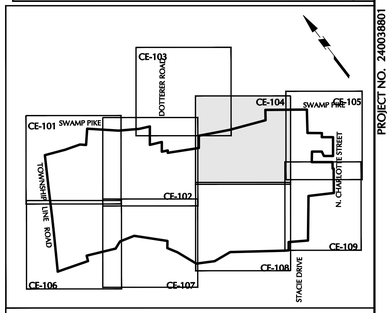
SCALE IN FEET



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'



KEY MAP

SCALE 1"=1000'

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
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E&S PLAN LEGEND

- BAFFLE
- COMPOST FILTER SOCK
- 18" SILT FENCE FOR STOCKPILES
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NOTE:

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CLASSIFICATION: TSF & MF

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CONTACT: BENJAMIN GOLDTHORP

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7.	REVISED PER MCCD COMMENTS	11-08-17
8.	REVISED PER COMMENT LETTERS	9-29-17
9.	REVISED PER COMMENT LETTERS	8-04-17

REVISIONS

COMMONWEALTH OF PENNSYLVANIA JASON SCOTT ENGELHARDT A REGISTERED PROFESSIONAL ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan Delaware, LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 1

Project No.	240038801
Date	06/07/17
Scale	1"=50'
Drawn By	KG
Submission Date	6/9/2017
Drawing No.	CE-104
	Sheet 91 of 187

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

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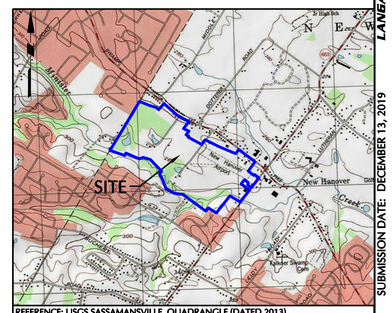
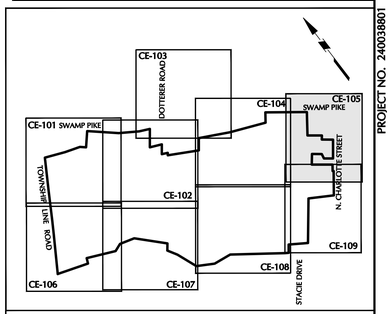
Filename: I:\langan.com\data\BE\data8\240038801\cadd data - 240038801\sheetfiles\240038801 CE101-109.dwg Date: 12/13/2019 Time: 15:16 User: dmoyer Style Table: Langan.stb Layout: CE-104



SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

E&S PLAN LEGEND

- BAFFLE
- COMPOST FILTER SOCK
- 18" SILT FENCE FOR STOCKPILES
- PERMANENT STORM SEWER
- EXISTING CONTOUR (450)
- PROPOSED CONTOUR (450)
- TEMP. CONSTRUCTION FENCE
- TREE PROTECTION FENCE
- SOIL TYPE BOUNDARY
- SOIL TYPE (CpB)
- LIMIT OF DISTURBANCE
- NPDES LIMIT
- CONCRETE WASHOUT
- CLEAN OUT STAKE
- FILTER BAG INLET PROTECTION
- BLOCK AND STONE INLET PROTECTION
- TEMPORARY RISER
- RIP-RAP APRON
- LANDLOK TRM 450/KENTUCKY BLUEGRASS LINING FOR EMERGENCY SPILLWAY
- LANDLOK S2 MATTING FOR STEEP SLOPES AND SWALES
- CONSTRUCTION ENTRANCE

NOTE:

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LIMIT OF DISTURBANCE = 149 ACRES
RECEIVING WATERS: MINISTER CREEK
CLASSIFICATION: TSF & MF

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SERIAL NO (STACIE DRIVE): 20130441751

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FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
" IT'S THE LAW "

50 0 25 50
SCALE IN FEET

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CONTACT: BENJAMIN GOLDTHORP

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2.	9-29-17	REVISED PER MCCD COMMENTS
1.	8-04-17	REVISED PER COMMENT LETTERS

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CC, Inc.
Langan International LLC
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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 1

Project No. 240038801	Drawing No. CE-105
Date 06/07/17	
Scale 1"=50'	
Drawn By KG	
Submission Date 6/9/2017	Sheet 92 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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Filename: \\langan.com\data\BE\data\P240038801\cadd data - 240038801\sheetfiles\240038801 CE101-109.dwg Date: 12/13/2019 Time: 15:16 User: dmoyer Style Table: Langan.stb Layout: CE-105

MATCHLINE-CE-101

MATCHLINE-CE-107

25'X50' ROCK CONSTRUCTION ENTRANCE 10

TEMPORARY SOIL STOCKPILE

WATERBAR (TYP)

24" COMPOST FILTER SOCK #45

TREE PROTECTION FENCE (TYP)

12" COMPOST FILTER SOCK #47a

SEDIMENT BASIN B
BOTTOM ELEV.=276.0

CLEAN OUT STAKE ELEV=277.00

HW-1

BAFFLES (TYP)

EMERGENCY SPILLWAY
TRM 450 LINER
BOTTOM WIDTH=78 FT
CREST EL.=280.50
TOP OF BERM EL.=282.00

12" COMPOST FILTER SOCK #47

PIPE TO BE INSTALLED WITH CONCRETE CRADLE

ANTI-SEEP COLLAR DIMENSIONS
5.5'X5.5'X1'
SPACING: 3 @ 14.56'

HW-1A

24" COMPOST FILTER SOCK #48

COMPOST SOCK SEDIMENT TRAP 1

TREE PROTECTION FENCE (TYP)

FLOODWAY (TYP)

APPROXIMATE LOCATION 15' WIDE GAS LINE R/W FOR UGI CORPORATION (SEE NOTE 14C)

APPROXIMATE LOCATION OF UGI REGULATOR STATION PERMANENT EASEMENT PLOTTED BY LANGAN

IRON PIN (FOUND)

WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS

MINISTER CREEK

WOODED AREA

TEMPORARY SOIL STOCKPILE

12" COMPOST FILTER SOCK #70

1 STORY BLOCK BARN

2 STORY STONE BARN

CONCRETE WASHOUT (TYP)

24", 18" AND 12" COMPOST SOCKS STACKED IN PYRAMIDAL FORM

W.E. 275.8

W.E. 277.2

SCALE IN FEET
50 0 25 50

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP
SCALE: 1"=2,000'

KEY MAP
SCALE 1"=1000'

CE-101 SWAMP PIKE
CE-102
CE-103 DOTTERER ROAD
CE-104
CE-105 SWAMP PIKE
CE-106
CE-107
CE-108
CE-109
TOWNSHIP LINE ROAD
N. CHARLOTTE STREET
STACIE DRIVE

EXISTING LEGEND

- TRACT BOUNDARY
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- EX. EASEMENT
- EX. RIGHT-OF-WAY
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REVISIONS

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CG, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 1

Project No.	240038801
Date	06/07/17
Scale	1"=50'
Drawn By	KG
Submission Date	6/9/2017
Drawing No.	CE-106
	Sheet 93 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

Filename: I:\langan.com\data\BE\data\P240038801\cadd data - 240038801\sheetfiles\240038801 CE101-109.dwg Date: 12/13/2019 Time: 15:16 User: dmoyer Style Table: Langan.stb Layout: CE-106
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MATCHLINE-CE-102

MATCHLINE-CE-106

MATCHLINE-CE-108

12" COMPOST FILTER SOCK #54a

TREE PROTECTION FENCE (TYP)

CONCRETE WASHOUT (TYP)

1 STORY BLOCK BARN

2 STORY STONE BARN

1 1/2 STORY STUCCO BUILDING

WOODED AREA

(SEE NOTE 10F PERTAINING TO EASEMENT)

W.E. 277.2

WATERS OF THE U.S. & FEDERALLY REGULATED WETLANDS

IRON PIN (FOUND)

COMPOST SOCK SEDIMENT TRAP 2

12" COMPOST FILTER SOCK #22d

12" COMPOST FILTER SOCK #22e

CONCRETE WASHOUT (TYP)

WATERS IN PIPE

12" COMPOST FILTER SOCK #23

12" COMPOST FILTER SOCK #23a

HW-3

HW-3A

SEDIMENT BASIN C
BOTTOM ELEV.=272.1

CLEAN OUT STAKE ELEV.=274.00
(INV. OUT=270.78)
BOTTOM WIDTH=8.0'
FREE BOARD=1.0'
TOP OF BERM EL.=278.1

12" COMPOST FILTER SOCK #23b
TREE PROTECTION FENCE (TYP)

12" COMPOST FILTER SOCK #23c

18" COMPOST FILTER SOCK #24

RIP RAP (TYP)

18" COMPOST FILTER SOCK #23d

ANTI-SEEP COLLAR DIMENSIONS 6.0'(W) X 6.0'(H) SPACING @ 19.92'

LIMIT OF DISTURBANCE (TYP.)

24", 18" AND 12" COMPOST SOCKS STACKED IN PYRAMIDAL FORM

CONC. MON (FOUND)

SITE

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'

CE-101 SWAMP PIKE
CE-102
CE-103 DOTTERER ROAD
CE-104
CE-105 SWAMP PIKE
CE-106
CE-107
CE-108 STACIE DRIVE
CE-109 N. CHARLOTTE STREET
TOWNSHIP LINE ROAD

KEY MAP

SCALE 1"=1000'

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

E&S PLAN LEGEND

- BAFFLE
- COMPOST FILTER SOCK
- 18" SILT FENCE FOR STOCKPILES
- PERMANENT STORM SEWER
- EXISTING CONTOUR (MAJOR)
- PROPOSED CONTOUR (MAJOR)
- TEMP. CONSTRUCTION FENCE
- TREE PROTECTION FENCE
- SOIL TYPE BOUNDARY
- SOIL TYPE (CpB)
- LIMIT OF DISTURBANCE
- NPDES LIMIT
- CONCRETE WASHOUT
- CLEAN OUT STAKE
- FILTER BAG INLET PROTECTION
- BLOCK AND STONE INLET PROTECTION
- TEMPORARY RISER
- RIP-RAP APRON
- LANDLOK TRM 450/KENTUCKY BLUEGRASS LINING FOR EMERGENCY SPILLWAY
- LANDLOK S2 MATTING FOR STEEP SLOPES AND SWALES
- CONSTRUCTION ENTRANCE

NOTE:

1. SEE GRADING AND DRAINAGE PLANS CG-200 TO CG-209 FOR ALL STORM DRAINAGE INFORMATION REGARDING PIPE SIZE, MATERIAL, SLOPES, PIPE INVERTS, FINAL GRATE & RIM ELEVATIONS, ETC.
2. REFER TO DRAWINGS CE-501 TO CE-503 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

NPDES AREA = 203 ACRES
LIMIT OF DISTURBANCE = 149 ACRES
RECEIVING WATERS: MINISTER CREEK
CLASSIFICATION: TSF & MF

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

CALL BEFORE YOU DIG
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1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *

SCALE IN FEET: 50 0 25 50

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Date	Description
9.	12-13-19	REVISED PER COMMENT LETTERS
8.	9-11-19	REVISED FOR MINOR MOD TO LOD
7.	12-10-18	REVISED PER MCCD COMMENTS
6.	10-22-18	REVISED PER MCCD COMMENTS
5.	6-1-18	REVISED PER MCCD COMMENTS
4.	1-31-18	REVISED PER COMMENT LETTERS
3.	11-08-17	REVISED PER COMMENT LETTERS
2.	9-29-17	REVISED PER MCCD COMMENTS
1.	8-04-17	REVISED PER COMMENT LETTERS

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 1

Project No. 240038801	Drawing No. CE-107
Date 06/07/17	
Scale 1"=50'	
Drawn By KG	
Submission Date 6/9/2017	Sheet 94 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

Filename: \langan.com\data\BE\data9\240038801\cadd data - 240038801\sheetfiles\240038801 CE101-109.dwg Date: 12/13/2019 Time: 15:17 User: dmoyer Style Table: Langan.stb Layout: CE-107
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MATCHLINE-CE-104

MATCHLINE-CE-107

MATCHLINE-CE-109

CONCRETE WASHOUT (TYP)

TEMPORARY SOIL STOCKPILE

CONCRETE WASHOUT (TYP)

TREE PROTECTION FENCE (TYP)

SEDIMENT BASIN D BOTTOM ELEV.=259.0

HW-5

18" COMPOST FILTER SOCK #13

HW-5A

RIP RAP (TYP)

BAFFLES (TYP)

PIPE TO BE INSTALLED W/IN CONCRETE CRADLE

SEEP (SIMILAR DIMENSIONS TO 25.5'x1' FACING: 4 @ 14.25')

CLEAN OUT STAKE ELEV=260.00

18" COMPOST FILTER SOCK #14

EMERGENCY SPILLWAY (N 450 LINE) BOTTOM WIDTH=165.1FT CREST EL.=265.00 TOP OF BERM EL.=267.00

18" COMPOST FILTER SOCK #17

12" COMPOST FILTER SOCK #22a

12" COMPOST FILTER SOCK #22

TEMPORARY HEADWALL AT ELEVATION 262.3

HW-4

18" COMPOST FILTER SOCK #18

18" COMPOST FILTER SOCK #19

TREE PROTECTION FENCE

MINISTER CREEK

FORMER BUILDING (NOW DEMOLISHED)

1 1/2 STORY BRICK DWELLING

1 1/2 STORY FRAME DWELLING FF=281.18

POOL

POOL PUMP

PAVER PATIO

SEPTIC TANK

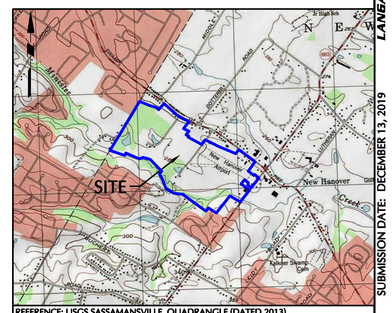
DRIP FIELD

WOODED AREA

IRON PIN (FOUND)

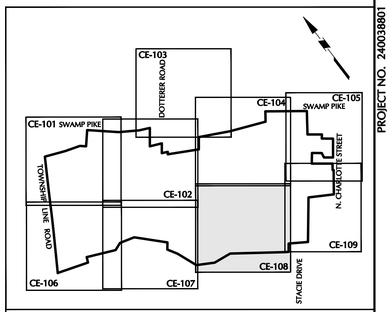
IRON PIN (SOLID)

POST (FOUND)



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

E&S PLAN LEGEND

- BAFFLE
- COMPOST FILTER SOCK
- 18" SILT FENCE FOR STOCKPILES
- PERMANENT STORM SEWER
- EXISTING CONTOUR (265)
- PROPOSED CONTOUR (265)
- TEMP. CONSTRUCTION FENCE
- TREE PROTECTION FENCE
- SOIL TYPE BOUNDARY
- SOIL TYPE (CpB)
- LIMIT OF DISTURBANCE
- NPDES LIMIT
- CONCRETE WASHOUT
- CLEAN OUT STAKE
- FILTER BAG INLET PROTECTION
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- TEMPORARY RISER
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- CONSTRUCTION ENTRANCE

NOTE:

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NPDES AREA = 203 ACRES
LIMIT OF DISTURBANCE = 149 ACRES
RECEIVING WATERS: MINISTER CREEK
CLASSIFICATION: TSF & MF

ACT 287 AS AMENDED

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SERIAL NO SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
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SERIAL NO (STACIE DRIVE): 20130441751

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SCALE IN FEET 50 0 25 50

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2.	9-29-17	REVISED PER MCCD COMMENTS
1.	8-04-17	REVISED PER COMMENT LETTERS

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED

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Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 1

Project No. 240038801	Drawing No. CE-108
Date 06/07/17	
Scale 1"=50'	
Drawn By KG	
Submission Date 6/9/2017	Sheet 95 of 187

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

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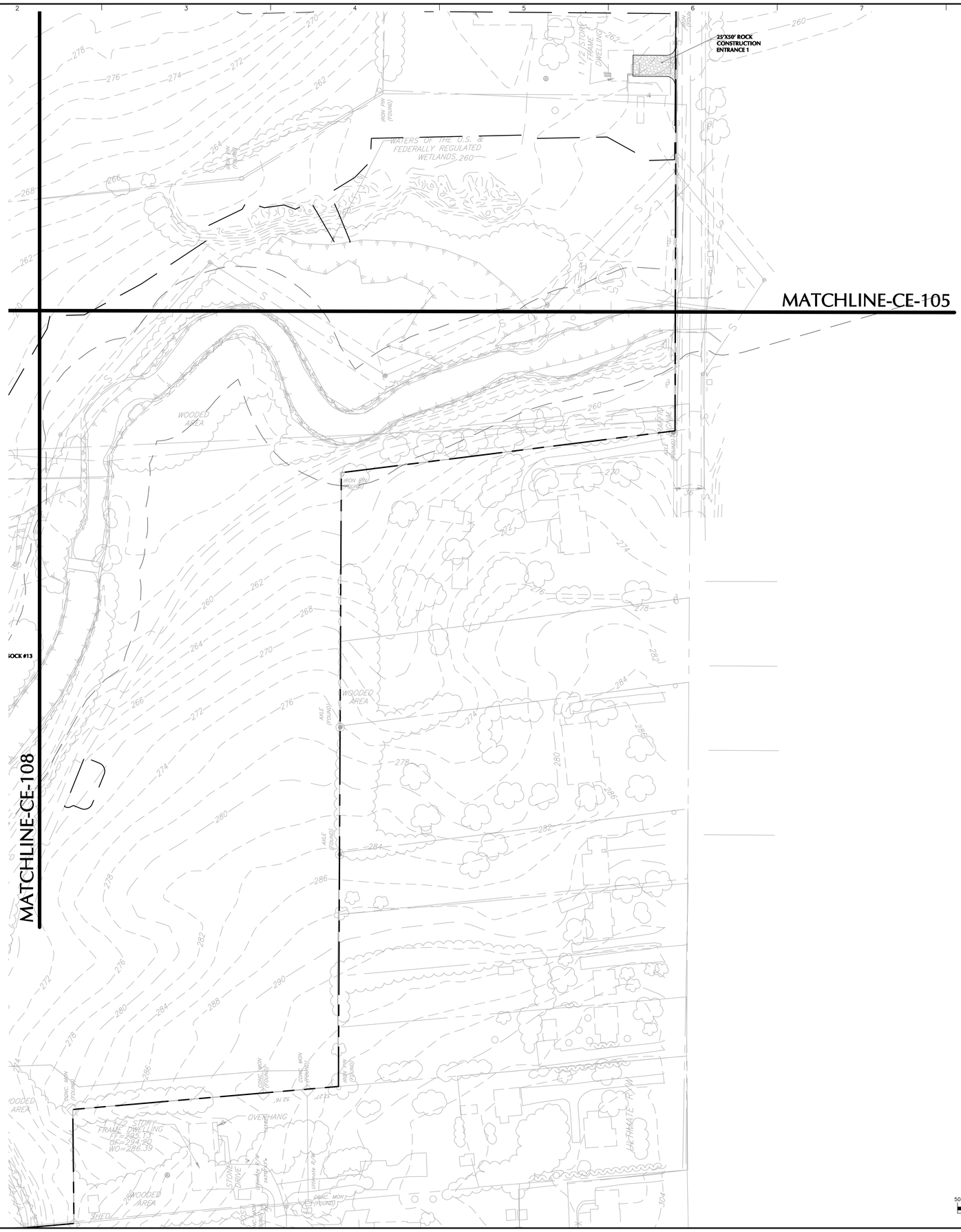
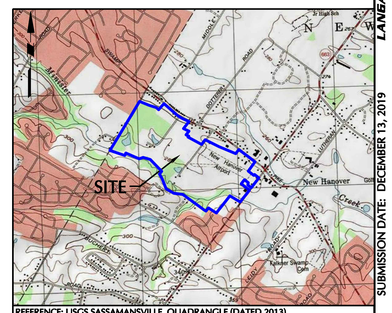
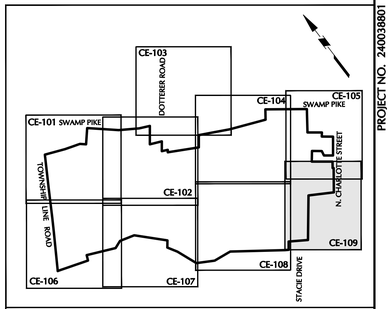




SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
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EX. EDGE OF ROAD	
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EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

E&S PLAN LEGEND

BAFFLE	
COMPOST FILTER SOCK	
18" SILT FENCE FOR STOCKPILES	
PERMANENT STORM SEWER	
EXISTING CONTOUR	260
PROPOSED CONTOUR	260
TEMP. CONSTRUCTION FENCE	
TREE PROTECTION FENCE	
SOIL TYPE BOUNDARY	
SOIL TYPE	CpB
LIMIT OF DISTURBANCE	
NPDES LIMIT	
CONCRETE WASHOUT	
CLEAN OUT STAKE	
FILTER BAG INLET PROTECTION	
BLOCK AND STONE INLET PROTECTION	
TEMPORARY RISER	
RIP-RAP APRON	
LANDLOK TRM 450/KENTUCKY BLUEGRASS LINING FOR EMERGENCY SPILLWAY	
LANDLOK S2 MATTING FOR STEEP SLOPES AND SWALES	
CONSTRUCTION ENTRANCE	

NOTE:

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RECEIVING WATERS: MINISTER CREEK
CLASSIFICATION: TSF & MF

ACT 287 AS AMENDED

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50 0 25 50
SCALE IN FEET

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PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
9.	REVISED PER COMMENT LETTERS	12-13-19
8.	REVISED FOR MINOR MOD TO LOD	9-11-19
7.	REVISED PER MCCD COMMENTS	12-10-18
6.	REVISED PER MCCD COMMENTS	10-22-18
5.	REVISED PER MCCD COMMENTS	6-1-18
4.	REVISED PER COMMENT LETTERS	1-31-18
3.	REVISED PER COMMENT LETTERS	11-08-17
2.	REVISED PER MCCD COMMENTS	9-29-17
1.	REVISED PER COMMENT LETTERS	8-04-17

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER PROVINCE OF PENNSYLVANIA

SIGNATURE JASON SCOTT ENGELHARDT, PE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 1

Project No. 240038801	Drawing No. CE-109
Date 06/07/17	
Scale 1"=50'	
Drawn By KG	
Submission Date 6/9/2017	Sheet 96 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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E&S PLAN LEGEND

- BAFFLE
- COMPOST FILTER SOCK
- 18" SILT FENCE FOR STOCKPILES
- PERMANENT STORM SEWER
- EXISTING CONTOUR (350)
- PROPOSED CONTOUR (350)
- TEMP. CONSTRUCTION FENCE
- TREE PROTECTION FENCE
- SOIL TYPE BOUNDARY
- SOIL TYPE (CpB)
- LIMIT OF DISTURBANCE
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RECEIVING WATERS: MINISTER CREEK
CLASSIFICATION: TSF & MF

BMP LEGEND

- VEGETATED FILTER STRIP
- SLOW RELEASE BASIN
- SUBSURFACE BASIN
- SOIL AMENDMENT AND RESTORATION
- STREET SWEEPING
- PROTECTED WATERBODIES
- PROTECTED WOODLANDS
- POST-DEVELOPMENT 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)
- FLOODWAY
- PROPOSED TREE LINE
- NPDES BOUNDARY
- LIMIT OF DISTURBANCE

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
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- EX. CENTER LINE
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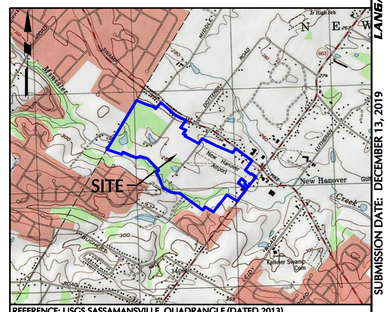

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'

THIS ENTRANCE IS NOT TO BE USED FOR CONSTRUCTION ACCESS.

150 0 75 150
SCALE IN FEET

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No.	Date	Description
1.	8-04-17	REVISED PER COMMENT LETTERS
2.	9-29-17	REVISED PER MCCD COMMENTS
3.	11-08-17	REVISED PER COMMENT LETTERS
4.	1-31-18	REVISED PER COMMENT LETTERS
5.	6-1-18	REVISED PER MCCD COMMENTS
6.	10-22-18	REVISED PER MCCD COMMENTS
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8.	9-11-19	REVISED FOR MINOR MOD TO LOD
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REVISIONS

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Langan Engineering, PLLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
MASTER SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 2

Project No. 240038801	Drawing No. CE-200
Date 06/07/17	
Scale 1"=150'	
Drawn By KG	
Submission Date 6/9/2017	Sheet 97 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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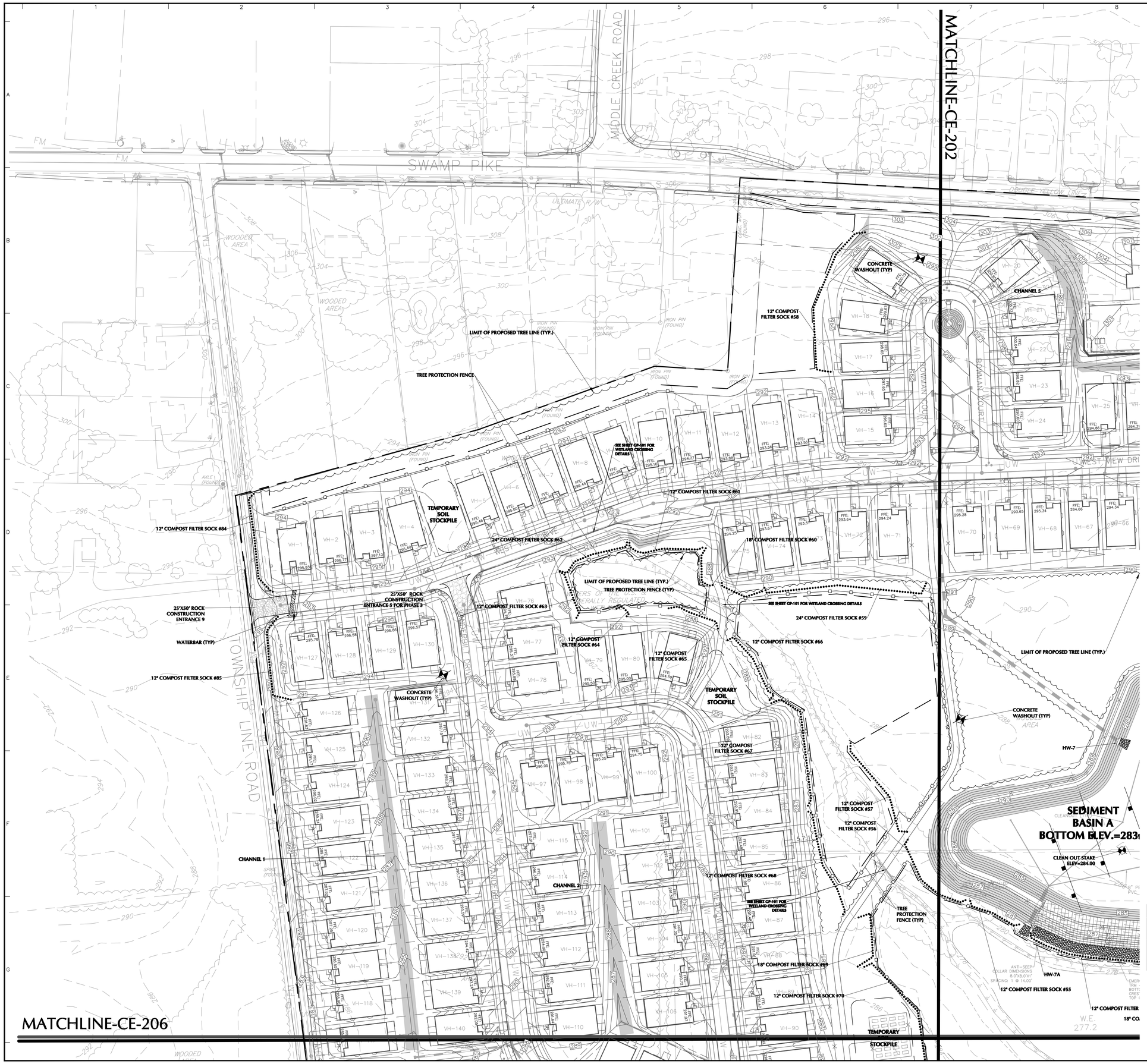
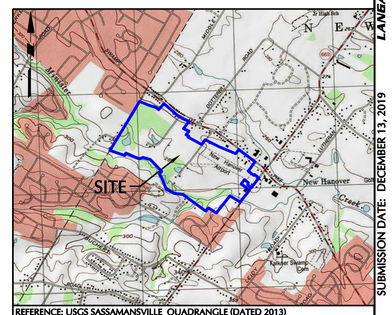
Filename: \\langan.com\data\BE\data\8240038801\cadd data - 240038801\sheetfiles\240038801 CE200.dwg Date: 12/13/2019 Time: 15:20 User: dmoyer Style Table: Langan.stb Layout: 240038801 CE100 - CE-100

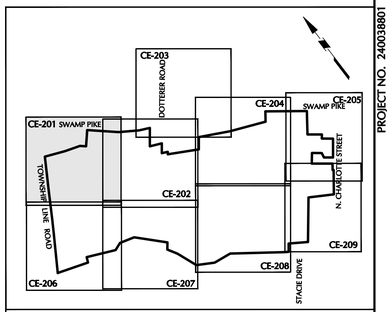




REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'



KEY MAP

SCALE 1"=1000'

50 0 25 50

SCALE IN FEET

EXISTING LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

E&S PLAN LEGEND

BAFFLE	
COMPOST FILTER SOCK	
18" SILT FENCE FOR STOCKPILES	
PERMANENT STORM SEWER	
EXISTING CONTOUR	100
PROPOSED CONTOUR	100
TEMP. CONSTRUCTION FENCE	
TREE PROTECTION FENCE	
SOIL TYPE BOUNDARY	
SOIL TYPE	CpB
LIMIT OF DISTURBANCE	
NPDES LIMIT	
CONCRETE WASHOUT	
CLEAN OUT STAKE	
FILTER BAG INLET PROTECTION	
BLOCK AND STONE INLET PROTECTION	
TEMPORARY RISER	
RIP-RAP APRON	
LANDLOK TRM 450/KENTUCKY BLUEGRASS LINING FOR EMERGENCY SPILLWAY	
LANDLOK S2 MATTING FOR STEEP SLOPES AND SWALES	
CONSTRUCTION ENTRANCE	

NOTE:

1. SEE GRADING AND DRAINAGE PLANS CG-200 TO CG-209 FOR ALL STORM DRAINAGE INFORMATION REGARDING PIPE SIZE, MATERIAL, SLOPES, PIPE INVERTS, FINAL GRATE & RIM ELEVATIONS, ETC.
2. REFER TO DRAWINGS CE-501 TO CE-503 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

NPDES AREA = 203 ACRES
LIMIT OF DISTURBANCE = 149 ACRES
RECEIVING WATERS: MINISTER CREEK
CLASSIFICATION: TSF & MF

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL: 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

CALL BEFORE YOU DIG
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1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8099
CONTACT: BENJAMIN GOLDTHORP

No.	Date	Description
1.	8-04-17	REVISED PER COMMENT LETTERS
2.	9-29-17	REVISED PER MCCD COMMENTS
3.	11-08-17	REVISED PER COMMENT LETTERS
4.	1-31-18	REVISED PER COMMENT LETTERS
5.	6-1-18	REVISED PER MCCD COMMENTS
6.	10-22-18	REVISED PER MCCD COMMENTS
7.	12-10-18	REVISED PER MCCD COMMENTS
8.	9-11-19	REVISED FOR MINOR MOD TO LOD
9.	12-13-19	REVISED PER COMMENT LETTERS

REVISIONS

JASON SCOTT ENGELHARDT
REGISTERED PROFESSIONAL ENGINEER
PENNSYLVANIA
PE-057145-E

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CC, Inc.
Langan Intersedeval LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 2

Project No.	240038801
Date	06/07/17
Scale	1"=50'
Drawn By	WLS
Submission Date	6/9/2017
Drawing No.	CE-201
Sheet	98 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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MATCHLINE-CE-201

MATCHLINE-CE-203

MATCHLINE-CE-204

MATCHLINE-CE-207

SWAMP PIKE

DOTTERER ROAD

TOWNSHIP LINE ROAD

W. MAIN STREET

TILLMAN STREET

WEST VIEW DRIVE

WEST MEW DRIVE

BOWMAN COURT

LEXINGTON DRIVE

WESTMINSTER DRIVE

DAVENPORT DRIVE

VANDERBILT DRIVE

W. ALLEY AA

W. ALLEY FF

STACIE DRIVE

N. CHARLOTTE STREET

ULTIMATE R/W

APPROXIMATE LOCATION OF WOODED AREA

WOODED AREA

CLEARED AREA

OFFICE BUILDING A
FFE: 301.58

OFFICE BUILDING B
FFE: 302.55

STORY STONE BUILDING

WAREHOUSE
FFE: 295.25

FILTER BAG INLET PROTECTION (TYP)

25'X50' ROCK CONSTRUCTION ENTRANCE

CHANNEL 5

CHANNEL 3

CHANNEL 4

18" COMPOST FILTER SOCK #76A

24" COMPOST FILTER SOCK #76

12" COMPOST FILTER SOCK #77

12" COMPOST FILTER SOCK #78

12" COMPOST FILTER SOCK #52

12" COMPOST FILTER SOCK #50

12" COMPOST FILTER SOCK #53

12" COMPOST FILTER SOCK #54

18" COMPOST FILTER SOCK #49

12" COMPOST FILTER SOCK #55

12" COMPOST FILTER SOCK #54a

18" COMPOST FILTER SOCK #74

18" COMPOST FILTER SOCK #75

CONCRETE WASHOUT (TYP)

TEMPORARY SOIL STOCKPILE

LIMIT OF PROPOSED TREE LINE (TYP.)

SEDIMENT BASIN A
BOTTOM ELEV.=283.0

CLEAN OUT STAKE ELEV=284.00

HW-6

HW-7

HW-7A

ANTI-SEEP COLLAR DIMENSIONS: 8.0'X8.0'X1' SPACING: 1 @ 14.00'

EMERGENCY SPILLWAY TRM 450 LINER BOTTOM WIDTH=160 FT CREST EL.=288.60 TOP OF BERM EL.=290.10

8" PERFORATED PVC UNDERDRAIN

CONNECT TO STANDPIPE TO BE ABANDONED

PIPE TO BE ABANDONED

TREE PROTECTION FENCE (TYP)

COMPOST SOCK SEDIMENT TRAP 2

TEMPORARY SOIL STOCKPILE

TEMPORARY SOIL STOCKPILE

CONCRETE WASHOUT (TYP)

CONCRETE WASHOUT (TYP)

CONCRETE WASHOUT (TYP)

VH-20 … VH-70 (VILLAGE HOMES)

T-1 … T-96 (TOWNHOMES)

R-1 … R-19 (RETAIL)

TW-1 … TW-55 (TOWNHOMES)

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP
SCALE: 1"=2,000'

KEY MAP
SCALE 1"=1000'

CE-201 SWAMP PIKE
CE-202
CE-203 DOTTERER ROAD
CE-204 SWAMP PIKE
CE-205
CE-206
CE-207
CE-208
CE-209 N. CHARLOTTE STREET
TOWNSHIP LINE ROAD
STACIE DRIVE

50 0 25 50
SCALE IN FEET

EXISTING LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

E&S PLAN LEGEND

- BAFFLE
- COMPOST FILTER SOCK
- 18" SILT FENCE FOR STOCKPILES
- PERMANENT STORM SEWER
- EXISTING CONTOUR (360)
- PROPOSED CONTOUR (360)
- TEMP. CONSTRUCTION FENCE
- TREE PROTECTION FENCE
- SOIL TYPE BOUNDARY
- SOIL TYPE (CpB)
- LIMIT OF DISTURBANCE
- NPDES LIMIT
- CONCRETE WASHOUT
- CLEAN OUT STAKE
- FILTER BAG INLET PROTECTION
- BLOCK AND STONE INLET PROTECTION
- TEMPORARY RISER
- RIP-RAP APRON
- LANDLOK TRM 450/KENTUCKY BLUEGRASS LINING FOR EMERGENCY SPILLWAY
- LANDLOK S2 MATTING FOR STEEP SLOPES AND SWALES
- CONSTRUCTION ENTRANCE

NOTE:
1. SEE GRADING AND DRAINAGE PLANS CG-200 TO CG-209 FOR ALL STORM DRAINAGE INFORMATION REGARDING PIPE SIZE, MATERIAL, SLOPES, PIPE INVERTS, FINAL GRATE & RIM ELEVATIONS, ETC.
2. REFER TO DRAWINGS CE-501 TO CE-503 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

NPDES AREA = 203 ACRES
LIMIT OF DISTURBANCE = 149 ACRES
RECEIVING WATERS: MINISTER CREEK
CLASSIFICATION: TSF & MF

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

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SERIAL NO (STACIE DRIVE): 20130441751

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8.	9-11-19	REVISED FOR MINOR MOD TO LOD
7.	12-10-18	REVISED PER MCCD COMMENTS
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3.	11-08-17	REVISED PER COMMENT LETTERS
2.	9-29-17	REVISED PER MCCD COMMENTS
1.	8-04-17	REVISED PER COMMENT LETTERS

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON J. ENGELHARDT, P.E. DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering and Environmental Services, Inc.
Langan CO, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 2

Project No.	240038801
Date	06/07/17
Scale	1"=50'
Drawn By	WLS
Submission Date	6/9/2017
Drawing No.	CE-202
Sheet	99 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

Filename: \\langan.com\data\BE\data9\240038801\sheetfiles\240038801 CE201-209.dwg Date: 12/13/2019 Time: 15:23 User: dmoyer Style Table: Langan.stb Layout: CE-202
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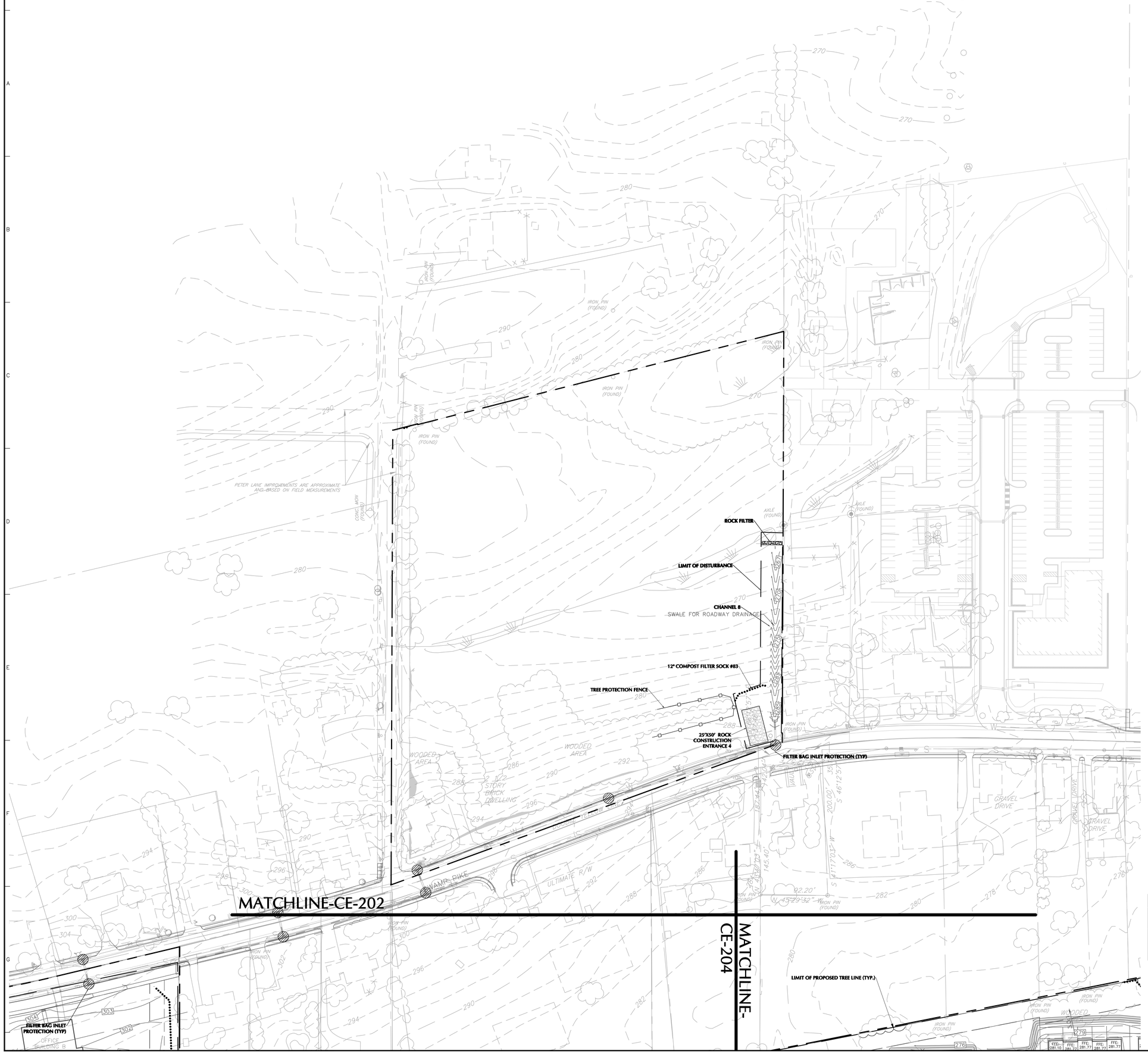
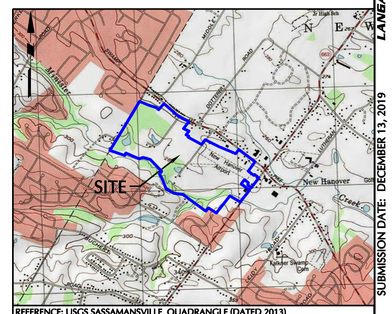
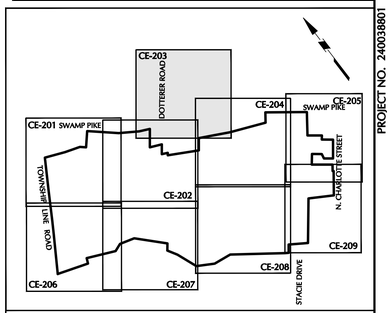




SITE LOCATION MAP
SCALE: 1"=2,000'



KEY MAP
SCALE 1"=1000'

50 0 25 50
SCALE IN FEET

EXISTING LEGEND	
TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

E&S PLAN LEGEND

BAFFLE	
COMPOST FILTER SOCK	
18" SILT FENCE FOR STOCKPILES	
PERMANENT STORM SEWER	
EXISTING CONTOUR	280
PROPOSED CONTOUR	280
TEMP. CONSTRUCTION FENCE	
TREE PROTECTION FENCE	
SOIL TYPE BOUNDARY	
SOIL TYPE	CpB
LIMIT OF DISTURBANCE	
NPDES LIMIT	
CONCRETE WASHOUT	
CLEAN OUT STAKE	
FILTER BAG INLET PROTECTION	
BLOCK AND STONE INLET PROTECTION	
TEMPORARY RISER	
RIP-RAP APRON	
LANDLOK TRM 450/KENTUCKY BLUEGRASS LINING FOR EMERGENCY SPILLWAY	
LANDLOK S2 MATTING FOR STEEP SLOPES AND SWALES	
CONSTRUCTION ENTRANCE	

NOTE:

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PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP! CALL BEFORE YOU DIG

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776
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No.	Description	Date
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8.	REVISED FOR MINOR MOD TO LOD	9-11-19
7.	REVISED PER MCCD COMMENTS	12-10-18
6.	REVISED PER MCCD COMMENTS	10-22-18
5.	REVISED PER MCCD COMMENTS	6-1-18
4.	REVISED PER COMMENT LETTERS	1-31-18
3.	REVISED PER COMMENT LETTERS	11-08-17
2.	REVISED PER MCCD COMMENTS	9-29-17
1.	REVISED PER COMMENT LETTERS	8-04-17

REVISIONS

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Langan UK Ltd.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 2

Project No. 240038801	Drawing No. CE-203
Date 06/07/17	
Scale 1"=50'	
Drawn By WLS	
Submission Date 6/9/2017	Sheet 100 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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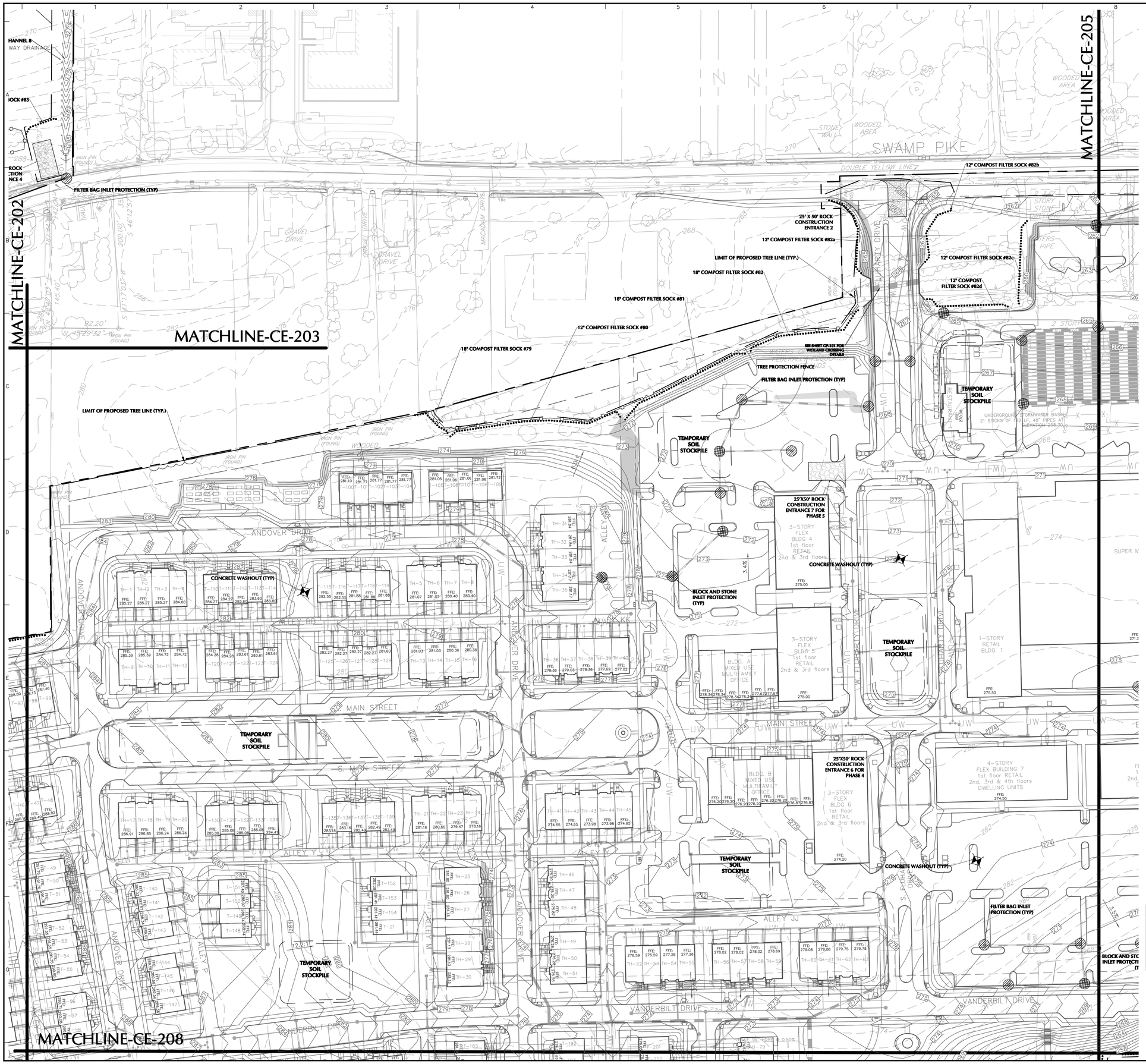

MATCHLINE-CE-202
MATCHLINE-CE-203
MATCHLINE-CE-205
MATCHLINE-CE-208
HANNEL 8
WAY DRAINAGE
ROCK
CTION
NCE 4
FILTER BAG INLET PROTECTION (TYP)
25' X 50' ROCK CONSTRUCTION ENTRANCE 2
12" COMPOST FILTER SOCK #82a
12" COMPOST FILTER SOCK #82b
12" COMPOST FILTER SOCK #82c
12" COMPOST FILTER SOCK #82d
LIMIT OF PROPOSED TREE LINE (TYP.)
18" COMPOST FILTER SOCK #82
18" COMPOST FILTER SOCK #81
12" COMPOST FILTER SOCK #80
18" COMPOST FILTER SOCK #79
SEE SHEET GR-101 FOR WETLAND CROSSING DETAILS
TREE PROTECTION FENCE
FILTER BAG INLET PROTECTION (TYP)
TEMPORARY SOIL STOCKPILE
CONCRETE WASHOUT (TYP)
BLOCK AND STONE INLET PROTECTION (TYP)
25'X50' ROCK CONSTRUCTION ENTRANCE 7 FOR PHASE 5
25'X50' ROCK CONSTRUCTION ENTRANCE 6 FOR PHASE 4
SWAMP PIKE
ANDOVER DRIVE
MAIN STREET
S. MAIN STREET
ALLEY JJ
ALLEY KK
VANDERBILT DRIVE
3-STORY FLEX BLDG 4 1st floor RETAIL 2nd & 3rd floors
3-STORY FLEX BLDG 5 1st floor RETAIL 2nd & 3rd floors
BLDG. A MIXED USE MULTIFAMILY OFFICE
BLDG. B MIXED USE MULTIFAMILY OFFICE
3-STORY FLEX BLDG 6 1st floor RETAIL 2nd & 3rd floors
1-STORY RETAIL BLDG. 1
4-STORY FLEX BUILDING 7 1st floor RETAIL 2nd, 3rd & 4th floors DWELLING UNITS
UNDERGROUND STORMWATER BASIN 21 STICKS OF 192 LF, 48" PIPES AT ELEVATION 264.50
CONCRETE WASHOUT #1
CONCRETE WASHOUT #2
CONCRETE WASHOUT #3
CONCRETE WASHOUT #4
CONCRETE WASHOUT #5
CONCRETE WASHOUT #6
CONCRETE WASHOUT #7
CONCRETE WASHOUT #8
CONCRETE WASHOUT #9
CONCRETE WASHOUT #10
CONCRETE WASHOUT #11
CONCRETE WASHOUT #12
CONCRETE WASHOUT #13
CONCRETE WASHOUT

MATCHLINE-CE-204

MATCHLINE-CE-209

THIS ENTRANCE IS NOT TO BE USED FOR CONSTRUCTION ACCESS.

32" COMPOST FILTER SOCK #1

32" COMPOST FILTER SOCK #2

32" COMPOST FILTER SOCK #4

32" COMPOST FILTER SOCK #5

32" COMPOST FILTER SOCK #3

12" COMPOST FILTER SOCK #3c

12" COMPOST FILTER SOCK #3b

12" COMPOST FILTER SOCK #3a

12" COMPOST FILTER SOCK #5

12" COMPOST FILTER SOCK #6

12" COMPOST FILTER SOCK #7

FILTER BAG INLET PROTECTION (TYP)

BLOCK AND STONE INLET PROTECTION (TYP)

TEMPORARY SOIL STOCKPILE

TEMPORARY SOIL STOCKPILE

TEMPORARY SOIL STOCKPILE

CONCRETE WASHOUT (TYP)

25'X50' ROCK CONSTRUCTION ENTRANCE 1

25'X50' ROCK CONSTRUCTION ENTRANCE 3

25'X50' ROCK CONSTRUCTION ENTRANCE 6 FOR PHASE 5

LIMIT OF PROPOSED TREE LINE (TYP.)

LIMIT OF DISTURBANCE 148 AC

18" COMPOST FILTER SOCK #8

18" COMPOST FILTER SOCK #8A

12" COMPOST FILTER SOCK #9

12" COMPOST FILTER SOCK #9a

24" COMPOST FILTER SOCK #10

24" COMPOST FILTER SOCK #11

HW-11

1 STORY RESTAURANT 2 BUILDING

1 STORY FRAME BUILDING FF=262.12

RESTAURANT 3

4-STORY FLEX BUILDING 'B' 1st floor RETAIL, 2nd, 3rd & 4th floors DWELLING UNITS

SUPER MARKET

WOODED AREA

SWAMP PIKE

E. MAIN STREET

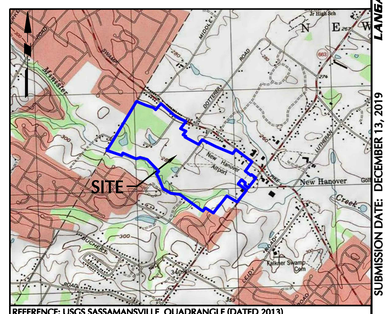
N. VANDERBILT DRIVE

VANDERBILT DRIVE

SERVICE DRIVE

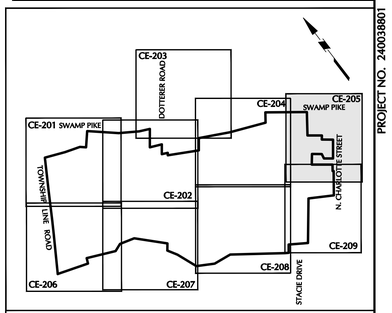
DOUBLE YELLOW LINE

WATERS THAT ARE FEDERALLY REGULATED WETLANDS



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

50 0 25 50
SCALE IN FEET

EXISTING LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

E&S PLAN LEGEND

BAFFLE	
COMPOST FILTER SOCK	
18" SILT FENCE FOR STOCKPILES	
PERMANENT STORM SEWER	
EXISTING CONTOUR	260
PROPOSED CONTOUR	260
TEMP. CONSTRUCTION FENCE	
TREE PROTECTION FENCE	
SOIL TYPE BOUNDARY	
SOIL TYPE	CpB
LIMIT OF DISTURBANCE	
NPDES LIMIT	
CONCRETE WASHOUT	
CLEAN OUT STAKE	
FILTER BAG INLET PROTECTION	
BLOCK AND STONE INLET PROTECTION	
TEMPORARY RISER	
RIP-RAP APRON	
LANDLOK TRM 450/KENTUCKY BLUEGRASS LINING FOR EMERGENCY SPILLWAY	
LANDLOK S2 MATTING FOR STEEP SLOPES AND SWALES	
CONSTRUCTION ENTRANCE	

NOTE:

1. SEE GRADING AND DRAINAGE PLANS CG-200 TO CG-209 FOR ALL STORM DRAINAGE INFORMATION REGARDING PIPE SIZE, MATERIAL, SLOPES, PIPE INVERTS, FINAL GRATE & RIM ELEVATIONS, ETC.
2. REFER TO DRAWINGS CE-501 TO CE-503 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

NPDES AREA = 203 ACRES
LIMIT OF DISTURBANCE = 149 ACRES
RECEIVING WATERS: MINISTER CREEK
CLASSIFICATION: TSF & MF

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
9.	REVISED PER COMMENT LETTERS	12-13-19
8.	REVISED FOR MINOR MOD TO LOD	9-11-19
7.	REVISED PER MCCD COMMENTS	12-10-18
6.	REVISED PER MCCD COMMENTS	10-22-18
5.	REVISED PER MCCD COMMENTS	6-1-18
4.	REVISED PER COMMENT LETTERS	1-31-18
3.	REVISED PER COMMENT LETTERS	11-08-17
2.	REVISED PER MCCD COMMENTS	9-29-17
1.	REVISED PER COMMENT LETTERS	8-04-17

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT

SIGNATURE DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
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ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan UK Ltd.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 2

Project No.	240038801
Date	06/07/17
Scale	1"=50'
Drawn By	WLS
Submission Date	6/9/2017
Drawing No.	CE-205
	Sheet 102 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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Filename: \langan.com\data\BE\data\P240038801\cadd data - 240038801\sheetfiles\240038801 CE201-209.dwg Date: 12/13/2019 Time: 15:24 User: dmoyer Style Table: Langan.stb Layout: CE-205

MATCHLINE-CE-201

MATCHLINE-CE-207

25'X50' ROCK CONSTRUCTION ENTRANCE 10

TEMPORARY SOIL STOCKPILE

WATERBAR (TYP)

SEE SHEET CP-101 FOR WETLAND CROSSING DETAILS

TREE PROTECTION FENCE (TYP)

24" COMPOST FILTER SOCK #45

18" COMPOST FILTER SOCK #46

12" COMPOST FILTER SOCK #44

12" COMPOST FILTER SOCK #47a

12" COMPOST FILTER SOCK #43

CLEAN OUT STAKE ELEV=277.00

SEDIMENT BASIN B BOTTOM ELEV.=276.0

RIP RAP (TYP)

HW-1

BAFFLES (TYP)

EMERGENCY SPILLWAY TRM 450 LINER BOTTOM WIDTH=78 FT CREST EL.=280.50 TOP OF BERM EL.=282.00

8" PERFORATED PVC UNDERDRAIN

CLEANOUT

12" COMPOST FILTER SOCK #47

PIPE TO BE INSTALLED WITH CONCRETE CRADLE

ANTI-SEEP COLLAR DIMENSIONS 5.5'X5.5'X1' SPACING: 3 @ 14.56'

W.E. 275.8

HW-1A

12" COMPOST FILTER SOCK #42

24" COMPOST FILTER SOCK #48

TEMPORARY STOCKPILE

12" COMPOST FILTER SOCK #70

12" COMPOST FILTER SOCK #71

12" COMPOST FILTER SOCK #72

CONCRETE WASHOUT (TYP)

CHANNEL 6

BLOCK AND STONE INLET PROTECTION (TYP)

FILTER BAG INLET PROTECTION (TYP)

COMPOST SOCK SEDIMENT TRAP 1

SEE SHEET CP-101 FOR WETLAND CROSSING DETAILS

LIMIT OF PROPOSED TREE LINE (TYP.)

TREE PROTECTION FENCE (TYP)

APPROXIMATE LOCATION 15' WIDE GAS LINE R/W FOR UGI CORPORATION (SEE NOTE 14C)

APPROXIMATE LOCATION OF UGI REGULATOR STATION PERMANENT EASEMENT PLOTTED BY LANGAN

IRON PIN (FOUND)

WATERS OF THE U.S. FEDERALLY REGULATED WETLANDS

24" COMPOST FILTER SOCK #38

18" COMPOST FILTER SOCK #39

18" COMPOST FILTER SOCK #40

FLOODWAY (TYP)

12" COMPOST FILTER SOCK #41

24" COMPOST FILTER SOCK #36 (PORTION OF TRAIL UPSTREAM OF THIS CFS TO BE CONSTRUCTED AFTER UPSTREAM AREA IS STABILIZED AND SEDIMENT TRAP REMOVED)

24", 18" AND 12" COMPOST SOCKS STACKED IN PYRAMIDAL FORM

TOWNSHIP LINE ROAD

DOTTERER ROAD

MELBORNE LANE

WOODED AREA

MINISTER CREEK

SITE

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'

CE-203 DOTTERER ROAD

CE-204

CE-205 SWAMP PIKE

CE-201 SWAMP PIKE

TOWNSHIP LINE ROAD

CE-202

N. CHARLOTTE STREET

CE-209

CE-208

STACIE DRIVE

CE-206

CE-207

KEY MAP

SCALE 1"=1000'

50 0 25 50

SCALE IN FEET

EXISTING LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

E&S PLAN LEGEND

BAFFLE	
COMPOST FILTER SOCK	
18" SILT FENCE FOR STOCKPILES	
PERMANENT STORM SEWER	
EXISTING CONTOUR	280
PROPOSED CONTOUR	280
TEMP. CONSTRUCTION FENCE	
TREE PROTECTION FENCE	
SOIL TYPE BOUNDARY	
SOIL TYPE	CpB
LIMIT OF DISTURBANCE	
NPDES LIMIT	
CONCRETE WASHOUT	
CLEAN OUT STAKE	
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CONSTRUCTION ENTRANCE	

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LIMIT OF DISTURBANCE = 149 ACRES
RECEIVING WATERS: MINISTER CREEK
CLASSIFICATION: TSF & MF

ACT 287 AS AMENDED

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SERIAL NO (STACIE DRIVE): 20130441751

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP! CALL BEFORE YOU DIG

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
*** IT'S THE LAW ***

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3.	REVISED PER COMMENT LETTERS	11-08-17
2.	REVISED PER MCCD COMMENTS	9-29-17
1.	REVISED PER COMMENT LETTERS	8-04-17

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN

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NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA

Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CG, Inc. Langan International LLC Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 2

Project No. 240038801	Drawing No. CE-206
Date 06/07/17	
Scale 1"=50'	
Drawn By WLS	
Submission Date 6/9/2017	Sheet 103 of 187

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

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MATCHLINE-CE-202

MATCHLINE-CE-206

MATCHLINE-CE-208

12" COMPOST FILTER SOCK #54a

18" COMPOST FILTER SOCK #74

18" COMPOST FILTER SOCK #75

TREE PROTECTION FENCE (TYP)

CONNECT TO STANDPIPE IN INLET

PIPE TO BE ABANDONED

CHANNEL 4

COMPOST SOCK SEDIMENT TRAP 2

12" COMPOST FILTER SOCK #22d

18" COMPOST FILTER SOCK #22c

12" COMPOST FILTER SOCK #22e

LIMIT OF PROPOSED TREE LINE (TYP.)

18" COMPOST FILTER SOCK #22b

24" COMPOST FILTER SOCK #30

12" COMPOST FILTER SOCK #73

SEE SHEET GP-101 FOR WETLAND CROSSING DETAILS

12" COMPOST FILTER SOCK #72

18" COMPOST FILTER SOCK #31

24" COMPOST FILTER SOCK #29

CONCRETE WASHOUT (TYP)

CHANNEL 6

24" COMPOST FILTER SOCK #32

CONCRETE WASHOUT (TYP)

LIMIT OF PROPOSED TREE LINE (TYP.)

WATERS IN PIPE

SEE SHEET GP-101 FOR WETLAND CROSSING DETAILS

24" COMPOST FILTER SOCK #28

12" COMPOST FILTER SOCK #23

18" COMPOST FILTER SOCK #27

18" COMPOST FILTER SOCK #27A

24" COMPOST FILTER SOCK #33

BLOCK AND STONE INLET PROTECTION (TYP)

HW-3

12" COMPOST FILTER SOCK #23a

CLEAN OUT STAKE ELEV.=274.00

SEDIMENT BASIN C BOTTOM ELEV.=272.1

TREE PROTECTION FENCE (TYP)

SEE SHEET GP-101 FOR WETLAND CROSSING DETAILS

HW-3A

12" COMPOST FILTER SOCK #23b

TREE PROTECTION FENCE (TYP)

24" COMPOST FILTER SOCK #34

12" COMPOST FILTER SOCK #26

HW-2

RIP RAP (TYP)

LIMIT OF PROPOSED TREE LINE (TYP.)

12" COMPOST FILTER SOCK #25

18" COMPOST FILTER SOCK #24

RIP RAP (TYP)

SEE SHEET GP-101 FOR WETLAND CROSSING DETAILS

12" COMPOST FILTER SOCK #23c

18" COMPOST FILTER SOCK #23d

24" COMPOST FILTER SOCK #35

LIMIT OF DISTURBANCE (TYP.)

12" COMPOST FILTER SOCK #23e

12" COMPOST FILTER SOCK #23f

24" COMPOST FILTER SOCK #36 (PORTION OF TRAIL UPSTREAM OF THIS CFS TO BE CONSTRUCTED AFTER UPSTREAM AREA IS STABILIZED AND SEDIMENT TRAP REMOVED)

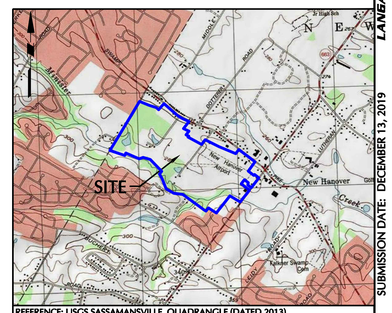
24", 18" AND 12" COMPOST SOCKS STACKED IN PYRAMIDAL FORM

WOODED AREA

CONC. MON (FOUND)

50 0 25 50

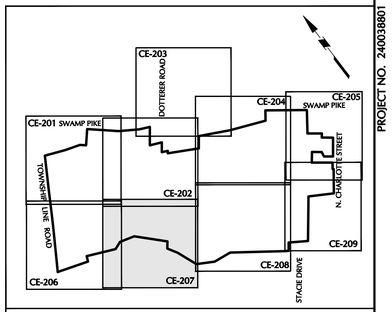
SCALE IN FEET



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'



KEY MAP

SCALE 1"=1000'

EXISTING LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

E&S PLAN LEGEND

BAFFLE	
COMPOST FILTER SOCK	
18" SILT FENCE FOR STOCKPILES	
PERMANENT STORM SEWER	
EXISTING CONTOUR	280
PROPOSED CONTOUR	280
TEMP. CONSTRUCTION FENCE	
TREE PROTECTION FENCE	
SOIL TYPE BOUNDARY	
SOIL TYPE	CpB
LIMIT OF DISTURBANCE	
NPDES LIMIT	
CONCRETE WASHOUT	
CLEAN OUT STAKE	
FILTER BAG INLET PROTECTION	
BLOCK AND STONE INLET PROTECTION	
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RIP-RAP APRON	
LANDLOK TRM 450/KENTUCKY BLUEGRASS LINING FOR EMERGENCY SPILLWAY	
LANDLOK S2 MATTING FOR STEEP SLOPES AND SWALES	
CONSTRUCTION ENTRANCE	

NOTE:

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NPDES AREA = 203 ACRES

LIMIT OF DISTURBANCE = 149 ACRES

RECEIVING WATERS: MINISTER CREEK

CLASSIFICATION: TSF & MF

ACT 287 AS AMENDED

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Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	9.
9-11-19	REVISED FOR MINOR MOD TO LOD	8.
12-10-18	REVISED PER MCCD COMMENTS	7.
10-22-18	REVISED PER MCCD COMMENTS	6.
6-1-18	REVISED PER MCCD COMMENTS	5.
1-31-18	REVISED PER COMMENT LETTERS	4.
11-08-17	REVISED PER COMMENT LETTERS	3.
9-29-17	REVISED PER MCCD COMMENTS	2.
8-04-17	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 2

Project No. 240038801	Drawing No. CE-207
Date 06/07/17	
Scale 1"=50'	
Drawn By WLS	
Submission Date 6/9/2017	Sheet 104 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

Filename: \\langan.com\data\BE\data8\240038801\cadd data - 240038801\sheetfiles\240038801 CE201-209.dwg Date: 12/13/2019 Time: 15:24 User: dmoyer Style Table: Langan.stb Layout: CE-207

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MATCHLINE-CE-207

MATCHLINE-CE-204

MATCHLINE-CE-209

SEDIMENT BASIN D
BOTTOM ELEV.=259.0

TEMPORARY SOIL STOCKPILE

CONCRETE WASHOUT (TYP)

12" COMPOST FILTER SOCK #22E

TREE PROTECTION FENCE (TYP)

SEE SHEET CP-101 FOR WETLAND CROSSING DETAILS

12" COMPOST FILTER SOCK #22a

CHANNEL 7

12" COMPOST FILTER SOCK #22

24" COMPOST FILTER SOCK #21

TREE PROTECTION FENCE

LIMIT OF PROPOSED TREE LINE (TYP.)

