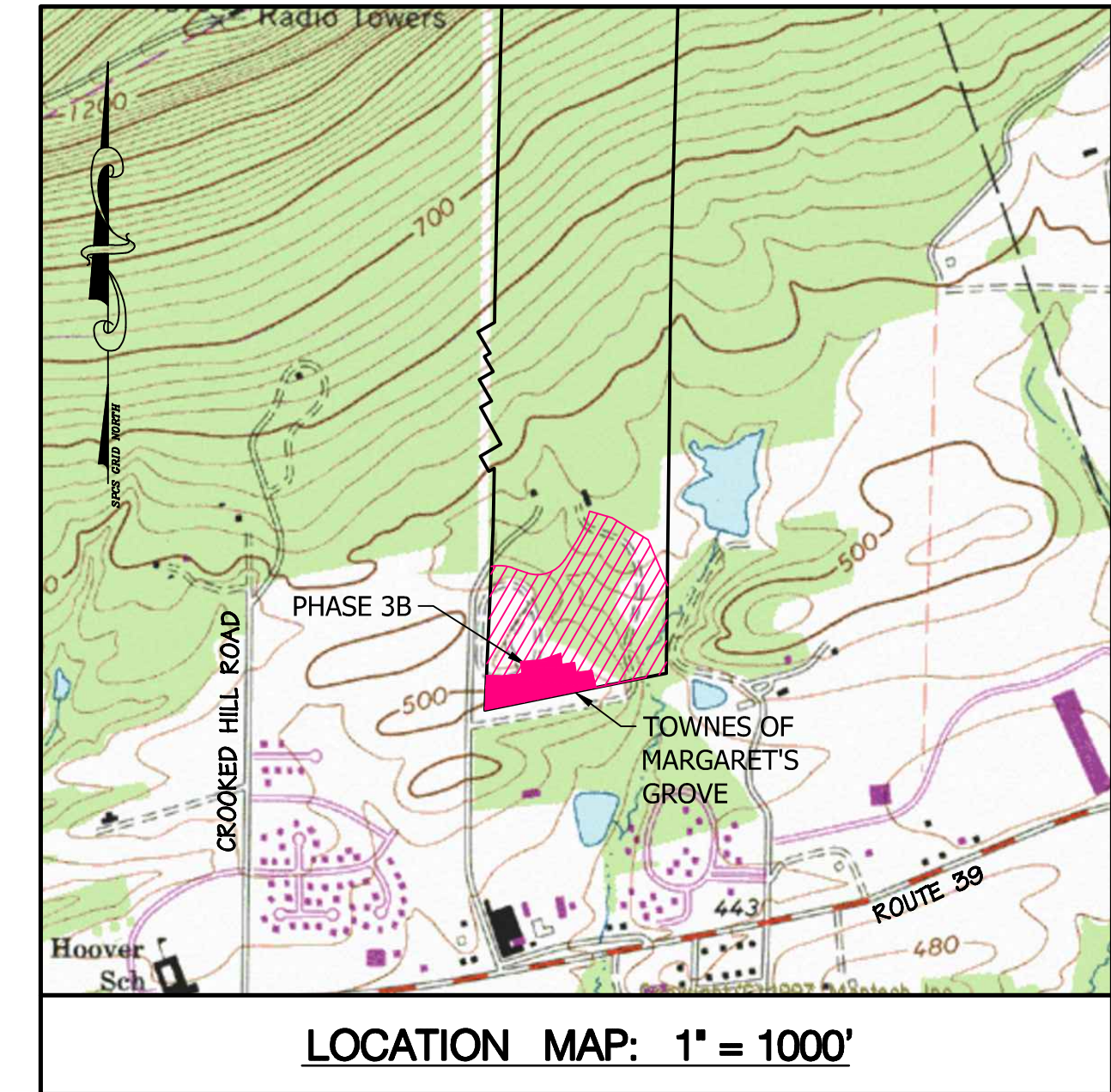


# FINAL LAND DEVELOPMENT PLAN FOR THE TOWNES AT MARGARET'S GROVE, PH 3B LOCATED IN SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA



### PLAN PURPOSE STATEMENT:

THE PURPOSE OF THIS PLAN IS TO BUILD 28 TOWNHOMES AS PART OF THE PREVIOUSLY APPROVED FINAL LAND DEVELOPMENT PLAN FOR PHASES 2 AND 3 OF THE TOWNES AT MARGARET'S GROVE. THE PHASING LAYOUT HAS BEEN UPDATED IN ORDER TO REFLECT CURRENT HOUSING MARKET DEMANDS.

### GENERAL NOTES:

- A WETLAND DELINEATION WAS PERFORMED BY VORTEX ENVIRONMENTAL, INC. ON OCTOBER 6, 2008.
- NO FLOODPLAIN EXISTS ON THIS SITE, AS SHOWN BY FEMA'S NATIONAL FLOOD HAZARD LAYER FIRMETTE, AREA 42043C03300, EFFECTIVE 8/2/2012.
- SANITARY SEWER MAINS ARE PROPOSED TO BE DEDICATED TO SUSQUEHANNA TOWNSHIP AUTHORITY.
- NO EXISTING COVENANTS RUN WITH THIS LAND, EXCEPT FOR THE EXISTING EASEMENTS OF RECORD. PROPOSED RESTRICTIONS ARE NOTED ON THESE PLANS.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THE APPROVED EROSION CONTROL PLAN. THE NPDES PERMIT, PAC220101 ALREADY EXISTS FOR THIS SITE FOR DISCHARGE OF STORMWATER.
- TOPOGRAPHIC BENCHMARK IS A MAGNETIC NAIL IN THE CURB ON THE EASTERN SIDE OF CONTENTENTAL DRIVE NEAR THE INTERSECTION OF NORTHVIEW LANE (NORTHING 366977.9307/EASTING 2216261.6075), HORIZONTAL DATUM NAD83 (OPUS), VERTICAL DATUM NAVD88 (OPUS), ELEVATION 479.77'.
- EACH LOT SHALL HAVE A MINIMUM OF 2 OFF-STREET PARKING SPACES, IN THE GARAGE AND/OR DRIVEWAY.
- THE WATER LINE ON THIS PLAN IS SCHEMATIC ONLY AND FINAL DESIGN WILL BE SUPPLIED FOR BY SUEZ WATER.
- CONCRETE MONUMENTS TO BE SET AS SHOWN, ALL OTHER CORNERS SHALL BE MARKED WITH 5/8" REBAR.
- A SEWAGE FACILITIES PLANNING MODULE WAS APPROVED BY DEP WITH THE PRELIMINARY PLAN; DEP CODE NO. A3-22931-229-3.
- ALL CONSTRUCTION SHALL CONFORM TO PENNDOT PUBLICATIONS 408 AND 72 STANDARDS AND THE SUSQUEHANNA TOWNSHIP ORDINANCES.
- THIS FINAL PHASE 3B PLAN IS BASED ON THE APPROVED PRELIMINARY SUBDIVISION AND LAND DEVELOPMENT PLAN FOR THE TOWNES AT MARGARET'S GROVE AND THE APPROVED FINAL LAND DEVELOPMENT PLAN FOR PHASES 2 AND 3 OF THE TOWNES AT MARGARET'S GROVE, AS APPROVED BY SUSQUEHANNA TOWNSHIP BOARD OF COMMISSIONERS.
- PRIOR TO THE CONSTRUCTION OF ANY FACILITIES SHOWN ON THESE PLANS, THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS AND NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES.
- TOWNSHIP STAFF SHALL HAVE PERMISSION TO ACCESS DRAINAGE EASEMENTS FROM THE NEAREST RIGHT-OF-WAY.
- INLET BOX CORNERS SHALL NOT BE KNOCKED OUT FOR PIPE CONNECTION.
- IMPLEMENTATION OF THE EROSION CONTROL PLAN IS THE RESPONSIBILITY OF THE LOT OWNER, AND/OR THE PERSON(S) AUTHORIZED BY COVERGE UNDER THE NPDES PERMIT FOR DISCHARGE OF STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY.
- THE DEVELOPER/CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A MINIMUM OF 48 HOURS NOTICE AND TO COORDINATE WITH THE TOWNSHIP AND THE TOWNSHIP ENGINEER IN REGARDS TO ALL MUNICIPAL INSPECTION WORK REQUIRED ON THE PROJECT SITE.
- NOTHING SHALL BE PLANTED OR PLACED WITHIN AN EASEMENT WHICH WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT, OR CONFLICT WITH ANY CONDITIONS ASSOCIATED WITH SUCH EASEMENT.
- STORMWATER MANAGEMENT FACILITIES LOCATED ON AN INDIVIDUAL LOT SHALL BE OWNED BY THE LOT OWNER, BUT SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION. MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES SHALL BE REQUIRED TO ENSURE THAT THEY ARE PERMANENT AND CONTINUOUSLY FUNCTIONING AS ORIGINALLY DESIGNED.
- THE OPERATION AND MAINTENANCE AGREEMENT IS PART OF THE STORMWATER MANAGEMENT PLAN.
- PREVIOUSLY CONSTRUCTED CULVERTS AND ASSOCIATED FACILITIES OUTSIDE OF THE PUBLIC RIGHT-OF-WAY SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
- THE DEVELOPER WILL PAY A FEE OF \$2,750 PER DWELLING UNIT FOR RECREATION FACILITIES IN LIEU OF DEDICATION OF LAND.
- ALL UNITS MUST HAVE A STREET ADDRESS NUMBER DISPLAYED PER THE REQUIREMENTS OF SUSQUEHANNA TOWNSHIP'S SUBDIVISION AND LAND DEVELOPMENT ORDINANCE 22-1112.
- ALL STORMWATER CONVEYANCE PIPING SHALL HAVE WATERTIGHT JOINTS.
- SIDEWALKS SHALL BE INSPECTED BY THE MUNICIPAL ENGINEER OR HIS DESIGNATED AGENT AFTER THE FORMS HAVE BEEN PLACED. JUST PRIOR TO THE POURING OF CONCRETE AND AFTER THE COMPLETION OF ALL WORK.
- ALL STREETS ARE PROPOSED TO BE PRIVATE AND NOT PROPOSED FOR DEDICATION.

### SITE DATA:

RECORD OWNER:  
THE MCNAUGHTON COMPANY  
4400 DEER PATH ROAD, SUITE 201  
HARRISBURG, PA 17110  
SITE IS TAX PARCEL NUMBER: 62-090-130  
TOTAL LOT AREA: 19.01 ACRES  
TOTAL LAND DEVELOPMENT AREA: 12.82 ACS. (PHASES 2 & 3)  
EXISTING USE: VACANT  
PROPOSED USE: SINGLE FAMILY ATTACHED DWELLINGS  
EXISTING NUMBER OF LOTS: 1  
PROPOSED NUMBER OF LOTS: 1  
EXISTING WATER SUPPLY: NONE  
EXISTING SEWAGE DISPOSAL: NONE  
PROPOSED WATER SUPPLY: PUBLIC  
PROPOSED SEWAGE DISPOSAL: PUBLIC

### ZONING DATA:

ZONE: RESIDENTIAL URBAN ZONING DISTRICT (R-4)  
(FOR SINGLE FAMILY ATTACHED DWELLINGS ONLY)  
MINIMUM DEVELOPMENT AREA: 40,000 SQUARE FEET  
MINIMUM LOT AREA PER DWELLING UNIT: 2,200 SQUARE FEET  
MINIMUM INDIVIDUAL LOT & STRUCTURE WIDTH: 22 FEET INTERIOR  
32 FEET EXTERIOR  
MAXIMUM BUILDING COVERAGE: 35%  
PROPOSED BUILDING COVERAGE: 18%  
PROPOSED NUMBER OF DWELLING UNITS: 96 (PHASES 3B)  
PROPOSED NUMBER OF DWELLING UNITS IN PHASE 3A: 28  
MAXIMUM DWELLING UNITS PER ACRE: 10  
PROPOSED DENSITY: 7.18 UNITS PER ACRE  
MINIMUM FRONT YARD: 25 FEET  
MINIMUM SIDE YARD: 10 FEET ONE SIDE, 10 FEET TOTAL SIDES  
MINIMUM REAR YARD: 25 FEET  
MAXIMUM PRINCIPAL BUILDING HEIGHT: 30 FEET/3 STORIES  
MINIMUM PARKING: 56 SPACES  
PROPOSED PARKING: 68 SPACES

### DRAWING INDEX:

Sheet Number	Sheet Title
1	COVER SHEET
2	EXISTING CONDITIONS PLAN
3	LAND DEVELOPMENT PLAN
4	GRADING & PCSM PLAN
5	LANDSCAPING PLAN
6	LIGHTING PLAN
7	EROSION & SEDIMENT CONTROL PLAN
8	STREET PROFILES
9	STREET & STORM SEWER PROFILES
10	MISCELLANEOUS DETAILS
11	MISCELLANEOUS DETAILS
12	EROSION & SEDIMENT CONTROL DETAILS

### PLAN APPROVAL BLOCKS:

**DAUPHIN COUNTY PLANNING COMMISSION REVIEW**  
THIS PLAN REVIEWED BY THE DAUPHIN COUNTY PLANNING COMMISSION THIS \_\_\_\_ DAY OF \_\_\_\_ 20\_\_.  
CHAIRMAN \_\_\_\_\_  
SECRETARY \_\_\_\_\_

**TOWNSHIP ENGINEER REVIEW**  
THIS PLAN REVIEWED BY THE SUSQUEHANNA TOWNSHIP ENGINEER THIS \_\_\_\_ DAY OF \_\_\_\_ 20\_\_.  
TOWNSHIP ENGINEER \_\_\_\_\_

**SUSQUEHANNA TOWNSHIP PLANNING COMMISSION REVIEW**  
THIS PLAN RECOMMENDED FOR APPROVAL BY THE SUSQUEHANNA TOWNSHIP PLANNING COMMISSION THIS \_\_\_\_ DAY OF \_\_\_\_ 20\_\_.  
CHAIRMAN \_\_\_\_\_  
SECRETARY \_\_\_\_\_

**FINAL PLAN APPROVAL**  
THIS PLAN APPROVED BY THE SUSQUEHANNA TOWNSHIP BOARD OF COMMISSIONERS, AND ALL CONDITIONS IMPOSED WITH RESPECT TO SUCH APPROVAL WERE COMPLETED ON THIS \_\_\_\_ DAY OF \_\_\_\_ 20\_\_.  
CHAIRMAN \_\_\_\_\_  
SECRETARY \_\_\_\_\_

**RECORDING:**  
THIS PLAN RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN AND FOR DAUPHIN COUNTY THIS \_\_\_\_ DAY OF \_\_\_\_ 20\_\_.  
PLAN BOOK \_\_\_\_\_, PAGE \_\_\_\_\_.  
INSTRUMENT NUMBER \_\_\_\_\_.

### ACKNOWLEDGMENT OF PLAN, STATEMENT OF OWNERSHIP AND OFFER OF DEDICATION:

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF \_\_\_\_\_  
ON THIS THE \_\_\_\_ DAY OF \_\_\_\_ 20\_\_ BEFORE ME THE UNDERSIGNED PERSONALLY APPEARED.  
OWNER(S) \_\_\_\_\_ OWNER(S) \_\_\_\_\_  
OWNER(S) \_\_\_\_\_ OWNER(S) \_\_\_\_\_  
WHO BEING DULY SWORN ACCORDING TO LAW, DEPOSE AND SAY THAT THEY ARE THE OWNERS OF THE PROPERTY SHOWN ON THIS PLAN AND THAT THEY ACKNOWLEDGE THE SAME TO BE THEIR ACT AND DEED AND DESIRE THE SAME TO BE RECORDED AS SUCH ACCORDING TO LAW.  
WITNESS MY HAND AND NOTORIAL SEAL THE DAY AND THE DATE ABOVE WRITTEN  
NOTARY PUBLIC \_\_\_\_\_  
MY COMMISSION EXPIRES \_\_\_\_\_.

IT IS HEREBY CERTIFIED THAT THE UNDERSIGNED ARE THE OWNERS OF THE PROPERTY SHOWN ON THIS PLAN AND THAT ALL STREETS OR PARTS THEREOF, IF NOT PREVIOUSLY DEDICATED, ARE HEREBY TENDERED FOR DEDICATION TO PUBLIC USE.  
OWNER(S) \_\_\_\_\_ OWNER(S) \_\_\_\_\_  
OWNER(S) \_\_\_\_\_ OWNER(S) \_\_\_\_\_

### TAX PARCEL NUMBER:

62-090-190

### PA UTILITY ONE - CALL:



PENNSYLVANIA ACT 267 OF 1974 AS AMENDED BY ACT 30 OF 2017, REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH. SERIAL NO. 20210352360 COMPLETED ON FEBRUARY 4, 2021

#### LIST OF UTILITIES

- COMPANY: SUEZ WATER PENNSYLVANIA INC  
ADDRESS: 8189 ADAMS DR  
HARRISBURG, PA 17136  
CONTACT: LOUISE DOLAN@SUEZ.COM  
EMAIL: LOUISE.DOLAN@SUEZ.COM
- COMPANY: VERIZON PENNSYLVANIA LLC  
ADDRESS: 1026 HAY ST  
PITTSBURGH, PA 15211  
CONTACT: DEBORAH BARUM  
EMAIL: DEBORAH.D.DELAIB@VERIZON.COM
- COMPANY: PPL ELECTRIC UTILITIES CORPORATION  
ADDRESS: 503 NEW MARKET ST  
WILKES BARRE, PA 18702  
CONTACT: MARK SANTAVANA  
EMAIL: MCSANTAVANA@PPLWEB.COM
- COMPANY: COMCAST  
ADDRESS: 4601 SMITH STREET  
HARRISBURG, PA 17109  
CONTACT: MICHAEL SWEIGARD  
EMAIL: MIKE\_SWEIGARD@CABLE.COMCAST.COM
- COMPANY: SUSQUEHANNA TOWNSHIP AUTHORITY  
ADDRESS: 1900 LINGLESTOWN RD  
HARRISBURG, PA 17110  
CONTACT: NATHAN SPRIGGS  
EMAIL: NSPRIGGS@SUSQUEHANNA.TWP.PA.GOV
- COMPANY: USX UTILITIES INC  
ADDRESS: 1301 4TH DRIVE  
MIDDLETOWN, PA 17057  
CONTACT: STEPHEN BATESMAN  
EMAIL: SBATESMAN@USX.COM
- COMPANY: SUSQUEHANNA TOWNSHIP AUTHORITY  
ADDRESS: 1900 LINGLESTOWN RD  
HARRISBURG, PA 17110  
CONTACT: NATHAN SPRIGGS  
EMAIL: NSPRIGGS@SUSQUEHANNA.TWP.PA.GOV

### WAIVERS:

THE FOLLOWING WAIVERS WERE PREVIOUSLY APPROVED WITH THE FINAL LAND DEVELOPMENT PLAN FOR THE TOWNES AT MARGARET'S GROVE, PHASES 2 & 3

WAIVER SECTION	REQUIREMENT
22-407.A.(17)	PERTAINING TO A BUFFER YARDS.
22-407.A.(20)(j)	PERTAINING TO EXISTING RESOURCES AND SITE ANALYSIS PLANS.
22-407.A.(20)(k)	PERTAINING TO RESOURCE IMPACT AND CONSERVATION REPORTS.
22-1106.B	PERTAINING TO VERTICAL CURBS ALONG STREETS.
22-502.5.A	PERTAINING TO LOCATION OF DRIVEWAYS.
22-502.6	PERTAINING TO VERTICAL SAG CURVE 'K' VALUE ON MARGARET'S LANE.

### OWNER / APPLICANT:

MCNAUGHTON PROPERTIES, L.P.  
C/O JOEL MCNAUGHTON  
4400 DEER PATH ROAD, SUITE 201  
HARRISBURG, PA 17110  
PHONE: (717)-234-4000  
JMCNAUGHTON@MCNAUGHTONCO.COM

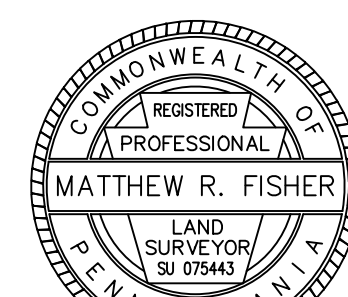
### DESIGN ENGINEER:

R.J. FISHER & ASSOCIATES, INC.  
C/O BENJAMIN HEISEY  
1546 BRIDGE STREET  
NEW CUMBERLAND, PA 17070  
PHONE: (717) 774-7534  
BSH@RJFISHERENGINEERING.COM

### SURVEYOR / ENGINEER CERTIFICATIONS:

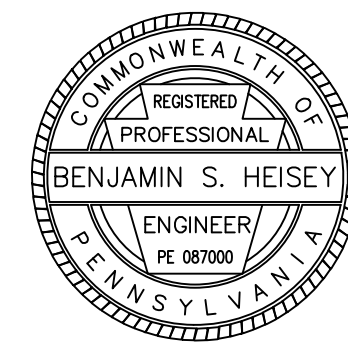
I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THE SURVEY AND PLAN SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE SUSQUEHANNA TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

*Matthew R. Fisher* 5/6/22  
MATTHEW R. FISHER, P.L.S., P.E. DATE



I HEREBY CERTIFY THIS PLAN TO BE CORRECT AS SHOWN.

