UPPER UWCHLAN TOWNSHIP
PLANNING COMMISSION
AGENDA

September 14, 2023
7:00 p.m.

LOCATION
Upper Uwchlan Township Building, 140 Pottstown Pike, Chester Springs PA 19425

I. Call To Order

II. Approval of Minutes: June 8, 2023 Meeting minutes

III. 164 Byers Road ~ QBD Ventures Land Development Plan
Discuss consultants' reviews of the plans last revised August 4, 2023

IV. Meeting Updates ~ Reports
A. Environmental Advisory Council (EAC)
B. Historical Commission (HC)
C. Active Transportation Plan (ATP)

V. Next Meeting Date: October 12, 2023 7:00 p.m.

VI. Open Session

VII. Adjournment

UPPER UWCHLAN TOWNSHIP
Planning Commission Meeting
June 8, 2023
7:00 p.m. Meeting
Minutes
Draft

LOCATION: Township Building, 140 Pottstown Pike, Chester Springs PA 19425

Attendees:
Joe Stoyack, Vice-Chair; Chad Adams (via telephone), David Colajezzi, Jim Dewees, Jeff Smith
MaryLou Lowrie, P.E., Gilmore & Associates
Gwen Jonik, Planning Commission Secretary

Absent: Stephen Fean, Ravi Mayreddy, Sally Winterton

Joe Stoyack called the Meeting to order at 7:00 PM as a quorum was present. There were 2 citizens in attendance.

Chester County Parks & Facilities Conditional Use and Land Development Plan, and Natural Lands Trust Conditional Use Plan

Ari Christakis, Esq., Buckley Brion McGuire & Morris, is representing both the County and Natural Lands Trust for the 2 conditional uses and the County's land development plan. Nick Feola of Bursich Associates and Dave Stauffer, the County's Director of Parks and Preservation, and Jack Stefferud of Natural Lands Trust were in attendance.

The County had submitted in May 2019 a conditional use application to allow municipal use (Township Code Section 200.44.I.(10) of property zoned Limited Industrial (LI) to extend the Struble Trail from its current terminus, cross Dorlan Mill Road, and connect with Marsh Creek State Park. The Planning Commission had favored the Application in July 2019 and for a variety of reasons, COVID being one of them, the Application did not move forward to a Hearing. Following many extensions granted by the County, the Application is before the Township for review and approval. In the meantime, Natural Lands Trust has purchased property the Trail will traverse, and they have submitted a conditional use application seeking the same – municipal use. Once the Trail is constructed over Natural Lands' property, they'll give the property to the State.

The County has submitted revised preliminary/final land development plans for construction of the Trail.

Joe Stoyack summarized what was being requested of the Planning Commission tonight: recommendations for the Board of Supervisors for Natural Lands Trust's conditional use application, the County's conditional use application, and the County's preliminary/final land development plan.

Mr. Christakis noted the conditional hearings and land development plan approval are scheduled to be heard by the Board of Supervisors at their June 19, 2023 meeting. A waiver has been requested to allow the land development plan to be combined preliminary and final.

Mr. Feola provided a brief overview of the changes to the plan since the 2019 submission. Retaining walls had been needed along a portion of the Trail, but with Natural Lands acquiring 2.7-acre parcel, the County can shift the trail further into the site, which allows for additional buffering between the trail and the Shryock property and the grading is better, eliminating the retaining walls. The miller's house and garage have been demolished.

David Colajezzi called attention to the Historical Commission's recommendations regarding conditions for approving the land development plan, including preserving as much of the historical structures as possible or creating a stone outline of the miller's house foundation. Placing a historical marker or plaque was also recommended. Mr. Feola advised that Natural Lands will remove the stairs that led to the house, to accommodate the road crossing. Mr. Christakis noted the County and Natural Lands will coordinate with the Township regarding the historical marker.

Dave Stauffer noted the trail goes through the 2.7-acre parcel and meets a trail in Marsh Creek State Park; this is a trail connection. Nick Feola advised the storm water management is proposing a trench and drain. There were no issues from Gilmore & Associates. The County will check with PennDOT regarding the Highway Occupancy Permit (HOP) to cross the road and the signal permit. They will comply with all other Township ordinances, except for the requested waiver.

Joe Stoyack returned to the preservation of the existing walls in the front and back of the where the house was, and the step. Jack Stefferud advised they'll leave the back wall, but the front wall and stairs need to be removed to grade out the trail. The foundation has been removed and the State is not interested in an outline of the foundation, considered a structure, being created. A plaque on the trail is allowable.

Commission members asked if it would be allowed if the Township agrees to maintain a foundation outline. Mr. Christakis does not know what the State would think about that but suggested the Township contact DCNR as that's not in the County's or Natural Lands' purview.

Gerry Stein, Greenridge Road resident, inquired who maintains the ruins further south along the Struble Trail. Mr. Stauffer advised that the Dowlin Forge ruins are owned by Uwchlan Township and they, or their Historical Commission, maintain it.

Steve Egnaczyk, Stonehedge resident, asked if the stair stones/materials can be used elsewhere. Mr. Stauffer advised they could save the stair materials and front stone wall materials for the township to repurpose elsewhere; that is up to the Township.

Cathy Tomlinson, N. Reeds Road resident suggested those materials could be added to the footings left over from the train bed on N. Reed Road, also part of the Park.

Discussion included: for conditional uses, if the applicant can show they can meet all zoning ordinances, the applicant is entitled to their conditional use approval; the Planning Commission provides recommendations to the Board and the Board decides approval, approval with conditions, or denial; perhaps an alternative set of stairs could access the plateau where the house stood; it is believed that DCNR isn't interested in ruins due to insurance reasons; it was suggested the Commission not recommend approval this evening and investigate creating ruins of the house first.

Jim Dewees moved, seconded by Jeff Smith, to recommend the approval of Natural Lands Trust's conditional use application. The motion carried unanimously.

Jeff Smith moved, seconded by Jim Dewees, to recommend the approval of the County's conditional use application, to extend the Struble Trail. The motion carried unanimously.

Jim Dewees moved, seconded by Jeff Smith, to recommend granting the waiver for the land development plan to be combined Preliminary/Final. The motion carried unanimously.

DRAFT

Joe Stoyack moved, seconded by Jeff Smith, to recommend Preliminary/Final Land Development Plan approval to Chester County's "Preliminary/Final Land Development Plan Struble Trail – Extension II" dated May 1, 2019 and last revised May 17, 2023, as presented, with the following recommendations:

1. Applicant to preserve the retaining wall that was in back of the Dorlan Mill miller's house;
2. That the Township work with the Commonwealth/DCNR to preserve the remaining structures as best as possible per the Historical Commission's February 2023 recommendations, at the Township's expense, potentially obtaining permission to build a low stone wall outlining the Dorlan Mill miller's house foundation;
3. Stone materials that may be removed during the Trail construction process be offered to the Township;
4. That the Township craft and install an interpretative sign/plaque where the house stood.

The motion carried unanimously.

Eagleview Corporate Center Lot 1A Preliminary/Final Land Development Plan

Neal Fisher of the Hankin Group reiterated the project, which proposes a 60,000 SF flexible building (office, lab, R&D, warehouse, etc.) on Lot 1A, a 13.5-acre parcel accessed from the Arrowhead Drive cul-de-sac. The consultants' review letters were very clean. They will show future parking; they currently show the trail terminating at Arrowhead Drive but that will eventually connect with a trail plan on Arrowhead Drive. The trail plan will move along quicker than the building construction. The Board of Supervisors had previously granted the requested waivers following the Planning Commission's recommendations. They will comply with everything in Gilmore's May 30, 2023 review letter. They do not yet have a tenant and no timeframe for building. The architectural lighting wasn't included as that will be determined once there is a tenant and they know where the entrances, etc. will be located.

Jeff Smith moved, seconded by Jim Dewees, to recommend to Preliminary/Final Land Development Plan approval. The motion carried unanimously.

Approval of Minutes

Jeff Smith moved, seconded by Jim Dewees, to approve as presented the minutes of the Planning Commission's April 13, 2023 meeting. The motion carried unanimously.

David Colajezzi moved, seconded by Jeff Smith, to approve as presented the minutes of the Planning Commission's May 11, 2023 meeting. The motion carried unanimously.

Meeting Updates

Environmental Advisory Council (EAC). There was no update as the June meeting had been cancelled.

Historical Commission (HC). David Colajezzi reported the HC met June 6 and topics of discussion were the August 3 summer walking tour, in which the HC is participating, and volunteers are needed; the historic resource inventory update is in progress.

Joe Stoyack noted that at the next HC meeting, after tonight's discussions regarding the Dorlan Mill ruins, we need to move along with an historic preservation ordinance. David Colajezzi and Jim Dewees will attend the HC's July 10 meeting to assist.

Gerry Stein noted that current protections are only in the Village Concept Plan but the rest of the township is unprotected. Joe Stoyack reiterated that we need to turn the Village Design Guidelines into design standards within the ordinances.

Chad Adams suggested we invite the Township Solicitor or Brandywine Conservancy to a Commission workshop to work on those ordinances.

DRAFT

Active Transportation Plan (ATP). Gwen Jonik noted a public workshop was held in May at the Pickering Valley Elementary School and residents have provided good feedback from that workshop and the public survey. They are scheduled to meet June 13.

Joe Stoyack announced the next Commission meeting, July 13. No 6:00 p.m. Workshop.

Open Session
Gwen Jonik reminded everyone the 13th Annual Block Party is June 17, 2023.

Adjournment
Jim Dewees moved to adjourn at 8:41 p.m. Everyone seconded.

Respectfully submitted,

Gwen A. Jonik
Planning Commission Secretary

DRAFT

GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

September 11, 2023 E-MAIL ONLY

File No. 09-07021T

Mr. Tony Scheivert
Upper Uwchlan Township Manager
140 Pottstown Pike
Chester Springs, PA 19425

Reference: QBD Ventures
Preliminary/Final Land Development Plan
Upper Uwchlan Township, Chester County, PA

Dear Tony:

Gilmore & Associates, Inc. (G&A) is in receipt of the following documents:

- Response Letter from DL Howell dated August 4, 2023.
- Plan set consisting of thirteen (13) sheets titled "QBD Ventures" prepared by D.L. Howell & Associates, Inc. (Howell), dated December 21, 2020, last revised August 4, 2023.

G&A, as well as the other Township Consultants have completed our third review of the above referenced Preliminary/Final Land Development Application for compliance with the applicable sections of the Township's Zoning Ordinance, Stormwater Management Ordinance, and Subdivision and Land Development Ordinance, and wish to submit the following comments for your consideration. The project did receive Final Land Development Approval in August 2010; however, that approval has expired.

Please note that comments with a **(RW)** denotes a requested waiver and may require relief from the Township Ordinances. Comments in *italics* are from our previous review letter, and comments in **bold text** require resolution by the applicant. Previous comments which have been satisfactorily addressed are not repeated herein.

I. OVERVIEW

The parcel is approximately 0.7 acres in size and is zoned C-1 (Village Commercial District) and is located approximately 300 feet east of the intersection of Graphite Mine Road and Byers Road. The Applicant is proposing to demolish the existing buildings and construct a 2-story, 4,400 SF office building with and associated parking facilities. The parcel will provide a two-way access via Byers Road. An underground detention basin will be utilized to control the increased runoff from the subject site.

II. ZONING

We have no zoning comments at this time.

III. SUBDIVISION & LAND DEVELOPMENT ORDINANCE REVIEW

1. **(RW)** *Section 162-8.B. – The Applicant has submitted this application as a Preliminary/Final Application. A waiver is required from this section to permit this type of approval.*

The Applicant has requested a waiver to allow this application to be considered a Preliminary/Final Application. We have no objection to this request.

2. **(RW)** *Section 162-32.F - A waiver is being requested, and was previously granted, to permit a 35' curb radius on the southwest corner of the intersection of the proposed driveway and Byers Road contingent upon Pa-DOT's concurrence. However, as the land development approval has expired, it is being requested again.*

3. **(RW)** *Section 162-55.D.(1) & (2) - A portion of the southeastern corner of the site contains Glenville Silt Loam, which is classified as a hydric soil and is part of a riparian buffer area. The plans shall indicate this area as a riparian buffer; it is noted that an inlet, a storm pipe, paving, and a portion of the retaining wall are proposed within the riparian buffer. A waiver is being requested, and was previously granted, to permit the construction of a structure in the riparian buffer. However, as the land development approval has expired, it is being requested again.*

4. **(RW)** *Section 162-57.6(b) – A partial waiver is being requested to allow a modified Landscape Plan with regard to building façade plantings, parking and loading landscaping, road frontage and tract boundary plantings.*

We defer to the Planning Commission as to whether the proposed landscaping is sufficient to serve as an adequate buffer.

IV. STORMWATER MANAGEMENT ORDINANCE REVIEW

1. **(RW)** *Section 152-305.A and 152-306.A - A waiver is being requested to not provide the required stormwater runoff volume reduction due to high groundwater levels on the property. The infiltration testing report concluded that an infiltration rate of 0.085 inches per hour should be used for design.*

Due to the poor infiltration rates found on the site, we support the granting of this waiver.

2. **(RW)** *Section 152-311.D - A waiver is being requested to provide an underdrain that is less than the minimum 18" below the foundation. The underdrain system should be in compliance with this section of the ordinance. The Applicant should verify that the underdrain system will be able to adequately drain and elevations should be provided on the plan which verify the underdrain is a minimum of 18" below the foundation as required under this section.*

As proposed, the underdrain will be located approximately 16" below the foundation. We feel the difference between the required separation and that which is provided is de minimis. This coupled with the fact providing the required 18" will not allow for positive drainage away from the building, we support the waiver.

3. *Section 152-402.F. – The Applicant shall provide an O&M plan, and agreement.*

V. GENERAL COMMENTS

No comments at this time.

VI. TOWNSHIP TRAFFIC CONSULTANT COMMENTS (McMAHON ASSOCIATES, INC.)

Based on our review, all of our previous technical comments have been addressed, and we have no further comments. The following is offered for informational purposes only.

Chapter 79-8.C – The proposed redevelopment is located in the Township's Act 209 Transportation Service Area, and as such, this site is subject to the Township's Transportation Impact Fee of $2,334 per weekday afternoon peak hour trip. Based on the Institute of Transportation Engineers publication Trip Generation, 10th Edition, the proposed 4,400 square feet of office space generates five weekday afternoon peak hour trips. Therefore, the number of trips subject to the Township's Transportation Impact fee is five, and the resultant fee is **$11,670.**

VII. TOWNSHIP PLANNING CONSULTANT COMMENTS (BRANDYWINE CONSERVANCY)

All outstanding comments have been addressed.

VIII. TOWNSHIP MUNICIPAL AUTHORITY CONSULTANT COMMENTS (ARRO CONSULTING, INC.)

1. The current plan currently shows the sanitary sewer mains within Byers Road in the proposed locations, the as-constructed conditions should be reflected on the plans. Additionally, a sanitary sewer lateral has been provided for this property. The proposed private sanitary sewer drain location should be revised accordingly. The as-constructed plan information will be provided to the applicant's engineer.