32" COMPOST FILTER SOCK #20

18" COMPOST FILTER SOCK #19

18" COMPOST FILTER SOCK #18

18" COMPOST FILTER SOCK #17

18" COMPOST FILTER SOCK #14

18" COMPOST FILTER SOCK #13

18" COMPOST FILTER SOCK #12

LIMIT OF PROPOSED TREE LINE (TYP.)

HW-4

HW-5

HW-5A

RIP RAP (TYP)

BAFFLES (TYP)

CLEAN OUT STAKE ELEV=260.00

EMERGENCY SPILLWAY
INV. IN=268.50' (EST.)
INV. OUT=268.00' (EST.)
BOTTOM WIDTH=165 FT
CREST EL.=265.00'
TOP OF BERM EL.=267.00

CLEANOUT (TYP)

PERFORATED PVC UNDERDRAIN

MINISTER CREEK

DRIP DD-1 FIELD

WOODED AREA

POOL

POOL PUMP

PAVER PATIO

1 1/2 STORY FRAME DWELLING FF=281.18

SEPTIC TANK

IRON PIN (FOUND)

CONC. MON. (FOUND)

HUDSON LANE

SOUTH GATE DRIVE

OAKMONT AVENUE

TOWNSHIP LINE ROAD

DOTTERER ROAD

SWAMP PIKE

N. CHARLOTTE STREET

STACIE DRIVE

REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'

KEY MAP

SCALE 1"=1000'

SCALE IN FEET

EXISTING LEGEND

TRACT BOUNDARY
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E&S PLAN LEGEND

BAFFLE
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18" SILT FENCE FOR STOCKPILES
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CLASSIFICATION: TSF & MF

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL: 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

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IN PA, TOLL FREE
1-800-242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

12-13-19	REVISED PER COMMENT LETTERS	9.
9-11-19	REVISED FOR MINOR MOD TO LOD	8.
12-10-18	REVISED PER MCCD COMMENTS	7.
10-22-18	REVISED PER MCCD COMMENTS	6.
6-1-18	REVISED PER MCCD COMMENTS	5.
1-31-18	REVISED PER COMMENT LETTERS	4.
11-08-17	REVISED PER COMMENT LETTERS	3.
9-29-17	REVISED PER MCCD COMMENTS	2.
8-04-17	REVISED PER COMMENT LETTERS	1.
Date	Description	No.

REVISIONS

JASON SCOTT ENGELHARDT — REGISTERED PROFESSIONAL ENGINEER — COMMONWEALTH OF PENNSYLVANIA

SIGNATURE — JASON SCOTT ENGELHARDT — DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 2

Project No. 240038801	Drawing No. CE-208
Date 06/07/17	
Scale 1"=50'	
Drawn By WLS	
Submission Date 6/9/2017	Sheet 105 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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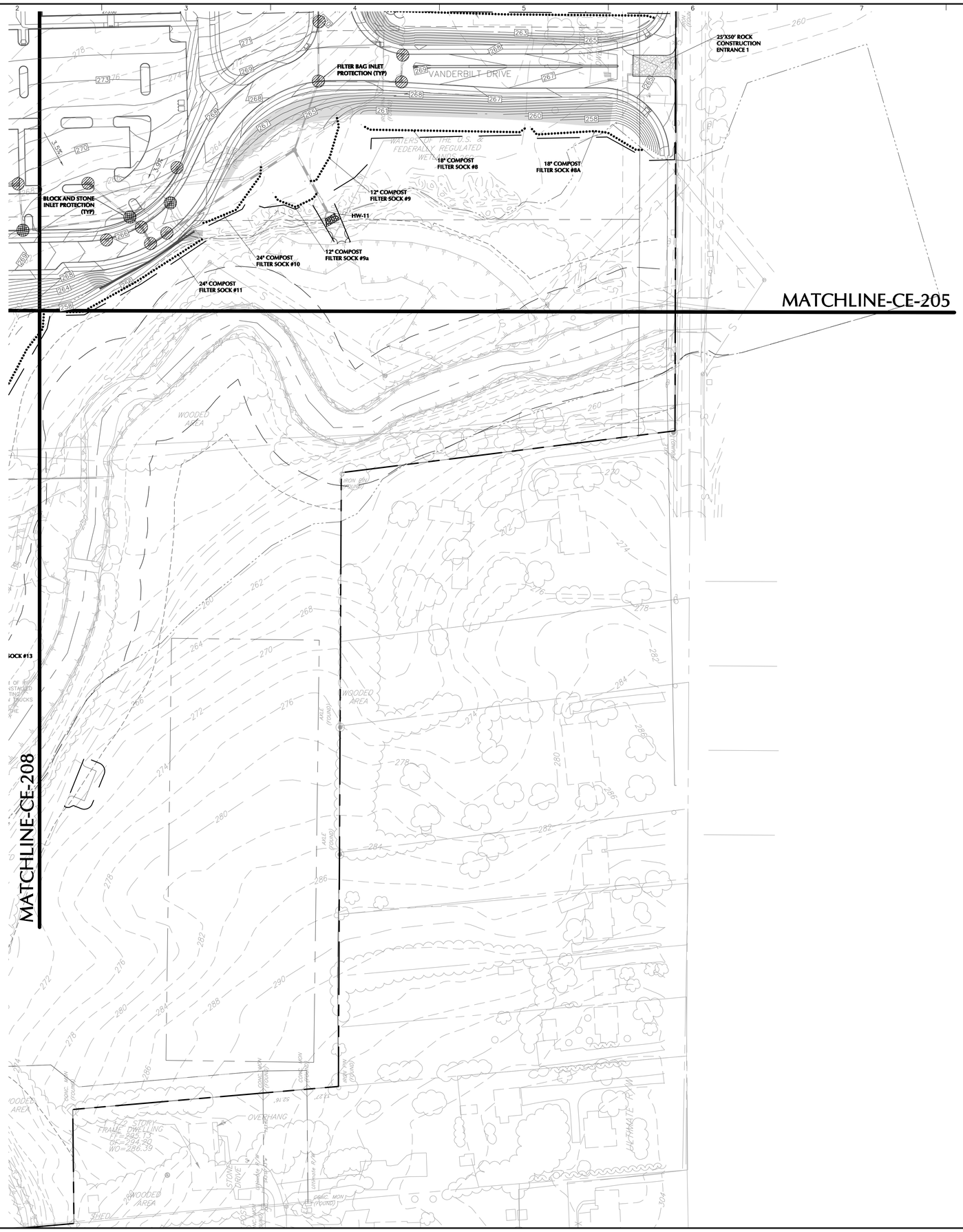
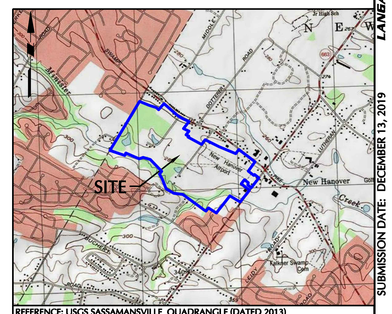
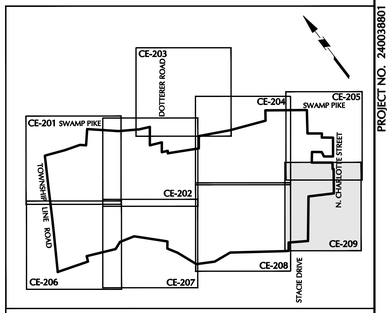
Filename: I:\langan.com\data\BE\data\P240038801\sheetfiles\240038801 CE201-209.dwg Date: 12/13/2019 Time: 15:25 User: dmoyer Style Table: Langan.stb Layout: CE-208





SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

50 0 25 50
SCALE IN FEET

EXISTING LEGEND

TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

E&S PLAN LEGEND

BAFFLE
COMPOST FILTER SOCK
18" SILT FENCE FOR STOCKPILES
PERMANENT STORM SEWER
EXISTING CONTOUR
PROPOSED CONTOUR
TEMP. CONSTRUCTION FENCE
TREE PROTECTION FENCE
SOIL TYPE BOUNDARY
SOIL TYPE — CpB
LIMIT OF DISTURBANCE
NPDES LIMIT
CONCRETE WASHOUT
CLEAN OUT STAKE
FILTER BAG INLET PROTECTION
BLOCK AND STONE INLET PROTECTION
TEMPORARY RISER
RIP-RAP APRON
LANDLOK TRM 450/KENTUCKY BLUEGRASS LINING FOR EMERGENCY SPILLWAY
LANDLOK S2 MATTING FOR STEEP SLOPES AND SWALES
CONSTRUCTION ENTRANCE

NOTE:
1. SEE GRADING AND DRAINAGE PLANS CG-200 TO CG-209 FOR ALL STORM DRAINAGE INFORMATION REGARDING PIPE SIZE, MATERIAL, SLOPES, PIPE INVERTS, FINAL GRATE & RIM ELEVATIONS, ETC.
2. REFER TO DRAWINGS CE-501 TO CE-503 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.

NPDES AREA = 203 ACRES
LIMIT OF DISTURBANCE = 149 ACRES
RECEIVING WATERS: MINISTER CREEK
CLASSIFICATION: TSF & MF

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REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER 057145 E
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan UK Limited
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Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SOIL EROSION AND SEDIMENT CONTROL PLAN - STAGE 2

Project No.	240038801
Date	06/07/17
Scale	1"=50'
Drawn By	WLS
Submission Date	6/9/2017
Drawing No.	CE-209
Sheet	106 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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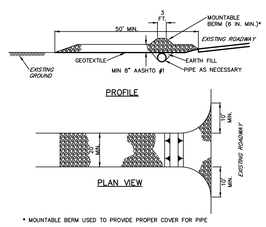
EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL PRACTICES (BMPS) ARE TO BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL PRIOR TO ANY MAJOR SOIL DISTURBANCE IN THEIR PROPER SEQUENCE WITHIN THE TRIBUTARY AREAS OF THOSE BMPS AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED. SEE SEQUENCE OF CONSTRUCTION.
2. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED. ANY DISTURBED AREAS NOT SUBJECT TO CONSTRUCTION TRAFFIC AND LEFT EXPOSED SHALL BE IMMEDIATELY STABILIZED WITH TEMPORARY SEEDING. THE DISTURBED AREAS WILL BE MULCHED WITH UNROTTED STRAW OR SALT OR SALT HAY AT A MINIMUM RATE OF 1,200 LBS. PER 1,000 SQUARE YARDS OR AND EQUIVALENT MEASURE ACCORDING TO STATE STANDARDS. SEE STABILIZATION MATERIALS BELOW.
3. PERMANENT VEGETATION TO BE IMMEDIATELY SEEDED OR SODDED ON ALL EXPOSED AREAS AFTER FINAL GRADING. MULCH TO BE USED AT A RATE OF 1,200 LBS. PER 1,000 SQUARE YARDS FOR PROTECTION UNTIL SEEDING IS ESTABLISHED. SEE SEEDING MIXTURE BELOW.
4. ALL WORK DONE IN ACCORDANCE WITH PENNSYLVANIA EROSION AND SEDIMENT POLLUTION CONTROL MANUAL.
5. PRIOR TO ANY SITE GRADING, DRAINAGE FACILITIES SHALL BE INSTALLED TO ALLOW FOR THE MAJORITY OF STORM FLOW TO BE TRANSPORTED TO THE PROPOSED OUTLET WITHOUT ERODING THE SITE. SEE SEQUENCE OF CONSTRUCTION.
6. IMMEDIATELY AFTER INITIAL SITE DISTURBANCE, A CRUSHED STONE VEHICLE WHEEL—CLEANING BLANKET WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS ROAD INTERSECTS ANY PAVED ROAD. THIS STABILIZED CONSTRUCTION ENTRY WILL BE OF SUFFICIENT SIZE TO REDUCE OFF—SITE TRACKING OF SEDIMENT BY CONSTRUCTION TRAFFIC AND WILL BE MAINTAINED IN GOOD ORDER UNTIL ALL ROADWAYS ARE STABILIZED. MINIMUM DIMENSIONS SHALL BE 50' LONG X 20' WIDE X 8" THICK, UNDERLAIN WITH FILTER FABRIC, AND SHALL BE COMPOSED OF AASHTO NO.1 STONE.
7. A SUBBASE COURSE SHALL BE CONSTRUCTED IMMEDIATELY FOLLOWING SITE GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS.
8. ALL INLETS NOT TO BE USED, AS SEDIMENT TRAPS SHALL BE TEMPORARILY PROTECTED BY FILTERS PLACED IMMEDIATELY AFTER THEIR CONSTRUCTION. FILTERS SHALL REMAIN IN PLACE UNTIL SITE IS PERMANENTLY STABILIZED.
9. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OF ROUGH GRADING OF ALL CRITICAL AREAS SUBJECT TO EROSION, I.E.: STEEP SLOPES GREATER THAN 3H:1V, EMBANKMENTS, SWALES AND CHANNELS WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR EROSION CONTROL MATTING. SEE STABILIZATION MATERIALS BELOW.
10. ALL DISTURBED AREAS SHALL BE LIMED AND FERTILIZED PRIOR TO EITHER TEMPORARY OR PERMANENT SEEDING.
11. STOCKPILES HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OF FLATTER.
12. STABILIZATION MATERIALS:
    TEMPORARY SEEDING
    A) THE FOLLOWING SURFACES OF THE SITE SHALL BE TEMPORARILY SEEDED AND MULCHED:
        1) THE SURFACE OF TOPSOIL STOCKPILES.
        2) THE SURFACE OF EXPOSED EARTH AREAS NOT SUBJECT TO CONSTRUCTION ACTIVITY.
    B) SEEDING SHALL OCCUR IMMEDIATELY AFTER THE ESTABLISHMENT OF THE TOPSOIL STOCKPILES OR ROUGH GRADED AREAS. THE FOLLOWING SEED SHALL BE PLANTED:
        RYEGRASS — BLUE TAG CERTIFIED — 100% — 4 TO 5 LBS. PER 1,000 SQUARE FOOT.
        ANNUAL TYPE — NOT APPLICABLE
        PERENNIAL TYPE — NOT APPLICABLE
    C) PREPARE AREAS TO BE SEEDED AS FOLLOWS:
        1) REMOVE ALL DEBRIS, INCLUDING LARGE STONE. TILL SOIL TO A DEPTH OF FOUR INCHES TO SIX INCHES. APPLY LIME AT A RATE OF 100 LBS. PER 1,000 SQUARE FEET.
        2) BEFORE AUGUST, SEPTEMBER OR OCTOBER SEEDING, APPLY 20—25 LBS. OF 5—10—10 FERTILIZER PER 1,000 SQUARE FEET. BEFORE FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY OR NOVEMBER SEEDING, APPLY 40 LBS. OF 10—20—10 FERTILIZER PER 1,000 SQUARE FEET. WORK INTO TOP INCH OF SOIL.
    D) SOW SEED AT THE INDICATED RATE. DIVIDE SEED INTO TWO EQUAL LOTS. SOW ONE LOT IN ONE DIRECTION. SOW SECOND LOT AT RIGHT ANGLE TO FIRST LOT. RAKE SEEDED AREA SLIGHTLY. ROLL SURFACE LIGHTLY TO FIRM SOIL AROUND SEED.
    E) PLACE CLEAN DRY STRAW OF HAY MULCH WITHIN 48 HOURS AFTER SEEDING. PLACE AT THE RATE OF 1,200 LBS. PER 1,000 SQUARE YARDS.
    TEMPORARY MULCHING
    A) MULCH PROPOSED LANDSCAPE AREAS OR TOPSOIL STOCKPILES IF EARTHWORK IS COMPLETED OUTSIDE OF THE RECOMMENDED PLANTING SEASONS FOR TEMPORARY SEEDING OR DUE TO UNFAVORABLE WEATHER CONDITIONS.
    B) MULCH SHALL BE APPLIED IMMEDIATELY FOLLOWING THE ESTABLISHMENT OF TOPSOIL STOCKPILE OR ROUGH GRADING.
    C) MULCH WITH SUITABLE FIBROUS GROUND, SHREDDED AGED HARDWOOD, PINEWOOD BARK, STRAW, OR HAY UNIFORMLY AND CONTINUOUSLY TO A LOOSED DEPTH OF 3 INCHES MINIMUM. ANCHOR AS REQUIRED.
    D) PROPERLY MAINTAIN MULCHED AREAS UNTIL PERMANENT STABILIZATION MEASURES ARE COMPLETE. REAPPLY MULCH MATERIALS, WHICH BECOME DISLODGED AT INITIAL OR MODIFIED RATES AS NECESSARY. IF A SLOPE FAILURE OCCURS WHICH REQUIRES REDRESSING, EXCAVATION, OR THE ESTABLISHMENT OF A NEW SLOPE, REPLACE MULCH AS NECESSARY.
    PERMANENT SEEDING
    A) PERMANENT SEEDING SHALL OCCUR IMMEDIATELY AFTER THE FINAL GRADING IS COMPLETED. THE FOLLOWING SEED SHALL BE PLACED UNLESS OTHERWISE SPECIFIED ON THE PLANS OR DIRECTED IN THE FIELD.
    FORMULA B, BLUE TAG CERTIFIED
    CONSISTS OF: 50% KENTUCKY BLUEGRASS MIXTURE
    30% CREEPING RED FESCUE
    20% PERENNIAL RYEGRASS MIXTURE
    SPREAD AT A RATE OF 21.0 LBS. PER 1000 SY
    B) REMOVE ALL DEBRIS, INCLUDING LARGE STONES. TILL SOIL TO A DEPTH OF FOUR INCHES TO SIX INCHES. APPLY LIME AT A RATE OF 2 TONS PER ACRE. BEFORE JUNE 15, APPLY 500 LBS. OF 10—20—20 FERTILIZER PER ACRE. WORK FERTILIZER INTO TOP INCH OF SOIL.
    C) SEED ONLY AT THE FOLLOWING TIMES:
    MARCH 15 TO JUNE 1, AND AUGUST 1 TO OCTOBER 15.
    D) APPLY SEED AT A RATE OF 21.0 LBS. PER 1000 SY. DIVIDE SEED INTO TWO EQUAL LOTS. SOW ONE LOT IN ONE DIRECTION. SOW SECOND LOT AT RIGHT ANGLE TO FIRST LOT. RAKE SEEDED AREA SLIGHTLY. ROLL SURFACE LIGHTLY TO FIRM SOIL AROUND SEED.
    E) MULCH SEEDED AREAS WITH STRAW OR HAY AT THE RATE OF 3 TONS PER ACRE. ANCHOR MULCH. COMPLY WITH THE REQUIREMENTS OF SECTION 805 MULCHING, PENNDOT PUBLICATION 408. ANCHOR MUST BE SPECIFIED.
13. MULCHING SHALL BE DONE AT A MINIMUM RATE OF 3 TONS PER ACRE WITH SALT HAY, HAY OR STRAW MULCHES. PLACE MULCH IMMEDIATELY AFTER SEEDING OF WITHIN 48 HOURS AFTER SEEDING IS COMPLETED. PROPERLY MAINTAIN MULCHED AREAS UNTIL ENTIRE PROJECT HAS BEEN COMPLETED. PROMPTLY REAPPLY MULCH MATERIALS, WHICH BECOME DISLODGED OR LOST DUE TO WIND, RAIN OR OTHER CAUSES AT INITIAL RATES OR AS DIRECTED.
14. LIQUID MULCH BINDERS MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCHES.
    A) APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH LIKE IN VALLEYS AND AT CRESTS OF BANKS. REMAINDER OF AREAS SHOULD BE UNIFORM IN APPEARANCE.
    B) USE ONE OF THE FOLLOWING:
    - EMULSIFIED ASPHALT — CLASS E—1 OR E—6. APPLY 31 GALLONS PER 1,000 SQUARE YARDS ON SLOPES LESS THAN 8 FEET HIGH. ON SLOPES 8 FEET OR HIGHER, USE 58 GALLONS PER 1,000 SQUARE YARDS.
    - CUTBACK ASPHALT — CLASS RC—250. APPLY 31 GALLONS PER 1,000 SQUARE YARDS ON FLAT AREAS AND ON SLOPES LESS THAN 8 FEET HIGH. ON SLOPES 8 FEET OR HIGHER, USE 58 GALLONS PER 1,000 SQUARE YARDS.
    - NON—ASPHALTIC EMULSION — NATURAL GUM BLENDED WITH GELLING AND HARDENING AGENTS (TERRA TACK, AR) AS MANUFACTURED BY GRASS GROWERS COMPANY OR EQUAL. APPLY 25 LBS. PER 1,000 SQUARE YARDS.
    NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.
15. DEPTH OF TOPSOIL TO BE PLACED IS 6". TOPSOIL SHOULD BE FREE OF DEBRIS, SUCH AS WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE THAT MAY BE HARMFUL TO PLANT GROWTH. STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF—SITE ENVIRONMENTAL DAMAGE.
16. ALL FILL MATERIALS ARE TO BE FREE OF BRUSH, RUBBISH, TIMBER, LOGS, VEGETATIVE MATTER, AND SLUMPS IN AMOUNTS THAT WILL BE DETRIMENTAL TO CONSTRUCTING STABLE FILLS. ALL FILLS SHALL BE COMPACTED FOR THEIR INTENDED PURPOSES AND AS REQUIRED TO REDUCE SLIPPING EROSION, OR EXCESS SATURATION.
17. CONTRACTOR TO MAINTAIN DUST CONTROL MEASURES THROUGHOUT THE COURSE OF CONSTRUCTION FOR ALL DISTURBED AREAS. THE CONTRACTOR WILL PROVIDE A WATER TRUCK ON—SITE AT ALL TIMES TO SPRAY DISTURBED AREAS AS NECESSARY.
18. ALL STORM DRAINAGE OUTLETS TO BE STABILIZED AS REQUIRED BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
19. E&S BMPS MAY BE REMOVED AND/OR CONVERTED UPON COMPLETION AND STABILIZATION OF THE DISTURBED AREA TRIBUTARY TO EACH BMP. THE CONDITIONS OF STABILIZATION ARE AS FOLLOWS:
    A. VEGETATED AREAS MUST ACHIEVE A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OVER THE ENTIRE DISTURBED AREA.
    B. ROADWAYS AND PARKING AREAS SHOULD AT LEAST HAVE A CLEAN SUBBASE IN PLACE.
20. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMPS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST. INSPECTIONS MUST BE LOGGED ONTO DEP FORM 3150—FM—BWE0083 DATED 2/2012 AND KEPT ON SITE AT ALL TIMES.

    ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING, MUST BE PREFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.

    WHERE BMPS ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION, THE PERMITTEE OR CO—PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:
    A. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.
    B. ALL STEPS TAKEN TO, REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON—COMPLIANCE.
    C. THE TIME FRAME TO CORRECT THE NON—COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.

    AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPS MUST BE STABILIZED IMMEDIATELY.
21. BEFORE INITIATING ANY REVISION TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E & S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
21. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
22. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE MONTGOMERY COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.
23. EROSION AND SEDIMENT BMPS MUST BE CONSTRUCTED, STABILIZED; AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPS.
24. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPS MUST BE STABILIZED IMMEDIATELY.
25. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES INCLUDING BUT NOT LIMITED TO: THE LANDOWNER AND ALL APPROPRIATE MUNICIPAL OFFICIALS, A REPRESENTATIVE FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT FOR AN ON SITE PRE—CONSTRUCTION MEETING.
26. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
27. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON—VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON—GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
28. UPON INSTALLATION OF THE TEMPORARY SEDIMENT BASIN RISER(S), AN IMMEDIATE INSPECTION OF THE RISER(S) SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE RISER IS SEALED.
29. SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT.
30. HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE.
32. FAILURE TO CORRECTLY INSTALL SEDIMENT CONTROL FACILITIES OR FAILURE TO PREVENT SEDIMENT LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE OR FAILURE TO TAKE CORRECTIVE ACTIONS TO REMEDIATELY RESOLVE FAILURES OF SEDIMENT CONTROL FACILITIES MAY RESULT IN ADMINISTRATIVE, CIVIL AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AS DEFINED IN SECTION 602 OF THE CLEAN STREAMS LAW OF PENNSYLVANIA, AS AMENDED, WHICH PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 PER DAY IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
33. ALL PUMPING OF SEDIMENT LADEN WATER OR POTENTIALLY SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON—DISTURBED AREAS.
34. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.
35. THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMPs. A PA LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMPs, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.
36. AS—BUILT PLANS OF THE STORMWATER BMPs SHALL BE PROVIDED WITHIN 6 MONTHS OF THEIR COMPLETION. THE AS—BUILT PLANS SHALL CERTIFY THAT THE BMPs WERE CONSTRUCTED PER PLAN AND ARE OPERATING CORRECTLY AND SHALL BE SEALED AND SIGNED BY A PA REGISTERED PROFESSIONAL ENGINEER.
37. THE PERMITTEE SHALL INSPECT THE BMPs AS DETAILED ON THE PLANS AND SHALL PROVIDE CERTIFICATION TO THE TOWNSHIP ON AN ANNUAL BASIS THAT THE BMPs ARE OPERATING AND BEING MAINTAINED CORRECTLY. IN THE EVENT THAT THE BMPs ARE NOT OPERATING AND BEING MAINTAINED CORRECTLY, THE TOWNSHIP MAY ACCESS THE BMPs AND PERFORM REPAIRS, BUT THE TOWNSHIP IS NOT OBLIGATED TO DO SO.
38. ALL BLASTING ACTIVITY, IF REQUIRED, SHOULD BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS. CONTRACTOR SHOULD NOTIFY OWNER AND ALL REGULATORY AGENCIES IN WRITING PRIOR AND OBTAIN ANY NECESSARY PERMITS PRIOR TO ANY BLASTING ACTIVITIES
39. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
40. ANY DAMAGE THAT OCCURS AS A RESULT OF THE BASIN OR TRAP DISCHARGE WILL BE REPAIRED IN A PERMANENT MANNER THAT IS SATISFACTORY TO THE MUNICIPALITY, CONSERVATION DISTRICT AND DOWN SLOPE LANDOWNER(S).
41. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP—001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
42. SEDIMENT TRACKED ONTO ANY ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORKDAY AND
43. DISPOSED AS A MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED OR SWEPT INTO ANY ROAD SIDE DITCH, STORM SEWER OR SURFACE WATER.
44. ALL SLOPES 3H:1V OR STEEPER AS WELL AS ALL DISTURBED AREAS WITHIN 50 FEET OF A SURFACE WATER (100 FEET FOR HQ OR EV WATERS) SHALL BE BLANKETED.
45. AREAS WHICH ARE TO BE TOP—SOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES (6 TO 12 INCHES ON COMPACTED SOILS) PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING, I.E. YARDS.
46. ANY OFF—SITE WASTE AND BORROW AREA MUST HAVE AN E&S PLAN REVIEWED AND APPROVED BY THE APPROPRIATE AGENCY PRIOR TO BEING ACTIVATED.
47. IF SEDIMENT BASINS ARE CONVERTED FOR ANY REASON PRIOR TO 70% STABILIZATION, AND THE ON—LOT BMPS BECOME THE PRIMARY BMPS, THEN THE ON—LOT BMPS MUST BE SWITCHED TO ABACT BMPS. FOR EXAMPLE, SILT FENCE MUST BE REPLACED WITH COMPOST FILTER SOCK.
48. IF PROPOSED EROSION CONTROL MEASURES DOWNSTREAM FROM HW—3 DO NOT ADEQUATELY PROVIDE NECESSARY SOIL EROSION CONTROL, ADDITIONAL SOIL EROSION CONTROL MEASURES WILL BE PROVIDED AS DETERMINED BY THE TOWNSHIP ENGINEER AND THE CONSERVATION DISTRICT.



NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

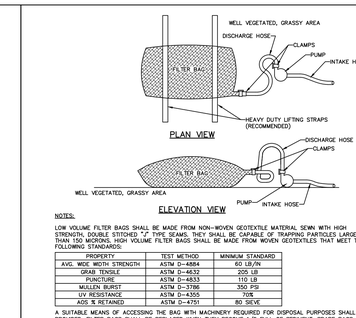
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK AS CONDITIONS REQUIRE. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE

ROCK CONSTRUCTION ENTRANCE



NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON—WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D—4884	60 LB/IN
GRAB TENSILE	ASTM D—4632	205 LB
PUNCTURE	ASTM D—4833	110 LB
MULLEN BURST	ASTM D—3786	350 PSI
UV RESISTANCE	ASTM D—4355	70%
AOS % RETAINED	ASTM D—4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL—VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON—ERODIBLE AND NON—POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

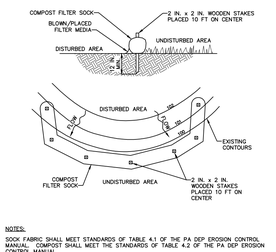
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

STANDARD CONSTRUCTION DETAIL #3-16
PUMPED WATER FILTER BAG
NOT TO SCALE

PUMPED WATER FILTER BAG



NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

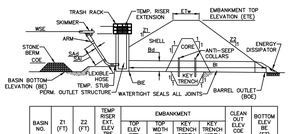
TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SH



BASIN NO.	Z1 (FT)	Z2 (FT)	TEMP RISER EXT. ELEV TRE (FT)	EMBANMENT TOP ELEV ETE (FT)	TOP WIDTH ETw (FT)	KEY TRENCH DEPTH (FT)	KEY TRENCH WIDTH (FT)	CLEAN OUT ELEV COE (FT)	BOTTOM ELEV. BE (FT)
A	3	3		286.00	288.00	10	2	4	284.00	283.00
B	3	3		280.00	282.00	10	2	4	277.00	276.00
C	3	3		274.60	278.10	10	2	4	273.10	272.10
D	3	3		264.00	267.00	10	2	4	260.00	259.00

SKIMMER				OUTLET BARREL			
DIA SAd (IN)	LENGTH SAl (FT)	MAT'L		DIA Bd (IN)	INLET ELEV BRE (FT)	MAT'L	LENGTH lb (FT)	OUTLET ELEV BOE (FT)
5.00	8	PVC		48	282.08	CONC.	53	281.00
4.00	8	PVC		18	273.80	CONC.	57	272.50
4.00	8	PVC		24	263.00	CONC.	75	263.40
8.00	8	PVC		18	256.00	CONC.	104	256.45

NOTES:

SEDIMENT BASINS, INCLUDING ALL APPURTENANT WORKS, SHALL BE CONSTRUCTED TO THE DETAIL AND DIMENSIONS SHOWN ON THE E&S PLAN DRAWINGS.

AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO A DEPTH OF TWO INCHES (2") MINIMUM. AREA UNDER FILL SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. MAINTENANCE AND RESTORATION, THE POOL AREA SHALL BE CLEARED OF ALL BRUSH, TREES, AND OBJECTIONABLE MATERIAL. FILL MATERIAL FOR THE EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN LAYERED LIFTS OF NOT MORE THAN 6 TO 9 IN. THE MAXIMUM ROCK SIZE SHALL BE NO GREATER THAN 2/3 THE LIFT THICKNESS.

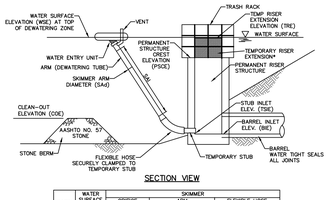
UPON COMPLETION, THE EMBANKMENT SHALL BE SEEDED, MULCHED, BLANKETED OR OTHERWISE STABILIZED ACCORDING TO THE SPECIFICATIONS OF THE E&S PLAN DRAWINGS. TREES SHALL NOT BE PLANTED ON THE EMBANKMENT.

INSPECT ALL SEDIMENT BASINS ON AT LEAST A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. PROVIDE ACCESS FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES. A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH BASIN. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND THE BASIN RESTORED TO ITS ORIGINAL DIMENSIONS. DISPOSE OF MATERIALS REMOVED FROM THE BASIN IN THE MANNER DESCRIBED IN THE E&S PLAN.

BASIN EMBANMENTS, SPILLWAYS, AND OUTLETS SHALL BE INSPECTED FOR EROSION, PIPING AND SETTLEMENT. NECESSARY REPAIRS SHALL BE IMMEDIATELY. DISPLACED RIPRAP WITHIN THE OUTLET ENERGY DISSIPATER SHALL BE REPLACED IMMEDIATELY.

ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISTURBED AREAS SHALL BE STABILIZED INSIDE THE BASIN BEFORE CONVERSION TO A STORMWATER MANAGEMENT FACILITY. THE DEVICE SHOWN IN STANDARD CONSTRUCTION DETAIL #7-16 MAY BE USED TO DEWATER SATURATED SEDIMENT PRIOR TO ITS REMOVAL. ROCK FILTERS SHALL BE ADDED AS NECESSARY.

STANDARD CONSTRUCTION DETAIL #7-4
SEDIMENT BASIN EMBANKMENT AND SPILLWAY DETAILS - SKIMMER
NOT TO SCALE



SECTION VIEW

BASIN NO.	WATER SURFACE ELEV. WSE (FT)	ORIFICE		SKIMMER ARM			FLEXIBLE HOSE		
		DIA. (IN)	HEAD (FT)	SAd (IN)	SAl (FT)	MAT'L	DIA. (IN)	LENGTH (IN)	MAT'L
A	288.00	3.11	0.33	4.00	8	PVC	4.00	18	PVC
B	280.00	3.00	0.33	5.00	8	PVC	3.00	18	PVC
C	275.60	2.60	0.33	5.00	8	PVC	3.00	18	PVC
D	264.00	5.80	0.50	8.00	8	PVC	6.00	18	PVC

TEMPORARY STUB			PERMANENT RISER			RISER EXTENSION			BARREL
INSIDE DIA (IN)	INVERT ELEV TSE (FT)	MAT'L	CREST ELEV PSCE (FT)	HORIZ OPENING LENGTH (IN)	HORIZ OPENING WIDTH (IN)	CREST ELEV TRE (FT)	HORIZ OPENING LENGTH (IN)	HORIZ OPENING WIDTH (IN)	INLET ELEV BE (FT)
4	283.00	PVC	286.40	53	47.75	286.04	53	47.75	282.08
3	276.00	PVC	279.35	26.5	47.75	280.0	26.5	47.75	273.80
3	272.10	PVC	274.60	26.5	47.75	276.1	26.5	47.75	265.00
6	259.00	PVC	264.00	26.5	47.75	264.00*	26.5	47.75	256.00

NOTES:

* BASIN A AND D HAVE A PERMANENT RISER THAT IS A HIGHER ELEVATION THAN THE TEMPORARY RISER, AND WILL NEED TO HAVE THE GRATE OF THE OCS RAISED UPON BASIN CONVERSION.

ALL ORIFICES ON PERMANENT RISER BELOW TEMPORARY RISER EXTENSION SHALL HAVE WATER-TIGHT TEMPORARY SEALS PROVIDED. TEMPORARY STUB INVERT ELEVATION SHALL BE SET AT OR BELOW SEDIMENT CLEAN-OUT ELEVATION.

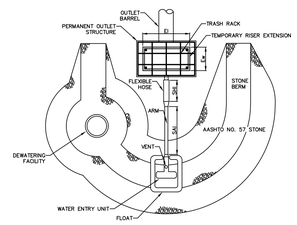
A ROPE SHALL BE ATTACHED TO THE SKIMMER ARM TO FACILITATE ACCESS TO THE SKIMMER ONCE INSTALLED.

SKIMMER SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT.
ANY MALFUNCTIONING SKIMMER SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION.

ICE OR SEDIMENT BUILDUP AROUND THE PRINCIPAL SPILLWAY SHALL BE REMOVED SO AS TO ALLOW THE SKIMMER TO RESPOND TO FLUCTUATING WATER ELEVATIONS.

SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE LEVEL MARKED ON THE SEDIMENT CLEAN-OUT STAKE OR THE TOP OF THE STONE BERM. SEE STANDARD CONSTRUCTION DETAIL #7-3 FOR CONFIGURATION OF STONE BERM.

STANDARD CONSTRUCTION DETAIL #7-2
SKIMMER ATTACHED TO PERMANENT RISER
NOT TO SCALE



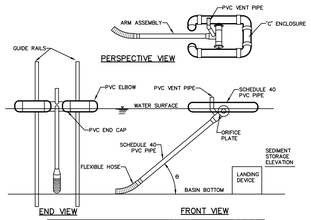
PLAN VIEW

NOTES:

NO GUIDE RAILS SHALL BE REQUIRED FOR THIS INSTALLATION.

THIS DETAIL SHALL BE USED IN CONJUNCTION WITH STANDARD CONSTRUCTION DETAILS #7-2 AND #7-4.

STANDARD CONSTRUCTION DETAIL #7-3
SKIMMER WITH STONE LANDING BERM
NOT TO SCALE



BASIN NO.	WATER SURFACE ELEVATION (FT)	ARM LENGTH (FT)	ARM DIA. (IN)	ORIFICE DIA. (IN)	TOP OF LANDING DEVICE ELEVATION (FT)	FLEXIBLE HOSE LENGTH (IN)	FLEXIBLE HOSE ATTACHMENT ELEVATION (FT)
A	288.00	8	4	3.1	284.00	18	283.00
B	280.00	8	5	3	277.00	18	276.00
C	275.60	8	5	2.6	273.10	18	272.10
D	264.00	8	8	5.8	260.00	18	259.00

NOTES:

ORIFICE DIAMETER MUST BE EQUAL TO OR LESS THAN ARM DIAMETER

A ROPE SHALL BE ATTACHED TO THE SKIMMER ARM TO FACILITATE ACCESS TO THE SKIMMER ONCE INSTALLED.

SKIMMER SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT.
ANY MALFUNCTIONING SKIMMER SHALL BE REPAIRED OR REPLACED WITHIN 24 HOURS OF INSPECTION.

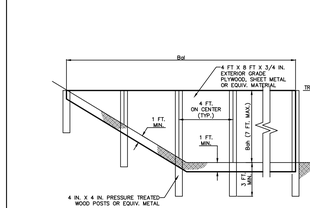
ICE OR SEDIMENT BUILDUP AROUND THE PRINCIPAL SPILLWAY SHALL BE REMOVED SO AS TO ALLOW THE SKIMMER TO RESPOND TO FLUCTUATING WATER ELEVATIONS.

SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES THE LEVEL MARKED ON THE SEDIMENT CLEAN-OUT STAKE OR THE TOP OF THE LANDING DEVICE.

A SEMI-CIRCULAR LANDING ZONE MAY BE SUBSTITUTED FOR THE GUIDE RAILS (STANDARD CONSTRUCTION DETAIL # 7-3).

STANDARD CONSTRUCTION DETAIL #7-1
SKIMMER
NOT TO SCALE

SKIMMER STRUCTURE DETAILS



BASIN OR TRAP NO.	BAFFLE		TEMPORARY RISER	BOTTOM ELEV. BE (FT)
	LENGTH Bd (FT)	HEIGHT Bdt (FT)	CREST ELEV. TRCE (FT)	
SED. BASIN #1	125, 143, 221	4.00	286.00	283.00
SED. BASIN #1,30		4.00	280.00	276.00
SED. BASIN #2,95, 128, 69		5.00	275.60	272.10
SED. BASIN #2	230, 346	5.00	264.00	259.00

NOTES:

SEE APPROPRIATE BASIN DETAIL FOR PROPER LOCATION AND ORIENTATION.

AN ACCEPTABLE ALTERNATIVE IS TO INSTALL A SUPER SILT FENCE AT THE BAFFLE LOCATION

IN POOLS WITH DEPTHS EXCEEDING 7', THE TOP OF THE PLYWOOD BAFFLE DOES NOT NEED TO EXTEND TO THE TEMPORARY RISER CREST. SUPER SILT FENCE BAFFLES NEED NOT EXTEND TO TRCE ELEVATION.

BAFFLES SHALL BE TIED INTO ONE SIDE OF THE BASIN UNLESS OTHERWISE SHOWN ON THE PLAN DRAWINGS.

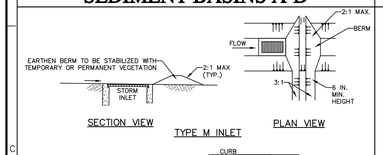
SUBSTITUTION OF MATERIALS NOT SPECIFIED IN THIS DETAIL SHALL BE APPROVED BY THE DEPARTMENT OR THE LOCAL CONSERVATION DISTRICT BEFORE INSTALLATION.

DAMAGED OR WARPED BAFFLES SHALL BE REPLACED WITHIN 7 DAYS OF INSPECTION.

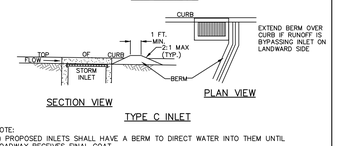
BAFFLES REQUIRING SUPPORT POSTS SHALL NOT BE INSTALLED IN BASINS REQUIRING IMPERVIOUS LINERS.

STANDARD CONSTRUCTION DETAIL #7-14
BAFFLE
NOT TO SCALE

BAFFLE



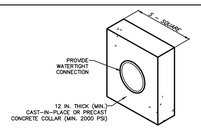
TYPE M INLET



TYPE C INLET

NOTE:
1) PROPOSED INLETS SHALL HAVE A BERM TO DIRECT WATER INTO THEM UNTIL ROADWAY RECEIVES FINAL COAT.
2) ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED.
3) ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. 4) SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.

INLET BERM



BASIN OR TRAP NO.	PIPE SIZE (IN)	S (IN)	NO. OF COLLARS	RISER TO FIRST COLLAR (FT)	COLLAR SPACING (FT)
A	48	96	1	14	–
B	18	66	3	14.6	14.6
C	24	72	4	13.5	13.5
D	18	66	4	14.3	14.3

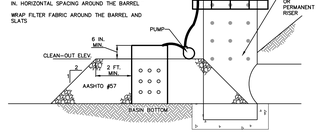
NOTES:

ALL COLLARS SHALL BE INSTALLED SO AS TO BE WATERTIGHT.

COLLAR SIZE AND SPACING SHALL BE AS INDICATED WITHIN TABLE.

STANDARD CONSTRUCTION DETAIL #7-16
CONCRETE ANTI-SEEP COLLAR FOR
PERMANENT BASINS OR TRAPS
NOT TO SCALE

ANTI-SEEP COLLAR



NOTES:

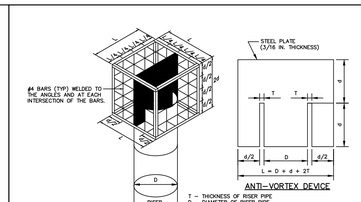
DEWATERING FACILITY SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF BASIN/TRAP.

PRIOR TO INITIATING OPERATION OF DEWATERING FACILITY, ALL ACCUMULATED SEDIMENT SHALL BE CLEANED FROM THE INSIDE OF THE BARREL.

DEWATERING FACILITY SHALL BE CONTINUOUSLY MONITORED DURING OPERATION. IF FOR ANY REASON THE DEWATERING FACILITY CEASES TO FUNCTION PROPERLY, IT SHALL BE IMMEDIATELY SHUT DOWN AND NOT RESTARTED UNTIL THE PROBLEM HAS BEEN CORRECTED.

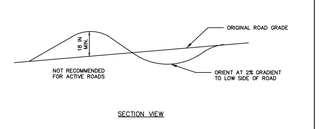
STANDARD CONSTRUCTION DETAIL #7-18
SEDIMENT BASIN OR SEDIMENT TRAP
SEDIMENT STORAGE DEWATERING FACILITY
NOT TO SCALE

DEWATERING FACILITY



STANDARD CONSTRUCTION DETAIL #7-5
TRASH RACK AND ANTI-VORTEX DEVICE
NOT TO SCALE

TRASH RACK AND ANTI-VORTEX



NOTES:

1. WATERBARS SHALL DISCHARGE TO A STABLE AREA.
2. WATERBARS SHALL BE INSPECTED WEEKLY (DAILY ON ACTIVE ROADS) AND AFTER EACH RUNOFF EVENT. DAMAGED OR ERODED WATERBARS SHALL BE RESTORED TO ORIGINAL DIMENSIONS WITHIN 24 HOURS OF INSPECTION.
3. MAINTENANCE OF WATERBARS SHALL BE PROVIDED UNTIL ROADWAY, SKIDTRAIL, OR RIGHT-OF-WAY HAS ACHIEVED PERMANENT STABILIZATION.
4. WATERBARS ON RETIRED ROADWAYS, SKIDTRAILS, AND RIGHT-OF-WAYS SHALL BE LEFT IN PLACE AFTER PERMANENT STABILIZATION HAS BEEN ACHIEVED.
5. SEE PA DEP EROSION CONTROL MANUAL TABLE 3.1 FOR WATERBAR SPACING.

REFERENCE: PADEP ENVIRONMENTAL PROTECTION EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, DATED MARCH 2012

N.T.S.

WATERBAR

MAINTENANCE PROGRAM

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION AND MAINTENANCE OF ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES AND RELATED ITEMS INCLUDED WITHIN THIS PLAN. THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR THE PROPER CONSTRUCTION AND STABILIZATION OF PERMANENT CONTROL MEASURES AND RELATED ITEMS INCLUDED WITHIN THIS PLAN.

THE OWNER WILL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL PERMANENT CONTROL MEASURES.

SOIL SEDIMENT REMOVED FROM ANY TEMPORARY CONTROL MEASURE DURING REGULAR MAINTENANCE WILL BE INCORPORATED BACK INTO THE EARTHWORK AS FILL ON THE SITE. SOIL SEDIMENT MATERIAL SHALL BE DISTRIBUTED ON-SITE WITHOUT CHANGING DRAINAGE PATTERNS DURING A SPECIFIC CONSTRUCTION STAGE.

COMPOST FILTER SOCK INSTALLED ON THE PROJECT SITE SHALL BE MAINTAINED AS FOLLOWS:

1. THE SOCK CONDITION WILL BE INSPECTED ONCE WEEK OR AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES ½ THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED OF PROPERLY.
3. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
4. ANY MANUFACTURER'S RECOMMENDATIONS WILL BE ADHERED TO FOR REPLACING THE SOCK DUE TO WEATHERING.

THE CONSTRUCTION ENTRANCE WILL BE INSPECTED AT THE END OF EACH WORK DAY. THE THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSION BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON THE SITE FOR THIS PURPOSE.

INLET PROTECTION FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF-FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET.

THE VEGETATED CHANNEL GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. NO MORE THAN 1/3 OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING.

AREAS BLANKETED WITH EROSION CONTROL MATTING SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

ALL RIP RAP APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIP RAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

WHEN SEDIMENT ACCUMULATION REACHES 1/2 THE HEIGHT OF THE ROCK FILTER, THE CONTRACTOR SHALL REMOVE SEDIMENT AND DEBRIS.

WHEN SEDIMENT ACCUMULATION REACHES 1/2 THE EFFECTIVE HEIGHT OF THE RUNOFF DIVERSION, THE CONTRACTOR SHALL REMOVE SEDIMENT AND DEBRIS.

ALL SEDIMENT BASINS SHALL BE INSPECTED ON AT LEAST A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. ACCESS SHALL BE PROVIDED FOR SEDIMENT REMOVAL AND OTHER REQUIRED MAINTENANCE ACTIVITIES. A CLEAN OUT STAKE SHALL BE PLACED NEAR THE CENTER OF EACH BASIN. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED THE CLEAN OUT ELEVATION ON THE STAKE AND THE BASIN RESTORED TO ITS ORIGINAL DIMENSIONS.

AT THE END OF EACH CONSTRUCTION DAY, ANY SEDIMENT DEPOSITED ON PUBLIC ROADWAYS WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING OF THE ROADWAY WITH WATER WILL NOT BE PERMITTED.

NOTE: THE CONTRACTOR SHALL HAVE ON SITE A WRITTEN REPORT DOCUMENTING INSPECTIONS AND REPAIRS.

MAINTENANCE NOTES

MINIMIZE EXTENT AND DURATION OF EARTH DISTURBANCE

THE PROPOSED PROJECT CONSISTS OF ESTABLISHING THE SOIL EROSION CONTROL MEASURES IN A SEQUENCE APPROPRIATE TOWARD LIMITING SOIL EROSION. THE EXTENT OF DISTURBED LAND HAS BEEN LIMITED TO INCLUDE ONLY THOSE AREAS REQUIRED FOR THE DEVELOPMENT OF THE SUBJECT SITE. ALL EARTHWORK OR OTHER ACTIVITIES ASSOCIATED WITH ACCELERATED SOIL EROSION AND SEDIMENTATION WILL BE UNDERTAKEN IN A STAGED SCHEDULE, AS SHOWN ON THE ENCLOSED PLANS, WHICH HAS BEEN DESIGNED TO LIMIT EXPOSED, UN-STABILIZED AREAS. ALL SEDIMENT AND EROSION CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED. THE SEQUENCE OF CONSTRUCTION ACTIVITIES IS OUTLINED IN THE SEQUENCE OF CONSTRUCTION CONTAINED HEREIN AND ON THE SOIL EROSION AND SEDIMENT POLLUTION CONTROL PLANS DETAILS.

MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION

THE EXTENT OF DISTURBED LAND HAS BEEN LIMITED TO INCLUDE ONLY THOSE AREAS REQUIRED FOR THE DEVELOPMENT OF THE SUBJECT SITE. EXISTING VEGETATION WITHIN THE SUBJECT PROPERTY, BUT OUTSIDE OF THE LIMIT OF DISTURBANCE, WILL BE PRESERVED AS IT CURRENTLY EXISTS. IF POSSIBLE, EXISTING VEGETATION WITHIN THE DEVELOPED AREA OF THE SUBJECT SITE WILL BE MAINTAINED AS IT CURRENTLY RESIDES. SOIL EROSION CONTROL MEASURES HAVE BEEN PROVIDED, ALONG WITH INSTALLATION GUIDELINES, SEDIMENT TRAPS & BASINS COMBINED, WITH A LEVEL SPREADER AND COMPOST FILTER SOCK, HAVE BEEN PROVIDED BETWEEN THE EDGE OF THE PROPOSED DISTURBANCE LIMITS AND THE STRREAM BUFFER, TO PREVENT ANY DEGRADATION OF THE DOWNSTREAM EXISTING DRAINAGE FEATURES.

MINIMIZE SOIL COMPACTION

THE EXTENT OF DISTURBED LAND HAS BEEN LIMITED TO INCLUDE ONLY THOSE AREAS REQUIRED FOR THE DEVELOPMENT OF THE SUBJECT SITE. ALL EARTHWORK OR OTHER ACTIVITIES ASSOCIATED WITH ACCELERATED SOIL EROSION AND SEDIMENTATION WILL BE UNDERTAKEN IN A STAGED SCHEDULE, AS SHOWN ON THE ENCLOSED PLANS, WHICH HAS BEEN DESIGNED TO LIMIT EXPOSED, UN-STABILIZED AREAS AND LIMIT VEHICULAR TRAFFIC THROUGHOUT THE SITE. ALL CONSTRUCTION ACTIVITIES ARE TO BE WITHIN THE LIMIT OF DISTURBANCE THROUGHOUT THE LIFE OF THE PROJECT. TEMPORARY CONSTRUCTION FENCE AND TREE PROTECTION FENCE HAVE BEEN PROPOSED THROUGHOUT THE SITE TO PROTECT AREAS OF SPECIAL INTEREST, SUCH AS INFILTRATION AREAS AND EXISTING TREE LINES, TO MAINTAIN INTEGRITY AFTER THE SUCCESSION OF CONSTRUCTION ACTIVITIES.

MEASURES TAKEN TO MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF

NUMEROUS MEASURES HAVE BEEN TAKEN TO MINIMIZE THE GENERATION OF INCREASED STORMWATER RUNOFF FROM THE PROPOSED IMPROVEMENTS ASSOCIATED WITH THIS PROJECT. THE MEASURES ARE EXPLAINED IN DEPTH ON SHEET 3 THROUGH SHEET 6 OF THE EROSION AND SEDIMENT POLLUTION CONTROL NARRATIVE REPORT AND CALCULATIONS.

RECYCLING/DISPOSAL OF WASTE MATERIAL

ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. THE CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASHES, ETC. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NONWATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. UNCONTAMINATED MEANS UNAFFECTED BY SPILL OR RELEASE, OR IF AFFECTED, LEVELS ARE BELOW RESIDENTIAL SHS.

ENVIRONMENTAL DUE DILIGENCE THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: *INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.*

12-13-19	REVISED PER COMMENT LETTERS	8.
12-10-18	REVISED PER MCCD COMMENTS	7.
10-22-18	REVISED PER MCCD COMMENTS	6.
6-1-18	REVISED PER MCCD COMMENTS	5.
12-15-17	REVISED PER MCCD COMMENTS	4.
11-08-17	REVISED PER COMMENT LETTERS	3.
9-29-17	REVISED PER MCCD COMMENTS	2.
8-04-17	REVISED PER COMMENT LETTERS	1.
Date	Description	No.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SOIL EROSION AND SEDIMENT CONTROL DETAILS

Project No. 240038801	Drawing No. CE-502
Date 06/07/17	
Scale NTS	
Drawn By KG	
Submission Date 6/9/2017	Sheet 108 of 187

SCALE IN FEET 200 0 100 200

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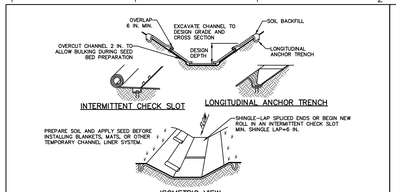


* SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STAPLE PATTERNS, VEGETATIVE STABILIZATION FOR SOIL AMENDMENTS, SEED MIXTURES AND MULCHING INFORMATION

CHANNEL NO.	STATIONS	BOTTOM WIDTH B (FT)	DEPTH D (FT)	TOP WIDTH W (FT)	Z1 (FT)	Z2 (FT)	LINING *
1	ENTIRE CHANNEL	4	1	20	8	8	S2
2	ENTIRE CHANNEL	2	2	30	7	7	S2
3	ENTIRE CHANNEL	2	1	26	12	12	S2
4	ENTIRE CHANNEL	0	2	40	10	10	S2
5	ENTIRE CHANNEL	0	2	20	5	5	S2
6	ENTIRE CHANNEL	5	1	11	3	3	S2
7	ENTIRE CHANNEL	2	1	8	3	3	S2

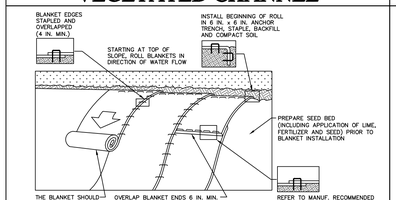
NOTES:
ANCHOR TRENCHES SHALL BE INSTALLED AT BEGINNING AND END OF CHANNEL IN THE SAME MANNER AS LONGITUDINAL ANCHOR TRENCHES.

CHANNEL DIMENSIONS SHALL BE CONSTANTLY MAINTAINED. CHANNEL SHALL BE CLEANED WHENEVER TOTAL CHANNEL DEPTH IS REDUCED BY 25% AT ANY LOCATION.
SEDIMENT DEPOSITS SHALL BE REMOVED WITHIN 24 HOURS OF DISCOVERY OR AS SOON AS SOIL CONDITIONS PERMIT ACCESS TO CHANNEL WITHOUT FURTHER DAMAGE. DAMAGED LINING SHALL BE REPAIRED OR REPLACED WITHIN 48 HOURS OF DISCOVERY.

NO MORE THAN ONE THIRD OF THE SHOOT (GRASS LEAF) SHALL BE REMOVED IN ANY MOWING. GRASS HEIGHT SHALL BE MAINTAINED BETWEEN 2 AND 3 INCHES UNLESS OTHERWISE SPECIFIED. EXCESS VEGETATION SHALL BE REMOVED FROM PERMANENT CHANNELS TO ENSURE SUFFICIENT CHANNEL CAPACITY.

STANDARD CONSTRUCTION DETAIL #6-1
VEGETATED CHANNEL
NOT TO SCALE

VEGETATED CHANNEL



NOTES:
SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

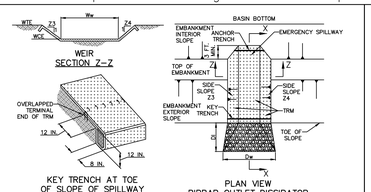
BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

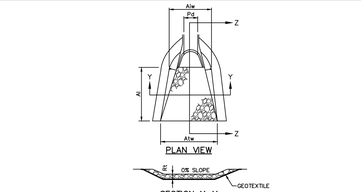
THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

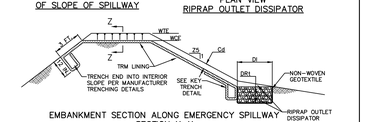
BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

STANDARD CONSTRUCTION DETAIL #11-1
EROSION CONTROL BLANKET INSTALLATION

EROSION CONTROL MATTING







EMBANKMENT SECTION ALONG EMERGENCY SPILLWAY
SECTION X-X

BASIN NO.	Z3 (FT)	Z4 (FT)	WEIR TOP ELEV WTE (FT)	WEIR CREST ELEV WCE (FT)	WEIR WIDTH Ww (FT)	TRM TYPE	LINING STAPLE PATTERN	Z5 (FT)	CHANNEL DEPTH G6 (FT)	CHANNEL LENGTH G6 (FT)	DISSIPATOR WIDTH Dw (FT)	DISSIPATOR RIPRAP SIZE (d50=__)	RIPRAP THICK. DR1 (IN)
A	3	3	288.00	286.50	160	450 LINER	SEE DETAIL	3	1.0	15	160	3	8
B	3	3	282.00	280.50	78	450 LINER	SEE DETAIL	3	1.0	15	78	3	8
C	3	3	278.10	276.10	78	450 LINER	SEE DETAIL	3	1.0	15	78	3	8
D	3	3	267.00	265.00	165	450 LINER	SEE DETAIL	3	1.0	15	165	3	8

NOTES:
HEAVY EQUIPMENT SHALL NOT CROSS OVER SPILLWAY WITHOUT PRECAUTIONS TAKEN TO PROTECT TRM LINING.

DISPLACED LINER WITHIN THE SPILLWAY AND/OR OUTLET CHANNEL SHALL BE REPLACED IMMEDIATELY.

RIPRAP AT TOE OF EMBANKMENT SHALL BE EXTENDED A SUFFICIENT LENGTH IN BOTH DIRECTIONS TO PREVENT SCOUR.

THE USE OF BAFFLES THAT REQUIRE SUPPORT POSTS ARE RESTRICTED FROM USE IN BASINS REQUIRING IMPERVIOUS LINERS.

STANDARD CONSTRUCTION DETAIL #7-13
SEDIMENT BASIN EMERGENCY SPILLWAY WITH TRM LINING
NOT TO SCALE

EMERGENCY SPILLWAY

EMBANKMENT ALONG PRINCIPAL SPILLWAY

CROSS-SECTION AT OUTLET BARREL

NOTES:
A CONCRETE CRADLE MAY BE USED IN CONJUNCTION WITH ANTI-SEEP COLLARS AND/OR FILTER DIAPHRAGM.
ANTI-SEEP COLLAR NUMBER, SIZE AND SPACING SHALL BE AS SHOWN ELSEWHERE IN PLAN.
FILTER DIAPHRAGM LOCATION (L16) SHALL BE AS SHOWN IN FIGURE 7.8 OF THE PA DEP EROSION CONTROL MANUAL.

STANDARD CONSTRUCTION DETAIL #7-17
CONCRETE CRADLE FOR BASIN OR TRAP OUTLET BARREL
NOT TO SCALE

CONCRETE CRADLE

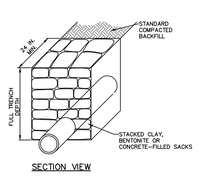
OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE R=__	RIPRAP THICK. R=__ (IN)	APRON LENGTH (FT)	APRON INITIAL WIDTH A1w (FT)	APRON TERMINAL WIDTH A1w (FT)
1	48	R-4	18	12	12	19.2
1o	18	R-5	24	24	4.5	14.1
2	36	R-3	9	12	9	13.8
3	36	R-7	30	13	9	14.2
3o	24	R-6	30	21.5	6	14.4
4	30	R-5	24	12	7.5	12.3
5	60	R-5	24	22	15	23.8
5o	18	R-3	9	6	4.5	6.9
6	36	R-3	9	13	9	14.2
6o	18	R-4	18	15	12	18
7	42	R-4	18	15	10.5	16.5
7o	48	R-6	30	18	12	19.2
11	24	R-4	18	9	6	9.6

NOTES:
ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.

ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

STANDARD CONSTRUCTION DETAIL #9-1
RIPRAP APRON AT PIPE OUTLET
WITH FLARED END SECTION OR ENDWALL
NOT TO SCALE

RIP RAP APRON



PA DEP EROSION CONTROL MANUAL TABLE 13.1
MAXIMUM SPACING AND MATERIALS FOR TRENCH PLUGS

TRENCH SLOPE (%)	SPACING L (FT)	PLUG MATERIAL
< 5	1000	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
5 – 15	500	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
15 – 25	300	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
25 – 35	200	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
35 – 100	100	* CLAY, BENTONITE, OR CONCRETE FILLED SACKS
> 100	50	CEMENT BAGS (WETTED) OR MORTARED STONE

* TOPSOIL MAY NOT BE USED TO FILL SACKS

NOTES:
IMPERVIOUS TRENCH PLUGS ARE REQUIRED FOR ALL STREAM, RIVER, WETLAND, OR OTHER WATER BODY CROSSINGS.

STANDARD CONSTRUCTION DETAIL #13-4
TRENCH PLUG INSTALLATION

TRENCH PLUG

TEMPORARY SEEDING NOTES

A) THE FOLLOWING SURFACES OF THE SITE SHALL BE TEMPORARILY SEEDED AND MULCHED
1) THE SURFACE OF TOPSOIL STOCKPILES.
2) THE SURFACE OF EXPOSED EARTH AREAS NOT SUBJECT TO CONSTRUCTION

B) SEEDING SHALL OCCUR IMMEDIATELY AFTER THE ESTABLISHMENT OF THE TOPSOIL STOCKPILES OR ROUGH GRADED AREAS. THE FOLLOWING SEED SHALL BE PLANTED:
RYEGRASS – BLUE TAG CERTIFIED – 100% – 4 TO 5 LBS. PER 1,000 SQUARE FOOT.
ANNUAL TYPE – TYPICAL.
PERENNIAL TYPE – NOT APPLICABLE

C) PREPARE AREAS TO BE SEEDED AS FOLLOWS:
1) REMOVE ALL DEBRIS, INCLUDING LARGE STONE. TILL SOIL TO A DEPTH OF FOUR INCHES TO SIX INCHES. APPLY PULVERIZED AGRICULTURAL GRADED LIME AT A RATE OF 2 TONS PER ACRE.
2) BEFORE AUGUST, SEPTEMBER OR OCTOBER SEEDING, APPLY 20–25 LBS. OF 10–20–20 FERTILIZER PER 1,000 SQUARE FEET. BEFORE FEBRUARY, MARCH, APRIL, MAY, JUNE, JULY OR NOVEMBER SEEDING, APPLY 40 LBS. OF 10–20–20 FERTILIZER PER 1,000 SQUARE FEET. WORK INTO TOP INCH OF SOIL.
3) STRAW MULCH SHOULD BE APPLIED AT A RATE OF 3 TONS PER ACRE.

D) SOW SEED AT THE INDICATED RATE. DIVIDE SEED INTO TWO EQUAL LOTS. SOW ONE LOT IN ONE DIRECTION. SOW SECOND LOT AT RIGHT ANGLE TO FIRST LOT.

E) UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF FOR A PERIOD OF FOUR (4) OR MORE DAYS, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED.

PERMANENT SEEDING NOTES

LAWN SEED MIX

1. PRIOR TO SEEDING, AREA IS TO BE TOPSOILED, FINE GRADED, AND RAKED OF ALL DEBRIS LARGER THAN 1/2" DIAMETER.
2. PRIOR TO SEEDING, CONSULT MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
3. SEEDING RATES:

PERENNIAL RYEGRASS	1 LB/1000 SQ FT
KENTUCKY BLUEGRASS	1 1/2 LB/1,000 SQ FT
RED FESCUE	1 1/2 LB/1000 SQ FT
SPREADING FESCUE	1 LB/1000 SQ FT

4. SEEDING DATES FOR THIS MIXTURE SHALL BE BETWEEN MARCH 15TH TO MAY 15TH OR AUGUST 15TH TO OCTOBER 30TH.
5. GERMINATION RATES WILL VARY AS TO TIME OF YEAR FOR SOWING. CONTRACTOR TO IRRIGATE SEEDED AREA UNTIL A STAND OF COVER IS ESTABLISHED AND FOUND ACCEPTABLE TO THE OWNER.

MEADOW SEED MIX

MEADOW SEED MIX A – ERNST SEED MIX ERNMX-183 "NATIVE DETENTION AREA MIX"

32%	PANICUM VIRGATUM "SHAWNEE"	"SHAWNEE" SWITCHGRASS	
32%	PANICUM RIGIDULUM	REDTOP PANICGRASS	
20%	ELYMUS VIRGINICUS	VIRGINIA WILDRYE	
5%	SCIRPUS ATROVIRENS	GREEN BULRUSH	
5%	AGROSTIS PERENNANS	AUTUMN BENTGRASS	
3%	JUNCUS EFFUSUS	SOFT RUSH	
2%	AGROSTIS SCABRA	TICKLEGRASS	
1%	JUNCUS TENUIS	PATH RUSH	

NOTES:
1. SEED AT A RATE OF 20 LBS./ACRE.

GENERAL SEEDING NOTES:

1. SEEDING SHALL TAKE PLACE IN THE SPRING (APRIL 1 TO JUNE 1) OR THE FALL (SEPTEMBER 1 TO OCTOBER 30).
2. ELIMINATE UNWANTED VEGETATION PRIOR TO SEEDING USING A BROAD–SPECTRUM NON–SELECTIVE HERBICIDE PER MANUFACTURER'S SPECIFICATIONS.
3. CONTRACTOR SHALL INSTALL SEED MIXTURE USING A NO–TILL TRUAX–TYPE DRILL IN AREAS TO BE SEEDED WITH MEADOW MIX.
4. CONTRACTOR SHALL IMMEDIATELY ROLL NEWLY SEEDED AREAS WITH CULTI–PACKER OR SIMILAR DEVICE TO ENSURE PROPER SEED/SOIL CONTACT.
5. CONTINUOUS MOISTURE FOR EACH 4–6 WEEKS MUST BE INSURED TO ALLOW PROPER GERMINATION. IF RAIN DOES NOT OCCUR CONTRACTOR SHALL PROVIDE SUPPLEMENTAL IRRIGATION TO NEWLY SEEDED AREAS PER INSTRUCTIONS INCLUDED IN SEEDING SPECIFICATION.
6. REMOVE ALL DEBRIS, INCLUDING LARGE STONES. TILL SOIL TO A DEPTH OF FOUR INCHES TO SIX INCHES. APPLY AGRICULTURAL PULVERIZED GRADED LIME AT A RATE OF 6 TONS PER ACRE. BEFORE JUNE 15, APPLY 1,000 lbs. OF 10–10–20 FERTILIZER PER ACRE. WORK FERTILIZER INTO TOP INCH OF SOIL. STRAW MULCH SHOULD BE APPLIED AT A RATE OF 3 TONS PER ACRE.