*Benjamin S. Heisey* 5/6/22  
BENJAMIN S. HEISEY, P.E. DATE



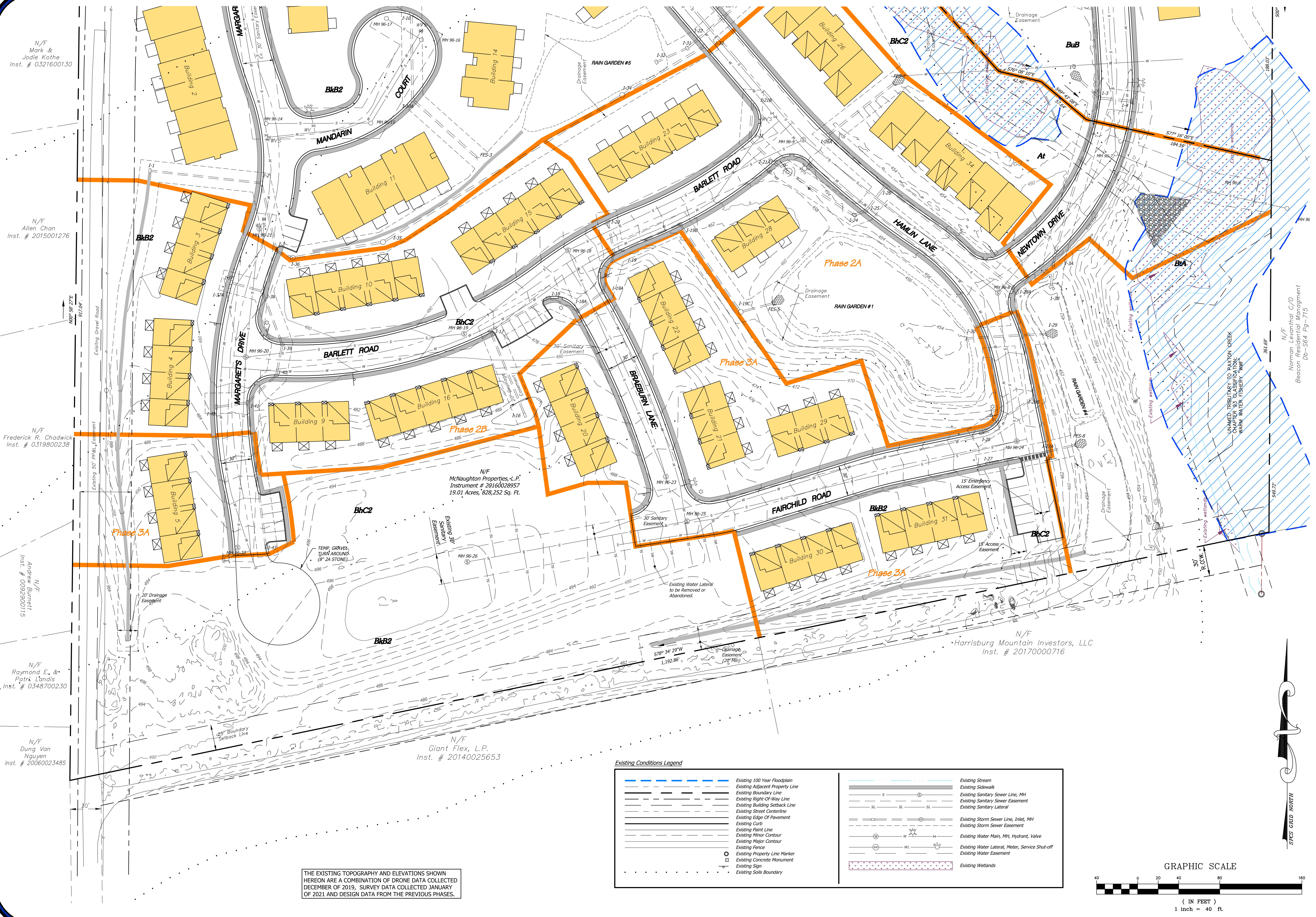
**R. J. FISHER & ASSOCIATES, INC.**  
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PHONE: (717) 774-7534 & FAX: (717) 774-7190  
RJFISHERENGINEERING.COM



**COVER SHEET** FOR  
**THE TOWNES AT MARGARET'S GROVE, PH 3B**  
LOCATED IN  
SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 222013-COV  
PROJECT: 222013  
DATE: 5/6/2022  
SHEET: 1 OF 12

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N/F  
Mark &  
Jodie Kothe  
Inst. # 0321600130

N/F  
Allen Chan  
Inst. # 2015001276

N/F  
Frederick R. Chadwick  
Inst. # 0319800238

N/F  
Andrew Burnett  
Inst. # 0092900115

N/F  
Raymond E. &  
Patric Landis  
Inst. # 0348700230

N/F  
Dung Van  
Nguyen  
Inst. # 20060023485

N/F  
McNaughton Properties, L.P.  
Instrument # 20160028957  
19.01 Acres, 828,252 Sq. Ft.

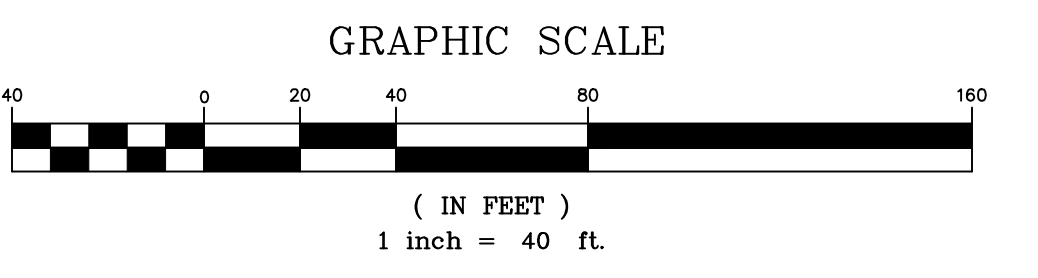
N/F  
Giant Flex, L.P.  
Inst. # 20140025653

N/F  
Harrisburg Mountain Investors, LLC  
Inst. # 20170000716

THE EXISTING TOPOGRAPHY AND ELEVATIONS SHOWN  
HEREON ARE A COMBINATION OF DRONE DATA COLLECTED  
DECEMBER OF 2019, SURVEY DATA COLLECTED JANUARY  
OF 2021 AND DESIGN DATA FROM THE PREVIOUS PHASES.

Existing Conditions Legend

	Existing 100 Year Floodplain		Existing Stream
	Existing Adjacent Property Line		Existing Sidewalk
	Existing Boundary Line		Existing Sanitary Sewer Line, MH
	Existing Right-Of-Way Line		Existing Sanitary Sewer Easement
	Existing Building Setback Line		Existing Sanitary Lateral
	Existing Street Centerline		Existing Storm Sewer Line, Inlet, MH
	Existing Edge Of Pavement		Existing Storm Sewer Easement
	Existing Curb		Existing Water Main, MH, Hydrant, Valve
	Existing Paint Line		Existing Water Lateral, Meter, Service Shut-off
	Existing Minor Contour		Existing Water Easement
	Existing Major Contour		Existing Wetlands
	Existing Fence		
	Existing Property Line Marker		
	Existing Concrete Monument		
	Existing Sign		
	Existing Soils Boundary		



NO.	REVISION	DATE
1	TWP COMMENTS	6/10/22
2		
3		
4		
5		

**R. J. FISHER & ASSOCIATES, INC.**  
SITE PLANNING & CIVIL ENGINEERING & LAND SURVEYS  
1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070  
PHONE: (717) 774-7534 & FAX: (717) 774-7190  
**RJFISHERENGINEERING.COM**



**EXISTING CONDITIONS PLAN**  
FOR  
**THE TOWNES AT**  
**MARGARET'S GROVE, PH 3B**  
LOCATED IN  
SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID:	222013-EXC
PROJECT:	?
DATE:	5/6/2022
SHEET:	2 OF 12

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N/F  
Mark &  
Jodie Kothe  
Inst. # 0321600130

N/F  
Allen Chan  
Inst. # 2015001276

N/F  
Frederick R. Chadwick  
Inst. # 0319800238

N/F  
Andrew Burnett  
Inst. # 0092900115

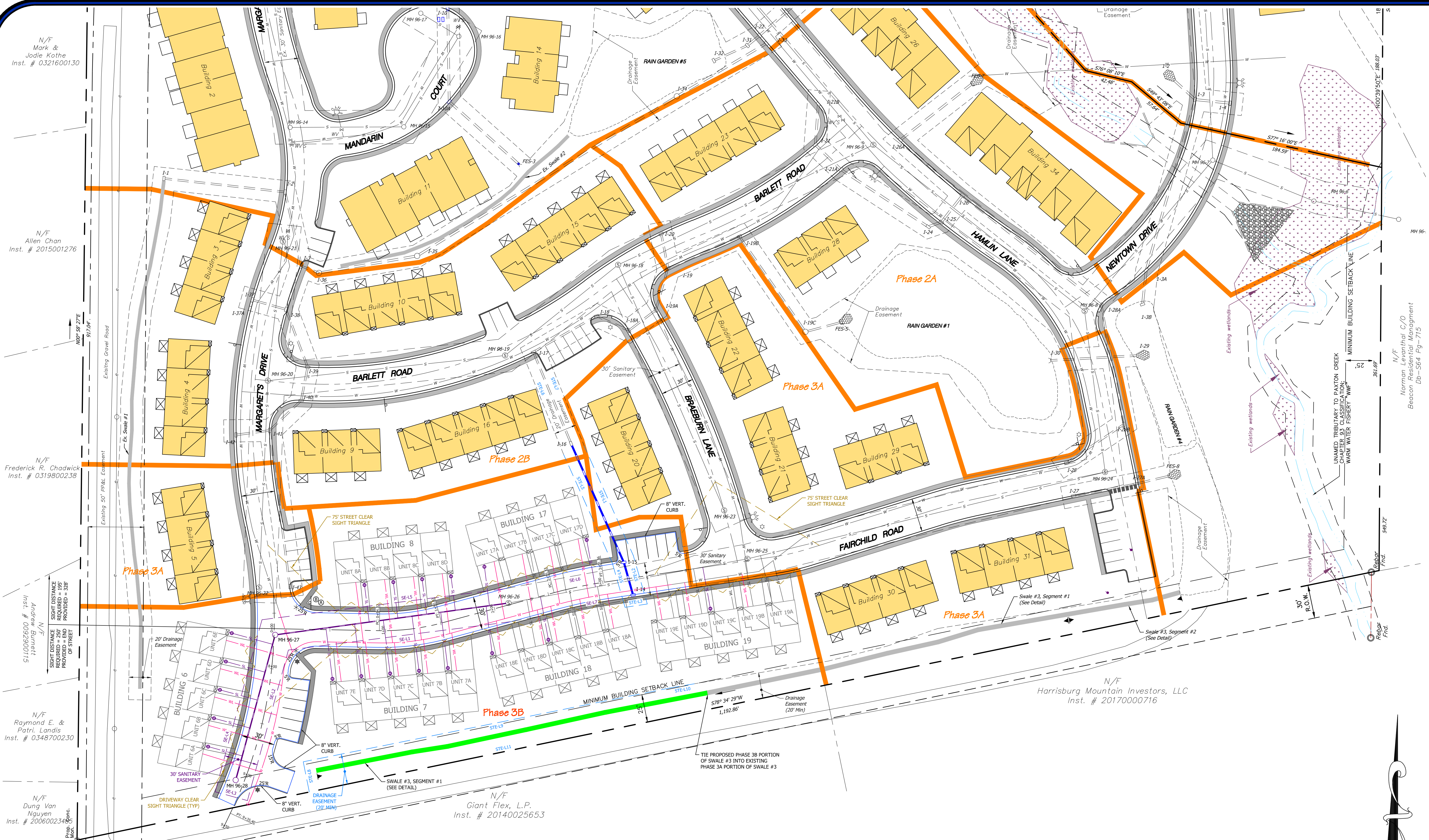
N/F  
Raymond E. &  
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Inst. # 0348700230

N/F  
Dung Van  
Nguyen  
Inst. # 2006002349

N/F  
Giant Flex, L.P.  
Inst. # 20140025653

N/F  
Harrisburg Mountain Investors, LLC  
Inst. # 20170000716

N/F  
Norman Levanthal C/O  
Beacon Residential Management  
Db-S64 Pg-715

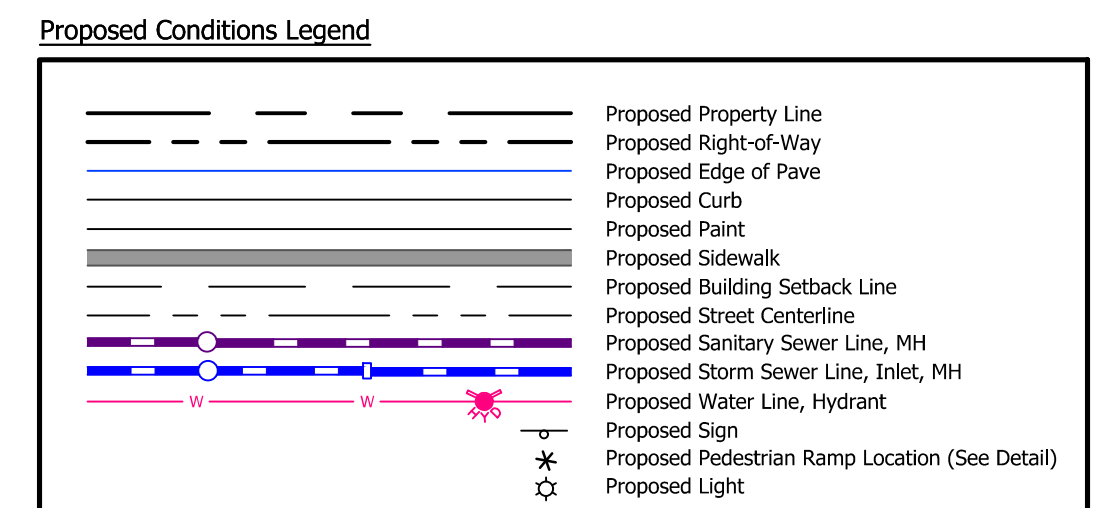


**Proposed Sanitary Easement Line Table**

Line #	Direction	Length
SE-L1	S82° 43' 40"W	200.40
SE-L2	S15° 12' 50"W	139.97
SE-L3	N74° 47' 10"W	30.00
SE-L4	N15° 12' 50"E	160.03
SE-L5	N82° 43' 40"E	219.60
SE-L6	N79° 30' 37"E	219.13
SE-L7	S79° 30' 37"W	220.87

**Proposed Storm Easement Line Table**

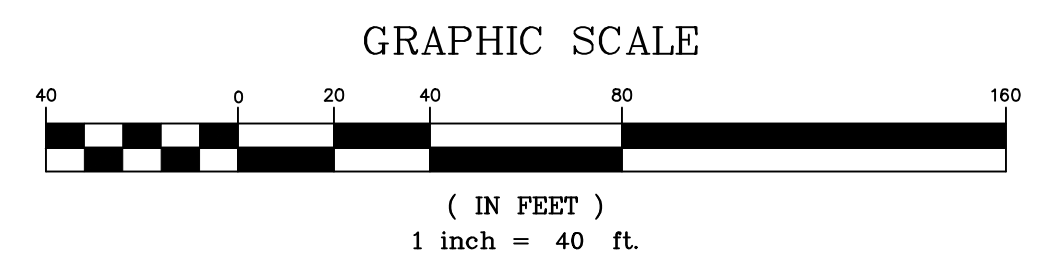
Line #	Direction	Length
STE-L1	S24° 07' 39"E	107.78
STE-L2	S16° 03' 45"E	45.28
STE-L3	S81° 25' 44"W	20.17
STE-L4	N16° 03' 45"W	41.24
STE-L5	N24° 07' 39"W	106.72
STE-L6	N22° 09' 02"W	103.23
STE-L7	S22° 09' 02"E	85.52
STE-L8	N11° 23' 10"W	27.66
STE-L9	N78° 36' 50"E	335.37
STE-L10	N80° 21' 09"E	22.45
STE-L11	S78° 18' 03"W	356.93



**TRAFFIC SIGN CHART**

PLAN SYMBOL	PENNDOT DESIGNATION	SIGN DESCRIPTION	SIZE
+	R1-1	STOP	24" X 24"
+	D3-1	STREET NAME	(VARIES)

NOTE: SIGN MATERIALS, COLORS, LETTERING, HEIGHT, CLEARANCE, POST AND MOUNTING SHALL CONFORM TO PENNDOT PUBLICATION TITLE 67, CHAPTER 212: "OFFICIAL TRAFFIC-CONTROL DEVICES".



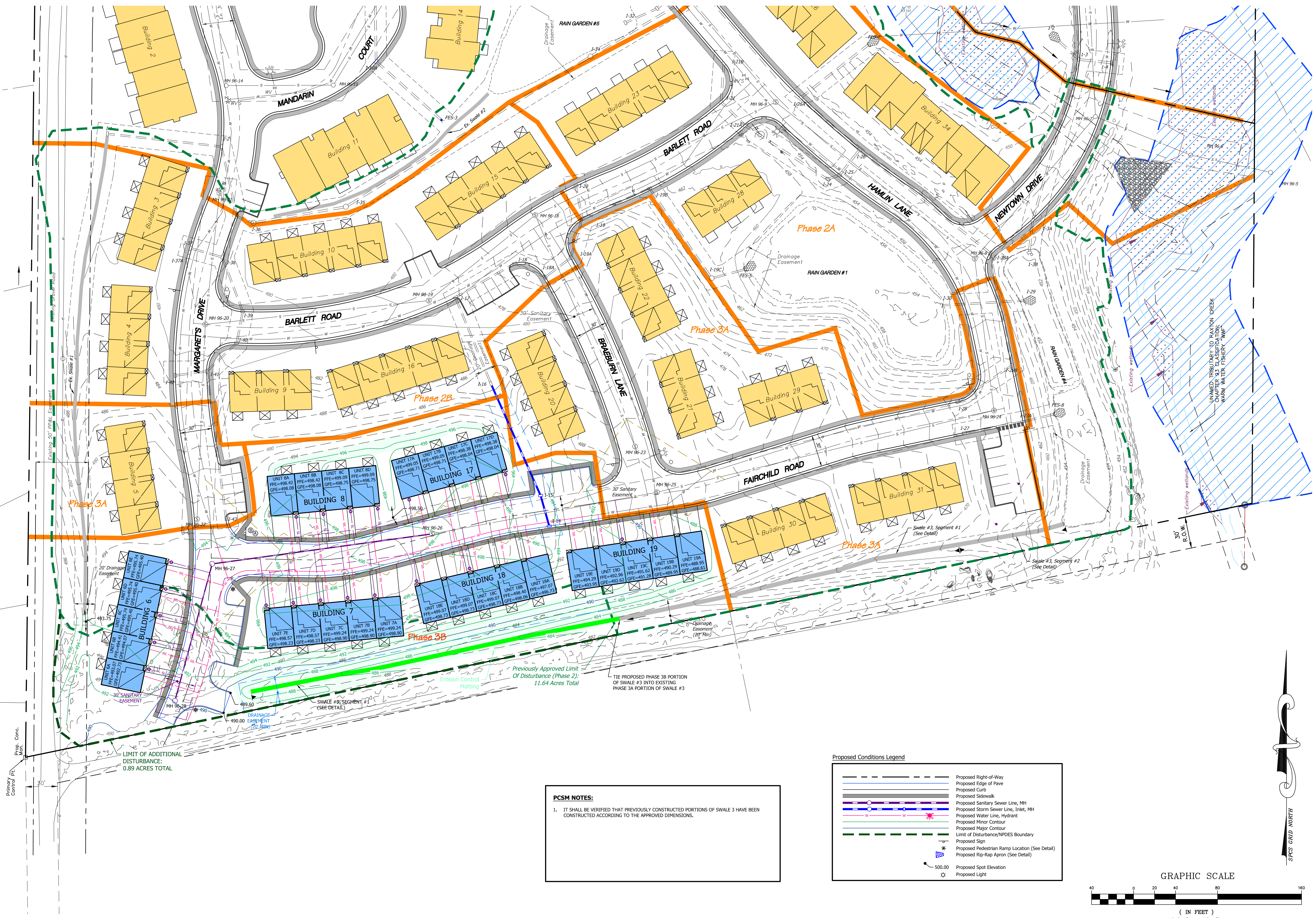
**R. J. FISHER & ASSOCIATES, INC.**  
SITE PLANNING & CIVIL ENGINEERING & LAND SURVEYS  
1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070  
PHONE: (717) 774-7534 & FAX: (717) 774-7190  
**RJFISHERENGINEERING.COM**



**LAND DEVELOPMENT PLAN**  
FOR  
**THE TOWNES AT**  
**MARGARET'S GROVE, PH 3B**  
LOCATED IN  
SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

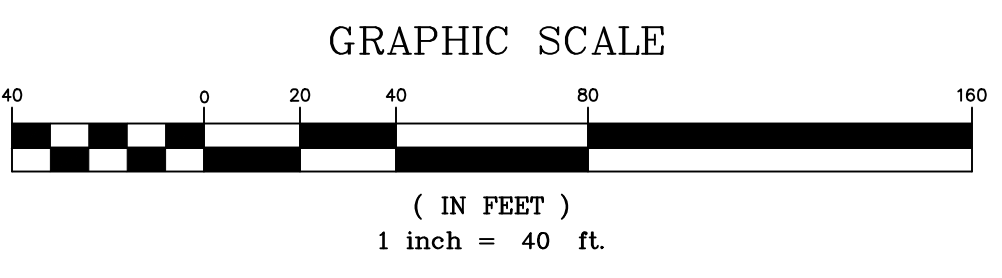
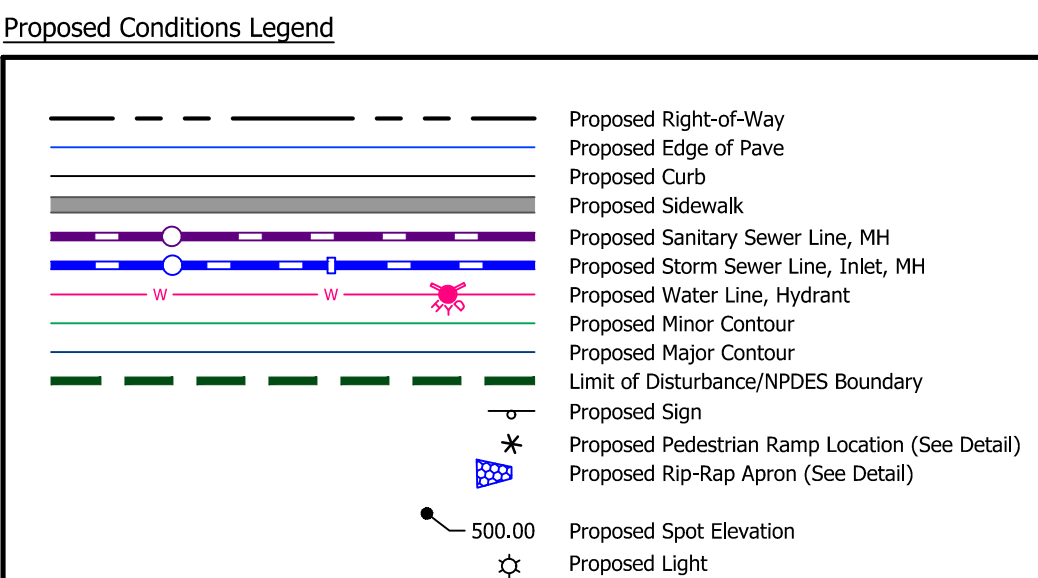
DRAWING ID:  
222013-LDP  
PROJECT: ?  
DATE: 5/6/2022  
SHEET: 3 OF 12

NO.	REVISION	DATE
1	TWP COMMENTS	6/10/22
2		
3		
4		
5		



**PCSM NOTES:**

- IT SHALL BE VERIFIED THAT PREVIOUSLY CONSTRUCTED PORTIONS OF SWALE #3 HAVE BEEN CONSTRUCTED ACCORDING TO THE APPROVED DIMENSIONS.