2. We estimate the anticipated sewer usage to be 225 gallons per day (GPD) or one (1) equivalent dwelling unit (EDU). The required capacity will need to be purchased by the applicant. We recommend the Township reserve the right to review water usage in the future and require the purchase of additional sanitary sewer capacity if warranted.

3. The necessary financial security shall be posted with the Township, which shall be in a form and amount acceptable to the Township.

This concludes the third review of the above-referenced plan. We would recommend the plans be revised to address the above referenced comments as any comments raised by the Township Planning Commission or Board of Supervisors.

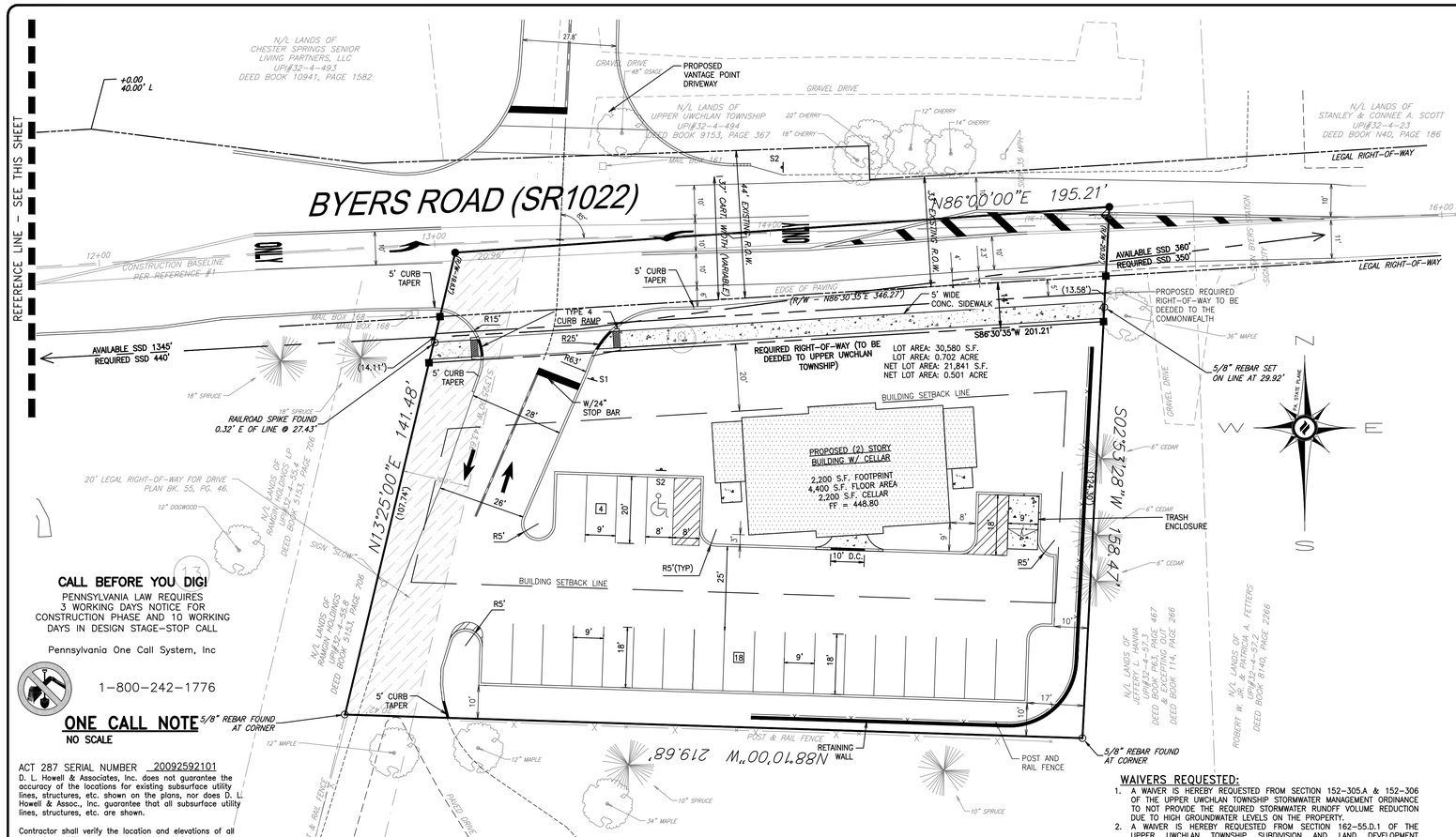
If you have any questions, please do not hesitate to contact me.

Sincerely,

David N. Leh

David N. Leh, P.E.
Vice President
Gilmore & Associates, Inc.

cc: Upper Uwchlan Township Planning Commission Members
Upper Uwchlan Township Board of Supervisors
Kristin Camp, Esq. – BBM&M LLP (via email only)
Rob Daniels, ASLA, Brandywine Conservancy (Via e-mail only)
Christopher J. Williams, P.E., McMahon Assoc., Inc. (Via e-mail only)
David Schlott, P.E, ARRO Consulting, Inc. (Via e-mail only)
Peter Rogers, Applicant (Via e-mail only)
David Gibbons, P.E., D.L. Howell & Associates (Via e-mail only)



CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS IN DESIGN STAGE-STOP CALL

Pennsylvania One Call System, Inc

1-800-242-1776

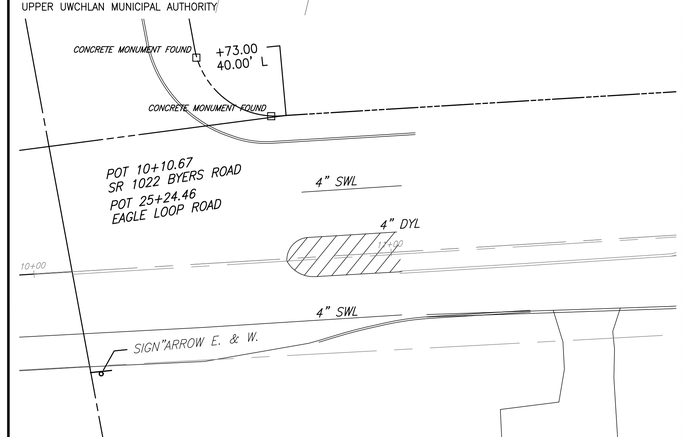
ONE CALL NOTE
NO SCALE

ACT 287 SERIAL NUMBER 20092592101
D. L. Howell & Associates, Inc. does not guarantee the accuracy of the locations for existing subsurface utility lines, structures, etc. shown on the plans, nor does D. L. Howell & Assoc., Inc. guarantee that all subsurface utility lines, structures, etc. are shown.

Contractor shall verify the location and elevations of all subsurface utility lines, structures, etc. before the start of work, by calling the Pennsylvania One Call System at 1-800-242-1776.

UTILITIES NOTIFIED

BUCKEYE PIPELINE COMPANY
COMCAST CABLE COMMUNICATIONS, INC.
PECO ENERGY
VERIZON PENNSYLVANIA, INC.
UPPER UWCHLAN TOWNSHIP
UPPER UWCHLAN MUNICIPAL AUTHORITY



TITLE PLAN

SCALE: 1"=20'

GRAPHIC SCALE
1 inch = 20 feet

REFERENCE PLAN(S)

1. PLAN ENTITLED, "HIGHWAY OCCUPANCY PERMIT PLANS, INTERSECTION OF BYERS ROAD (SR 1022) & EAGLE LOOP ROAD," PREPARED BY McMAHON ASSOCIATES, INC., DATED 6/20/02, LAST REVISED 5/1/03.
2. PLAN OF PROPERTY OF EDWARD AND HELEN SEABOLDT, PREPARED BY HOWARD H. RANCK, RECORDED IN CHESTER COUNTY OFFICE OF THE RECORDER OF DEEDS, IN PLAN BOOK 55, PAGE 46, ON 3/13/74.
3. PLAN ENTITLED "SUBDIVISION OF LANDS BELONGING TO JAMES N. REED", PREPARED BY ROLAND A. DUNLAP, DATED 5/31/84, RECORDED IN THE CHESTER COUNTY OFFICE OF THE RECORDER OF DEEDS, PLAN #4962.

SOILS DELINEATIONS

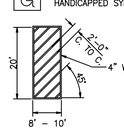
GnB2 GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
UzDb URBAN LAND-UDORTHENTS, SCHIST AND GNEISS COMPLEX, 0 TO 8 PERCENT SLOPES
GeB2 GLENELG CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED

SIGN LEGEND

S1 - STOP SIGN (R1-1 24"X24")
S2 - RESERVED PARKING SIGN FOR HANDICAPPED (R7-8 12"X18") "VAN ACCESSIBLE" SIGN (R7-8A 6"X12")

PAINT LEGEND

4" W.P. 4" WIDE SOLID WHITE PAINT
4" Y.P. 4" WIDE SOLID YELLOW PAINT
24" W.P. 24" WIDE SOLID WHITE PAINT "STOP BAR"
48"X48" BLUE AND WHITE HANDICAPPED SYMBOL



ZONING DATA TABULATION

UPPER UWCHLAN TOWNSHIP
ZONING ORDINANCE
ARTICLE VIII - C-1 VILLAGE DISTRICT
SECTION 200-33. USE REGULATIONS
A. USES PERMITTED BY RIGHT:
(1) BUSINESS OR PROFESSIONAL OFFICE
SECTION 200-34 - AREA AND BULK REGULATIONS

	REQUIRED	EXISTING	PROPOSED
LOT AREA (S.F)		30,580	30,580
LOT AREA (AC.)		0.702	0.702
AREA WITHIN FLOOD HAZARD DISTRICT (S.F.)		0	0
AREA WITHIN RIGHT OF WAYS (S.F.)		6,322	8,739
AREA WITHIN EASEMENTS (S.F.)		0	0
AREAS OF SLOPES IN EXCESS OF 25% (S.F.)		0	0
CALCULATED MINIMUM LOT AREA (NET LOT AREA) (S.F.)		**24,258**	**21,841**
CALCULATED MINIMUM LOT AREA (NET LOT AREA) (AC.)		**0.557**	**0.501**
SECTION 200-34.B. MINIMUM LOT AREA (S.F.)	10,000	24,258	21,841
SECTION 200-34.C. MINIMUM LOT WIDTH (FT.)	100	195	195
SECTION 200-34.D. YARD REGULATIONS			
SECTION 200-34.D.(1) FRONT YARD (FT.)	20	28	20
SECTION 200-34.D.(2) SIDE YARDS (FT.)	10	67.1/18.5	86.0/35.0
SECTION 200-34.D.(3) REAR YARD (FT.)	40	44	57
SECTION 200-34.E. COVERAGE REGULATIONS			
SECTION 200-34.E.(1) MAXIMUM BUILDING COVERAGE	30%	12%	11%
SECTION 200-34.E.(2) MAXIMUM LOT COVERAGE	60%	28%	58%
SECTION 200-34.F. HEIGHT RESTRICTIONS (FT.)	35	<35	<35
SECTION 200-34.H. BUILDING SIZE RESTRICTION (S.F.)	6,000	<6,000	4,400

PARKING REQUIREMENTS

SECTION 200-73.H. NONRESIDENTIAL PARKING REQUIREMENTS.
OFFICE/BUSINESS SERVICES: 5 SPACES/1,000 S.F. OF GFA
4,400 S.F./1000 X 5 = 22 SPACES

	REQUIRED	PROPOSED
	22 SPACES	22 SPACES
SECTION 200-73.D.(5)(e) HANDICAPPED SPACES REQUIRED: 1-25 TOTAL SPACES	1 SPACE	1 SPACE
	22 TOTAL SPACES	22 TOTAL SPACES

WAIVERS REQUESTED:

1. A WAIVER IS HEREBY REQUESTED FROM SECTION 152-305.A & 152-306 OF THE UPPER UWCHLAN TOWNSHIP STORMWATER MANAGEMENT ORDINANCE TO NOT PROVIDE THE REQUIRED STORMWATER RUNOFF VOLUME REDUCTION DUE TO HIGH GROUNDWATER LEVELS ON THE PROPERTY.
2. A WAIVER IS HEREBY REQUESTED FROM SECTION 162-55.D.1 OF THE UPPER UWCHLAN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE TO ALLOW A STRUCTURE TO BE PLACED AND LAND DISTURBANCE TO OCCUR WITHIN THE RIPARIAN BUFFER.
3. A WAIVER IS HEREBY REQUESTED FROM SECTION 162-32.F OF THE UPPER UWCHLAN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE TO ALLOW A CURB RADIUS TO BE LESS THAN 35 FEET.
4. A WAIVER IS HEREBY REQUESTED FROM SECTION 152-311.D OF THE UPPER UWCHLAN TOWNSHIP STORMWATER MANAGEMENT ORDINANCE TO PROVIDE AN UNDERDRAIN THAT IS LESS THAN THE MINIMUM 18" BELOW THE FOUNDATION AND SLOPED AT LESS THAN 0.05 FT/FT.
5. A WAIVER IS HEREBY REQUESTED FROM SECTION 162-57 FROM THE REQUIRED PLANT QUANTITIES.

LEGEND

EX. PROPERTY LINE
PROP. PROPERTY LINE
EX. RIGHT-OF-WAY
PROP. RIGHT-OF-WAY
EX. MONUMENT
PROP. MONUMENT
EX. IRON PIPE
PROP. IRON PIPE
EX. EASEMENT
PROP. EASEMENT
EX. WETLANDS
242 EXISTING CONTOUR
242 PROPOSED CONTOUR
X 123.00 EXISTING SPOT ELEV.
123.00 NEW SPOT ELEV.
GEB2 SOILS TYPE
SOILS LINE
EX. CONC. CURB
PROP. CONC. CURB
EX. EDGE OF PAVING
PROP. EDGE OF PAVING
EX. LIGHT POLE
PROP. LIGHT POLE
EX. FENCE
EX. MAIL BOX
EX. SIGN
PROP. SIGN
EXIST. PARKING SPACES
PROP. PARKING SPACES TO BE REMOVED
(TBR)
EX. TELE. LINE
PROP. TELE. LINE
EX. ELEC. LINE
PROP. ELEC. LINE
EX. UTILITY POLE
PROP. UTILITY POLE
EX. GUY ANCHOR
EX. GAS LINE
PROP. GAS LINE
EX. GAS VALVE
PROP. GAS VALVE
EX. STORM SEWER LINE
PROP. STORM SEWER LINE
EX. STORM INLET
PROP. STORM INLET
PROP. STORM INLET ID
PROP. SEEPAGE BED
EX. SANITARY SEWER LINE
PROP. SAN. SEWER LINE
PROP. SAN. SEWER LATERAL
PROP. SANITARY MH. ID
EX. WATER LINE
PROP. WATER LINE
PROP. WATER LATERAL
PROP. FIRE WATER LINE
EX. WATER VALVE
PROP. WATER VALVE
EX. HYDRANT
PROP. HYDRANT
EX. MANHOLE
PROP. MANHOLE
TITLE REPORT NOTE

RECORDER OF DEEDS

RECORD OWNER:

UPI #32-4-56
QBD VENTURES
5 BLUE SKY TRAIL
TRAVELERS REST, SC 29690

THIS SHEET TO BE RECORDED

UPI# 32-4-56 D.B. 7525 PAGE 642

COMMONWEALTH OF PENNSYLVANIA COUNTY OF CHESTER

ON THIS THE _____ DAY OF _____ 20 11 A.D. BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, RESIDING IN _____ PERSONALLY APPEARED PETER J. RODGERS WHO ACKNOWLEDGES HIM SELF TO BE THE PARTNER OF QBD VENTURES, A GENERAL PARTNERSHIP, AND THAT AS SUCH TO DO SO, HE EXECUTED THE FOREGOING PLAN BY SIGNING THE NAME OF THE SAID GENERAL PARTNERSHIP BY HIM SELF AS PARTNER THAT THE SAID GENERAL PARTNERSHIP IS THE OWNER OF THE DESIGNATED LAND, THAT ALL NECESSARY APPROVAL OF THE PLAN HAS BEEN OBTAINED AND IS ENDORSED THEREON AND THAT THE SAID GENERAL PARTNERSHIP DESIRES THAT THE FOREGOING PLAN MAY BE DULY RECORDED.