WEED CONTROL / MAINTENANCE

1. DURING THE ESTABLISHMENT YEAR, CONTRACTOR SHALL MOW SEEDED AREAS IF WEED HEIGHT EXCEEDS MEADOW MIX HEIGHT. MOW AT A HEIGHT OF 8"–10". DO NOT MOW CLOSE, THE MEADOW MIX MAY BE DAMAGED.
2. AFTER THE FIRST GROWING SEASON, AND IF MEADOW MIX IS WELL ESTABLISHED, THE MEADOW MIX SHALL BE MOWED ONLY ONCE ANNUALLY. ANNUAL MAINTENANCE MOWING SHALL BE DONE IN LATE WINTER DURING THE MONTH OF MARCH.

SEEDING NOTES

SEQUENCE OF CONSTRUCTION - PERMANENT WETLAND CROSSING FOR TRAIL/ROADWAY CROSSINGS

1. REFER TO SHEET GP-101 FOR PERMANENT WETLAND CROSSINGS AT THE LOCATION INDICATED ON SHEETS CE-201 TO CE-209. EXCAVATE TOPSOIL WITH THE VEGETATIVE ROOT MASS AS INDICATED ON SHEETS CE-201 TO CE-209. CAREFULLY REMOVE AND STOCKPILE SEPARATELY FROM THE SUBSOIL, UNLESS THERE IS STANDING WATER OR SOIL IS TOO SATURATED TO SEGREGATE.
2. INSTALL TRENCH PLUGS AS INDICATED ON DETAIL 13-4 ALONG THE LENGTH OF THE STORM PIPE, IF TRENCH IS NECCESARY, BENEATH THE TRAIL/ROADWAY CROSSING.
3. INSTALL STORM PIPE SYSTEM FROM DOWNSTREAM TO UPSTREAM INCLUDING HEADWALLS, PIPES AND RIP-RAP APRON. WETLAND CROSSINGS WITH CONSTRUCTION VEHICLES MUST BE AVOIDED.
4. BACKFILL ABOVE STORM PIPE AND GRADE TRAIL ACCORDING TO SHEETS CE-201 TO CE-209. FILL ADJACENT TO TRAIL/ROADWAY WITH PREVIOUSLY REMOVED TOPSOIL WITH THE VEGETATIVE ROOT MASS.
5. INSTALL TRAIL/ROADWAY ACROSS WETLAND AREA.
6. ANY DISTURBED AREAS MUST BE PERMANENTLY STABILIZED. EROSION CONTROL BLANKETS SHALL BE INSTALLED FOR ALL SEEDED AREAS WITHIN 50 FT OF THE WATER BODY. ALL SEEDED AREAS SHALL BE PLANTED WITH A NATIVE MIX CONSISTENT WITH EXISTING VEGETATION CONDITIONS.

SEQUENCE OF CONSTRUCTION - PERMANENT WETLAND CROSSING FOR UTILITY CROSSINGS

1. REFER TO SHEET GP-101 FOR PERMANENT WETLAND CROSSINGS AT THE LOCATION INDICATED ON SHEETS CE-201 TO CE-209. EXCAVATE TOPSOIL WITH THE VEGETATIVE ROOT MASS AS INDICATED ON SHEETS CE-201 TO CE-209. CAREFULLY REMOVE AND STOCKPILE SEPARATELY FROM THE SUBSOIL, UNLESS THERE IS STANDING WATER OR SOIL IS TOO SATURATED TO SEGREGATE.
2. INSTALL TRENCH PLUGS AS INDICATED ON DETAIL 13-4 ALONG THE LENGTH OF THE UTILITY TRENCH.
3. INSTALL DESIGNATED UTILITY. WETLAND CROSSINGS WITH CONSTRUCTION VEHICLES MUST BE AVOIDED.
4. BACKFILL TRENCH AND GRADE THE AREA AS INCDICATED ON SHEETS CE-201 TO CE-209 WITH PREVIOUSLY REMOVED TOPSOIL WITH THE VEGETATIVE ROOT MASS.
5. ANY DISTURBED AREAS MUST BE PERMANENTLY STABILIZED. EROSION CONTROL BLANKETS SHALL BE INSTALLED FOR ALL SEEDED AREAS WITHIN 50 FT OF THE WATER BODY. ALL SEEDED AREAS SHALL BE PLANTED WITH A NATIVE MIX CONSISTENT WITH EXISTING VEGETATION CONDITIONS.

OWNER
RF WYNNSTONE, L.P.
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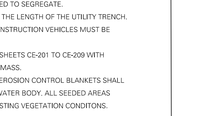
LANGAN

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

No.	Description	Date
1.	REVISED PER COMMENT LETTERS	12–13–19
2.	REVISED PER MCCD COMMENTS	12–10–18
3.	REVISED PER MCCD COMMENTS	10–22–18
4.	REVISED PER MCCD COMMENTS	6–1–18
5.	REVISED PER COMMENT LETTERS	12–15–17
6.	REVISED PER COMMENT LETTERS	11–08–17
7.	REVISED PER MCCD COMMENTS	9–29–17
8.	REVISED PER COMMENT LETTERS	8–04–17

REVISIONS



SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE–057145–E

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Langan CT, Inc.
Langan International, LLC
Collectively Known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

SOIL EROSION AND SEDIMENT CONTROL DETAILS

Project No. 240038801	Drawing No. CE-503
Date 06/07/17	
Scale NTS	
Drawn By KG	
Submission Date 6/9/2017	Sheet 109 of 187

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LANDLOK® EROSION CONTROL BLANKET PERFORMANCE VALUES ENGLISH & METRIC UNITS

MATERIAL	FUNCTIONAL LONGEVITY	MAXIMUM SHORT-TERM SHEAR STRESS AND VELOCITY (UNVEGETATED)[2]		MANNING'S "n"	C-FACTOR
		SHEAR STRESS	VELOCITY	0-6 in (0-150 mm)	
LANDLOK® 407	SHORT-TERM DEGRADABLE (1 YEAR)	–	–	–	–
LANDLOK S1	SHORT-TERM DEGRADABLE (1 YEAR)	2.0 lb/ft² 96 N/m²	n/r	n/r	0.14
LANDLOK S2	SHORT-TERM DEGRADABLE (1 YEAR)	2.0 lb/ft² 96 N/m²	5.0 - 6.0 ft/sec 1.5 - 1.8 m/sec	0.027	0.21
LANDLOK SUPERGRO®	EXTENDED-TERM DEGRADABLE (1.5 YEARS)	2.0 lb/ft² 96 N/m²	-	-	-
LANDLOK CS2	EXTENDED-TERM DEGRADABLE (2 YEARS)	2.0 lb/ft² 96 N/m²	5.0 - 6.0 ft/sec 1.5 - 1.8 m/sec	0.021	0.09
LANDLOK C2	LONG-TERM DEGRADABLE (3 YEARS)	2.0 lb/ft² 96 N/m²	5.0 - 6.0 ft/sec 1.5 - 1.8 m/sec	0.018	0.06

NOTES: 1. "n/r" not recommended for use in swales and low-flow channels.
2.Typical design limits for natural vegetation are a maximum shear stress of 2.0 lb/ft² (96 N/m²) and a velocity limit of 5.0 to 6.0 ft/sec (1.5 to 1.8 m/sec).

LANDLOK® TURF REINFORCEMENT MAT PERFORMANCE VALUES ENGLISH & METRIC UNITS

MATERIAL	FUNCTIONAL LONGEVITY	SHORT-TERM MAXIMUM SHEAR STRESS AND VELOCITY						MANNING'S "n"		
		VEGETATED[4,5]		PARTIALLY[4]		UNVEGETATED[3]		0"-6"	6"-12"	12"-24"
		SHEAR STRESS	VELOCITY	SHEAR STRESS	VELOCITY	SHEAR STRESS	VELOCITY			
LANDLOK® 450	PERMANENT	10 lb/ft² 479 N/m²	18 ft/sec 5.5 m/sec	8 lb/ft² 383 N/m²	15 ft/sec 4.6 m/sec	5 lb/ft² 239 N/m²	12 ft/sec 3.7 m/sec	0.035	0.025	0.021
LANDLOK 1051	PERMANENT	10 lb/ft² 479 N/m²	18 ft/sec 5.5 m/sec	n/a	n/a	5 lb/ft² 239 N/m²	12 ft/sec 3.7 m/sec	0.036	0.026	0.020
LANDLOK 300	PERMANENT	12 lb/ft² 576 N/m²	20 ft/sec 6.1 m/sec	–	–	–	–	0.030	0.028	0.018

NOTES: 4. Maximum permissible shear stress has been obtained through fully vegetated (70% to 100% density) testing programs featuring specific soil types, vegetation classes, flow conditions and failure criteria. These conditions may not be relevant to every project nor are they replicated by other manufacturers. Please contact Propex for further information. 5. Maximum permissible shear stress has been obtained through partially vegetated (30% to 70% density) testing programs featuring specific soil types, vegetation classes, flow conditions and failure criteria. These conditions may not be relevant to every project nor are they replicated by other manufacturers. Please contact Propex for further information. 6. Maximum permissible shear stress has been obtained through unvegetated (0% to 30% density) testing programs featuring specific soil types, vegetation classes, flow conditions and failure criteria. These conditions may not be relevant to every project nor are they replicated by other manufacturers. Please contact Propex for further information. 7. Maximum permissible shear stress achieved after only 14 weeks of vegetative establishment versus the industry standard of two full growing seasons.

NOTE: SEE SHEETS CE-200 THROUGH CE-209 FOR LOCATIONS OF SPILLWAYS AND SLOPE LININGS.

LANDLOK BY PROPEX — Product Data LANDLOK® S2

LANDLOK® S2 Erosion Control Blankets consist of 100% wheat straw mechanically bound and covered on both sides by netting. The straw is homogeneously blended and evenly distributed throughout the blanket. The netting is photodegradable and has a loose mesh openings of approximately 0.6 in. by 0.6 in. (15 mm by 15 mm). The blanket is sewn on approximately 2 in. (51 mm) centers with photodegradable polypropylene thread. This product is NTPEP approved for AASHTO standards.

PROPERTY	TEST METHOD	TYPICAL[1] ENGLISH	METRIC
PHYSICAL			
Mass/Unit Area	ASTM D-6475	9.24 oz/yd²	313 g/m²
Thickness	ASTM D-6525	335 mils	8.5 mm
MECHANICAL			
Tensile Strength (Grab)	ASTM D-6818	194 x 116 lb/ft	2.8 x 1.7 kN/m
Elongation	ASTM D-6818	29%	29%
ENDURANCE			
Functional Longevity	Observed	Up to 12 months	Up to 12 months
ROLL SIZES		8.5 x 112.5 ft	2.45 m x 34.29 m
ROLL WEIGHTS		Approx. 55 lbs.	Approx. 25 kg

NOTES:
1. The property values listed above are effective 06/2006 and are subject to change without notice. A TYPICAL value is the average value obtained when testing the product.

Propex Geotextile Systems — TESTED. PROVEN. TRUSTED. www.geotextile.com

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LANDLOK BY PROPEX — Product Data LANDLOK® 450

LANDLOK® 450 turf reinforcement mat (TRM) **features 3D® technology** that consists of a dense web of crimped, resilient, UV stabilized monofilament fibers evenly distributed over the entire thickness of the matrix and bound together by parallel stitching with polypropylene thread. The TRM is designed to accelerate seedling emergence, exhibit high resiliency, and possess strength and elongation properties to limit stretching in a saturated condition. Every roll is manufactured to **ISO 9001:2008** quality standards and certified to meet specified minimum average roll values as normally found in a natural soil environment. Furthermore, the TRM contains no biodegradable components.

LANDLOK 450 conforms to the property values listed below[1] and is manufactured at a Propex facility having achieved ISO 9001:2008 certification. Propex performs internal Manufacturing Quality Control (MQC) tests that have been accredited by the International Accreditation Institution – Laboratory Accreditation Program (DAV-LAP). This product NTPEP approved for AASHTO standards.

PROPERTY	TEST METHOD	MARV[2] ENGLISH	METRIC
ORIGIN OF MATERIALS			
% U.S. Manufactured Inputs		100%	100%
% U.S. Manufactured		100%	100%
PHYSICAL			
Mass/Unit Area	ASTM D-6566	10.0 oz/yd²	340 g/m²
Thickness	ASTM D-6525	0.40 in	10.1 mm
Light Penetration (% Passing)	ASTM D-6567	30%	30%
Color	Visual	Green or Tan	
MECHANICAL			
Tensile Strength (Grab)	ASTM D-6818	400 x 300 lb/ft	5.8 x 4.3 kN/m
Elongation	ASTM D-6818	50% (max)	50% (max)
Resiliency	ASTM D-6524	90%	90%
Flexibility	ASTM D-6575	0.026 in-lb (avg)	30,000 mg-cm (avg)
ENDURANCE			
UV Resistance @ 1000 hrs	ASTM D-4355	80%	80%
PERFORMANCE			
Velocity[3] (Vegetated)	Large Scale	18 ft/s	5.5 m/s
Shear Stress[4] (Vegetated)	Large Scale	10 lb/ft²	479 Pa
Manning's "n"[5] (Unvegetated)	Calculated	0.025	0.025
Seedling Emergence	ECTC Draft Method #4	400%	400%
ROLL SIZES		6.5 ft x 136.5 ft	2.0 m x 42.2 m

NOTES:
1. The property values listed are effective 3/4/2011 and are

NOTE: SEQUENCE OF CONSTRUCTION STEPS 1 THROUGH 16 SHALL BE REFERRED TO, AS NECESSARY, THROUGHOUT THE CONSTRUCTION PROCESS.

1. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY OF THE FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
2. AN ON-SITE PRE-CONSTRUCTION MEETING IS REQUIRED TO OCCUR NO LESS THAN 7-DAYS PRIOR TO ANY EARTH DISTURBANCE UNLESS NOTIFIED OTHERWISE BY SERO DEP OR THE MONTGOMERY COUNTY CONSERVATION DISTRICT, PERMITTEES, CO-PERMITTEES, OPERATORS, ALL APPROPRIATE MUNICIPAL OFFICIALS, REPRESENTATIVES FROM THE MONTGOMERY COUNTY CONSERVATION DISTRICT AND THE SERO DEP, AND LICENSED PROFESSIONALS OR DESIGNEES RESPONSIBLE FOR THE EARTH DISTURBANCE ACTIVITY, INCLUDING IMPLEMENTATION OF E&S AND PCSM PLANS AND CRITICAL STAGES OF IMPLEMENTATION OF THE APPROVED PCSM PLAN, SHALL ATTEND A PRECONSTRUCTION MEETING.
3. THE CRITICAL STAGES OF PCSM PLAN IMPLEMENTATION SHALL BE CONSTRUCTED WITH OVERSIGHT BY A LICENSED PROFESSIONAL OR THEIR DESIGNEE.
4. UPON INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES, THE PERMITTEE OR CO-PERMITTEE SHALL PROVIDE NOTIFICATION TO THE DEPARTMENT OR AUTHORIZED CONSERVATION DISTRICT.
5. TREE PROTECTION FENCING SHALL BE INSTALLED CONCURRENT WITH THE INSTALLATION OR STABILIZATION OF ALL PERIMETER SEDIMENT CONTROL BMPS.
6. AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC, SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
7. EACH STAGE OF THE SEQUENCE OF CONSTRUCTION MUST BE COMPLETED PRIOR TO INITIATION OF THE NEXT STAGE OF THE SEQUENCE OF CONSTRUCTION. CONSTRUCTION ACTIVITIES WITHIN EACH STAGE MAY OVERLAP PROVIDED THAT WORK WITHIN EACH AREA IS CARRIED OUT IN SEQUENCE.
8. ALL BLASTING ACTIVITY, IF REQUIRED, SHALL BE DONE IN ACCORDANCE WITH THE LOCAL, STATE AND FEDERAL REGULATIONS. CONTRACTOR SHALL NOTIFY OWNER AND ALL REGULATORY AGENCIES IN WRITING PRIOR AND OBTAIN ANY NECESSARY PERMITS PRIOR TO ANY BLASTING ACTIVITIES.
9. IN ORDER TO PROTECT INFILTRATION BMPS FROM SEDIMENT DAMAGE, THE PROPOSED INFILTRATION BMPS SHALL NOT BE INSTALLED UNTIL THE UPSLOPE DRAINAGE AREAS HAVE A UNIFORM 70% STABILIZATION. ADDITIONALLY, PROTECTIVE CONSTRUCTION FENCING SHALL BE PROVIDED AROUND THE BMPS SO THAT EXCESSIVE COMPACTION DOES NOT TAKE PLACE IN THESE AREAS. THESE AREAS ARE THE VEGETATED FILTER STRIPS, WATER PUMPED FROM WORK AREAS MUST BE TREATED FOR SEDIMENT REMOVAL PRIOR TO DISCHARGING TO A SURFACE WATER. A PUMPED WATER FILTER BAG DETAIL HAS BEEN PROVIDED ON CE-501 - SOIL EROSION AND SEDIMENT CONTROL DETAILS.
10. LIMIT CLEARING AND GRUBBING TO ACCESS ROAD TO THE SEDIMENT BASINS AND TRAP AREAS. ALL SEDIMENT BASINS AND TRAP AREAS MUST BE CLEARED AND GRUBBED FIRST, AND THESE EROSION CONTROL MEASURES INSTALLED BEFORE THE TRIBUTARY AREAS TO THESE BASINS AND TRAPS CAN BE CLEARED AND GRUBBED. IF ADDITIONAL FILL IS NECESSARY FOR THE SEDIMENT BASIN INSTALLATION, THE BORROW AREA SHALL BE TAKEN FROM AREAS IMMEDIATELY UPSTREAM OF THE BASIN LOCATION IN ORDER TO MINIMIZE DISTURBANCE. CLEAR AND GRUB AREA OF PROPOSED DISTURBED AREA FOR EACH APPROPRIATE CONSTRUCTION SECTION, ONE AT A TIME.
11. SEDIMENT BASINS SHALL REMAIN FUNCTIONAL UNTIL ALL UPSLOPE CONTRIBUTING DRAINAGE AREAS ARE STABILIZED. SEDIMENT BASINS AND TRAPS ARE TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER DISTURBANCE ACTIVITIES. UPON INSTALLATION OF THE SEDIMENT BASIN RISER(S), SKIMMER, OR CONCRETE RISER WITH TEMPORARY DEWATERING HOLES, AN IMMEDIATE INSPECTION OF THE RISER(S), SKIMMER OR CONCRETE RISER WITH TEMPORARY DEWATERING HOLES SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER EROSION CONTROL DEVICE IS INSTALLED AND SEALED, PER THE SOIL EROSION AND SEDIMENT CONTROL PLANS. SEDIMENT BASINS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.
12. ONCE ALL THE TEMPORARY EROSION CONTROLS HAVE BEEN CONSTRUCTED AND STABILIZED, THE CONTRACTOR CAN PROCEED WITH FURTHER CONSTRUCTION WITHIN THE CURRENT STAGE, THE CONTRACTOR CAN ONLY WORK WITHIN THE CURRENT STAGE AND THE BORROW AREA DELINEATED BY THE CURRENT STAGE BOUNDARY. IF FOR ANY REASON, EARTH DISTURBANCE IS REQUIRED WITHIN THE A SEPARATE STAGE, THE CONTRACTOR MUST NOTIFY THE CONSERVATION DISTRICT, ONCE THE CURRENT STAGE HAS BEEN TEMPORARILY STABILIZED, CONSTRUCTION MAY BEGIN IN THE FURTHER STAGES, WITH APPROVAL FROM THE CONSERVATION DISTRICT.
13. PLACE TOPSOIL AND EXCESS FILL MATERIAL IN AREAS DESIGNATED ON THE PLAN, WITHIN THE CURRENT STAGE BOUNDARY. INSTALL LANDLOK S-2 MATTING ON ALL 3:1 SLOPES IMMEDIATELY AFTER ANY 3:1 GRADING HAS BEEN COMPLETED. PERFORM TEMPORARY STABILIZATION AND/OR PERMANENT STABILIZATION PROCEDURES IMMEDIATELY AFTER ANY EARTHMOVING ACTIVITIES HAVE BEEN COMPLETED. STABILIZATION OF FILL SLOPES SHALL BE IN 15 TO 25 FOOT VERTICAL INCREMENTS, NO MORE THAN 15,000 SQUARE FEET OF DISTURBED AREA SHALL REACH FINAL GRADE BEFORE INITIATING SEEDING AND MULCHING OPERATIONS. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY THAT WILL EXCEED FOUR DAYS, OR ANY STAGE THEREOF, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION, THE UNDERGROUND UTILITIES WITHIN THE ROADWAY SHALL BE INSTALLED AT THE SAME TIME OF THE ROAD GRADING TO AVOID POTENTIAL CONFLICTS.
14. THE EARTH MOVING ACTIVITY SHALL BEGIN IN AREAS OF CUT SO THAT THE CUTS CAN BE PLACED IN AREAS OF FILL. PLACE TOPSOIL AND EXCESS FILL MATERIAL IN AREAS DESIGNATED ON THE PLAN. ANY FILL IMPORTED TO THE SITE SHALL BE PLACED IN THE AREAS DESIGNATED ON THE PLANS. IMMEDIATELY INSTALL EROSION CONTROL BLANKETS (LANDLOK S2) IN ALL AREAS EXCEEDING 3:1 SLOPE AS SHOWN ON THE PLANS. STABILIZATION OF FILL SLOPES SHALL BE IN 15 TO 25 FOOT VERTICAL INCREMENTS, ALL UNDISTURBED AREAS SHALL BE STABILIZED IMMEDIATELY WITH TEMPORARY SEED AND MULCH AS PER NOTED ON DRAWING CE-502.
15. AS PAVED SECTIONS OF ROADWAY ARE COMPLETED THROUGHOUT THE SITE, INSTALL THE ROCK CONSTRUCTION ENTRANCES WITH WHEEL WASHES AS NECESSARY, TO CONTAIN ANY SEDIMENT ON-SITE AND OFF OF THE FINISHED PAVEMENT SECTION TO THE GREATEST EXTEND POSSIBLE.
16. TOPSOIL SHALL BE REPLACED IMMEDIATELY FOLLOWING ANY MASS GRADING ON-SITE AND STABILIZED WITH GRASS. THE MAXIMUM UNSTABILIZED DISTURBED AREA SHALL BE LIMITED TO 40 ACRES AT A TIME.
17. FOR ALL BMP CONSTRUCTION, REFER TO THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR SPECIFIC BMP INSTALLATION GUIDELINES AND SEQUENCING.
18. UPON PERMANENT STABILIZATION OF EARTH DISTURBANCE ACTIVITY AND INSTALLATION OF BMPS, THE PERMITTEE AND/OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION (NOT) TO THE DEPARTMENT OR AUTHORIZED MONTGOMERY COUNTY CONSERVATION DISTRICT.

SEQUENCE OF CONSTRUCTION - PHASE 1

STAGE 1

19. INSTALL CONSTRUCTION ENTRANCE #1 OFF OF SWAMP PIKE WHERE SHOWN ON CE-100.
20. INSTALL COMPOST FILTER SOCKS 22c, 22d, 23a, 23, 23a, 23b, 23c, 23d, 24, 53, 54, 54a, 55, 56.
21. INSTALL TREE PROTECTION FENCE WHERE SHOWN ON SHEETS CE-100 - CE-109.
22. INSTALL SOIL STOCKPILES IN PHASE 1 AS SHOWN ON CE-100 - CE-109.
23. **CRITICAL STAGE - SEDIMENT BASIN A, BASIN C, AND COMPOST SOCK SEDIMENT TRAP 2 SHOULD BE EXCAVATED TO ELEVATIONS SHOWN ON DRAWINGS CE-101 - CE-109. INSTALL THE LAST SECTIONS OF THE STORM PIPE NETWORKS THAT DRAIN INTO THE SEDIMENT BASINS AND TRAPS ALONG WITH THE RIP RAP APRONS. INSTALL THE OUTLET PIPE BARREL AND CONNECTION TO OUTLET CONTROL STRUCTURE. INSTALL ANTI-SEEP COLLARS AND CONCRETE CRADLE ALONG OUTLET PIPE FROM BASIN AND WATERTIGHT SEALS ON ALL STRUCTURES WITHIN THE BASIN. INSTALL THE PERMANENT OUTLET STRUCTURE AND PLATE ORIFICES. INSTALL THE TEMPORARY PERFORATED RISER. THE CLEANOUT STAKE SHALL BE PLACED. CONSTRUCT EMERGENCY SPILLWAY AND INSTALL EMERGENCY SPILLWAY LINER. INSTALL BAFFLES IN THE SEDIMENT BASIN. ONCE COMPLETED, STABILIZE THE SEDIMENT BASINS AS INDICATED ON DETAILS. THE SEDIMENT BASINS AND TRAPS SHALL REMAIN FUNCTIONAL UNTIL ALL UPSLOPE CONTRIBUTING DRAINAGE AREAS ARE STABILIZED. THE SEDIMENT BASIN IS TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER DISTURBANCE ACTIVITIES. UPON INSTALLATION OF THE SEDIMENT BASINS OR TRAP RISER, AN IMMEDIATE INSPECTION OF THE RISER SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER EROSION CONTROL DEVICE IS INSTALLED AND SEALED, PER THE SOIL EROSION AND SEDIMENT CONTROL PLANS. SEDIMENT BASINS AND TRAPS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.**
24. THE COMPLETION OR CESSATION OF EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF FOR A PERIOD OF FOUR (4) OR MORE DAYS REQUIRES TEMPORARY STABILIZATION. STABILIZE WITH TEMPORARY SEED AND MULCH AS PER NOTES ON DRAWING CE-503.
25. INSPECTIONS WILL BE REQUIRED FOR THE CRITICAL INSTALLATION PERIODS OF THE VARIOUS PCSM BMPS.

STAGE 2

26. INSTALL COMPOST FILTER SOCKS 25, 26, 27, 28, 29, 30, 49, 50, 52, 59, 58, 60, 61, 62, 74, 75, 76, 77, 78
27. ROUGH GRADE PHASE 1 AS IDENTIFIED ON DRAWINGS CE-200 - CE-209. AFTER BULK GRADING IS COMPLETE, THE DISTURBED AREAS SHOULD RECEIVE TOPSOIL AND BE STABILIZED. BEGIN CONSTRUCTION OF TRAILS AND OTHER RECREATIONAL IMPROVEMENTS IN PHASE 1. REMOVE ALL NOXIOUS VEGETATION (POISON IVY AND OTHER INVASIVE PLANTS, PER PADCNR). THE TEMPORARY RISER IN EACH SEDIMENT BASIN SHALL REMAIN INSTALLED UNTIL THE CONTRIBUTING DRAINAGE AREA TO THE BASIN HAS BEEN AND STABILIZED.
28. BEGIN CONSTRUCTION OF THE PHASE 1 ON-SITE UTILITIES AS IDENTIFIED ON DRAWING CE-200 TO CE-209 OF THE E&S PLANS AND CU-100 TO CU-109 OF THE LAND DEVELOPMENT PLANS. ON-SITE SUBSURFACE UTILITIES SHALL CONSIST OF GAS, ELECTRIC, TELEPHONE, CABLE, WATER, AND SANITARY SEWERS. ADVANCE TRENCH EXCAVATION SHALL BE LIMITED TO THE LENGTH OF PIPE THAT CAN BE COMPLETED IN THE SAME DAY. ON THE DAY FOLLOWING UTILITY INSTALLATION, THE TRENCH AREA SHALL BE GRADED TO SUBGRADE ELEVATION. HYDROSEEDING AND/OR LIQUID MULCHING OF DISTURBED AREAS SHALL BE COMPLETED AT THE END OF EACH WORK DAY.
29. ROUGH GRADE THE PHASE 1 PROPOSED ROADWAYS AS IDENTIFIED ON DRAWINGS CE-200 - CE-209. CONSTRUCT CURBING ALONG ROADWAYS. WHERE CROSSING WETLAND AREAS, AS SHOWN ON SHEETS CE-201 TO CE-209, REFER TO SHEET CE-503 FOR THE SEQUENCE OF CONSTRUCTION FOR SPECIFICS ON THE CONSTRUCTION OF PERMANENT WETLANDS CROSSINGS.
30. PLACE GRAVEL SUBBASE AND BITUMINOUS BASE COURSE IN AREAS OF PROPOSED PAVEMENT.
31. THE INDIVIDUAL BUILDING LOTS WILL BE CONSTRUCTED IN CONCENTRATED GROUPING TO THE MAXIMUM EXTENT POSSIBLE. INDIVIDUAL LOT BMPS MAY BE REQUIRED TO PROTECT ALREADY COMPLETED LOTS AND OTHER SENSITIVE AREAS. INSTALL DRIVEWAY APRON AND GRAVEL SUBBASE FOR DRIVEWAYS. INSTALL NECESSARY FOUNDATIONS AND CONSTRUCT HOUSES. INSTALL DRIVEWAY PAVING, COMPLETE FINAL LOT GRADING AND IMMEDIATELY STABILIZE WITH PERMANENT SEED AND MULCH AS PER NOTES ON DRAWINGS CE-503.
32. COMPLETE FINAL PHASE 1 GRADING AND LANDSCAPE OF ALL APPROPRIATE AREAS, ONCE SLOPES, CHANNELS, DITCHES, AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. STABILIZE WITH PERMANENT SEED AND MULCH AS PER NOTES ON DRAWING CE-503. REFER TO CG-401 OF THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR SPECIFIC BMP INSTALLATION GUIDELINES AND SEQUENCING.
33. **CRITICAL STAGE - INSTALL REMAINING PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS (INCLUDING ROOFTOP DISCONNECTS, VEGETATED FILTER STRIPS, SLOW RELEASE BASINS, SOIL AMENDMENTS, AND TREE PLANTINGS (REVEGETATING/REFORESTING). THE CONSERVATION DISTRICT SHALL BE CONTACTED PRIOR TO PCSM BMP INSTALLATION TO CONFIRM ADEQUATE VEGETATIVE COVERAGE ON-SITE. REFER TO CG-401 OF THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS, FOR SPECIFIC BMP INSTALLATION GUIDELINES AND SEQUENCING.**
34. CONSTRUCTION ENTRANCE, COMPOST FILTER SOCK, TREE PROTECTION FENCE, INLET PROTECTION, SILT FENCE, SEDIMENT TRAP AND SEDIMENT BASINS SHALL BE MAINTAINED UNTIL ALL IMPROVEMENTS TO THE SITE ARE COMPLETED, ROAD AREAS ARE PAVED, AND UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NONVEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION HAS BEEN ESTABLISHED.
35. **CRITICAL STAGE - ONCE ALL PERMANENT MEASURES HAVE BEEN INSTALLED, CLEAN OUT ACCUMULATED SILT FROM THE SEDIMENT BASIN, GRADE SEDIMENT BASIN AND SPILLWAY FOR SEDIMENT BASINS TO THE PERMANENT ELEVATIONS SHOWN FOR THE PERMANENT BASINS, REMOVE THE CONSTRUCTION ENTRANCES, SILT FENCE,COMPOST FILTER SOCK, AND INLET PROTECTION. ALL DISTURBED AREAS CAUSED BY THE REMOVAL OF TEMPORARY SEDIMENT POLLUTION CONTROL DEVICES MUST BE PERMANENTLY STABILIZED. CONTRACTOR MUST SCHEDULE A SITE INSPECTION WITH MONTGOMERY COUNTY CONSERVATION DISTRICT PRIOR TO REMOVAL OR CONVERSION OF E&S BMPS.**
36. **CRITICAL STAGE - PCSM BMPS SHALL BE INSPECTED BY A LICENSED PROFESSIONAL TO ENSURE THAT THEY HAVE NOT BEEN IMPACTED BY CONSTRUCTION ACTIVITIES.**
37. **CRITICAL STAGE - CONVERSION OF SEDIMENT BASINS AND TRAPS TO PERMANENT BASINS.**
38. INSPECTIONS WILL BE REQUIRED FOR THE CRITICAL INSTALLATION PERIODS OF THE VARIOUS PCSM BMPS.

NOTE: THE EXISTING SUBGRADE OF THE PROPOSED BASIN BED AREAS SHALL NOT BE SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT TRAFFIC. WHERE POSSIBLE GRADING WORK AND INSTALLATION OF UNDERDRAIN SHALL BE DONE USING LIGHT WEIGHT EQUIPMENT. EQUIPMENT SHALL BE KEPT OFF OF BED BOTTOM AREAS AS MUCH AS POSSIBLE TO PREVENT COMPACTION. IT IS NOTED THAT THE ELEVATION OF SEDIMENT BASIN A IS 2 FEET LOWER THAN THE PERMANENT EVELATION OF SLOW RELEASE BASIN A. THEREFORE, AFTER THE ACCUMULATED SILT HAS BEEN REMOVED FROM SEDIMENT BASIN A, IT WILL BE AT THE ELEVATION OF THE BOTTOM OF THE FILTER MEDIA FOR THE SLOW RELEASE BASIN. IT IS ALSO NOTED THAT THE TOP OF BERM FOR BASIN A WILL NEED TO BE RAISED UPON BASIN CONVERSATION.

SEQUENCE FOR SEDIMENT BASIN CONVERSION

- **38.1. CLEAN OUT ACCUMULATED SILT FROM THE SEDIMENT BASIN.**
- **38.2. REMOVE BAFFLES AND CLEANOUT STAKE.**
- **38.3. REMOVE ORIFICE PLATES FROM PERMANENT OUTLET STRUCTURE**
- **38.4. REMOVE TEMPORARY RISER**
- **38.5. REMOVE ALL TEMPORARY TRASH RACKS.**
- **38.6. EXCAVATE TO BOTTOM OF FILTER MEDIA ELEVATION, AND IN THE CASE OF BASIN A RAISE EMERGENCY SPILLWAY AND TOP OF BERM TO PCSM ELEVATIONS.**
- **38.7. INSTALL PROPOSED UNDERDRAIN AND CONNECT TO THE PERMANENT OUTLET CONTROL STRUCTURE.**
- **38.8. INSTALL FILTER MEDIA IN BOTTOM OF SLOW RELEASE BASINS.**

SEQUENCE OF CONSTRUCTION - PHASE 2 & 2A

STAGE 1

39. INSTALL CONSTRUCTION ENTRANCES #2 AND #3 OFF OF SWAMP PIKE AND NORTH CHARLOTTE STREET WHERE SHOWN ON CE-100.
40. INSTALL COMPOST FILTER SOCKS 1, 2, 13, 14, 17, 18, 19,
41. INSTALL SOIL STOCKPILES IN PHASE 2 AS SHOWN ON CE-100 - CE-109.
42. **CRITICAL STAGE - SEDIMENT BASIN D SHOULD BE EXCAVATED TO ELEVATIONS SHOWN ON DRAWINGS CE-101 - CE-109. INSTALL THE LAST SECTIONS OF THE STORM PIPE NETWORKS THAT DRAIN INTO THE SEDIMENT BASIN ALONG WITH THE RIP RAP APRONS. INSTALL THE OUTLET PIPE BARREL AND CONNECTION TO OUTLET CONTROL STRUCTURE. INSTALL ANTI-SEEP COLLARS AND CONCRETE CRADLE ALONG OUTLET PIPE FROM BASIN AND WATERTIGHT SEALS ON ALL STRUCTURES WITHIN THE BASIN. INSTALL THE PERMANENT OUTLET STRUCTURE AND PLATE ORIFICES. INSTALL THE TEMPORARY PERFORATED RISER. THE CLEANOUT STAKE SHALL BE PLACED. CONSTRUCT EMERGENCY SPILLWAY AND INSTALL EMERGENCY SPILLWAY LINER. INSTALL BAFFLES IN THE SEDIMENT BASIN. ONCE COMPLETED, STABILIZE THE SEDIMENT BASIN AS INDICATED ON DETAILS. THE SEDIMENT BASIN SHALL REMAIN FUNCTIONAL UNTIL ALL UPSLOPE CONTRIBUTING DRAINAGE AREAS ARE STABILIZED. THE SEDIMENT BASIN IS TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER DISTURBANCE ACTIVITIES. UPON INSTALLATION OF THE SEDIMENT BASIN D OR TRAP RISER, AN IMMEDIATE INSPECTION OF THE RISER SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER EROSION CONTROL DEVICE IS INSTALLED AND SEALED, PER THE SOIL EROSION AND SEDIMENT CONTROL PLANS. SEDIMENT BASINS AND TRAPS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.**
43. THE COMPLETION OR CESSATION OF EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF FOR A PERIOD OF FOUR (4) OR MORE DAYS REQUIRES TEMPORARY STABILIZATION. STABILIZE WITH TEMPORARY SEED AND MULCH AS PER NOTES ON DRAWING CE-503.
44. INSPECTIONS WILL BE REQUIRED FOR THE CRITICAL INSTALLATION PERIODS OF THE VARIOUS PCSM BMPS.

STAGE 2

45. INSTALL COMPOST FILTER SOCKS 3, 3a, 3b, 3c, 4, 5, 6, 7, 7a, 82, 82a, 82b, 82c, 82d.
46. ROUGH GRADE PHASE 2 AS IDENTIFIED ON DRAWINGS CE-200 - CE-209. AFTER BULK GRADING IS COMPLETE, THE DISTURBED AREAS SHOULD RECEIVE TOPSOIL AND BE STABILIZED. BEGIN CONSTRUCTION OF TRAILS AND OTHER RECREATIONAL IMPROVEMENTS IN PHASE 2. REMOVE ALL NOXIOUS VEGETATION (POISON IVY AND OTHER INVASIVE PLANTS, PER PADCNR). THE TEMPORARY RISER IN EACH SEDIMENT BASIN SHALL REMAIN INSTALLED UNTIL THE CONTRIBUTING DRAINAGE AREA TO THE BASIN HAS BEEN AND STABILIZED.
47. INSTALL REMAINING PORTION OF THE PHASE 2 PERMANENT STORM DRAINAGE SYSTEM . THE STORM DRAINAGE SYSTEM MUST BE INSTALLED FROM DOWNSTREAM POINT OF DISCHARGE INTO SEDIMENT BASINS AND TRAPS TO UPSTREAM POINTS. ADVANCE TRENCH EXCAVATION SHOULD BE LIMITED TO THE LENGTH OF PIPE THAT CAN BE COMPLETED IN THE SAME DAY. INSTALL INLET PROTECTION WHERE SHOWN ON DRAWINGS CE-200 - CE-209 AS PER DETAIL PROVIDED ON DRAWING CE-501. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE ROADS RECEIVE THE FINAL WEARING COURSE. A BERM SHALL BE CONSTRUCTED AT EACH INLET IN THE PROPOSED ROAD TO DIRECT WATER INTO THE INLETS UNTIL THE FINAL WEARING COURSE OF PAVEMENT IS PLACED, SEE DETAIL ON SHEET CE-502.
48. BEGIN CONSTRUCTION OF THE PHASE 2 ON-SITE UTILITIES AS IDENTIFIED ON DRAWING CE-200 TO CE-209 OF THE E&S PLANS AND CU-100 TO CU-109 OF THE LAND DEVELOPMENT PLANS. ON-SITE SUBSURFACE UTILITIES SHALL CONSIST OF GAS, ELECTRIC, TELEPHONE, CABLE, WATER, AND SANITARY SEWERS. ADVANCE TRENCH EXCAVATION SHALL BE LIMITED TO THE LENGTH OF PIPE THAT CAN BE COMPLETED IN THE SAME DAY. ON THE DAY FOLLOWING UTILITY INSTALLATION, THE TRENCH AREA SHALL BE GRADED TO SUBGRADE ELEVATION. HYDROSEEDING AND/OR LIQUID MULCHING OF DISTURBED AREAS SHALL BE COMPLETED AT THE END OF EACH WORK DAY.
49. ROUGH GRADE THE PHASE 2 PROPOSED ROADWAYS AS IDENTIFIED ON DRAWINGS CE-200 - CE-209. CONSTRUCT CURBING ALONG ROADWAYS. WHERE CROSSING WETLAND AREAS, AS SHOWN ON SHEETS CE-201 TO CE-209, REFER TO SHEET CE-503 FOR THE SEQUENCE OF CONSTRUCTION FOR SPECIFICS ON THE CONSTRUCTION OF PERMANENT WETLANDS CROSSINGS.
50. PLACE GRAVEL SUBBASE AND BITUMINOUS BASE COURSE IN AREAS OF PROPOSED PAVEMENT.
51. THE INDIVIDUAL BUILDING LOTS WILL BE CONSTRUCTED IN CONCENTRATED GROUPING TO THE MAXIMUM EXTENT POSSIBLE. INDIVIDUAL LOT BMPS MAY BE REQUIRED TO PROTECT ALREADY COMPLETED LOTS AND OTHER SENSITIVE AREAS. INSTALL DRIVEWAY APRON AND GRAVEL SUBBASE FOR DRIVEWAYS. INSTALL NECESSARY FOUNDATIONS AND CONSTRUCT HOUSES. INSTALL DRIVEWAY PAVING, COMPLETE FINAL LOT GRADING AND IMMEDIATELY STABILIZE WITH PERMANENT SEED AND MULCH AS PER NOTES ON DRAWINGS CE-503.
52. COMPLETE FINAL PHASE 2 GRADING AND LANDSCAPE OF ALL APPROPRIATE AREAS, ONCE SLOPES, CHANNELS, DITCHES, AND OTHER DISTURBED AREAS REACH FINAL GRADE, THEY MUST BE STABILIZED. STABILIZE WITH PERMANENT SEED AND MULCH AS PER NOTES ON DRAWING CE-503. REFER TO CG-401 OF THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS FOR SPECIFIC BMP INSTALLATION GUIDELINES AND SEQUENCING.
53. **CRITICAL STAGE - INSTALL REMAINING PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS (INCLUDING ROOFTOP DISCONNECTS, SOIL AMENDMENTS, TREE PLANTINGS (REVEGETATING/REFORESTING), AND SUBSURFACE DETENTION BASIN. THE CONSERVATION DISTRICT SHALL BE CONTACTED PRIOR TO PCSM BMP INSTALLATION TO CONFIRM UNIFORM 70% PERENNIAL VEGETATIVE COVER ON-SITE. REFER TO CG-401 OF THE POST CONSTRUCTION STORMWATER MANAGEMENT PLANS, FOR SPECIFIC BMP INSTALLATION GUIDELINES AND SEQUENCING.**
54. CONSTRUCTION ENTRANCE, COMPOST FILTER SOCK, TREE PROTECTION FENCE, INLET PROTECTION, SILT FENCE, SEDIMENT TRAP AND SEDIMENT BASINS SHALL BE MAINTAINED UNTIL ALL IMPROVEMENTS TO THE SITE ARE COMPLETED, ROAD AREAS ARE PAVED, AND UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NONVEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION HAS BEEN ESTABLISHED.
55. **CRITICAL STAGE - ONCE ALL PERMANENT MEASURES HAVE BEEN INSTALLED, CLEAN OUT ACCUMULATED SILT FROM THE SEDIMENT BASIN, GRADE SEDIMENT BASIN AND SPILLWAY FOR SEDIMENT BASINS TO THE PERMANENT ELEVATIONS SHOWN FOR THE PERMANENT BASINS, REMOVE THE CONSTRUCTION ENTRANCES, SILT FENCE,COMPOST FILTER SOCK, AND INLET PROTECTION. ALL DISTURBED AREAS CAUSED BY THE REMOVAL OF TEMPORARY SEDIMENT POLLUTION CONTROL DEVICES MUST BE PERMANENTLY STABILIZED. CONTRACTOR MUST SCHEDULE A SITE INSPECTION WITH MONTGOMERY COUNTY CONSERVATION DISTRICT PRIOR TO REMOVAL OR CONVERSION OF E&S BMPS.**
56. **CRITICAL STAGE - PCSM BMPS SHALL BE INSPECTED BY A LICENSED PROFESSIONAL TO ENSURE THAT THEY HAVE NOT BEEN IMPACTED BY CONSTRUCTION ACTIVITIES.**
57. NOTE : SEDIMENT BASIN D TO BE MAINTAINED AS IT WILL BE USED AS A SEDIMENT BASIN IN PHASE 4 AS WELL.

SEQUENCE OF CONSTRUCTION - PHASE 3

STAGE 1

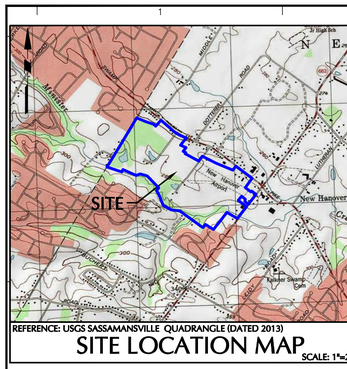
58. INSTALL CONSTRUCTION ENTRANCE #5 OFF OF WEST VIEW DRIVE, AND ROCK CONSTRUCTION ENTRANCES #9 AND #10 OFF TOWNSHIP LINE ROAD AS SHOWN ON SHEETS CE-200 TO CE-209.
59. INSTALL COMPOST FILTER SOCKS 45, 47, 47a, 48, 66, 70.
60. INSTALL TREE PROTECTION FENCE WHERE SHOWN ON SHEETS CE-100 - CE-109.
61. INSTALL SOIL STOCKPILES IN PHASE 3 AS SHOWN ON CE-100 - CE-109.
62. **CRITICAL STAGE - SEDIMENT BASIN B, AND COMPOST SOCK SEDIMENT TRAP 1 SHOULD BE EXCAVATED TO ELEVATIONS SHOWN ON DRAWINGS CE-101 - CE-109. INSTALL THE LAST SECTIONS OF THE STORM PIPE NETWORKS THAT DRAIN INTO THE SEDIMENT BASINS AND TRAPS ALONG WITH THE RIP RAP APRONS. INSTALL THE OUTLET PIPE BARREL AND CONNECTION TO OUTLET CONTROL STRUCTURE. INSTALL ANTI-SEEP COLLARS AND CONCRETE CRADLE ALONG OUTLET PIPE FROM BASIN AND WATERTIGHT SEALS ON ALL STRUCTURES WITHIN THE BASIN. INSTALL THE PERMANENT OUTLET STRUCTURE AND PLATE ORIFICES. INSTALL THE TEMPORARY PERFORATED RISER. THE CLEANOUT STAKE SHALL BE PLACED. CONSTRUCT EMERGENCY SPILLWAY AND INSTALL EMERGENCY SPILLWAY LINER. INSTALL BAFFLES IN THE SEDIMENT BASIN. ONCE COMPLETED, STABILIZE THE SEDIMENT BASINS AS INDICATED ON DETAILS. THE SEDIMENT BASINS AND TRAPS SHALL REMAIN FUNCTIONAL UNTIL ALL UPSLOPE CONTRIBUTING DRAINAGE AREAS ARE STABILIZED. THE SEDIMENT BASIN IS TO BE STABILIZED AND FUNCTIONING PROPERLY PRIOR TO ANY FURTHER DISTURBANCE ACTIVITIES. UPON INSTALLATION OF THE SEDIMENT BASINS OR TRAP RISER, AN IMMEDIATE INSPECTION OF THE RISER SHALL BE CONDUCTED BY A QUALIFIED SITE REPRESENTATIVE AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING THAT THE PROPER EROSION CONTROL DEVICE IS INSTALLED AND SEALED, PER THE SOIL EROSION AND SEDIMENT CONTROL PLANS. SEDIMENT BASINS AND TRAPS MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES.**
63. THE COMPLETION OR CESSATION OF EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF FOR A PERIOD OF FOUR (4) OR MORE DAYS REQUIRES TEMPORARY STABILIZATION. STABILIZE WITH TEMPORARY SEED AND MULCH AS PER NOTES ON DRAWING CE-503.

SEQUENCE OF CONSTRUCTION - PHASE 3 CONTINUED

64. INSPECTIONS WILL BE REQUIRED FOR THE CRITICAL INSTALLATION PERIODS OF THE VARIOUS PCSM BMPS.

STAGE 2

65. INSTALL COMPOST FILTER SOCKS 23e, 23f, 25, 26, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44, 46, 63, 64, 65, 67, 68, 69, 71, 72, 73.
66. ROUGH GRADE PHASE 3 AS IDENTIFIED ON DRAWINGS CE-200 - CE-209. AFTER BULK GRADING IS COMPLETE, THE DISTUR



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'

KEY MAP

SCALE 1"=1000'

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

PENNSYLVANIA ONE CALL SYSTEM, INC. STOP, LOOK, AND DIG

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776

FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES

* IT'S THE LAW *

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

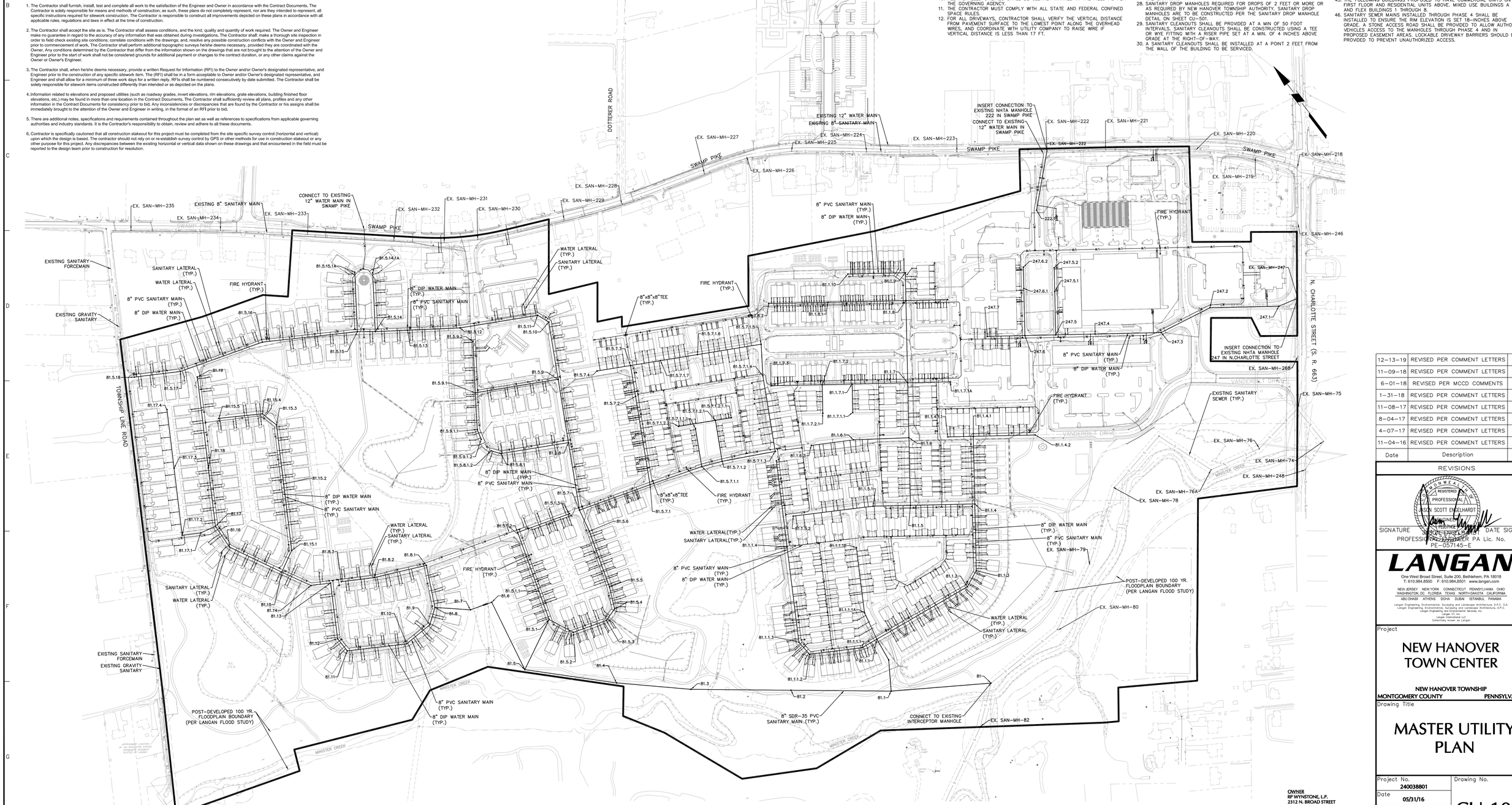
- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN (U F M)
- PR. WATER MAIN (U W)
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR (260)
- PR. SPOT ELEVATION (x 360.3)
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRIAL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

GENERAL SITE NOTES:

1. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor is solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all applicable instructions required for sitework construction. The Contractor is responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction.
2. The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner and Engineer make no guarantee in regard to the accuracy of any information that was obtained during investigations. The Contractor shall: make a thorough site inspection in order to field-check existing site conditions; correlate conditions with the drawings; and, resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall perform additional topographic surveys he/she deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.
3. The Contractor shall, when he/she deems necessary, provide a written Request for Information (RFI) to the Owner and/or Owner's designated representative, and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and/or Owner's designated representative, and Engineer and shall allow for a minimum of three work days for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.
4. Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to bid. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the format of an RFI prior to bid.
5. There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.
6. Contractor is specifically cautioned that all construction stakeout for this project must be completed from the site specific survey control (horizontal and vertical) upon which the design is based. The contractor should not rely on or re-establish survey control by GPS or other methods for use in construction stakeout or any other purpose for this project. Any discrepancies between the existing horizontal or vertical data shown on these drawings and that encountered in the field must be reported to the design team prior to construction for resolution.

UTILITY NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR SHALL NOTIFY UNDERGROUND LOCATION SERVICE AT 1-800-272-1000 AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF EXCAVATION WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS IN A MANNER WHICH WILL NOT NEGATIVELY AFFECT ANY EXISTING USERS OF THESE UTILITIES.
2. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRICAL, TELEPHONE AND GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE REGULATORY AGENCY AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
3. THE LOCATION OF EXISTING ELECTRIC LINES ARE APPROXIMATE. THE CONTRACTOR SHOULD CONSULT LOCAL UTILITY COMPANIES FOR ADDITIONAL INFORMATION.
4. ALL ELECTRICAL WORK, TRANSFORMER PAD, AND ASSOCIATED APPURTENANCES WILL BE IN CONFORMANCE WITH APPLICABLE LOCAL, COUNTY, STATE AND FEDERAL GUIDELINES AND REQUIREMENTS. MIN. DEPTH OF COVER OVER ELECTRIC, GAS, AND CABLE SHALL BE 2 FT.
5. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN BY THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
6. ALL WATER MAINS ARE TO BE CLASS 52 DIP AND HAVE A MINIMUM COVER OF 4.0 FEET FROM THE TOP OF THE PIPE.
7. CONTRACTOR MUST NOTIFY TOWNSHIP OF NEW HANOVER 3 DAYS PRIOR TO COMMENCEMENT OF ANY WORK RELATED TO SANITARY SEWER AND/OR WATER, ON-SITE OR OFF-SITE.
8. ALL WORK PERTAINING TO THE WATER SYSTEM SHALL BE IN ACCORDANCE WITH THE RULES AND REGULATIONS SET FORTH BY AQUA PENNSYLVANIA, INC.
9. ALL WORK PERTAINING TO THE SEWER SYSTEM SHALL BE IN ACCORDANCE WITH THE CURRENT VERSION OF THE NEW HANOVER TOWNSHIP AUTHORITY SANITARY SEWER MANUAL.
10. ALL INSTALLED UTILITIES SHALL BE CLEARLY MARKED IN THE FIELD AS PER THE GOVERNING AGENCY.
11. THE CONTRACTOR MUST COMPLY WITH ALL STATE AND FEDERAL CONFINED SPACE RULES.
12. FOR ALL DRIVEWAYS, CONTRACTOR SHALL VERIFY THE VERTICAL DISTANCE FROM PAVEMENT SURFACE TO THE LOWEST POINT ALONG THE OVERHEAD WIRES, AND COORDINATE WITH UTILITY COMPANY TO RAISE WIRE IF VERTICAL DISTANCE IS LESS THAN 17 FT.
13. FIRE HYDRANTS MUST MEET THE SPECIFICATIONS OF THE NEW HANOVER TOWNSHIP FIRE DEPARTMENT.
14. ANY PROPOSED DEVIATIONS FROM STANDARD CONSTRUCTION DETAILS, SHALL BE SUBJECT TO THE APPROVAL BY THE APPROPRIATE AGENCY.
15. ANY REFERENCE TO "ENGINEER" AND/OR "APPROVAL" SHALL BE INTERPRETED TO MEAN THE APPROPRIATE AGENCY OR APPROVAL BY THE APPROPRIATE AGENCY
16. ALL CONSTRUCTION, MATERIALS, RESTORATION AND METHODS OF INSTALLATION IN TOWNSHIP ROADS SHALL BE SUBJECT TO THE REQUIREMENTS AND APPROVAL OF THE NEW HANOVER TOWNSHIP.
17. ALL CONSTRUCTION, MATERIALS, RESTORATION AND METHODS OF INSTALLATION IN COUNTY ROADS SHALL BE SUBJECT TO THE REQUIREMENTS AND APPROVAL OF MONTGOMERY COUNTY.
18. SANITARY SEWER CONSTRUCTION, MATERIALS, AND TESTING SHALL BE SUBJECT TO THE APPROVAL AND INSPECTION BY NEW HANOVER TOWNSHIP AUTHORITY.
19. THE CONTRACTOR SHALL PAY ALL FEES INCLUDING INSPECTION FEES, AND GIVE NOTICES NECESSARY FOR, AND INCIDENTAL TO THE EXECUTION OF THE PROJECT.
20. NO MATERIAL SHALL BE PLACED OR ANY DISTURBANCE PERMITTED BEYOND THE PROJECT PROPERTY LINE OR RIGHT-OF-WAY WITHOUT THE WRITTEN PERMISSION OF THE PROPERTY OWNER DIRECTLY INVOLVED.
21. INSPECTION OF, OR FAILURE TO INSPECT ANY MATERIALS OR WORKMANSHIP BY STATE, COUNTY OR TOWNSHIP OFFICIALS SHALL IN NO WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES TO PERFORM THE WORK IN ACCORDANCE WITH APPLICABLE PLANS, SPECIFICATION AND LAWS.
22. WATER SERVICE FACILITIES WILL BE DEDICATED TO AQUA PA AND SANITARY SEWER FACILITIES WILL BE DEDICATED TO NEW HANOVER TOWNSHIP AUTHORITY.
23. ALL ELECTRIC TRANSFORMERS SHALL BE INSTALLED UNDERGROUND OR WITHIN THE WALLS OF A COMPLETELY ENCLOSED ACCESSORY BUILDING.
24. PRECONSTRUCTION MEETING MUST BE SCHEDULED WITH NEW HANOVER TOWNSHIP AUTHORITY AND THEIR ENGINEER A MINIMUM OF TWO WEEKS PRIOR TO THE START OF ANY SANITARY SEWER CONSTRUCTION.
25. SHOP DRAWINGS MUST BE SUBMITTED TO NEW HANOVER TOWNSHIP AUTHORITY FOR ALL MATERIALS AND APPURTENANCES USED IN THE SEWER SYSTEM PRIOR TO ORDERING ANY OF THESE ITEMS. A MINIMUM OF TWO WEEKS MUST BE ALLOWED FOR REVIEW AND APPROVAL OF SUCH SHOP DRAWINGS.
26. ALL SEWER WORK MUST BE REVIEWED BY NEW HANOVER TOWNSHIP AUTHORITY AS THE INSTALLATION PROGRESSES. WORK PERFORMED WITHOUT SUCH INSPECTION IS SUBJECT TO REJECTION. A MINIMUM OF FORTY-EIGHT (48) HOURS ADVANCE NOTICE TO NEW HANOVER TOWNSHIP IS REQUIRED.
27. DEPRESSED CURB SHALL BE INSTALLED AT SPECIFIED LOCATIONS TO PROVIDE ACCESS TO THE SANITARY SEWER MAIN WHERE THE MAIN LEAVES THE CARTWAY.
28. SANITARY DROP MANHOLES REQUIRED FOR DROPS OF 2 FEET OR MORE OR AS REQUIRED BY NEW HANOVER TOWNSHIP AUTHORITY. SANITARY DROP MANHOLES ARE TO BE CONSTRUCTED PER THE SANITARY DROP MANHOLE DETAIL ON SHEET CU-501.
29. SANITARY CLEANOUTS SHALL BE PROVIDED AT A MIN OF 50 FOOT INTERVALS. SANITARY CLEANOUTS SHALL BE CONSTRUCTED USING A TEE OR WYE FITTING WITH A RISER PIPE SET AT A MIN. OF 4 INCHES ABOVE GRADE AT THE RIGHT-OF-WAY.
30. A SANITARY CLEANOUTS SHALL BE INSTALLED AT A POINT 2 FEET FROM THE WALL OF THE BUILDING TO BE SERVICED.
31. EACH SANITARY LATERAL SHALL HAVE A TRAP/VENT ASSEMBLY. SEE NEW HANOVER TOWNSHIP AUTHORITY STANDARD DETAIL DRAWING S-24.
32. SANITARY LATERALS ARE REQUIRED TO BE 6-INCH DIAMETER TO THE RIGHT-OF-WAY/PROPERTY LINE. SEE NEW HANOVER TOWNSHIP AUTHORITY STANDARD DETAIL DRAWING S-24.
33. PER NEW HANOVER TOWNSHIP AUTHORITY REQUIREMENTS THE INTERIOR OF THE DUCTILE IRON SANITARY MAIN SHALL HAVE A COATING OF EPOXY LINING.
34. EXISTING SANITARY MANHOLE LABEL NUMBERING WAS TAKEN FROM A PLAN ENTITLED "SANITARY SEWER SYSTEM" DATED 4/17/14.
35. ALL EXISTING SEPTIC TANKS ON THE SUBJECT PROPERTY THAT REQUIRE REMOVAL OR TO BE PROPERLY ABANDONED SHOULD BE IDENTIFIED PRIOR TO CONSTRUCTION. WELLS SHOULD BE PROPERLY ABANDONED TO PROTECT THE AQUIFER FROM CONTAMINATION. REMOVAL OR ABANDONMENT SHOULD BE COMPLETED PER TOWNSHIP REQUIREMENTS.
36. THE RUNNING TRAP WITH COMBINED TRAP, VENT AND CLEANOUT SHALL BE AN ACCEPTABLE OPTION ON A CASE BY CASE BASIS PER AUTHORITY APPROVAL DURING INSTALLATION.
37. EXISTING SANITARY SEWER LATERALS SHOULD BE ABANDONED BY EXCAVATING TO THE SEWER MAIN CONNECTION AND ADDING A WATERTIGHT CAP TO THE WYE OR TEE FITTING. THE ABANDONED SEWER LATERAL SHOULD BE FILLED WITH GROUT.
38. ALL PROPOSED SANITARY DROP MANHOLES AND THE MANHOLE DOWN STREAM OF THE DROP MANHOLE SHALL BE LINED WITH PVC LINING.
39. A BLANKET EASEMENT WILL BE OFFERED TO NEW HANOVER TOWNSHIP AUTHORITY FOR ACCESS AND MAINTENANCE OF THE THE SEWER MAINS, MANHOLES, AND APPURTENANCES.
40. PROTECTION BOXES ARE REQUIRED OVER SANITARY CLEANOUT AND VENT/TRAP ASSEMBLIES IN SIDEWALKS AND TRAFFIC LOADING PAVEMENT AREAS SUCH AS DRIVEWAYS AND ROADS.
41. SANITARY MANHOLES 81.2, 81.13, 81.5.7, AND 81.5.8 ARE PROPOSED TO BE INSTALLED AT GREATER THAN 16-FEET OF COVER AND WILL REQUIRE A SAFETY PLATFORM AND SHALL ALSO BE A MINIMUM OF 5-FEET IN DIAMETER.
42. GREASE TRAPS SHOULD BE SIZED WITH 30 MINUTES OF RETENTION TIME. IF TANKS ARE FOUND TO BE UNDERSIZED DURING OPERATION, NHTA RESERVES THE RIGHT TO REQUIRE ADDITIONAL TANKS TO BE INSTALLED.
43. THE ASSOCIATION WILL ENSURE ALL SANITARY SEWER EASEMENT AREAS WILL BE KEPT CLEAR, THIS INCLUDES BUT IS NOT LIMITED TO STRUCTURES, FENCES, AND PLANTINGS OF SHRUBS AND TREES. THE CLEAR AREA SHOULD INCLUDE 30 FEET AS CENTERED ON SANITARY SEWER MAIN AND 10 FEET AS CENTERED ON SANITARY SEWER LATERAL.
44. ALL SANITARY SEWER EASEMENT AREAS WILL BE DESIGNED SO THAT THE EASEMENTS WILL BE EASILY PASSABLE WITH A PICKUP TRUCK AND MAINTENANCE EQUIPMENT.
45. THE FOLLOWING BUILDINGS PROPOSED TO HAVE COMMERCIAL UNITS ON THE FIRST FLOOR AND RESIDENTIAL UNITS ABOVE. MIXED USE BUILDINGS A & B AND FLEX BUILDINGS 1 THROUGH 8.
46. SANITARY SEWER MAINS INSTALLED THROUGH PHASE 4 SHALL BE INSTALLED TO ENSURE THE RIM ELEVATION IS SET 18-INCHES ABOVE GRADE. A STONE ACCESS ROAD SHALL BE PROVIDED TO ALLOW AUTHORITY VEHICLES ACCESS TO THE MANHOLES THROUGH PHASE 4 AND IN PROPOSED EASEMENT AREAS. LOCKABLE DRIVEWAY BARRIERS SHOULD BE PROVIDED TO PREVENT UNAUTHORIZED ACCESS.



No.	Date	Description
1.	11-04-16	REVISED PER COMMENT LETTERS
2.	4-07-17	REVISED PER COMMENT LETTERS
3.	8-04-17	REVISED PER COMMENT LETTERS
4.	11-08-17	REVISED PER COMMENT LETTERS
5.	1-31-18	REVISED PER COMMENT LETTERS
6.	6-01-18	REVISED PER MCCD COMMENTS
7.	11-09-18	REVISED PER COMMENT LETTERS
8.	12-13-19	REVISED PER COMMENT LETTERS

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER No. PE057145 E

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan International LLC Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

MASTER UTILITY PLAN

Project No. 240038801	Drawing No. CU-100
Date 05/31/16	
Scale 1"=150'	
Drawn By KG	
Submission Date	Sheet 111 of 187

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

150 0 75 150
SCALE IN FEET

LANGAN
PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

Filename: I:\langan.com\data\BE\data8-240038801\cadd data - 240038801\sheetfiles\240038801 CU100.dwg Date: 12/13/2019 Time: 15:28 User: dmoyer Style Table: Langan.stb Layout: 240038801 CU100 - CU-100
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MATCHLINE CU-102

MATCHLINE-CU-106

MATCHLINE-CU-107

SWAMP PIKE

MIDDLE CREEK ROAD

TOWNSHIP LINE ROAD

EXISTING CLEANOUT (TYP.)