NO.	REVISION	DATE
1	TWP COMMENTS	6/10/22
2		
3		
4		
5		

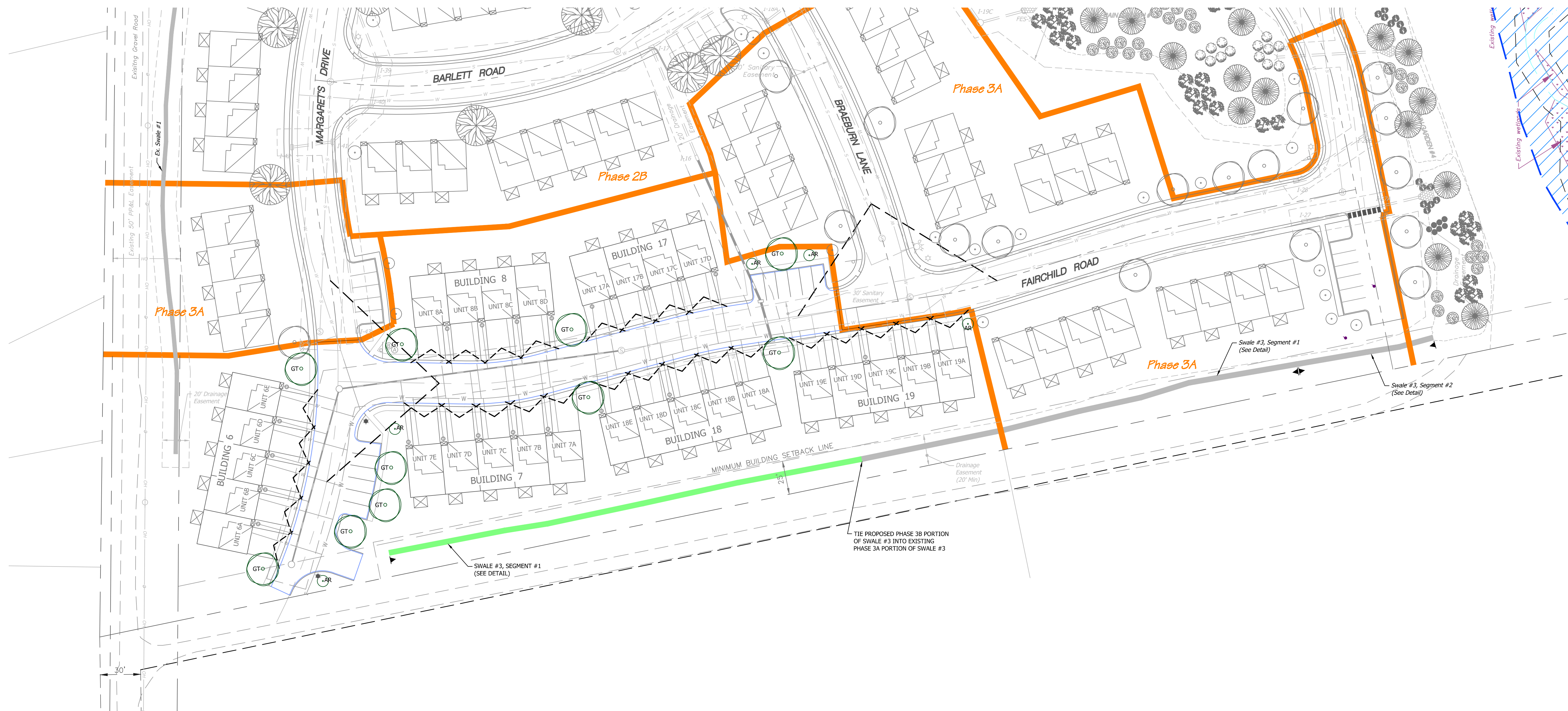
**R. J. FISHER & ASSOCIATES, INC.**  
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 1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070  
 PHONE: (717) 774-7534 & FAX: (717) 774-7190  
 RJFISHERENGINEERING.COM



**GRADING & PCSM PLAN**  
 FOR  
**THE TOWNES AT**  
**MARGARET'S GROVE, PH 3B**  
 LOCATED IN  
 SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 222013-GRD  
 PROJECT: 222013  
 DATE: 5/6/2022  
 SHEET: 4 OF 12

DATE PLOTTED: 5/10/2022 10:54:14 AM  
 USER: JNFISHER  
 PLOTTER: HP DesignJet 2530 C2



**GENERAL LANDSCAPE NOTES:**

- All disturbed soil areas not indicated to be covered with buildings, paving or planting beds shall be permanently seeded and maintained with turfgrass.
- If there is a planting conflict with adjacent improvements (buildings, pavements, lights, etc.) utilities, bedrock, existing tree roots, poor drainage area, or other obstacle to planting, the contractor shall adjust the tree spacing and/or arrangement to complete the planting in accordance with the landscape design intent.
- All planting areas, including turfgrass areas, shall receive a minimum of 4" topsoil before planting.
- No trees shall be planted within 10 feet of any sanitary sewer main.
- During construction, no clearing should be permitted on a site beyond the minimal necessary for the specific construction activity to be undertaken.
- No construction activity, grading or disturbance shall be permitted beyond the limit of disturbance line.
- Limit of disturbance lines shall be clearly noted in the field prior to the start of construction activities. The lines may be indicated by use of snow fencing, flagged stakes or other means acceptable to the Township for the specific condition or feature to be protected. The lines shall be maintained throughout the period of construction activity.

**CONSTRUCTION NOTES:**

- During construction, no clearing shall be permitted beyond that minimally necessary for the specific construction activity to be undertaken.
- No construction activity, grading or disturbance shall be permitted beyond the limit of the disturbance line. The limit of disturbance lines shall be clearly marked in the field prior to the start of construction activities, by use of snow fencing, silt fence, or plastic orange construction fence. The limit of disturbance fence lines shall be maintained throughout the period of construction activity.
- All new plants shall be healthy, free of disease and pest infestation, sized and rooted in accordance with the American Standard for Nursery Stock, ANSI Z60.1, latest edition.
- If quantities of trees or shrubs shown on the plan differ from those listed in planting schedule, quantities shown on the plan shall govern.

**SHORT TERM LANDSCAPE MAINTENANCE PLAN:**

(FOR 18 MONTHS FOLLOWING INSTALLATION OR MAINTENANCE BOND ISSUANCE WHICHEVER IS LONGER)

- The landscape contractor and/or lot owner shall be responsible for watering plant material and lawn areas before, during and after installation for the duration of the warranty period.
- Lawn areas shall be watered once weekly during the first growing season to establish a healthy turfgrass. Watering should occur during the early part of the day and shall provide to an even saturation depth of one inch per week by rain event or irrigation.
- Newly planted trees and shrubs shall be watered regularly during the dry periods to completely dampen the root ball during the first growing season.
- Disase, insect and weed control and prevention should be performed in accordance with manufacturers recommendations for newly planted landscapes during the first season.
- Newly installed plantings shall be selectively pruned if necessary to provide a neat, uniform appearance. Any dead or broken branches shall be removed. All noticeably diseased or damaged plant material shall be removed and replaced prior to final acceptance.
- All guying and staking shall be maintained regularly to assure plant stabilization and straight, uniform growth for at least the first 18 months following the date of planting.
- All plant material shall be true to species and variety and shall conform to measurements and minimum standards as set forth in the plant schedule.
- All plant materials and lawn areas are to be warranted by the contractor for a period of 18 months from date when Maintenance Bond is issued/ effective. Any plants found dead, dying, or diseased during said period should be replaced in-kind during that period.
- Tree branches overhanging vehicular and pedestrian routes (drives, walks, etc.) shall be maintained at a height 8 ft. min. from adjacent grade.

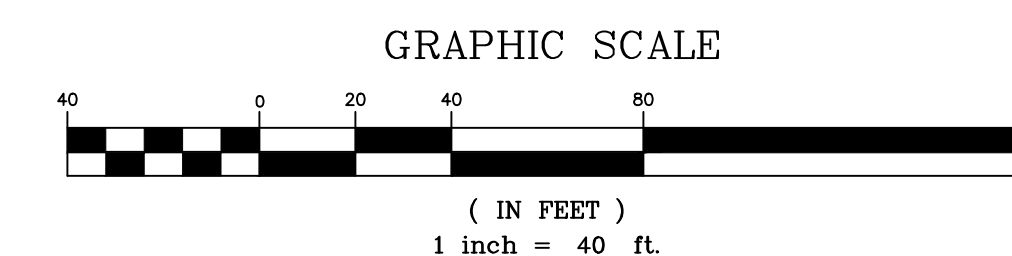
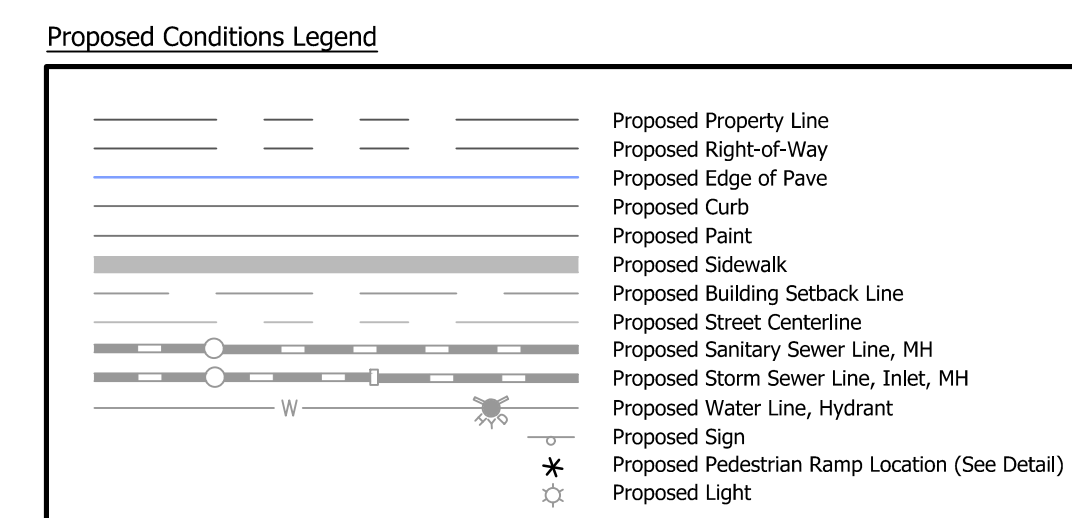
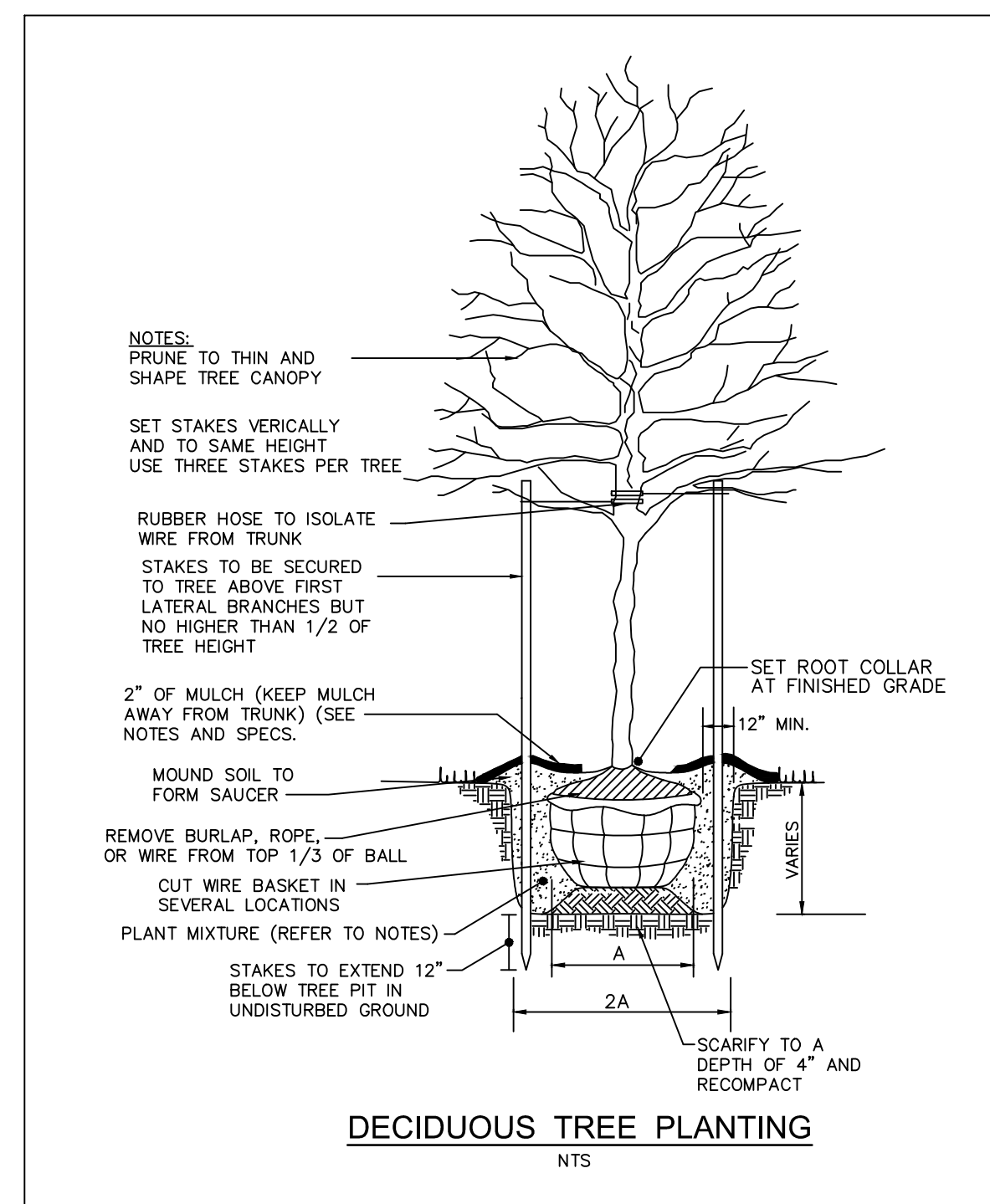
**LONG TERM MAINTENANCE PLAN FOR LANDSCAPING:**

- Maintenance of trees, shrubs and turfgrass shall be the responsibility of the homeowners association.
- The lot owner shall be responsible for regular mowing, clean-up, and grooming of all lawn and planted areas.
- Any specific plant material shown on this approved landscape plan which does not survive or is damaged shall be replaced in kind by the lot owner within a six month period, in perpetuity.
- Trash and tree debris shall be removed and disposed of properly.
- Patrol natural areas and remove man-made debris and dispose of properly.

**PHASE 3B SITE - SCHEDULE FOR REQUIRED PLANTINGS**

SYMBOL	QTY	ID	COMMON NAME	BOTANICAL NAME	NATIVE (IF X)	MIN. PLANTING SIZE & CONDITIONS (see plan for location)	MATURE SIZE & GENERAL TYPE	APPLICABLE LANDSCAPE REQUIREMENTS WITH PERMISSION FROM THE TOWNSHIP
GT	10	GT	IMPERIAL HONEYLOCUST	GLEPITSIA TRICANTHOS VAR. INERMIS 'impcole'	X	25" CALIPER, 20" B4B	30'w. x 35'h DECIDUOUS TREE	STREET TREES PER S4LDO SEC. 22-1009.3, 22-1109 & ZO SEC. 21-2106.5E
AR	5	AR	SUPSZAM RED MAPLE	ACER RUBRUM 'SUPSZAM' OR SIMILAR NARROW PYRAMIDAL FORM	X	25" CALIPER, 20" B4B	10'w. x 40'h DECIDUOUS TREE	STREET TREES PER S4LDO SEC. 22-1009.3, 22-1109 & ZO SEC. 21-2106.5E

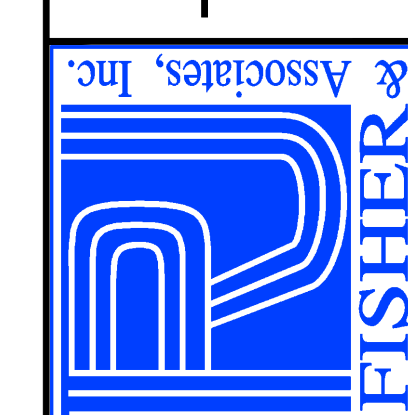
GAL - CALIPER 6" ABOVE ROOT FLARE  
 B4B - BALLED & BURLAPPED  
 CONT. - CONTAINER



**LANDSCAPING PLAN**  
 FOR  
**THE TOWNES AT**  
**MARGARET'S GROVE, PH 3B**  
 LOCATED IN  
 SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 222013-LSCP  
 PROJECT: 222013  
 DATE: 5/6/2022  
 SHEET: 5 OF 12

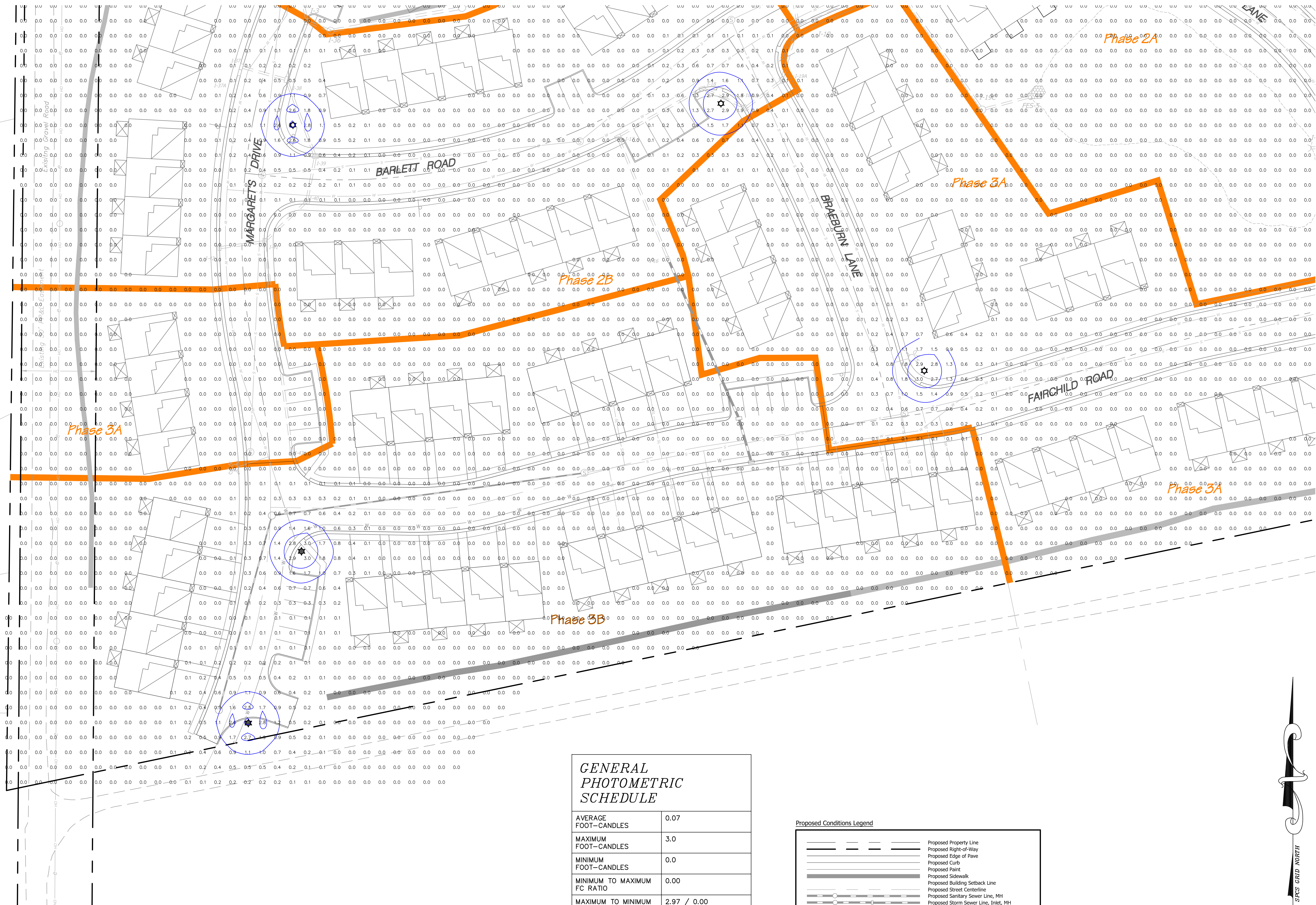
**R. J. FISHER & ASSOCIATES, INC.**  
 SITE PLANNING & CIVIL ENGINEERING & LAND SURVEYS  
 1546 BRIDGE STREET, NEW CUMBERLAND, PA. 17070  
 PHONE: (717) 774-7534 & FAX: (717) 774-7190  
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NO.	REVISION	DATE
1	TWP COMMENTS	6/10/22
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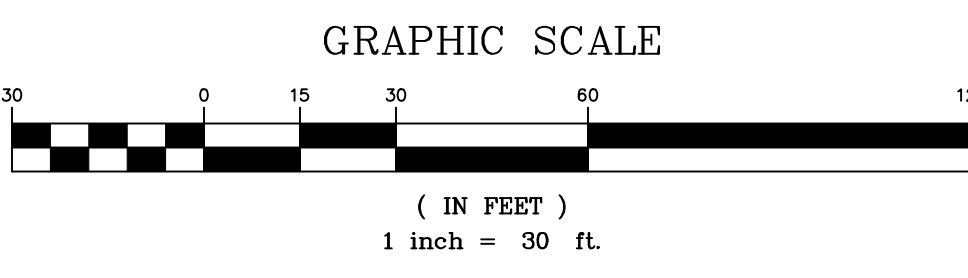
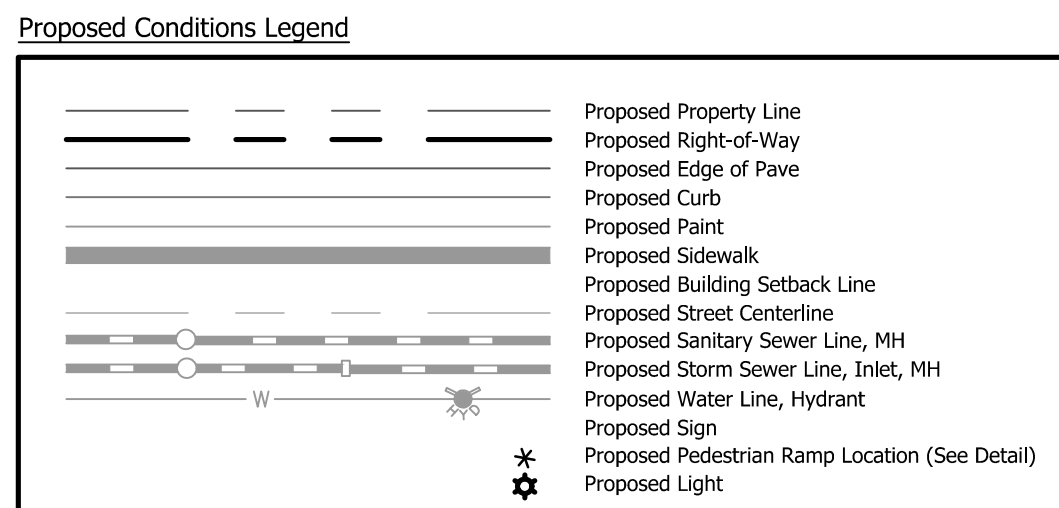
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**GENERAL PHOTOMETRIC SCHEDULE**

AVERAGE FOOT-CANDLES	0.07
MAXIMUM FOOT-CANDLES	3.0
MINIMUM FOOT-CANDLES	0.0
MINIMUM TO MAXIMUM FC RATIO	0.00
MAXIMUM TO MINIMUM FC RATIO	2.97 / 0.00
AVERAGE TO MINIMUM FC RATIO	0.07 / 0.00