PETER J. RODGERS, QBD VENTURES

NOTARY PUBLIC
MY COMMISSION EXPIRES:

REVIEWED BY THE PLANNING COMMISSION OF UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA, THIS _____ DAY OF _____, 20 ___.

CHAIRPERSON
MEMBER
MEMBER

APPROVED BY THE TOWNSHIP SUPERVISORS OF UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA, THIS _____ DAY OF _____, 20 ___.

CHAIRPERSON
MEMBER
MEMBER

REVIEWED BY THE CHESTER COUNTY PLANNING COMMISSION THIS _____ DAY OF _____, 20 ___.

SECRETARY

REVIEWED BY THE UPPER UWCHLAN TOWNSHIP ENGINEER THIS _____ DAY OF _____, 20 ___.

TOWNSHIP ENGINEER

RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS OF CHESTER COUNTY AT WEST CHESTER, PENNSYLVANIA, IN PLAN BOOK _____ PAGE _____, ON THE _____ DAY OF _____ 20 ___.

(DEPUTY) RECORDER OF DEEDS

CERTIFICATE OF CONFORMANCE - P.E.

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, THESE PLANS ARE IN CONFORMITY WITH ENGINEERING, ZONING, BUILDING, SANITATION AND OTHER APPLICABLE TOWNSHIP ORDINANCES AND REGULATIONS.

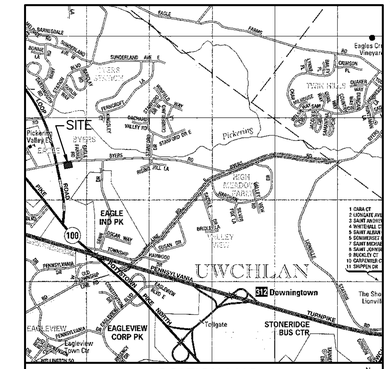
08/07/2023

DAVID W. GIBBONS, P.E. LICENSE NO. PE 076444

CERTIFICATE OF ACCURACY - SURVEY

I HEREBY CERTIFY THAT, TO THE BEST OF MY KNOWLEDGE, ALL SURVEY BOUNDARY INFORMATION AND COMPUTATIONS SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE UPPER UWCHLAN TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

MATTHEW A. WAYMAN, PLS LICENSE NO. SU75525



LOCATION MAP
SCALE: 1"= 2,000'

GENERAL NOTES:

1. RECORD OWNER:
   QBD VENTURES
   5 BLUE SKY TRAIL
   TRAVELERS REST, SC 29690
2. SOURCE OF TITLE: DEED BOOK 7525, PAGE 642
3. TAX PARCEL: 32-4-56
4. LOT AREA: GROSS: 30,580 SQ. FT. (0.702 ACRES)
   AREA WITHIN R/W: 6,332 SQ. FT. (0.145 ACRES)
   NET: 24,248 SQ. FT. (0.557 ACRES)
5. BOUNDARY INFORMATION SHOWN IS FROM FIELD SURVEY BY HOWELL KLINE SURVEYING, LLC. PERFORMED ON 2/19/09.
6. TOPOGRAPHIC INFORMATION SHOWN IS FROM FIELD SURVEY BY HOWELL KLINE SURVEYING, LLC. PERFORMED ON 2/19/09.
7. CONTOURS PLOTTED FROM FIELD RUN TOPOGRAPHIC SURVEY BY HOWELL KLINE SURVEYING, LLC.. DATUM: APPROX. USGS. SITE: RIM OF STORM MANHOLE ACROSS FROM SITE, ELEVATION= 445.77' CONTOUR INTERVAL 2 FT.
8. UNDERGROUND UTILITIES SHOWN WERE PLOTTED FROM OBSERVABLE EVIDENCE AT THE TIME OF SURVEY AND INFORMATION FROM PLANS SUPPLIED BY UTILITY COMPANIES. NO GUARANTEE IS MADE THAT UNDERGROUND UTILITIES ARE ACCURATELY OR COMPLETELY SHOWN HEREON.
9. THE EXISTING LEGAL RIGHT-OF-WAY OF S.R. 1022 WAS TAKEN FROM PLAN ENTITLED, "HIGHWAY OCCUPANCY PERMIT PLANS, INTERSECTION OF BYERS ROAD (SR 1022) & EAGLE LOOP ROAD," PREPARED BY McMAHON ASSOCIATES, INC., DATED 6/20/02, LAST REVISED 5/1/03.
10. THIS PROPERTY IS LOCATED WITHIN FLOOD HAZARD ZONE X, AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL FLOODPLAIN AS PER THE NATIONAL FLOOD INSURANCE RATE MAP FOR CHESTER COUNTY, PA. MAP NO. 42029C0095F, PANEL 95 OF 380, DATED SEPTEMBER 29, 2006. FLOOD PLAIN BOUNDARIES SHOWN HEREON WERE SCALED FROM THE ABOVE MENTIONED MAP.
11. SOILS INFORMATION PROVIDED BY PENN STATE COLLEGE OF AGRICULTURE COOPERATIVE EXTENSION, WITH SUPPORT FROM THE NATURAL RESOURCES CONSERVATION SERVICE. SOILS ATTRIBUTE DATA IS SERVED FROM THE NRCS SOIL DATA MART.
12. ALL OBSERVABLE EVIDENCE OF WELLS AND SEPTIC SYSTEMS WITHIN 100' OF THE PROPERTY BOUNDARY ARE SHOWN HEREON.
13. SITE IS TO BE SERVED BY PUBLIC WATER BY CONNECTING TO THE NEWLY INSTALLED WATER MAIN EXTENSION IN BYERS ROAD.
14. SITE IS TO BE SERVED BY PUBLIC SANITARY SEWER BY CONNECTING TO THE NEWLY INSTALLED SEWER MAIN WITHIN BYERS ROAD.
15. ALL LOT CORNERS TO BE SET WITH IRON PINS. " ◆ " INDICATES IRON PIN. CONCRETE MONUMENTS SHALL BE SET AT EACH CHANGE IN DIRECTION OF THE TRACT BOUNDARY. " ■ " INDICATES MONUMENT. DEVELOPER WILL BE RESPONSIBLE FOR SETTING PROPERTY CORNERS AND MONUMENTATION PRIOR TO ANY BUILDING CONSTRUCTION ACTIVITIES. SEE DETAIL SHEET FOR FURTHER INFORMATION ON MONUMENTS.
16. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ. AND 287.1 ET SEQ. NO BUILDING MATERIAL SHALL BE BURIED, DUMPED OR DISCHARGED FROM THE SITE.
17. A WETLANDS INVESTIGATION HAS BEEN PERFORMED AND HAS DETERMINED THAT NO WETLANDS EXIST ON THE SITE.
18. UPPER UWCHLAN TOWNSHIP SHALL HAVE THE RIGHT, BUT NOT THE OBLIGATION, THROUGH A BLANKET EASEMENT TO ENTER THE PROPERTY FOR ACCESS TO THE PROPOSED BMP'S FOR INSPECTION AND/OR MENTIONED PURPOSES.
19. THE 35-FOOT HALF-WIDTH REQUIRED RIGHT-OF WAY ALONG BYERS ROAD IS TO BE DEEDED TO UPPER UWCHLAN TOWNSHIP.
20. LARGEST VEHICLE ANTICIPATED TO VISIT THE SITE IS A STANDARD BOX TYPE DELIVERY TRUCK.
21. ALL SIGHT DISTANCE OBSTRUCTIONS (INCLUDING BUT NOT LIMITED TO EMBANKMENTS AND VEGETATION) SHALL BE REMOVED BY THE PERMITTEE TO PROVIDE A MINIMUM OF 440 FEET OF LEFT SIGHT DISTANCE AND 350 FEET OF RIGHT SIGHT DISTANCE FOR A DRIVER EXITING THE PROPOSED LOCAL ROAD ONTO THE STATE HIGHWAY. THE DRIVER MUST BE CONSIDERED TO BE POSITIONED 10' FROM THE NEAR EDGE OF THE CLOSEST HIGHWAY THROUGH TRAVEL LANE (FROM THE CURBLINE IF CURBING IS PRESENT) AT AN EYE HEIGHT OF THREE FEET-SIX INCHES (3'-6") ABOVE THE PAVEMENT SURFACE LOCATED IN THE CENTER OF THE CLOSEST HIGHWAY TRAVEL LANE DESIGNATED FOR USE BY APPROACHING TRAFFIC. THIS SIGHT DISTANCE SHALL BE MAINTAINED BY THE PERMITTEE.
22. AN AS-BUILT SURVEY OF ALL STORMWATER BMP's AND AN EXPLANATION OF ANY DISCREPANCIES WITH THE OPERATION AND MAINTENANCE PLAN SHALL BE PROVIDED TO UPPER UWCHLAN TOWNSHIP.
23. IF SUBJECT PROPERTY OR THE ADJACENT PROPERTIES THAT SHARE THE PROPOSED ACCESS EVER REDEVELOP OR CHANGE USE, THESE PROPERTIES WILL BE RESPONSIBLE FOR ANY MODIFICATIONS TO THE ACCESS IF NEEDED.
24. ALL SANITARY SEWER MATERIALS, SPECIFICATIONS, INSTALLATION PROCEDURES AND PIP SPECIFICATIONS SHALL BE CONSISTENT WITH THE UPPER UWCHLAN TOWNSHIP MUNICIPAL AUTHORITY STANDARDS.
25. PRIOR TO CONSTRUCTION, A MINIMUM OF 48 HOURS NOTICE IS REQUIRED TO BE GIVEN TO THE UPPER UWCHLAN TOWNSHIP MUNICIPAL AUTHORITY AND THEIR ENGINEER.
26. THE PROPOSED ESTABLISHMENT IS REQUIRED TO COMPLY WITH THE REGULATIONS FOR THE DISCHARGE OF NON-RESIDENTIAL WASTE INTO THE UPPER UWCHLAN TOWNSHIP MUNICIPAL AUTHORITY'S SEWAGE SYSTEM, RESOLUTION #10-20-04-15, DATED OCTOBER 20, 2004.
27. THE APPLICANT GRANTS THE OWNERS OF THE FOLLOWING PARCELS (TAX PARCEL NOS. 32-4-57, 32-4-57.3, AND 32-57.2) THE RIGHT TO USE THE PAVED DRIVEWAY AND PARKING LOT AISLES AS DEPICTED ON THIS PLAN AS A MEANS OF INGRESS AND EGRESS TO BYERS ROAD PROVIDED SUCH ACCESS DOES NOT UNREASONABLY INTERFERE WITH THE USE OF THE SUBJECT PROPERTY AND PROVIDED SUCH ACCESS IS APPROVED BY THE TOWNSHIP AND/OR PENNDOT.
28. BUILDING AND STRUCTURE HAVE SINCE BEEN RAZED AND THE SEPTIC SYSTEM HAS BEEN ABANDONED/REMOVED PER CHESTER COUNTY HEALTH DEPARTMENT STANDARDS.
29. THE ANTICIPATED SEWER USAGE FOR THE PROPOSED DEVELOPMENT HAS BEEN ESTIMATED TO BE 225 GALLONS PER DAY (GPD) OR ONE (1) EQUIVALENT DWELLING UNIT (EDU). THE REQUIRED CAPACITY WILL NEED TO BE PURCHASED B THE APPLICANT PRIOR TO THE CONNECTION OF THE SANITARY SEWER.

TITLE REPORT NOTES

This survey was performed utilizing a Commitment for Title Insurance prepared by Land America Lawyers, Case Number L31173, Policy Number C70-0060817, effective date September 22, 2008. Name of the Insured is QBD Ventures, a PA General Partnership, and the land referred to in this policy is described as 164 Byers Road, Uwchlan, PA 19480. Schedule B-Section 2 of said Commitment contains the following survey related matters (item numbers correspond to the Title Commitment numbers.)

8) Rights of the public and other entitled thereto in and to the use of that portion of the premises within the bounds of Byers Road (L.R. 15142). (Right-of-way of SR 1022 plotted hereon.)

9) Rights granted to Philadelphia Electric Company in Miscellaneous Deed book 86, Page 509, and Miscellaneous Deed Book 173, Page 660. (Documents describes the right to install electric utilities immediately outside the legal Right-of-Way limits of Byers Road. Observable evidence of electric lines and utility poles located along Byers Road are shown hereon.)

10) Water rights as set forth in Miscellaneous Deed Book 119, Page 583. (Document describes the right to access and use a well located across UPI# 32-4-57.3. Approximate location scaled from reference plan #3 show hereon, no observable evidence of well or water line at time of survey.)

11) Rights granted to Manufacturers Light and Heat Co., in Miscellaneous Deed Book 117, Page 88. (No observable evidence of pipeline at time of survey.)

12) Agreement recorded in Miscellaneous Deed Book 643, Page 214. (Document describes the right to access and use a well located across UPI# 32-4-57.3. Approximate location scaled from reference plan #3 show hereon, no observable evidence of well or water line at time of survey.)

13) Reservations as set forth in Instrument recorded in Deed Book E-43, Page 50. (Documents describes a 20' wide access easement for UPI#32-4-57.3 and UPI#32-4-57, plotted hereon.)