EX. SAN-MH-235
RIM=309.75
INV=300.45

EX. SAN-MH-234

EX. SAN-MH-233

EX. SAN-MH-232

EXISTING GRAVITY 8" SANITARY MAIN

APPROX. SAMH LOCATION ACCORDING TO TOWNSHIP PLANS(PAVED OVER)

RIM=310.71
INV IN=305.81
INV OUT=304.41

RIM=304.94
INV IN=296.89
INV OUT=296.89

RIM=305.35
INV IN=295.25
INV OUT=295.12

RIM=305.82
INV IN=293.84
INV OUT=293.79

CONNECT TO EXISTING WATER MAIN (CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION PRIOR TO CONSTRUCTION)

CONNECT LATERAL TO EXISTING 12" WATER MAIN (CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION PRIOR TO CONSTRUCTION)

CONNECT LATERAL TO EXISTING 8" SANITARY MAIN (CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION PRIOR TO CONSTRUCTION)

EXISTING UTILITY POLE TO BE RELOCATED (CONTRACTOR TO COORDINATE WITH UTILITY COMPANY)

8" PVC SANITARY LATERAL T.O.S.W. MIN
4" DOM. SERVICE

OFFICE BUILDING A

11.25° BEND WITH THRUST BLOCK
45° BEND WITH THRUST BLOCK
11.25° BEND WITH THRUST BLOCK
81.5.15.1A
RIM: 297.02
INV. OUT: 290.64

8"x8"x8" TEE (TYP.)

81.5.14.1A
RIM: 297.60
INV. OUT: 291.52

45° BEND WITH THRUST BLOCK

45° BEND WITH THRUST BLOCK VH-18

VH-20
VH-21
VH-22
VH-23
VH-24
VH-25
VH-26
VH-27
VH-28

237 LF 8" SDR-35 PVC @ 2.13%

236 LF 8" SDR-35 PVC @ 1.82%

81.5.14 DROP MH WITH PVC LINING
RIM: 292.83
INV. IN (8" NE): 287.28
INV. IN (8" NW): 279.34
INV. OUT: 279.24

8"x8"x8" TEE (TYP.)

4" SANITARY LATERAL TO BLDG. 2% MIN. (TYP.)

3/4" WATER SERVICE FOR VILLAGE HOUSE UNITS (TYP.)

CURB STOP (TYP.)

4" CLEANOUT WITH VENT/TRAP ASSEMBLY LOCATED 2' FROM WALL (TYP.)

CLEANOUT (TYP.)

8"x8"x8" TEE (TYP.)

6" SANITARY LATERAL TO R.O.W. AT 2% MIN. (TYP.)

8"x8"x8" TEE (TYP.)

129 LF 8" SDR-35 PVC @ 0.50%

72 LF 8" SDR-35 PVC @ 0.50%

FIRE HYDRANT (TYP.)

10' HORIZONTAL SEPARATION (TYP.)

81.5.13 WITH PVC LINING
RIM: 292.05
INV. OUT: 278.50
INV. IN (8" NW): 278.60

210 LF 8" SDR-26 PVC @ 0.50%

8" DIP WATER MAIN (TYP.)

81.5.15 DROP MH WITH PVC LINING
RIM: 292.15
INV. IN (6" NW): 279.80
INV. IN (8" NE): 285.54
INV. OUT: 279.70

INV. IN (8" INV.

EXISTING UTILITY POLES TO BE RELOCATED (CONTRACTOR TO COORDINATE WITH UTILITY COMPANY)

RIM=293.61
INV IN=285.21
INV OUT=285.06

11.25° BEND WITH THRUST BLOCK

COMBINATION AIR/VENT VALVE (TYP.)

185 LF 8" SDR-35 PVC @ 1.00%

4" SANITARY LATERAL TO BLDG. 2% MIN. (TYP.)

3/4" WATER SERVICE FOR VILLAGE HOUSE UNITS (TYP.)

CURB STOP (TYP.)

4" CLEANOUT WITH VENT/TRAP ASSEMBLY LOCATED 2' FROM WALL (TYP.)

CLEANOUT (TYP.)

6" SANITARY LATERAL TO R.O.W. AT 2% MIN. (TYP.)

COMBINATION AIR/VENT VALVE (TYP.)

11.25° BEND WITH THRUST BLOCK

81.5.16
RIM: 292.40
INV. IN: 283.43
INV. OUT: 283.33

FIRE HYDRANT (TYP.)

381 LF 8" SDR-35 PVC @ 0.50%

8" DIP WATER MAIN (TYP.)

347 LF 8" SDR-35 PVC @ 0.50%

FIRE HYDRANT (TYP.)

45° BENDS WITH THRUST BLOCKS

8" DIP WATER MAIN (TYP.)

(8"x8"x8" TEE (TYP.)

11.25° BEND WITH THRUST BLOCK

81.5.17
RIM: 293.38
INV. IN: 285.26
INV. OUT: 285.16

81.5.18
RIM: 292.15
INV. OUT: 287.11

81.17.4
RIM: 291.75
INV. OUT: 285.09

81.19
RIM: 292.10
INV. OUT: 285.72

366 LF 8" SDR-35 PVC @ 1.00%

RIM=287.40
INV IN=280.10
INV IN=280.19
INV OUT=280.00

236 LF 8" SDR-35 PVC @ 1.75%

COMBINATION AIR/VENT VALVE (TYP.)

10' HORIZONTAL SEPARATION (TYP.)

81.17.3
RIM: 288.22
INV. IN: 280.96
INV. OUT: 280.86

81.18
RIM: 293.88
INV. IN: 282.06
INV. OUT: 281.96

EXISTING SANITARY FORCEMAIN

EXISTING GRAVITY SANITARY

FIRE HYDRANT (TYP.)

234 LF 8" SDR-35 PVC @ 1.50%

270 LF 8" SDR-35 PVC @ 1.50%

81.17 DROP MH WITH PVC LINING
RIM: 288.34
INV. IN (8" NE): 278.45
INV. IN (8" W): 275.92
INV. OUT: 275.82

10' HORIZONTAL SEPARATION (TYP.)

267 LF 8" SDR-35 PVC @ 1.00%

22.5° BEND WITH THRUST BLOCK

8"x8"x8" TEE (TYP.)

81.16
WITH PVC LINING
RIM: 287.02
INV. IN (8" N): 275.32
INV. OUT: 275.22

81.17.2
RIM: 283.12
INV. IN: 276.82
INV. OUT: 276.72

64 LF 8" SDR-35 PVC @ 0.50%

75 LF 8" SDR-35 PVC @ 0.50%

RIM=282.08
INV IN=277.59
INV OUT=277.59

22.5° BEND WITH THRUST BLOCK

22.5° BEND WITH THRUST BLOCK

COMBINATION AIR/VENT VALVE (TYP.)

22.5° BEND WITH THRUST BLOCK

2-45° BENDS WITH THRUST BLOCKS

8"x8"x8" TEE (TYP.)

45° BENDS WITH THRUST BLOCKS

81.17.1
RIM: 284.87
INV. IN: 276.34
INV. OUT: 276.24

100 LF 8" SDR-35 PVC @ 0.50%

72 LF 8" SDR-35 PVC @ 0.80%

81.15.5
RIM: 293.45
INV. OUT: 284.77

175 LF 8" SDR-35 PVC @ 0.91%

81.15.4
RIM: 291.64
INV. IN: 283.18
INV. OUT: 283.08

81.15.3
RIM: 290.89
INV. IN: 282.51
INV. OUT: 282.41

45° BEND WITH THRUST BLOCKS

8"x8"x8" TEE (TYP.)

8" DIP WATER MAIN (TYP.)

1427 LF 8" SDR-35 PVC @ 1.50%

81.15.2
RIM: 288.52
INV. IN: 280.04
INV. OUT: 279.94

81.15.1
RIM: 288.08
INV. IN (8" NE): 277.27
INV. OUT: 277.17

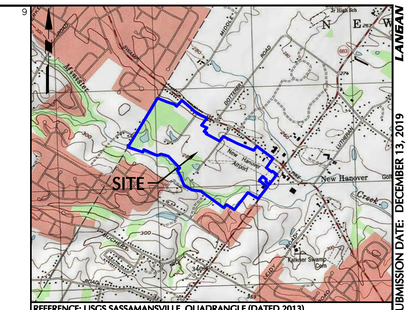
8" DIP WATER MAIN (TYP.)

81.8.1
RIM: 286.62
INV. IN: 279.85
INV. OUT: 279.75

8"x8"x8" TEE

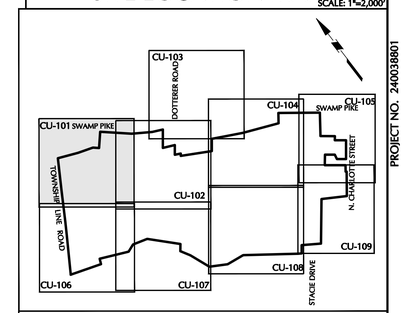
W.E. 277.2

SCALE IN FEET
50 0 25 50



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

GENERAL SITE NOTES:

1. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor is solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all specific instructions required for sitework construction. The Contractor is responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction.

2. The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner and Engineer make no guarantee in regard to the accuracy of any information that was obtained during investigations. The Contractor shall: make a thorough site inspection in order to field check existing site conditions; correlate conditions with the drawings; and, resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall perform additional topographic surveys he/she deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.

3. The Contractor shall, when he/she deems necessary, provide a written Request for Information (RFI) to the Owner and/or Owner's designated representative, and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and/or Owner's designated representative, and Engineer and shall allow for a minimum of three work days for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.

4. Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to bid. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the format of an RFI prior to bid.

5. There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.

6. Contractor is specifically cautioned that all construction stakeout for this project must be completed from the site specific survey control (horizontal and vertical) upon which the design is based. The contractor should not rely on or re-establish survey control by GPS or other methods for use in construction stakeout or any other purpose for this project. Any discrepancies between the existing horizontal or vertical data shown on these drawings and that encountered in the field must be reported to the design team prior to construction for resolution.

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT, P.E. DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

EXISTING LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND

PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	U F M
PR. WATER MAIN	U W
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	350
PR. SPOT ELEVATION	× 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRAIL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441731

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *

LANGAN
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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CO, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
UTILITY PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	KG
Submission Date	
Drawing No.	CU-101
Sheet	112 of 187

OWNER
RP WYNNSTONE, L.P.
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PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Filename: \\langan.com\data\BE\data\240038801\cadd data - 240038801\sheetfiles\240038801 CU101-109.dwg Date: 12/13/2019 Time: 15:31 User: dmoyer Style Table: Langan.stb Layout: CU-101

LANGAN

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

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MATCHLINE-CU-101

MATCHLINE-CU-103

MATCHLINE-CU-104

MATCHLINE-CU-107

SWAMP PIKE

WATER MAIN

EX. SAN–MH–227

EX. SAN–MH–228

EX. SAN–MH–229

EX. SAN–MH–230

EX. SAN–MH–231

EX. SAN–MH–232

CONNECT TO EXISTING WATER MAIN (CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION PRIOR TO CONSTRUCTION)

CONNECT LATERAL TO EXISTING 12" WATER MAIN (CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION PRIOR TO CONSTRUCTION)

CONNECT LATERAL TO EXISTING 8" SANITARY MAIN (CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION PRIOR TO CONSTRUCTION)

EXISTING UTILITY POLE TO BE RELOCATED (CONTRACTOR TO COORDINATE WITH UTILITY COMPANY)

CONNECT LATERAL TO EXISTING 8"SANITARY MAIN (CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION PRIOR TO CONSTRUCTION)

EXISTING GRAVITY SANITARY

EXISTING CLEANOUT (TYP.)

APPROX. SAMH LOCATION ACCORDING TO TOWNSHIP PLANS(PAVED OVER)

RIM=305.35
INV IN=295.25
INV OUT=295.12

RIM=305.82
INV IN=293.84
INV OUT=298.79

RIM=305.81
INV IN=293.66
INV OUT=293.58

RIM=302.80
INV IN=291.95
INV OUT=291.90

RIM=290.09
INV=290.64

6" PVC SANITARY LATERAL 1.00% MIN.

4" DOM. SERVICE

OFFICE BUILDING A

OFFICE BUILDING B

11.25° BEND WITH THRUST BLOCK

45° BEND WITH THRUST BLOCK

8"X8"X8" TEE (TYP.)

81.5.14.1A
RIM: 297.60
INV. OUT: 291.52

81.5.14 DROP MH WITH PVC LINING
RIM: 292.83
INV. IN (8" NE): 287.28
INV. IN (8" NW): 279.34
INV. OUT: 279.24

8"X8"X8" TEE (TYP.)

237 LF 8" SDR-35 PVC @ 1.15%

129 LF 8" SDR-35 PVC @ 0.50%

72 LF 8" SDR-35 PVC @ 0.50%

FIRE HYDRANT (TYP.)

10' HORIZONTAL SEPARATION (TYP.)

81.5.13
WITH PVC LINING
RIM: 292.05
INV. IN (8" NW): 278.60
INV. OUT: 278.50

8" DIP WATER MAIN (TYP.)

4" CLEANOUT WITH VENT/TRAP ASSEMBLY LOCATED 2' FROM WALL (TYP.)

CLEANOUT (TYP.)

4" SANITARY LATERAL TO BLDG. 2% MIN. (TYP.)

3/4" WATER SERVICE FOR VILLAGE HOUSE UNITS (TYP.)

CURB STOP (TYP.)

6" SANITARY LATERAL TO R.O.W. AT 2% MIN. (TYP.)

8"X6"X6" TEE (TYP.)

FIRE HYDRANT (TYP.)

45° BEND WITH THRUST BLOCK

22.5° BENDS WITH THRUST BLOCKS

COMBINATION AIR/VENT VALVE (TYP.)

8"X2" BLOWOFF VALVE

81.5.11
5FT DIA. MANHOLE WITH SAFTEY PLATFORM
RIM: 291.90
INV. IN: 275.79
INV. OUT: 275.69

52 LF 8" SDR-26 PVC @ 0.50%

81.5.10
5FT DIA. MANHOLE WITH SAFTEY PLATFORM
RIM: 291.33
INV. IN: 275.43
INV. OUT: 275.33

314 LF 8" SDR-26 PVC @ 0.50%

81.5.12
RIM: 291.89
INV. IN (8" NW): 277.45
INV. OUT: 277.36

210 LF 8" SDR-26 PVC @ 0.50%

81.5.9.2
RIM: 292.88
INV. OUT: 285.96

232 LF 8" SDR-26 PVC @ 0.50%

81.5.9
5FT DIA. MANHOLE WITH SAFTEY PLATFORM WITH PVC LINING
RIM: 290.21
INV. IN: 274.17
INV. IN: 274.17
INV. OUT: 274.07

207 LF 8" SDR-35 PVC @ 2.00%

10' HORIZONTAL SEPARATION (TYP.)

8"X8"X8" TEE (TYP.)

81.5.7.3
RIM: 292.52
INV. IN: 283.72
INV. IN: 283.72
INV. OUT: 283.62

81.5.7.4
RIM: 291.30
INV. OUT: 285.08

8"X8"X8" TEE (TYP.)

135 LF 8" SDR-35 PVC @ 1.00%

125 LF 8" SDR-35 PVC @ 0.50%

116 LF 8" SDR-35 PVC @ 1.00%

150 LF 8" SDR-35 PVC @ 2.56%

CURB STOP (TYP.)

1" WATER SERVICE FOR TOWNHOUSE UNITS (TYP.)

81.5.7.1.5
RIM: 285.83
INV. IN: 279.89
INV. OUT: 279.79

81.5.7.1.6
RIM: 289.03
INV. IN: 281.05
INV. OUT: 280.95

81.5.7.1.4
RIM: 285.30
INV. IN: 278.16
INV. OUT: 278.06

257 LF 8" SDR-35 PVC @ 0.50%

6" SANITARY LATERAL TO R.O.W. AT 2% MIN.(TYP.)

4" SANITARY LATERAL TO BLDG. 2% MIN.

4" CLEANOUT WITH VENT/TRAP ASSEMBLY LOCATED 2' FROM WALL (TYP.)

CLEANOUT

81.5.7.1.7
RIM: 291.15
INV. OUT: 284.88
INV. OUT: 284.88

81.5.7.2
RIM: 291.83
INV. IN: 283.00
INV. OUT: 282.90

8"X8"X8" TEE (TYP.)

8" DIP WATER MAIN (TYP.)

81.5.7.1.2.1
RIM: 292.02
INV. IN (8" NW): 283.62
INV. IN (8" SE): 283.52
INV. OUT: 283.42

81.5.7.1.2.2
RIM: 293.88
INV. OUT: 286.05

81.5.7.1.1.1
RIM: 292.34
INV. OUT: 284.49

81.5.7.1.2.1.1
RIM: 291.22
INV. OUT: 284.16

64 LF 8" SDR-35 PVC @ 1.63%

149 LF 8" SDR-35 PVC @ 1.00%

155 LF 8" SDR-35 PVC @ 3.50%

168 LF 8" SDR-35 PVC @ 2.00%

84 LF 8" SDR-35 PVC @ 0.50%

357 LF 8" SDR-35 PVC @ 0.75%

COMBINATION AIR/VENT VALVE (TYP.)

FIRE HYDRANT (TYP.)

8"X8"X8" TEE (TYP.)

81.5.7.1.3
RIM: 288.93
INV. IN: 276.53
INV. OUT: 276.42

216 LF 8" SDR-35 PVC @ 0.50%

81.5.7.1.2 DROP MH WITH PVC LINING
RIM: 285.64
INV. IN (8" NE): 280.10
INV. IN (8" SE): 275.34
INV. OUT: 275.24

219 LF 8" SDR-26 PVC @ 0.50%

81.5.7.1 DROP MH WITH PVC LINING
RIM: 287.74
INV. IN (8" NE): 280.22
INV. IN (8" E): 273.63
INV. OUT: 273.53

81.5.7.1.1 DROP MH WITH PVC LINING
RIM: 285.61
INV. IN (8" SE): 274.82
INV. IN (8" NE): 279.07
INV. OUT: 274.72

6" SANITARY LATERAL TO R.O.W. AT 2% MIN. (TYP.)

4" SANITARY LATERAL TO BLDG. 2% MIN. (TYP.)

CURB STOP (TYP.)

1" WATER SERVICE FOR TOWNHOUSE UNITS (TYP.)

81.1.8
RIM: 283.5
INV. OUT: 273.7

81.1.1.4 DROF

81.5.9.1 DROP MH WITH PVC LINING
RIM: 290.61
INV. IN (8" NE): 281.83
INV. IN (8" SW): 278.49
INV. OUT: 278.39

335 LF 8" SDR-26 PVC @ 1.26%

8" DIP WATER MAIN (TYP.)

146 LF 8" SDR-35 PVC @ 0.50%

22.5° BEND WITH THRUST BLOCK

81.5.9.1.1
RIM: 289.18
INV. IN: 279.32
INV. OUT: 279.22

42 LF 8" SDR-35 PVC @ 1.00%

40 LF 8" PVC @ 1.00%

4" CLEANOUT WITH VENT/TRAP ASSEMBLY LOCATED 2' FROM WALL (TYP.)

CLEANOUT (TYP.)

4" SANITARY LATERAL TO BLDG. 2% MIN. (TYP.)

3/4" WATER SERVICE FOR VILLAGE HOUSE UNITS (TYP.)

CURB STOP (TYP.)

FIRE HYDRANT (TYP.)

6" SANITARY LATERAL TO R.O.W. AT 2% MIN. (TYP.)

8"X8"X8" TEE (TYP.)

COMBINATION AIR/VENT VALVE (TYP.)

81.5.9.1.2
RIM: 288.80
INV. OUT: 279.74

81.5.8.1.2
RIM: 288.53
INV. OUT: 279.00

45° BENDS WITH THRUST BLOCKS

81.5.8.1
RIM: 286.69
INV. IN: 276.60
INV. OUT: 276.50

273 LF 8" SDR-26 PVC @ 0.50%

81.5.8 DROP MH
5FT DIA. MANHOLE WITH SAFTEY PLATFORM WITH PVC LINING
RIM: 292.20
INV. IN: 277.13
INV. IN: 272.79
INV. OUT: 272.69

81.5.7
5FT DIA. MANHOLE WITH SAFTEY PLATFORM WITH PVC LINING
RIM: 288.41
INV. IN: 279.32
INV. IN: 271.32
INV. OUT: 271.12

81.5.1.3
RIM: 287.62
INV. OUT: 279.18

COMBINATION AIR/VENT VALVE (TYP.)

8"X8"X8"X8" CROSS (TYP.)

299 LF 8" SDR-26 PVC @ 0.74%

220 LF 8" SDR-35 PVC @ 0.64%

293 LF 8" SDR-26 PVC @ 0.50%

45° BENDS WITH THRUST BLOCKS

81.5.6
5FT DIA. MANHOLE WITH SAFTEY PLATFORM
RIM: 286.39
INV. IN: 270.66
INV. OUT: 270.56

3/4" WATER SERVICE FOR TWN-UNITS (TYP.)

CURB STOP (TYP.)

4" CLEANOUT WITH VENT/TRAP ASSEMBLY (TYP.)

CLEANOUT LOCATED 2' FROM WALL (TYP.)

10" HORIZONTAL SEPARATION (TYP.)

8"X8"X8" TEE (TYP.)

81.5.7.1.2 DROP MH WITH PVC LINING
RIM: 285.64
INV. IN (8" NE): 280.10
INV. IN (8" SE): 275.34
INV. OUT: 275.24

346 LF 8" SDR-3

W. MAIN STREET

EXISTING LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND

PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	UFM
PR. WATER MAIN	UW
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	350
PR. SPOT ELEVATION	× 360.5
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRAIL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
" IT'S THE LAW "

GENERAL SITE NOTES:

1. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor is solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all specific instructions required for sitework construction. The Contractor is responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction.

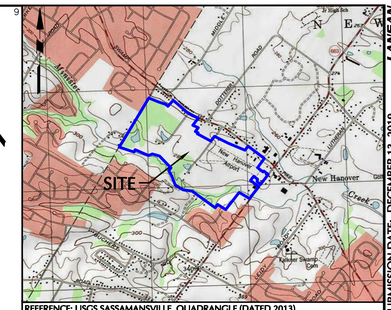
2. The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner and Engineer make no guarantee in regard to the accuracy of any information that was obtained during investigations. The Contractor shall make a thorough site inspection in order to field check existing site conditions; correlate conditions with the drawings; and, resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall perform additional topographic surveys he/she deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.

3. The Contractor shall, when he/she deems necessary, provide a written Request for Information (RFI) to the Owner and/or Owner's designated representative, and Engineer prior to the construction of any specific sitework item. The (RFI) shall be in a form acceptable to Owner and/or Owner's designated representative, and Engineer and shall allow for a minimum of three work days for a written reply. RFIs shall be numbered consecutively by date submitted. The Contractor shall be solely responsible for sitework items constructed differently than intended or as depicted on the plans.

4. Information related to elevations and proposed utilities (such as roadway grades, invert elevations, rim elevations, grate elevations, building finished floor elevations, etc.) may be found in more than one location in the Contract Documents. The Contractor shall sufficiently review all plans, profiles and any other information in the Contract Documents for consistency prior to bid. Any inconsistencies or discrepancies that are found by the Contractor or his assigns shall be immediately brought to the attention of the Owner and Engineer in writing, in the format of an RFI prior to bid.

5. There are additional notes, specifications and requirements contained throughout the plan set as well as references to specifications from applicable governing authorities and industry standards. It is the Contractor's responsibility to obtain, review and adhere to all these documents.

6. Contractor is specifically cautioned that all construction stakeout for this project must be completed from the site specific survey control (horizontal and vertical) upon which the design is based. The contractor should not rely on or re-establish survey control by GPS or other methods for use in construction stakeout or any other purpose for this project. Any discrepancies between the existing horizontal or vertical data shown on these drawings and that encountered in the field must be reported to the design team prior to construction for resolution.


SITE
New Hanover
Keiser Square
Creek
Mattatuck
Ridge
Valley
Ridge
Valley
Ridge
Valley

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

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SERIAL NO (DOTTERER ROAD): 20130441548
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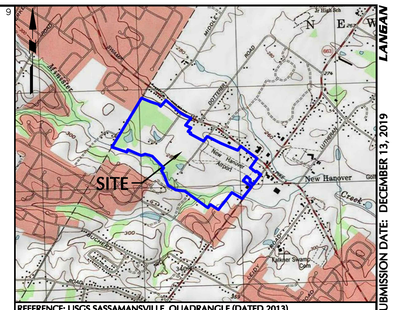
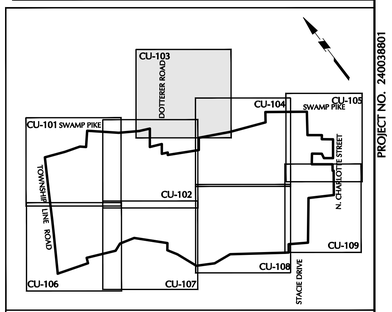
CALL BEFORE YOU DIG
IN PA, TOLL FREE
1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

DOTTERER ROAD

SWAMP PIKE

DOUBLE YELLOW LINE

ULTIMATE R/W

EXISTING CLEANOUT (TYP.)

EX. SAN-MH-228
RIM=300.09
INV=290.60

EX. SAN-MH-229
RIM=307.80
INV IN=291.95
INV OUT=291.90

EX. SAN-MH-225

EX. SAN-MH-224
RIM=282.06
(PAVED OVER)

RIM=285.80
INV IN=274.94
INV OUT=274.82

RIM=288.53
INV=278.39
EXISTING GRAVITY 8" SANITARY MAIN
EXISTING 12" WATER MAIN

EX. SAN-MH-226

EX. SAN-MH-227

APPROX. SAMH LOCATION ACCORDING TO TOWNSHIP PLANS(PAVED OVER)

GRAVEL DRIVE

MACADAM DRIVE

MATCHLINE-CU-102

MATCHLINE-CU-104

GENERAL SITE NOTES:

1. The Contractor shall furnish, install, test and complete all work to the satisfaction of the Engineer and Owner in accordance with the Contract Documents. The Contractor is solely responsible for means and methods of construction; as such, these plans do not completely represent, nor are they intended to represent, all specific instructions required for sitework construction. The Contractor is responsible to construct all improvements depicted on these plans in accordance with all applicable rules, regulations and laws in effect at the time of construction.

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Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CO, Inc.
Langan Intlemidaal LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
UTILITY PLAN

EXISTING LEGEND

TRACT BOUNDARY	
ADJOINING PROPERTY LINE	
EX. EASEMENT	
EX. RIGHT-OF-WAY	
EX. EDGE OF ROAD	
EX. CENTER LINE	
EX. BUILDING	
EX. DRIVE	
EX. STREAM	
EX. WATERS OF THE U.S. OR WETLANDS	
EX. IRON PIN	
EX. CLEANOUT	
EX. WELL	
EX. SANITARY SEWER LINE	
EX. STORM SEWER LINE	

PROPOSED LEGEND

PR. CURB LINE	
PR. BUILDING	
PROPERTY LINE	
CONC. MONUMENT TO BE SET	
PR. STORM SEWER	
PR. SANITARY SEWER	
PR. SUMP DISCHARGE LINE	
PR. SANITARY FORCE MAIN	UFM
PR. WATER MAIN	UW
PR. CLEANOUT/CURB STOP	
PR. CONTOUR	
PR. SPOT ELEVATION	x 360.3
PR. RETAINING WALL	
PR. GUIDERAIL	
PR. BASIN LIMITS	
PR. CONCRETE SIDEWALK	
PR. TRAIL	
PR. TRIAL (VEHICLE LOADING)	
PR. OPEN SPACE	
PR. ACTIVE/REC. OPEN SPACE	

50 0 25 50
SCALE IN FEET

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8099
CONTACT: BENJAMIN GOLDTHORP

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	KG
Submission Date	

Drawing No. CU-103

Sheet 114 of 187

PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019

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Filename: \\langan.com\data\BE\data8\240038801\cadd data - 240038801\sheetfiles\240038801 CU101-109.dwg Date: 12/13/2019 Time: 15:31 User: dmoyer Style Table: Langan.stb Layout: CU-103

EXISTING LEGEND

- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
- EX. EASEMENT
- EX. RIGHT-OF-WAY
- EX. EDGE OF ROAD
- EX. CENTER LINE
- EX. BUILDING
- EX. DRIVE
- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN — U F M —
- PR. WATER MAIN — U W —
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR
- PR. SPOT ELEVATION — × 360.3
- PR. RETAINING WALL
- PR. GUIDERAIL
- PR. BASIN LIMITS
- PR. CONCRETE SIDEWALK
- PR. TRAIL
- PR. TRAIL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

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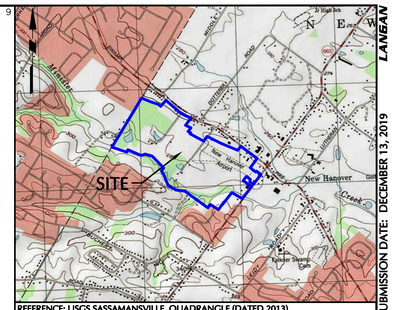
PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO DOTTERER ROAD): 20130441548
SERIAL NO SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

PENNSYLVANIA ONE CALL SYSTEM, INC. — SERIAL NUMBER 20130441548 — PLEASE CALL BEFORE YOU DIG

CALL BEFORE YOU DIG
IN PA, TOLL FREE
1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
*** IT'S THE LAW ***

SITE LOCATION MAP

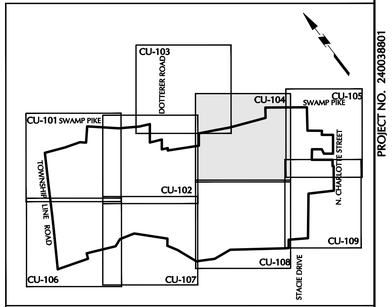
SCALE: 1"=2,000'



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

KEY MAP

SCALE 1"=1000'



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Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JASON SCOTT ENGELHARDT — ENGINEER

SIGNATURE — JASON SCOTT ENGELHARDT — DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International, LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

UTILITY PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	KG
Submission Date	
Drawing No.	CU-104
	Sheet 115 of 187

SCALE IN FEET: 50 0 25 50

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

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SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

Filename: \\langan.com\data\BE\data\$\240038801\sheetfiles\240038801 CU101-109.dwg Date: 12/13/2019 Time: 15:31 User: dmoyer Style Table: Langan.stb Layout: CU-104

MATCHLINE-CU-104

MATCHLINE-CU-109

SWAMP PIKE

E. MAIN STREET

N. CHARLOTTE STREET (S. R. 663)

VANDERBILT DRIVE

S. FLUHARTY DRIVE

N. VANDERBILT DRIVE

E. VANDERBILT DRIVE

SERVICE DRIVE

RESTAURANT 2

RESTAURANT 1

SUPER MARKET

FLEX BUILDING

CONCRETE PADS (TYP)

GAS PUMP ISLANDS (TYP)

OVERHANG

CONC. PARKING AREA

PARKING AREA

FILL CAPS

ROW AND PROPERTY BOUNDARY FOR CVS TAKEN FROM A PLAN ENTITLED "SITE PLAN" DRAWING No. C-4, PREPARED BY LITTLE AND ASSOCIATES INC., DATED 7/30/01. LAST REVISED 8/20/02.

CONNECT LATERAL TO EXISTING 8" SANITARY MAIN (CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION PRIOR TO CONSTRUCTION)

CONNECT LATERAL TO EXISTING 12" WATER MAIN (CONTRACTOR SHALL CONFIRM LOCATION AND ELEVATION PRIOR TO CONSTRUCTION)

EXISTING UTILITY POLE TO BE RELOCATED (CONTRACTOR TO COORDINATE WITH UTILITY COMPANY)

EX. SAN-MH-222
RIM: 264.74
PROP. INV. IN: 256.22
(CORE DRILL INTO EX. MH)
EX. INV. IN: 256.12
EX. INV. OUT: 256.02

EX. SAN-MH-221

EX. SAN-MH-220

EX. SAN-MH-218

EX. SAN-MH-219

EX. SAN-MH-246

EX. SAN-MH-268

EX. SAN-MH-247
RIM: 268.00
PROP. INV. IN: 260.43
(CORE DRILL INTO EX. MH)
EX. INV. OUT: 260.33

EX. SAN-MH-75

EX. SAN-MH-74

EX. SAN-MH-76

RIM=260.16
INV. IN=250.91
INV. OUT=250.66

RIM=256.27
INV. IN=256.12
INV. OUT=256.02

RIM=261.73

RIM=261.83

RIM=255.92
INV IN=244.67
INV IN=243.09
INV OUT=242.92

RIM=252.03
INV IN=243.73
INV OUT=243.68

RIM=254.45
INV IN=244.85
INV OUT=244.75

INV. IN=249.93

INV. IN=247.49
INV. OUT=247.37

INV. IN=242.53
INV. OUT=242.43

INV OUT=253.28

INV. OUT=260.33

1" FIRE SERVICE LATERAL

6" WATER SERVICE LATERAL

1,000 GREASE TRAP (TYP) SEE DETAIL ON SHEET CU-503

EXISTING GRAVITY SANITARY

EXISTING 12" WATER MAIN

EXISTING CLEANOUT (TYP.)

FIRE HYDRANT (TYP.)

6" SANITARY LATERAL AT 1% MIN. (TYP)

240 LF 8" SDR-35 PVC @ 1.00%

1,000 GREASE TRAP (TYP)

222.1
RIM: 266.54
INV. OUT: 258.80

WATER VALVE

8" DIP WATER MAIN (TYP.)

6" DIP FIRE WATER SERVICE

2" DOMESTIC SERVICE WATER LATERAL

45° BENDS WITH THRUST BLOCKS

DD-2
14,918 SF.
0.342 AC.

247.5.2
RIM: 272.30
INV. OUT: 267.36
6" SANITARY LATERAL AT 1% MIN.

247.5.1
RIM: 274.29
INV. IN: 266.89
INV. OUT: 266.78

8" WATER SERVICE (TYP.)

WATER VALVE (TYP.)

6" SANITARY LATERAL AT 1% MIN.

247.5
RIM: 274.68
INV. IN (8" NW): 265.92
INV. IN (8" NE): 265.92
INV. OUT: 265.82

247.6
RIM: 274.62
INV. IN (8" NW): 266.73
INV. IN (8" NE): 266.64
INV. OUT: 266.53

247.4
RIM: 273.94
INV. IN (8" NW): 265.04
INV. OUT: 264.94

8" WATER SERVICE (TYP.)

6" SANITARY LATERAL AT 1% MIN.

247.2
RIM: 274.23
INV. IN: 262.42
INV. OUT: 262.32

22.25° BEND WITH THRUST BLOCK

45° BENDS WITH THRUST BLOCKS

CLEANOUT W/ VENT/TRAP ASSEMBLY (TYP.)

6" SANITARY LATERAL AT 2% MIN. (TYP)

1,000 GREASE TRAP (TYP)

247.1
RIM: 269.51
INV. IN: 260.94
INV. OUT: 260.84

10' HORIZONTAL SEPARATION (TYP.)

6" SANITARY LATERAL AT 1% MIN.

247.3
RIM: 272.34
INV. IN: 263.62
INV. OUT: 263.52

22.5° BEND WITH THRUST BLOCK

4" DOM. SERVICE

FIRE HYDRANT (TYP.)

6" SANITARY LATERAL AT 2% MIN. (TYP)

1,000 GREASE TRAP (TYP) SEE DETAIL ON SHEET CU-503

81.1.4.2
RIM: 275.68
INV. OUT: 262.80

DEPRESSED CURB FOR SANITARY SEWER ACCESS

45° BENDS WITH THRUST BLOCKS

EXISTING UTILITY POLE TO BE RELOCATED (CONTRACTOR TO COORDINATE WITH UTILITY COMPANY)

EXISTING CLEANOUT (TYP.)

EXISTING UTILITY POLE TO BE RELOCATED (CONTRACTOR TO COORDINATE WITH UTILITY COMPANY)

275 LF 8" SDR-35 PVC @ 0.50%

264 LF 8" SDR-35 PVC @ 0.50%

219 LF 8" SDR-35 PVC @ 0.50%

81 LF 8" SDR-35 PVC @ 0.50%

57 LF 8" SDR-35 PVC @ 0.50%

23 LF 8" SDR-35 PVC @ 0.50%

172 LF 8" SDR-35 PVC @ 0.50%

219.04' 12" CMP S 01.99° E

30' WIDE SANITARY SEWER EASEMENT (SPE) NOTE BB

POST-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)

ACT 287 AS AMENDED

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SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

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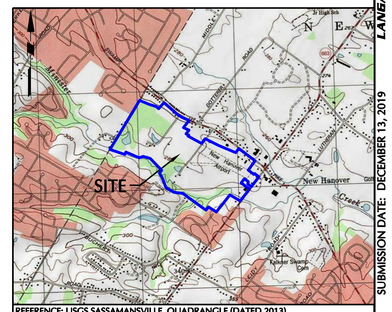
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
* IT'S THE LAW *

EXISTING LEGEND

TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

PROPOSED LEGEND

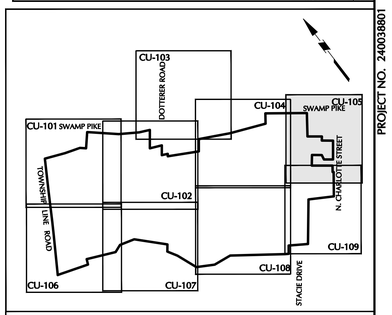
PR. CURB LINE
PR. BUILDING
PROPERTY LINE
CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
PR. SANITARY FORCE MAIN
PR. WATER MAIN
PR. CLEANOUT/CURB STOP
PR. CONTOUR
PR. SPOT ELEVATION
PR. RETAINING WALL
PR. GUIDERAIL
PR. BASIN LIMITS
PR. CONCRETE SIDEWALK
PR. TRAIL
PR. TRAIL (VEHICLE LOADING)
PR. OPEN SPACE
PR. ACTIVE/REC. OPEN SPACE



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP

SCALE: 1"=2,000'



KEY MAP

SCALE 1"=1000'

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50 0 25 50
SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA
JASON SCOTT ENGELHARDT
REGISTERED PROFESSIONAL ENGINEER
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
T: 610.984.8500 F: 610.984.8501 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering and Environmental Services, Inc.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan Treadwell LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
UTILITY PLAN

Project No. 240038801	Drawing No. CU-105
Date 05/31/16	
Scale 1"=50'	
Drawn By KG	
Submission Date	Sheet 116 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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MATCHLINE-CU-101

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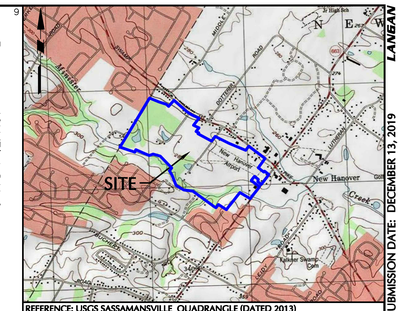
TOWNSHIP LINE ROAD

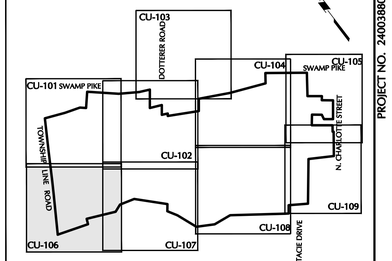
EXISTING CLEANOUT (TYP.)
EXISTING SANITARY FORCEMAIN
EXISTING GRAVITY SANITARY
RIM=281.78
INV IN=276.38
INV OUT=276.28
EXISTING CLEANOUT (TYP.)
RIM=282.72
INV IN=274.40
INV OUT=274.32
RIM=281.03
INV IN=273.82
INV OUT=273.62
VEGETATED FILTER STRIP 1
VEGETATED FILTER STRIP 2
APPROXIMATE LOCATION 15' WIDE GAS LINE R/W FOR UGI CORPORATION (SEE NOTE 14C)
APPROXIMATE LOCATION OF UGI REGULATOR STATION PERMANENT EASEMENT PLOTTED BY LANGAN
POST-DEVELOPED 100 YR. FLOODPLAIN BOUNDARY (PER LANGAN FLOOD STUDY)
RIM=279.55
INV IN=272.15
INV OUT=272.05
MINISTER CREEK

45° BENDS WITH THRUST BLOCKS
64 LF 8" SDR-35 PVC @ 0.50%
8"x8"x8" TEE (TYP.)
81.16 WITH PVC LINING RIM:287.02 INV. IN (8" N): 275.32 INV. OUT: 275.22
81.17.2 RIM: 283.12 INV. IN: 276.82 INV. OUT: 276.72
81.17.1 RIM: 284.87 INV. IN: 276.34 INV. OUT: 276.24
22.5° BEND WITH THRUST BLOCK
100 LF 8" SDR-35 PVC @ 0.50%
CURB STOP (TYP.)
3/4" WATER SERVICE FOR VILLAGE HOUSE UNITS (TYP.)
6" SANITARY LATERAL TO R.O.W. AT 2% MIN. (TYP.)
CLEANOUT (TYP.)
4" CLEANOUT WITH VENT/TRAP ASSEMBLY LOCATED 2' FROM WALL (TYP.)
4" SANITARY LATERAL TO BLDG. 2% MIN. (TYP.)
231 LF 8" SDR-35 PVC @ 0.50%
81.15 DROP MH WITH PVC LINING RIM: 287.07 INV. IN (8" NW): 274.06 INV. IN (8" NE): 276.69 INV. OUT: 273.96
128 LF 8" SDR-26 PVC @ 0.50%
81.14 WITH PVC LINING RIM: 288.20 INV. IN (8" NW): 273.32 INV. OUT: 273.22
79 LF 8" SDR-26 PVC @ 0.50%
224 LF 8" SDR-26 PVC @ 0.50%
6" DIP WATER MAIN (TYP.)
10' HORIZONTAL SEPARATION (TYP.)
81.12 RIM: 282.49 INV. IN: 271.60 INV. OUT: 271.50
62 LF 8" SDR-35 PVC @ 0.50%
81.11 RIM: 280.48 INV. IN: 271.19 INV. OUT: 271.09
COMBINATION AIR/VENT VALVE (TYP.)
81.15.1 RIM: 288.08 INV. IN (8" NE): 277.27 INV. OUT: 277.17
22.5° BEND WITH THRUST BLOCK
2-45° BENDS WITH THRUST BLOCKS
8"x8"x8" TEE (TYP.)
96 LF 8" SDR-35 PVC @ 0.50%
81.8.3 RIM: 289.67 INV. OUT: 284.59
COMBINATION AIR/VENT VALVE (TYP.)
8"x8"x8" TEE (TYP.)
22.5° BEND WITH THRUST BLOCK
132 LF 8" SDR-35 PVC @ 1.00%
FIRE HYDRANT (TYP.)
81.13 5FT DIA. MANHOLE WITH SAFTEY PLATFORM RIM: 289.22 INV. IN: 272.83 INV. OUT: 272.73
45° BENDS WITH THRUST BLOCKS
239 LF 8" SDR-35 PVC @ 1.73%
22.5° BEND WITH THRUST BLOCK
DEPRESSED CURB FOR SANITARY SEWER ACCESS
81.8.2 RIM: 289.45 INV. IN: 283.27 INV. OUT: 283.17
81.8.1 RIM: 286.62 INV. IN: 279.85 INV. OUT: 279.75
8"x8"x8" TEE (TYP.)
214 LF 8" SDR-35 PVC @ 1.55%
8" DIP WATER MAIN (TYP.)
CURB STOP (TYP.)
3/4" WATER SERVICE FOR VILLAGE HOUSE UNITS (TYP.)
6" SANITARY LATERAL TO R.O.W. AT 2% MIN. (TYP.)
CLEANOUT (TYP.)
4" CLEANOUT WITH VENT/TRAP ASSEMBLY LOCATED 2' FROM WALL (TYP.)
4" SANITARY LATERAL TO BLDG. 2% MIN. (TYP.)
172 LF 8" SDR-35 PVC @ 2.40%
8" DIP WATER MAIN (TYP.)
72 LF 8" SDR-35 PVC @ 0.50%
22.5° BENDS WITH THRUST BLOCKS
142 LF 8" SDR-35 PVC @ 3.50%
DEPRESSED CURB FOR SANITARY SEWER ACCESS
10' WIDE AREA TO BE MAINTAINED CLEAR FOR SEWER AUTHORITY ACCESS
81.9 RIM: 277.32 INV. IN: 266.26 INV. OUT: 266.16
81.10 RIM: 274.40 INV. IN: 266.96 INV. OUT: 266.86
119 LF 8" SDR-35 PVC @ 0.50%
81.7 WITH PVC LINING AND WATER TIGHT COVER RIM:268.07 INV. IN (8" NW): 260.74 INV. OUT: 260.64
CON SANITARY EITHER SI
DEPRESSED CURB FOR SANITARY SEWER ACCESS
THIS PORTION OF THE TRAIL SHALL BE DESIGNED TO WITHSTAND SANITARY SEWER AUTHORITY VEHICLE LOADING. THE CONTRACTOR SHALL SUBMIT CALCULATIONS TO THE DESIGN ENGINEER VERIFYING THE PROPOSED TRAIL SECTION IS ADEQUATE FOR THE JET/VAC TRUCK LOADS OR SHALL PROPOSE AN AMENDED SECTION FOR THE PROPOSED VEHICLE LOADING
MINISTER CREEK
THI IS AI
PROI F



REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP
SCALE: 1"=2,000'



KEY MAP
SCALE 1"=1000'

EXISTING LEGEND		PROPOSED LEGEND	
TRACT BOUNDARY		PR. CURB LINE	
ADJOINING PROPERTY LINE		PR. BUILDING	
EX. EASEMENT		PROPERTY LINE	
EX. RIGHT-OF-WAY		CONC. MONUMENT TO BE SET	
EX. EDGE OF ROAD		PR. STORM SEWER	
EX. CENTER LINE		PR. SANITARY SEWER	
EX. BUILDING		PR. SUMP DISCHARGE LINE	
EX. DRIVE		PR. SANITARY FORCE MAIN	LIF M
EX. STREAM		PR. WATER MAIN	UW
EX. WATERS OF THE U.S. OR WETLANDS		PR. CLEANOUT/CURB STOP	
EX. IRON PIN		PR. CONTOUR	305
EX. CLEANOUT		PR. SPOT ELEVATION	x 360.3
EX. WELL		PR. RETAINING WALL	
EX. SANITARY SEWER LINE		PR. GUIDERAIL	
EX. STORM SEWER LINE		PR. BASIN LIMITS	
		PR. CONCRETE SIDEWALK	
		PR. TRAIL	
		PR. TRAIL (VEHICLE LOADING)	
		PR. OPEN SPACE	
		PR. ACTIVE/REC. OPEN SPACE	

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
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ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CS, Inc. Langan International LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
UTILITY PLAN

Project No.	Drawing No.
240038801	CU-106
Date: 05/31/16	
Scale: 1"=50'	
Drawn By: KG	
Submission Date	Sheet 117 of 187

50 0 25 50
SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

MATCHLINE-CU-107

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

Filename: \\langan.com\data\BE\data\#240038801\cadd data - 240038801\sheetfiles\240038801 CU101-109.dwg Date: 12/13/2019 Time: 15:32 User: dmoyer Style Table: Langan.stb Layout: CU-106
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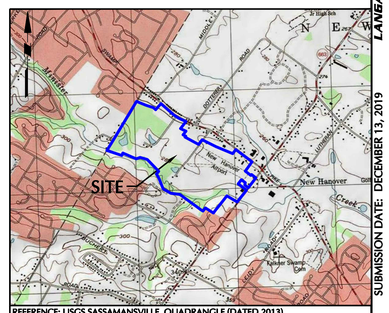
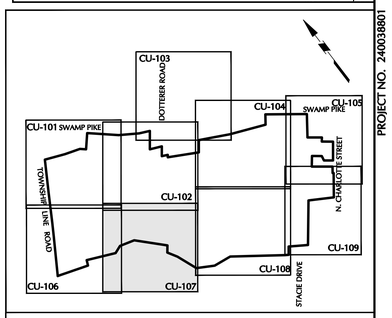


SITE LOCATION MAP SCALE: 1"=2,000'



KEY MAP SCALE 1"=1000'

EXISTING LEGEND

TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
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EX. IRON PIN
EX. CLEANOUT
EX. WELL
EX. SANITARY SEWER LINE
EX. STORM SEWER LINE

PROPOSED LEGEND

PR. CURB LINE
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CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
PR. SUMP DISCHARGE LINE
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PR. CLEANOUT/CURB STOP
PR. CONTOUR
PR. SPOT ELEVATION
PR. RETAINING WALL
PR. GUIDERAIL
PR. BASIN LIMITS
PR. CONCRETE SIDEWALK
PR. TRAIL
PR. TRAIL (VEHICLE LOADING)
PR. OPEN SPACE
PR. ACTIVE/REC. OPEN SPACE

GENERAL SITE NOTES:

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2. The Contractor shall accept the site as is. The Contractor shall assess conditions, and the kind, quality and quantity of work required. The Owner and Engineer make no guarantee in regard to the accuracy of any information that was obtained during investigations. The Contractor shall: make a thorough site inspection in order to field check existing site conditions; correlate conditions with the drawings; and, resolve any possible construction conflicts with the Owner and Engineer prior to commencement of work. The Contractor shall perform additional topographic surveys he/she deems necessary, provided they are coordinated with the Owner. Any conditions determined by the Contractor that differ from the information shown on the drawings that are not brought to the attention of the Owner and Engineer prior to the start of work shall not be considered grounds for additional payment or changes to the contract duration, or any other claims against the Owner or Owner's Engineer.

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ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 STOP! CALL BEFORE YOU DIG

CALL BEFORE YOU DIG IN PA, TOLL FREE 1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
*** IT'S THE LAW ***

50 0 25 50
SCALE IN FEET

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
One West Broad Street, Suite 200, Bethlehem, PA 18018
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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
UTILITY PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	KG
Submission Date	
Drawing No.	CU-107
Sheet	118 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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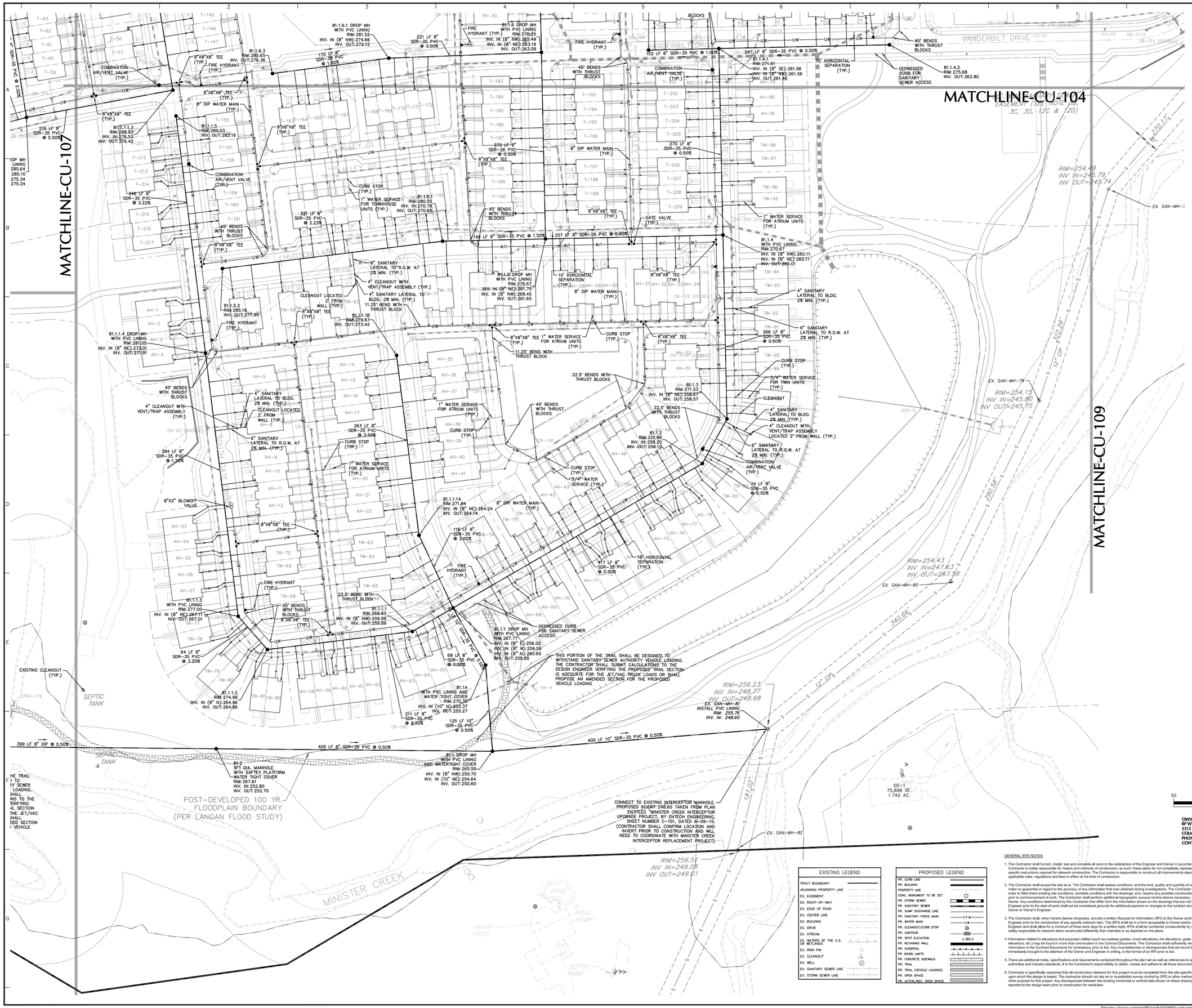
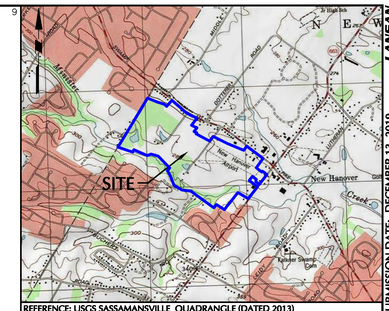
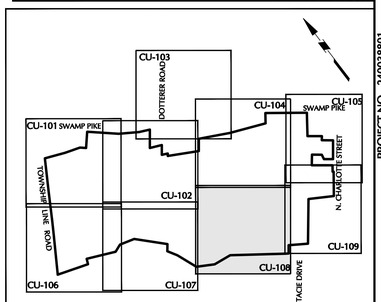
Filename: \\langan.com\data\BE\data\B240038801\sheetfiles\240038801 CU101-109.dwg Date: 12/13/2019 Time: 15:32 User: dmoyer Style Table: Langan.stb Layout: CU-107





SITE LOCATION MAP
SCALE: 1"=2,000'



KEY MAP
SCALE 1"=1000'

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3.	8-04-17	REVISED PER COMMENT LETTERS
2.	4-07-17	REVISED PER COMMENT LETTERS
1.	11-04-16	REVISED PER COMMENT LETTERS

REVISIONS

JASON SCOTT ENGELHARDT — REGISTERED PROFESSIONAL ENGINEER — COMMONWEALTH OF PENNSYLVANIA

SIGNATURE — JASON ENGELHARDT — DATE SIGNED

PROFESSIONAL ENGINEER P.A Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
UTILITY PLAN

Project No.	240038801
Date	05/31/16
Scale	1"=50'
Drawn By	KG
Submission Date	
Drawing No.	CU-108
Sheet	119 of 187

EXISTING LEGEND

TRACT BOUNDARY
ADJOINING PROPERTY LINE
EX. EASEMENT
EX. RIGHT-OF-WAY
EX. EDGE OF ROAD
EX. CENTER LINE
EX. BUILDING
EX. DRIVE
EX. STREAM
EX. WATERS OF THE U.S. OR WETLANDS
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EX. WELL
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EX. STORM SEWER LINE

PROPOSED LEGEND

PR. CURB LINE
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CONC. MONUMENT TO BE SET
PR. STORM SEWER
PR. SANITARY SEWER
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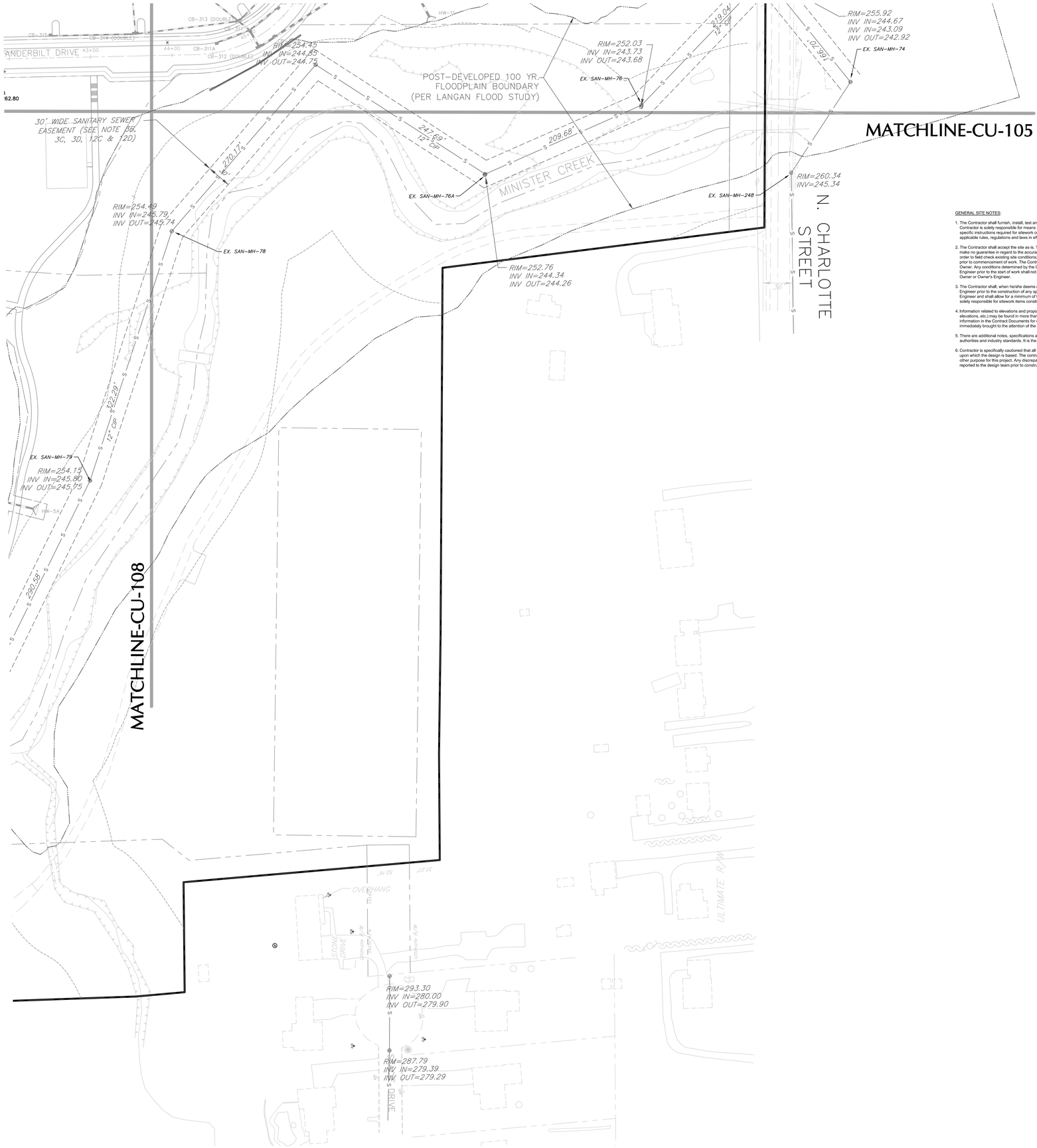
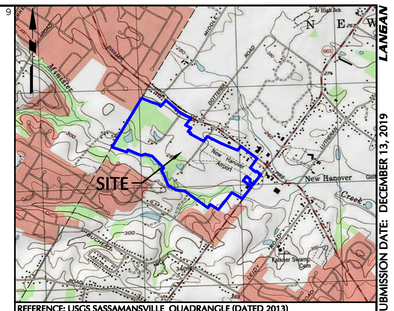
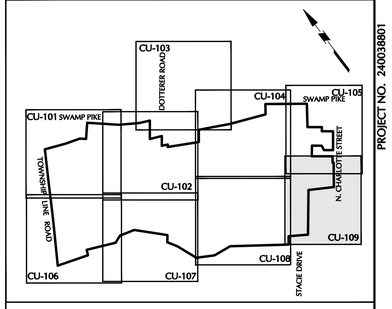
PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019 LANGAN





SITE LOCATION MAP
SCALE: 1"=2,000'



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- TRACT BOUNDARY
- ADJOINING PROPERTY LINE
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- EX. EDGE OF ROAD
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- EX. BUILDING
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- EX. STREAM
- EX. WATERS OF THE U.S. OR WETLANDS
- EX. IRON PIN
- EX. CLEANOUT
- EX. WELL
- EX. SANITARY SEWER LINE
- EX. STORM SEWER LINE

PROPOSED LEGEND

- PR. CURB LINE
- PR. BUILDING
- PROPERTY LINE
- CONC. MONUMENT TO BE SET
- PR. STORM SEWER
- PR. SANITARY SEWER
- PR. SUMP DISCHARGE LINE
- PR. SANITARY FORCE MAIN — LF M
- PR. WATER MAIN — LW
- PR. CLEANOUT/CURB STOP
- PR. CONTOUR — 100 / 95
- PR. SPOT ELEVATION — x 360.3
- PR. RETAINING WALL
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- PR. TRAIL
- PR. TRAIL (VEHICLE LOADING)
- PR. OPEN SPACE
- PR. ACTIVE/REC. OPEN SPACE

ACT 287 AS AMENDED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PENNSYLVANIA ACT 287 (AS AMENDED) AND TO CONTRACT THE "ONE CALL SYSTEM" THREE (3) WORKING DAYS (UNLESS OTHERWISE NOTED) PRIOR TO START OF CONSTRUCTION.