NO.	REVISION	DATE
1	TWP COMMENTS	6/10/22
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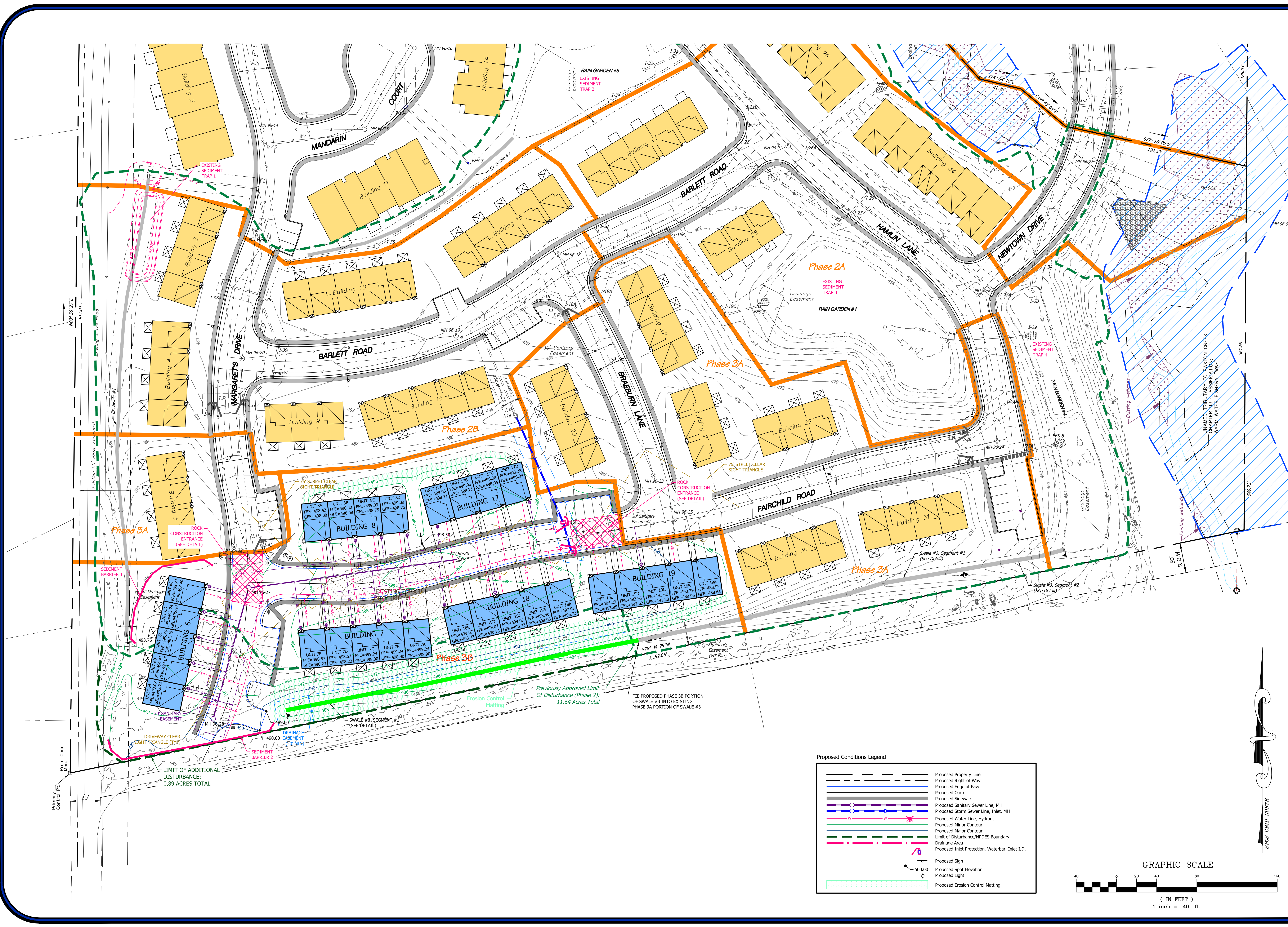
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**LIGHTING PLAN**  
 FOR  
**THE TOWNES AT**  
**MARGARET'S GROVE, PH 3B**  
 LOCATED IN  
 SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

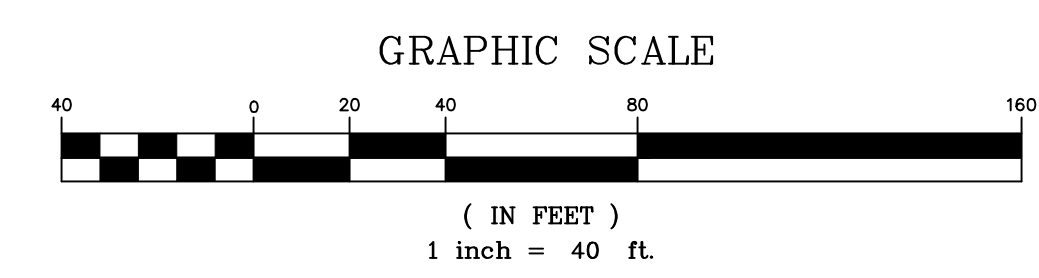
DRAWING ID: 222013-LIGHT  
 PROJECT: ?  
 DATE: 5/6/2022  
 SHEET: 6 OF 12

DATE PLOTTED: 5/10/2022 10:45:11 AM  
 PLOTTER: HP DesignJet T1130e  
 LIGHT



**Proposed Conditions Legend**

	Proposed Property Line
	Proposed Right-of-Way
	Proposed Edge of Pavement
	Proposed Curb
	Proposed Sidewalk
	Proposed Sanitary Sewer Line, MH
	Proposed Storm Sewer Line, Inlet, MH
	Proposed Water Line, Hydrant
	Proposed Minor Contour
	Proposed Major Contour
	Limit of Disturbance/NPDES Boundary
	Drainage Area
	Proposed Inlet Protection, Waterbar, Inlet I.D.
	Proposed Sign
	Proposed Spot Elevation
	Proposed Light
	Proposed Erosion Control Matting



NO.	REVISION	DATE
1	TWP COMMENTS	6/10/22
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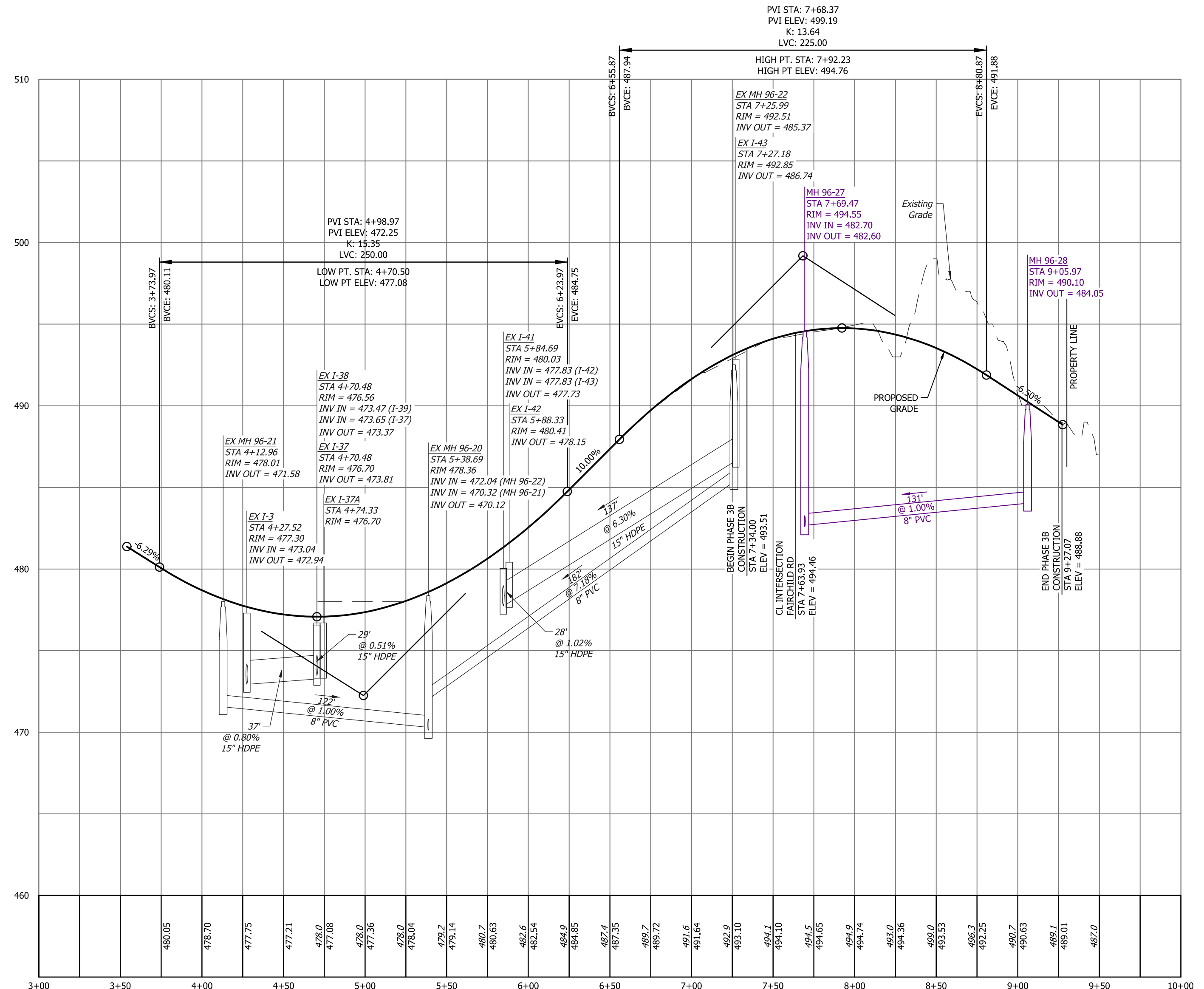
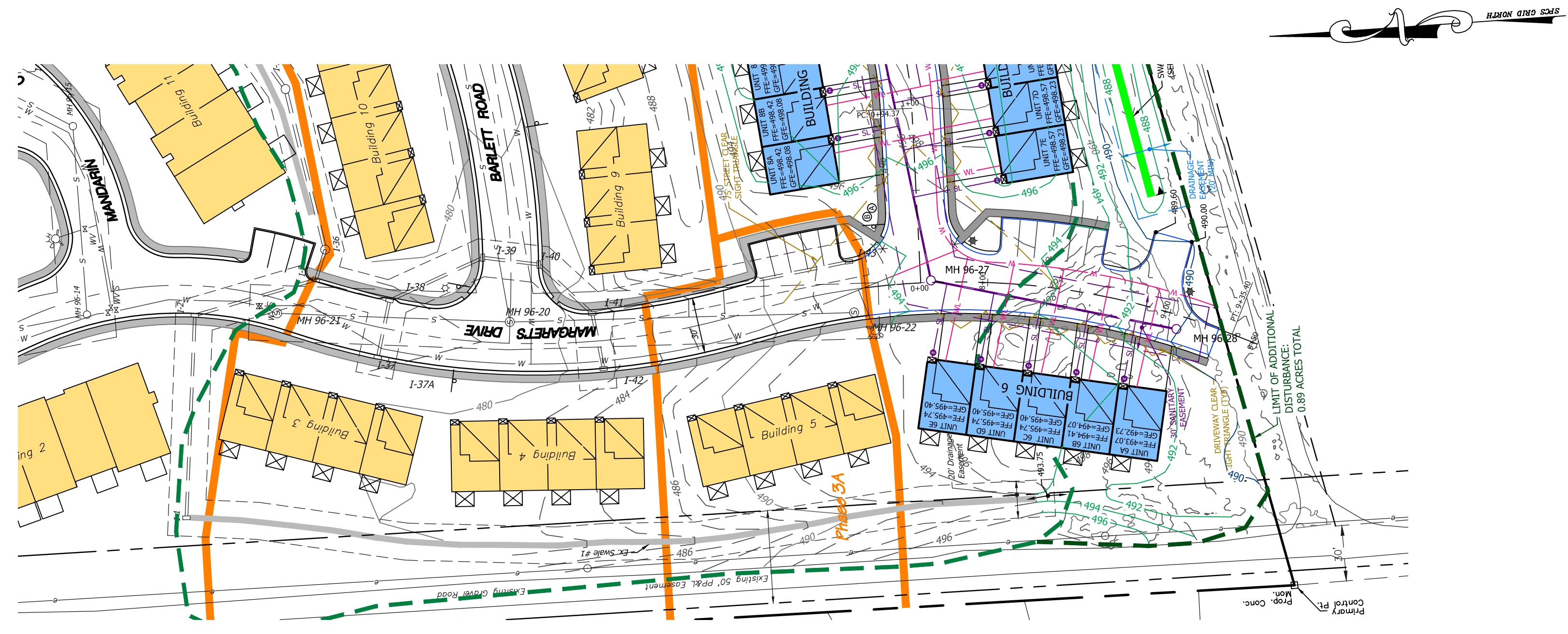
**R. J. FISHER & ASSOCIATES, INC.**  
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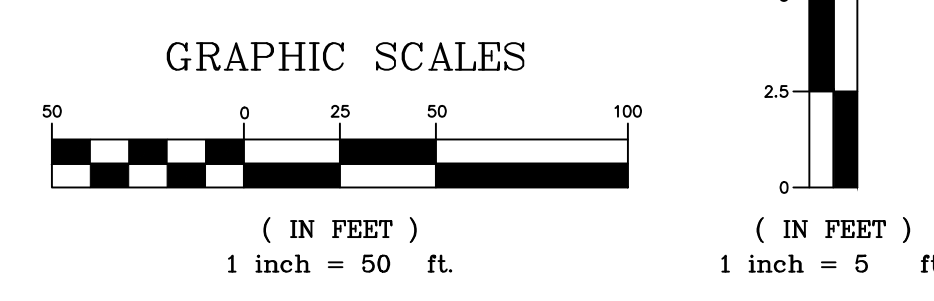
**EROSION & SEDIMENT CONTROL PLAN**  
 FOR  
**THE TOWNES AT**  
**MARGARET'S GROVE, PH 3B**  
 LOCATED IN  
 SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID:	222013-En5
PROJECT:	222013
DATE:	5/6/2022
SHEET:	7 OF 12

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Profile View Of Margaret's Drive Sta: 3+00.00 - 10+00.00  
 Horizontal Scale: 1" = 50'  
 Vertical Scale: 1" = 5'



NO.	REVISION	DATE
1	TWP COMMENTS	6/10/22
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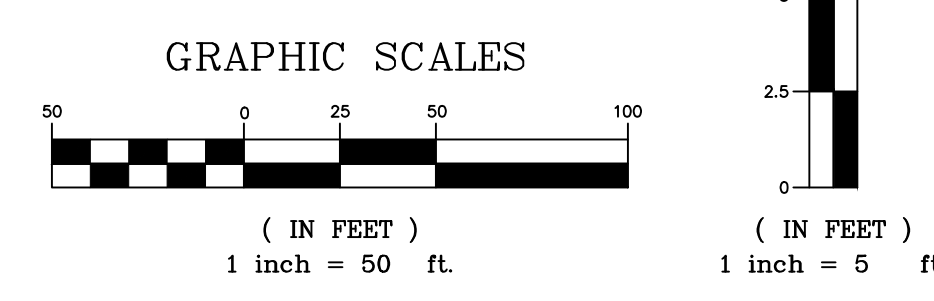
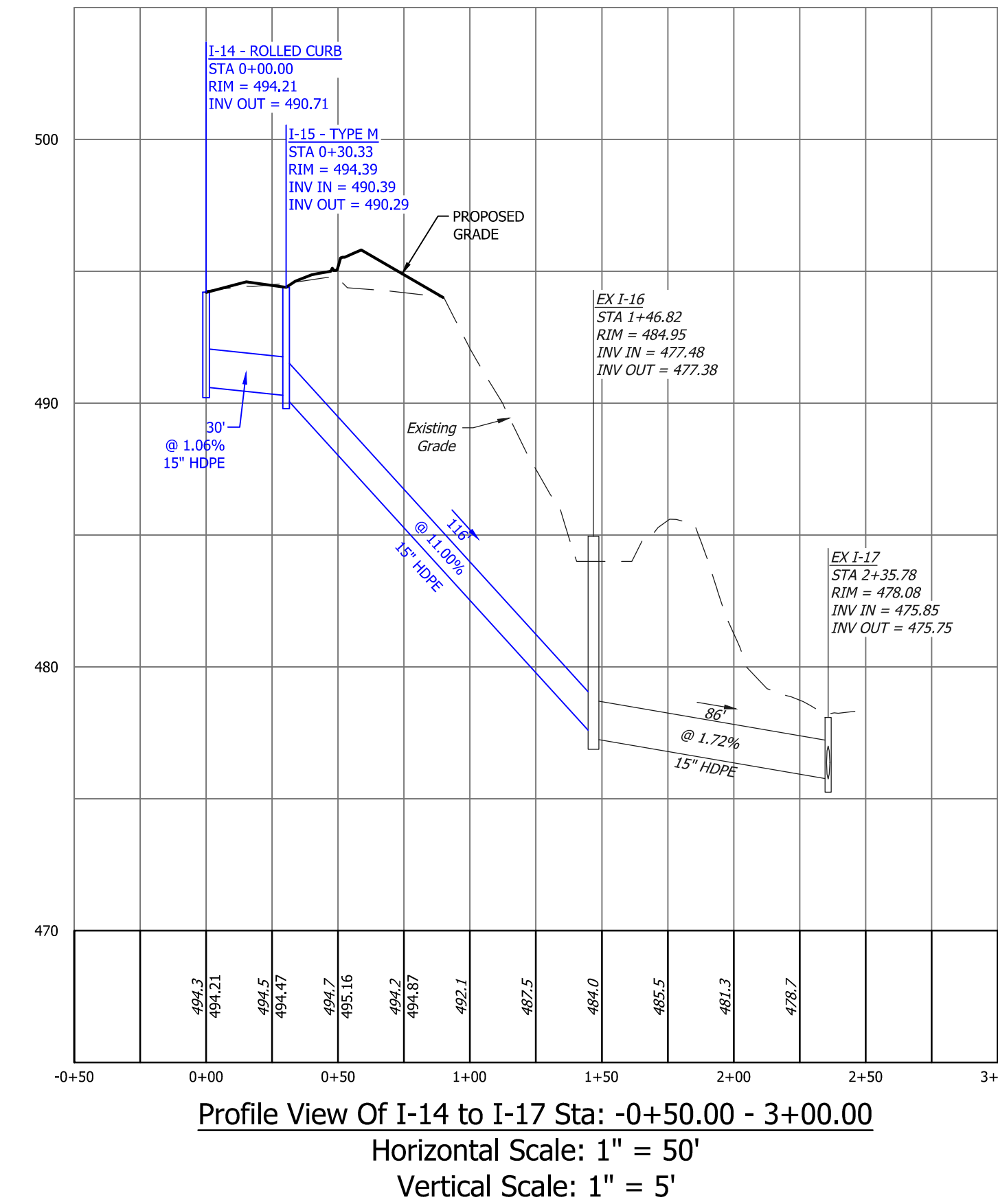
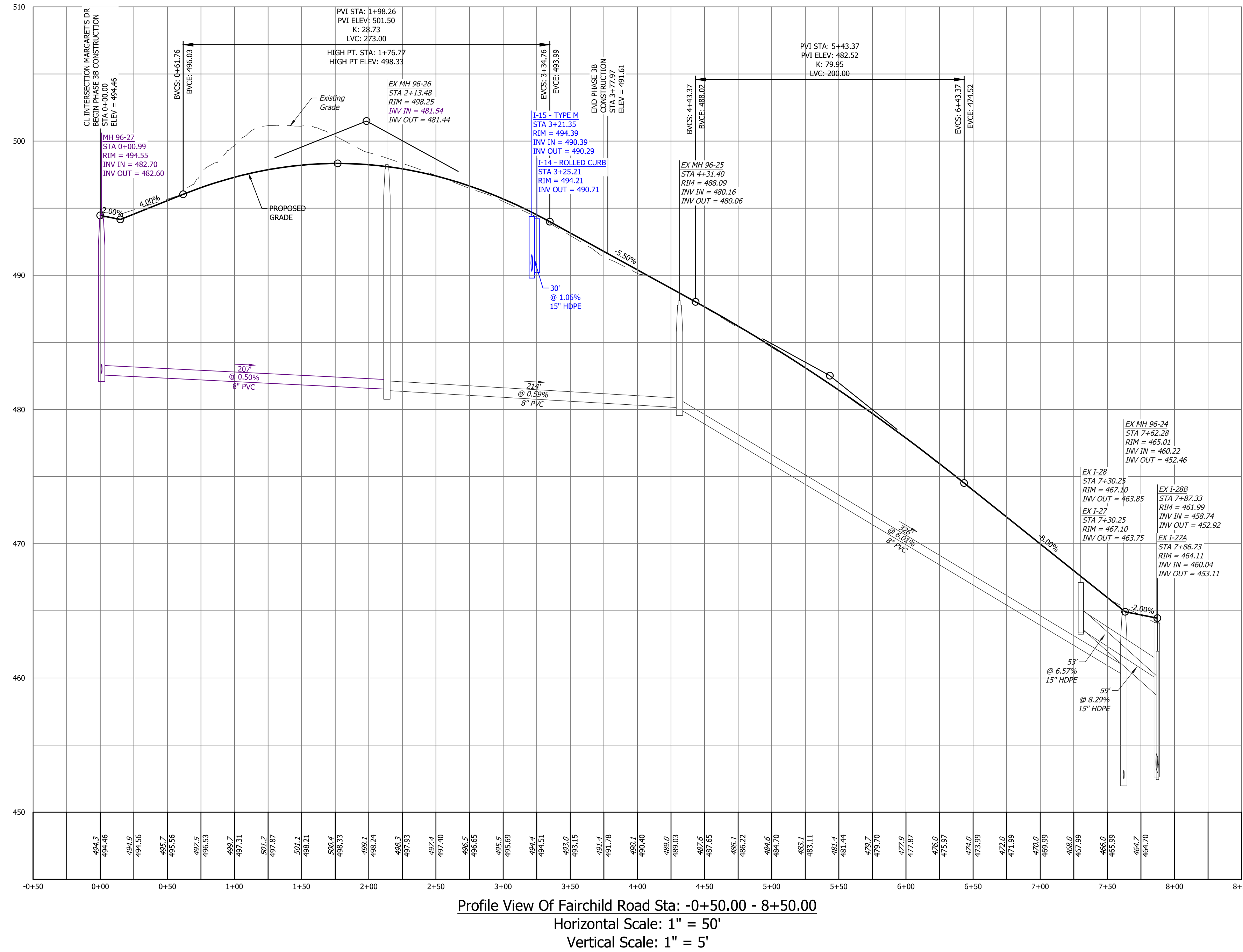
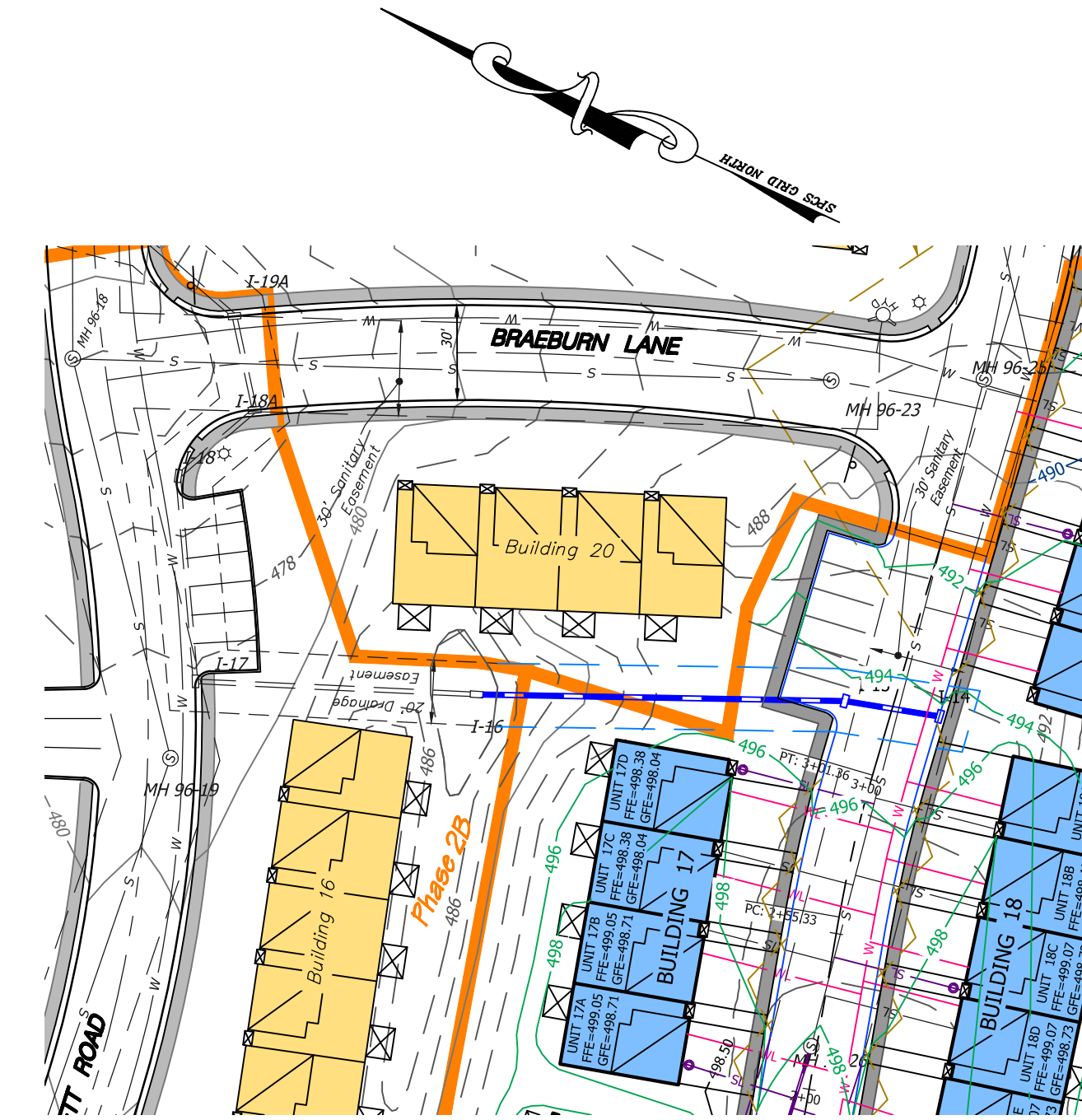
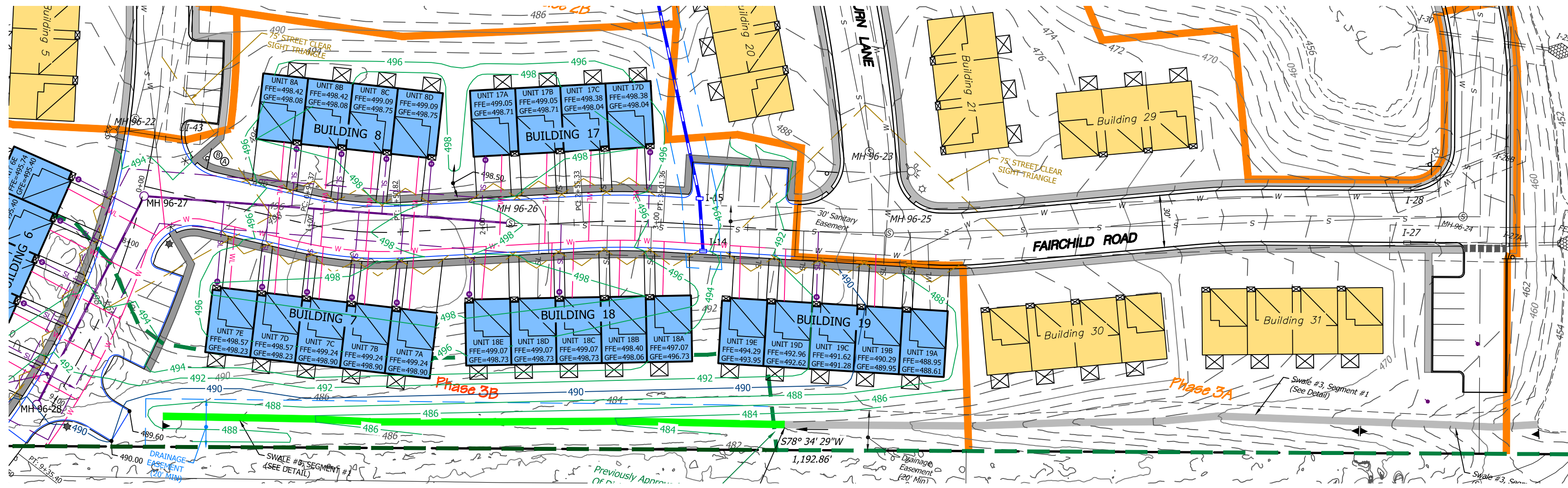
**STREET PROFILES FOR THE TOWNES AT MARGARET'S GROVE, PH 3B**  
 LOCATED IN SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID:	222013-PRO
PROJECT:	222013
DATE:	5/6/2022
SHEET:	8 OF 12