Sheet List Table

Sheet Number	Drawing Number	Sheet Title
01	C01.01	TITLE PLAN
02	C02.01	SITE ANALYSIS & IMPACT PLAN
03	C03.01	IMPROVEMENT CONSTRUCTION PLAN
04	C03.02	SIDEWALK ADA PLAN
05	C04.01	CONSERVATION PLAN
06	C05.01	PROFILE SHEET
07	C06.01	DETAIL SHEET
08	C06.02	DETAIL SHEET
09	C07.01	PCSM & O&M PLAN
10	C08.01	LIGHTING PLAN
11	C08.02	LIGHTING SPECIFICATIONS PLAN
12	C09.01	LANDSCAPE PLAN
13	C09.02	LANDSCAPE DETAILS

DLHowell
Civil Engineering
Land Planning
Environmental
www.DLHowell.com

1250 Wrights Lane
West Chester, PA 19380
Phone: (610) 918-9002
Fax: (610) 918-9003

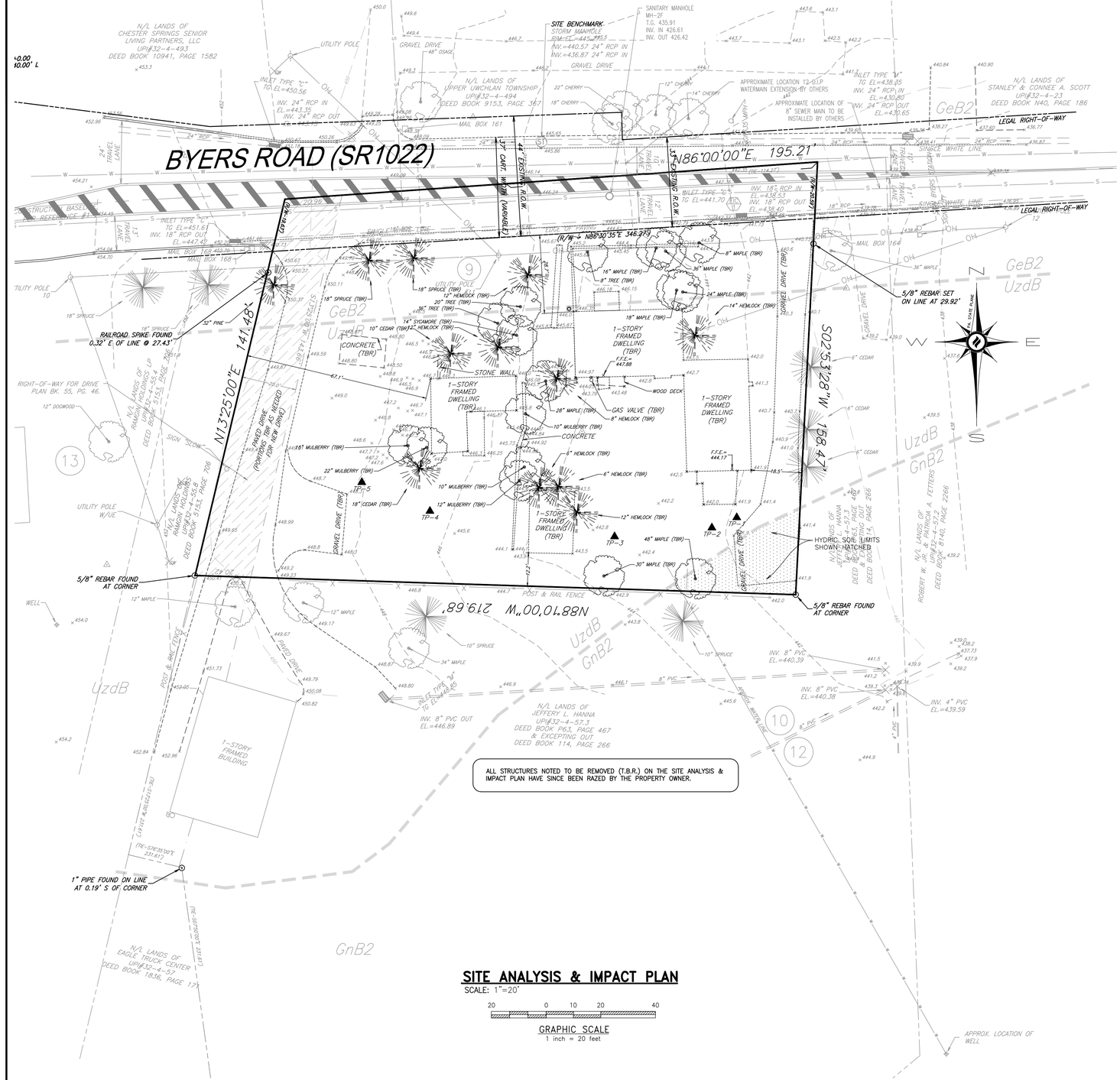
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DAVID W. GIBBONS
ENGINEER
PE076444

REV.	DATE	DESCRIPTION
8		
7		
6		
5		
4		
3	08/04/23	REVISED PER TOWNSHIP REVIEW LETTERS
2	06/01/23	REVISED PER TOWNSHIP REVIEW LETTERS
1		

PRELIMINARY/FINAL
TITLE PLAN

CLIENT: QBD VENTURES
PROJECT: BYERS ROAD PROPERTY
LOCATION: 164 BYERS ROAD
UPPER UWHCLAN TOWNSHIP, CHESTER COUNTY, PA

DATE:	12/21/20
SCALE:	1"=20'
DRAWN BY:	AM
CHECKED BY:	DWG
PROJECT NO.:	2146
CAD FILE:	01 TITLE PLAN.dwg
PLOTTED:	08/04/23
DRAWING NO.:	C01.01
SHEET	01 OF 13



SITE ANALYSIS & IMPACT PLAN

SCALE: 1"=20'

20 0 10 20 40

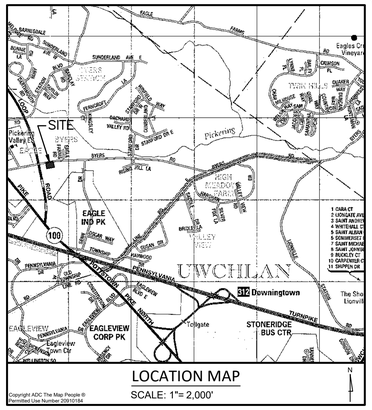
GRAPHIC SCALE
1 inch = 20 feet

LEGEND

EX. PROPERTY LINE	242	EXISTING CONTOUR		PROP. LIGHT POLE	E	PROP. ELEC. LINE		PROP. STORM INLET	W	PROP. WATER LINE
PROP. PROPERTY LINE	242	PROPOSED CONTOUR	X	EX. FENCE		EX. UTILITY POLE	IC	PROP. STORM INLET ID	WL	PROP. WATER LATERAL
EX. RIGHT-OF-WAY	X 123.00	EXISTING SPOT ELEV.	MB	EX. MAIL BOX		PROP. UTILITY POLE		PROP. SEEPAGE BED	FW	PROP. FIRE WATER LINE
PROP. RIGHT-OF-WAY	x 123.00	NEW SPOT ELEV.		EX. SIGN		EX. GUY ANCHOR			W.V.	EX. WATER VALVE
EX. MONUMENT	GEB2	SOILS TYPE		PROP. SIGN	G	EX. GAS LINE	S	EX. SANITARY SEWER LINE		PROP. WATER VALVE
PROP. MONUMENT		SOILS LINE		EXIST. PARKING SPACES	G	PROP. GAS LINE	S	PROP. SAN. SEWER LINE	F.H.	EX. HYDRANT
EX. IRON PIPE		EX. CONC. CURB		PROP. PARKING SPACES	G.V.	EX. GAS VALVE	L	PROP. SAN. SEWER LATERAL		PROP. HYDRANT
PROP. IRON PIPE		PROP. CONC. CURB	(TBR)	TO BE REMOVED	G.V.	PROP. GAS VALVE		PROP. SANITARY MH. ID		EX. MANHOLE
EX. EASEMENT		EX. EDGE OF PAVING	T	EX. TELE. LINE		EX. STORM SEWER LINE	MH 1			PROP. MANHOLE
PROP. EASEMENT		PROP. EDGE OF PAVING	T	PROP. TELE. LINE		PROP. STORM SEWER LINE	W	EX. WATER LINE		15%-25% PRECAUTIONARY SLOPES
EX. WETLANDS		EX. LIGHT POLE	E	EX. ELEC. LINE		EX. STORM INLET	1	TITLE REPORT NOTE		25%+ PROHIBITIVE STEEP SLOPES

GENERAL NOTES:

1. RECORD OWNER:
   QBD VENTURES
   2800 HORSESHOE TRAIL
   CHESTER SPRINGS, PA 10425
2. SOURCE OF TITLE: DEED BOOK 7525, PAGE 642
3. TAX PARCEL: 32-4-56
4. LOT AREA: GROSS: 30,580 SQ. FT. (0.702 ACRES)
   AREA WITHIN R/W: 3,865 SQ. FT. (0.089 ACRES)
   NET: 26,715 SQ. FT. (0.613 ACRES)
5. BOUNDARY INFORMATION SHOWN IS FROM FIELD SURVEY BY HOWELL KLINE SURVEYING, LLC. PERFORMED ON 2/19/09.
6. TOPOGRAPHIC INFORMATION SHOWN IS FROM FIELD SURVEY BY HOWELL KLINE SURVEYING, LLC. PERFORMED ON 2/19/09.
7. CONTOURS PLOTTED FROM FIELD RUN TOPOGRAPHIC SURVEY BY HOWELL KLINE SURVEYING, L.L.C.. DATUM: APPROX. USGS. SITE: RIM OF STORM MANHOLE ACROSS FROM SITE, ELEVATION= 445.77' CONTOUR INTERVAL 2 FT.
8. UNDERGROUND UTILITIES SHOWN WERE PLOTTED FROM OBSERVABLE EVIDENCE AT THE TIME OF SURVEY AND INFORMATION FROM PLANS SUPPLIED BY UTILITY COMPANIES. NO GUARANTEE IS MADE THAT UNDERGROUND UTILITIES ARE ACCURATELY OR COMPLETELY SHOWN HEREON.
9. THE EXISTING LEGAL RIGHT-OF-WAY OF S.R. 1022 WAS TAKEN FROM PLAN ENTITLED, "HIGHWAY OCCUPANCY PERMIT PLANS, INTERSECTION OF BYERS ROAD (SR 1022) & EAGLE LOOP ROAD," PREPARED BY McMAHON ASSOCIATES, INC., DATED 6/20/02, LAST REVISED 5/1/03.
10. THIS PROPERTY IS LOCATED WITHIN FLOOD HAZARD ZONE X, AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL FLOODPLAIN AS PER THE NATIONAL FLOOD INSURANCE RATE MAP FOR CHESTER COUNTY, PA. MAP NO. 42029C0095F, PANEL 95 OF 380, DATED SEPTEMBER 29, 2006. FLOOD PLAIN BOUNDARIES SHOWN HEREON WERE SCALED FROM THE ABOVE MENTIONED MAP.
11. SOILS INFORMATION PROVIDED BY PENN STATE COLLEGE OF AGRICULTURE COOPERATIVE EXTENSION, WITH SUPPORT FROM THE NATURAL RESOURCES CONSERVATION SERVICE. SOILS ATTRIBUTE DATA IS SERVED FROM THE NRCS SOIL DATA MART.
12. ALL OBSERVABLE EVIDENCE OF WELLS AND SEPTIC SYSTEMS WITHIN 100' OF THE PROPERTY BOUNDARY ARE SHOWN HEREON.
13. SITE IS TO BE SERVED BY EXISTING PRIVATE WATER.
14. SITE IS TO BE SERVED BY PRIVATE SANITARY SEWER. SANITARY SEWER WILL BE A PUMP AND HAUL SYSTEM UNTIL SUCH TIME AS PUBLIC SANITARY SEWER BECOMES AVAILABLE ON BYERS ROAD.
15. ALL LOT CORNERS TO BE SET WITH IRON PINS. " ● " INDICATES IRON PIN. CONCRETE MONUMENTS SHALL BE SET AT EACH CHANGE IN DIRECTION OF THE TRACT BOUNDARY. " ■ " INDICATES MONUMENT. DEVELOPER WILL BE RESPONSIBLE FOR SETTING PROPERTY CORNERS AND MONUMENTATION PRIOR TO ANY HOUSE CONSTRUCTION ACTIVITIES. SEE DETAIL SHEET FOR FURTHER INFORMATION ON MONUMENTS.
16. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ. AND 287.1 ET SEQ. NO BUILDING MATERIAL SHALL BE BURIED, DUMPED OR DISCHARGED FROM THE SITE.
17. A WETLANDS INVESTIGATION HAS BEEN PERFORMED AND HAS DETERMINED THAT NO WETLANDS EXIST ON THE SITE.
18. UPPER UWCHLAN TOWNSHIP SHALL HAVE THE RIGHT, BUT NOT THE OBLIGATION, THROUGH A BLANKET EASEMENT TO ENTER THE PROPERTY FOR ACCESS TO THE PROPOSED BMP'S FOR INSPECTION AND/OR MENTIONED PURPOSES.
19. ULTIMATE RIGHT-OF-WAY IS OFFERED FOR DEDICATION TO THE TOWNSHIP IN PERPETUITY AT NO COST TO THE TOWNSHIP.
20. LARGEST VEHICLE ANTICIPATED TO VISIT THE SITE IS A STANDARD BOX TYPE DELIVERY TRUCK.
21. ALL SIGHT DISTANCE OBSTRUCTIONS (INCLUDING BUT NOT LIMITED TO EMBANKMENTS AND VEGETATION) SHALL BE REMOVED BY THE PERMITTEE TO PROVIDE A MINIMUM OF 440 FEET OF LEFT SIGHT DISTANCE AND 350 FEET OF RIGHT SIGHT DISTANCE FOR A DRIVER EXITING THE PROPOSED LOCAL ROAD ONTO THE STATE HIGHWAY. THE DRIVER MUST BE CONSIDERED TO BE POSITIONED 10' FROM THE NEAR EDGE OF THE CLOSEST HIGHWAY THROUGH TRAVEL LANE (FROM THE CURBLINE IF CURBING IS PRESENT) AT AN EYE HEIGHT OF THREE FEET-SIX INCHES (3'-6") ABOVE THE PAVEMENT SURFACE LOCATED IN THE CENTER OF THE CLOSEST HIGHWAY TRAVEL LANE DESIGNATED FOR USE BY APPROACHING TRAFFIC. THIS SIGHT DISTANCE SHALL BE MAINTAINED BY THE PERMITTEE.
22. AN AS-BUILT SURVEY OF ALL STORMWATER BMP'S AND AN EXPLANATION OF ANY DISCREPANCIES WITH THE OPERATION AND MAINTENANCE PLAN SHALL BE PROVIDED TO UPPER UWCHLAN TOWNSHIP.
23. IF SUBJECT PROPERTY OR THE ADJACENT PROPERTIES THAT SHARE THE PROPOSED ACCESS EVER REDEVELOP OR CHANGE USE, THESE PROPERTIES WILL BE RESPONSIBLE FOR ANY MODIFICATIONS TO THE ACCESS IF NEEDED.