PENNSYLVANIA ONE CALL 1-800-242-1776
SERIAL NO (DOTTERER ROAD): 20130441548
SERIAL NO (SWAMP PIKE): 20130441610
SERIAL NO (TOWNSHIP LINE ROAD): 20130441643
SERIAL NO (NORTH CHARLOTTE STREET): 20130441711
SERIAL NO (STACIE DRIVE): 20130441751

CALL BEFORE YOU DIG IN PA. TOLL FREE 1 - 800 - 242-1776
FOR FREE MARKOUTS TO LOCATE UNDERGROUND UTILITIES
" IT'S THE LAW "

50 0 25 50
SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

JASON SCOTT ENGELHARDT — REGISTERED PROFESSIONAL ENGINEER — COMMONWEALTH OF PENNSYLVANIA

SIGNATURE — JASON SCOTT ENGELHARDT PE Lic. No. PE-057145-E — DATE SIGNED

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CC, Inc.
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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
UTILITY PLAN

Project No.	240038801
Date	05/31/19
Scale	1"=50'
Drawn By	KG
Submission Date	
Drawing No.	CU-109
Sheet	120 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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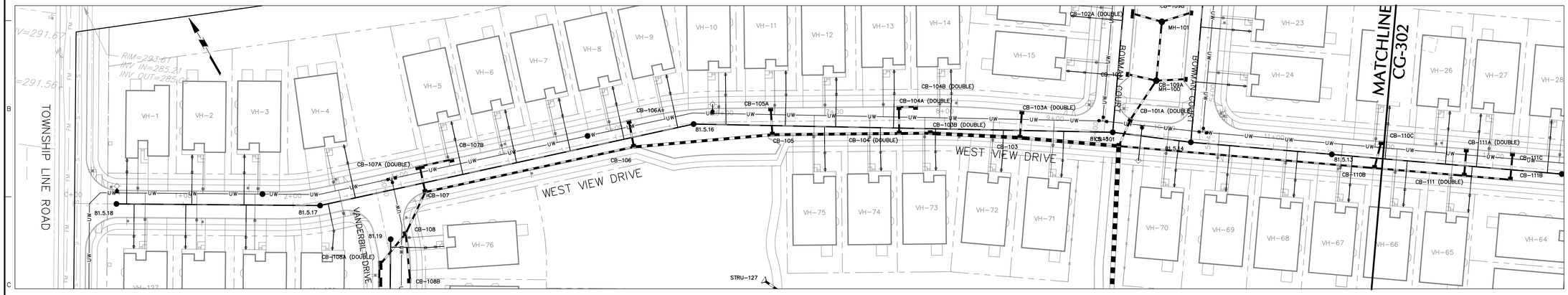
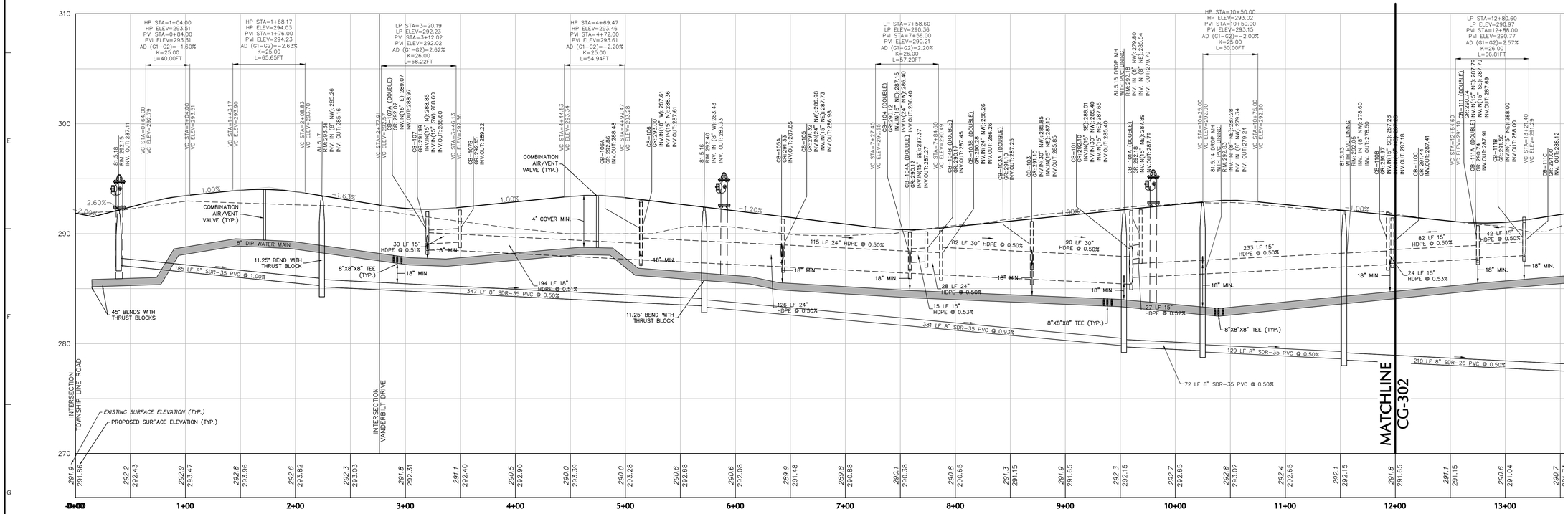
Filename: I:\langan.com\data\BE\data8\240038801\cadd data - 240038801\sheetfiles\240038801 CU101-109.dwg Date: 12/13/2019 Time: 15:33 User: dmoyer Style Table: Langan.stb Layout: CU-109



WEST VIEW DRIVE PLAN VIEW

40 0 20 40
SCALE IN FEET



WEST VIEW DRIVE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No.	**240038801**
Date	**05/31/16**
Scale	**AS SHOWN**
Drawn By	**JDM**
Submission Date	
Drawing No.	**CG-301**
Sheet	121 of 187

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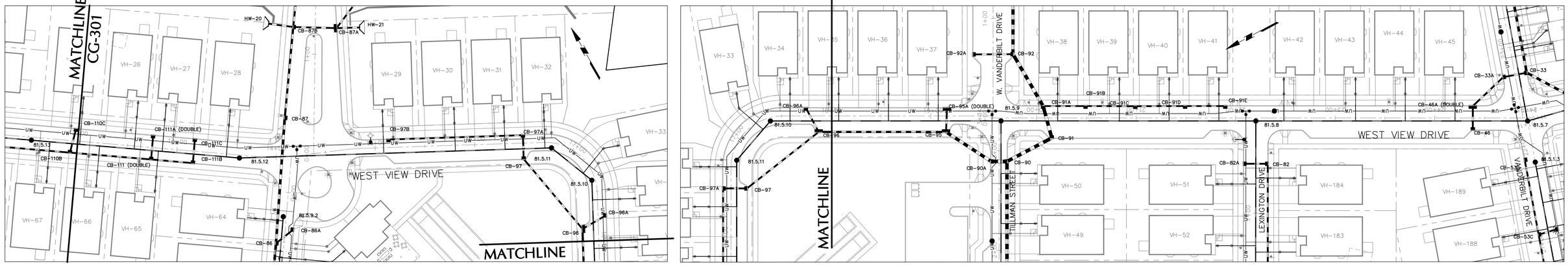
Style Table: ---- Layout: CG-301

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801
LANGAN



WEST VIEW DRIVE PLAN VIEW

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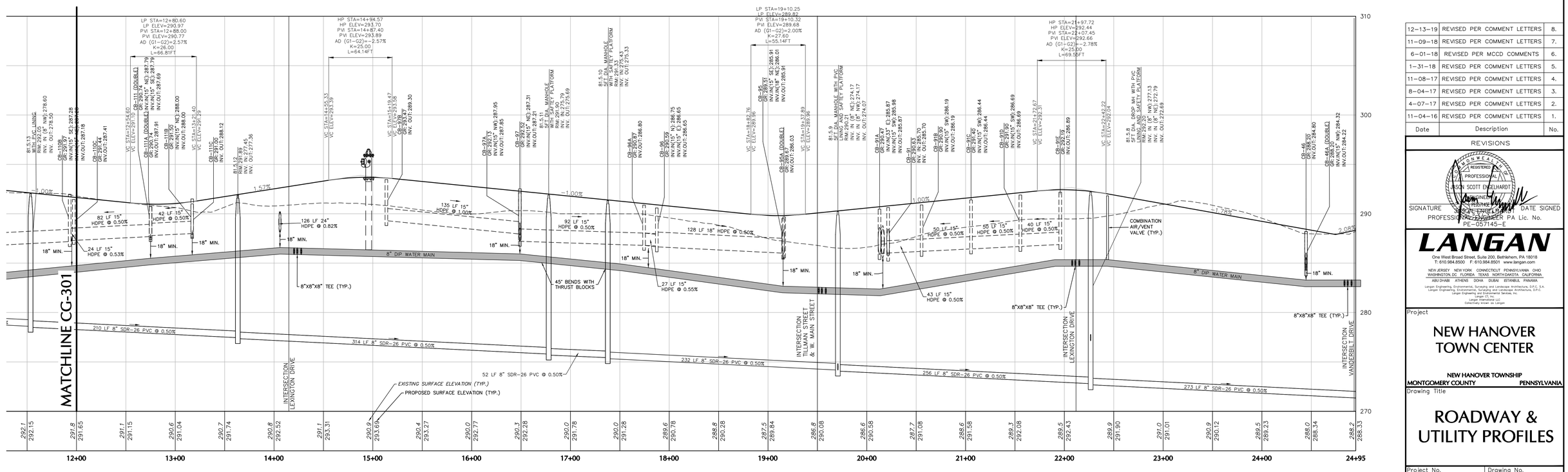
SCALE IN FEET



WEST VIEW DRIVE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12–13–19
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4.	REVISED PER COMMENT LETTERS	11–08–17
3.	REVISED PER COMMENT LETTERS	8–04–17
2.	REVISED PER COMMENT LETTERS	4–07–17
1.	REVISED PER COMMENT LETTERS	11–04–16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON S. ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No.	**240038801**
Date	**05/31/16**
Scale	**AS SHOWN**
Drawn By	**JDM**
Submission Date	
Drawing No.	**CG-302**
Sheet	122 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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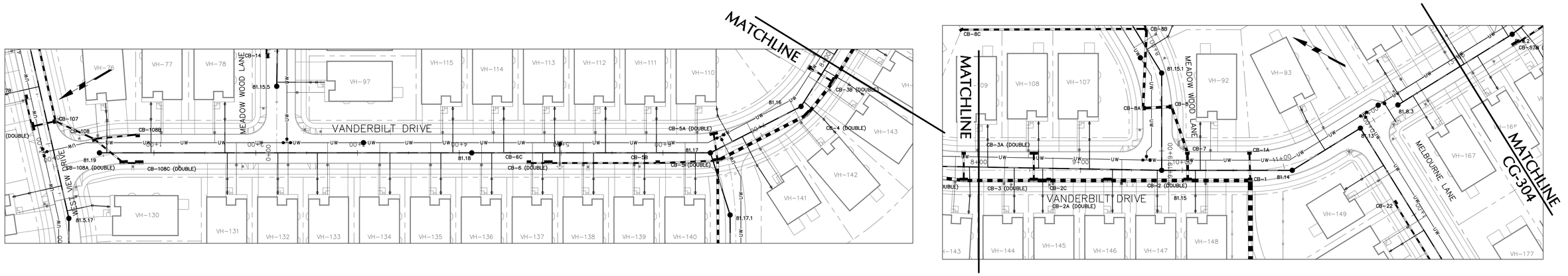

VANDERBILT DRIVE PLAN VIEW

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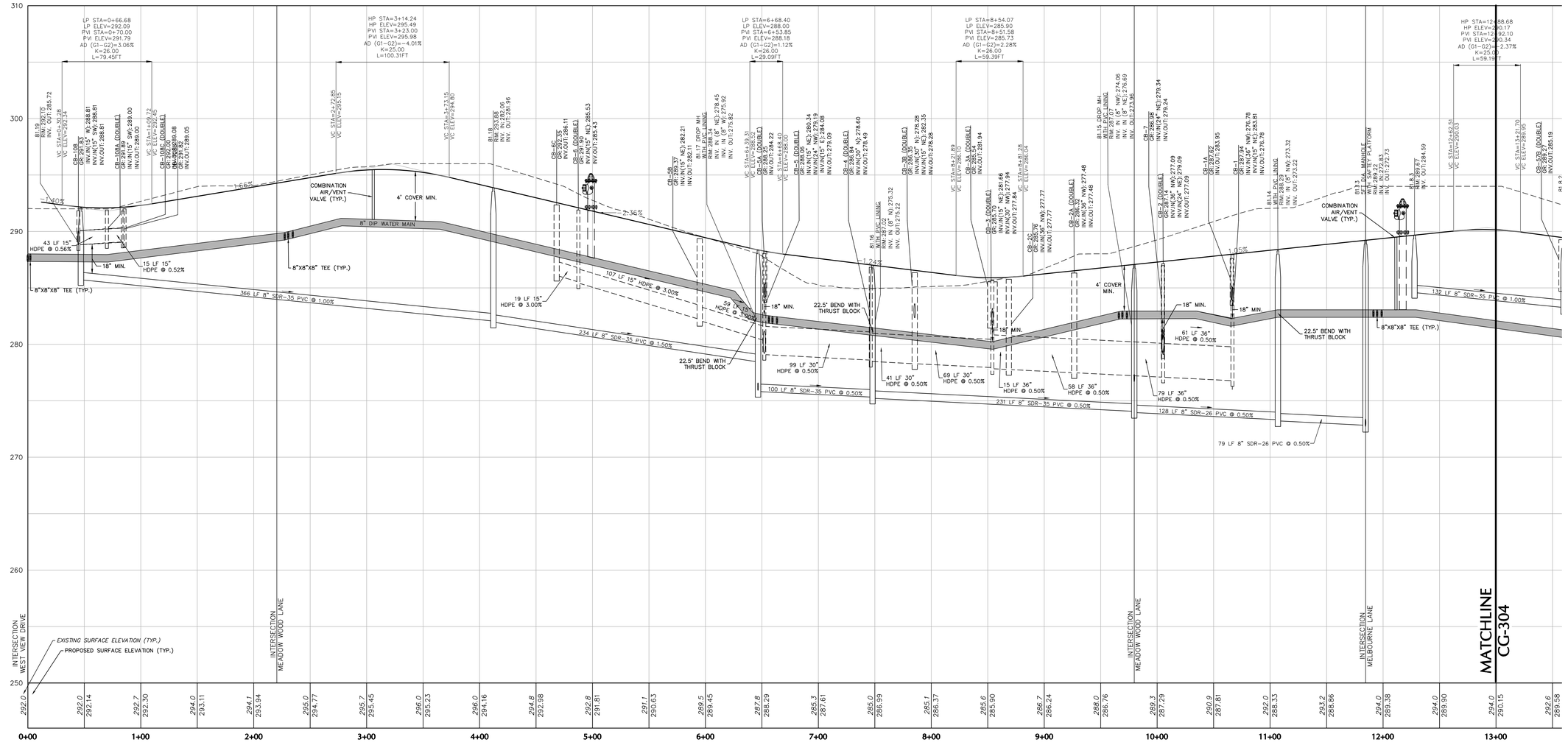
SCALE IN FEET



VANDERBILT DRIVE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
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3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA
JASON SCOTT ENGELHARDT
REGISTERED PROFESSIONAL ENGINEER
SIGNATURE JASON ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-303
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 123 of 187

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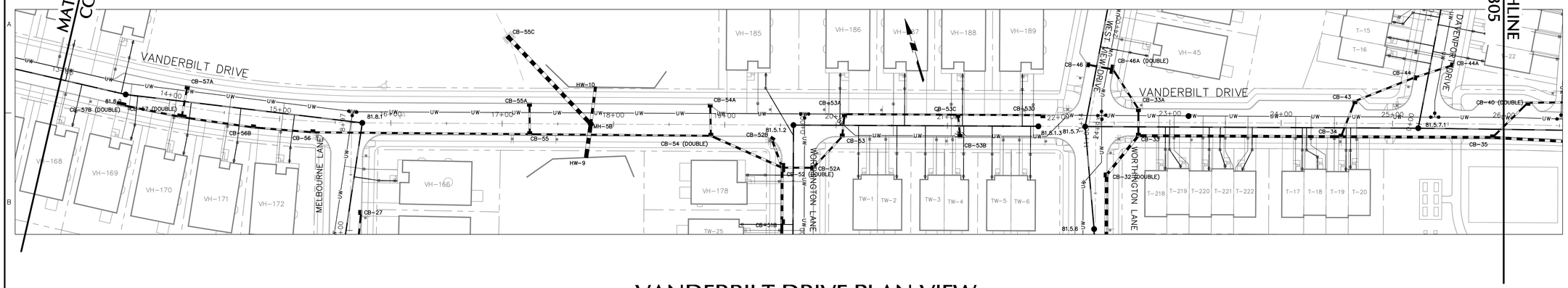
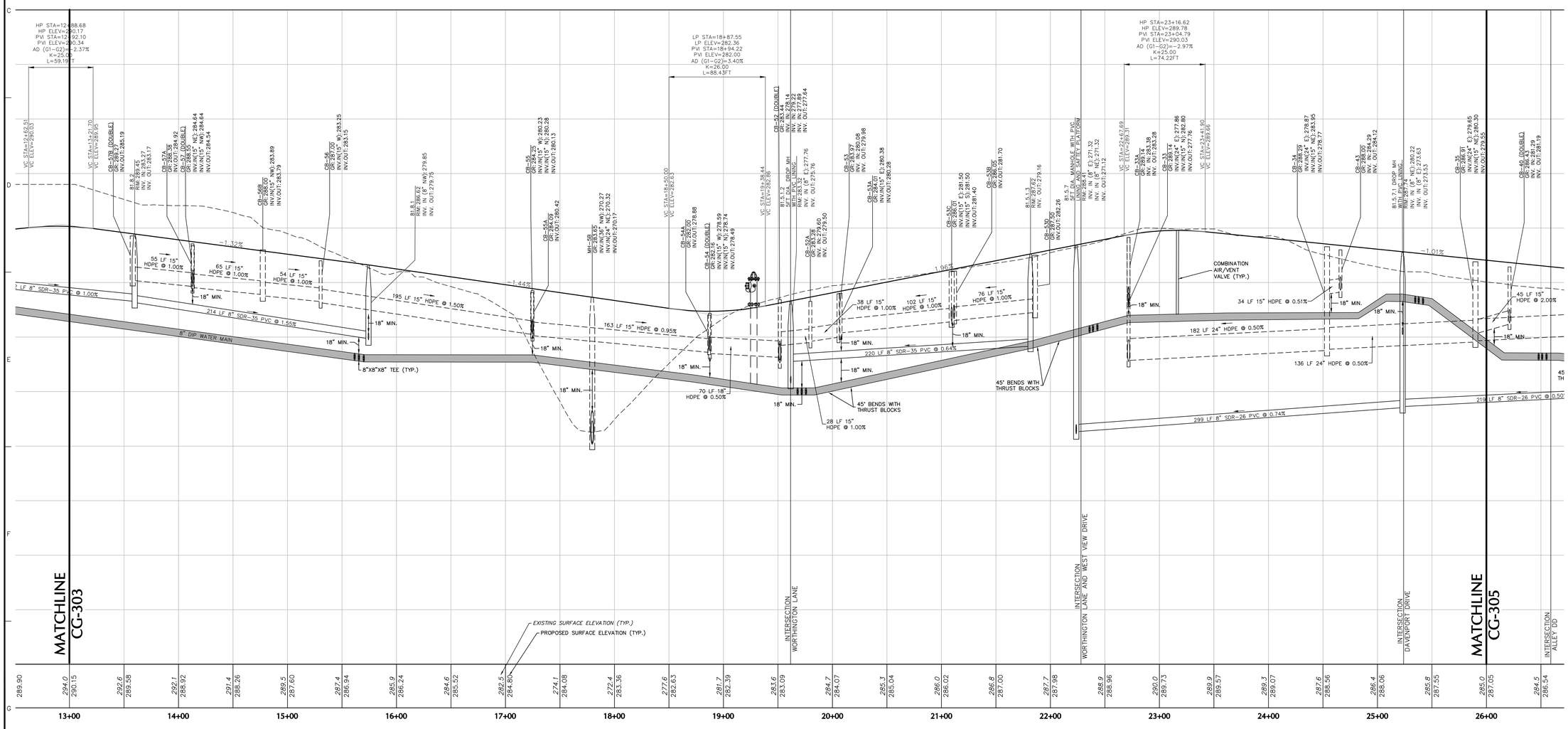
Style Table: ------ Layout: CG-303

LANGAN
PROJECT NO. 240038801
SUBMISSION DATE: DECEMBER 13, 2019



VANDERBILT DRIVE PLAN VIEW

40 0 20 40
SCALE IN FEET



VANDERBILT DRIVE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Date	Description	No.
12–13–19	REVISED PER COMMENT LETTERS	8.
11–09–18	REVISED PER COMMENT LETTERS	7.
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11–08–17	REVISED PER COMMENT LETTERS	4.
8–04–17	REVISED PER COMMENT LETTERS	3.
4–07–17	REVISED PER COMMENT LETTERS	2.
11–04–16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
PROFESSIONAL
JASON SCOTT ENGELHARDT
ENGINEER

SIGNATURE JASON ENGELHARDT PE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No.
PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. **240038801**	Drawing No. **CG-304**
Date **05/31/16**	
Scale **AS SHOWN**	
Drawn By **JDM**	
Submission Date	Sheet 124 of 187

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PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019 LANGAN

Filename: \\langan.com\data\BE\data8\240038801\caddd data - 240038801\sheetfiles\240038801 CG303-306.dwg Date: 12/12/2019 Time: 10:00 User: dmoyer
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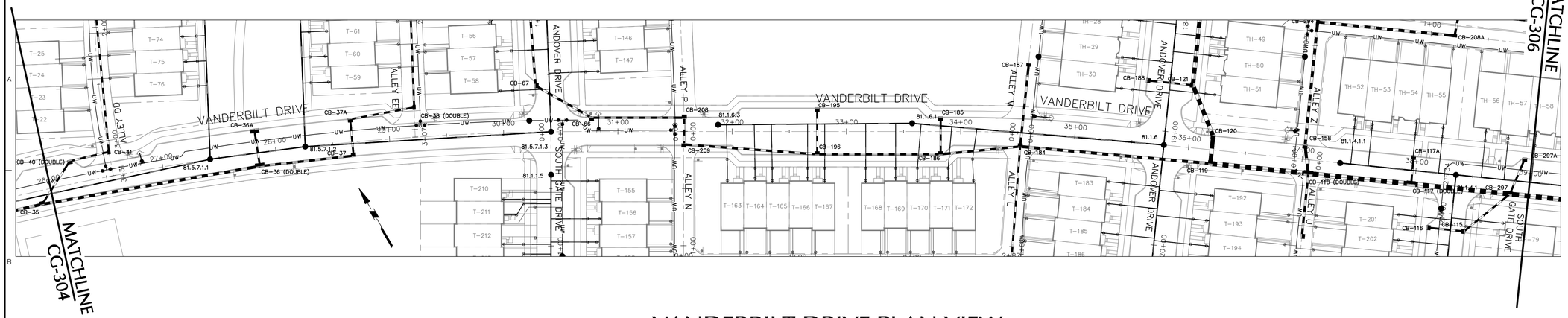
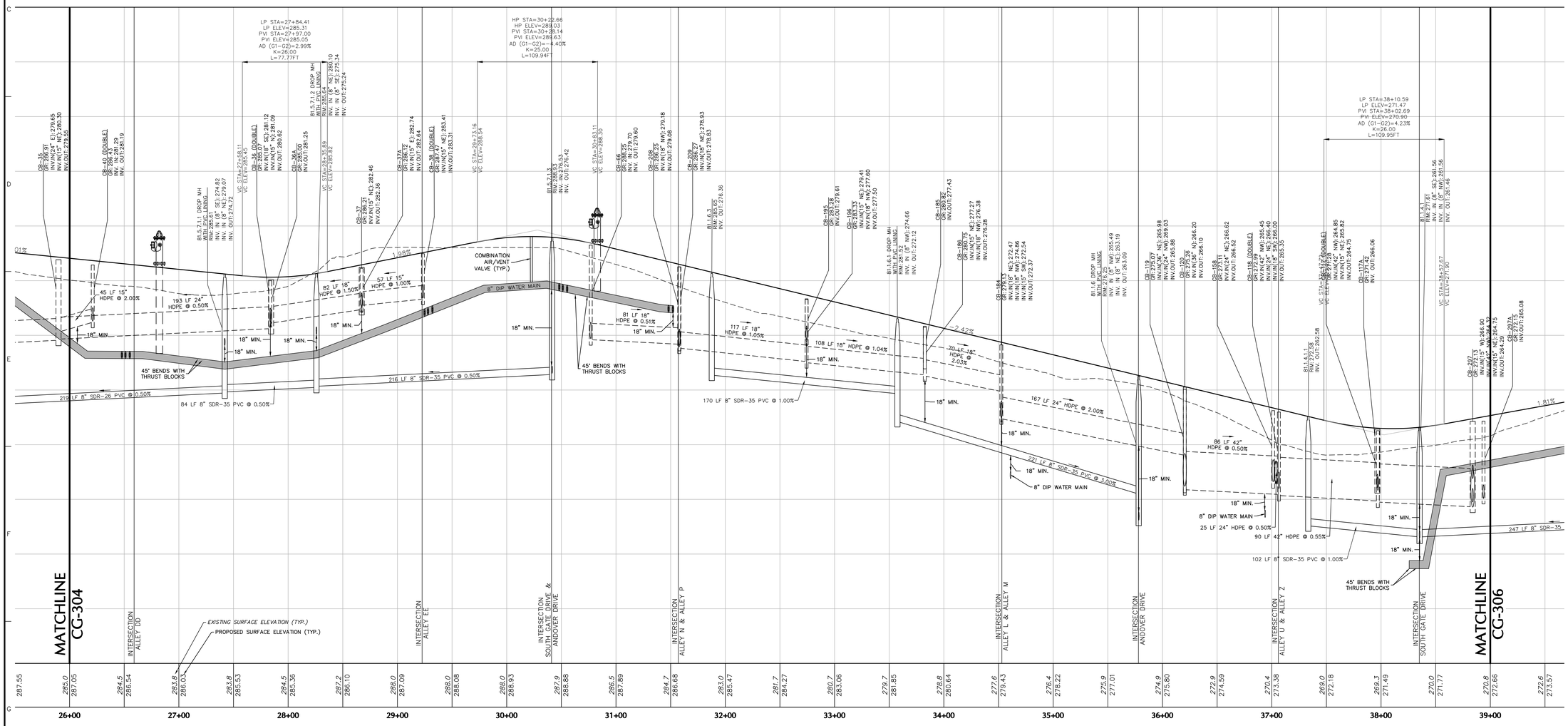


VANDERBILT DRIVE PLAN VIEW

40 0 20 40
SCALE IN FEET



VANDERBILT DRIVE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12–13–19
7.	REVISED PER MCCD COMMENTS	11–09–18
6.	REVISED PER COMMENT LETTERS	6–01–18
5.	REVISED PER COMMENT LETTERS	1–31–18
4.	REVISED PER COMMENT LETTERS	11–08–17
3.	REVISED PER COMMENT LETTERS	8–04–17
2.	REVISED PER COMMENT LETTERS	4–07–17
1.	REVISED PER COMMENT LETTERS	11–04–16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON C. ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No.	**240038801**
Date	**05/31/16**
Scale	**AS SHOWN**
Drawn By	**JDM**
Submission Date	
Drawing No.	**CG-305**
Sheet	125 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019 LANGAN

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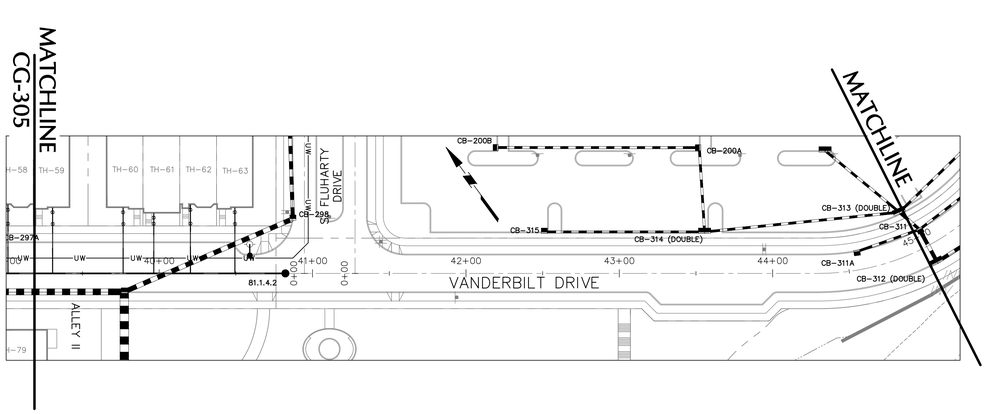
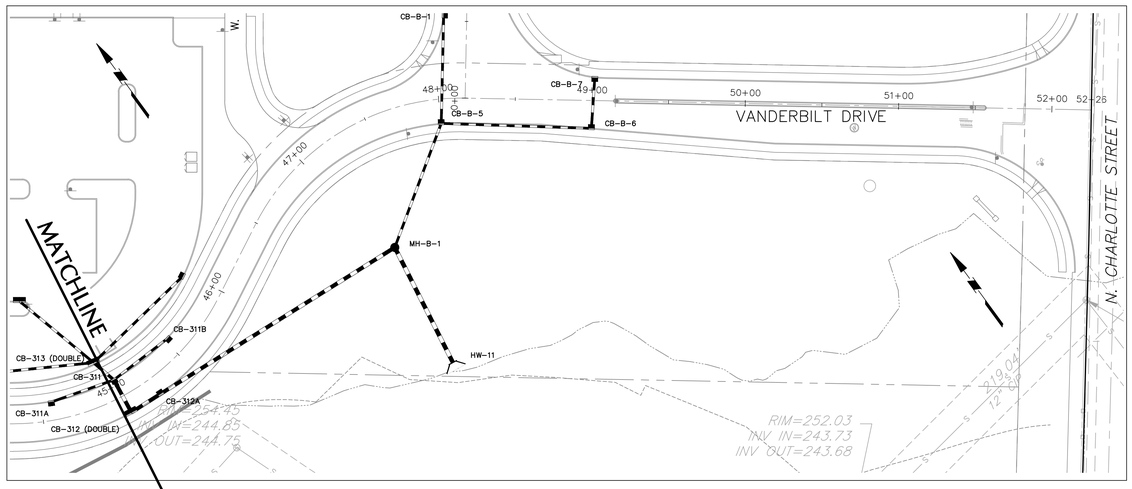
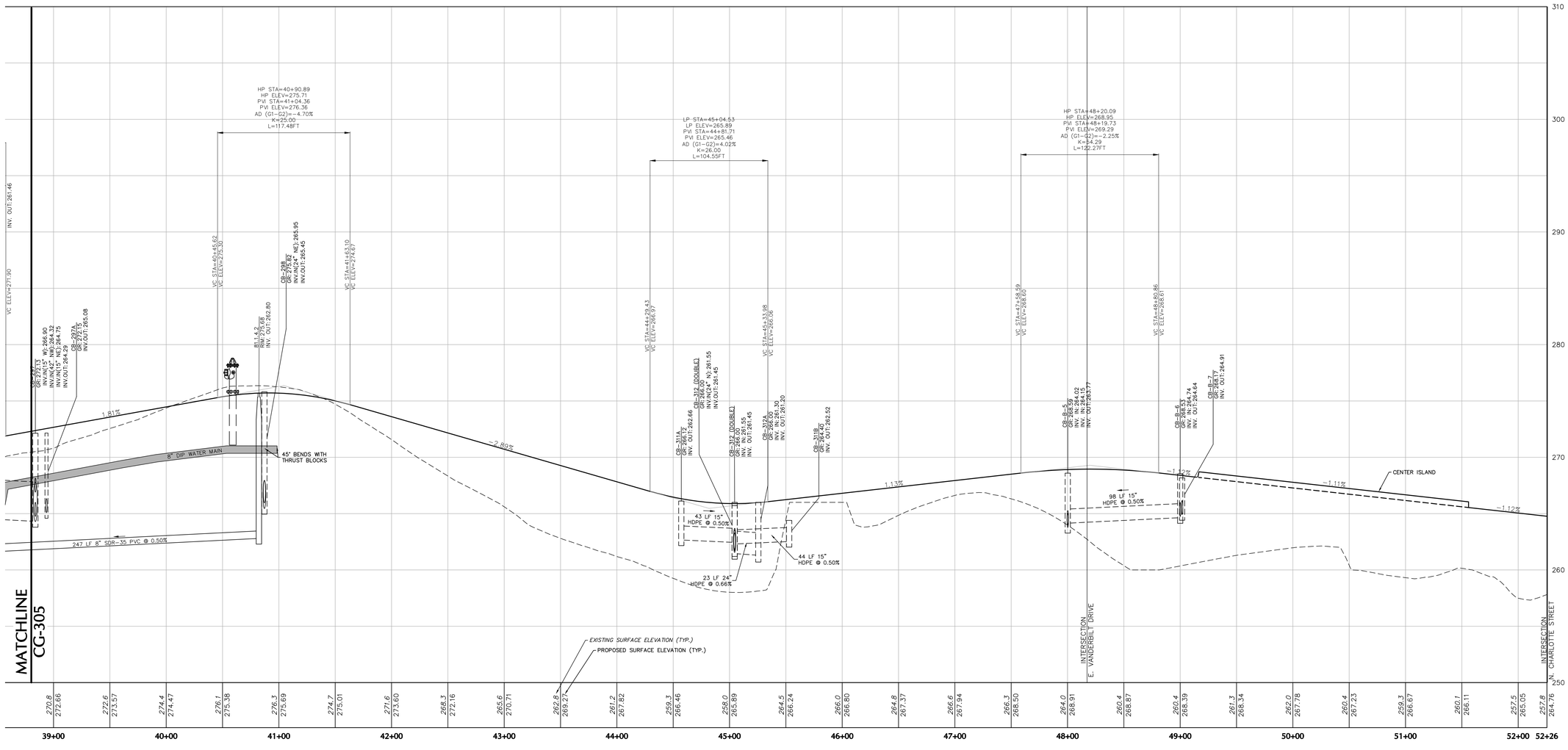




VANDERBILT DRIVE PLAN VIEW

40 0 20 40
SCALE IN FEET



VANDERBILT DRIVE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
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4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. **240038801**	Drawing No. **CG-306**
Date **05/31/16**	
Scale **AS SHOWN**	
Drawn By **JDM**	
Submission Date	Sheet 126 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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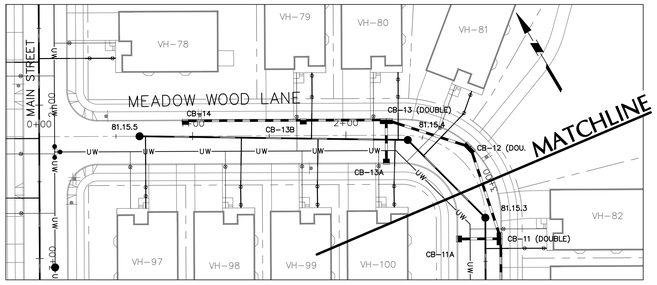
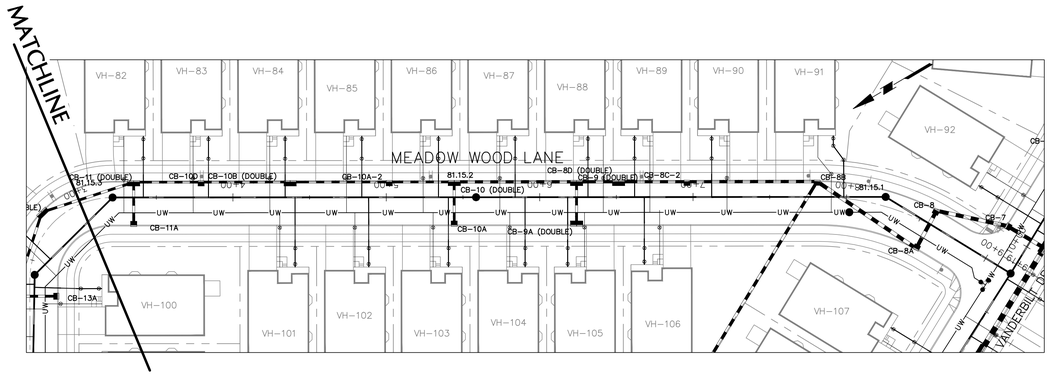
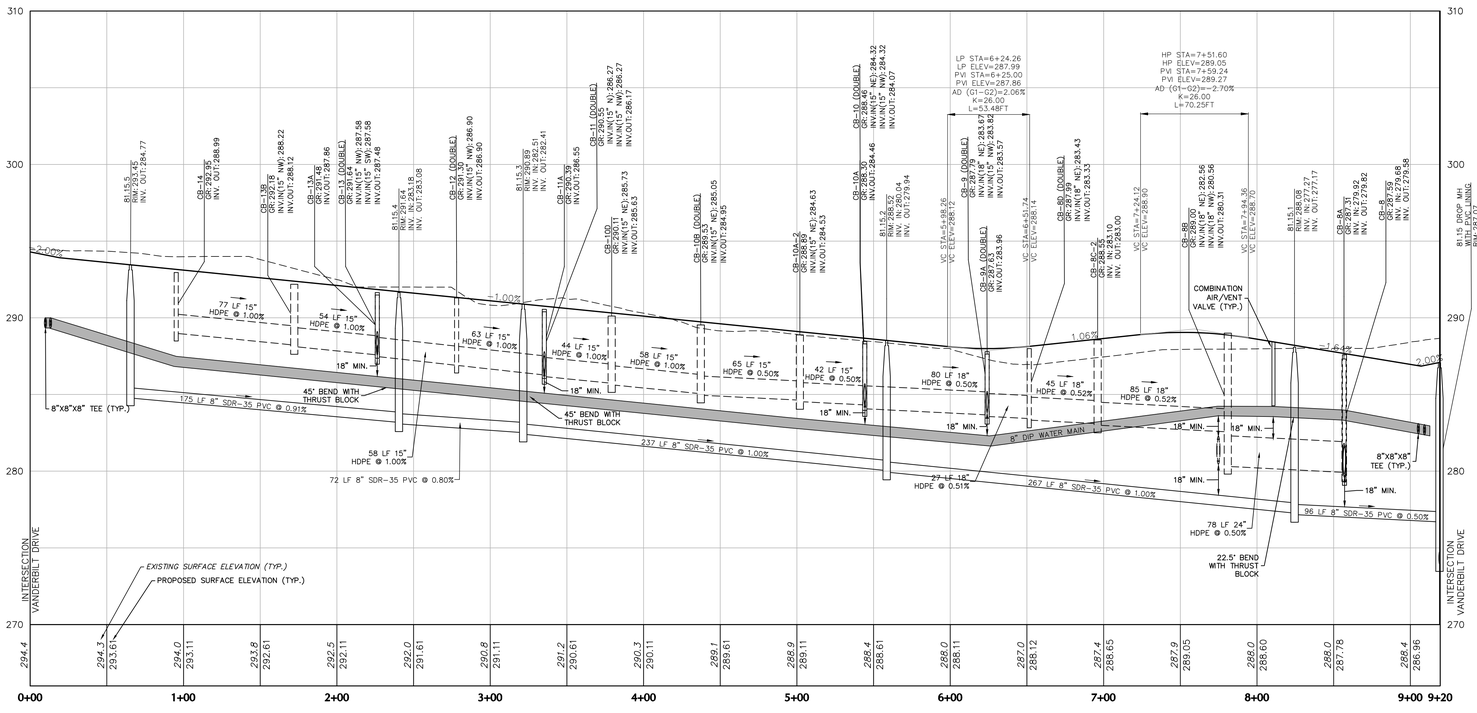




MEADOW WOOD LANE PLAN VIEW

40 0 20 40
SCALE IN FEET



MEADOW WOOD LANE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET
40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
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5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON S. ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-307
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 127 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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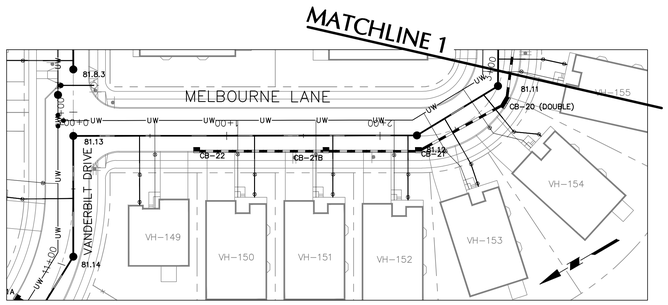

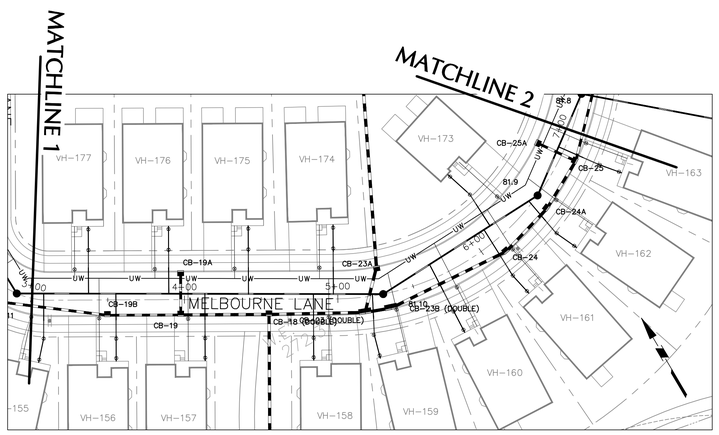

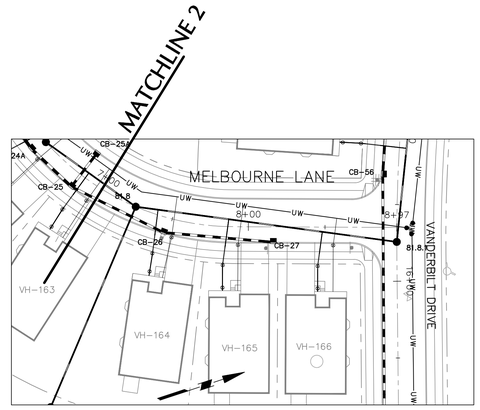

MELBOURNE LANE PLAN VIEW

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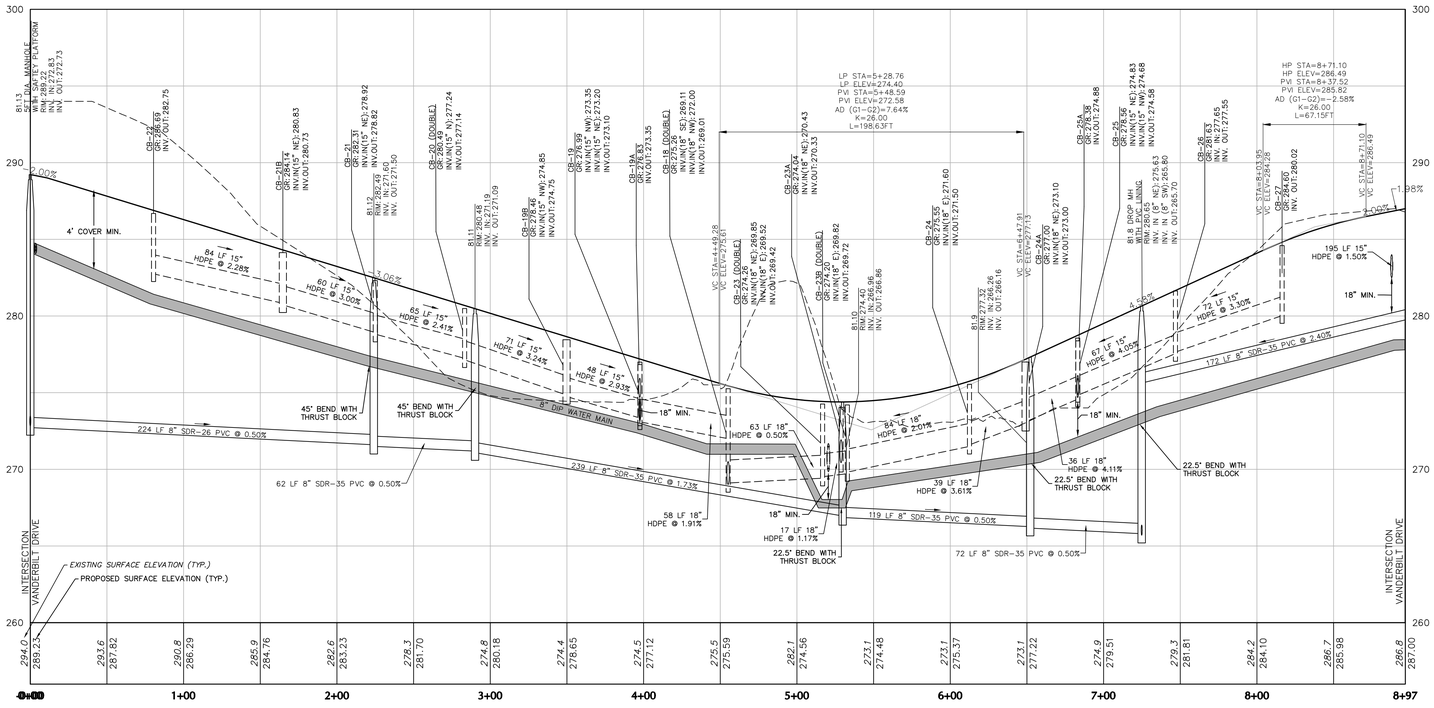
SCALE IN FEET



MELBOURNE LANE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER PROVINCE OF PENNSYLVANIA

SIGNATURE DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

ROADWAY & UTILITY PROFILES

Project No. **240038801**	Drawing No. **CG-308**
Date **05/31/16**	
Scale **AS SHOWN**	
Drawn By **JDM**	
Submission Date	Sheet 128 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019 LANGAN

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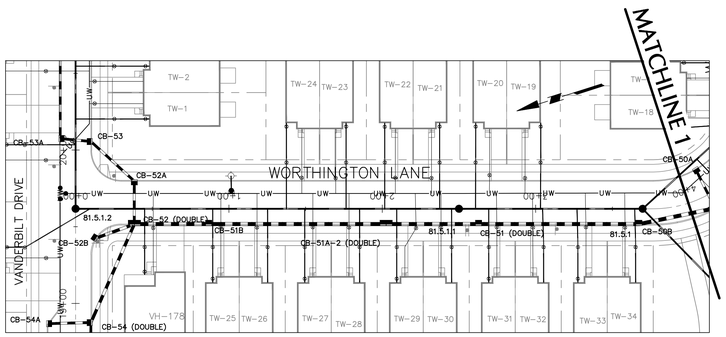
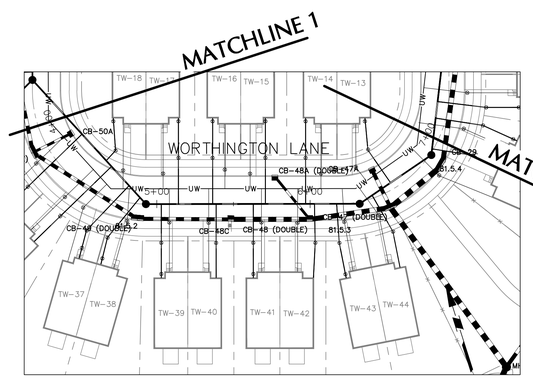
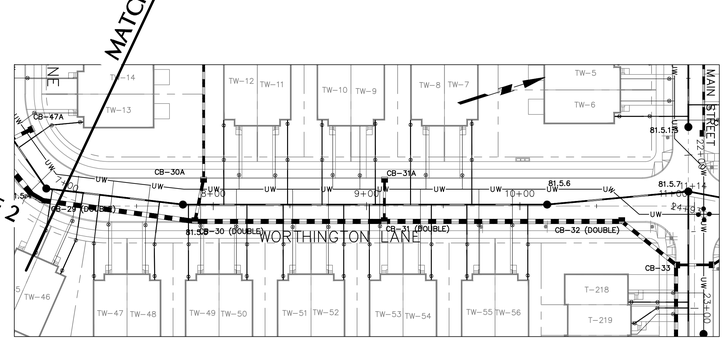
Filename: \\langan.com\data\BE\data8\240038801\cadd data - 240038801\sheetfiles\240038801 CG308.dwg Date: 12/12/2019 Time: 10:17 User: dmoyer Style Table: ---- Layout: CG-308







WORTHINGTON LANE PLAN VIEW

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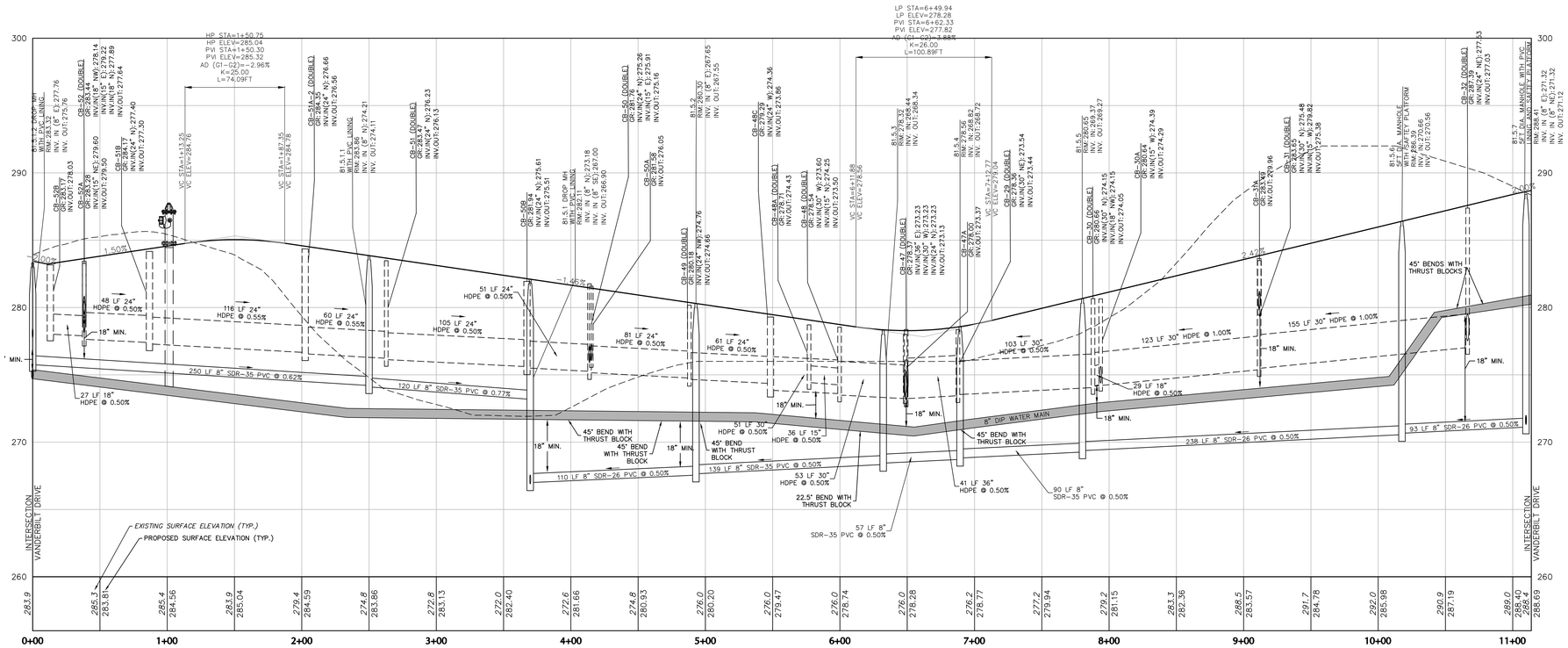

WORTHINGTON LANE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-309
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 129 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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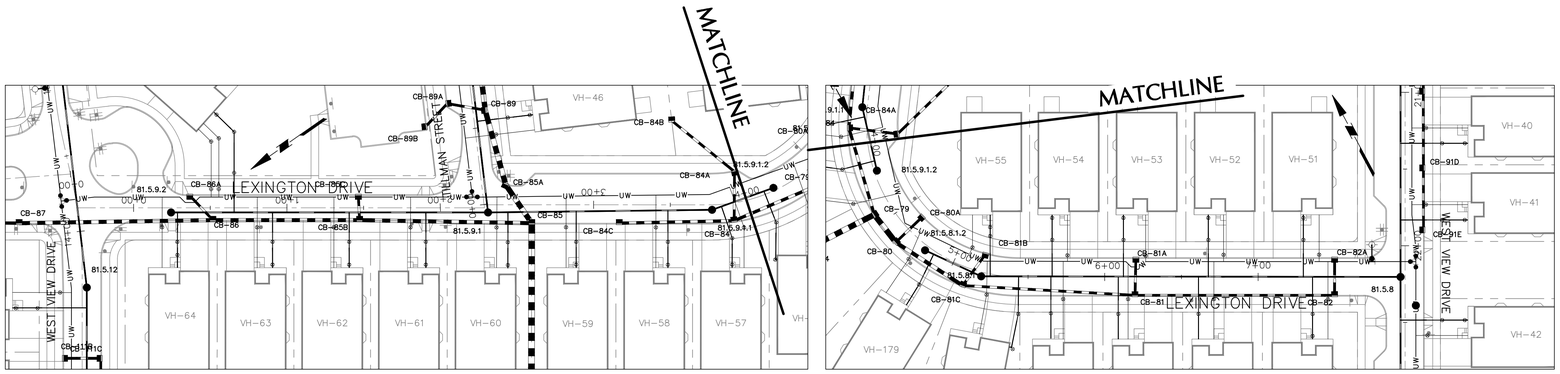

LEXINGTON DRIVE PLAN VIEW

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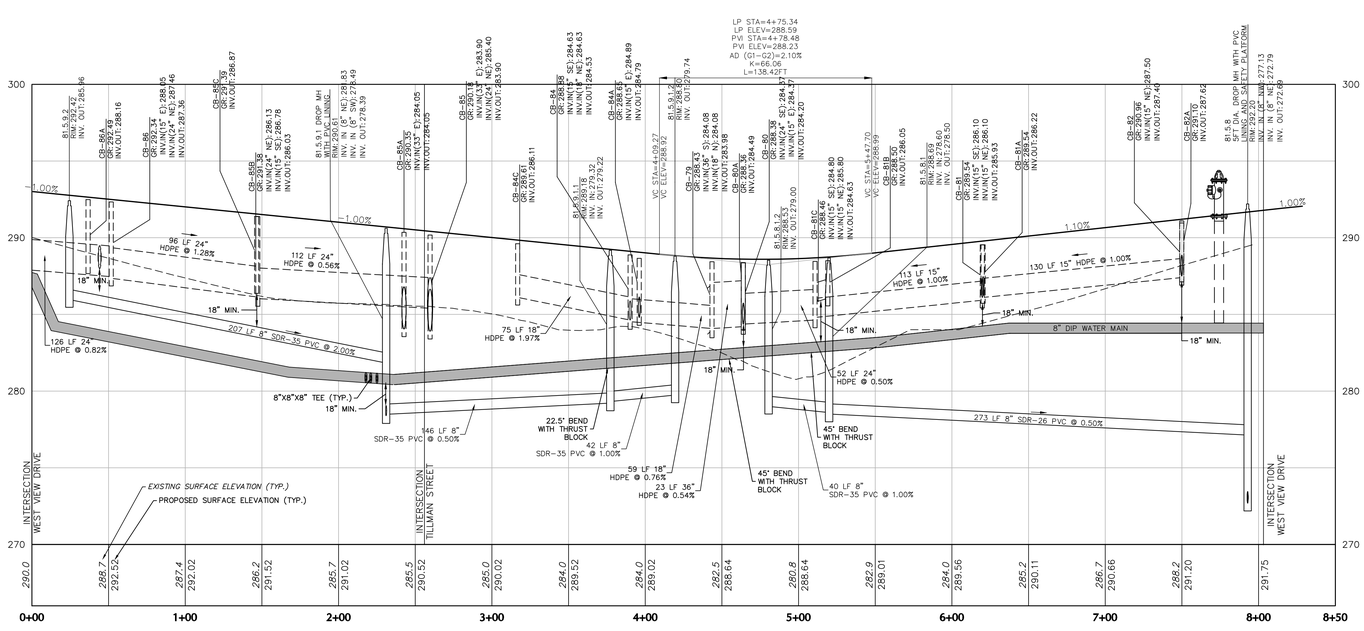
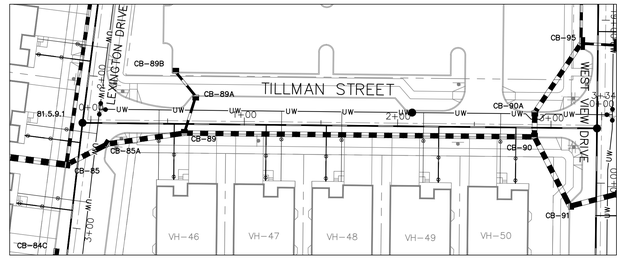


LEXINGTON DRIVE PROFILE



TILLMAN STREET PLAN VIEW

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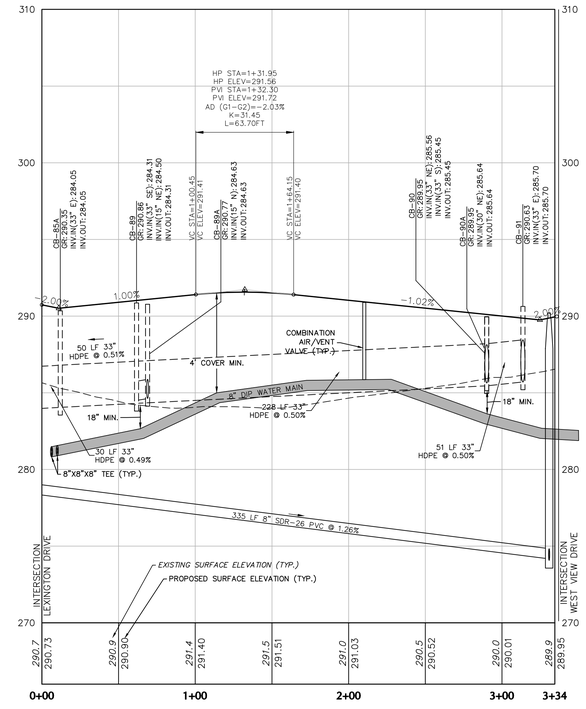

TILLMAN STREET PROFILE

VERTICAL SCALE IN FEET: 4 0 2 4

HORIZONTAL SCALE IN FEET: 40 0 20 40

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
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4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

JASON WEALE ENGINEERING REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-310
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 130 of 187

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SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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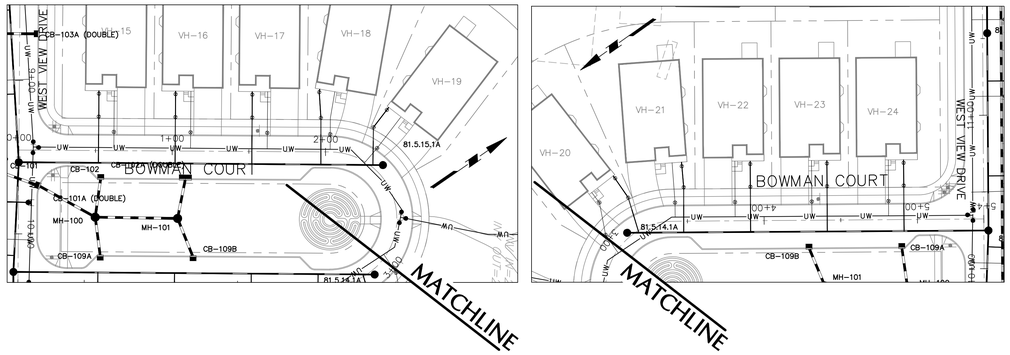
Filename: \\langan.com\data\BE\data8\240038801\caadd data - 240038801\sheetfiles\240038801 CG310.dwg Date: 12/12/2019 Time: 10:33 User: dmoyer Style Table: ----- Layout: CG-310



BOWMAN COURT PLAN VIEW

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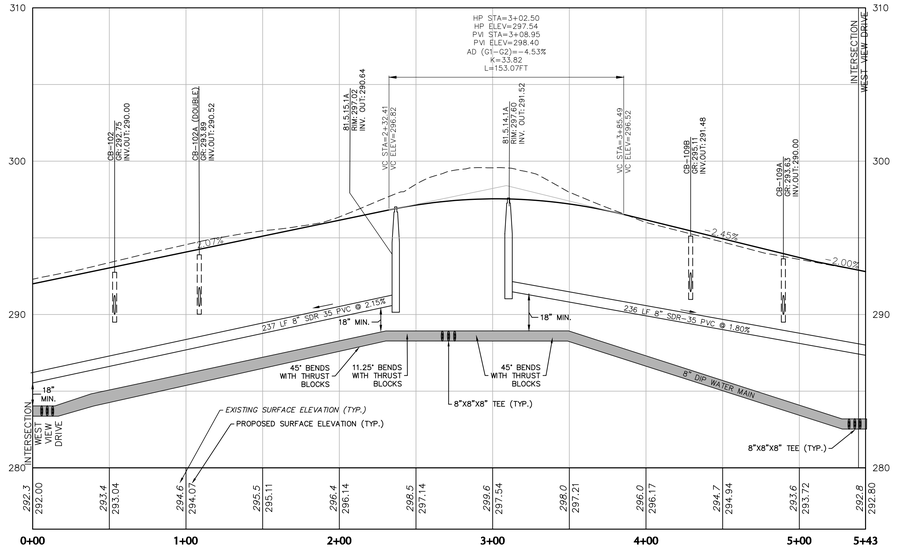
SCALE IN FEET



BOWMAN COURT PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
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PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON S. ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-311
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 131 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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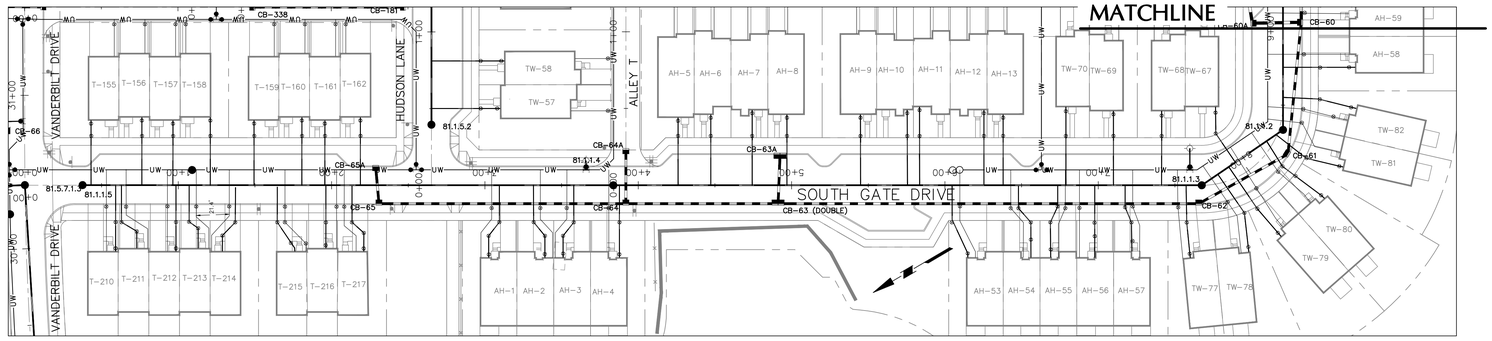

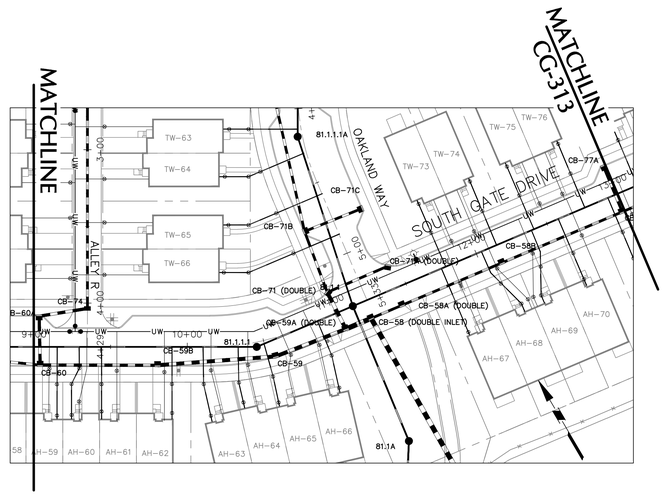

SOUTH GATE DRIVE PLAN VIEW

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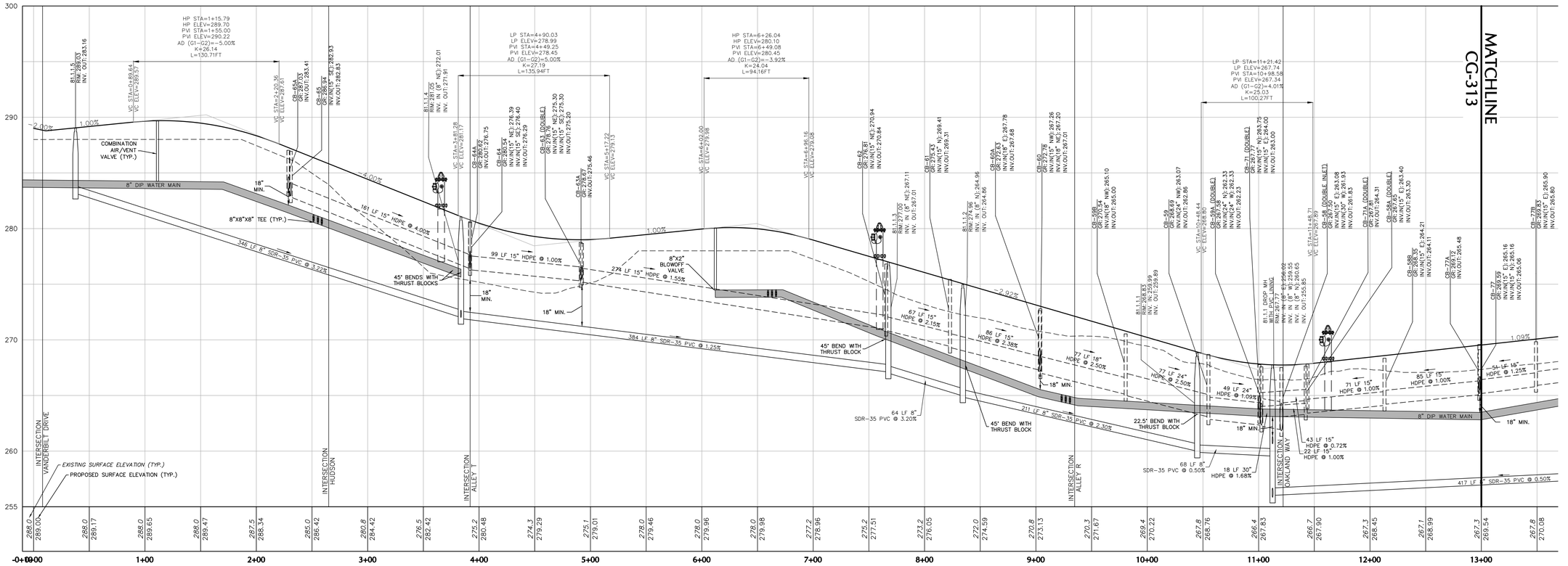
SCALE IN FEET



SOUTH GATE DRIVE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET
40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Date	Description	No.
12–13–19	REVISED PER COMMENT LETTERS	8.
11–09–18	REVISED PER COMMENT LETTERS	7.
6–01–18	REVISED PER MCCD COMMENTS	6.
1–31–18	REVISED PER COMMENT LETTERS	5.
11–08–17	REVISED PER COMMENT LETTERS	4.
8–04–17	REVISED PER COMMENT LETTERS	3.
4–07–17	REVISED PER COMMENT LETTERS	2.
11–04–16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE JASON S. ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE–057145–E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-312
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 132 of 187

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SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

Filename: \\langan.com\data\BE\data8\240038801\cadd data – 240038801\sheetfiles\240038801 CG312–313.dwg Date: 12/12/2019 Time: 10:49 User: dmoyer
Style Table: ——— Layout: CG–312
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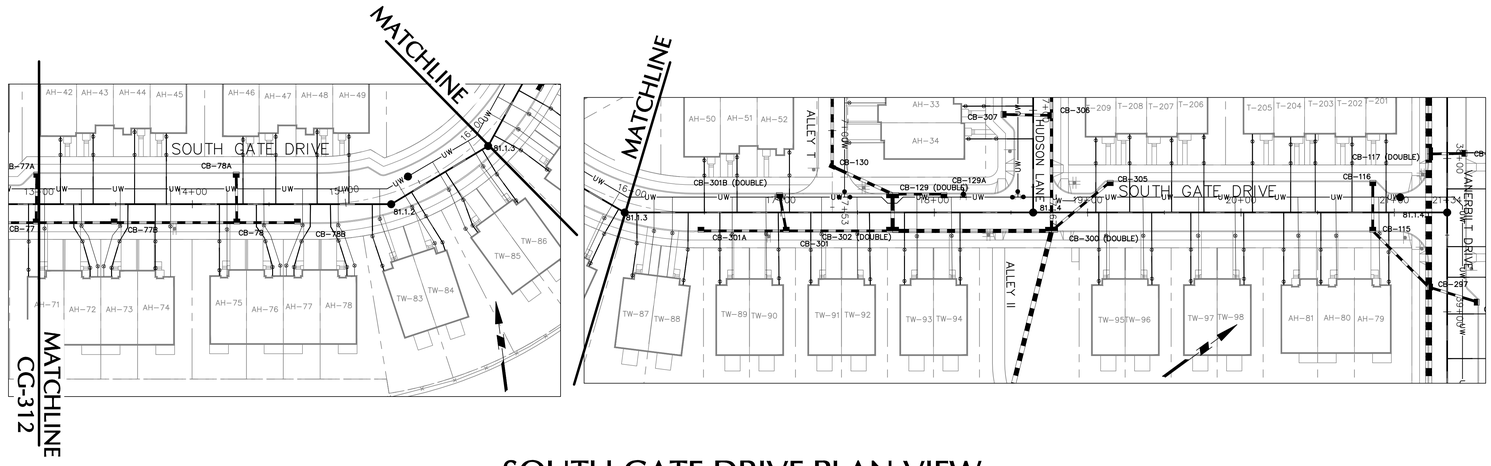