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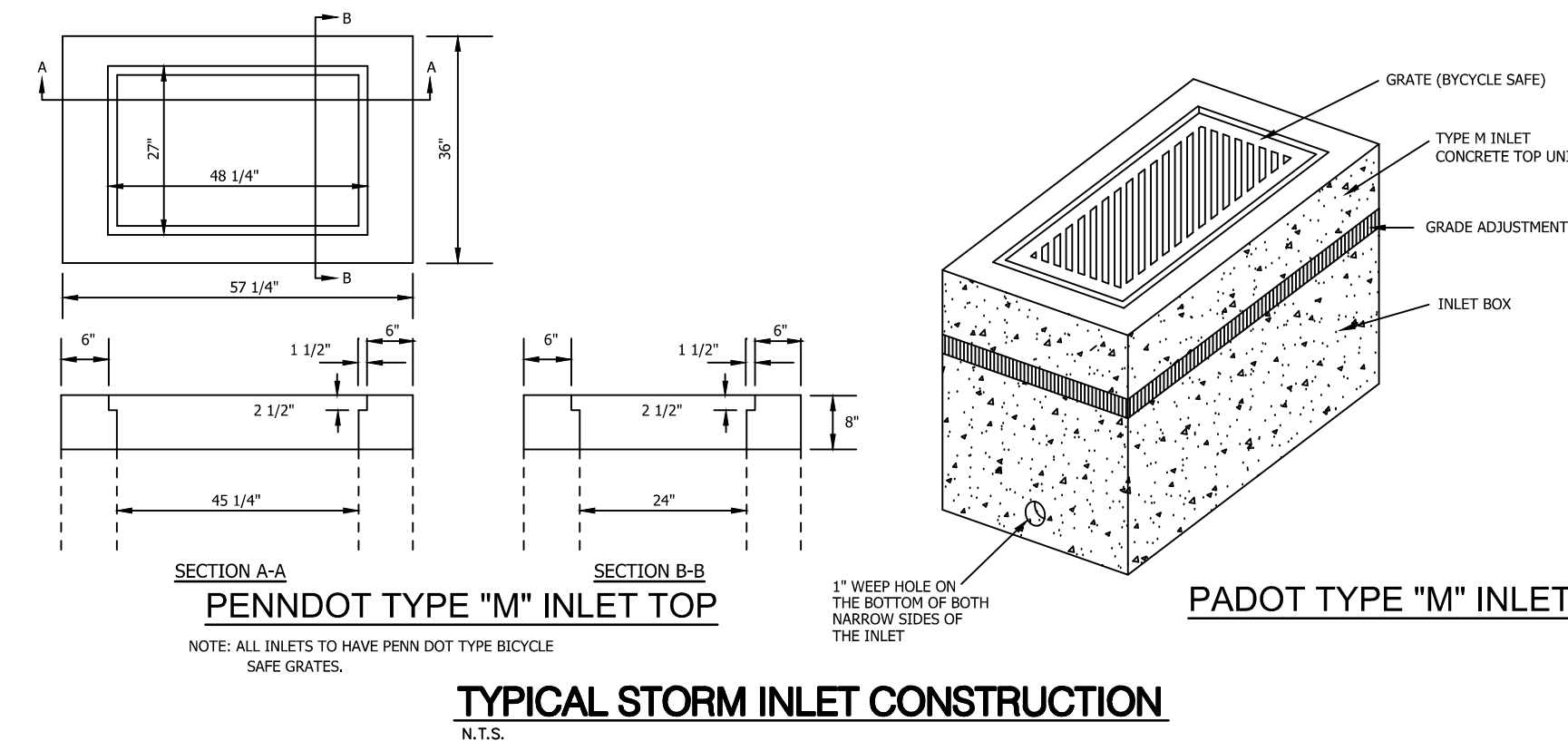
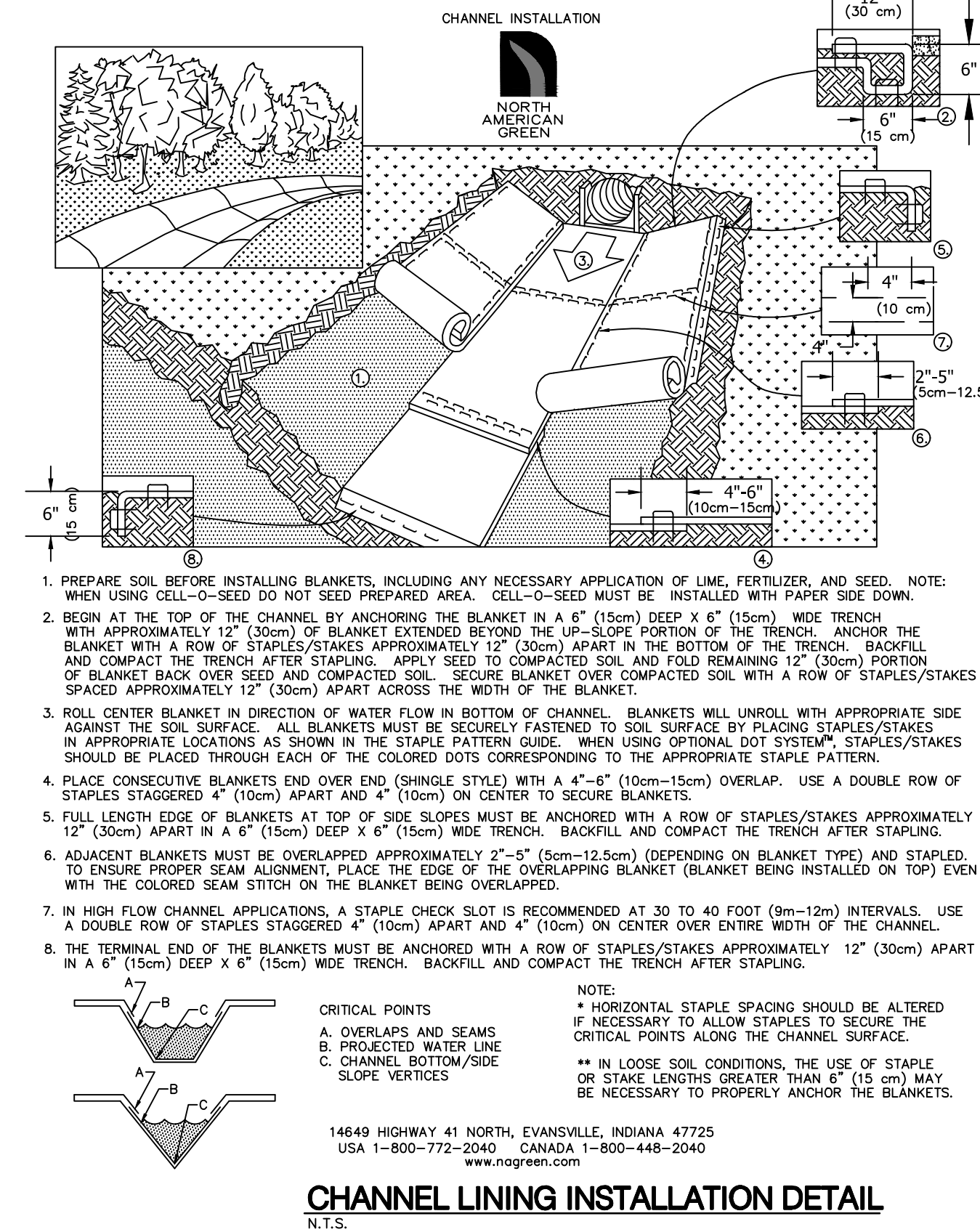
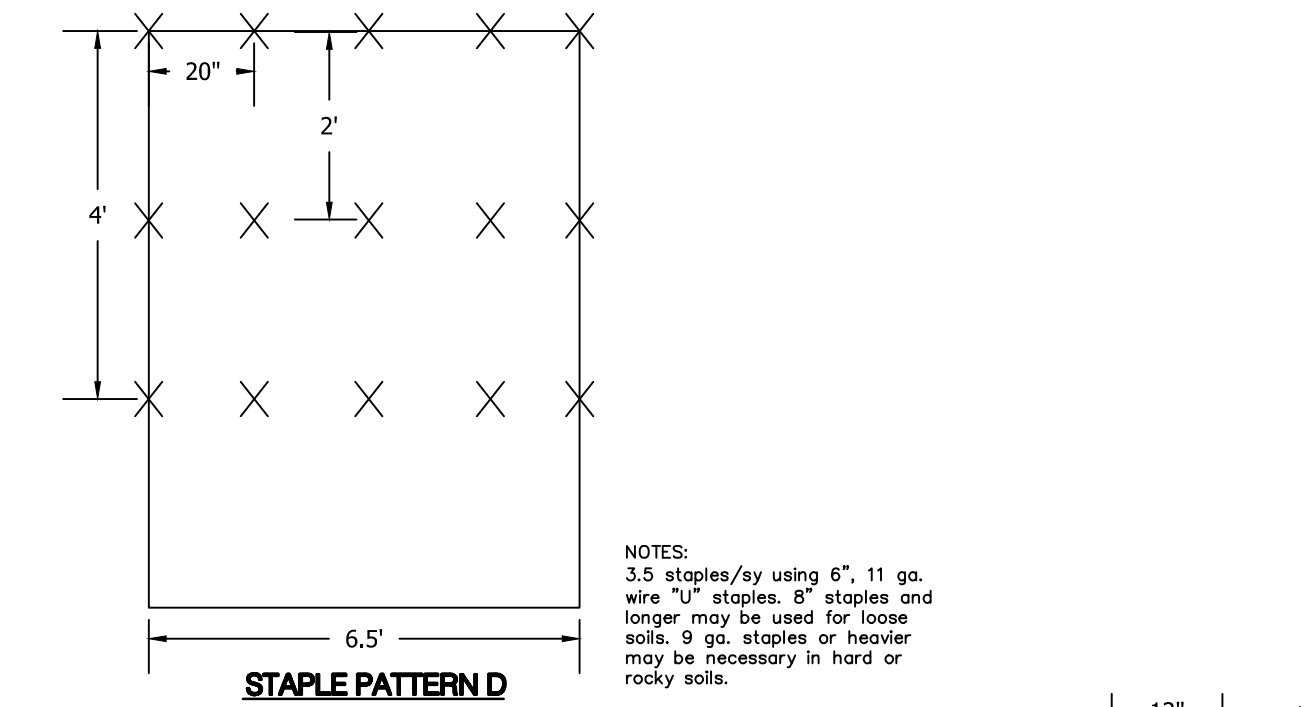
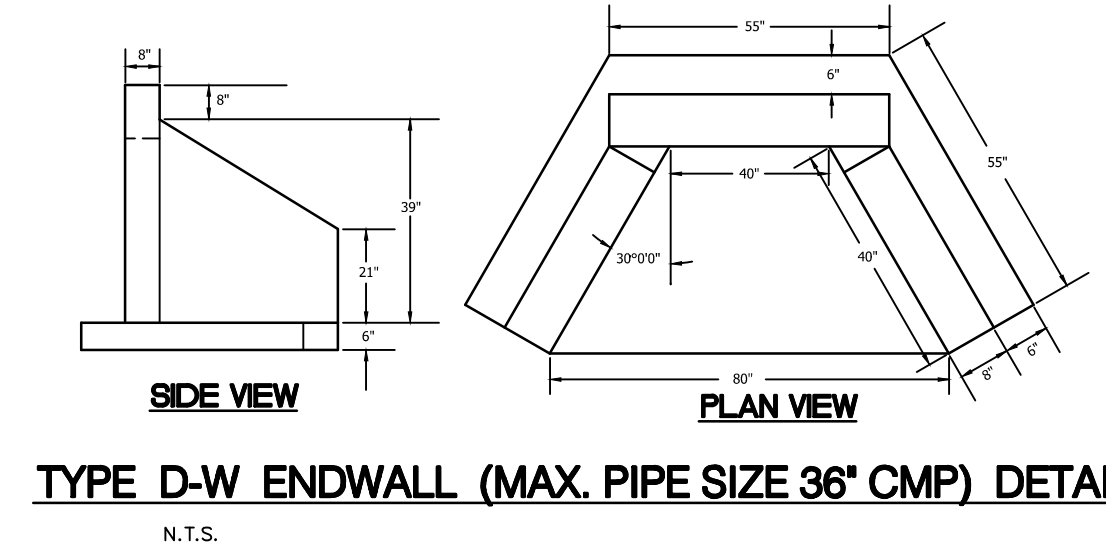
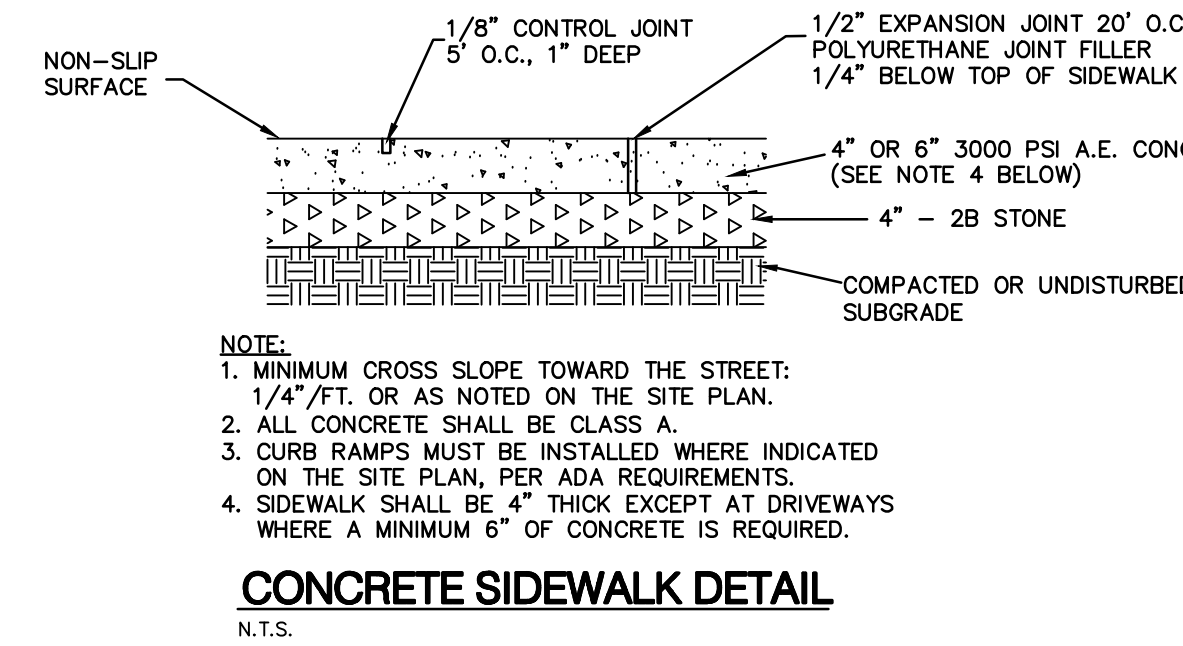
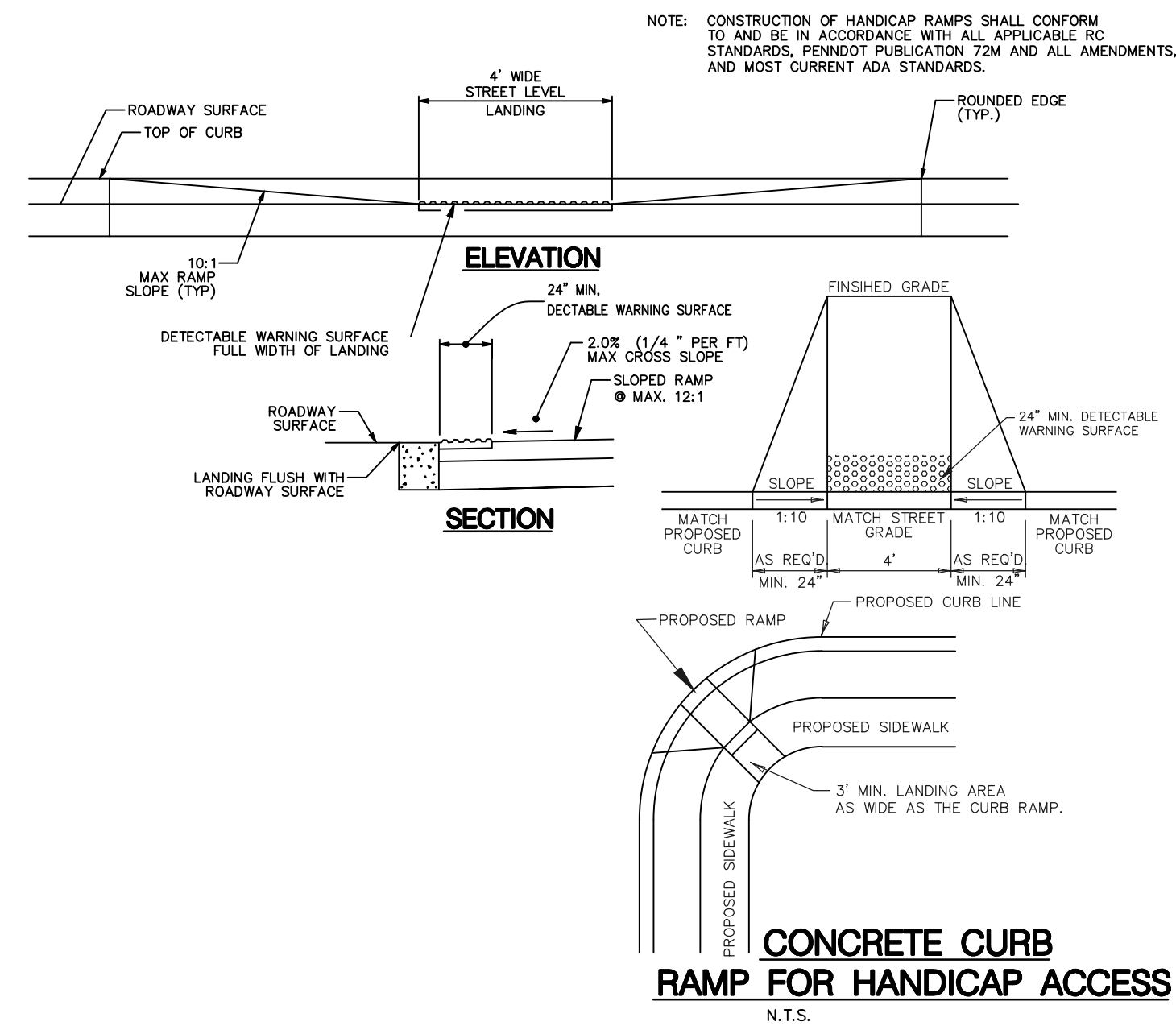
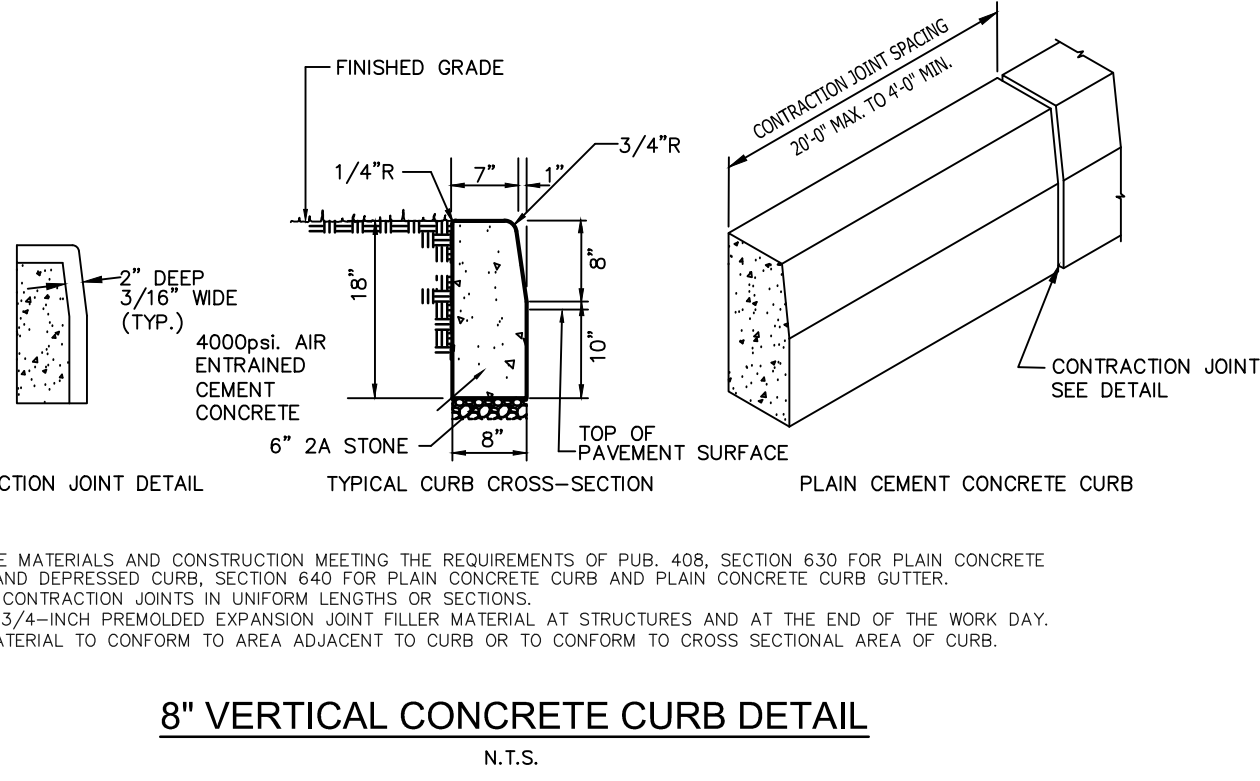
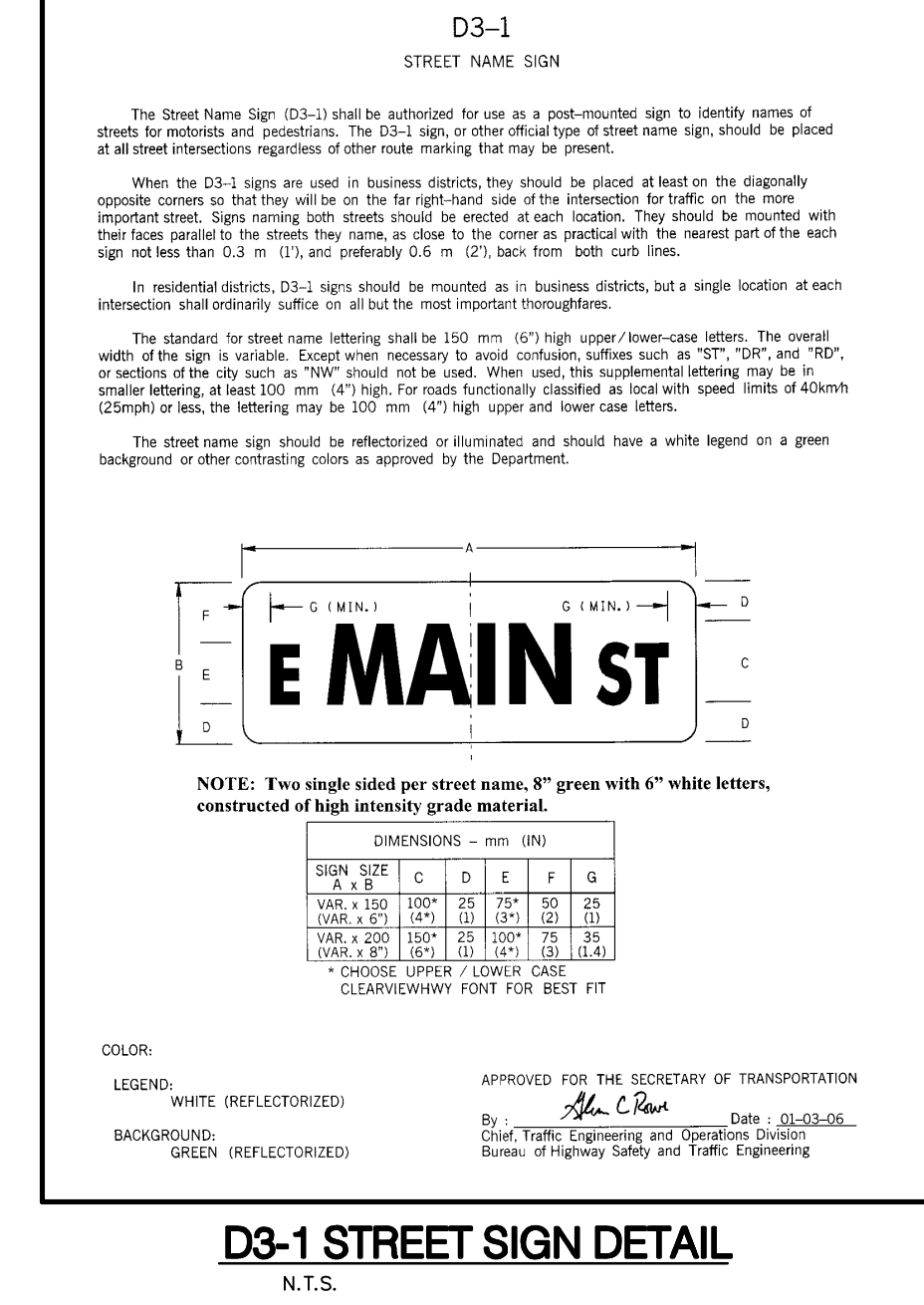
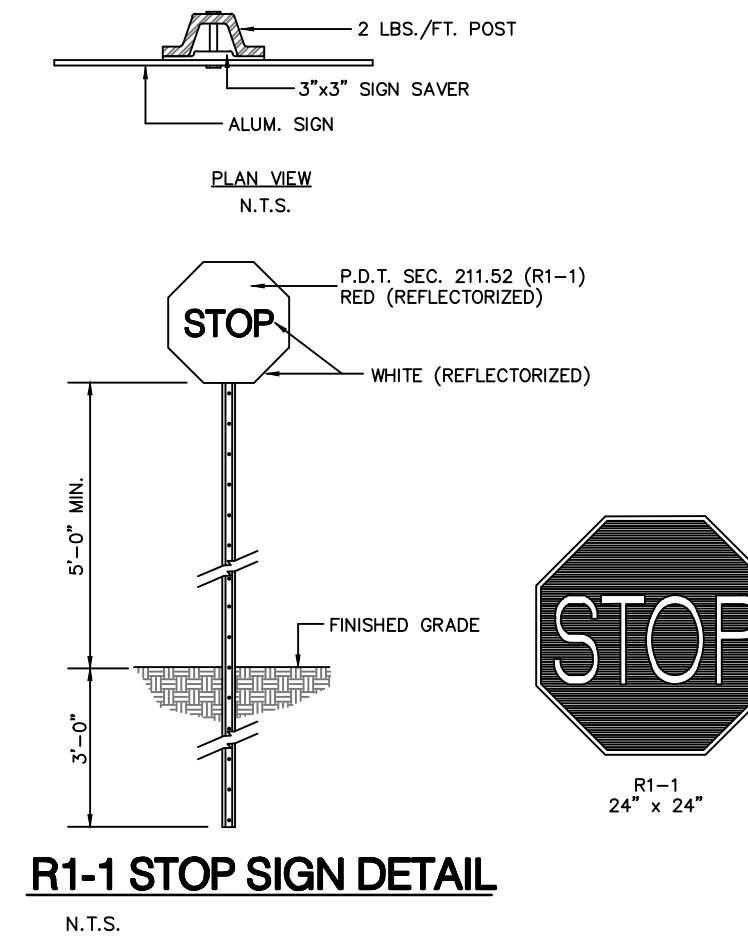
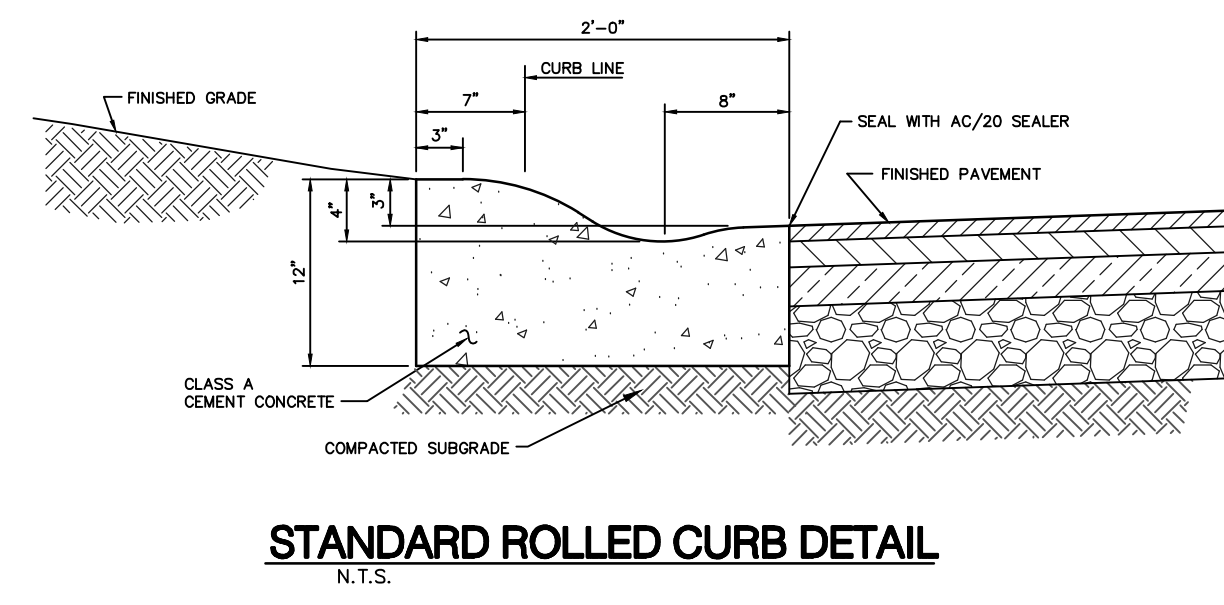
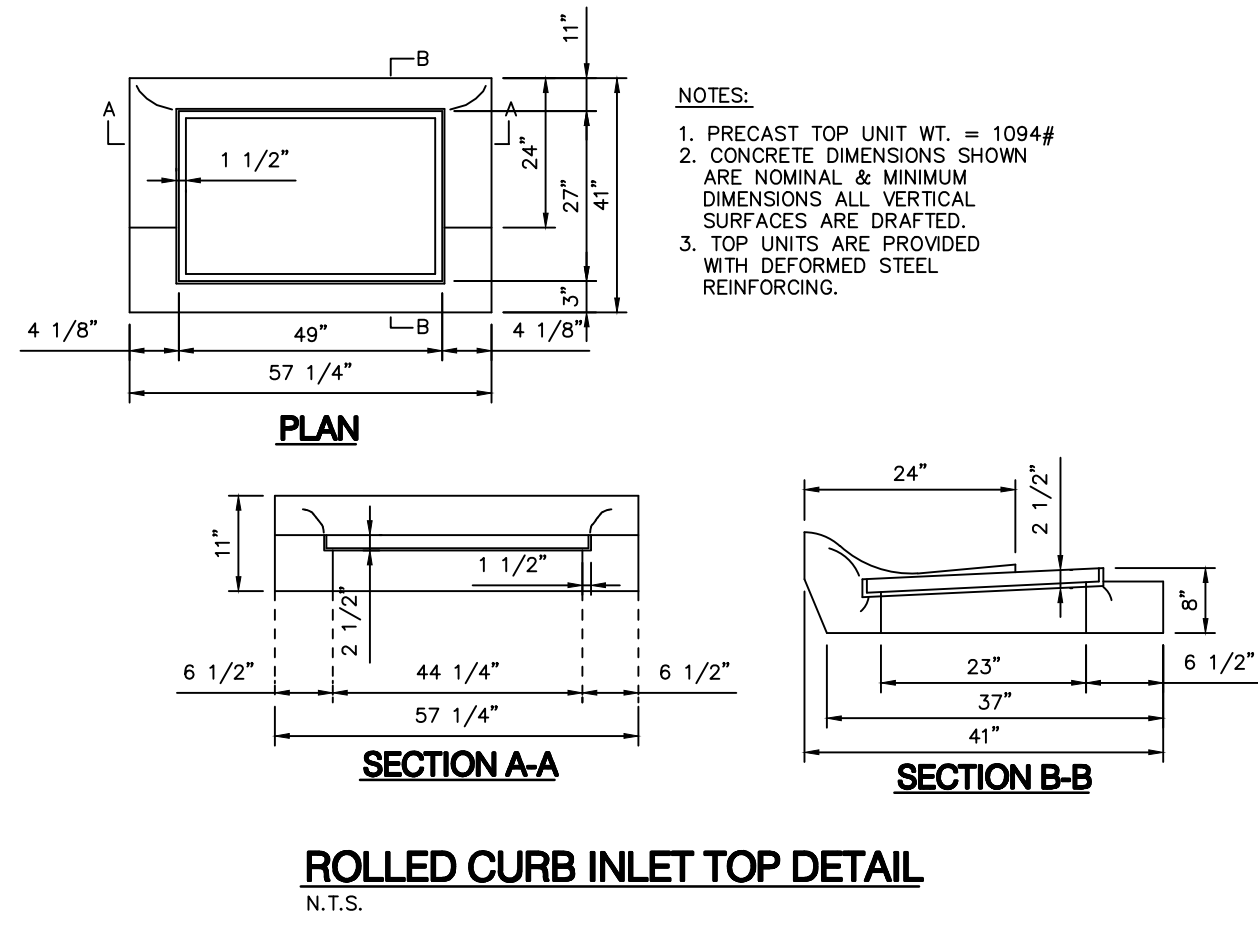
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**STREET & STORM SEWER PROFILES**  
 FOR  
**THE TOWNES AT**  
**MARGARET'S GROVE, PH 3B**  
 LOCATED IN  
 SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID:	222013-PRO
PROJECT:	?
DATE:	5/6/2022
SHEET:	9 OF 12