LOCATION MAP
SCALE: 1"= 2,000'

TITLE REPORT NOTES

This survey was performed utilizing a Commitment for Title Insurance prepared by Land America Lawyers, Case Number L31173, Policy Number C70-0060817, effective date September 22, 2008. Name of the Insured is QBD Ventures, a PA General Partnership, and the land referred to in this policy is described as 164 Byers Road, Uwchlan, PA 19480. Schedule B-Section 2 of said Commitment contains the following survey related matters (Item numbers correspond to the Title Commitment numbers.)

8) Rights of the public and other entitled thereto in and to the use of that portion of the premises within the bounds of Byers Road (L.R. 15142). (Right-of-way of SR 1022 plotted hereon.)

9) Rights granted to Philadelphia Electric Company in Miscellaneous Deed book 86, Page 509, and Miscellaneous Deed Book 173, Page 660. (Documents describes the right to install electric utilities immediately outside the legal Right-of-Way limits of Byers Road. Observable evidence of electric lines and utility poles located along Byers Road are shown hereon.)

10) Water rights as set forth in Miscellaneous Deed Book 119, Page 583. (Document describes the right to access and use a well located across UPI# 32-4-57.3. Approximate location scaled from reference plan #3 show hereon, no observable evidence of well or water line at time of survey.)

11) Rights granted to Manufacturers Light and Heat Co., in Miscellaneous Deed Book 117, Page 88. (No observable evidence of pipeline at time of survey.)

12) Agreement recorded in Miscellaneous Deed Book 643, Page 214. (Document describes the right to access and use a well located across UPI# 32-4-57.3. Approximate location scaled from reference plan #3 show hereon, no observable evidence of well or water line at time of survey.)

13) Reservations as set forth in Instrument recorded in Deed Book E-43, Page 50. (Documents describes a 20' wide access easement for UPI#32-4-57.3 and UPI#32-4-57, plotted hereon.)

SYMBOL	SOIL NAME	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	SUITABILITY FOR WINTER GRADING	RESISTANCE TO FROST ACTION	SUITABILITY FOR ROAD GRADE	SUITABILITY FOR ROAD FILL	SUITABILITY AS SOURCE FOR TOPSOIL	SUITABILITY AS SOURCE OF SAND & GRAVEL	CHARACTERISTICS THAT AFFECT VERTICAL ALIGNMENT FOR HIGHWAYS		CHARACTERISTICS THAT AFFECT:		CHARACTERISTICS THAT AFFECT SUITABILITY FOR:							PRIME AGRICULTURAL SOIL
										MATERIALS	DRAINAGE	INFILTRATION OF WASTE FROM SEPTIC TANKS	CONSTRUCTION & MAINTENANCE OF PIPELINES	DIKES & LEVEES	FARM PONDS RESERVOIR AREA	FARM PONDS EMBANKMENT	AGRICULTURAL DRAINAGE	IRRIGATION	TERRACES & DIVERSIONS	WATERWAYS	BUILDING SITES	
GeB2	GLENELG CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	5 FT.+	3 TO 5 FT.	GOOD	FAIR	FAIR TO GOOD	FAIR TO GOOD	GOOD	UNSUITABLE	----	----	----	----	RAPID PERMEABILITY	PERMEABLE SUBSTRATUM	PERMEABILITY	----	----	----	----	GROUP 5	YES
GnB2	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	1-1 1/2 FT.	3 TO 6 FT.	FAIR	POOR	POOR TO FAIR	POOR	GOOD	UNSUITABLE	----	SEASONAL HIGH WATER TABLE	CLAYPAN	FLUCTUATING WATER TABLE	INSTABILITY	VARIABLE SUBSTRATUM	----	HIGH WATER TABLE; SEEPS	LOW WATER HOLDING CAPACITY	----	----	GROUP 10	YES
UzdB	URBAN LAND - UDORTHENTS, SCHIST AND GNEISS COMPLEX, 0 TO 8 PERCENT SLOPES	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

SITE ANALYSIS NARRATIVE

EXISTING LAND USE IS CHARACTERIZED AS GENERALLY DEVELOPED. THERE ARE THREE EXISTING DWELLINGS AND SEVERAL AUXILIARY STRUCTURES, DRIVEWAYS, WALLS AND PADS. THE REMAINDER OF THE PROPERTY DESIGNATED AS MEADOW AND TREES. THE SITE IS PROPOSED TO BE DEVELOPED IN ACCORDANCE WITH THE ZONE C-1 INDUSTRIAL DISTRICT REQUIREMENTS PROVIDED IN THE UPPER UWCHLAN TOWNSHIP ZONING ORDINANCE.

A TOPOGRAPHIC HIGH POINT ORIGINATES ALONG THE WESTERN PROPERTY LINE AND CONTINUES IN A EASTERLY DIRECTION ACROSS THE ENTIRE PROPERTY. TOPOGRAPHY ON THE ENTIRE PROPERTY IS CHARACTERIZED AS GENTLY SLOPED. STORMWATER RUNOFF GENERATED BY THE PROPERTY FLOWS IN A EASTERLY DIRECTION BEFORE IT IS COLLECTED BY THE STORMWATER COLLECTION STRUCTURES AND ROUTES THROUGH A PROPOSED PIPE STORAGE FACILITY. THIS IS THEN DISCHARGED INTO THE BYERS ROAD CONVEYANCE SYSTEM.

PER PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, 25 PA. CODE, 93.9G "WATER QUALITY STANDARDS" THE PICKERING CREEK WITHIN UPPER UWCHLAN TOWNSHIP IS CLASSIFIED AS HIGH QUALITY (HQ) TROUT STOCKING FISHES (TSF) AND MIGRATORY FISHES (MF).

SITE SOILS HAVE BEEN IDENTIFIED BY THE SOILS INFORMATION PROVIDED BY PENN STATE COLLEGE OF AGRICULTURE COOPERATIVE EXTENSION, WITH SUPPORT FROM THE NATURAL RESOURCES CONSERVATION SERVICE. SOILS ATTRIBUTE DATA IS SERVED FROM THE NRCS SOIL DATA MART. THREE (3) SOIL TYPES ARE RECORDED WITHIN THE PROJECT AREA:

- GLENELG SILT LOAM (GEB2) 3 TO 8 PERCENT SLOPES,
- GLENVILLE SILT LOAM (GnB2) 3 TO 8 PERCENT SLOPES, MODERATELY ERODED,
- URBAN LAND-UDORTHENTS SCHIST AND GNEISS COMPLEX (UzDb) 0 TO 8 PERCENT SLOPES.

GLENVILLE SILT LOAM IS DEFINED AS A HYDRIC SOIL (SHOWN HATCHED). A PORTION OF THE HYDRIC SOIL IS CURRENTLY UTILIZED AS A GRAVEL DRIVEWAY AREA. IN THE PROPOSED CONDITION, A PORTION OF THE HYDRIC SOIL WILL BE USED AS A PAVED PARKING AREA. A RETAINING WALL WILL ALSO BE CONSTRUCTED WITHIN THIS SOIL TYPE.

DLHowell
Civil Engineering
Land Planning
Environmental
www.DLHowell.com

1250 Wrights Lane
West Chester, PA 19380
Phone: (610) 918-9002
Fax: (610) 918-9003

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DAVID W. GIBBONS
ENGINEER
PE076444

REV.	DATE	DESCRIPTION
8		
7		
6		
5		
4		
3	08/04/23	REVISED PER TOWNSHIP REVIEW LETTERS
2	06/01/23	REVISED PER TOWNSHIP REVIEW LETTERS
1		

PRELIMINARY/FINAL
SITE ANALYSIS & IMPACT PLAN

CLIENT: QBD VENTURES
PROJECT: BYERS ROAD PROPERTY
LOCATION: 164 BYERS ROAD
UPPER UWHCLAN TOWNSHIP, CHESTER COUNTY, PA

DATE:	12/21/20
SCALE:	1"=20'
DRAWN BY:	AM
CHECKED BY:	DWG
PROJECT NO.:	2146
CAD FILE:	02 SITE ANALYSIS & IMPACT PLAN.dwg
PLOTTED:	08/04/23
DRAWING NO.:	C02.01
SHEET	02 OF 13

LEGEND

- EX. PROPERTY LINE
- PROP. PROPERTY LINE
- EX. RIGHT-OF-WAY
- PROP. RIGHT-OF-WAY
- EX. MONUMENT
- PROP. MONUMENT
- EX. IRON PIPE
- PROP. IRON PIPE
- EX. EASEMENT
- PROP. EASEMENT
- EX. WETLANDS
- 242 EXISTING CONTOUR
- 242 PROPOSED CONTOUR
- X 123.00 EXISTING SPOT ELEV.
- X 123.00 NEW SPOT ELEV.
- GEB2 SOILS TYPE
- SOILS LINE
- EX. CONC. CURB
- PROP. CONC. CURB
- EX. EDGE OF PAVING
- PROP. EDGE OF PAVING
- EX. LIGHT POLE
- PROP. LIGHT POLE
- EX. FENCE
- EX. MAIL BOX
- EX. SIGN
- PROP. SIGN
- EXIST. PARKING SPACES
- PROP. PARKING SPACES
- (TBR) TO BE REMOVED
- EX. TELE. LINE
- PROP. TELE. LINE
- EX. ELEC. LINE
- PROP. ELEC. LINE
- EX. UTILITY POLE
- PROP. UTILITY POLE
- EX. GUT ANCHOR
- EX. GAS LINE
- PROP. GAS LINE
- G.V.H. EX. GAS VALVE
- G.V. PROP. GAS VALVE
- EX. STORM SEWER LINE
- PROP. STORM SEWER LINE
- EX. STORM INLET
- PROP. STORM INLET
- IC 1 PROP. STORM INLET ID
- PROP. SEEPAGE BED
- EX. SANITARY SEWER LINE
- S PROP. SAN. SEWER LINE
- L PROP. SAN. SEWER LATERAL
- MH 1 PROP. SANITARY MH. ID
- EX. WATER LINE
- W PROP. WATER LINE
- WL PROP. WATER LATERAL
- FW PROP. FIRE WATER LINE
- W.V.H. EX. WATER VALVE
- W.V. PROP. WATER VALVE
- F.H. EX. HYDRANT
- F.H. PROP. HYDRANT
- EX. MANHOLE
- PROP. MANHOLE

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE–STOP CALL

Pennsylvania One Call System, Inc

1–800–242–1776

ONE CALL NOTE

NO SCALE

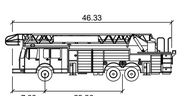
ACT 287 SERIAL NUMBER 20092592101

D. L. Howell & Associates, Inc. does not guarantee the accuracy of the locations for existing subsurface utility lines, structures, etc. shown on the plans, nor does D. L. Howell & Assoc., Inc. guarantee that all subsurface utility lines, structures, etc. are shown.

Contractor shall verify the location and elevations of all subsurface utility lines, structures, etc. before the start of work, by calling the Pennsylvania One Call System at 1–800–242–1776.

UTILITIES NOTIFIED

BUCKEYE PIPELINE COMPANY
COMCAST CABLE COMMUNICATIONS, INC.
PECO ENERGY
VERIZON PENNSYLVANIA, INC.
UPPER UWCHLAN TOWNSHIP
UPPER UWCHLAN MUNICIPAL AUTHORITY



Fire Truck (Ladder) feet

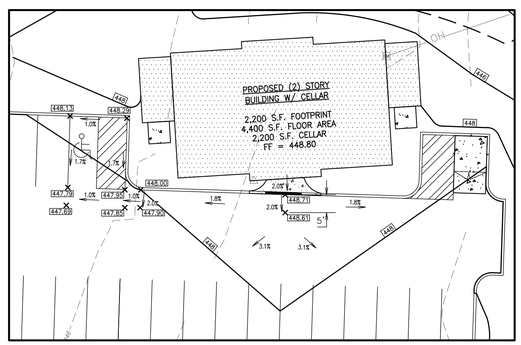
Width	: 9.69
Track	: 9.69
Lock to Lock Time	: 3.0
Steering Angle	36.2

GENERAL NOTES:

1. PRIOR TO STARTING CONSTRUCTION, ALL UTILITY SERVICES IN THE AREA SHALL BE LOCATED AND MEASURES TAKEN TO PROTECT THE EXISTING FACILITIES. ANY DAMAGE TO EXISTING FACILITIES SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT ALL PERSONS VEHICLES AND BUILDINGS WITHIN THE CONSTRUCTION AREAS FROM INJURY AND DAMAGE DURING THE COURSE OF WORK.
3. CONSTRUCTION SHALL BE LOCATED, AND MEASURES TAKEN TO PROTECT THE EXISTING FACILITIES IN ACCORDANCE WITH PENNSYLVANIA ACT 38. ANY DAMAGE TO EXISTING FACILITIES RESULTING FROM THE NEGLIGENCE OF THE CONTRACTOR SHALL BE IMMEDIATELY AND COMPLETELY REPAIRED AT THE CONTRACTOR'S EXPENSE.
4. LOCATION OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM FIELD SURVEY AND EXISTING RECORDS. COMPLETENESS AND ACCURACY OF EXISTING UTILITY INFORMATION IS NOT GUARANTEED. PRIOR TO THE START OF ANY CONSTRUCTION, THE CONTRACTOR SHALL ACCURATELY FIELD MEASURE LOCATION AND ELEVATION OF EXISTING UTILITIES AT POINTS OF CONNECTION AND POTENTIAL CONFLICT. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND ENGINEER OF ANY DEVIATION FROM INFORMATION SHOWN ON THESE PLANS.
5. ALL SITE IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE LOCAL, COUNTY, STATE AND FEDERAL STATUTES AND REGULATIONS.
6. ALL TRENCHING, SHORING AND EXCAVATING OPERATIONS SHALL BE PERFORMED IN COMPLIANCE WITH THE REQUIREMENTS OF THE U.S. DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
7. SCALED DIMENSIONS FROM THIS PLAN SHALL NOT BE USED FOR CONSTRUCTION WITHOUT CONFIRMATION FROM D.L. HOWELL & ASSOCIATES, INC..
8. IF ANY UNSUITABLE SOIL IS ENCOUNTERED DURING EXCAVATION, THE CONTRACTOR SHALL REMOVE IT AND REPLACE IT WITH COMPACTED STRUCTURAL MATERIAL.
9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE LOCAL AUTHORITY OR GOVERNING AGENCY OF THE BEGINNING DATE OF CONSTRUCTION AND TO ENSURE THAT NO WORK IS PERFORMED WITHOUT THE REQUIRED PERMITS AND INSPECTIONS BY THE LOCAL AUTHORITY OR GOVERNING AGENCY.
10. IF CONDITIONS IN THE FIELD DIFFER FROM THOSE SHOWN ON THE PLAN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED TRAFFIC CONTROL, SHEETING, SHORING AND BARRICADING OF OPEN EXCAVATIONS.
12. ALL MATERIALS AND METHODS OF CONSTRUCTION FOR STORMWATER FACILITIES AND SEEDING AND MULCHING SHALL CONFORM TO PENNDOT FORM 408 SPECIFICATIONS, 1994.
13. ALL INLETS, MANHOLES AND ASSEMBLIES SHALL BE PRECAST CONCRETE.
14. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR AND HAVE COMPLETE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, SAFETY PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK AND FOR COORDINATION OF ALL PORTIONS OF THE WORK UNDER CONTRACT.
15. CONTRACTOR SHALL REVIEW VARIOUS PHASES OF WORK WITH THE OWNER TO DETERMINE WHETHER ANY PHASE WILL CONFLICT WITH THE OWNERS DAILY OPERATIONS. WHERE CONFLICT IS APPARENT THE CONTRACTOR SHALL COORDINATE WITH THE OWNER THE WORK TO BE PERFORMED SO AS TO BE THE LEAST DISRUPTIVE.
16. ALL INLETS SHALL BE CONSTRUCTED FLUSH WITH THE BINDER COURSE.
17. ALL CURBING, CONCRETE OR PAVING TO BE REMOVED SHALL BE SAW CUT FIRST TO ENSURE A CLEAN SEPARATION FROM EXISTING MATERIAL.
18. ANY PAVING DAMAGED DURING CONSTRUCTION ACTIVITIES SHALL BE REMOVED TO SUBGRADE AND REPLACED WITH THE FULL PAVING SECTION.
19. WHERE ALL NEW BITUMINOUS PAVING MEETS EXISTING BITUMINOUS A HOT BITUMINOUS SEALANT SHALL BE POURED ALONG THE SAW CUT JOINT.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER REMOVAL, REPLACEMENT, AND MAINTENANCE OF ALL EXISTING LANDSCAPING DURING CONSTRUCTION. THIS INCLUDES PROPERLY STORING MATERIAL TO BE REUSED, PRUNING WHERE REQUIRED AND PROTECTING EXISTING ROOT STRUCTURES OF TREES WHERE CONSTRUCTION OCCURS WITHIN THE DRIP LINE.
21. IF GROUNDWATER OR BEDROCK IS ENCOUNTERED DURING THE INSTALLATION OF THE ON-LOT PIPE STORAGE FACILITY STOP WORK AND CONTACT THE TOWNSHIP AND DESIGN ENGINEER FOR AN ALTERNATE LOCATION OR NEW DESIGN.
22. IN ANY AREA SUBJECT TO VEHICULAR ACTIVITY DURING CONSTRUCTION, A 3 FOOT MINIMUM COVER SHALL BE MAINTAINED FOR ALL UNDERGROUND UTILITIES EXCEPT STORM SEWERS.