SOUTH GATE DRIVE PLAN VIEW

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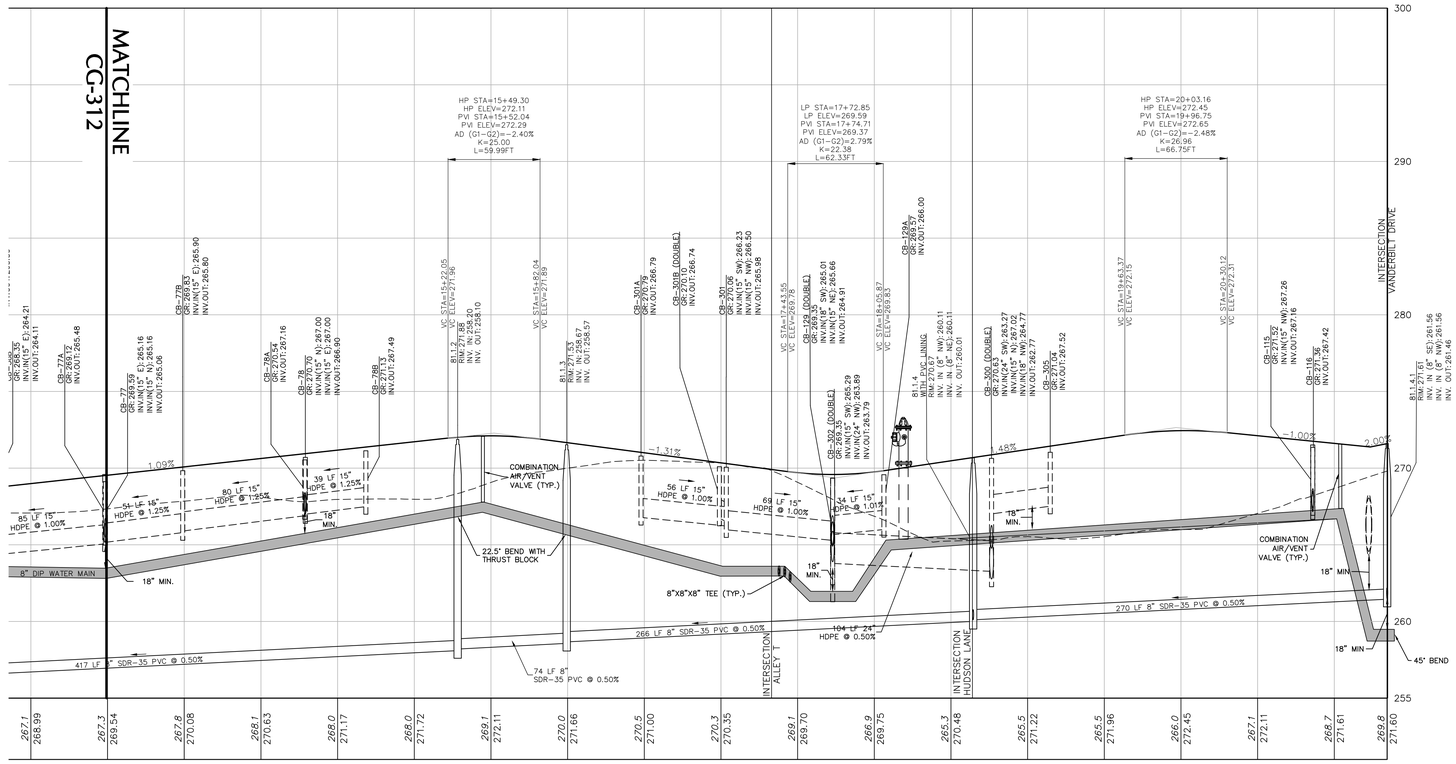
SCALE IN FEET



SOUTH GATE DRIVE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET
40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
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6.	REVISED PER MCCD COMMENTS	6-01-18
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2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE
JASON SCOTT ENGELHARDT
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E
DATE SIGNED

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Langan Engineering and Environmental Services, Inc.
Langan UK Limited
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. **240038801**	Drawing No. **CG-313**
Date **05/31/16**	
Scale **AS SHOWN**	
Drawn By **JDM**	
Submission Date	Sheet 133 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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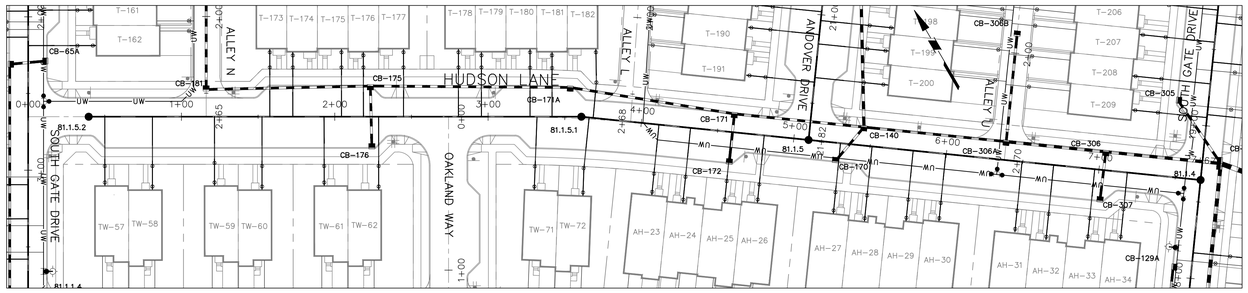

HUDSON LANE PLAN VIEW

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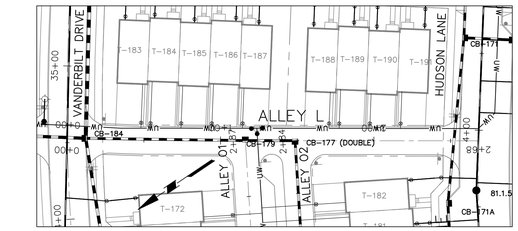
SCALE IN FEET



ALLEY L PLAN VIEW

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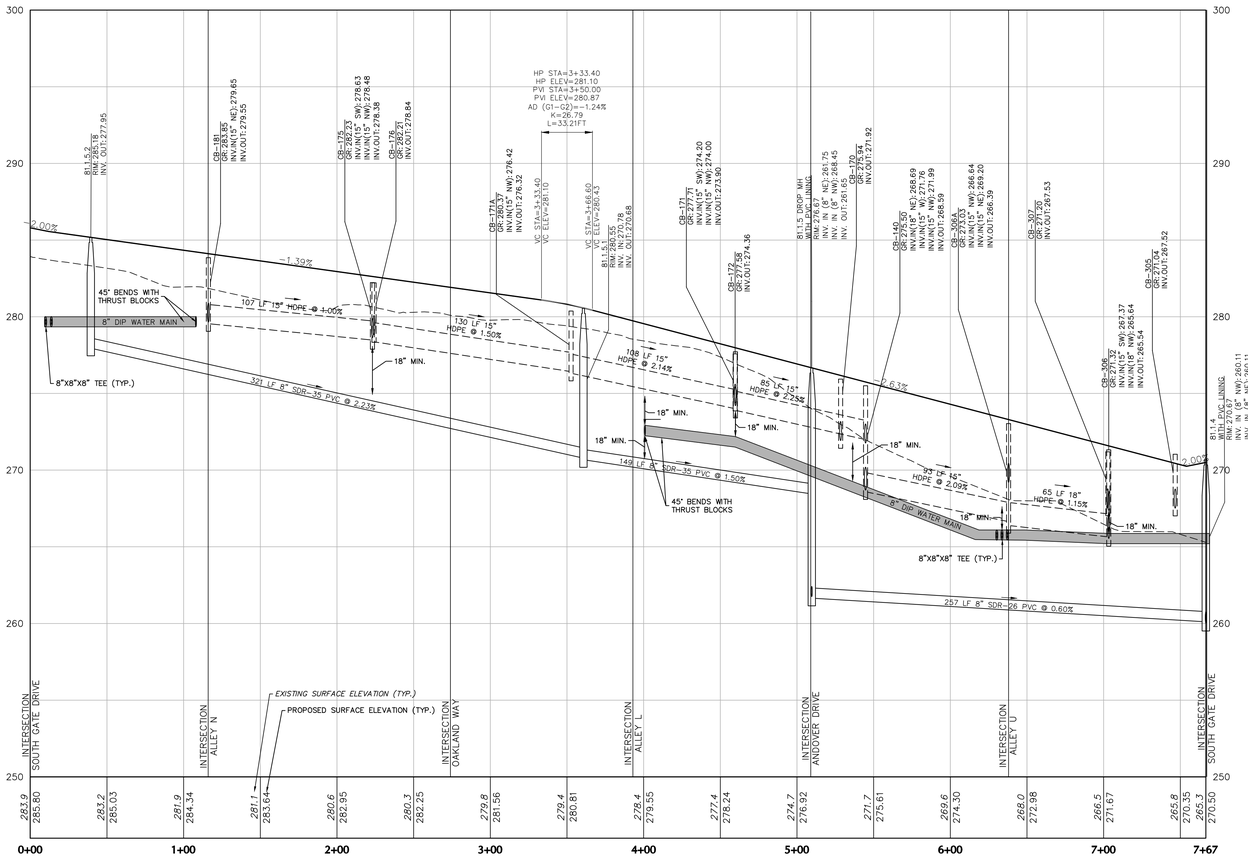
SCALE IN FEET



HUDSON LANE PROFILE

ALLEY L PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

12–13–19	REVISED PER COMMENT LETTERS	8.
11–09–18	REVISED PER COMMENT LETTERS	7.
6–01–18	REVISED PER MCCD COMMENTS	6.
1–31–18	REVISED PER COMMENT LETTERS	5.
11–08–17	REVISED PER COMMENT LETTERS	4.
8–04–17	REVISED PER COMMENT LETTERS	3.
4–07–17	REVISED PER COMMENT LETTERS	2.
11–04–16	REVISED PER COMMENT LETTERS	1.
Date	Description	No.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE–057145–E

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Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

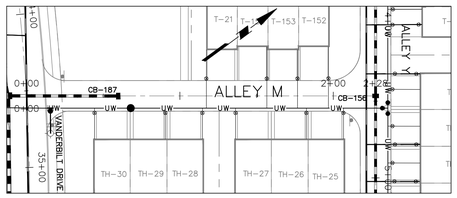
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-314
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 134 of 187

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

Filename: \\langan.com\data\BE\data8\240038801\cadd data – 240038801\sheetfiles\240038801 CG314.dwg Date: 12/12/2019 Time: 10:57 User: dmoyer Style Table: ----- Layout: CG-314



ALLEY M PLAN VIEW

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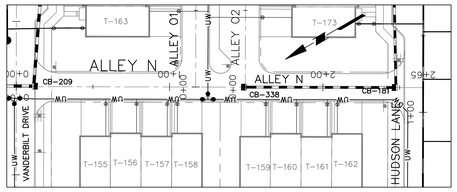
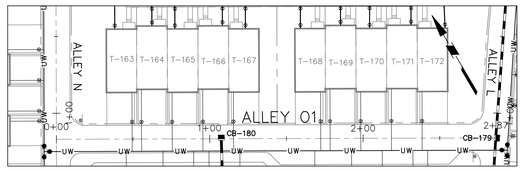
SCALE IN FEET



ALLEY N PLAN VIEW

40 0 20 40
SCALE IN FEET



ALLEY O1 PLAN VIEW

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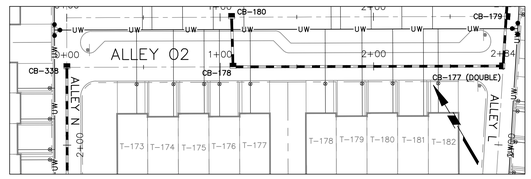
SCALE IN FEET



ALLEY O2 PLAN VIEW

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SCALE IN FEET

ALLEY M PROFILE

ALLEY N PROFILE

ALLEY O1 PROFILE

ALLEY O2 PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
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2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	7-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE DATE SIGNED
JASON SCOTT ENGELHARDT, P.E.
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. **240038801**	Drawing No. **CG-315**
Date **05/31/16**	
Scale **AS SHOWN**	
Drawn By **JDM**	
Submission Date	Sheet 135 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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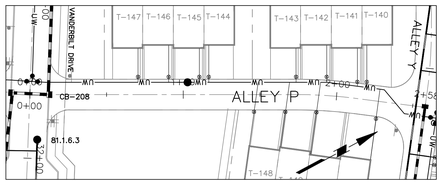

ALLEY P PLAN VIEW

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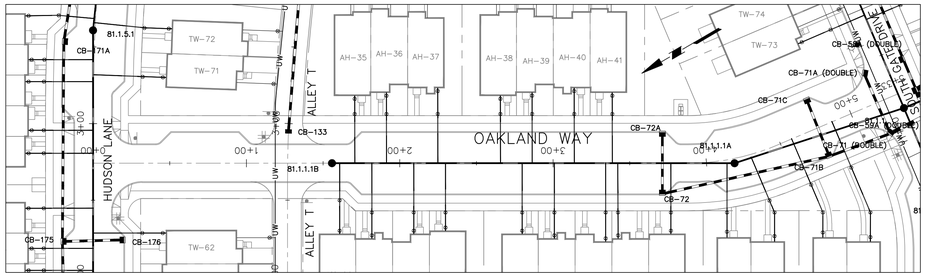
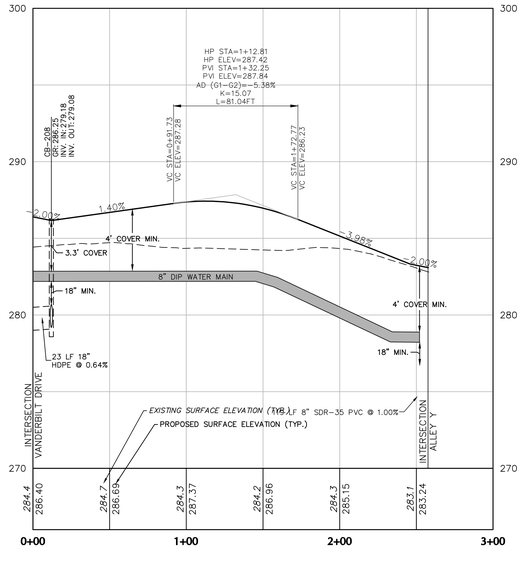
SCALE IN FEET

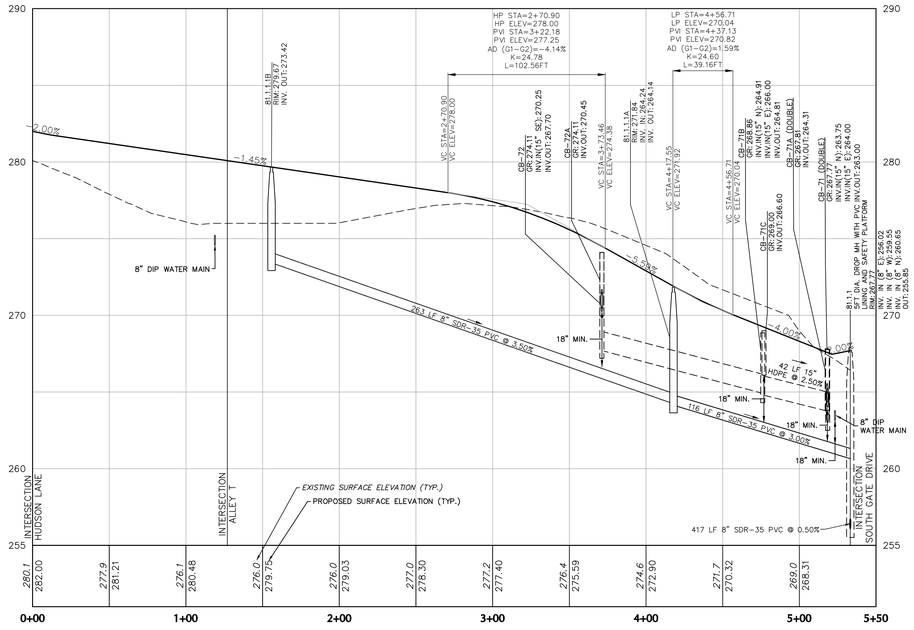


OAKLAND WAY PLAN VIEW

40 0 20 40
SCALE IN FEET



ALLEY P PROFILE



OAKLAND WAY PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
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PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
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4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. **240038801**	Drawing No. **CG-316**
Date **05/31/16**	
Scale **AS SHOWN**	
Drawn By **JDM**	
Submission Date	Sheet 136 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019 LANGAN

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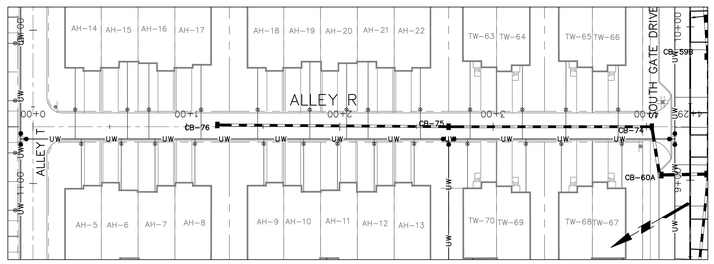
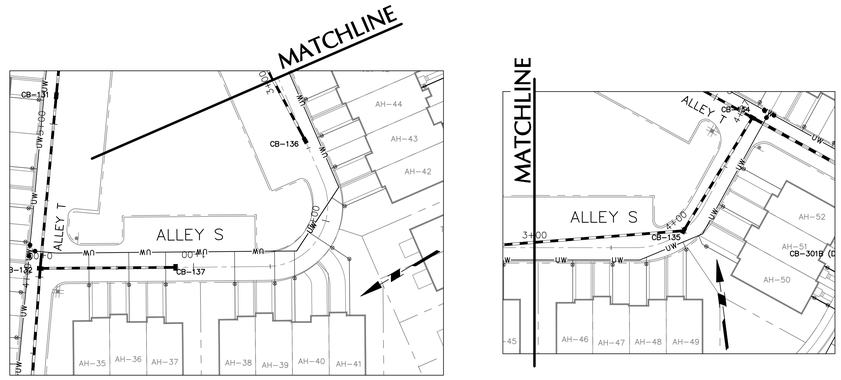
Filename: \\langan.com\data\BE\data8\240038801\caddd data - 240038801\sheetfiles\240038801 CG316.dwg Date: 12/12/2019 Time: 11:14 User: dmoyer Style Table: ---- Layout: CG-316



ALLEY R PLAN VIEW

40 0 20 40
SCALE IN FEET



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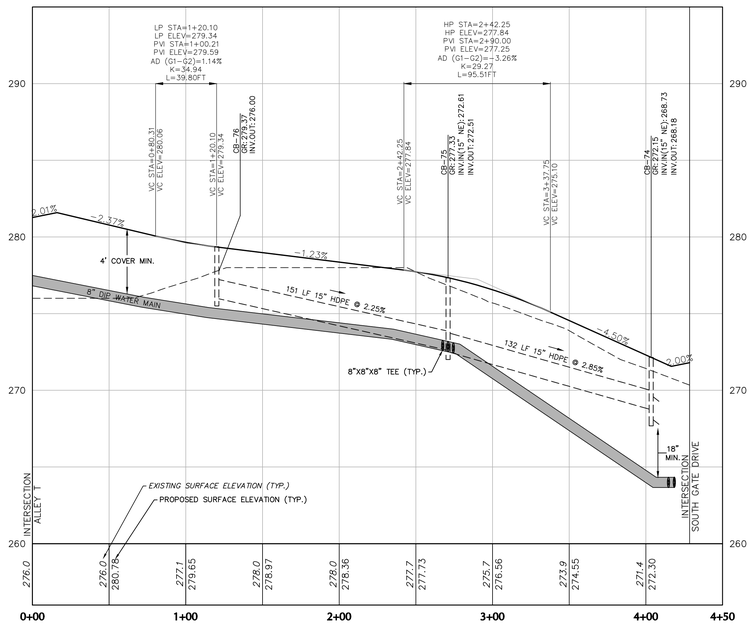
SCALE IN FEET



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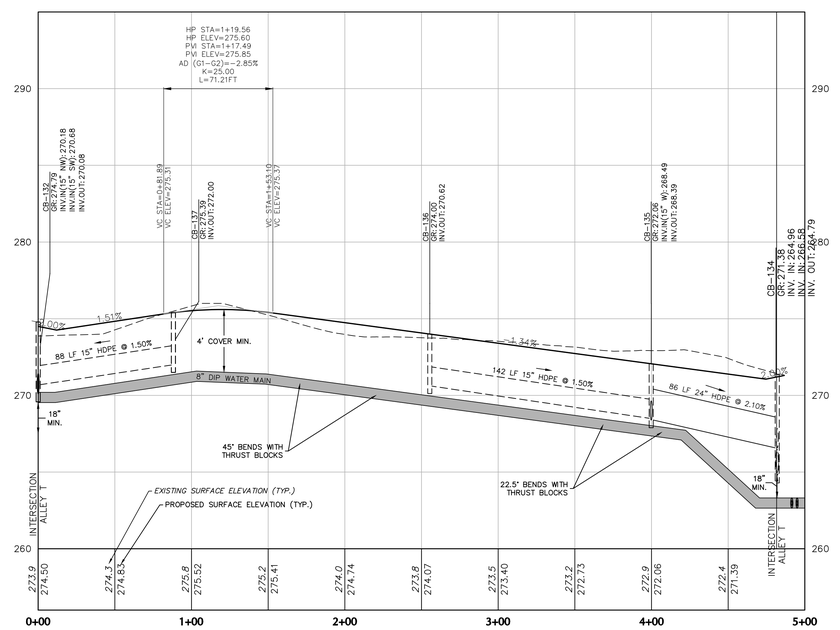

ALLEY S PROFILE

4 0 2 4
VERTICAL SCALE IN FEET
40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-317
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 137 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

Filename: \\langan.com\data\BE\data8\240038801\cadd data – 240038801\sheetfiles\240038801 CG317.dwg Date: 12/12/2019 Time: 11:22 User: dmoyer Style Table: ----- Layout: CG-317
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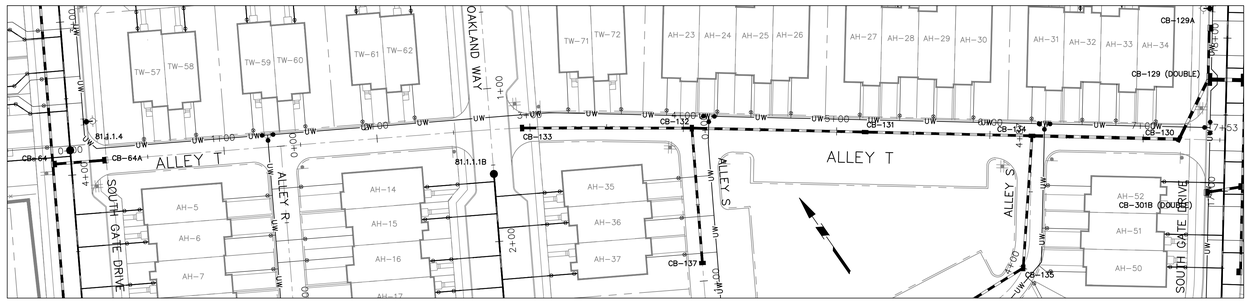

ALLEY T PLAN VIEW

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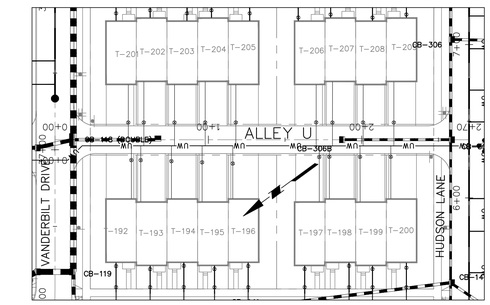
SCALE IN FEET



ALLEY U PLAN VIEW

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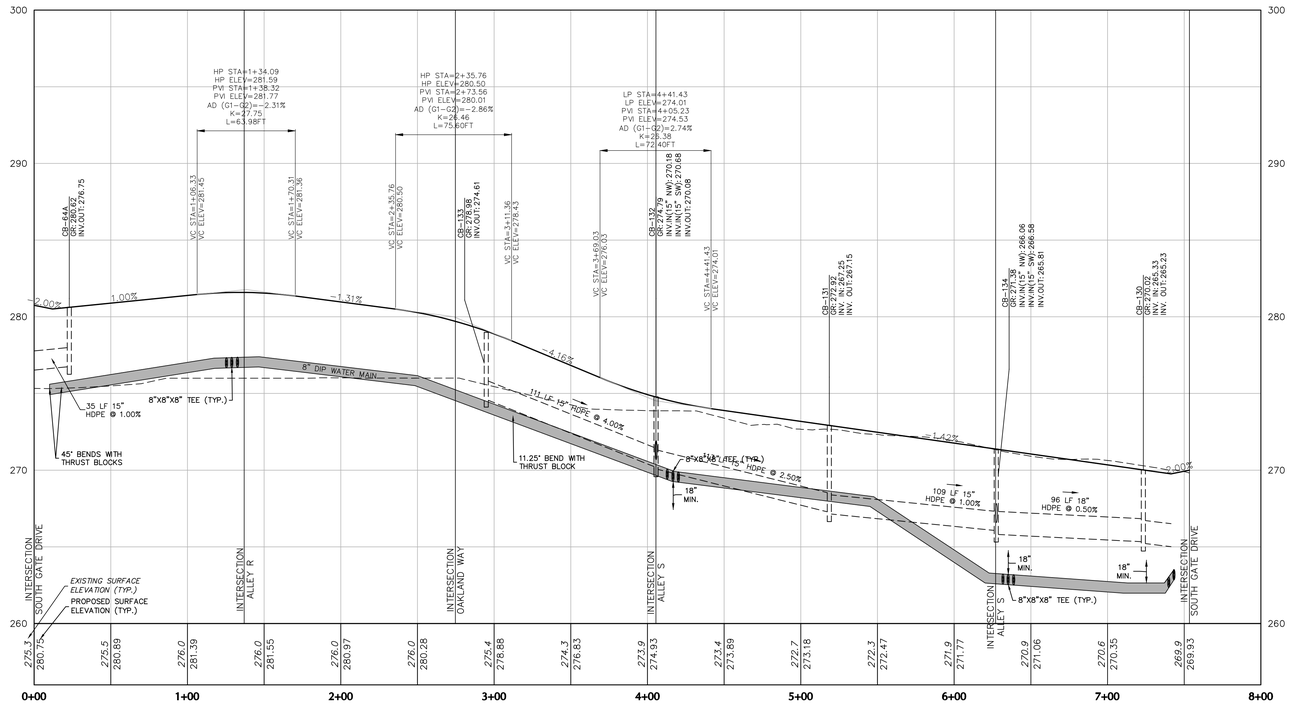
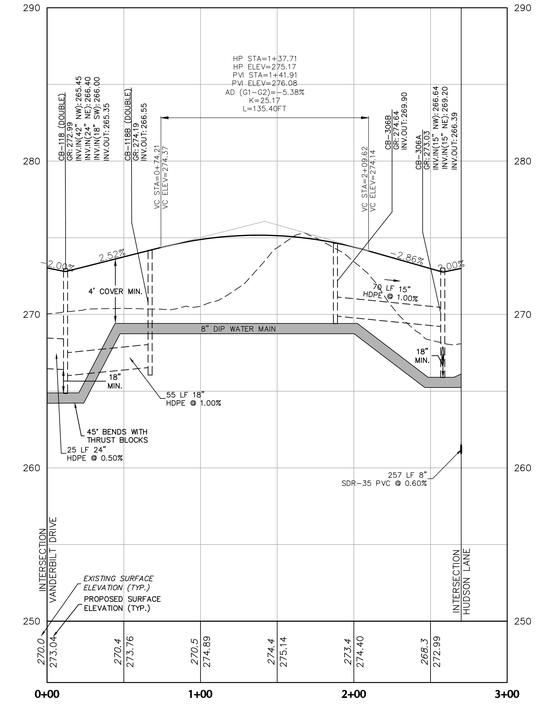


ALLEY T PROFILE



ALLEY U PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
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8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-318
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 138 of 187

OWNER
RP WYNNSTONE, L.P.
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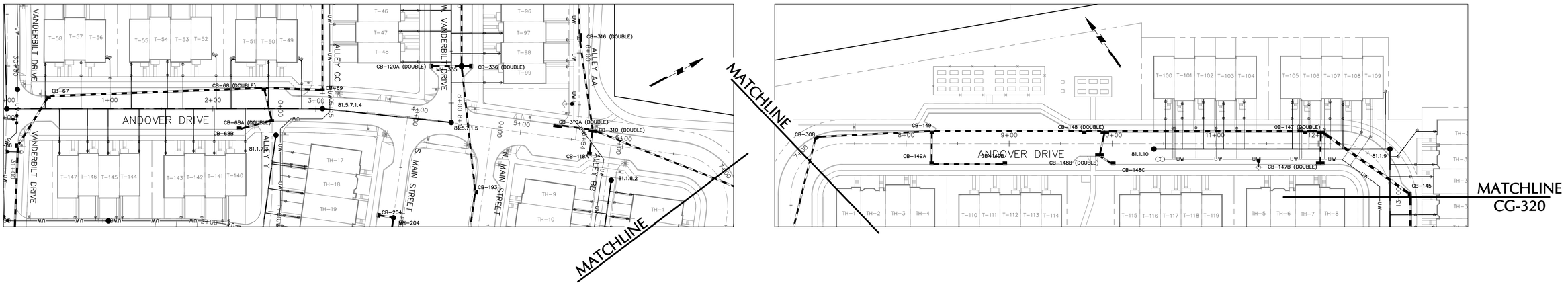
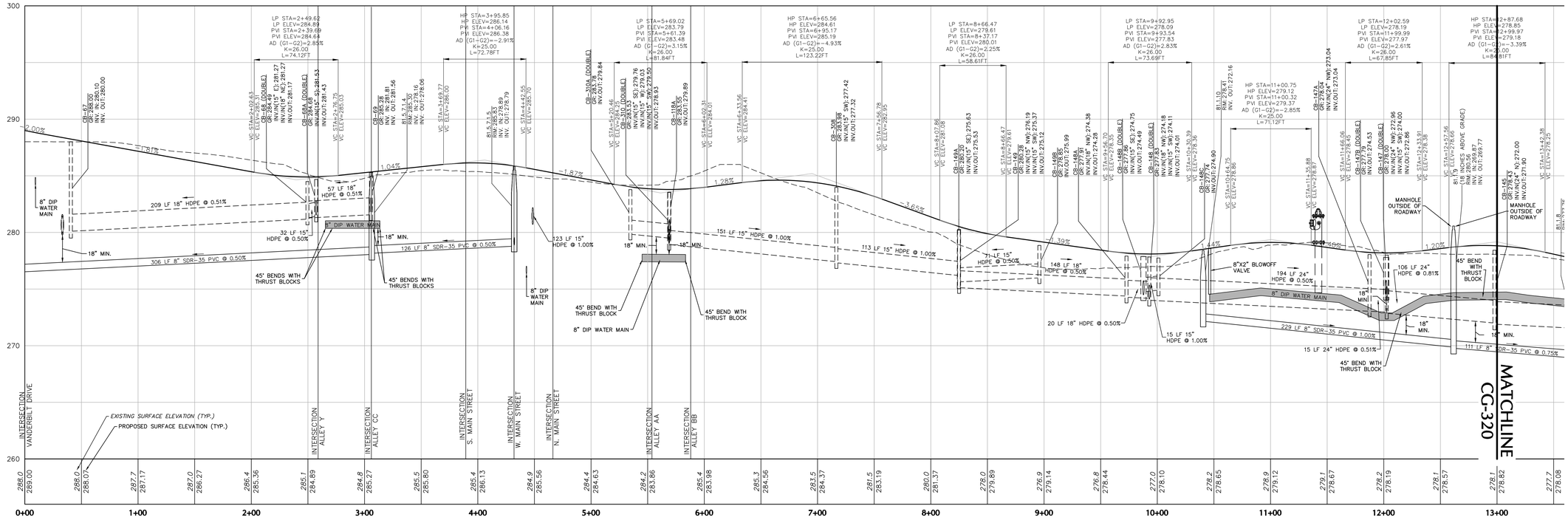
PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019 LANGAN



ANDOVER DRIVE PLAN VIEW

SCALE IN FEET: 40 0 20 40



ANDOVER DRIVE PROFILE

VERTICAL SCALE IN FEET: 4 0 2 4

HORIZONTAL SCALE IN FEET: 40 0 20 40

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
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3.	REVISED PER COMMENT LETTERS	8–04–17
2.	REVISED PER COMMENT LETTERS	4–07–17
1.	REVISED PER COMMENT LETTERS	11–04–16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED

PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering and Environmental Services, Inc.
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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. **240038801**	Drawing No. **CG-319**
Date **05/31/16**	
Scale **AS SHOWN**	
Drawn By **JDM**	
Submission Date	Sheet 139 of 187

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Filename: \\langan.com\data\BE\data8\240038801\cadd data – 240038801\sheetfiles\240038801 CG319–320.dwg Date: 12/12/2019 Time: 11:36 User: dmayer
Style Table: ----- Layout: CG–319

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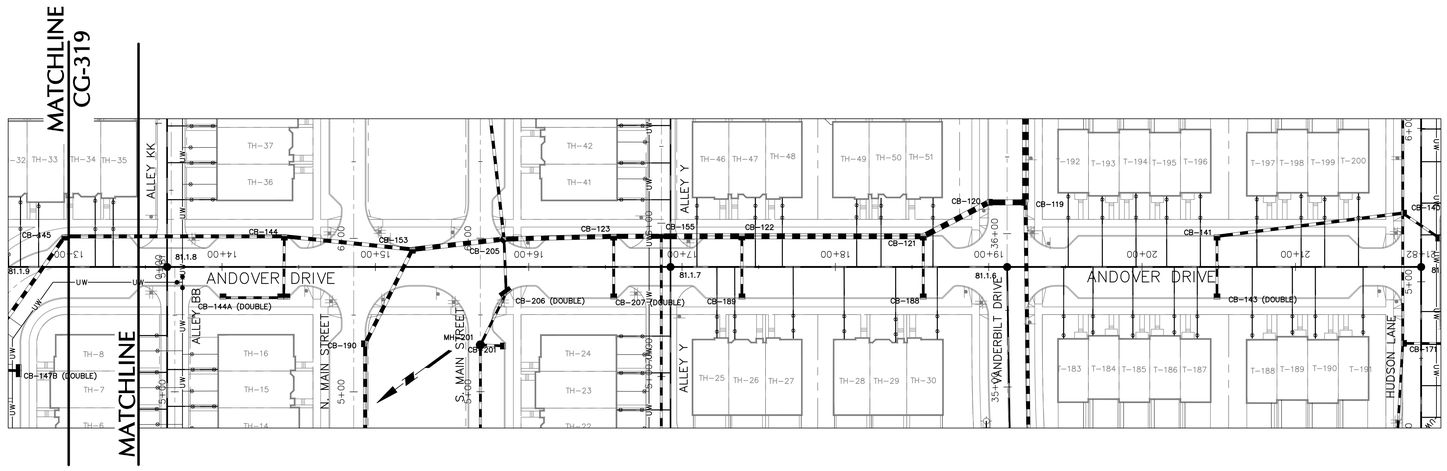
PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019



ANDOVER DRIVE PLAN VIEW

40 0 20 40
SCALE IN FEET

ANDOVER DRIVE PROFILE

MATCHLINE CG-319

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
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4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

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PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-320
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 140 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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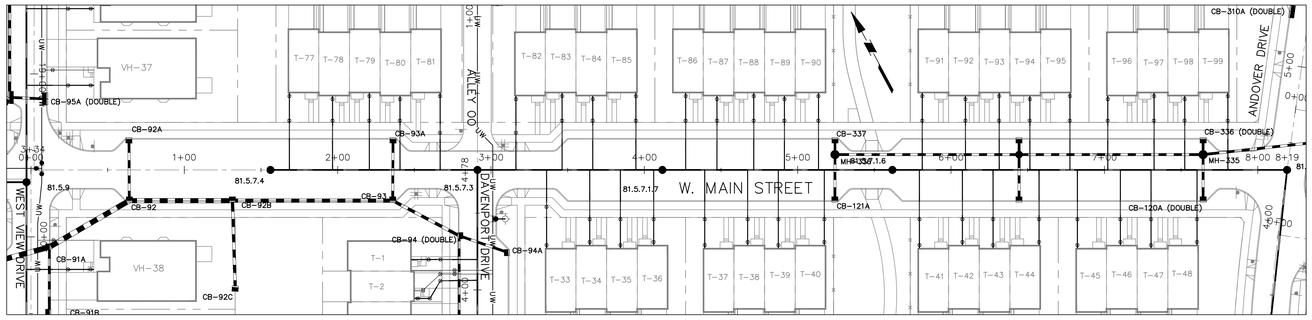
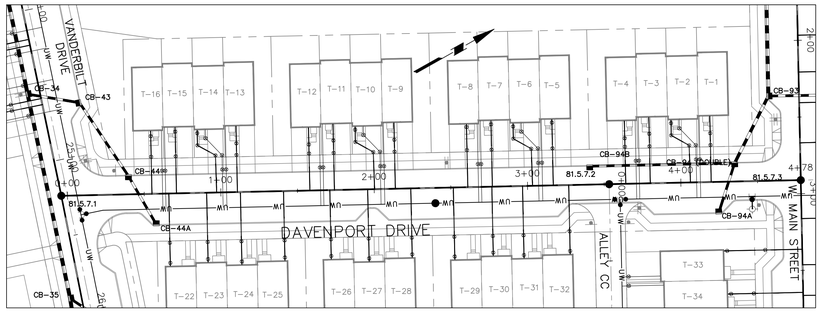


W. MAIN STREET PLAN VIEW

40 0 20 40
SCALE IN FEET



DAVENPORT DRIVE PLAN VIEW

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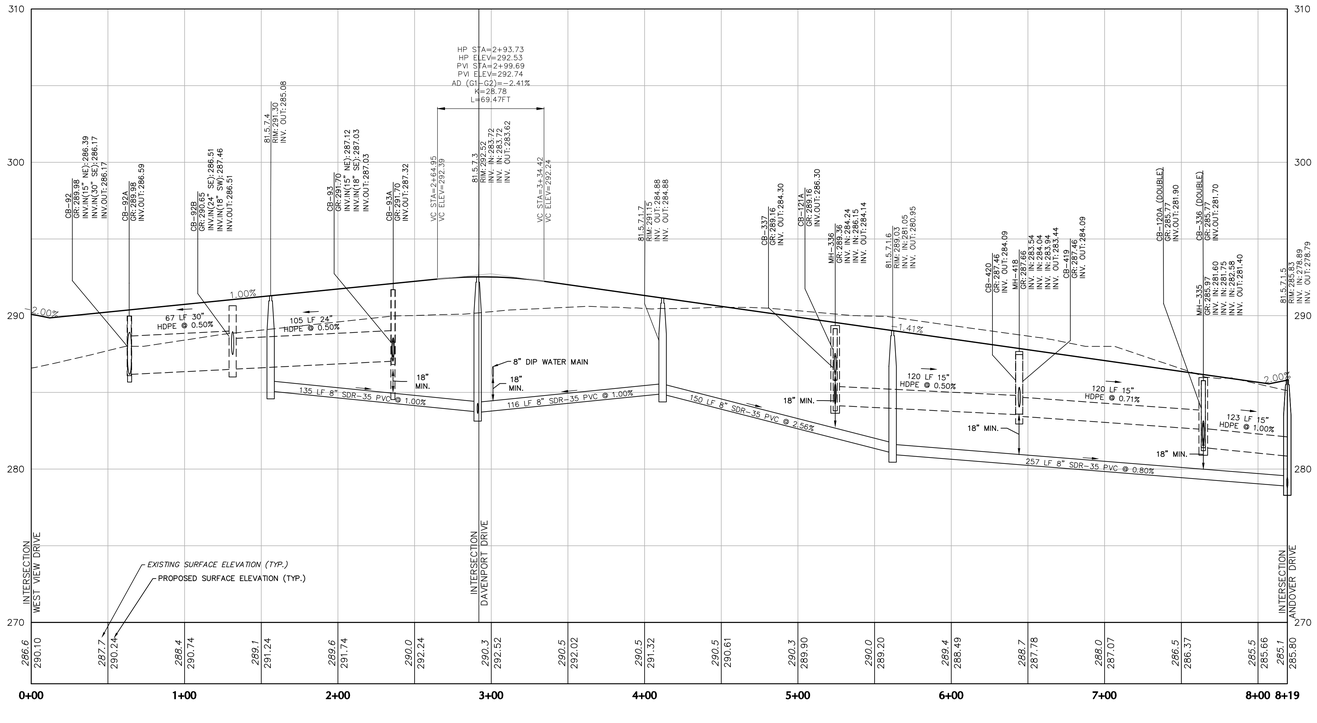
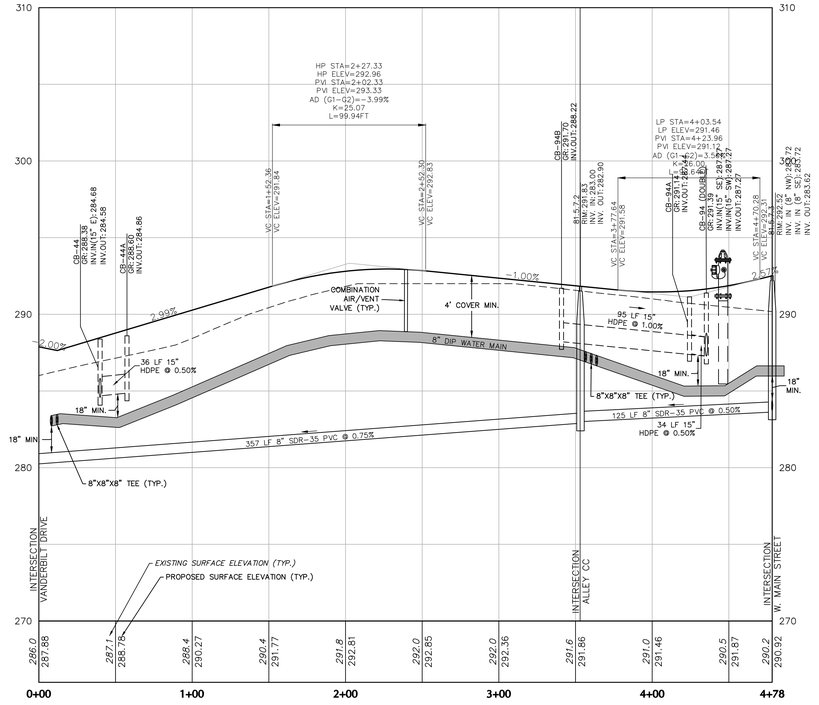
SCALE IN FEET



W. MAIN STREET PROFILE



DAVENPORT DRIVE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET
40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. **240038801**	Drawing No. **CG-321**
Date **05/31/16**	
Scale **AS SHOWN**	
Drawn By **JDM**	
Submission Date	Sheet 141 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019 LANGAN

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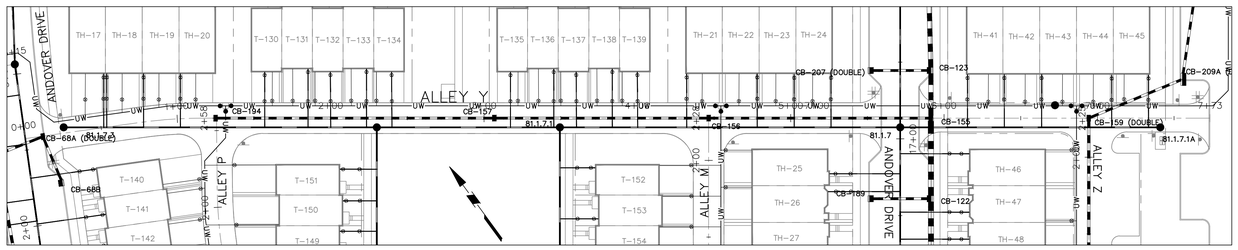
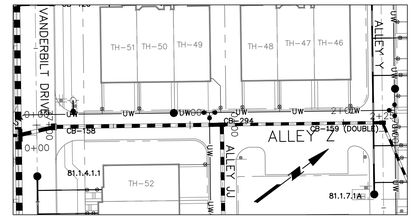
Filename: \\langan.com\data\BE\data8\240038801\cadd data - 240038801\sheetfiles\240038801 CG321.dwg Date: 12/12/2019 Time: 11:45 User: dmoyer Style Table: ---- Layout: CG-321



ALLEY Y PLAN VIEW

40 0 20 40
SCALE IN FEET



ALLEY Z PLAN VIEW

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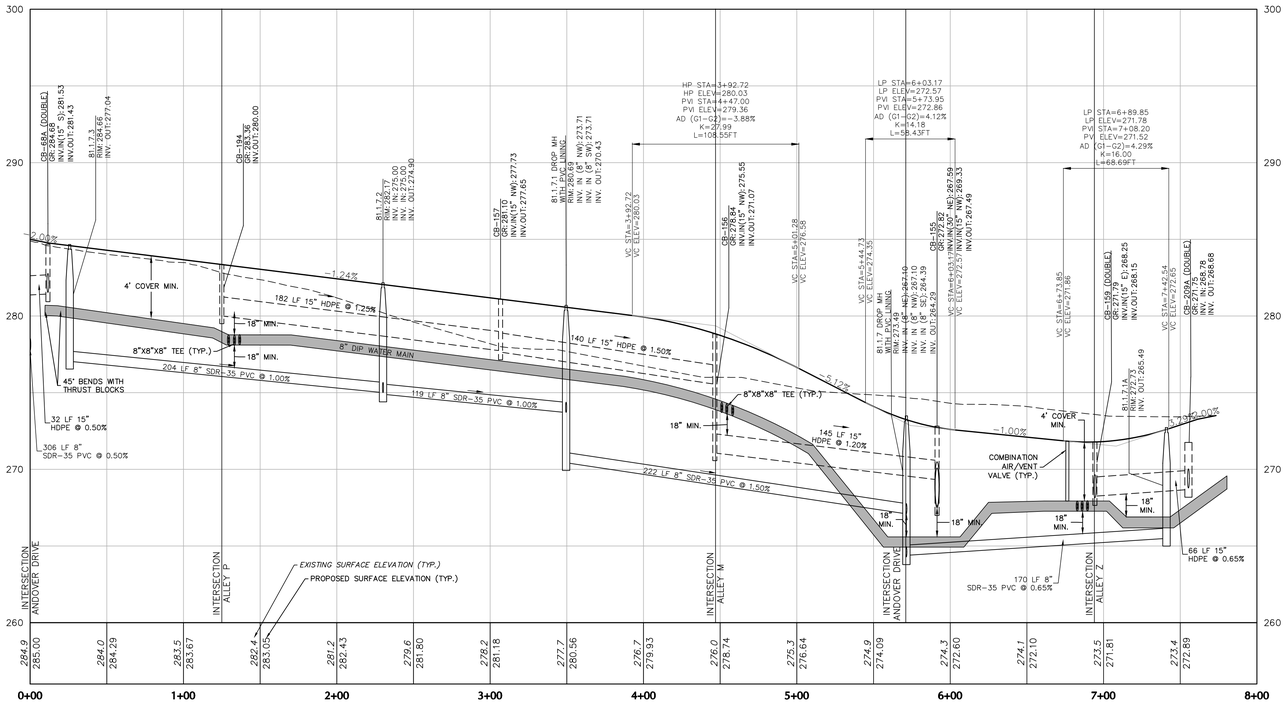
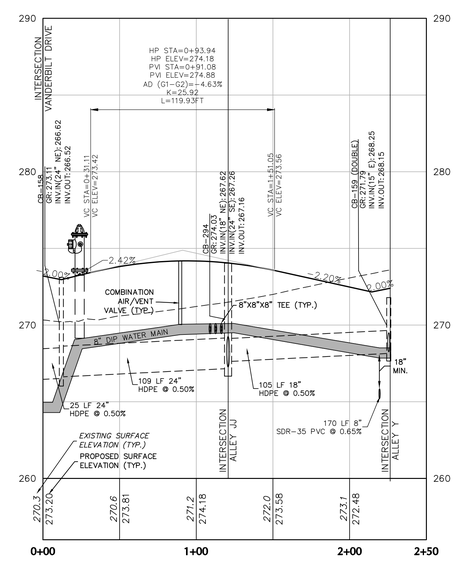
SCALE IN FEET



ALLEY Y PROFILE



ALLEY Z PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Date	Description	No.
12–13–19	REVISED PER COMMENT LETTERS	8.
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8–04–17	REVISED PER COMMENT LETTERS	3.
4–07–17	REVISED PER COMMENT LETTERS	2.
11–04–16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON S. ENGELHARDT PE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Collectively known as Langan

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NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-322
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 142 of 187

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Filename: \\langan.com\data\BE\data8\240038801\caddd data – 240038801\sheetfiles\240038801 CG322.dwg Date: 12/12/2019 Time: 11:52 User: dmoyer Style Table: ----- Layout: CG-322

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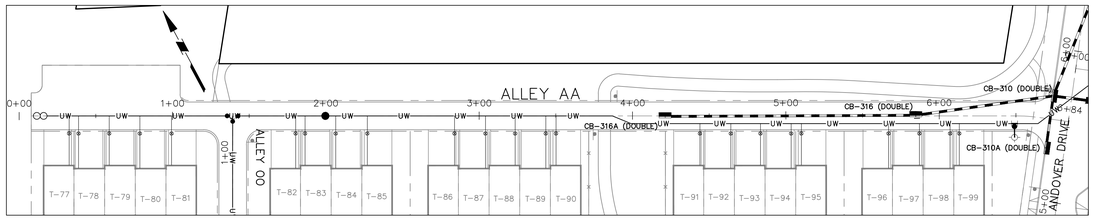
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801



ALLEY AA PLAN VIEW

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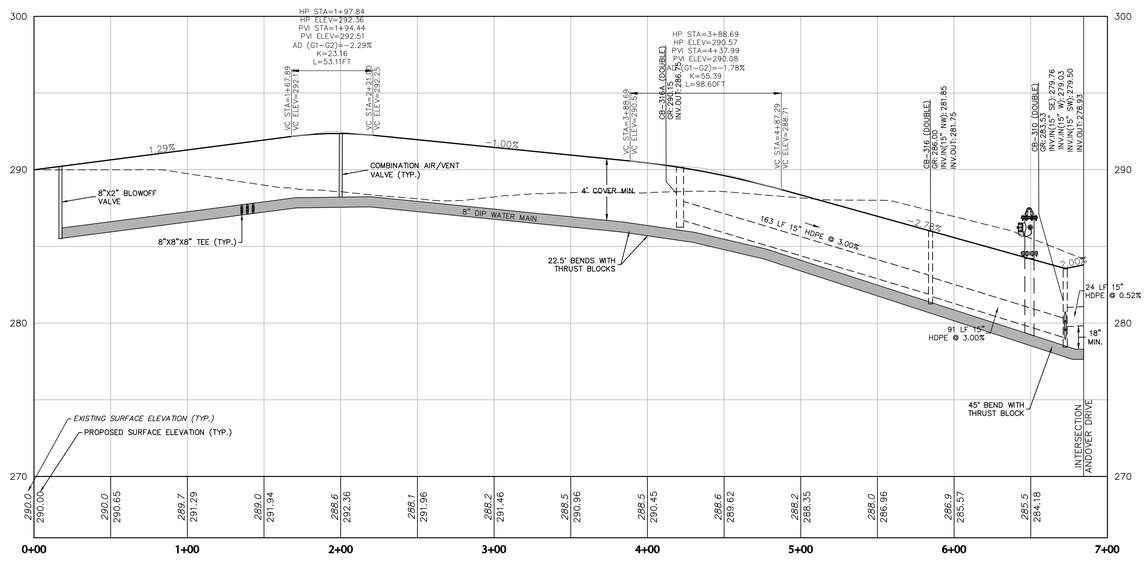
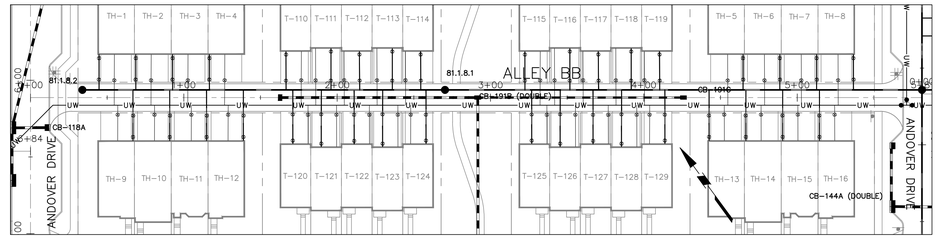
SCALE IN FEET

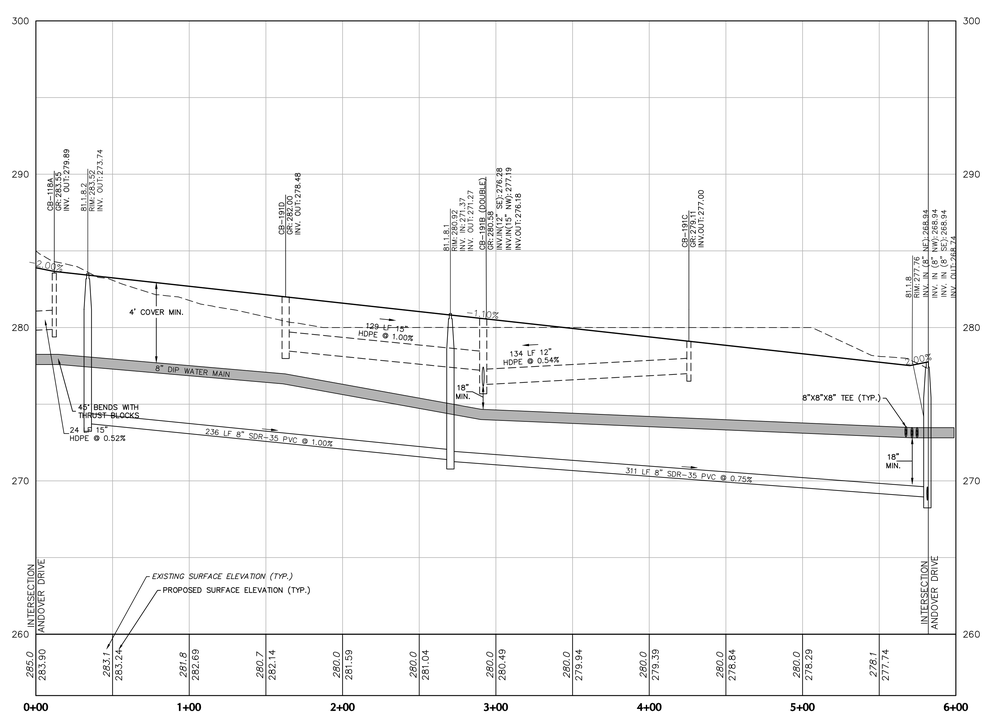


ALLEY AA PROFILE



ALLEY BB PLAN VIEW

40 0 20 40
SCALE IN FEET



ALLEY BB PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
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COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
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3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
JASON SCOTT ENGELHARDT
ENGINEER
No. PE057145
STATE OF PENNSYLVANIA

SIGNATURE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No.
PE-057145-E

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NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. **240038801**	Drawing No. **CG-323**
Date **05/31/16**	
Scale **AS SHOWN**	
Drawn By **JDM**	
Submission Date	Sheet 143 of 187

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SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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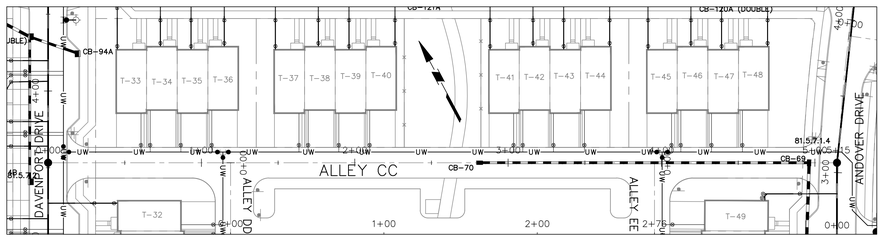
Filename: \\langan.com\data\BE\data8\240038801\cadd data - 240038801\sheetfiles\240038801 CG323.dwg Date: 12/12/2019 Time: 12:00 User: dmoyer Style Table: ----- Layout: CG-323



ALLEY CC PLAN VIEW

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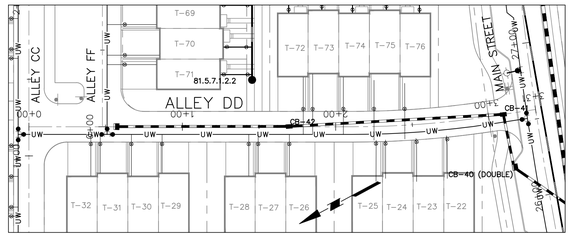
SCALE IN FEET



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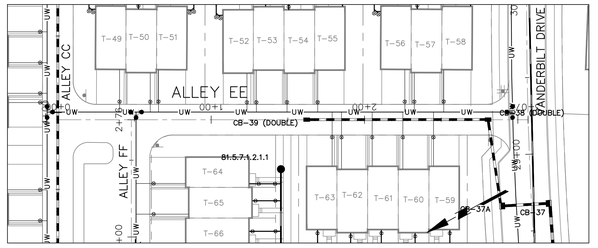
SCALE IN FEET



ALLEY EE PLAN VIEW

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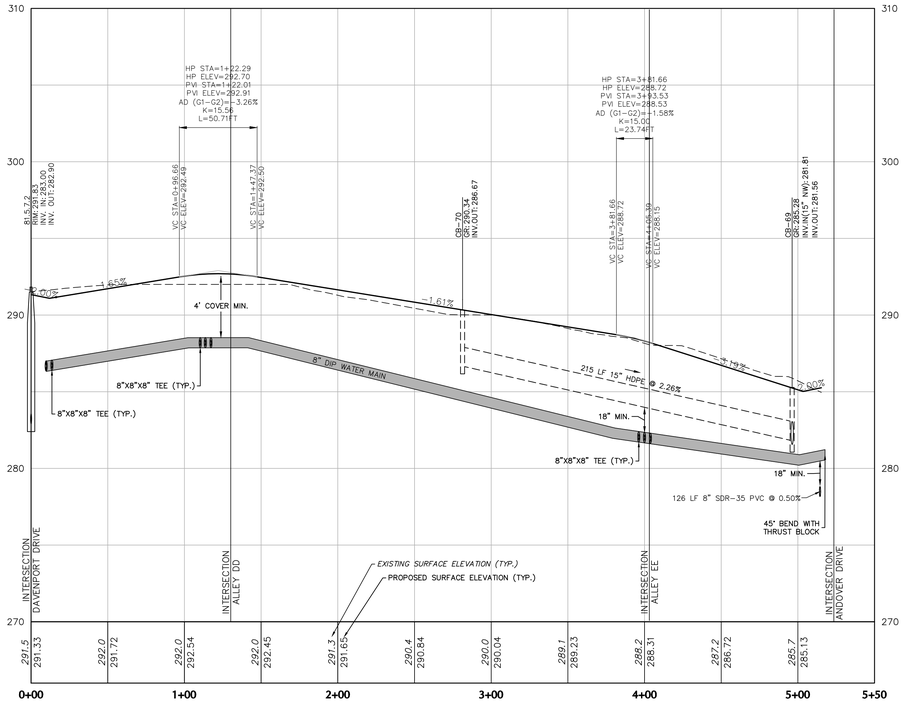
SCALE IN FEET



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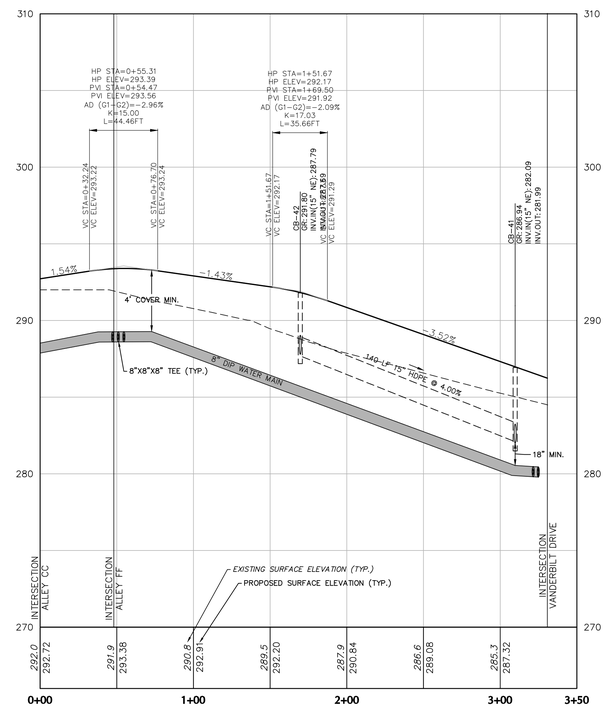
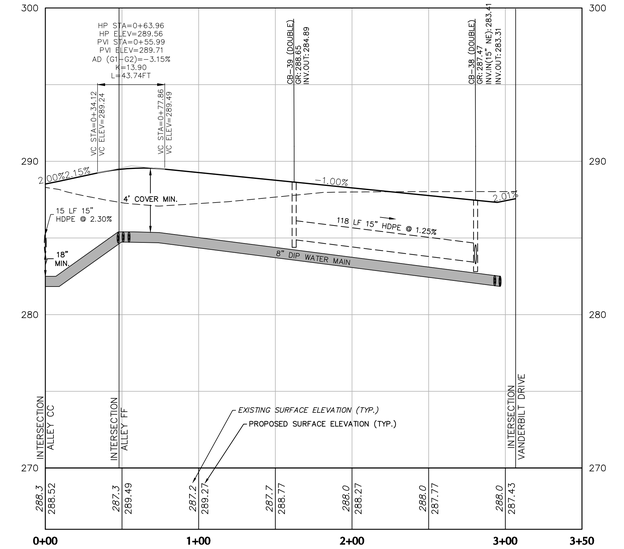


ALLEY DD PROFILE



ALLEY EE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Date	Description	No.
12–13–19	REVISED PER COMMENT LETTERS	8.
11–09–18	REVISED PER COMMENT LETTERS	7.
6–01–18	REVISED PER MCCD COMMENTS	6.
1–31–18	REVISED PER COMMENT LETTERS	5.
11–08–17	REVISED PER COMMENT LETTERS	4.
8–04–17	REVISED PER COMMENT LETTERS	3.
4–07–17	REVISED PER COMMENT LETTERS	2.
11–04–16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER P.A Lic. No.
PE-057145-E

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NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. **240038801**	Drawing No. **CG-324**
Date **05/31/16**	
Scale **AS SHOWN**	
Drawn By **JDM**	
Submission Date	Sheet 144 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801
LANGAN

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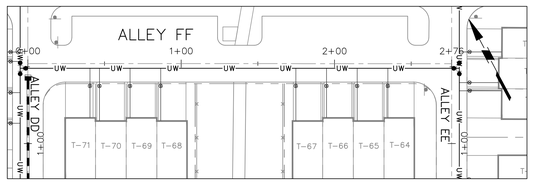

ALLEY FF PLAN VIEW

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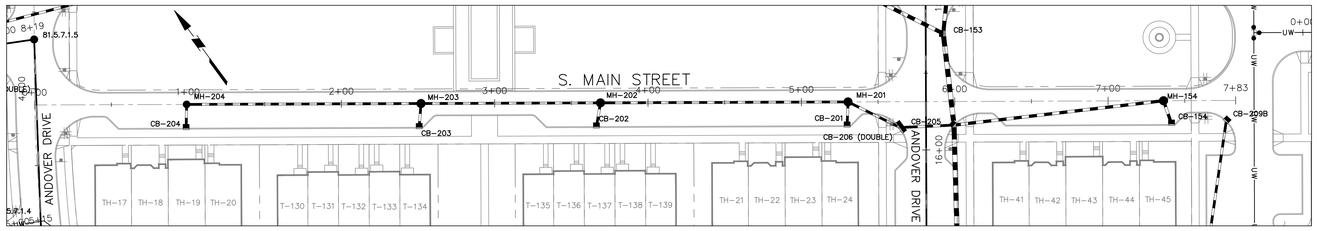
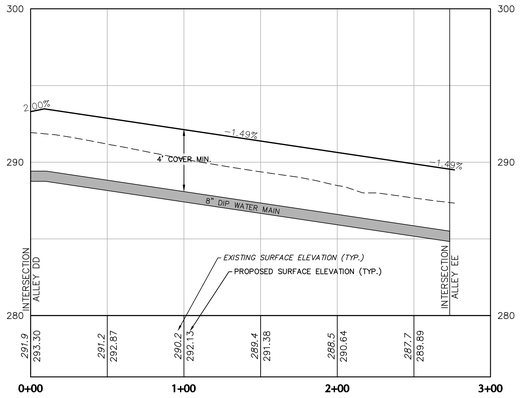
SCALE IN FEET

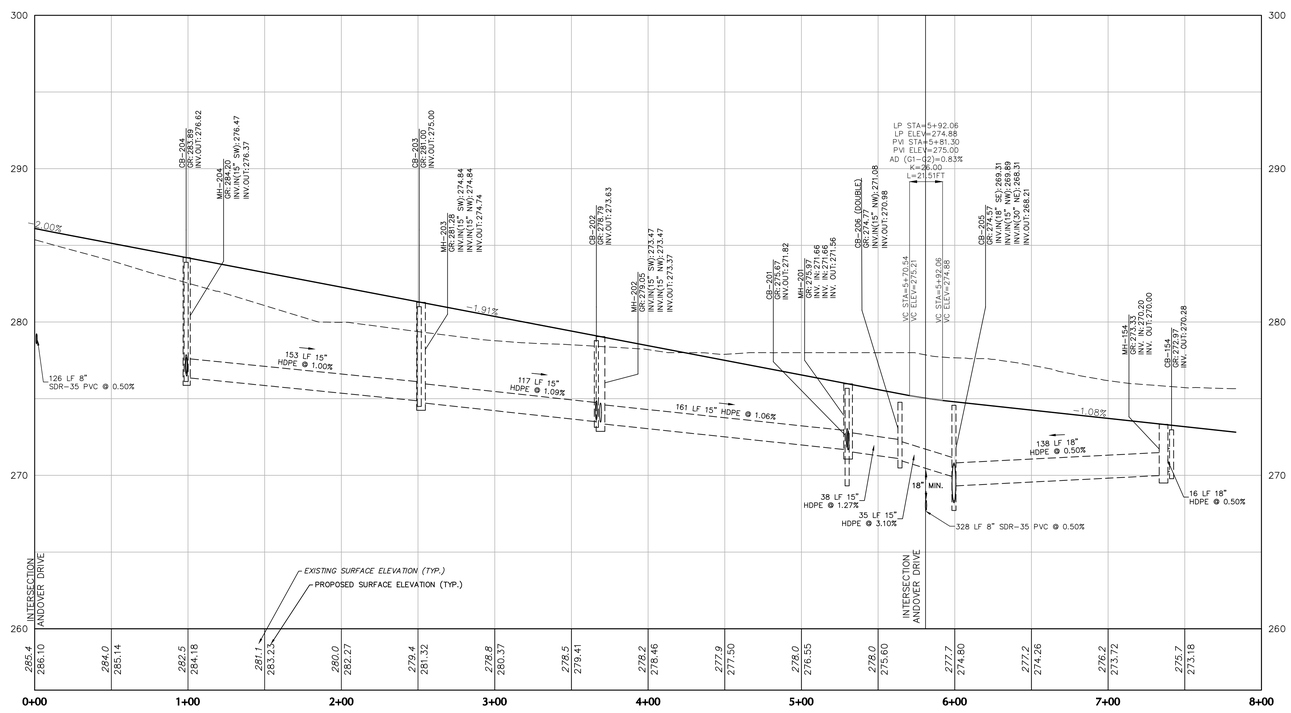


S. MAIN STREET PLAN VIEW

40 0 20 40
SCALE IN FEET



ALLEY FF PROFILE



S. MAIN STREET PROFILE

4 0 2 4
VERTICAL SCALE IN FEET
40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
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8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JASON SCOTT ENGELHARDT
ENGINEER
SIGNATURE DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-325
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 145 of 187