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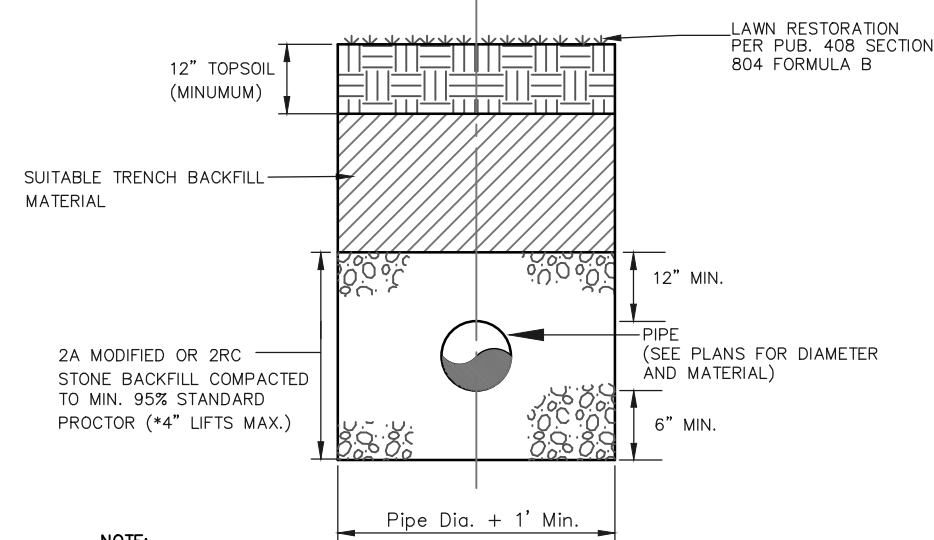


**MISCELLANEOUS DETAILS FOR THE TOWNES AT MARGARET'S GROVE, PH 3B**  
LOCATED IN SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID:	222013-DET
PROJECT:	#
DATE:	5/6/2022
SHEET:	10 OF 12

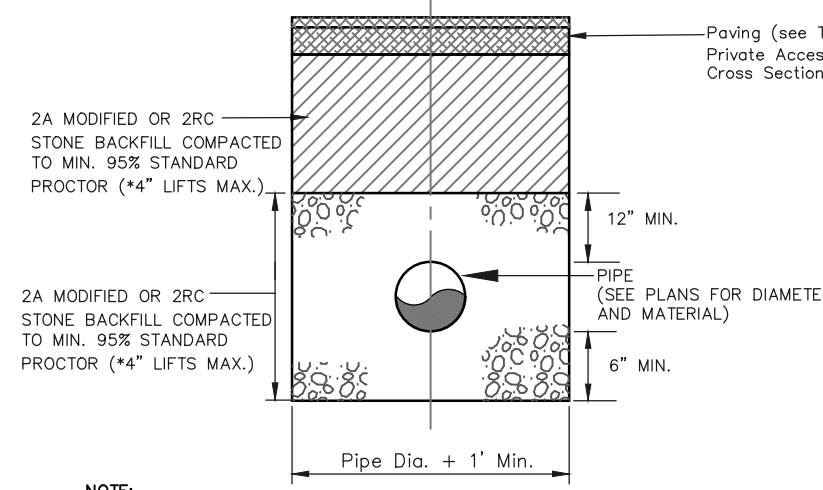
NO.	REVISION	DATE
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- NOTE:
1. USE THIS DETAIL FOR TRENCH RESTORATION OUTSIDE THE SHOULDER OR PAVEMENT OF A PENN DOT STATE RIGHT-OF-WAY.
  2. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL CONFORM TO PENN DOT PUBLICATION 408, MOST RECENT AMENDMENT.
  3. BACKFILL MAY BE COMPACTED IN 6\"/>

**DETAIL FOR TRENCHES OUTSIDE OF PAVEMENT**  
N.T.S.



- NOTE:
1. USE THIS DETAIL FOR TRENCH RESTORATION WITHIN THE SHOULDER OR PAVEMENT OF A PENN DOT STATE RIGHT-OF-WAY.
  2. ALL PAVING MATERIALS AND INSTALLATION PROCEDURES SHALL CONFORM TO PENN DOT PUBLICATION 408, MOST RECENT AMENDMENT.
  3. BACKFILL MAY BE COMPACTED IN 6\"/>

**DETAIL FOR TRENCHES IN PAVEMENT**  
N.T.S.

**POST-CONSTRUCTION STORMWATER MANAGEMENT (PSCM) PLAN**

The storm water volume and quality control Best Management Practices (BMPs) constructed for Margaret's Grove Phases 2, 3 and 4 will be maintained to function as designed, and shall implement the procedures described below. This shall be in the Homeowners Association documents. The owner of the lot on which facilities are located shall own the facility, but the homeowners association for the development will be responsible for the maintenance of facilities as shown on the drawings. The facilities are to be permanent, and can only be removed or altered after approval by PA D.E.P. The tasks outlined herein shall be accomplished by the homeowners association, possibly via a contractor, once the homeowners association is in effect. Until such time, the developer shall be responsible for all maintenance.

The following physical facilities outside of the dedicated and accepted street right-of-way shall be maintained to the original design and dimensions shown on the design plans until such time as an amended plan is approved by the Township and/or PA D.E.P.

- stormwater pipes.
- riprap aprons.
- drain inlets, manholes and open pipe ends.
- rain gardens.
- the natural stream (an unnamed tributary to Paxton Creek).
- designated numbered permanent grades shown on the grading plan.
- drainage easements associated with the above.

For any structural facility (pipe, inlet, manhole), it must be repaired or replaced if damaged more than superficially, in a way that is a safety hazard, if structurally unsound, or if not substantially performing as it is intended per the original design. The homeowners association shall keep a record of any repaired or replaced facility, including costs, dates, materials removed, materials placed, and the contractor(s) information.

**Rain Garden Inspection and maintenance tasks**

- inspect annually at a minimum.
- open, sunny areas can be maintained as mowed grass, maintained meadow, or natural brush succession, per the aesthetic and budget desires of the homeowners association.
- Remove grit if it accumulates to a depth of 3\"/>

**The natural stream (an unnamed tributary to Paxton Creek) inspection and maintenance tasks**

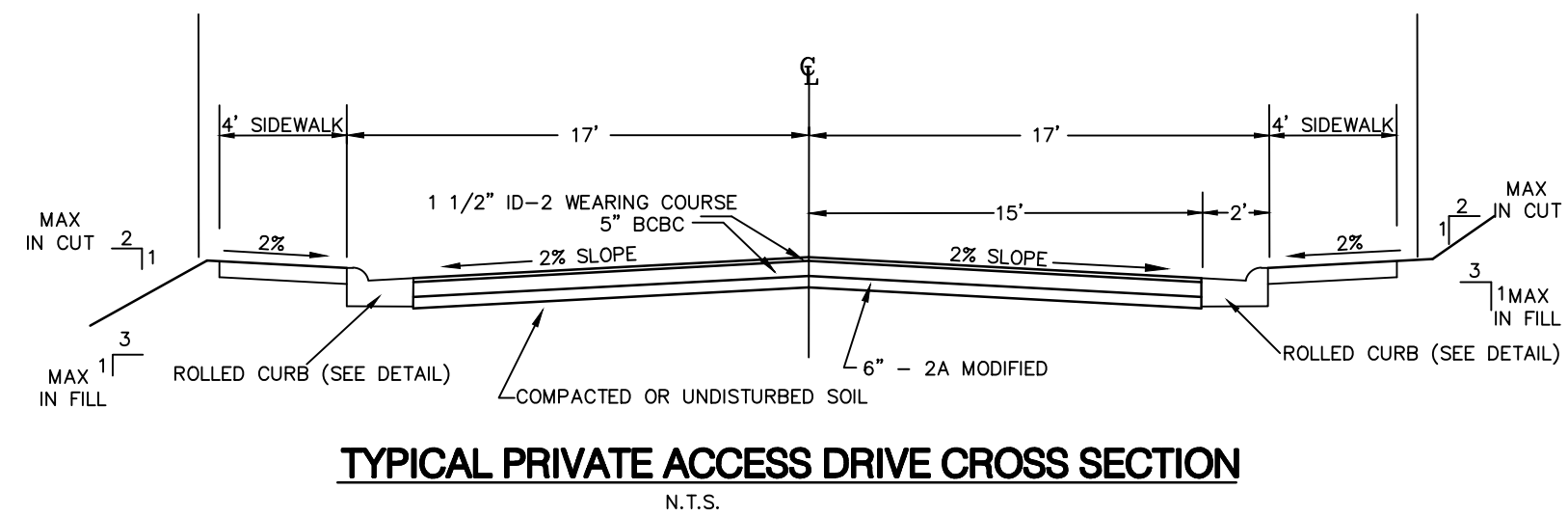
- inspect annually at a minimum.
- Remove man-made trash and dispose of properly.
- Remove logs or other significant obstructions to free flow of the stream.