STORM SEWER NOTES:

1. ALL STORM SEWERS SHALL BE CONSTRUCTED PER PENNSYLVANIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS AS OUTLINED IN PUBLICATION 408 DESIGN MANUAL, PART 2, HIGHWAY DESIGN AND STANDARDS FOR ROADWAY CONSTRUCTION, RC-SERIES UNLESS OTHERWISE DICTATED BY TOWNSHIP ORDINANCE.
2. INLETS, MANHOLES, COVERS AND FRAMES SHALL CONFORM TO PENNSYLVANIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
3. DURING CONSTRUCTION ALL STORMWATER CONVEYANCE PIPING SHALL MAINTAIN A MINIMUM OF 12 INCHES OF COVER AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

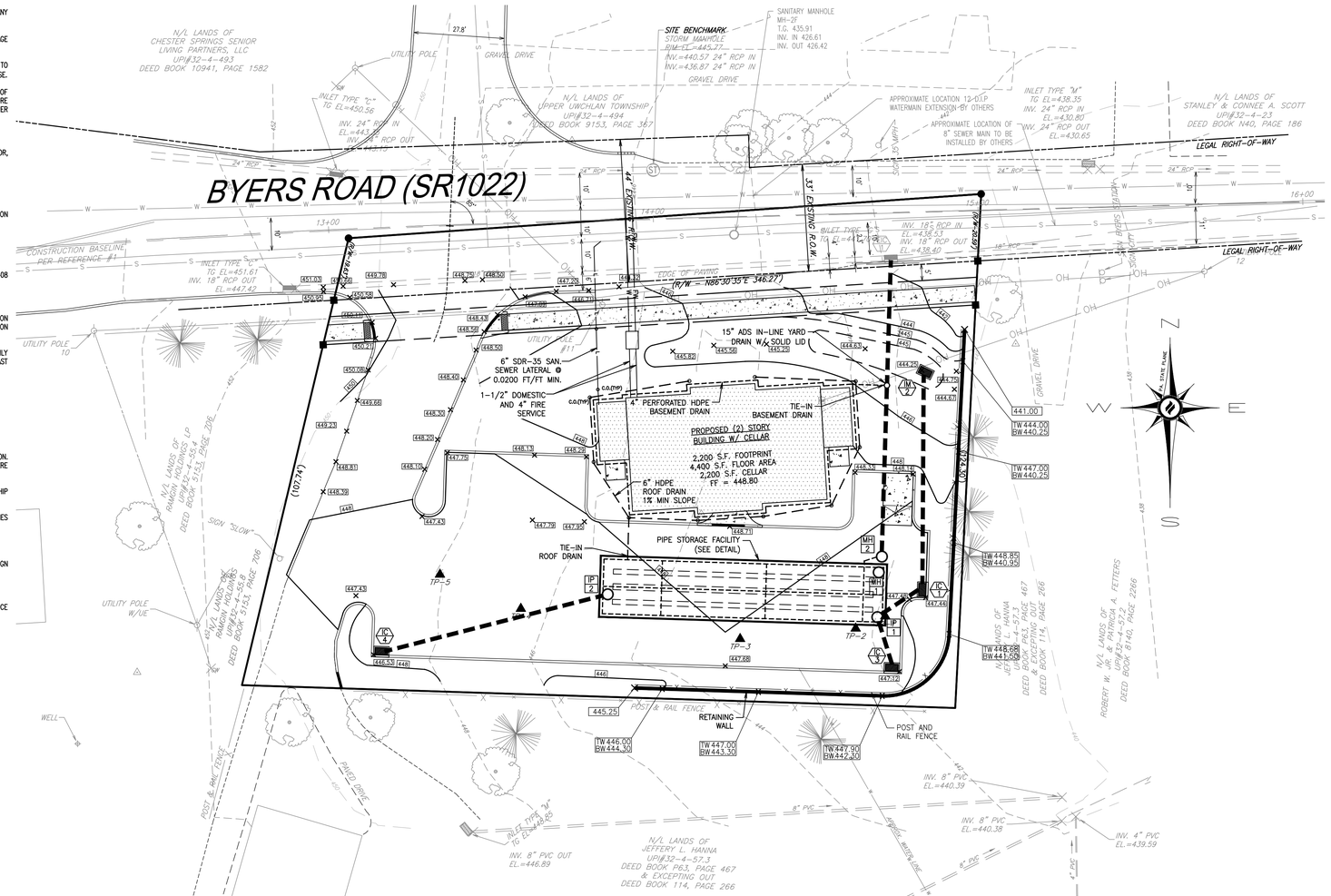


HANDICAPPED ACCESS DETAIL

SCALE: 1"=20'

20 0 10 20 40

GRAPHIC SCALE
1 inch = 20 feet



IMPROVEMENT CONSTRUCTION PLAN

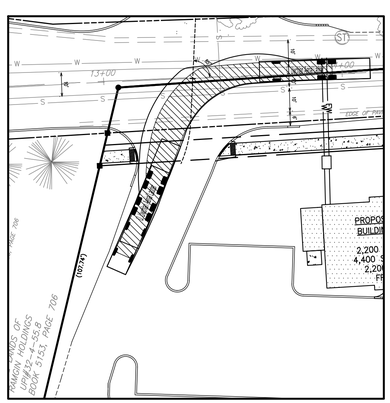
SCALE: 1"=20'

20 0 10 20 40

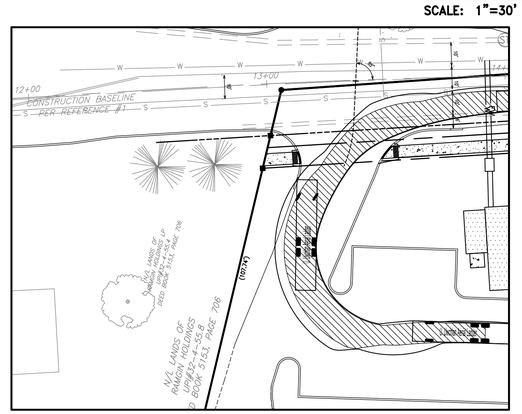
GRAPHIC SCALE
1 inch = 20 feet

TRUCK TURNING PLANS

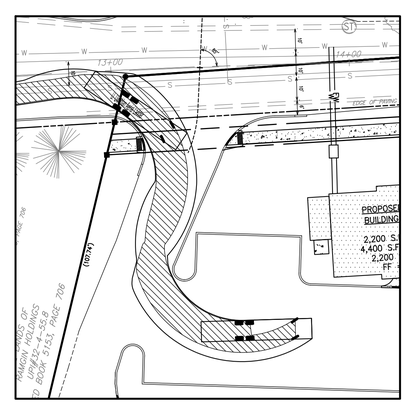
SCALE: 1"=30'



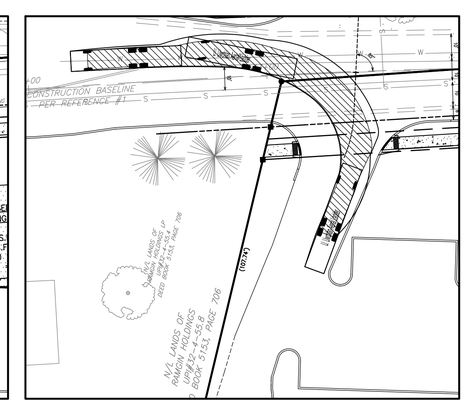
ENTERING SITE FROM EAST



ENTERING SITE FROM WEST



EXITING SITE HEADED EAST



EXITING SITE HEADED WEST

DLHowell
Civil Engineering
Land Planning
Environmental
www.DLHowell.com

1250 Wrights Lane
West Chester, PA 19380
Phone: (610) 918-9002
Fax: (610) 918-9003

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DAVID W. GIBBONS
ENGINEER
PE076444

REV.	DATE	DESCRIPTION
8		
7		
6		
5		
4		
3	08/04/23	REVISED PER TOWNSHIP REVIEW LETTERS
2	06/01/23	REVISED PER TOWNSHIP REVIEW LETTERS
1		

PRELIMINARY/FINAL
IMPROVEMENT CONSTRUCTION PLAN

CLIENT: QBD VENTURES
PROJECT: BYERS ROAD PROPERTY
LOCATION: 164 BYERS ROAD
UPPER UWHCLAN TOWNSHIP, CHESTER COUNTY, PA

DATE:	12/21/20
SCALE:	AS SHOWN
DRAWN BY:	AM
CHECKED BY:	DWG
PROJECT NO.:	2146
CAD FILE:	03 IMPROVEMENT CONSTRUCTION PLAN.dwg
PLOTTED:	08/04/23
DRAWING NO.:	C03.01
SHEET	03 OF 13

SIDEWALK ADA PLAN

SCALE: 1" = 2'

DLHowell

Civil Engineering
Land Planning
Environmental
www.DLHowell.com

1250 Wrights Lane
West Chester, PA 19380
Phone: (610) 918-9002
Fax: (610) 918-9003

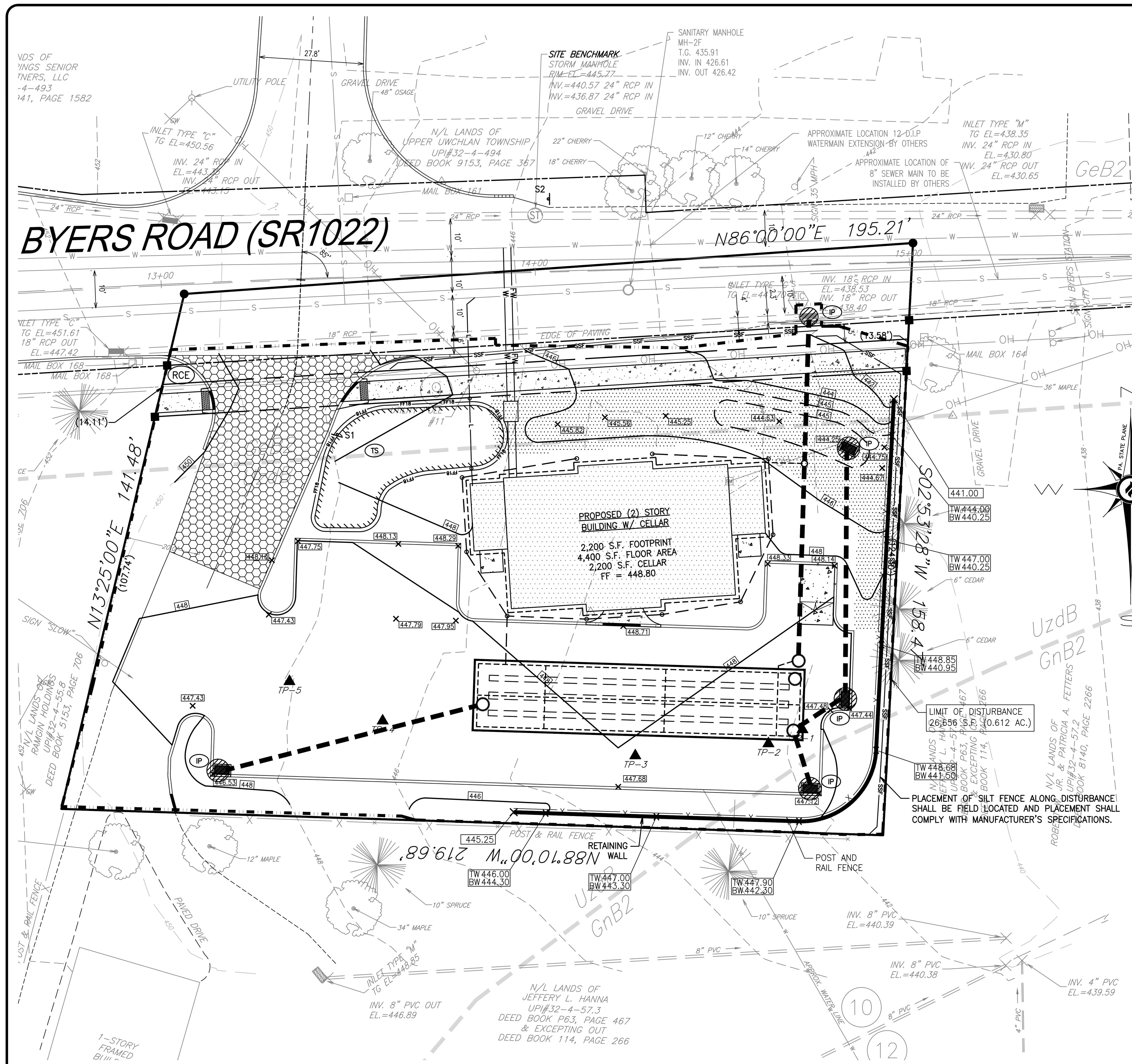
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DAVID W. GIBBONS
ENGINEER
PE076444

REV.	DATE	DESCRIPTION
8		
7		
6		
5		
4		
3	08/04/23	REVISED PER TOWNSHIP REVIEW LETTERS
2	08/01/23	REVISED PER TOWNSHIP REVIEW LETTERS
1	06/01/23	

PRELIMINARY/FINAL
SIDEWALK ADA PLAN

CLIENT: QBD VENTURES
PROJECT: BYERS ROAD PROPERTY
LOCATION: 164 BYERS ROAD
UPPER UWHCLAN TOWNSHIP, CHESTER COUNTY, PA

DATE:	12/21/20
SCALE:	1"=2'
DRAWN BY:	AM
CHECKED BY:	DWG
PROJECT NO.:	2146
CAD FILE:	03 IMPROVEMENT CONSTRUCTION PLAN.dwg
PLOTTED:	08/04/23
DRAWING NO.:	C03.02
SHEET	04 OF 13



CONSERVATION PLAN
SCALE: 1"=20'

20 0 10 20 40

GRAPHIC SCALE
1 inch = 20 feet

SEEDING, MULCHING AND SODDING
ALL SEEDING, MULCHING AND SODDING SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE CHESTER COUNTY CONSERVATION DISTRICT. ALL SLOPES STEEPER THAN 5H:1V SHALL BE STABILIZED WITH EITHER SOD OR PERMANENT SEEDING AND MULCH ANCHORED IN PLACE WITH JUTE NETTING. NO SLOPES SHALL BE STEEPER THAN 2H:1V.