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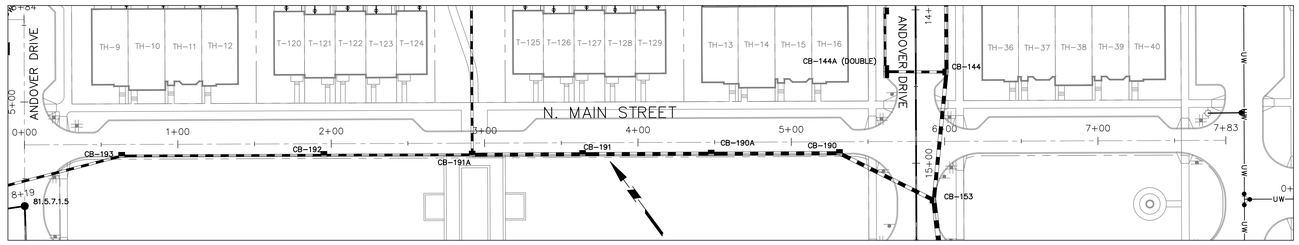
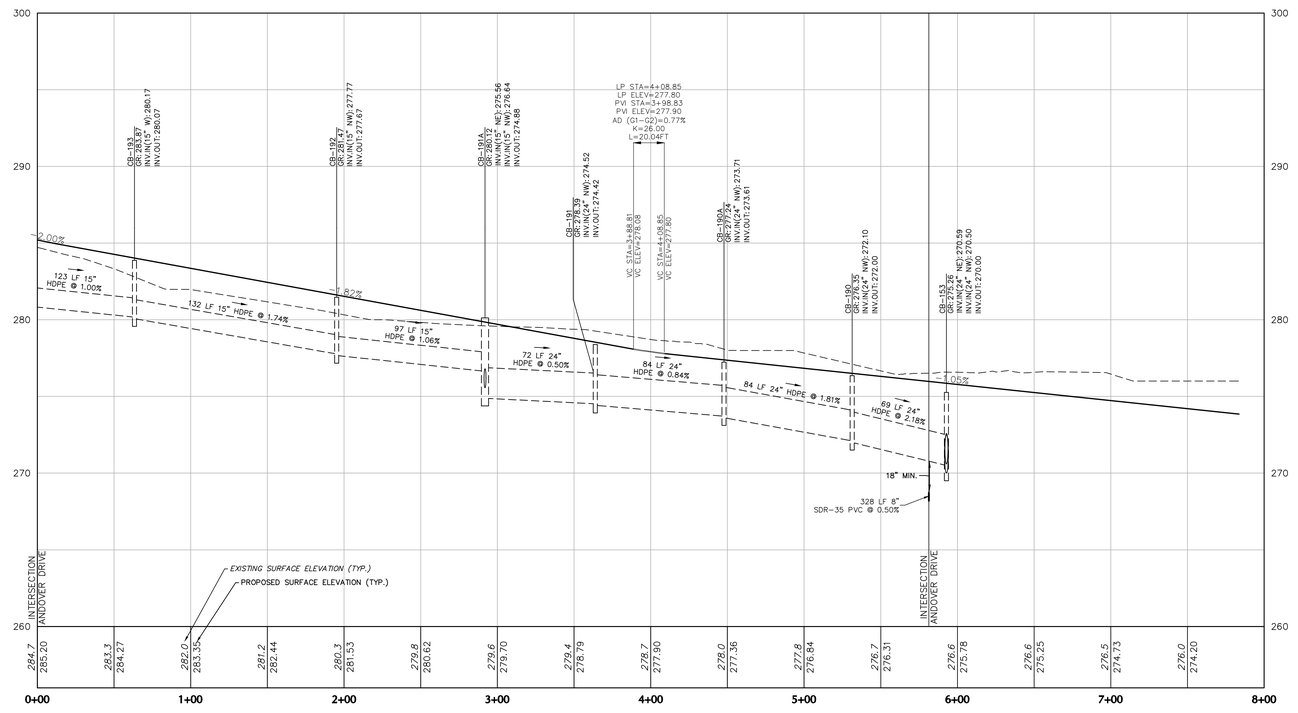
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801



N. MAIN STREET PLAN VIEW

40 0 20 40
SCALE IN FEET



N. MAIN STREET PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8099
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
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5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
PROFESSIONAL
JASON SCOTT ENGELHARDT
ENGINEER
PE-057145-E

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan UK Limited
Langan Holdings LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. **240038801**	Drawing No. **CG-326**
Date **05/31/16**	
Scale **AS SHOWN**	
Drawn By **JDM**	
Submission Date	Sheet 146 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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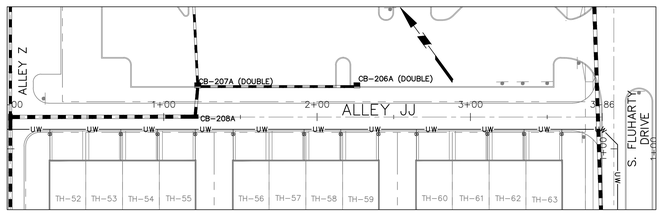
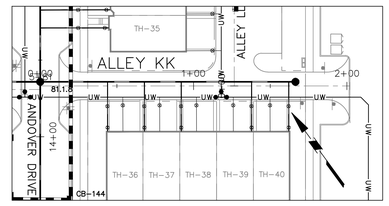


ALLEY JJ PLAN VIEW

40 0 20 40
SCALE IN FEET



ALLEY KK PLAN VIEW

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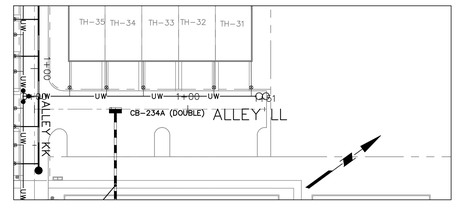

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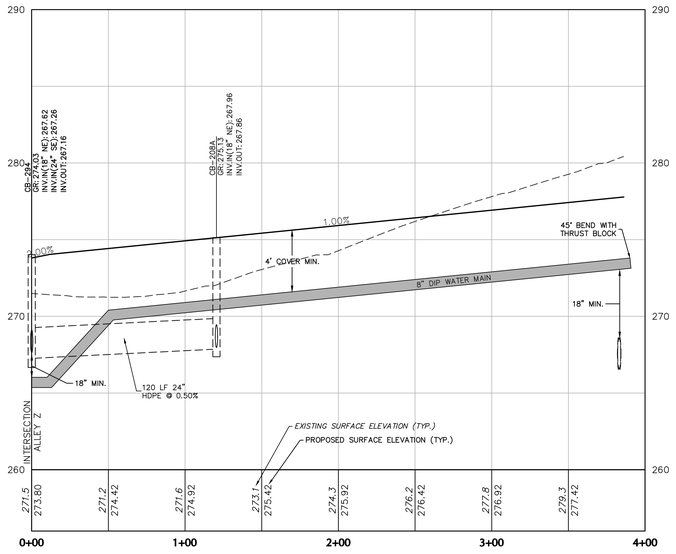
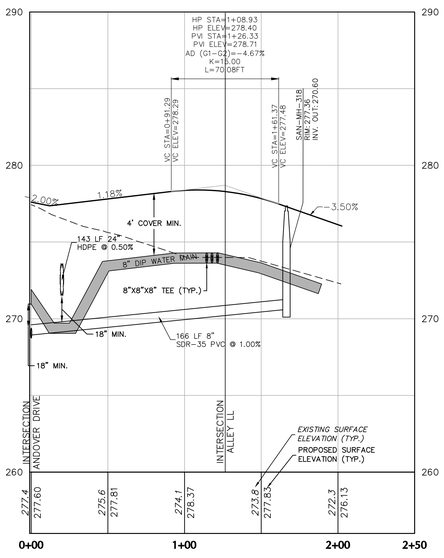


ALLEY JJ PROFILE



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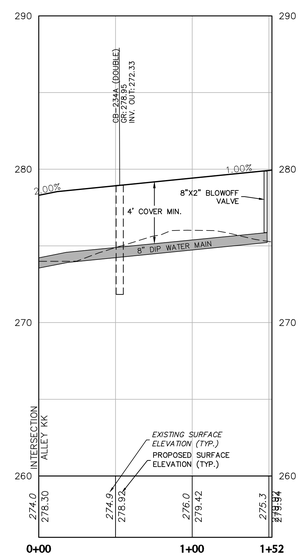

ALLEY LL PROFILE

4 0 2 4
VERTICAL SCALE IN FEET
40 0 20 40
HORIZONTAL SCALE IN FEET

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
JASON SCOTT ENGELHARDT
PE057145
SIGNATURE JASON ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
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Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-327
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 147 of 187

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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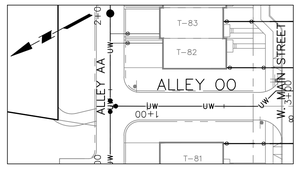
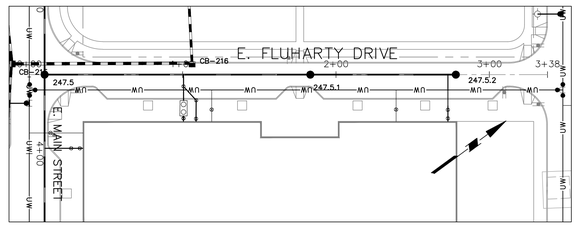


ALLEY OO PLAN VIEW

40 0 20 40
SCALE IN FEET



E. FLUHARTY DRIVE PLAN VIEW

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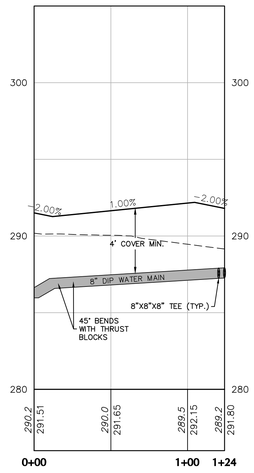
SCALE IN FEET



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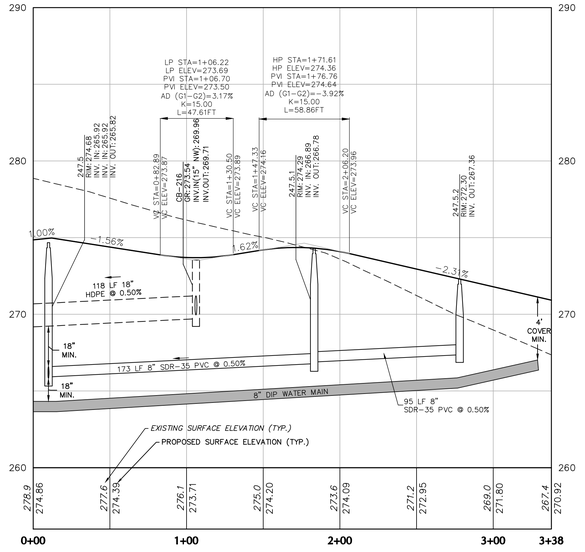

E. FLUHARTY DRIVE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET
40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8099
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE
JASON SCOTT ENGELHARDT
DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-328
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 148 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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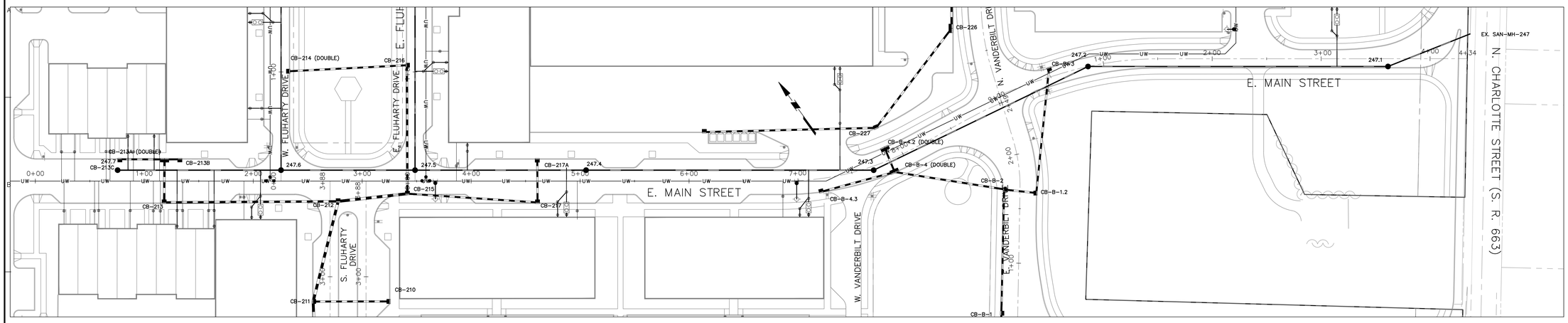
Filename: \\langan.com\data\BE\data8\240038801\cadd data - 240038801\sheetfiles\240038801 CG328.dwg Date: 12/12/2019 Time: 12:39 User: dmoyer Style Table: ----- Layout: CG-328



E. MAIN STREET PLAN VIEW

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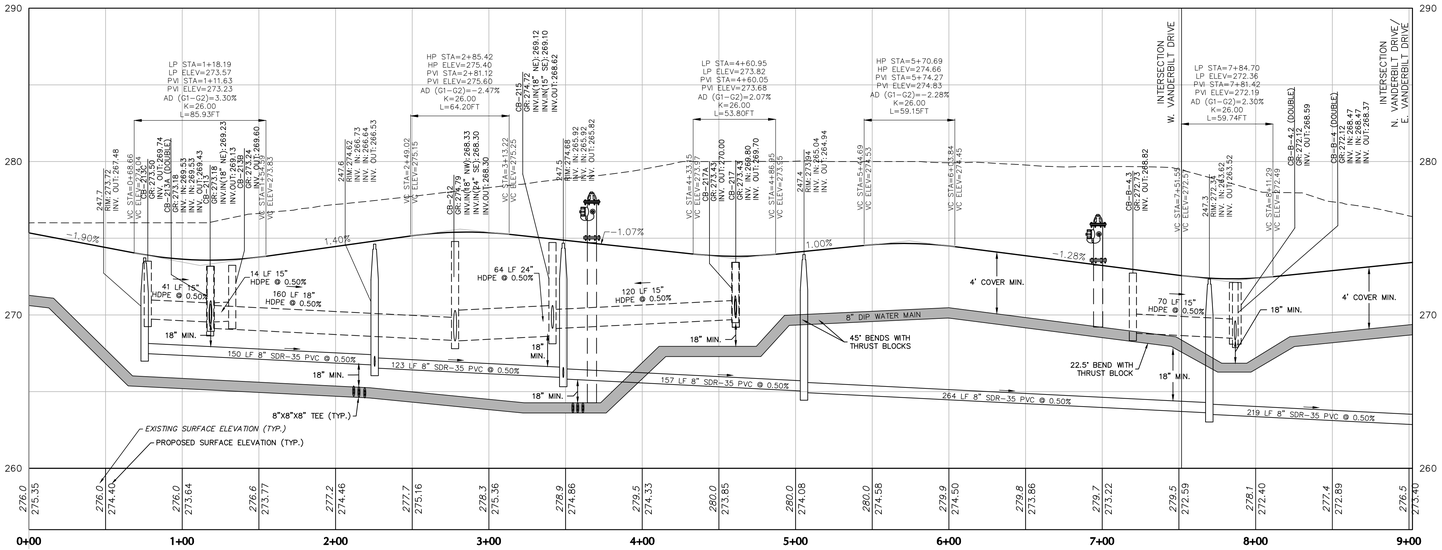
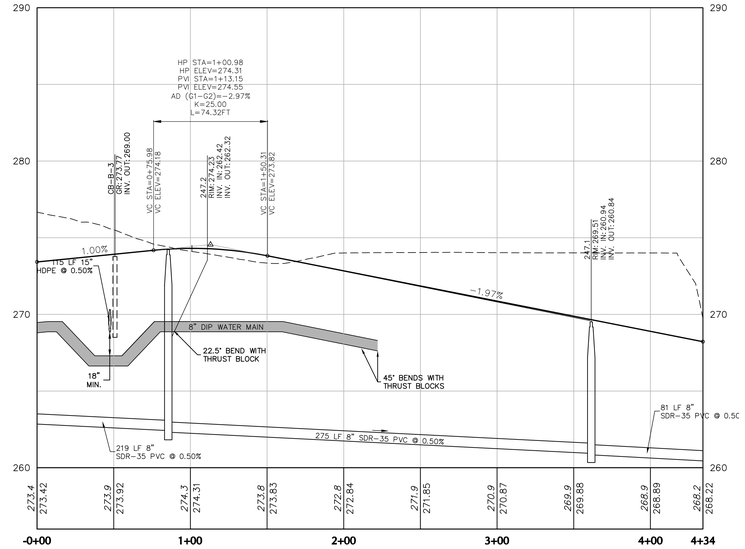
SCALE IN FEET





E. MAIN STREET PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12–13–19
7.	REVISED PER COMMENT LETTERS	11–09–18
6.	REVISED PER MCCD COMMENTS	6–01–18
5.	REVISED PER COMMENT LETTERS	1–31–18
4.	REVISED PER COMMENT LETTERS	11–08–17
3.	REVISED PER COMMENT LETTERS	8–04–17
2.	REVISED PER COMMENT LETTERS	4–07–17
1.	REVISED PER COMMENT LETTERS	11–04–16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT

SIGNATURE JASON S. ENGELHARDT, P.E. DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering Limited
and its US Affiliates
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-329
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 149 of 187

LANGAN
PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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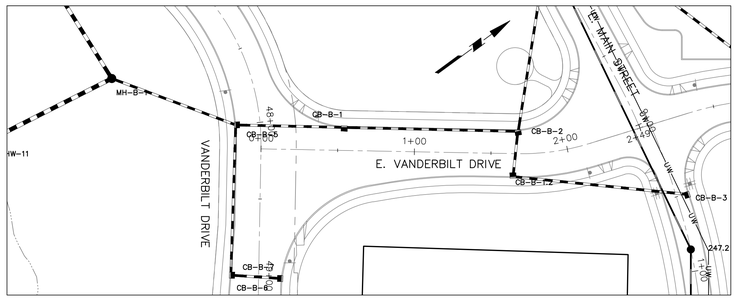
Filename: \\langan.com\data\BE\data8\240038801\caddd data – 240038801\sheetfiles\240038801 CG329.dwg Date: 12/12/2019 Time: 12:45 User: dmoyer Style Table: ---- Layout: CG-329



E. VANDERBILT DRIVE PLAN VIEW

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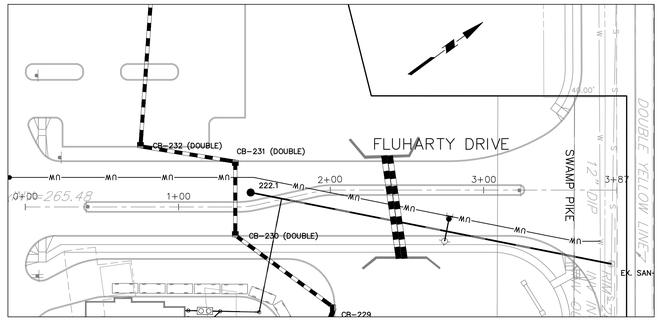
SCALE IN FEET



FLUHARTY DRIVE PLAN VIEW

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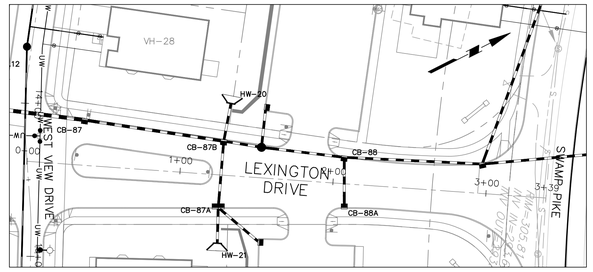
SCALE IN FEET



LEXINGTON DRIVE PLAN VIEW

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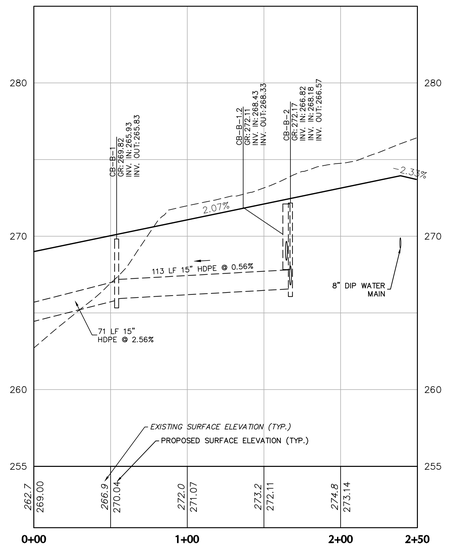
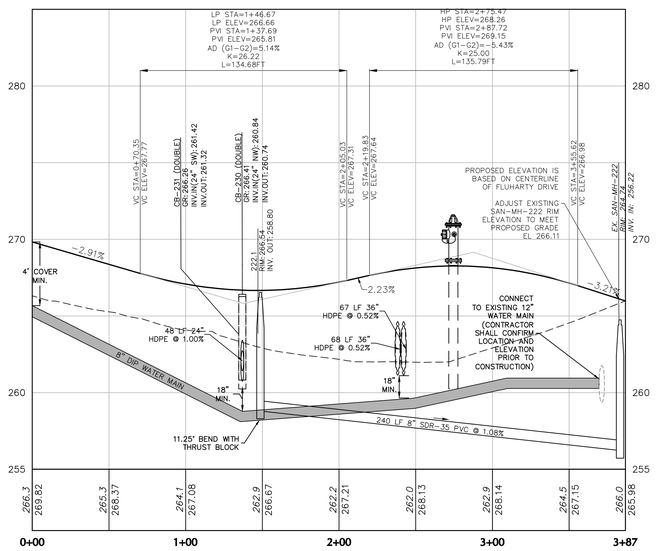
SCALE IN FEET



E. VANDERBILT DRIVE PROFILE



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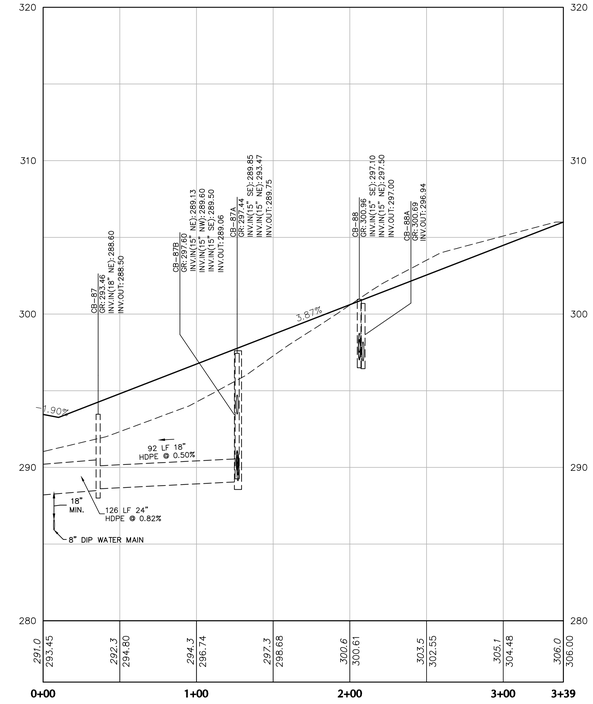

LEXINGTON DRIVE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

No.	Description	Date
1.	REVISED PER COMMENT LETTERS	11–04–16
2.	REVISED PER COMMENT LETTERS	4–07–17
3.	REVISED PER COMMENT LETTERS	8–04–17
4.	REVISED PER COMMENT LETTERS	11–08–17
5.	REVISED PER COMMENT LETTERS	1–31–18
6.	REVISED PER MCCD COMMENTS	6–01–18
7.	REVISED PER COMMENT LETTERS	11–09–18
8.	REVISED PER COMMENT LETTERS	12–13–19

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. **240038801**	Drawing No. **CG-330**
Date **05/31/16**	
Scale **AS SHOWN**	
Drawn By **JDM**	
Submission Date	Sheet 150 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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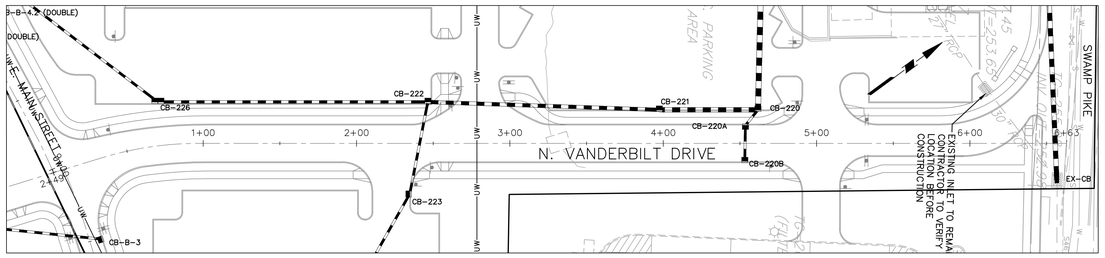
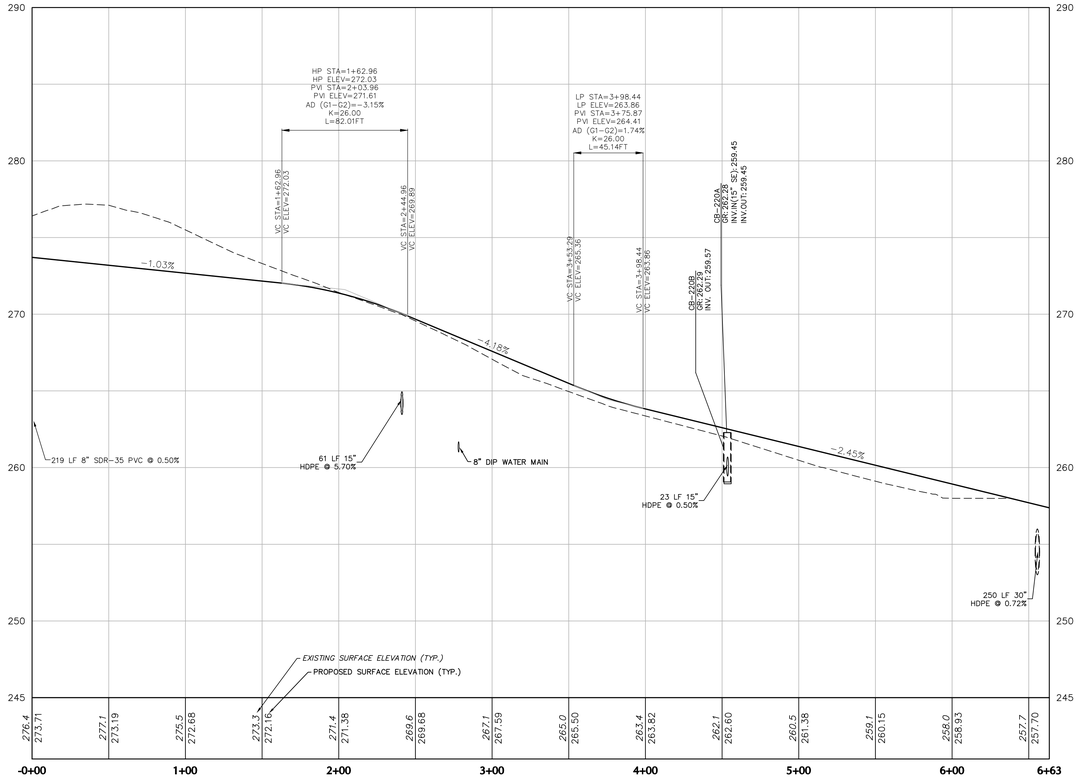
Filename: \\langan.com\data\BE\data8\240038801\cadd data – 240038801\sheetfiles\240038801 CG330.dwg Date: 12/13/2019 Time: 14:30 User: dmoyer Style Table: ------ Layout: CG-330

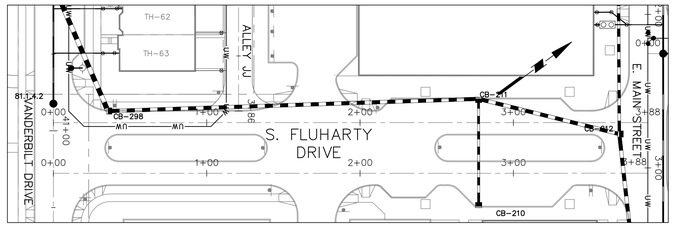


N. VANDERBILT DRIVE PLAN VIEW

SCALE IN FEET
40 0 20 40



N. VANDERBILT DRIVE PROFILE



S. FLUHARTY DRIVE PLAN VIEW

SCALE IN FEET
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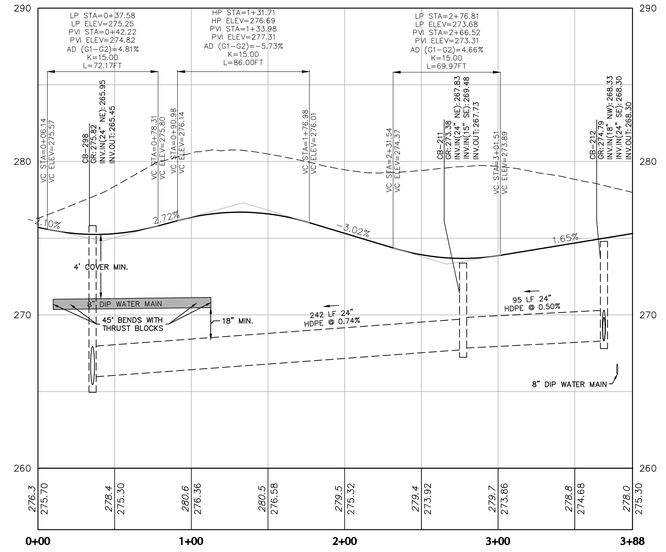

S. FLUHARTY DRIVE PROFILE

VERTICAL SCALE IN FEET
4 0 2 4

HORIZONTAL SCALE IN FEET
40 0 20 40

OWNER
RP WYNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.
Date	Description	No.

REVISIONS

JASON WEALE ENGELHARDT
REGISTERED
PROFESSIONAL
ENGINEER
COMMONWEALTH OF PENNSYLVANIA

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. **240038801**	Drawing No. **CG-331**
Date **05/31/16**	
Scale **AS SHOWN**	
Drawn By **JDM**	
Submission Date	Sheet 151 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019 LANGAN

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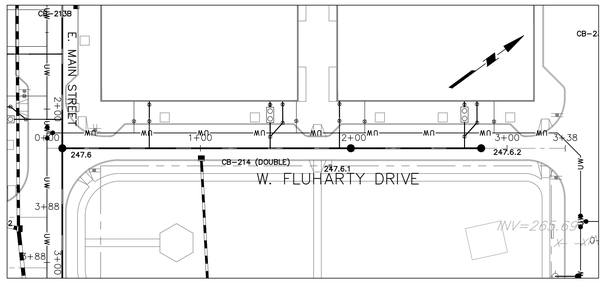
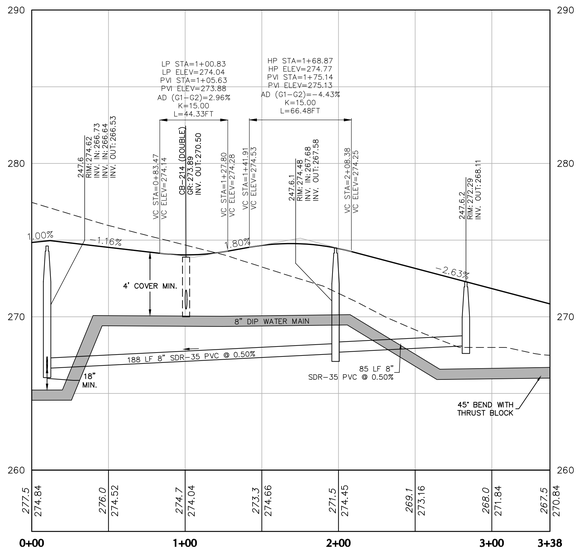


W. FLUHARTY DRIVE PLAN VIEW

40 0 20 40
SCALE IN FEET



W. FLUHARTY DRIVE PROFILE

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

JASON WEALE SCOTT ENGELHARDT REGISTERED PROFESSIONAL ENGINEER PENNSYLVANIA PE-057145-E

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
ROADWAY & UTILITY PROFILES

Project No. 240038801	Drawing No. CG-332
Date 05/31/16	
Scale AS SHOWN	
Drawn By JDM	
Submission Date	Sheet 152 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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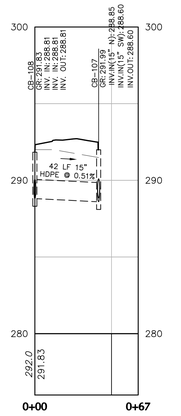
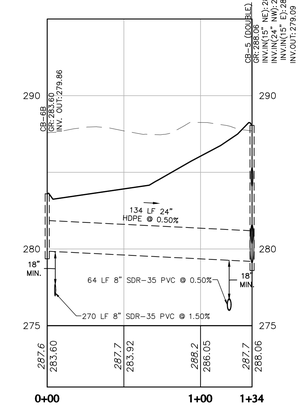
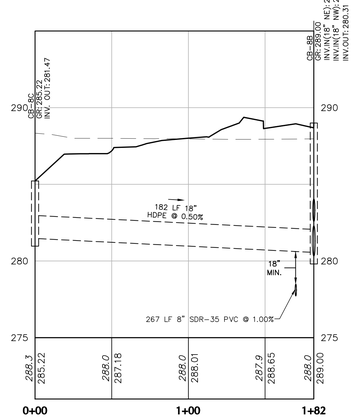


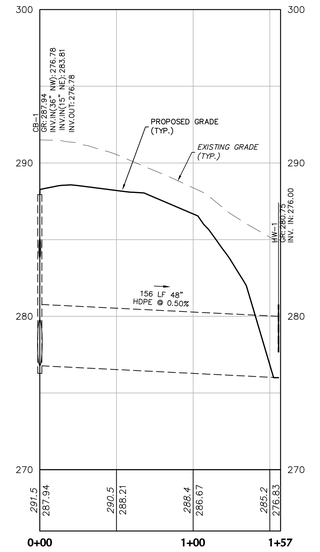
CB-108 TO CB-107



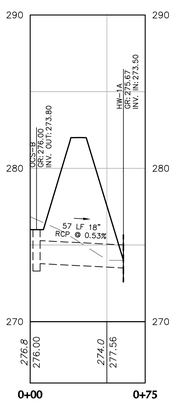
CB-6B TO CB-5



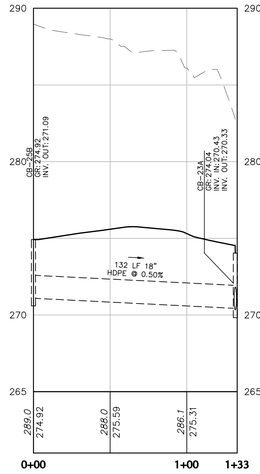
CB-8C TO CB-8B



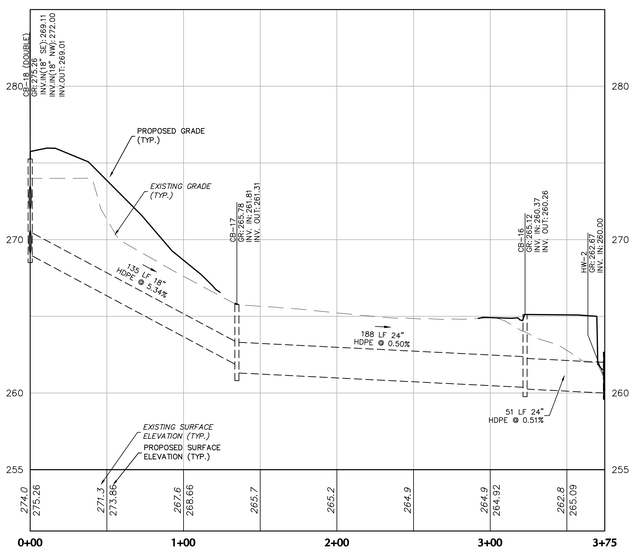
CB-1 TO HW-1



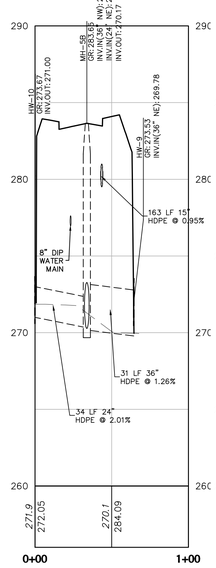
OCS-B TO HW-1A



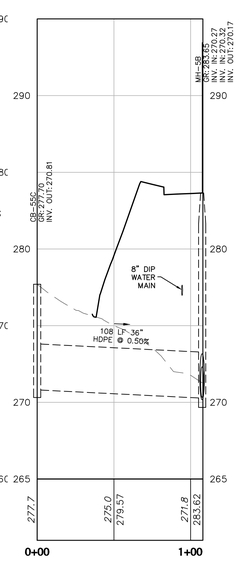
CB-25B TO CB-23A



CB-18 TO HW-2



HW-10 TO HW-9



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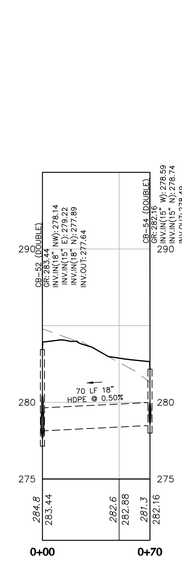
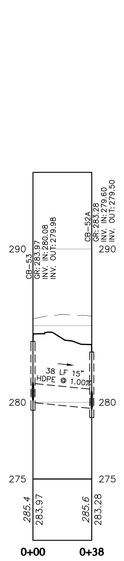
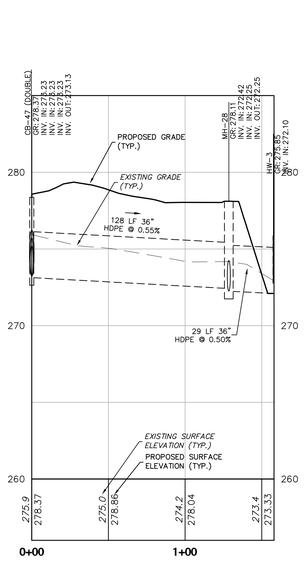


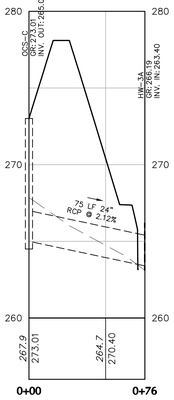
CB-52 TO CB-54



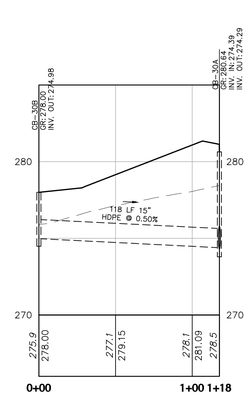
CB-53 TO CB-52A



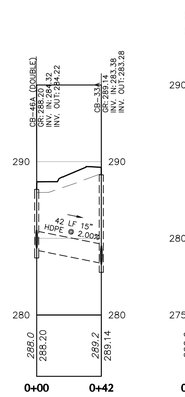
CB-47 TO HW-3



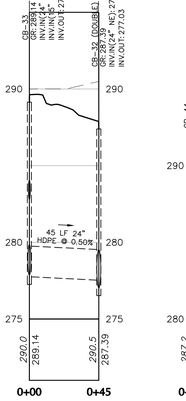
OCS-C TO HW-3A



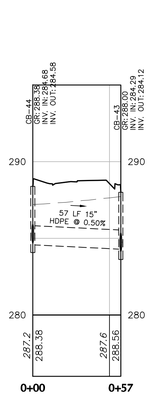
CB-30B TO CB-30A



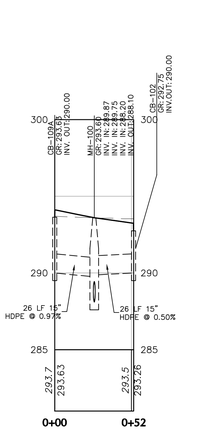
CB-46A TO CB-33A



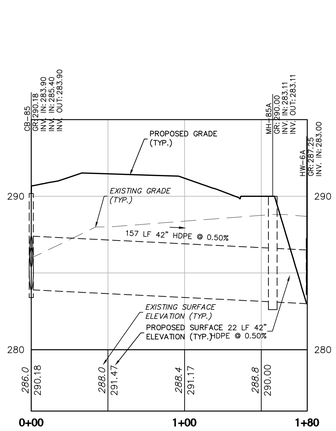
CB-33 TO CB-32



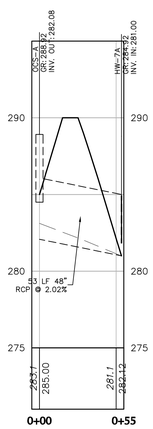
CB-44 TO CB-43



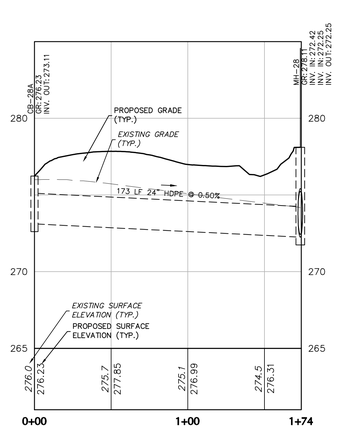
CB-109A TO CB-102



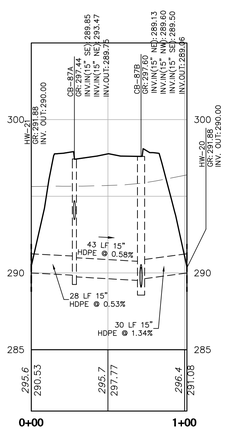
CB-85 TO HW-6A



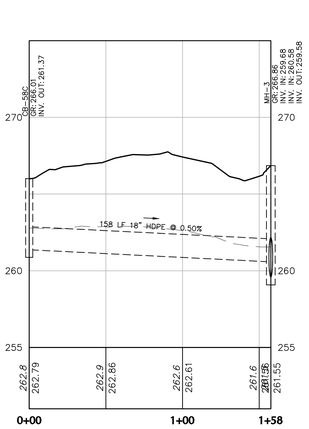
OCS-A TO HW-7A



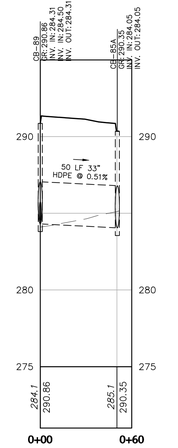
CB-28A TO MH-28



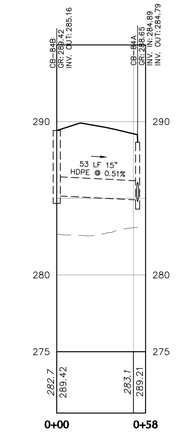
HW-21 TO HW-20



CB-58C TO MH-3



CB-89 TO CB-85A



CB-84B TO CB-84A

12–13–19	REVISED PER COMMENT LETTERS	8.
11–09–18	REVISED PER COMMENT LETTERS	7.
6–01–18	REVISED PER MCCD COMMENTS	6.
1–31–18	REVISED PER COMMENT LETTERS	5.
11–08–17	REVISED PER COMMENT LETTERS	4.
8–04–17	REVISED PER COMMENT LETTERS	3.
4–07–17	REVISED PER COMMENT LETTERS	2.
11–04–16	REVISED PER COMMENT LETTERS	1.
Date	Description	No.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT, P.E. DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE–057145–E

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WASHINGTON, DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering Environmental Services, Inc.
Langan CO, Inc.
Langan International LLC
Collectively known as Langan

Project

NEW HANOVER TOWN CENTER

NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title

OFF-ROAD DRAINAGE PROFILES

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

Project No.	240038801
Date	05/31/16
Scale	H:1"=40' V:1"=4'
Drawn By	KG
Submission Date	

Drawing No. CG-601

Sheet 153 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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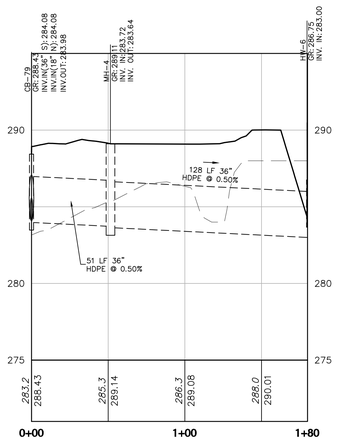
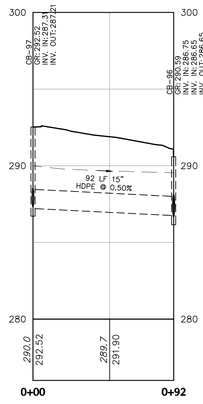
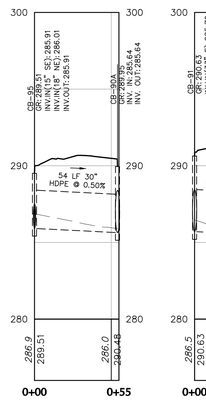
Filename: I:\langan.com\data\BET\data\240038801\Cadd Data - 240038801\SheetFiles\240038801 CG601-605.dwg Date: 12/12/2019 Time: 13:11 User: dmoyer Style Table: Langan.stb Layout: CG-601



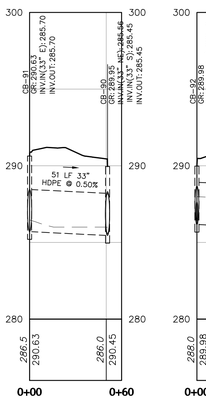
CB-79 TO HW-6



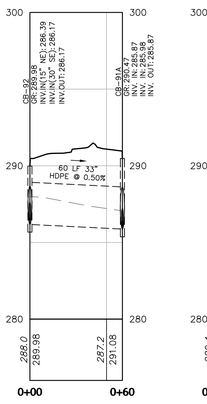
CB-97 TO CB-96



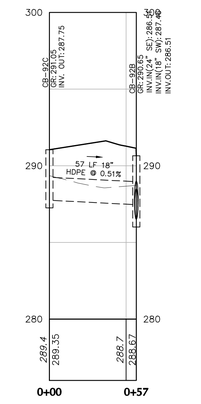
CB-95 TO CB-90A



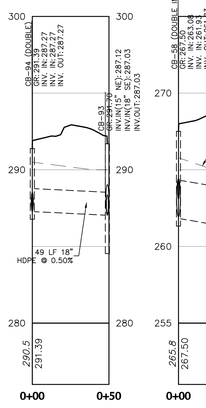
CB-91 TO CB-90



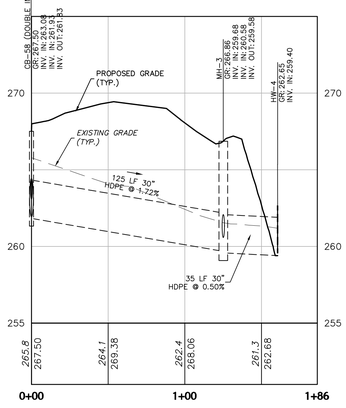
CB-92 TO CB-91A



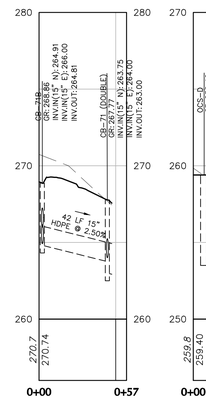
CB-92C TO CB-92B



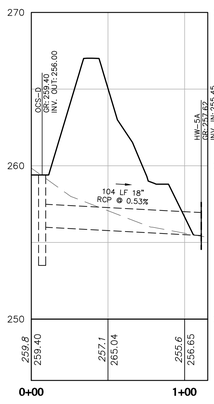
CB-94 TO CB-93



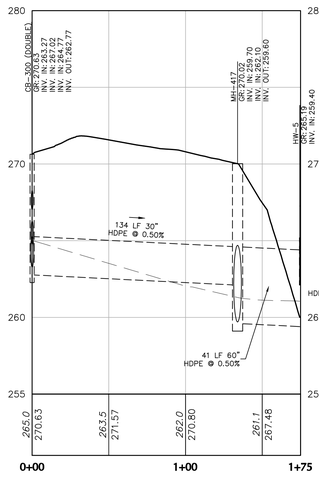
CB-58 TO HW-4



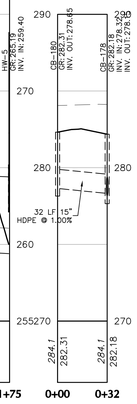
CB-71B TO CB-71



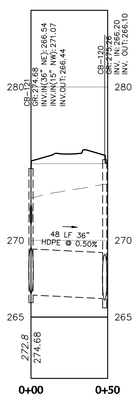
OCS-D TO HW-5A



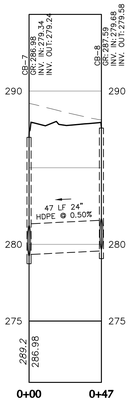
CB-300 TO HW-5



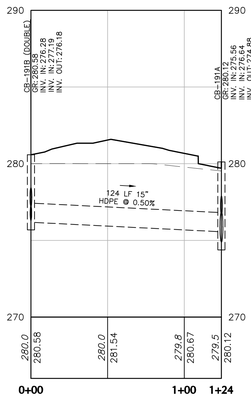
CB-180 TO CB-178



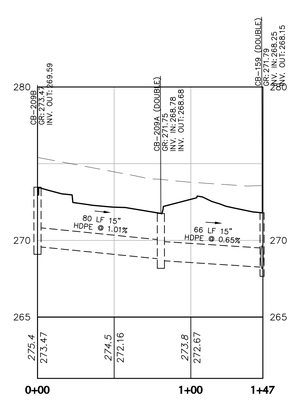
CB-121 TO CB-120



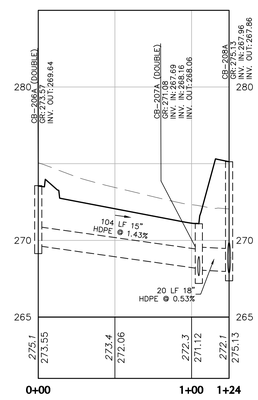
CB-7 TO CB-8



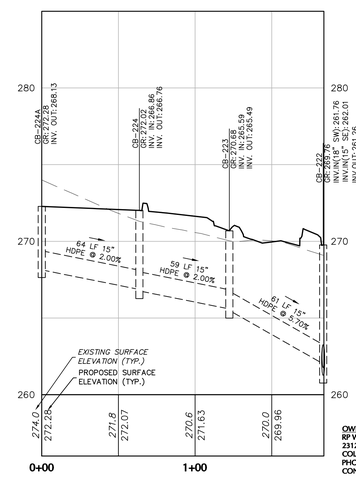
CB-191B TO CB-191A



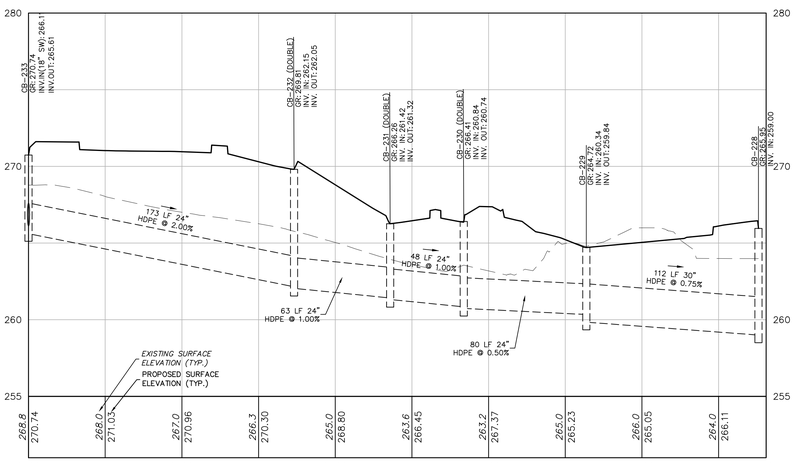
CB-209B TO CB-159



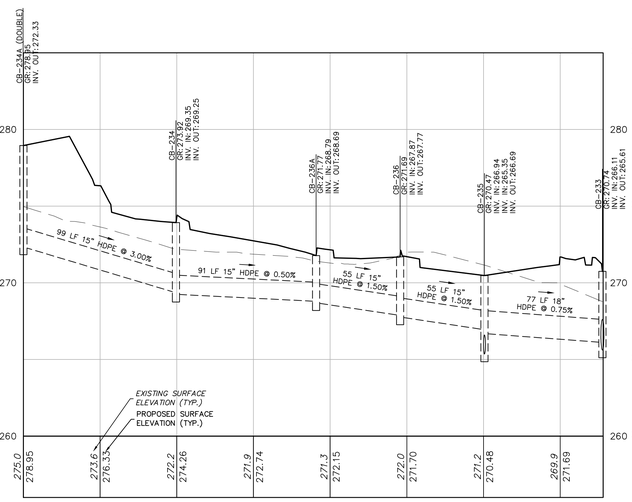
CB-206A TO CB-208A



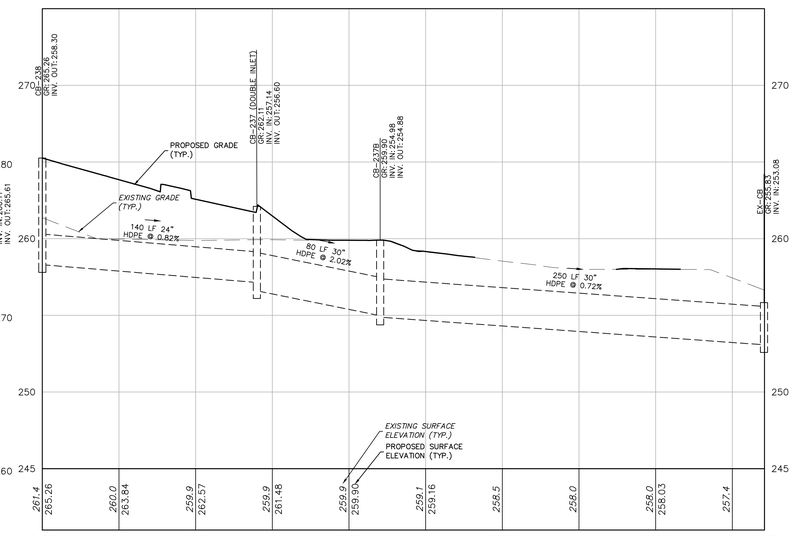
CB-224A TO CB-222



CB-233 TO CB-228



CB-234A TO CB-233



CB-238 TO EX-CB

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12–13–19
7.	REVISED PER COMMENT LETTERS	11–09–18
6.	REVISED PER MCCD COMMENTS	6–01–18
5.	REVISED PER COMMENT LETTERS	1–31–18
4.	REVISED PER COMMENT LETTERS	11–08–17
3.	REVISED PER COMMENT LETTERS	8–04–17
2.	REVISED PER COMMENT LETTERS	4–07–17
1.	REVISED PER COMMENT LETTERS	11–04–16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE–057145–E

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NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO WASHINGTON DC FLORIDA TEXAS NORTH DAKOTA CALIFORNIA ABU DHABI ATHENS DOHA DUBAI ISTANBUL PANAMA
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
OFF-ROAD DRAINAGE PROFILES

Project No.	**240038801**
Date	**05/31/16**
Scale	**H:1"=40' V:1"=4'**
Drawn By	**KG**
Submission Date	
Drawing No.	**CG-602**
	Sheet 154 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019 LANGAN

Filename: I:\langan.com\data\BET\data\240038801\Cadd Data - 240038801\SheetFiles\240038801 CG601-605.dwg, Date: 12/12/2019 Time: 13:12 User: dmoyer Style Table: Langan.stb Layout: CG-602
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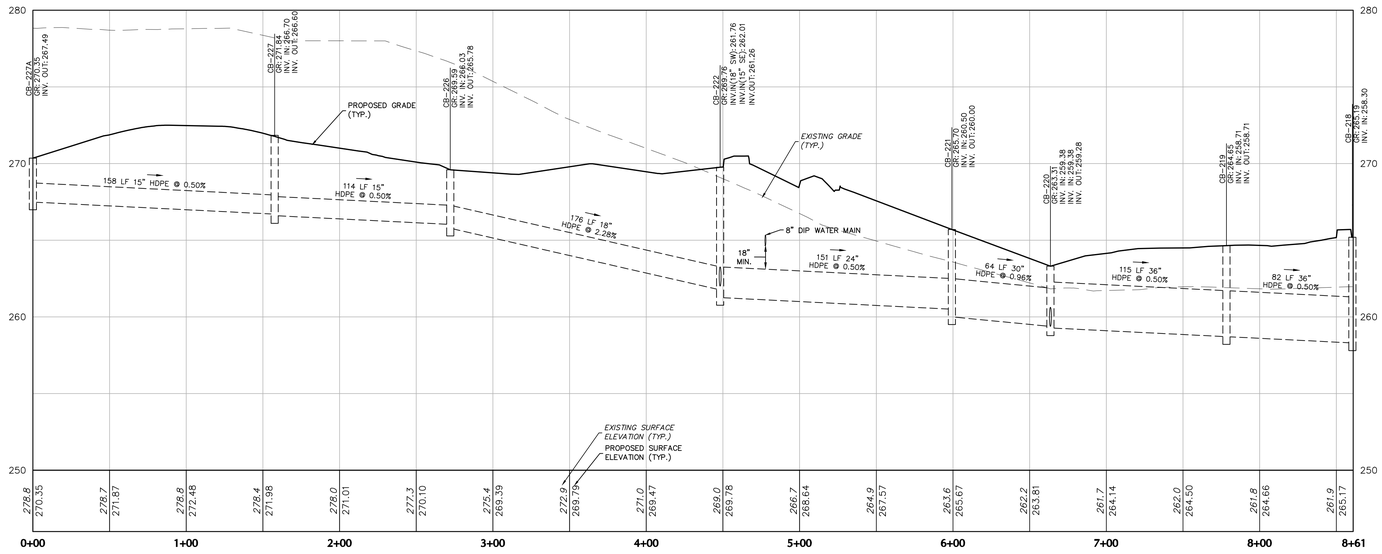
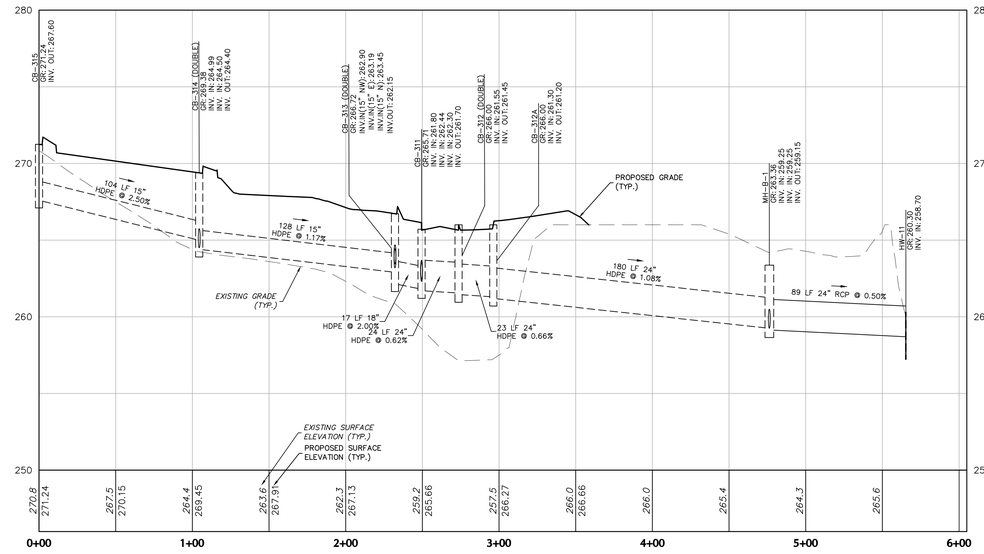


CB-227A TO CB-218



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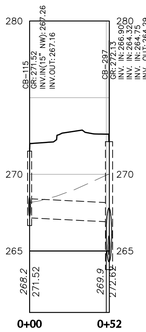

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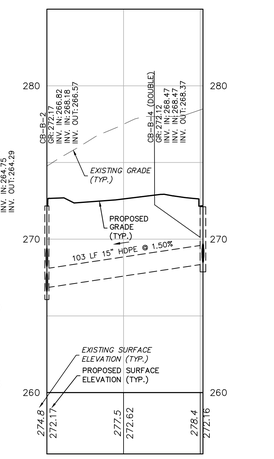
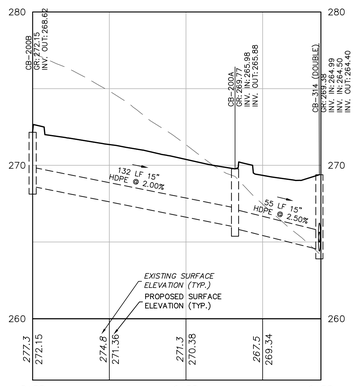
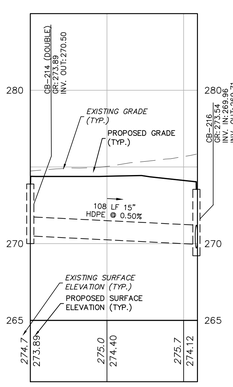


CB-B-2 TO CB-B-4



CB-200B TO CB-314



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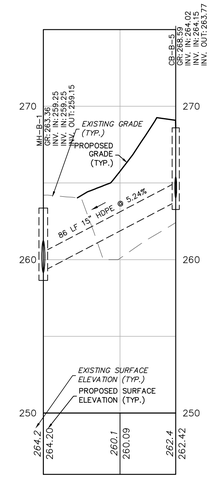

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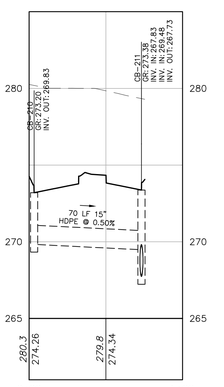

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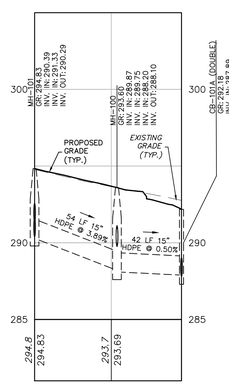

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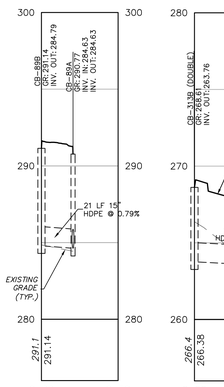

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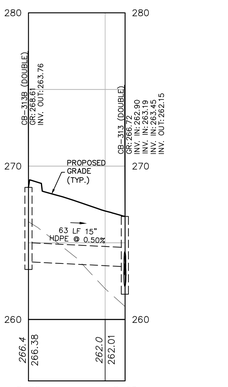

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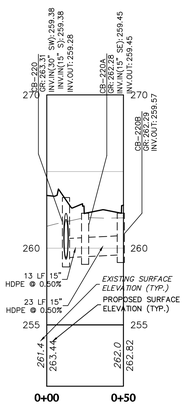

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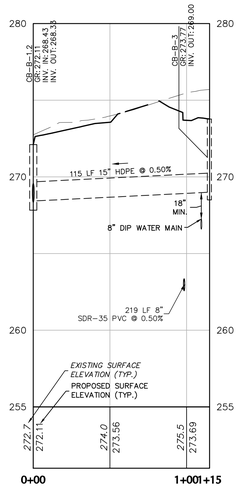
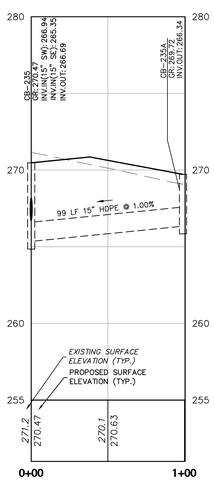


CB-B-1.2 TO CB-B-3



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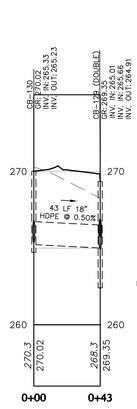

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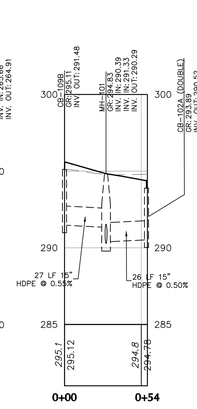
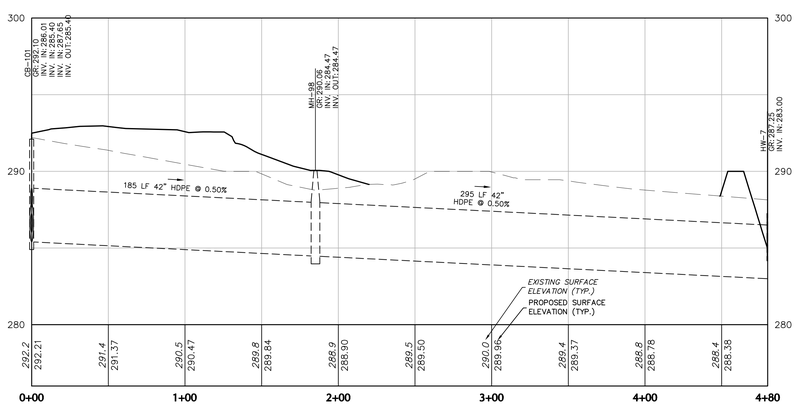


CB-109B TO CB-102A



CB-101 TO HW-7

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CONTACT: BENJAMIN GOLDTHORP

4 0 2 4
VERTICAL SCALE IN FEET
40 0 20 40
HORIZONTAL SCALE IN FEET

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE JASON S. ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A. Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. Langan Engineering and Environmental Services, Inc. Langan CT, Inc. Langan Treadwell Richardson, LLC Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
OFF-ROAD DRAINAGE PROFILES