**Riprap Aprons Inspection and maintenance tasks**

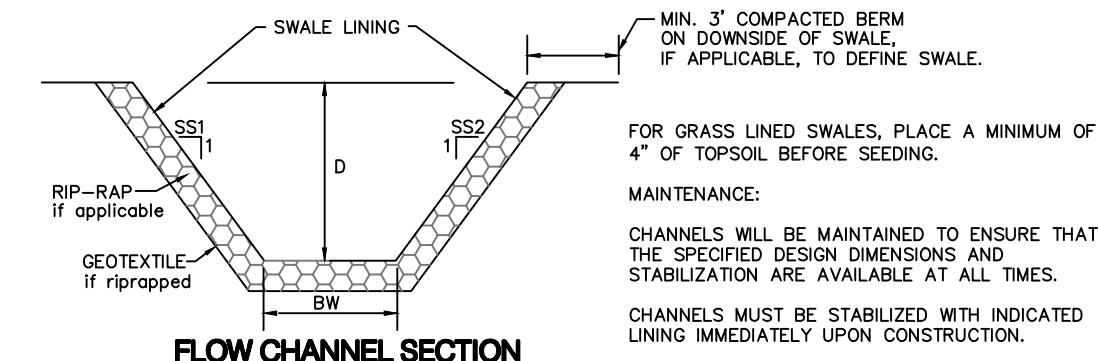
- Remove any accumulated debris and trash, and dispose of properly. Dislodged rock should be reset in place. Any scouring of earth at or below the apron should be re-stabilized with rock, or seeding (seed, mulch and matting), or sod that is watered until established; rock should be placed in non-growing seasons, even if temporary.

**Stormwater pipes and inlets, and designated swales inspection and maintenance tasks**

- Remove man-made trash and dispose of properly.
- Examine inlet bottoms via gages, for accumulated debris. Remove accumulated grit and other debris that would cause disruption of water flow in a manner not designed for the facility, such as sediment, vegetation, wood, sand, and debris. Such facilities shall also be kept cleansed of spent liquids such as oils, fuels, petroleum products, antifreeze, and grease. Man-made trash shall be disposed of properly in containers collected by a licensed commercial trash hauler.
- Examine swales for obstructions and erosion. Any scouring of earth should be re-stabilized with rock, or seeding (seed, mulch and matting), or sod that is watered until established; rock should be placed in non-growing seasons, even if temporary. Any erosion shall be corrected with an appropriate groundcover material to prevent such in the future.



**TYPICAL PRIVATE ACCESS DRIVE CROSS SECTION**  
N.T.S.



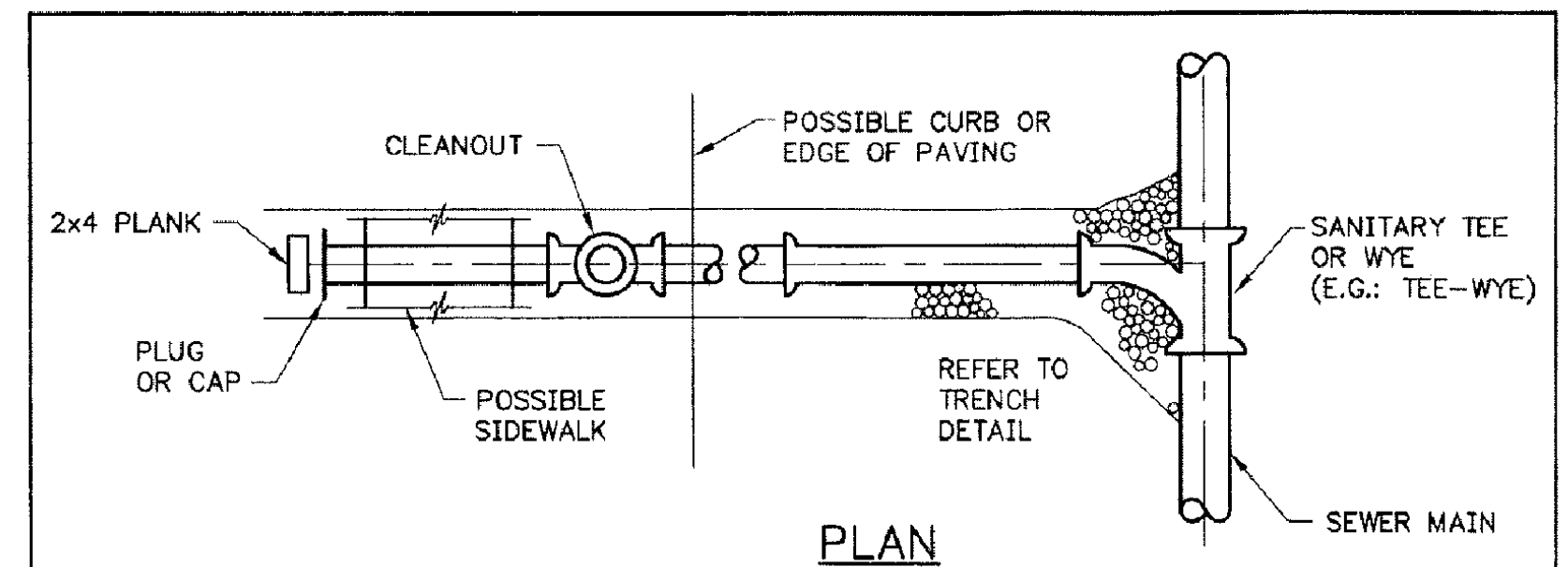
SWALE DESIGNATION	CHANNEL SLOPE (%)	SS1	SS2	BW (FT.)	D (MIN.) (FT.)	ROCK SIZE	MIN ROCK SIZE DEPTH OR LINING TEMPORARY	MIN ROCK SIZE DEPTH OR LINING PERMANENT
SWALE #3, SEG. 1	5.50	3	3	4.0	1.1	---	N.A.G. 275	REL. 6 GRASS
SWALE #3, SEG. 2	10.27	3	3	4.0	0.9	R-5	---	27"

NOTE:  
SW = NORTH AMERICAN GREEN STD MAT.  
BW = 0.0 MEANS A TRIANGULAR SHAPE SWALE.  
N.A.G. INDICATES NORTH AMERICAN GREEN PRODUCT, WITH PRODUCT #.  
SEEDING SWALES SHALL RECEIVE MINIMUM OF TOPSOIL BEFORE SEEDING.

**SWALE DETAIL**  
N.T.S.

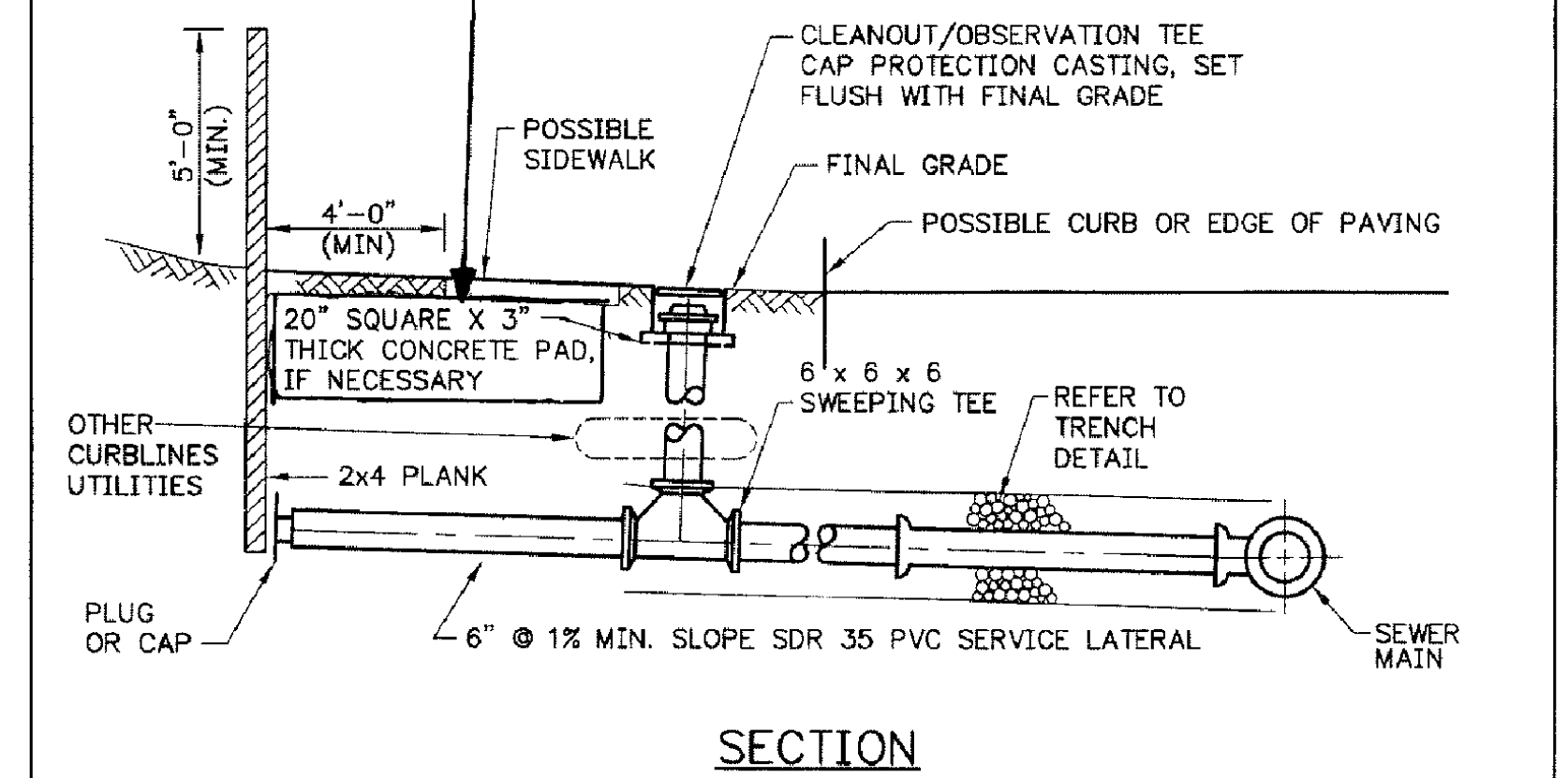
**SANITARY SEWER LATERAL NOTES**

1. THE EXISTING LATERALS (TO BE ABANDONED) SHOULD BE EXCAVATED AND CAPPED AT THE MAIN LINE TEE.
2. THE NEW LATERALS SHALL BE INSTALLED USING SOLID SLEEVES AND 8x6x8 TEES AT THE MAIN LINE.
3. ALL LATERALS SHALL BE 6-INCH SDR-35 PIPE.
4. THE EXISTING SANITARY SEWER BETWEEN MH96-8 AND MH96-9 SHALL BE AIR TESTED AFTER THE LATERALS HAVE BEEN ABANDONED AND THE NEW LATERAL INSTALLED.



**PLAN**

THIS ITEM IS REQUIRED FOR CLEANOUTS IN PAVED AREAS.



**SECTION**

**NOTES:**

1. CURB CLEANOUT NOT TO BE LOCATED IN SIDEWALK OR BENEATH OTHER CURBLINE UTILITIES.

**SERVICE LATERAL - NORMAL DEPTH**

DATE	REVISIONS

**SANITARY SEWER LATERAL DETAIL**  
N.T.S.

**OUTDOOR LIGHTING**

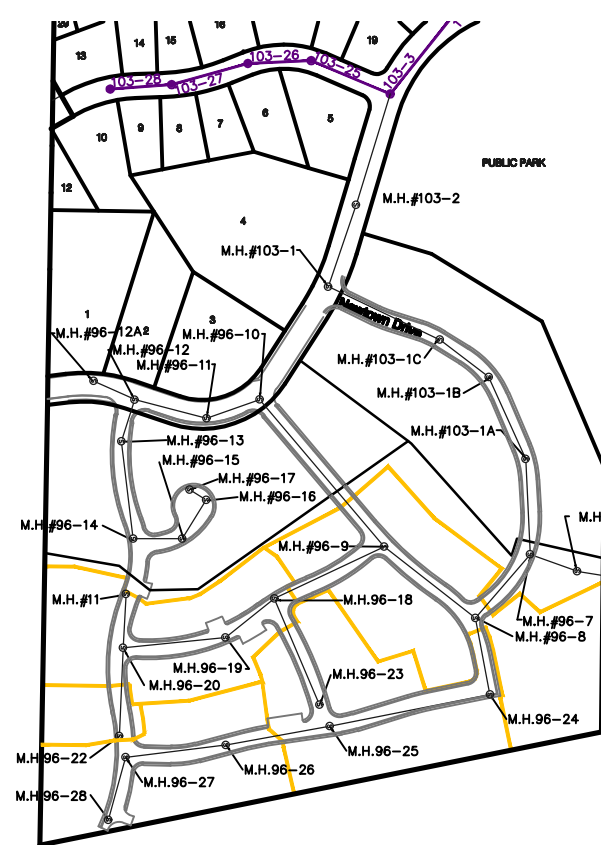


**ACORN**

- LUMINAIRE:** Acorn, black or green
- LAMP SIZE:** 5,800 lumen (70 watt) or 9,500 lumen (100 watt)
- LAMP TYPE:** High-pressure sodium
- POLE:** 11 or 13 foot black or green fiberglass, boulevard style, mounted on a concrete foundation
- ALTERNATE POLE:** 14 foot round black steel or spun aluminum
- ELECTRIC SUPPLY:** Underground
- RATE:** Low-mount underground, high-pressure sodium (SHS)

Want to know more about the PPL Electric Utilities Outdoor Lighting Program?  
Call your PPL Electric Utilities representative or PPL Electric Utilities Customer Service Answer Line at 800-342-5775 (DIALPPL) during business hours 8 a.m. to 5 p.m.

**ACORN**



**SEWER SANITARY INDEX MAP**  
SCALE: 1" = 40'

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**MISCELLANEOUS DETAILS**  
FOR  
**THE TOWNES AT**  
**MARGARET'S GROVE, PH 3B**  
LOCATED IN  
SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 222013-DET  
PROJECT: 222013  
DATE: 5/6/2022  
SHEET: 11 OF 12

**EROSION CONTROL PLAN**

- GENERAL NOTES**
- The site contractor and their designees shall familiarize themselves with this Erosion Control Plan.
  - The site contractor shall be responsible for implementation of this Erosion Control Plan.
  - The site contractor shall not disturb more area than is necessary for the task to be done, so that potential for erosion is minimized.
  - The site contractor shall ensure that earth disturbance activities are planned and implemented to the extent practicable in accordance with the following:
    - Minimize the extent and duration of the earth disturbance.
    - Maximize protection of existing drainage features and vegetation.
    - Minimize soil compaction.
    - Use best practices or controls that prevent or minimize the generation of increased stormwater runoff.
  - Erosion and sedimentation controls must be constructed, stabilized, and functional before site disturbance within the tributary areas to the controls.
  - A copy of the approved Erosion and Sediment Control Plan / Drawings (stamped, signed and dated by the reviewing agency) must be available at the project site at all times.
  - Clearing, grubbing, and topsoil stripping shall be limited to those areas described in each stage of the construction sequence. General site clearing, grubbing and topsoil stripping may not commence in any stage or phase of the project until the E & S BMPs specified by the Construction Sequence for that stage or phase have been installed and are functioning as described in this document.
  - At no time shall construction vehicles be allowed to enter areas outside the limit of disturbance boundaries shown on the plan maps. These areas must be clearly marked and fenced off before clearing and grubbing operation begin.
  - Topsoil stockpile heights shall not exceed 35 feet. Stockpile side slopes must be 2:1 or flatter.
  - Solids, trash and other pollutants shall be disposed in accordance with federal and state regulations in order to prevent any pollutant in such materials from adversely affecting the environment. All building materials and wastes must be removed from the site and recycled or disposed in accordance with the Department of Environmental Protection's Solid Waste Management regulations at 25 Pa. Code 260, 260.1 et seq., 271.1, and 287.1 et seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.
  - All off-site waste and borrow areas must have an E & S Plan approved by the Conservation District or DEP, and fully implemented prior to being activated.
  - The contractor will be responsible for the removal of any excess material and make sure the site(s) receiving the excess has an approved and fully implemented erosion and sediment control plan that meets the conditions of Chapter 102 and/or other State or Federal regulations.
  - The contractor is responsible for ensuring that any material brought onto the 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.
  - Areas which are to be topsoiled shall be scarified to a minimum depth of 4 inches prior to placement of topsoil. Areas to be vegetated shall have a minimum 4 inches of topsoil in place prior to seeding and mulching. Fill outcrops shall have a minimum of 2 inches of topsoil.
  - All graded areas shall be permanently stabilized immediately upon reaching finished grade. Cut slopes in competent bedrock and rock fills need not be vegetated.
  - Cut and fill slopes shall be capable of resisting failure due to slumping, sliding, or other movements.
  - All E & S BMPs must remain functional as shown until all areas tributary to them are permanently stabilized or until they are replaced by another BMP approved by the Conservation District or PA DEP.
  - After final site stabilization has been achieved, temporary E & S BMPs must be removed or converted to permanent post construction stormwater management BMPs. Areas disturbed during removal or conversion of the BMPs must be stabilized immediately. In order to ensure rapid revegetation of disturbed areas, such removal / conversions should be done only during the germinating season.
  - Failure to correctly install E & S BMPs, failure to prevent sediment-laden runoff from leaving the construction site, or failure to take immediate corrective action to resolve failure of E & S BMPs 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 Pennsylvania Clean Streams Law. The Clean Streams law provides for up to \$10,000 per day in civil penalties, up to \$10,000 in summary criminal penalties, and up to \$25,000 in misdemeanor criminal penalties for each violation.
  - Only limited disturbance will be permitted to initially access and acquire borrow to construct control facilities, before general site alteration begins.
  - If fuel or other dangerous chemicals are stored on site, then a Preparedness, Prevention and Contingency (PPC) Plan must be developed and kept on site.
  - Underground utilities cutting through any active channel shall be immediately backfilled and the channel restored to its original cross-section and protective lining. Any base flow within the channel shall be conveyed past the work in the manner described in this plan until such restoration is complete.
  - All channels must be kept free of obstructions such as fill ground, fallen leaves & woody debris, accumulated sediment, and construction materials/wastes. Channels should be kept mowed and/or free of all brush, brushy or woody growth. Any underground utilities running across/through the channel(s) shall be immediately backfilled and the channel(s) repaired and stabilized per the channel cross-section detail.
  - Vegetated channels shall be constructed free of rocks, tree roots, stumps or other projections that will impede channel flow and/or prevent good lining to soil contact. The channel shall be initially over-excavated to allow for the placement of topsoil.
  - Sediment basins/traps shall be kept free of all trash, concrete wash water and other debris that pose the potential for clogging the basin/trap outlet structures and/or pose the potential for pollution to downstream.
  - 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. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.
  - Fill Materials:
    - The NPDES Permit covers the "moving, depositing, stockpiling, or storing of soil rock or earth materials." If the site will need to have fill imported from an off site location, the responsibility for performing environmental due diligence and the determination of clean fill will in most cases reside with the Operator. If the site will have excess fill that will need to be exported to an off site location, the responsibility of clean fill determination and the environmental due diligence rests on the applicant. If cut and fill materials will be used on the site, a clean fill determination is not required by the operator unless there is a belief that a spill or release of a regulated substance occurred on the site. The contractor is responsible for ensuring that any material brought onto the 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.
    - Applicants and/or operators must use environmental due diligence to ensure that the fill material associated with this project qualifies as Clean Fill. Definitions of Clean Fill and Environmental Due Diligence are provided below. All fill material must be used in accordance with the Department's policy "Management of Fill," document number 258-2182-773. A copy of this policy is available online at [www.depweb.state.pa.us](http://www.depweb.state.pa.us). Under the heading Quick Access on the left side of the screen, click on "Forms and Publications." On the left side of the screen click on "Technical Guidance Documents- Final." Then type the document number 258-2182-773 into the search window and conduct the search. Click on "Management of Fill." Clean Fill is defined as: Uncontaminated, non-water 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. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use.)
    - Clean Fill affected by a spill or release of a regulated substance: Fill materials affected by a spill or release of a regulated substance still qualifies as clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Tables FP-1a and FP-1b found in the Department's policy "Management of Fill."
    - Environmental due diligence: 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. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of regulated substance. If the fill may have been subjected to a spill or release of regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Fill."
    - Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable.
  - The potential for thermal impacts exists in the temporary condition as the existing vegetation on the site is disturbed, and un-laid seed in the sediment traps. The thermal impacts will be minimized by infiltrating a portion of the runoff and temporary seeding disturbed areas as soon as possible.

**STABILIZATION SPECIFICATIONS**

- Upon temporary cessation of an earth disturbance activity or any stage or phase of an activity where a cessation of earth disturbance activities will exceed 4 days, the site shall be immediately seeded, mulched, or otherwise protected from accelerated erosion and sedimentation pending future earth disturbance activities.
- Permanent stabilization is defined as 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.
- Topsoil required for the establishment of vegetation shall be stockpiled at the location(s) shown on the plan drawings in the amount necessary to complete the finish grading of all exposed areas that are to be stabilized by vegetation. Each stockpile shall be protected in the manner shown on the plan drawings. Topsoil stockpile heights shall not exceed 35 feet. Stockpile side slopes must be 2:1 or flatter.
- Areas which are to be topsoiled 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. Fill outcrops shall have a minimum of 2 inches of topsoil.
- Topsoil should not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet, or in a condition that may otherwise be detrimental to proper grading and seeded preparation. Compacted soils should be scarified 6 to 12 inches along contour whenever possible prior to seeding.
- An erosion control blanket will be installed on all disturbed slopes 3:1 or steeper, all areas of concentrated flows, and disturbed areas within 50' of a surface water.

**TEMPORARY SEEDING SCHEDULE**

- The contractor shall immediately temporarily stabilize any rough graded area, topsoil stockpile or unused excavated fill material that will be left idle for less than 1 year. The grass will provide interim protection against the impact of precipitation, running water and wind. Permanently seed any area that will be idle for more than 1 year.
- Temporary seeding schedule is as follows:
- Species: annual rye grass
- % Live Seed: 98%
- Application rate: 10 lbs./1,000 sq. yds.
- Fertilizer type: general purpose granular, 10-20-20
- Fertilizer application rate: 11 lbs./1,000 sq. yds.
- Powdered Lining rate: per soil test; minimum of 4 tons per acre.
- Straw/mulch rate: 1,200 lbs./1,000 sq. yds.
- Seeding dates: no seeding between 11/1 and 3/15
- Mulch anchoring: Asphalt, either emulsified or cut-back, containing no solvents or other diluting agents toxic to plant or animal life, uniformly applied at the rate of 31 gallons per 1,000 square yards. Synthetic binders (chemical binders) may be used per manufacturer's recommendation provided they are non-toxic to plant and animal species.