TEMPORARY AND PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH THE PENN STATE AGRONOMY GUIDE OR AS RECOMMENDED BELOW. DURING NON-GERMINATING PERIODS APPLY MULCH AT THE RATES RECOMMENDED BELOW.

SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT/DOWN GRADIENT PROPERTIES AS A RESULT OF INCREASED SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND/OR OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.

TEMPORARY SEEDING SPECIFICATIONS
WHERE IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA IMMEDIATELY AFTER THE FINAL EARTH MOVING HAS BEEN COMPLETED, TEMPORARY SEEDING SHALL BE DONE IN ACCORDANCE TO THE CHESTER COUNTY CONSERVATION DISTRICT, THE E&S MANUAL AND/OR THE PENN STATE AGRONOMY GUIDE.

AREAS TO BE STABILIZED MUST BE SEEDED/PLANTED IN SUFFICIENT TIME TO GERMINATE, AT LEAST 4 TO 6 WEEKS OF GROWTH PRIOR TO HARD FROSTS. AFTER SEEDING IS COMPLETE, MULCH THE SEEDED AREAS WITH UNROTTED SMALL GRAIN STRAW AT A RATE OF 3 TONS PER ACRE.

SITE PREPARATION: APPLY 4 TONS AGRICULTURAL GRADE LIMESTONE (EQUIVALENT TO 190 LBS. PER 1000 S.F.) PER ACRE PLUS 10-20-10 FERTILIZER AT A RATE 930 LBS. (EQUIVALENT TO 25 LBS. PER 1000 S.F.) PER ACRE AND WORK IN WHERE POSSIBLE. SECURE A SOIL TEST BEFORE MAKING A PERMANENT SEEDING. AFTER SEEDING, MULCH WITH STRAW AT A RATE OF 3.0 TONS PER ACRE.

TEMPORARY SEED MIXTURE: APPLY ANNUAL RYE GRASS AT 40 PLS (LBS/ACRE) (EQUIVALENT TO 1 LBS. PER 1000 S.F.) MINIMUM GERMINATION PERCENTAGE – 85%

PERMANENT SEEDING SPECIFICATIONS
MATERIALS:

* LIMESTONE – RAW, GROUND AGRICULTURAL LIMESTONE CONTAINING MORE THAN 90% CARBONATES.
* COMMERCIAL FERTILIZER (10-20-10) – USE 500 LBS. TO THE ACRE MIXED INTO THE SEEDBED PRIOR TO SEEDING, OR MIXED IN WITH THE SEED IF HYDROSEEDING.
* MULCH – CLEAN OAT OR STRAW SHALL BE FREE FROM MATURE SEED-BEARING STALKS OR ROOTS OF PROHIBITED OR NOXIOUS WEEDS. APPLY AT A RATE OF 3.0 TONS PER ACRE. THE MULCH SHOULD BE STABILIZED UNTIL THE VEGETATIVE COVER IS ESTABLISHED. SPREAD MULCH UNIFORMLY IN A LOOSE LAYER 1/2" TO 1" DEEP. MULCH ANCHORING (MULCH NETTING, PEG AND TWINE, LIQUID MULCH BINDER) SHALL BE ACCOMPLISHED IMMEDIATELY AFTER MULCH PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER.
* SEED MIXTURE – SHALL BEAR A GUARANTEED STATEMENT OF ANALYSIS.

PERMANENT SEEDING SPECIFICATIONS

LAWN AND MOWED AREAS: (PLS = PURE LIVE SEED PERCENTAGE) MIN. GERMINATION %'S

A. KENTUCKY BLUEGRASS	30 PLS (LBS/ACRE)	12 OZ. PER 1,000 S.F.	75%
PERENNIAL RYEGRASS	20 PLS (LBS/ACRE)	8 OZ. PER 1,000 S.F.	85%
REDTOP	3 PLS (LBS/ACRE)	2 OZ. PER 1,000 S.F.	80%
B. PENNLAWN-FINE FESCUE	40 PLS (LBS/ACRE)	16 OZ. PER 1,000 S.F.	85%
PERENNIAL RYEGRASS	20 PLS (LBS/ACRE)	8 OZ. PER 1,000 S.F.	85%
REDTOP	3 PLS (LBS/ACRE)	2 OZ. PER 1,000 S.F.	80%

SLOPES OR UN-MOWED AREAS:

C. CROWNVETCH	25 PLS (LBS/ACRE)	10 OZ. PER 1,000 S.F.	65%
PERENNIAL RYEGRASS	25 PLS (LBS/ACRE)	10 OZ. PER 1,000 S.F.	85%

AREAS TO BE STABILIZED MUST BE SEEDED/PLANTED IN SUFFICIENT TIME TO GERMINATE, AT LEAST 4 TO 6 WEEKS OF GROWTH PRIOR TO HARD FROSTS. AFTER SEEDING IS COMPLETE, MULCH THE SEEDED AREAS WITH UNROTTED SMALL GRAIN STRAW AT A RATE OF 3 TONS PER ACRE.

PERMANENT SEEDING SHALL ONLY OCCUR DURING THE DATES LISTED ABOVE. IF AREAS ARE PREPARED FOR SEEDING AT OTHER TIMES, THEN THE PREPARED SEEDBED SHALL BE HEAVILY MULCHED WITH CLEAN UNROTTED SMALL GRAIN STRAW OR SALT HAY AT A RATE OF 3 TONS PER ACRES. THE MULCH SHALL REMAIN IN PLACE UNTIL SEEDING DATES ARE APPROPRIATE. THE MULCH SHALL BE REMOVED; THE AREA SHALL BE DRESSED, SEEDED AND REMULCHED AS DESCRIBED ABOVE.

MAINTENANCE
MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL DEVICES WILL CONSIST OF WEEKLY INSPECTIONS OF EACH DEVICE TO DETERMINE HOW WELL THE SLOPE STABILIZATION MEASURES USED ARE WORKING. ALL FACILITIES WILL BE INSPECTED AFTER EVERY STORM TO DETERMINE THEIR DURABILITY TO WITHSTAND DRIVING RAIN AND EROSION. ALL LOCAL REGULATIONS SHALL BE COMPLIED WITH. ALL DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION EQUIPMENT SHALL BE REPAIRED BEFORE THE END OF EACH WORKING DAY.

THE FOLLOWING MAINTENANCE PROCEDURES SHALL APPLY:

1. ANY SEEDED OR SODDED AREAS THAT HAVE BECOME STRIPPED OF VEGETATION SHALL BE REESTABLISHED WITH APPROPRIATE STABILIZATION MATERIALS. THIS PROCEDURE SHALL BE REPEATED AFTER EVERY SIZABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT.
2. AT MONTHLY INTERVALS, THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE PERFORMED.
3. ANY FILTER FABRIC FENCE, WHICH HAS BEEN UNDERMINED OR OVERTOPPED, MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.
4. INFLOW AND OUTFLOW POINTS INTO THE INFILTRATION SYSTEM SHOULD KEEP CLEAR OF LEAVES AND OTHER DEBRIS. ANY LEAVES OR DEBRIS WILL NEGATIVELY IMPACT THE PERFORMANCE OF THESE SYSTEMS. ALL DOWNSPOUTS AND OVERFLOW PIPES SHOULD BE KEPT IN GOOD WORKING ORDER.

UTILITY LINE TRENCH EXCAVATION NOTES:
1. LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
2. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, PLUG CONSTRUCTION AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING, SITE RESTORATION, AND STABILIZATION OPERATIONS.
3. ALL SOIL EXCAVATED FROM THE TRENCH WILL BE PLACED ON THE UPHILL SIDE OF THE TRENCH.
4. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.
5. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY REMOVED BY PUMPING BEFORE PIPE PLACEMENT AND/OR BACKFILLING BEGINS. WATER REMOVED FROM THE TRENCH SHALL BE PUMPED THROUGH A FILTRATION DEVICE.
6. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND IMMEDIATELY STABILIZED.

EROSION AND SEDIMENTATION CONTROL NARRATIVE
THE PURPOSE OF THIS NARRATIVE AND THE EROSION CONTROL ASPECTS OF THE PLANS ARE TO PREVENT THE ACCELERATED EROSION OF EXPOSED SITE SOILS DURING CONSTRUCTION AND TO RETAIN ON SITE ALL SEDIMENT PRODUCED BY CONSTRUCTION ACTIVITIES. THIS WILL BE ACCOMPLISHED BY STRICT ADHERENCE TO THE FOLLOWING NOTES, SEQUENCE OF CONSTRUCTION, AND EROSION AND SEDIMENT CONTROL DETAILS SHOWN ON THE PLAN.

EROSION AND SEDIMENTATION CONTROL GENERAL NOTES
1. A COPY OF THESE EROSION AND SEDIMENTATION CONTROL PLANS MUST BE POSTED AT THE CONSTRUCTION SITE IN ACCORDANCE WITH STATE LAW.
2. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIAL 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.
3. SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR MUST TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHOULD BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.
4. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR OF STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE CONTRACTOR TO ELIMINATE SUCH PROBLEMS.
5. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISION OF APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL RESOURCES, SUB-PART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL,
6. LIMITS OF DISTURBANCE MUST BE CLEARLY MARKED IN THE FIELD PRIOR TO ANY DISTURBANCE. ANY CHANGE OR ENCROACHMENT ONTO THESE AREAS MUST BE APPROVED BY THE TOWNSHIP ENGINEER. ANY ADDITIONAL EARTH DISTURBANCE MAY REQUIRE ADDITIONAL PERMITTING AND SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH STORM 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.

   ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, REMULCHING, RESEEDING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMP'S OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.

   WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:
   A. THE LOCATION & SEVERITY OF THE BMP'S FAILURE & ANY POLLUTION EVENTS.
   B. ALL STEPS TAKEN TO REDUCE, ELIMINATE & PREVENT THE RECURRENCE OF THE NON-COMPLIANCE.
   C. THE TIME FRAME TO CORRECT THE NONCOMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.
8. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. ALL AREAS REQUIRING INTERIM OR FINAL STABILIZATION MUST BE ADDRESSED WITH IMMEDIATE STABILIZATION OF DISTURBANCE. AREAS UTILIZING VEGETATIVE STABILIZATION MUST BE SEEDED / PLANTED AND MULCHED IN SUFFICIENT TIME TO GERMINATE BY OCTOBER 15 OF EACH YEAR. SEEDING WILL BE ACCOMPLISHED THROUGH THE USE OF HYDROSEEDING TECHNIQUES OR CONVENTIONAL SEEDING AND MULCHING AT A RATE OF 3.0 TONS PER ACRE AS RECOMMENDED IN THE PENN STATE AGRONOMY GUIDE.
9. AFTER FINAL STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP'S MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY.
10. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 ABOVE GROUND HEIGHTS OF SILT FENCING.
11. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITH THIS PLAN.
12. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIAL 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 BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL WASTES AT SITE.
13. EROSION AND SEDIMENTATION CONTROL INSPECTIONS SHALL BE PERFORMED ON A WEEKLY BASIS AND AFTER EVERY RAIN EVENT.
14. ALL SLOPES STEEPER THAN 3:1 MUST UTILIZE EROSION CONTROL BLANKET (CURLEX BLANKET OR APPROVED EQUAL).
15. IF UNSUITABLE MATERIAL IS ENCOUNTERED DURING CONSTRUCTION, A GEOTECHNICAL ENGINEER SHOULD BE ONSITE FOR RESOLUTIONS TO THE UNSUITABLE SOIL.
16. TEMPORARY TOPSOIL STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET, AND SLOPES MUST BE 2:1 OR FLATTER.
17. 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 TOWNSHIP ENGINEER. 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.
18. 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.
19. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE CHESTER COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.
20. 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 RE-DISTURBED 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 RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
21. IF THE CONTRACTOR ENCOUNTERS HIGH WATER TABLE, SHALLOW BEDROCK, OR SOIL INSTABILITY DURING SITE CONSTRUCTION, THE DESIGN ENGINEER OR THE ON-SITE GEOTECHNICAL ENGINEER MUST BE CONTACTED IMMEDIATELY FOR CORRECTIVE MEASURES.
22. IF THE SITE CONSTRUCTION YIELDS A NET CUT RESULTING IN EXCESS SOIL BEING REMOVED FROM THE SITE THE SOIL MUST BE TRANSFERRED TO A SITE WITH A VALID NPDES PERMIT.

CONSTRUCTION SEQUENCE NOTES:
1. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE CONSTRUCTION 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.
2. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIAL 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 BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL WASTES AT THE SITE.