Project No. 240038801	Drawing No. CG-603
Date 05/31/16	
Scale H:1"=40' V:1"=4'	
Drawn By KG	
Submission Date	Sheet 155 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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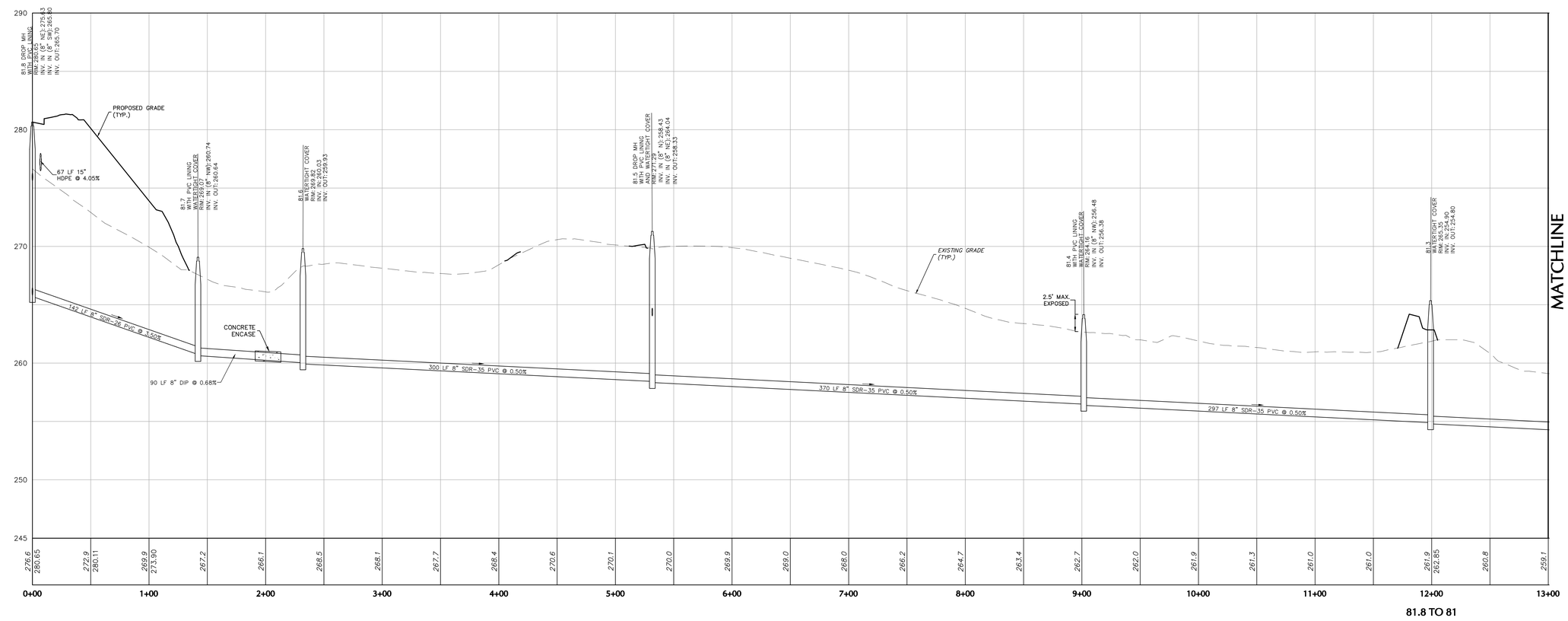

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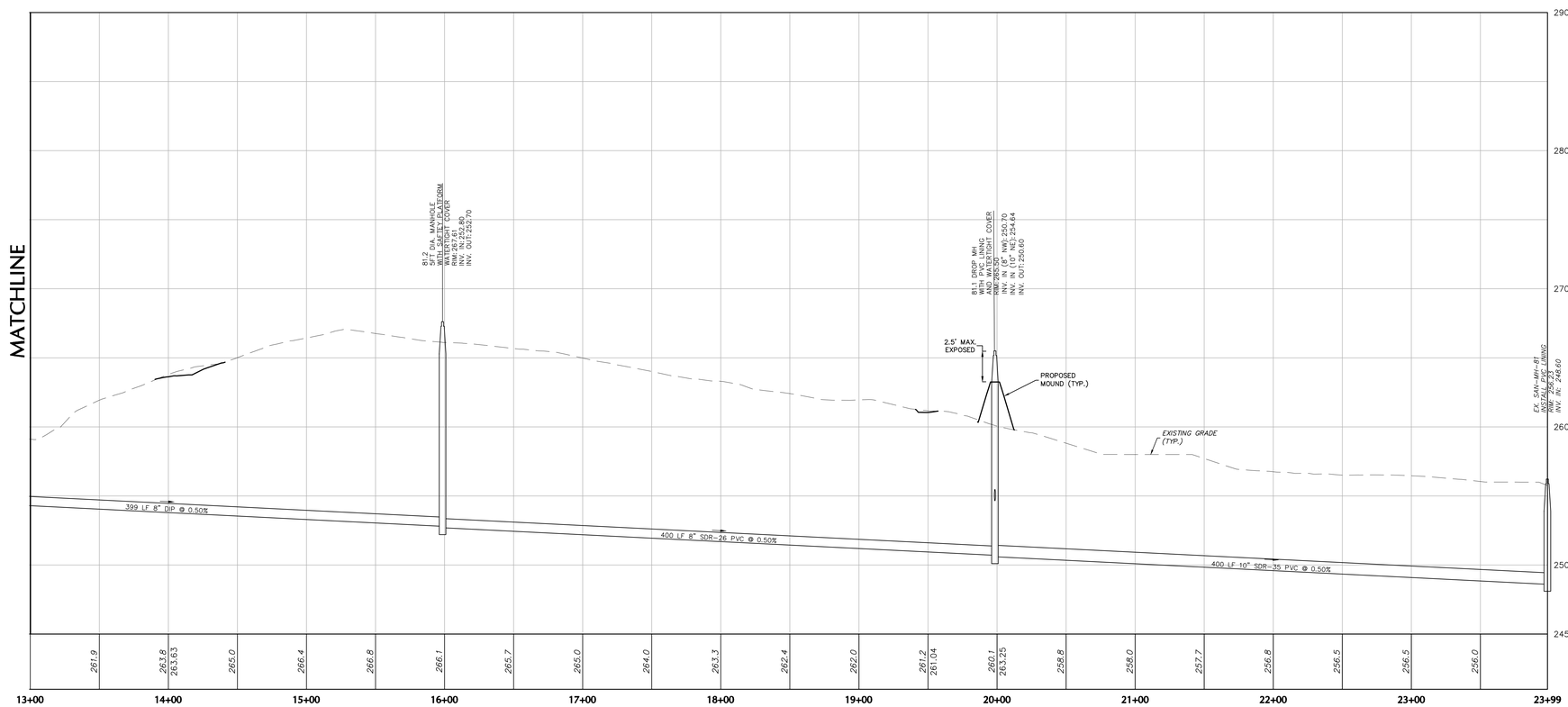

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PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

4 0 2 4
VERTICAL SCALE IN FEET

40 0 20 40
HORIZONTAL SCALE IN FEET

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL
JASON SCOTT ENGELHARDT
ENGINEER
SIGNATURE JASON S. ENGELHARDT, P.E. DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CO, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SANITARY PROFILES

Project No. 240038801	Drawing No. CG-604
Date 05/31/16	
Scale H:1"=40' V:1"=4'	
Drawn By KG	
Submission Date	Sheet 156 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019 LANGAN

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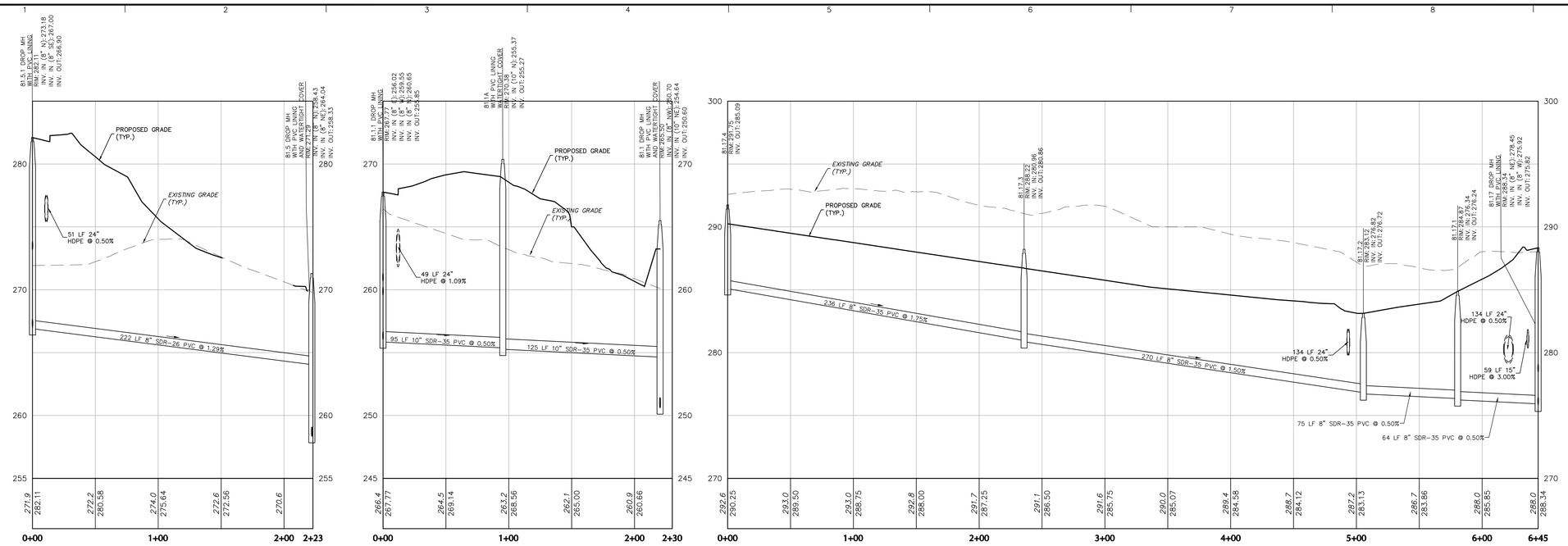

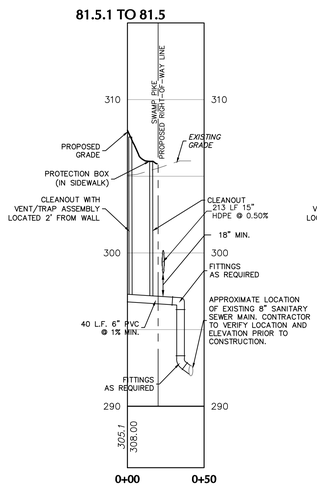

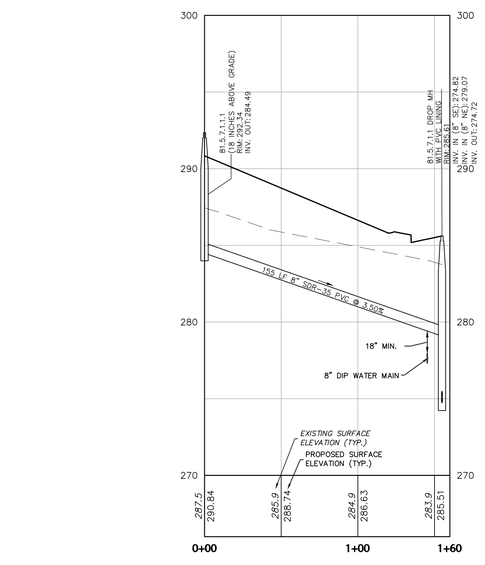

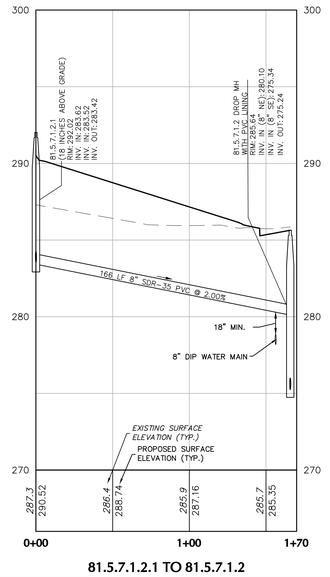

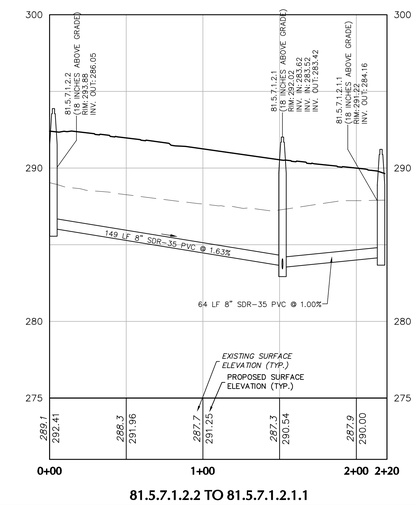

Date	Description	No.
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8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SANITARY PROFILES

OWNER
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2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOULDTHORP

4 0 2 4
VERTICAL SCALE IN FEET
40 0 20 40
HORIZONTAL SCALE IN FEET

Project No.	240038801
Date	05/31/16
Scale	H:1"=40' V:1"=4'
Drawn By	KG
Submission Date	
Drawing No.	CG-605
	Sheet 157 of 187

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019

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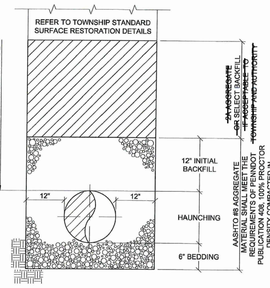
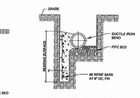
Filename: \\langan.com\data\BET\data\#240038801\Cadd Data - 240038801\Sheet Files\240038801 CG601-605.dwg Date: 12/12/2019 Time: 13:14 User: dmoyer Style Table: Langan.stb Layout: CG-605

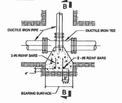


PLAN



SECTION A-A

ALTERNATE SECTION A-A



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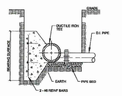
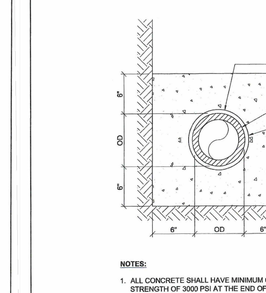


SECTION B-B

PIPE SIZE	"A"
4" - 48"	6"
54" - 84"	10"

NOTES:

1. ALL CONCRETE SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT THE END OF 28 DAYS.



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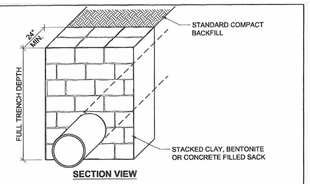
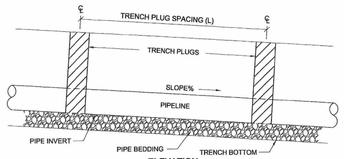


SECTION VIEW

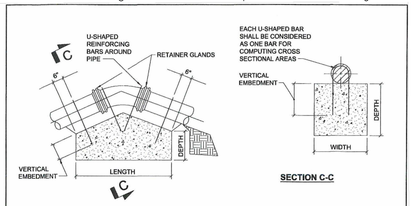


ELEVATION

MAXIMUM SPACING AND MATERIAL FOR TRENCH PLUGS		
TRENCH SLOPE (%)	SPACING L (FT)	PLUG MATERIAL
< 5	1,000	* CLAY, BENTONITE, OR CONCRETE FILLED SACK
5 - 15	500	* CLAY, BENTONITE, OR CONCRETE FILLED SACK
15 - 25	300	* CLAY, BENTONITE, OR CONCRETE FILLED SACK
25 - 35	200	* CLAY, BENTONITE, OR CONCRETE FILLED SACK
35 - 100	100	* CLAY, BENTONITE, OR CONCRETE FILLED SACK
> 100	50	CEMENT FILLED BAGS (WETTED) OR MORTARED STONE

* TOPSOIL MAY NOT BE USED TO FILL SACKS.

IMPERVIOUS TRENCH PLUGS ARE REQUIRED FOR ALL STREAM, RIVER, WETLAND, OR OTHER WATER BODY CROSSING.



SECTION C-C

VERTICAL THRUST UPWARD

PIPE SIZE	6" AND 8"			10" AND 12"			14" AND 16"		
DEGREE BEND OR DEFLECTION	11 1/4°	22 1/2°	45°	11 1/4°	22 1/2°	45°	11 1/4°	22 1/2°	45°
LENGTH	3.00	4.00	6.00	4.50	6.00	8.00	6.00	8.00	11.00
WIDTH	3.00	3.00	3.00	3.00	3.00	4.00	3.50	3.50	5.00
DEPTH	2.00	3.00	4.00	3.00	4.50	5.00	3.50	5.00	5.00
SQ. IN. REINFORCING	0.17	0.33	0.65	0.37	0.74	1.46	0.66	1.32	2.60

BAR NO.	5	6	7	8	9	10	11
CROSS-SECTION SQ IN PER BAR	0.31	0.44	0.60	0.79	1.00	1.27	1.58
VERTICAL EMBEDMENT	15"	19"	26"	35"	44"	56"	68"

UPWARD THRUSTS SCHEDULE OF DIMENSIONS
150 P.S.I. WORKING PRESSURE

NOTE:
REFER TO NOTES ON HORIZONTAL THRUST BLOCKING DETAIL

MINIMUM EQUATE TEST OF SEATED SURFACE REQUIRED FOR HORIZONTAL THRUST BLOCKING AND VERTICAL THRUSTS DETERMINED									
PIPE SIZE →	4" AND 6"			8" AND 10"			12" AND 16"		
TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS	BEARING AREA OF ONE BELL OR FITTING			BEARING AREA OF ONE BELL OR FITTING			BEARING AREA OF ONE BELL OR FITTING		
	in.²	in.	ft.²	in.²	in.	ft.²	in.²	in.	ft.²
SHIFT TONALITY / SHIFT SLIFT TONALITY	144	144	144	1008	648	648	1008	648	1008
SHIFT TONALITY / STANDARD	108	108	108	648	108	108	648	108	1296
CLAY 2 TONALITY	108	108	108	648	108	108	648	108	648
SHIFT ROCK 2 TONALITY	108	108	108	216	108	108	216	108	648
ROCK 50 TONALITY	108	108	108	108	108	108	108	108	648
MINIMUM EQUATE TEST OF SEATED SURFACE REQUIRED FOR HORIZONTAL THRUST BLOCKING AND VERTICAL THRUSTS DETERMINED									
PIPE SIZE →	14" AND 16"			18" AND 20"			24" AND 30"		
TYPE OF BEARING MATERIAL AND ALLOWABLE LOADS	BEARING AREA OF ONE BELL OR FITTING			BEARING AREA OF ONE BELL OR FITTING			BEARING AREA OF ONE BELL OR FITTING		
	in.²	in.	ft.²	in.²	in.	ft.²	in.²	in.	ft.²
SHIFT TONALITY / SHIFT SLIFT TONALITY	1296	1296	1296	1944	1944	1944	2592	2592	2592
SHIFT TONALITY / STANDARD	1296	1296	1296	1944	1944	1944	2592	2592	2592
CLAY 2 TONALITY	1296	1296	1296	1944	1944	1944	2592	2592	2592
SHIFT ROCK 2 TONALITY	1296	1296	1296	1944	1944	1944	2592	2592	2592
ROCK 50 TONALITY	1296	1296	1296	1944	1944	1944	2592	2592	2592

SCHEDULE OF DIMENSIONS

NOTES:

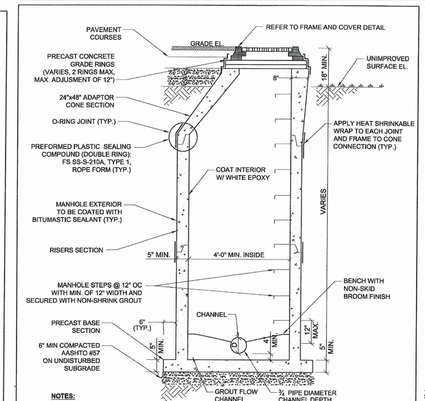
1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT THE END OF 28 DAYS.
2. ALL REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BARS.
3. INSTALL CONCRETE THRUST BLOCKS AT EACH ELBOW, TEE AND CAPPED OR VALVED END FITTINGS LOCATED IN THE HORIZONTAL/ VERTICAL PLANE.
4. PAINT ALL EXPOSED STEEL WITH TWO COATS OF ASPHALT PAINT.
5. NO COUPLING OR JOINTS SHALL BE COVERED WITH CONCRETE.
6. ALL-THREADS WITH PIPE STRAPS MAY BE USED IN PLACE OF REINFORCING BARS.
7. ALL THRUST BLOCKS SHOWN ARE INTENDED AS A GUIDE AND SHALL WITHSTAND THE REQUIRED PRESSURE.
8. RETAINER GLANDS REQUIRED ON ALL MECHANICAL JOINT FITTINGS.
9. CERTAIN SITUATIONS MAY WARRANT THE USE OF TIE RODS, AUTHORIZED BY THE AUTHORITY ONLY.
10. PIPING SHALL BE WRAPPED WITH POLYETHYLENE PRIOR TO PLACEMENT OF CONCRETE.
11. FOR SOIL BEARING VALVES LESS THAN 1 TON / SQ. FT., CONSULT WITH AUTHORITY ENGINEER FOR RECOMMENDATION.

HORIZONTAL BENDS								
NOMINAL	LENGTH OF PIPE RESTRAINT REQUIRED PER FITTING IN FEET							
PIPE DIA.	11.25°	22.5°	45°	90°	TEE	CROSS	CAP/VALVE	REDUCER
4	1	3	5	13	11	11	14	-- --
6	2	4	8	18	17	17	19	6" to 4" 10
8	2	5	10	24	23	23	25	8" to 6" 11
10	3	6	12	29	28	28	31	10" to 8" 11
12	3	7	14	35	34	34	37	12" to 10" 11
16	4	9	19	45	46	46	49	16" to 12" 21

VERTICAL BENDS								
	LENGTH OF PIPE RESTRAINT REQUIRED PER FITTING IN FEET							
NOMINAL	VERTICAL UP BEND ANGLE				VERTICAL DOWN BEND ANGLE			
PIPE DIA.	11.25°	22.5°	45°	90°	11.25°	22.5°	45°	90°
4	1	3	5	13	3	5	11	27
6	2	4	8	18	4	8	16	39
8	2	5	10	24	5	10	21	51
10	3	6	12	29	6	12	26	62
12	3	7	14	35	7	15	31	74
16	4	9	19	45	10	19	41	98

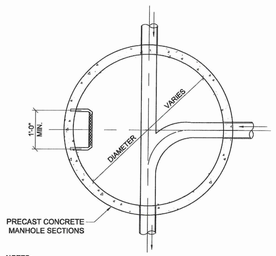
NOTES:

1. LENGTHS ARE BASED ON THE DUCTILE IRON PIPE RESEARCH ASSOCIATION PIPE RESTRAINT CALCULATOR VERSION 3.3 (05/09/2003), ASSUMING THE FOLLOWING: TRENCH - TYPE 5, SOIL - CLAY 1, BURY DEPTH 4', PRESSURE 150 PSI, AND SAFETY FACTOR 1.5
2. LENGTHS ARE PROVIDED FOR DUCTILE IRON PIPE WITHOUT POLYETHYLENE WRAP. POLYETHYLENE WRAP WILL REQUIRE ADDITIONAL RESTRAINT LENGTH TO BE DETERMINED ON AN AS NEEDED BASIS BY NHTA ENGINEER.
3. REDUCER RESTRAINT LENGTHS SHOULD BE ADDED IF GREATER REDUCTION IS REQUIRED (I.E. 16" TO 8" = 21+11+11 = 43 FEET)



NOTES:

1. ALL PIPE TO MANHOLE CONNECTIONS SHALL BE MADE WITH A CAST-IN-PLACE GASKET, (TYP.) (A-LOK OR APPROVED EQUAL)
2. MANHOLES EXCEEDING A DEPTH OF 16 FEET SHALL PROVIDE PRE-CAST LANDING PLATFORM.
3. THE 48"Ø MANHOLE SHALL BE USED ON PIPE SIZES 8" TO 18"
4. FINISH GRADE SHALL BE FLUSH WITH TOP OF COVER, UNLESS OTHERWISE NOTED. MANHOLES INSTALLED OUTSIDE OF PAVED AREAS SHOULD BE RAISED A MINIMUM OF 18" ABOVE GROUND ELEVATION.



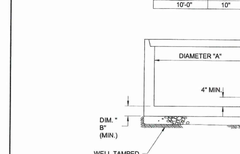
NOTES:

1. THE BENCH SHALL SLOPE TO INVERT CHANNEL AT THE RATE OF 1" PER FOOT (MIN.)
2. THE DEPTH OF THE INVERT CHANNEL SHALL BE NOT LESS THEN ¾ OF THE DIAMETER OF THE PIPE.

PRECAST MANHOLE DIAMETER REQUIREMENT TABLE

MANHOLE DIAMETER	45° DEFLECTION MAXIMUM SIZE OF PIPE	90° DEFLECTION MAXIMUM SIZE OF PIPE
48"	18"	18"
60"	36"	27"
72"	42"	30"

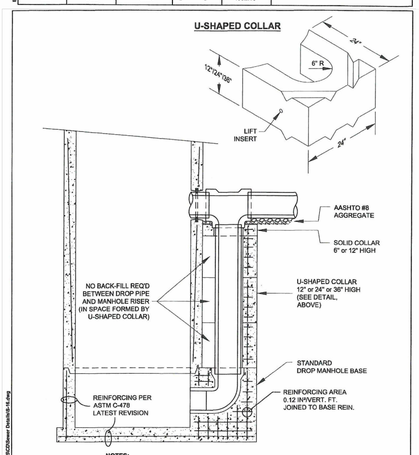
NOTE: MANHOLES GREATER THAN 20 FEET DEEP SHALL BE A MINIMUM OF 5 FOOT DIAMETER.



SECTIONAL ELEVATION

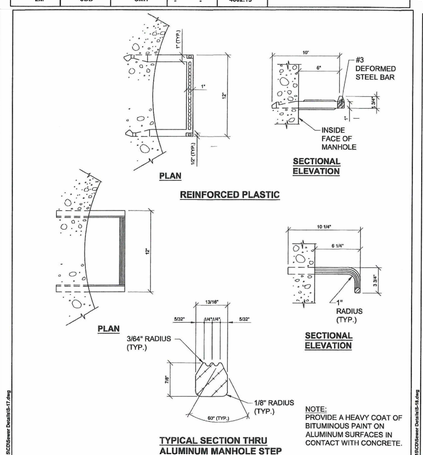
NOTES:

1. ORIENTATION AND DIAMETER OF PIPE OPENINGS SHOWN FOR ILLUSTRATION PURPOSES ONLY. SEE PLANS FOR LOCATION AND DIAMETER.
2. PRECAST REINFORCED CONCRETE MANHOLE BASE TO CONFORM TO ASTM SPECIFICATION C-478.
3. REINFORCING STEEL TO CONFORM TO ASTM SPECIFICATION A-185.

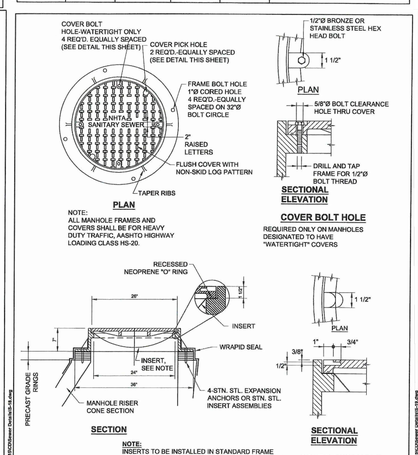


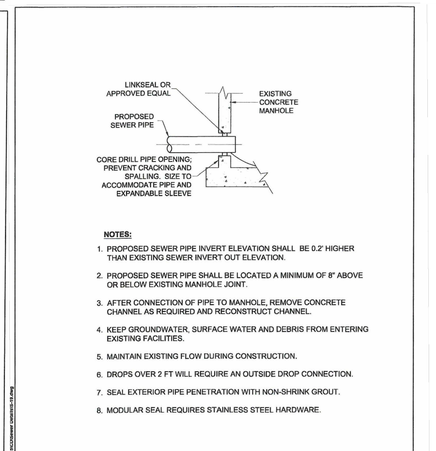
NOTES:

1. DROP MANHOLE AND A MINIMUM OF ONE DOWNSTREAM MANHOLE SHALL REQUIRE PVC LINING (DURA PLATE 100 OR EQUAL).



NOTE: PROVIDE A HEAVY COAT OF BITUMINOUS PAINT ON ALUMINUM SURFACES IN CONTACT WITH CONCRETE.





NOTES:

1. PROPOSED SEWER PIPE INVERT ELEVATION SHALL BE 0.2' HIGHER THAN EXISTING SEWER INVERT OUT ELEVATION.
2. PROPOSED SEWER PIPE SHALL BE LOCATED A MINIMUM OF 8" ABOVE OR BELOW EXISTING MANHOLE JOINT.
3. AFTER CONNECTION OF PIPE TO MANHOLE, REMOVE CONCRETE CHANNEL AS REQUIRED AND RECONSTRUCT CHANNEL.
4. KEEP GROUNDWATER, SURFACE WATER AND DEBRIS FROM ENTERING EXISTING FACILITIES.
5. MAINTAIN EXISTING FLOW DURING CONSTRUCTION.
6. DROPS OVER 2 FT WILL REQUIRE AN OUTSIDE DROP CONNECTION.
7. SEAL EXTERIOR PIPE PENETRATION WITH NON-SHRINK GROUT.
8. MODULAR SEAL REQUIRES STAINLESS STEEL HARDWARE.

NOTE:
REFER TO NEW HANOVER SEWER AUTHORITY "PROCEDURES AND TECHNICAL SPECIFICATIONS COVERING SANITARY SEWAGE FACILITIES" FOR ALL SEWER CONSTRUCTION DETAILS

12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.
Date	Description	No.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER 057145 E
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SANITARY SEWER DETAILS

Project No.	240038801
Date	05/31/16
Scale	N.T.S.
Drawn By	KG
Submission Date	
Drawing No.	CU-501
Sheet	158 of 187

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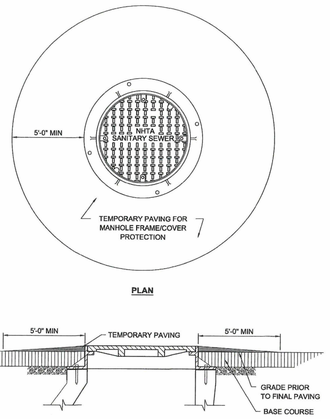
Filename: \\langan.com\data\BE\data\240038801\cadd data - 240038801\sheetfiles\240038801 CU501-504.dwg Date: 12/12/2019 Time: 13:15 User: dmoyer Style Table: Langan.stb Layout: 240038801 CU501-504 - CU-501

PROJECT NO. 240038801 SUBMISSION DATE: DECEMBER 13, 2019 LANGAN



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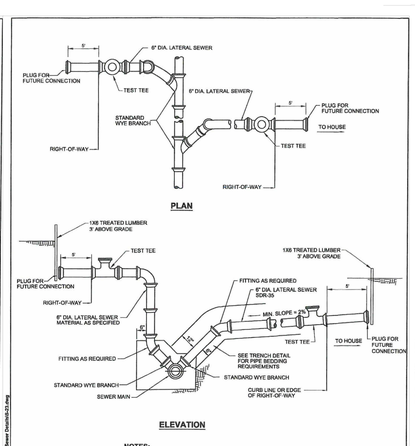
Pottsville p: 570.628.3003 | Wyomissing p: 570.988.9275 | Lititz p: 717.626.6000 | Pittsburgh p: 412.264.2900

NEW HANOVER TOWNSHIP AUTHORITY
2990 FAGLEYSVILLE RD. GILBERTSVILLE, PA 19525
STANDARD DETAIL
MANHOLE FRAME / COVER PROTECTION DETAIL - (TEMPORARY PAVING)

PREPARED BY	CHECKED BY	APPROVED BY	REV. /	DATE	DATE	SCALE	DRAWING NO.
ZM	JDB	CMH	-	-	FEB. 2014	N.T.S.	S-22

PROJECT NO.
4602.15



NOTES:

1. WHERE TEST TEE IS NOT REQUIRED, SERVICE CONNECTION SHALL BE EXTENDED TO THE RIGHT-OF-WAY LINE AND PLUGGED.

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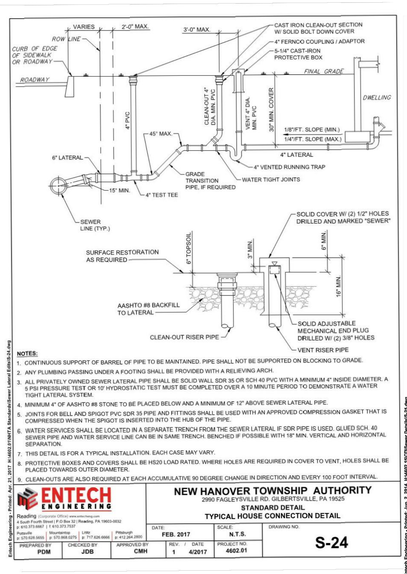
NEW HANOVER TOWNSHIP AUTHORITY
2990 FAGLEYSVILLE RD. GILBERTSVILLE, PA 19525
STANDARD DETAIL
LATERAL DETAIL

PREPARED BY	CHECKED BY	APPROVED BY	REV. /	DATE	DATE	SCALE	DRAWING NO.
ZM	JDB	CMH	-	-	FEB. 2014	N.T.S.	S-23

PROJECT NO.
4602.15



NOTES:

1. CONTINUOUS SUPPORT OF BARREL OF PIPE TO BE MAINTAINED. PIPE SHALL NOT BE SUPPORTED ON BLOCKING TO GRADE.
2. ANY PLUMBING PASSING UNDER A FOOTING SHALL BE PROVIDED WITH A RELIEVING ARCH.
3. ALL PRIVATELY OWNED SEWER LATERAL PIPE SHALL BE SOLID WALL SDR 35 OR SCH 40 PVC WITH A MINIMUM 4" INSIDE DIAMETER. A 5 PSI PRESSURE TEST OR 10' HYDROSTATIC TEST MUST BE COMPLETED OVER A 10 MINUTE PERIOD TO DEMONSTRATE A WATER TIGHT LATERAL SYSTEM.
4. MINIMUM 4" OF AASHTO #8 STONE TO BE PLACED BELOW AND A MINIMUM OF 12" ABOVE SEWER LATERAL PIPE.
5. JOINTS FOR BELL AND SPIGOT PVC SDR 35 PIPE AND FITTINGS SHALL BE USED WITH AN APPROVED COMPRESSION GASKET THAT IS COMPRESSED WHEN THE SPIGOT IS INSERTED INTO THE HUB OF THE PIPE.
6. WATER SERVICES SHALL BE LOCATED IN A SEPARATE TRENCH FROM THE SEWER LATERAL IF SDR PIPE IS USED. GLUED SCH. 40 SEWER PIPE AND WATER SERVICE LINE CAN BE IN SAME TRENCH. BENCHED IF POSSIBLE WITH 18" MIN. VERTICAL AND HORIZONTAL SEPARATION.
7. THIS DETAIL IS FOR A TYPICAL INSTALLATION. EACH CASE MAY VARY.
8. PROTECTIVE BOXES AND COVERS SHALL BE H20 LOAD RATED. WHERE HOLES ARE REQUIRED IN COVER TO VENT, HOLES SHALL BE PLACED TOWARDS OUTER DIAMETER.
9. CLEAN-OUTS ARE ALSO REQUIRED AT EACH ACCUMULATIVE 90 DEGREE CHANGE IN DIRECTION AND EVERY 100 FOOT INTERVAL.

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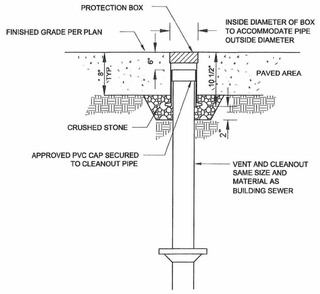
NEW HANOVER TOWNSHIP AUTHORITY
2990 FAGLEYSVILLE RD. GILBERTSVILLE, PA 19525
STANDARD DETAIL
TYPICAL HOUSE CONNECTION DETAIL

PREPARED BY	CHECKED BY	APPROVED BY	REV.	DATE	DATE	SCALE	DRAWING NO.
PDM	JDB	CMH	1	4/2017	FEB. 2017	N.T.S.	S-24

PROJECT NO.
4602.01

NOTES:

1. PROTECTION BOX TO BE SET FLUSH WITH PAVING SURFACE
2. PROTECTION BOX AND COVER TO BE SUITABLE FOR TRAFFIC LOADING
3. IF PROTECTION BOX IS INSTALLED OVER A VENT, THEN INSERT DISH WILL BE REQUIRED TO LIMIT INFLOW INTO THE VENT.



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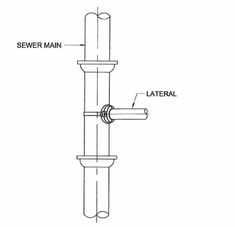
NEW HANOVER TOWNSHIP AUTHORITY
2990 FAGLEYSVILLE RD. GILBERTSVILLE, PA 19525
STANDARD DETAIL
TRAP AND VENT PROTECTION BOX DETAIL

PREPARED BY	CHECKED BY	APPROVED BY	REV. /	DATE	DATE	SCALE	DRAWING NO.
ZM	JDB	CMH	-	-	FEB. 2014	N.T.S.	S-25

PROJECT NO.
4602.15



NOTE:

STAINLESS STEEL HARDWARE REQUIRED.

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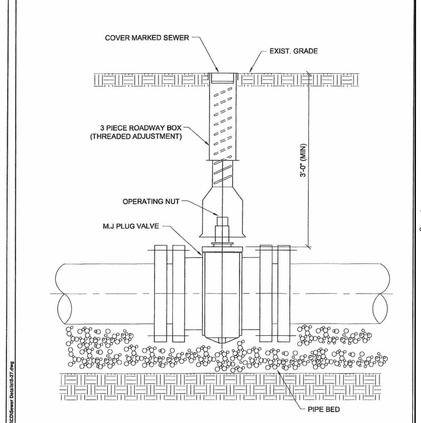
NEW HANOVER TOWNSHIP AUTHORITY
2990 FAGLEYSVILLE RD. GILBERTSVILLE, PA 19525
STANDARD DETAIL
BREAK-IN LATERAL CONNECTION DETAIL

PREPARED BY	CHECKED BY	APPROVED BY	REV. /	DATE	DATE	SCALE	DRAWING NO.
ZM	JDB	CMH	-	-	FEB. 2014	N.T.S.	S-26

PROJECT NO.
4602.15



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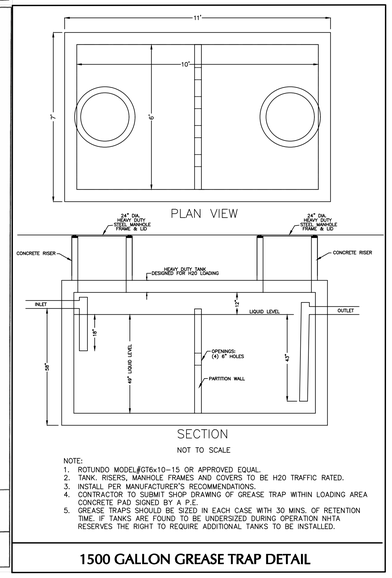
NEW HANOVER TOWNSHIP AUTHORITY
2990 FAGLEYSVILLE RD. GILBERTSVILLE, PA 19525
STANDARD DETAIL
PLUG VALVE & VALVE BOX INSTALLATION DETAIL

PREPARED BY	CHECKED BY	APPROVED BY	REV. /	DATE	DATE	SCALE	DRAWING NO.
ZM	JDB	CMH	-	-	FEB. 2014	N.T.S.	S-27

PROJECT NO.
4602.15



NOT TO SCALE

NOTE:
1. ROTUNDO MODEL #GT6x10-15 OR APPROVED EQUAL.
2. TANK, RISERS, MANHOLE FRAMES AND COVERS TO BE H20 TRAFFIC RATED.
3. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
4. CONTRACTOR TO SUBMIT SHOP DRAWING OF GREASE TRAP WITHIN LOADING AREA CONCRETE PAD SIGNED BY A P.E.
5. GREASE TRAPS SHOULD BE SIZED IN EACH CASE WITH 30 MINS. OF RETENTION TIME. IF TANKS ARE FOUND TO BE UNDERSIZED DURING OPERATION NHTA RESERVES THE RIGHT TO REQUIRE ADDITIONAL TANKS TO BE INSTALLED.

1500 GALLON GREASE TRAP DETAIL

NOTE:
REFER TO NEW HANOVER SEWER AUTHORITY "PROCEDURES AND TECHNICAL SPECIFICATIONS COVERING SANITARY SEWAGE FACILITIES" FOR ALL SEWER CONSTRUCTION DETAILS

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
1-31-18	REVISED PER COMMENT LETTERS	5.
11-08-17	REVISED PER COMMENT LETTERS	4.
8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
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Langan Engineering and Environmental Services, Inc.
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Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
SANITARY SEWER DETAILS

Project No.	Drawing No.
240038801	CU-502
Date: 05/31/16	
Scale: N.T.S.	
Drawn By: KG	
Submission Date	Sheet 159 of 187

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SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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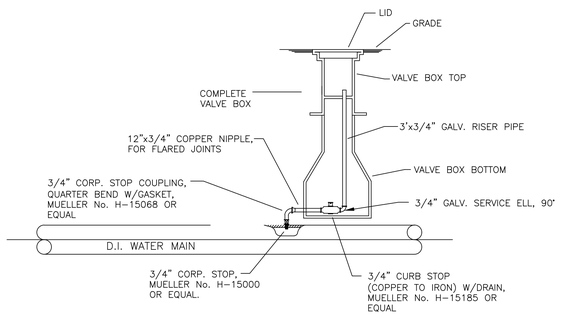
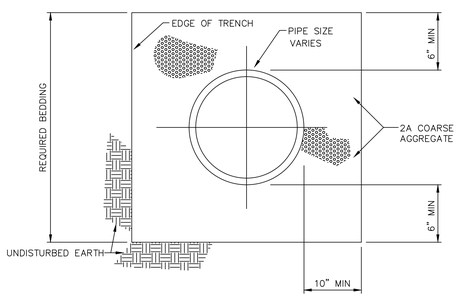
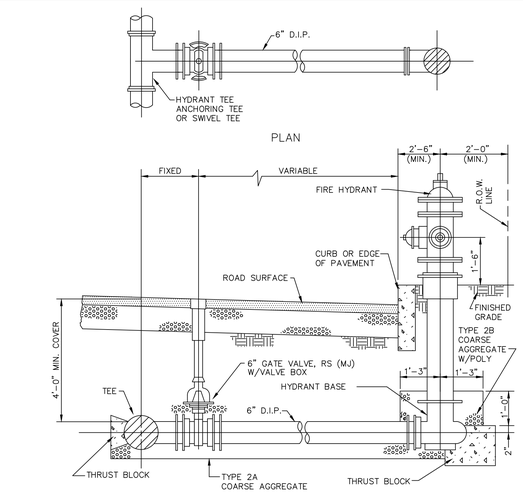


DETAIL OF STANDARD 3/4" M.A.V. & CL2 ASSEMBLY

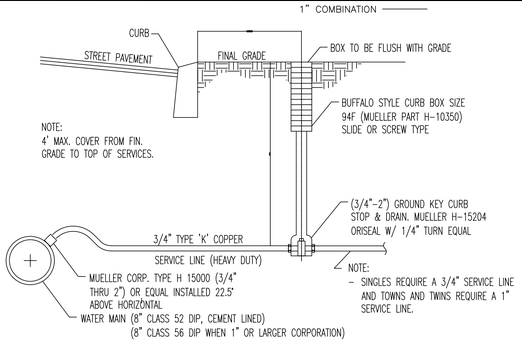


STANDARD WATER PIPE BEDDING DETAIL



NOTE: DRAIN HOLE IN HYDRANT MUST NOT BE OBSTRUCTED WITH CONCRETE.
NOTE: HYDRANT SHALL BE A STEEL RAIL. STEEL RAIL ACROSS THE END REDUCING OFFSET PLUG WITH CONCRETE ON EITHER SIDE.

FIRE HYDRANT



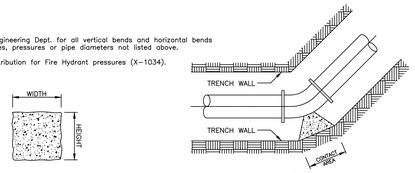
NOTE: MODIFIED 2A STONE (8" LIFTS) SHALL BE PLACED WHEN BACKFILLING WATER SERVICE CONNECTION FROM MAIN TO BEHIND CURB.

WATER SERVICE CONNECTION DETAIL

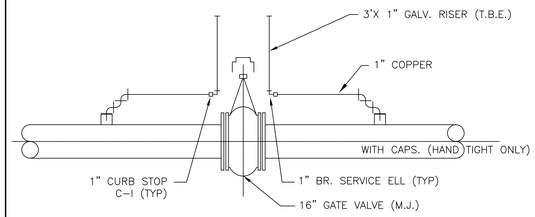
AREAS REQUIRED
(Square Feet of Contact Surface Area Along Trench Wall)

Pipe Diameter (inches)	HYDRANTS, TEES & BLOW-OFFS 100 P.S.I.	150 P.S.I.	200 P.S.I.	90° BENDS 100 P.S.I.	150 P.S.I.	200 P.S.I.	45° BENDS 100 P.S.I.	150 P.S.I.	200 P.S.I.	11 1/4° & 22 1/2° BENDS 100 P.S.I.	150 P.S.I.	200 P.S.I.
6	3	4	5	3	5	6	2	3	4	1	2	2
8	4	6	8	6	8	11	3	5	6	2	3	3
12	9	13	17	12	18	24	7	10	13	4	5	7
16	15	23	30	21	32	43	12	17	23	6	9	12

NOTE:
Refer to Engineering Dept. for all vertical bends and horizontal bends having angles, pressures or pipe diameters not listed above.
Contact Distribution for Fire Hydrant pressures (X-1034).



MINIMUM THRUST BLOCK CALCULATIONS

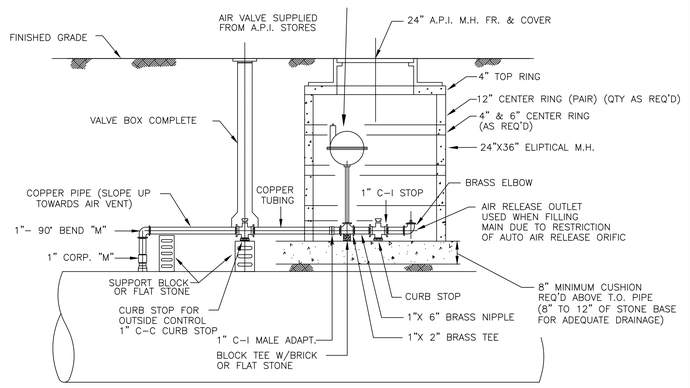


DETAIL OF 1" HIGH/LOW SIDE TAPS @ 12" GATE VALVES

CONSTRUCTION NOTES:

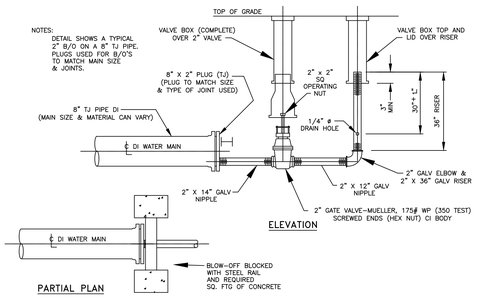
1. TOWNSHIP TO BE NOTIFIED PRIOR TO WORKING NEAR SCHOOL SIGNALS AND SHALL MARK OUT AS REQUIRED.
2. SHOULDER AREAS PRONE TO WASHOUT SHALL BE PAVED.
3. ANY DAMAGE TO TREES OR CUT SLOPES CAUSING THEM TO FAIL SHALL BE THE RESPONSIBILITY OF THE PERMITTEE.
4. MAIN TO BE SLEEVED OR ENCASED WHERE PASSING THROUGH GUIDERAIL.
5. PERMITTEE AND HIS CONTRACTOR ARE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH THE REQUIRED EROSION AND SEDIMENTATION CONTROL MEASURES.

   APPROPRIATE CONTROLS ARE TO BE IN PLACE PRIOR TO SITE DISTURBANCE, CONTINUALLY MAINTAINED DURING CONSTRUCTION UNTIL REMOVED AND LEFT IN PLACE UNTIL SITE IS STABILIZED.
6. TOWNSHIP TO BE NOTIFIED PRIOR TO WORKING NEAR TRAFFIC SIGNAL LOOPS AND SHALL MARK OUT AS REQUIRED.



STANDARD 1" COMBINATION AIR VENT/VALVE
N.T.S.

COMBINATION AIR VENT/VALVE



STANDARD 2" BLOW-OFF
N.T.S.

STANDARD 2" BLOW-OFF

REFER TO AQUA PLAN SET FOR SPECIFIC DETAILS, SPECIFICATIONS AND REQUIREMENTS FOR WATER SERVICE.

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
4.	REVISED PER COMMENT LETTERS	11-08-17
3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER
SIGNATURE JASON SCOTT ENGELHARDT DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

LANGAN
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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan Treadwell LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
WATER DETAILS

Project No. 240038801	Drawing No. CU-503
Date 05/31/16	
Scale N.T.S.	
Drawn By KG	
Submission Date	Sheet 160 of 187

SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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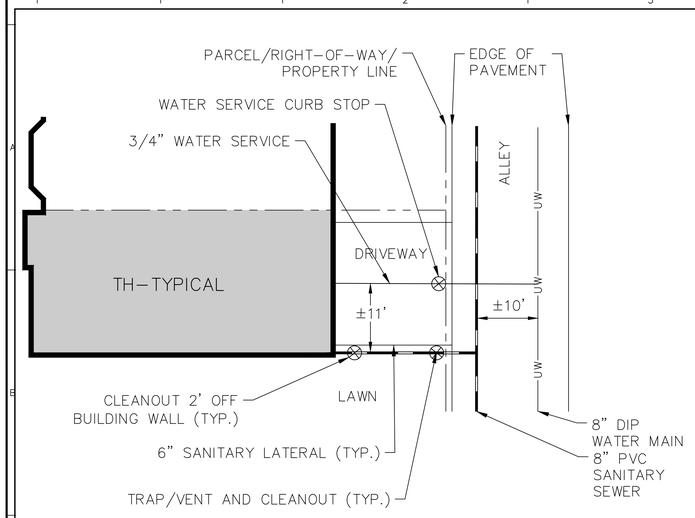
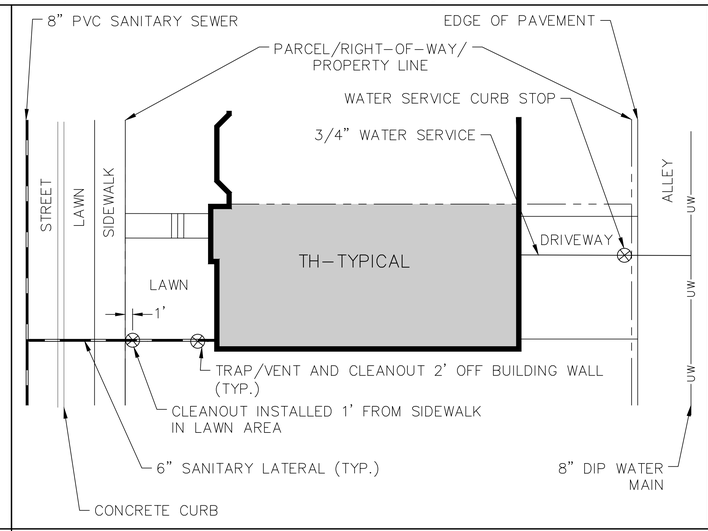
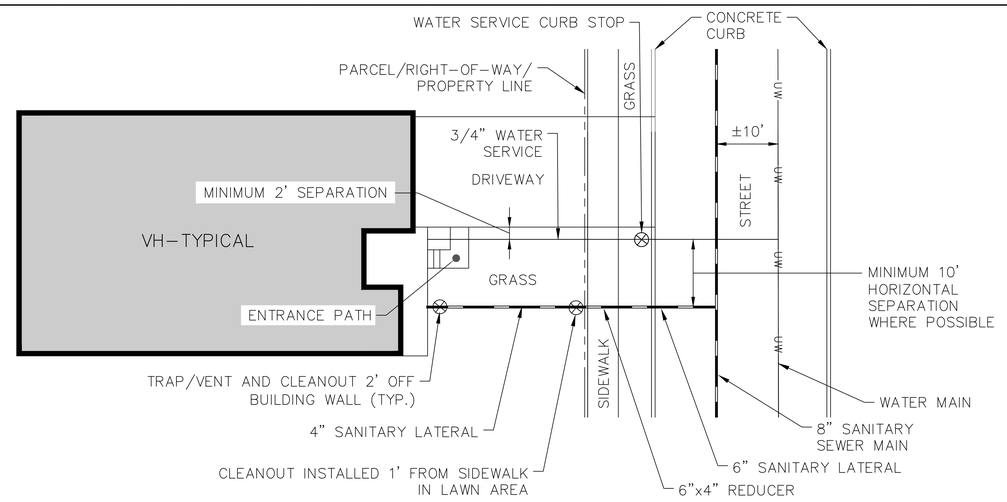


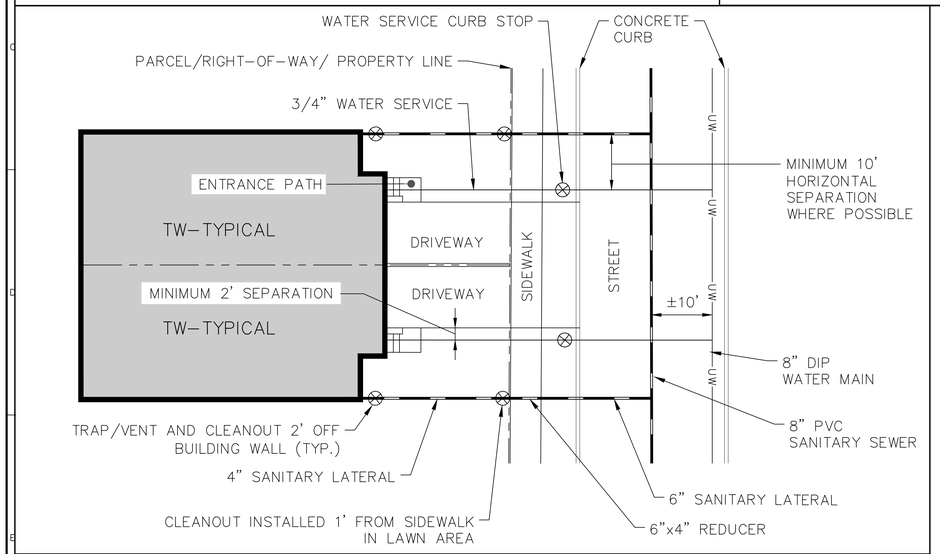
TYPICAL TOWNHOUSE (TH 24' WIDE) WATER SERVICE AND LATERAL REAR CONNECTION



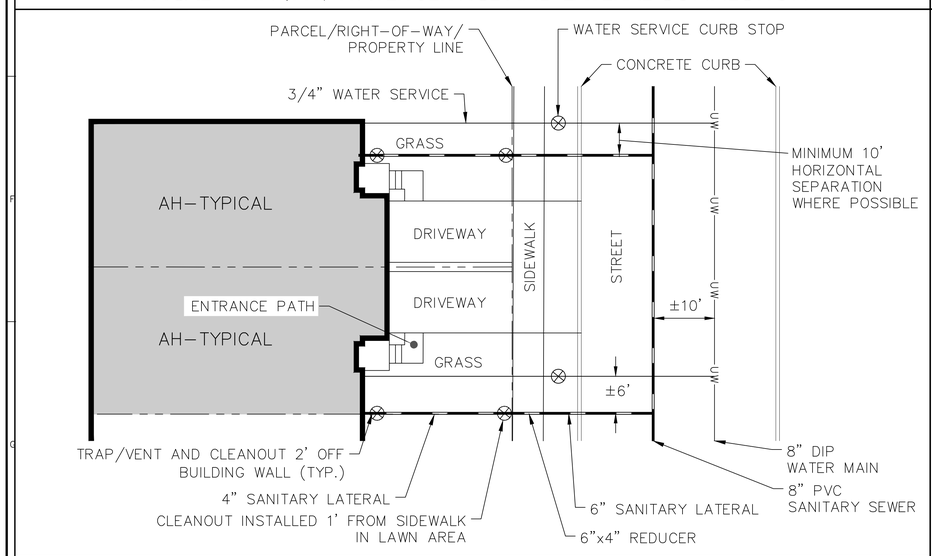
TYPICAL TOWNHOUSE (TH 24' WIDE) WATER SERVICE AND LATERAL FRONT AND REAR CONNECTION



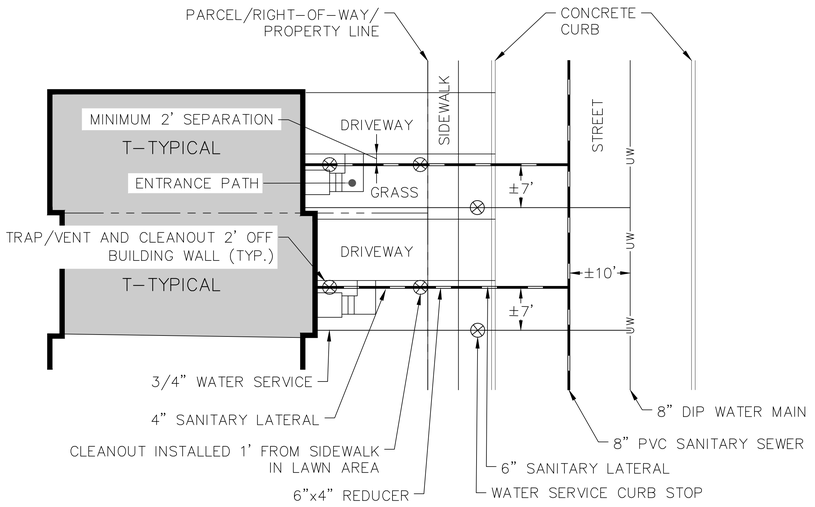
TYPICAL VILLAGE HOUSE (VH) WATER SERVICE AND LATERAL CONNECTION



TYPICAL TWIN (TW) WATER SERVICE AND LATERAL CONNECTION



TYPICAL ATRIUM HOUSE (AH) WATER SERVICE AND LATERAL CONNECTION



TYPICAL TOWNHOUSE (T) WATER SERVICE AND LATERAL CONNECTION

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SCALE IN FEET

No.	Description	Date
8.	REVISED PER COMMENT LETTERS	12-13-19
7.	REVISED PER COMMENT LETTERS	11-09-18
6.	REVISED PER MCCD COMMENTS	6-01-18
5.	REVISED PER COMMENT LETTERS	1-31-18
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3.	REVISED PER COMMENT LETTERS	8-04-17
2.	REVISED PER COMMENT LETTERS	4-07-17
1.	REVISED PER COMMENT LETTERS	11-04-16

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JASON SCOTT ENGELHARDT
SIGNATURE — DATE SIGNED
PROFESSIONAL ENGINEER PA Lic. No. PE-057145-E

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan International LLC
Collectively known as Langan

Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
TYPICAL SERVICE CONNECTION DETAILS

Project No. 240038801	Drawing No. CU-504
Date 05/31/16	
Scale 1" = 10'	
Drawn By KG	
Submission Date	Sheet 161 of 187

LANGAN
SUBMISSION DATE: DECEMBER 13, 2019
PROJECT NO. 240038801

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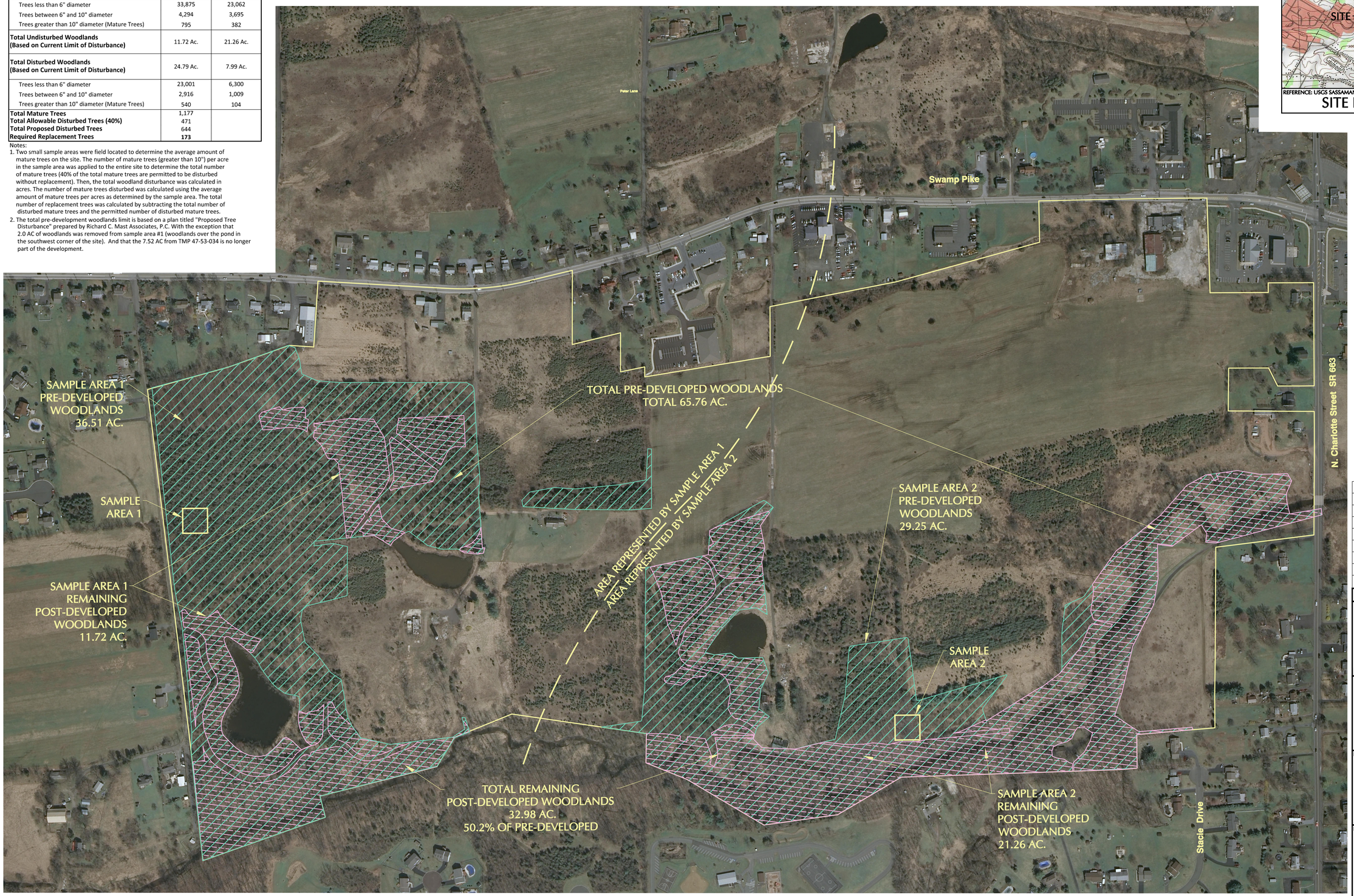
Mature Tree Disturbance

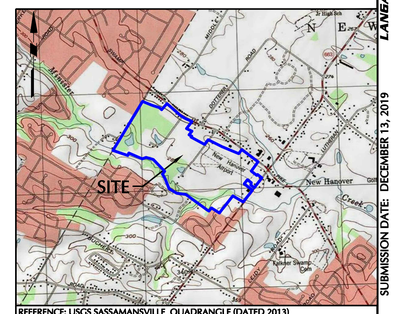
	Sample Area #1 (10,000 SF)	Sample Area #2[2] (10,000 SF)
Trees less than 6" diameter	213	181
Trees between 6" and 10" diameter	27	29
Trees greater than 10" diameter (Mature Trees)	5	3
Total Pre-Development Woodlands (Based on Sample Area)	36.51 Ac.	29.25 Ac.
Trees less than 6" diameter	33,875	23,062
Trees between 6" and 10" diameter	4,294	3,695
Trees greater than 10" diameter (Mature Trees)	795	382
Total Undisturbed Woodlands (Based on Current Limit of Disturbance)	11.72 Ac.	21.26 Ac.
Total Disturbed Woodlands (Based on Current Limit of Disturbance)	24.79 Ac.	7.99 Ac.
Trees less than 6" diameter	23,001	6,300
Trees between 6" and 10" diameter	2,916	1,009
Trees greater than 10" diameter (Mature Trees)	540	104
Total Mature Trees	1,177	
Total Allowable Disturbed Trees (40%)	471	
Total Proposed Disturbed Trees	644	
Required Replacement Trees	**173**	

Notes:

1. Two small sample areas were field located to determine the average amount of mature trees on the site. The number of mature trees (greater than 10") per acre in the sample area was applied to the entire site to determine the total number of mature trees (40% of the total mature trees are permitted to be disturbed without replacement). Then, the total woodland disturbance was calculated in acres. The number of mature trees disturbed was calculated using the average amount of mature trees per acres as determined by the sample area. The total number of replacement trees was calculated by subtracting the total number of disturbed mature trees and the permitted number of disturbed mature trees.
2. The total pre-development woodlands limit is based on a plan titled "Proposed Tree Disturbance" prepared by Richard C. Mast Associates, P.C. With the exception that 2.0 AC of woodlands was removed from sample area #1 (woodlands over the pond in the southwest corner of the site). And that the 7.52 AC from TMP 47-53-034 is no longer part of the development.

NOTE:
PLEASE REFER TO THE LANDSCAPE PLANS FOR PROPOSED REPLACEMENT TREE LOCATIONS.





REFERENCE: USGS SASSAMANSVILLE QUADRANGLE (DATED 2013)

SITE LOCATION MAP SCALE: 1"=2,000'

SUBMISSION DATE: DECEMBER 13, 2019

PROJECT NO. 240038801

LANGAN

OWNER
RP WYNNSTONE, L.P.
2312 N. BROAD STREET
COLMAR, PA 18915-9725
PHONE: (215)822-8899
CONTACT: BENJAMIN GOLDTHORP

150 0 75 150
SCALE IN FEET

Date	Description	No.
12-13-19	REVISED PER COMMENT LETTERS	8.
11-09-18	REVISED PER COMMENT LETTERS	7.
6-01-18	REVISED PER MCCD COMMENTS	6.
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8-04-17	REVISED PER COMMENT LETTERS	3.
4-07-17	REVISED PER COMMENT LETTERS	2.
11-04-16	REVISED PER COMMENT LETTERS	1.

REVISIONS

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JASON SCOTT ENGELHARDT ENGINEER

SIGNATURE JASON S. ENGELHARDT DATE SIGNED
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Project
NEW HANOVER TOWN CENTER
NEW HANOVER TOWNSHIP
MONTGOMERY COUNTY PENNSYLVANIA

Drawing Title
PROPOSED TREE DISTURBANCE

Project No. 240038801	Drawing No. LP-600
Date 05/31/16	
Scale 1" = 150'	
Drawn By JDM	
Submission Date	Sheet 162 of 187

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