When seeding is not possible due to the time of year or other limitations, disturbed area shall be mulched with straw/bas at the rate above. An erosion control blanket must be installed on all disturbed slopes steeper than 3:1, and all areas with concentrated flows. Matting can be North American Green 'S75' or approved equal.

**PERMANENT SEEDING SCHEDULE**

All disturbed soil not to be covered with impervious surfaces, riprap or landscaping mulch shall be permanently seeded to provide protection against the impact of precipitation, running water and wind. Permanent seeding schedule for the general project area is as follows:

- Species:
- 30% Kentucky bluegrass
  - 40% Pennwalt Creeping Red Fescue
  - 20% Norfolk Perennial ryegrass
  - 10% annual ryegrass
- % Pure live seed: 98%
- Application rate: 6 lbs./1,000 sq. ft.
- Fertilizer type: general purpose granular, 10-20-20
- Fertilizer application rate: 11 lbs./1,000 sq. yds.
- Powdered Lining rate: per soil test; minimum of 6 tons per acre
- Seeding dates: between 4/1 and 10/15
- Straw/mulch rate: 3 tons per acre
- Mulch anchoring: Asphalt, either emulsified or cut-back, containing no solvents or other diluting agents toxic to plant or animal life, uniformly applied at the rate of 31 gallons per 1,000 square yards. Synthetic binders (chemical binders) may be used per manufacturer's recommendation provided they are non-toxic to plant and animal species.

An erosion control blanket must be installed on all disturbed slopes steeper than 3:1, and all areas with concentrated flows. Matting can be North American Green 'S75' or approved equivalent.

A minimum of 6" of topsoil shall be placed prior to seeding.

**MAINTENANCE PLAN**

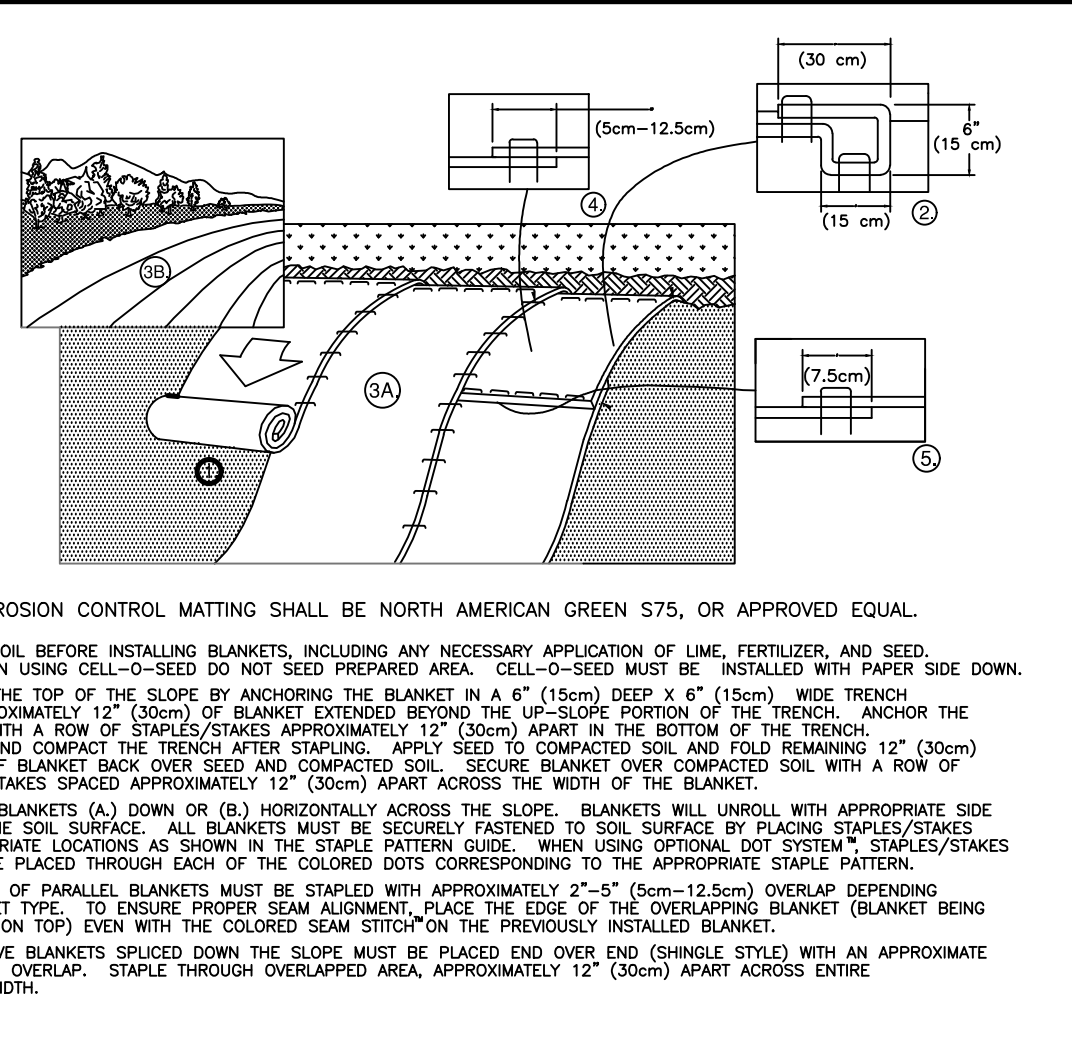
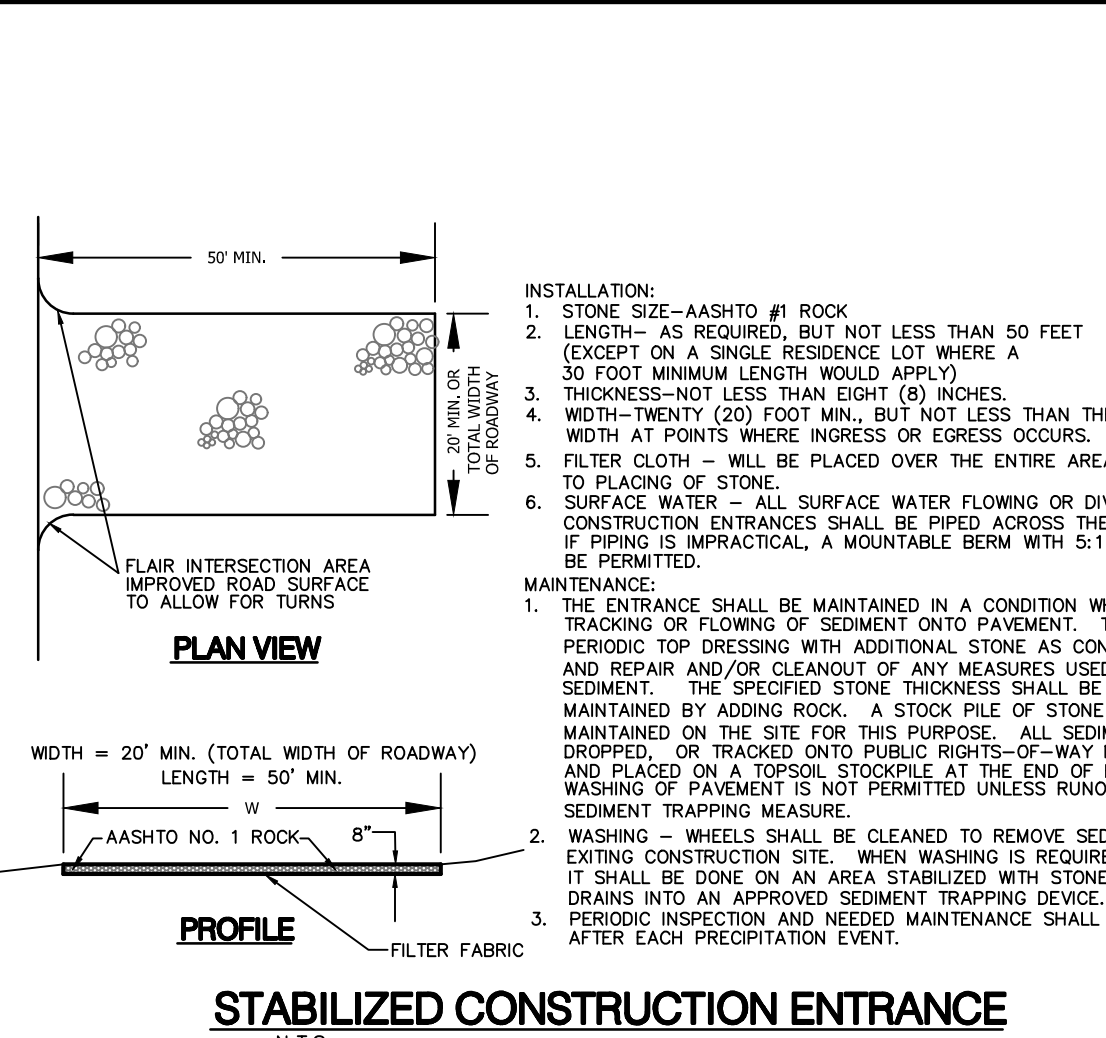
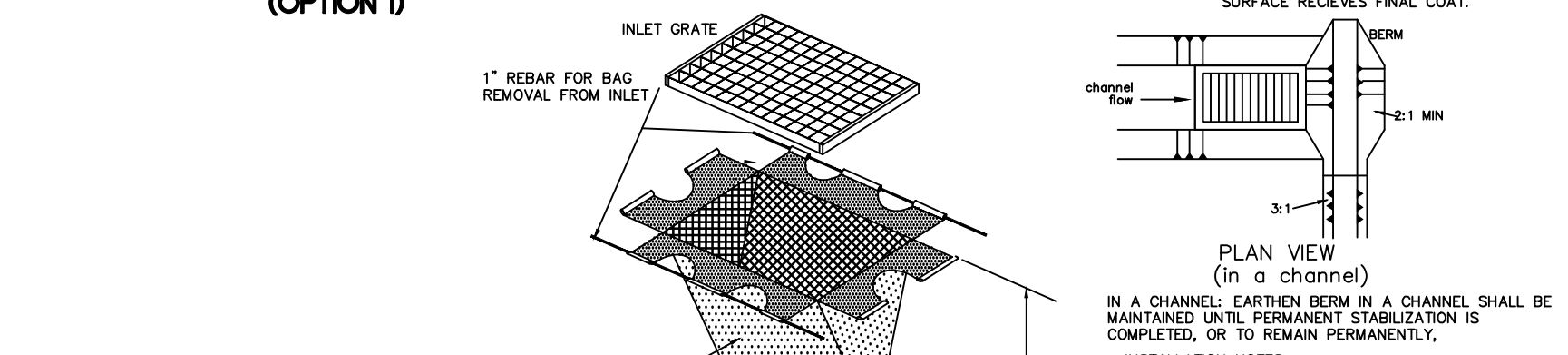
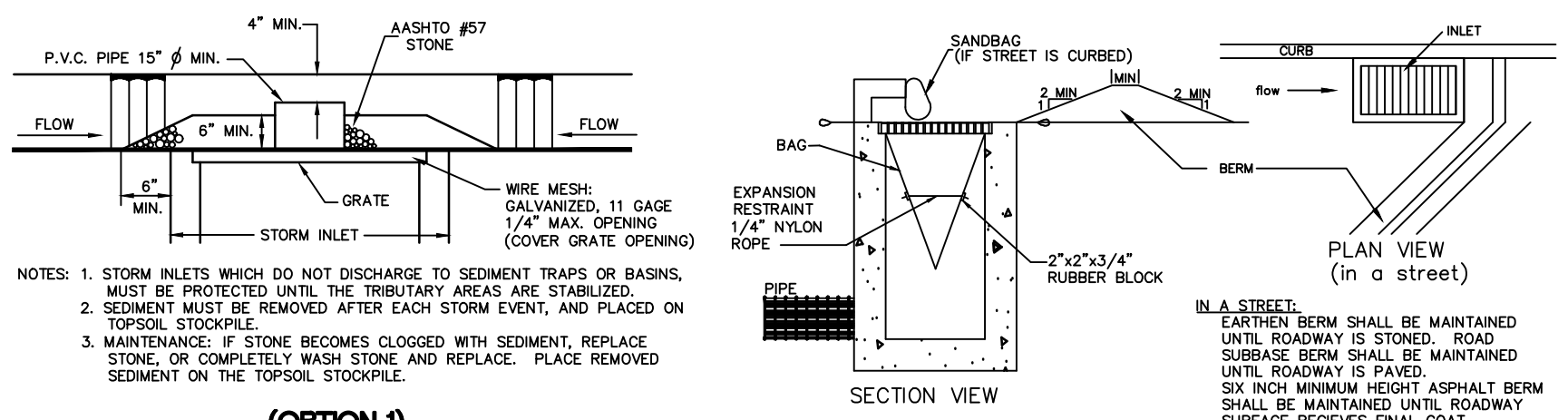
- Until the site is stabilized, all erosion and sediment control BMPs must be maintained properly. Responsibility for implementing and maintaining erosion and sedimentation control measures shall be designated to a minimum of one individual who will be present at the project site each working day. Maintenance must include inspections of all erosion and sediment control BMPs after each runoff event and on a weekly basis, to ensure that they are in place, stable, and functioning properly. All preventative and remedial maintenance work, including clean out, repair, replacement, re-grading, reseeding, re-mulching, and re-netting must be performed immediately, to restore the control measure to the original design. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs, or modifications of those installed, will be required.
- A log showing dates that E & S BMPs were inspected as well as any deficiencies found and the date they were corrected shall be maintained on the site and be made available to regulatory agency officials at the time of inspection.
- Any sediment removed from BMPs during construction shall be returned to upland areas within the project area, and incorporated into the site grading, or in the manner described on the plan drawings.
- See the construction details and seeding specifications for maintenance procedures for the various control measures.
- Mud must be removed from vehicle tires before they exit the site. Sediment or mud tracked onto any public roadway or sidewalk shall be returned to the construction site immediately and disposed in the manner described in this plan. In no case shall the sediment be washed, shoveled, or swept into any roadside ditch, storm sewer or surface water.

**STAGING OF EARTH MOVING ACTIVITIES**

- There are no critical stages of implementation on site during the construction of this phase.
- At least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call system Incorporated at 1-800-242-1776 for the location of existing underground utilities.
- All earth disturbance activities shall proceed in accordance with the following specific sequencing. Each stage shall be completed and immediately stabilized before any following stage is initiated. Clearing, grubbing and topsoil stripping shall be limited only to those areas described in each stage. Any deviation from the following sequence must be approved in writing from the County Conservation District.
- 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 the potential for accelerated erosion and/or sediment pollution.
- At least 7 days before starting any earth disturbance activities, the owner and/or operator shall notify all contractors involved in earth disturbance activities, the landowner, all appropriate municipal officials, and a representative of the County Conservation District to an on-site pre-construction meeting.
- Immediately after earth disturbance activities cease, the operator shall stabilize the disturbed areas. During non-germinating periods, mulch must be applied at the specified rates. Disturbed areas which are not at finished grade and which will be re-disturbed within 1 year must be stabilized in accordance with the temporary seeding vegetative stabilization specifications. Disturbed areas which are not at final grade or which will not be re-disturbed within 1 year must be stabilized in accordance with the permanent seeding vegetative stabilization specifications.
- All piling of sediment laden water shall be through a sediment control BMP, such as a pumped water filter bag or equivalent sediment removal facility, over undisturbed vegetated areas.

**SPECIFIC STAGING OF EARTHMOVING ACTIVITIES FOR MASS GRADING AND INSTALLATION OF COMMON IMPROVEMENTS**

- No earth disturbance should be started until the E&S BMP's treating the disturbed area are installed and functioning.
- Clearly field mark the limits of disturbance. Install the rock construction entrances. The rock construction entrances shall be continually maintained to the specified dimensions. A stockpile of AASHTO #1 coarse aggregate shall be on the site for this purpose. At the end of each workday, any sediment deposited on paved roadways shall be removed and returned to the construction site. Field mark the topsoil stockpile locations. Topsoil stockpiles shall be stabilized utilizing the temporary seeding schedule and shall have sediment barriers located downstream to capture any sediment laden runoff. Stockpiles shall not exceed 35' in height and side slopes must be 2:1 or flatter. Field mark the locations of the Waters of the Commonwealth located within the NPDES boundary including wetland boundaries and streams. Field mark the location of the infiltration facilities.
- Install Sediment Barriers 1 & 2 at the locations shown on the E&S Plan. Disturbance shall be restricted to that which is only necessary to access and install the designated sediment barriers. Strip the topsoil within the remaining areas that will be graded. Clear and grub as necessary.
- Complete the mass grading. Minimize soil compaction within the undisturbed areas. Stabilize soil immediately and install temporary seeding as soon as possible. Permanent slopes of 3:1 or greater require temporary N.A.G. S75 matting or equivalent, as shown on the E&S plan. Install the portion of Permanent Slope 3 that falls behind Buildings 7, 18 & 19, stabilizing with matting as soon as possible.
- Install the sanitary sewer system. Backfill pipe trenches as soon as possible. Work shall be limited to that which can be excavated, installed and backfilled in one working day.
- Install Storm Sewer networks -16 through -14. Backfill pipe trenches as soon as possible. All appropriate inlet protection must be installed as soon as the inlets are installed to ensure that only clean water is entering the system.
- Install water line and services. Install underground electric, telephone, cable and any other necessary utilities. Work shall be limited to that which can be excavated, installed and backfilled in one working day.
- Install street subbase and binder course. Construction entrances may be removed with approval from Dauphin County Conservation District.
- Install curb.
- Permanently seed and mulch as required.
- Complete construction of buildings and site improvements as necessary.
- Final pave streets.



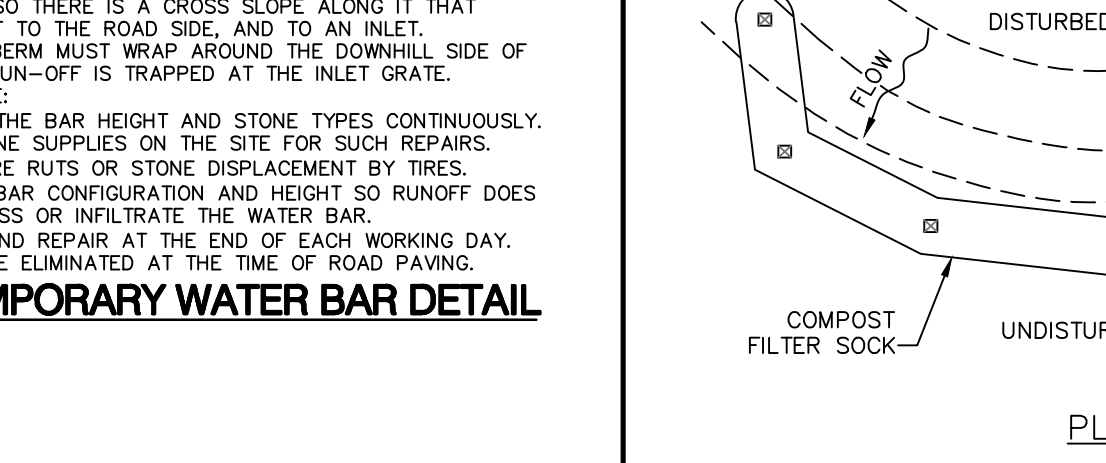
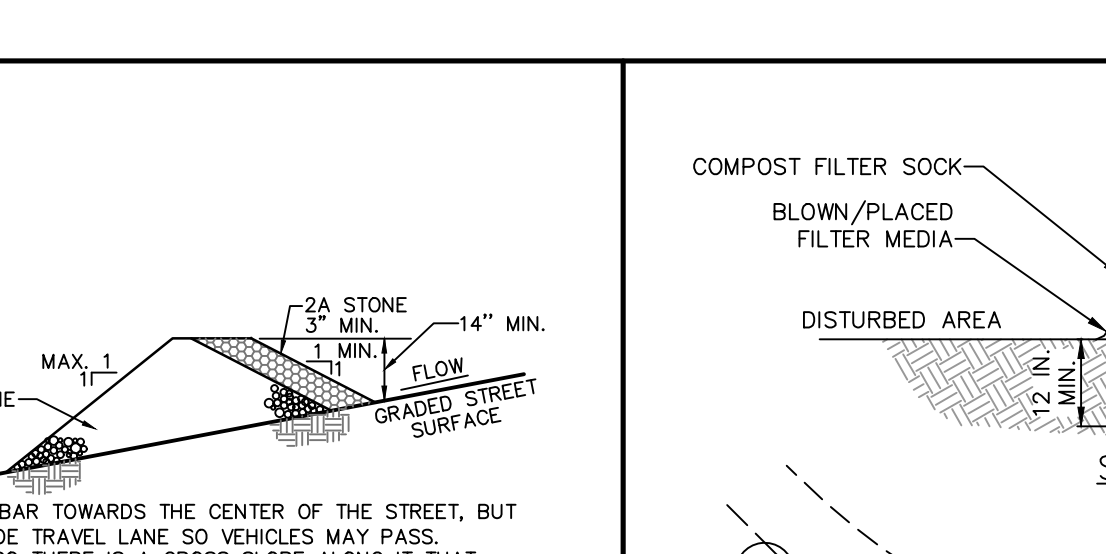
**EROSION CONTROL MATTING ON SLOPE**

- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING OCELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP x 6" (15cm) WIDE TRENCH WITH APPROXIMATELY 12" (30cm) OF BLANKET EXTENDING BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL LEAVING 12" (30cm) OF BLANKET OVER SEED AND CONTACTS TO SEED. STAPLES SHOULD BE PLACED APPROXIMATELY 12" (30cm) APART ACROSS THE WIDTH OF THE BLANKET.
- ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE ANCHORS TO THE SLOPE TO BE STAPLED TO ALL BLENDED AREAS BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH THE CORRESPONDING HOLES IN THE APPROPRIATE STAPLE PATTERN.
- THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-3" (5cm-12.5cm) OVERLAP DEPENDENT ON BLANKET TYPE. CROSS-SEAM STAPLING SHOULD BE USED TO PLACED THE MAIN BARRIER BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
- CONSECUTIVE BLANKETS SLOPED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STILES) WITH AN APPROXIMATE 2" (5cm) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30cm) APART ACROSS ENTIRE BLANKET WIDTH.

**COMPOST FILTER SOCK TABLE**

SOCK NO.	DIA. (IN)	LOCATION	SLOPE PERCENT	SLOPE LENGTH ABOVE BARRIER (FT)
1	12	AS LABELED ON E&S PLAN	7.4	102
2	12	AS LABELED ON E&S PLAN	9.9	86

**TEMPORARY WATER BAR DETAIL**



**R. J. FISHER & ASSOCIATES, INC.**  
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 RJFISHERENGINEERING.COM

**EROSION & SEDIMENT CONTROL DETAILS**  
 FOR  
**THE TOWNES AT MARGARET'S GROVE, PH 3B**  
 LOCATED IN SUSQUEHANNA TOWNSHIP, DAUPHIN COUNTY, PA

DRAWING ID: 222013-DET  
 PROJECT: 222013  
 DATE: 5/6/2022  
 SHEET: 12 OF 12