CONSTRUCTION SEQUENCE
1. 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.
2. A PRE-CONSTRUCTION MEETING SHALL BE HELD AT THE SITE AT LEAST SEVEN (7) DAYS PRIOR TO THE BEGINNING OF ANY WORK. PRESENT AT THE MEETING SHALL BE THE TOWNSHIP ENGINEER, THE DESIGN ENGINEER, THE SITE CONTRACTOR AND THE DEVELOPER.
3. STAKE THE LIMIT OF DISTURBANCE PRIOR TO ANY CLEARING OR EARTH MOVING ACTIVITIES BEGIN.
4. INSTALL SILT FENCE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE TOWNSHIP ENGINEER.
5. INSTALL ROCK CONSTRUCTION ENTRANCE AND ADD INLET PROTECTION OVER EXISTING STORM INLETS AS REQUIRED.
6. REMOVE EXISTING ASPHALT, EXISTING BUILDINGS, AND EXISTING UTILITY LINES OTHER THAN WATER LINE WHICH WILL BE REUSED, AND CLEAR DEBRIS. MATERIAL SHALL BE DISPOSED OF PROPERLY.
7. CLEAR AND GRUB AS NECESSARY.
8. REMOVE TOPSOIL. PLACE TOPSOIL IN AREAS INDICATED ON THE PLAN. SURROUND STOCKPILE WITH SILT FENCE AFTER COMPLETION AND SEED AND MULCH WITH TEMPORARY SEED MIX. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET AND SIDE SLOPES SHALL BE 2:1 OR FLATTER.
9. ROUGH GRADE SITE AND INSTALL RETAINING WALLS. BEGIN CONSTRUCTION OF RETAINING WALL AS FILL IS PLACED IN THE AREA OF THE PARKING LOT. THE RETAINING WALL MUST BE CONSTRUCTED IN "STEPS" AS FILL IS PLACED TO AVOID DISTURBANCE TO THE DOWNHILL SIDE OF THE WALL. THE WALL WILL NEAR COMPLETION AS THE LOWER END OF THE SITE IS BROUGHT UP TO ROUGH GRADE CONDITION.
10. CONSTRUCT PIPE STORAGE FACILITIES.
    A. EXCAVATE PIPE STORAGE FACILITY TO FINAL ELEVATION. STANDING WATER OR EXCESSIVE MOISTURE SHALL NOT BE PUMPED FROM EXCAVATION AREA. STONES OR ROCKS OVER 3/8-INCH DIAMETER SHALL NOT BE PERMITTED IN THE TOP 6-INCHES OF SOIL SUB-GRADE.
    B. EXCAVATED BED BASE CONTAINING UNDER-DRAIN SYSTEM SHALL BE LINED (ON ALL SIDES) WITH GEOTEXTILE FABRIC TO PREVENT SEDIMENT, SOIL, ETC. FROM ENTERING THE UNDER-DRAIN SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE TO PLACE BACKFILL MATERIAL WITHOUT DAMAGING FABRIC. IF DAMAGE OCCURS, IT SHALL BE REPLACED PRIOR TO BACKFILLING. IN THE EVENT THAT MULTIPLE SECTIONS OF FABRIC ARE REQUIRED TO LINE THE BASE AND WHEN THE ENTIRE BASE HAS BEEN WRAPPED WITH ONE FULL CONTINUOUS LAYER, THE GEOTEXTILE FABRIC MUST HAVE A FINISHED OVERLAP OF 1-FOOT.
    C. INSTALL PIPE AS SPECIFIED ON THE DESIGN DRAWINGS. INSTALL INLETS AS NECESSARY. IMMEDIATELY SEAL OFF INLETS WITH MARINE GRADE PLYWOOD AND A WATER TIGHT SEAL AS WELL AS INSTALL INLET PROTECTION TO PREVENT SEDIMENT LADEN WATER FROM ENTERING THE PIPE STORAGE FACILITY. SEDIMENT MUST BE REMOVED FROM STORM WATER INLET PROTECTION AFTER EACH RUNOFF EVENT. BACKFILL THE BED WITH CLEAN STRUCTURAL FILL TO SPECIFIED TOP OF BED ELEVATION. INSTALLATION OF THE FILL SHALL BE CHECKED BY THE DESIGN OR SITE ENGINEER PRIOR TO INSTALLATION INTO THE BMP TO ENSURE THAT IT IS CLEAN STRUCTURAL FILL.
    D. IF INSPECTION INDICATES THAT SOIL/SEDIMENT HAS ENTERED THE BED, APPROPRIATE MEASURES TO REMEDY THE CONTAMINATED BED SHOULD BE TAKEN, SUCH AS: CLEANING THE SOIL OR SEDIMENT FROM THE FABRIC, STONE, OR BED, AND OR REPLACEMENT OF THE STONE OR FABRIC.
11. INSTALL STORM SEWERS AND INLETS WITH INLET PROTECTION AS SHOWN ON THE PLAN.
12. BEGIN CONSTRUCTION OF BUILDING.
13. INSTALL UNDERGROUND UTILITIES TO THE PROPOSED BUILDINGS.
14. FINE GRADE THE PARKING AREAS AND INSTALL CONCRETE CURB AS SHOWN AND DETAILED ON THE PLAN.
15. BACKFILL CURB AND IMMEDIATELY STABILIZE WITH MULCH AND PERMANENT SEED MIX.
16. INSTALL BINDER COURSE THROUGHOUT THE PARKING AREAS.
17. INSTALL CONCRETE SIDEWALKS AND PADS.
18. SEED AND MULCH ALL DISTURBED AREAS WITH PERMANENT SEED MIX. LANDSCAPE PER THE LANDSCAPE PLAN. SEE LANDSCAPE RESTORATION CONSTRUCTION SEQUENCE FOR INFORMATION REGARDING SOIL AMENDMENTS.
19. UPON FINAL STABILIZATION & PRIOR TO REMOVAL OF EROSION & SEDIMENTATION CONTROL MEASURES, THE SITE SHALL BE INSPECTED BY UPPER UWCHLAN TOWNSHIP. AFTER A PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED OVER ALL DISTURBED AREAS (70% STABILIZATION), REMOVE THE EROSION AND SEDIMENTATION CONTROLS INCLUDING INLET PROTECTION. SEED AND MULCH THE DISTURBED AREAS WITH PERMANENT SEED MIX.
20. PAVE THE ENTIRE PARKING AREA WITH WEARING COURSE AND SEAL BETWEEN CONCRETE CURBING AND ASPHALT PAVING WITH HOT BITUMINOUS SEALANT.

* THE PENNSYLVANIA TITLE 25, CHAPTER 93 CLASSIFICATION FOR THE RECEIVING WATERS OF THE COMMONWEALTH
PICKERING CREEK: A TSF AND MF WATER COURSE. A WATER COURSE CLASSIFIED AS HIGH QUALITY WATERS

NOTE: THIS PROJECT IS IN A SPECIFICALLY PROTECTED HIGH QUALITY OR EXCEPTIONAL VALUE WATERSHED; EXTREME CARE SHOULD BE EXERCISED IN ALL DISTURBANCE ACTIVITIES TO PREVENT DEGRADATION TO THE WATERS OF THE COMMONWEALTH.

BECAUSE THIS PROJECT IS IN A SPECIFICALLY PROTECTED HIGH QUALITY OR EXCEPTIONAL VALUE WATERSHED, UPON COMPLETION OR TEMPORARY CESSATION OF EARTH DISTURBANCE ACTIVITIES, THE PROJECT SITE MUST BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION.

EROSION CONTROL LEGEND
- LIMIT OF DISTURBANCE
- FF18 — 18" SILT FENCE
- SSF — SUPER SILT FENCE
- TS — TOPSOIL STOCKPILE
- IP — INLET PROTECTION
- RCE — STABILIZED ROCK CONSTRUCTION ENTRANCE
- CURLEX BLANKET

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS IN DESIGN STAGE-STOP CALL

Pennsylvania One Call System, Inc

1-800-242-1776

ONE CALL NOTE
NO SCALE

ACT 287 SERIAL NUMBER 20092592101
D. L. Howell & Associates, Inc. does not guarantee the accuracy of the locations for existing subsurface utility lines, structures, etc. shown on the plans, nor does D. L. Howell & Assoc., Inc. guarantee that all subsurface utility lines, structures, etc. are shown.

Contractor shall verify the location and elevations of all subsurface utility lines, structures, etc. before the start of work, by calling the Pennsylvania One Call System at 1-800-242-1776.

UTILITIES NOTIFIED
BUCKEYE PIPELINE COMPANY
COMCAST CABLE COMMUNICATIONS, INC.
PECO ENERGY
VERIZON PENNSYLVANIA, INC.
UPPER UWCHLAN TOWNSHIP
UPPER UWCHLAN MUNICIPAL AUTHORITY

LEGEND
EX. PROPERTY LINE; PROP. PROPERTY LINE; EX. RIGHT-OF-WAY; PROP. RIGHT-OF-WAY; EX. MONUMENT; PROP. MONUMENT; EX. IRON PIPE; PROP. IRON PIPE; EX. EASEMENT; PROP. EASEMENT; EX. WETLANDS

242 EXISTING CONTOUR; 242 PROPOSED CONTOUR; X 123.00 EXISTING SPOT ELEV.; x 123.00 NEW SPOT ELEV.; GEB2 SOILS TYPE; SOILS LINE; EX. CONC. CURB; PROP. CONC. CURB; EX. EDGE OF PAVING; PROP. EDGE OF PAVING; EX. LIGHT POLE

PROP. LIGHT POLE; EX. FENCE; MB EX. MAIL BOX; EX. SIGN; PROP. SIGN; EXIST. PARKING SPACES; PROP. PARKING SPACES; (TBR) TO BE REMOVED; EX. TELE. LINE; PROP. TELE. LINE; EX. ELEC. LINE

PROP. ELEC. LINE; EX. UTILITY POLE; PROP. UTILITY POLE; EX. GUY ANCHOR; EX. GAS LINE; PROP. GAS LINE; G.V. EX. GAS VALVE; G.V. PROP. GAS VALVE; EX. STORM SEWER LINE; PROP. STORM SEWER LINE; EX. STORM INLET

PROP. STORM INLET; IC 1 PROP. STORM INLET ID; PROP. SEEPAGE BED; EX. SANITARY SEWER LINE; PROP. SAN. SEWER LINE; PROP. SAN. SEWER LATERAL; MH 1 PROP. SANITARY MH. ID; EX. WATER LINE

PROP. WATER LINE; PROP. WATER LATERAL; PROP. FIRE WATER LINE; W.V. EX. WATER VALVE; W.V. PROP. WATER VALVE; F.H. EX. HYDRANT; F.H. PROP. HYDRANT; EX. MANHOLE; PROP. MANHOLE

SYMBOL	SOIL NAME	DEPTH TO SEASONALLY HIGH WATER TABLE	DEPTH TO BEDROCK	SUITABILITY FOR WINTER GRADING	RESISTANCE TO FROST ACTION	SUITABILITY FOR ROAD GRADE	SUITABILITY FOR ROAD FILL	SUITABILITY AS SOURCE FOR TOPSOIL	SUITABILITY AS SOURCE OF SAND & GRAVEL	CHARACTERISTICS THAT AFFECT VERTICAL ALIGNMENT FOR HIGHWAYS: MATERIALS	CHARACTERISTICS THAT AFFECT VERTICAL ALIGNMENT FOR HIGHWAYS: DRAINAGE	CHARACTERISTICS THAT AFFECT: INFILTRATION OF WASTE FROM SEPTIC TANKS	CHARACTERISTICS THAT AFFECT: CONSTRUCTION & MAINTENANCE OF PIPELINES	CHARACTERISTICS THAT AFFECT SUITABILITY FOR: DIKES & LEVEES	FARM PONDS RESERVOIR AREA	FARM PONDS EMBANKMENT	AGRICULTURAL DRAINAGE	IRRIGATION	TERRACES & DIVERSIONS	WATERWAYS	BUILDING SITES	PRIME AGRICULTURAL SOIL
GeB2	GLENELG CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	5 FT.+	3 TO 5 FT.	GOOD	FAIR	FAIR TO GOOD	FAIR TO GOOD	GOOD	UNSUITABLE	----	----	----	----	RAPID PERMEABILITY	PERMEABLE SUBSTRATUM	PERMEABILITY	----	----	----	----	GROUP 5	YES
GnB2	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED	1-1 1/2 FT.	3 TO 6 FT.	FAIR	POOR	POOR TO FAIR	POOR	GOOD	UNSUITABLE	----	SEASONAL HIGH WATER TABLE	CLAYPAN	FLUCTUATING WATER TABLE	INSTABILITY	VARIABLE SUBSTRATUM	----	HIGH WATER TABLE; SEEPS	LOW WATER HOLDING CAPACITY	----	----	GROUP 10	YES
UzdB	URBAN LAND – UDORTHENTS, SCHIST AND GNEISS COMPLEX, 0 TO 8 PERCENT SLOPES	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

DLHowell
Civil Engineering
Land Planning
Environmental
www.DLHowell.com
1250 Wrights Lane
West Chester, PA 19380
Phone: (610) 918-9002
Fax: (610) 918-9003

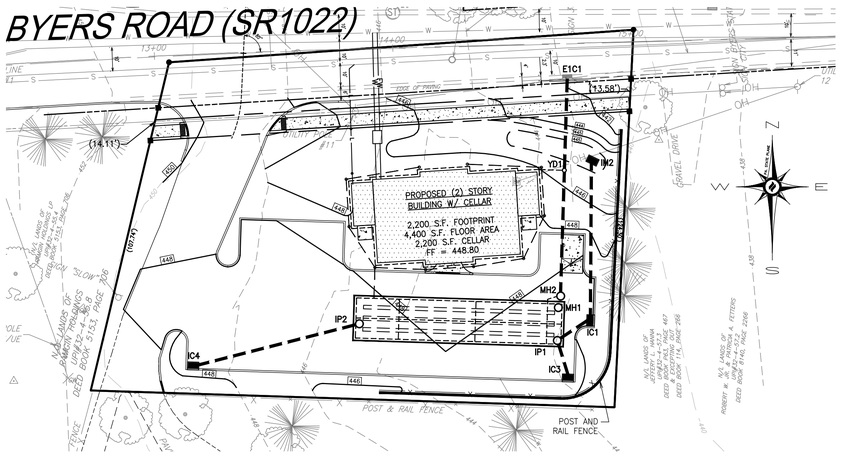
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DAVID W. GIBBONS
ENGINEER
PE076444

REV.	DATE	DESCRIPTION
1	06/01/23	REVISED PER TOWNSHIP REVIEW LETTERS
2	08/04/23	REVISED PER TOWNSHIP REVIEW LETTERS
3		
4		
5		
6		
7		
8		

PRELIMINARY/FINAL
CONSERVATION PLAN

CLIENT: QBD VENTURES
PROJECT: BYERS ROAD PROPERTY
LOCATION: 164 BYERS ROAD
UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PA

DATE: 12/21/20
SCALE: 1"=20'
DRAWN BY: AM
CHECKED BY: DWG
PROJECT NO.: 2146
CAD FILE: 04 CONSERVATION PLAN.dwg
PLOTTED: 08/04/23
DRAWING NO.: C04.01
SHEET 05 OF 13



PLAN VIEW

SCALE: 1"=30'

30 0 15 30 60

GRAPHIC SCALE
1 inch = 30 feet

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS IN DESIGN STAGE–STOP CALL

Pennsylvania One Call System, Inc

1–800–242–1776

ONE CALL NOTE
NO SCALE

ACT 287 SERIAL NUMBER 20092592101
D. L. Howell & Associates, Inc. does not guarantee the accuracy of the locations for existing subsurface utility lines, structures, etc. shown on the plans, nor does D. L. Howell & Assoc., Inc. guarantee that all subsurface utility lines, structures, etc. are shown.

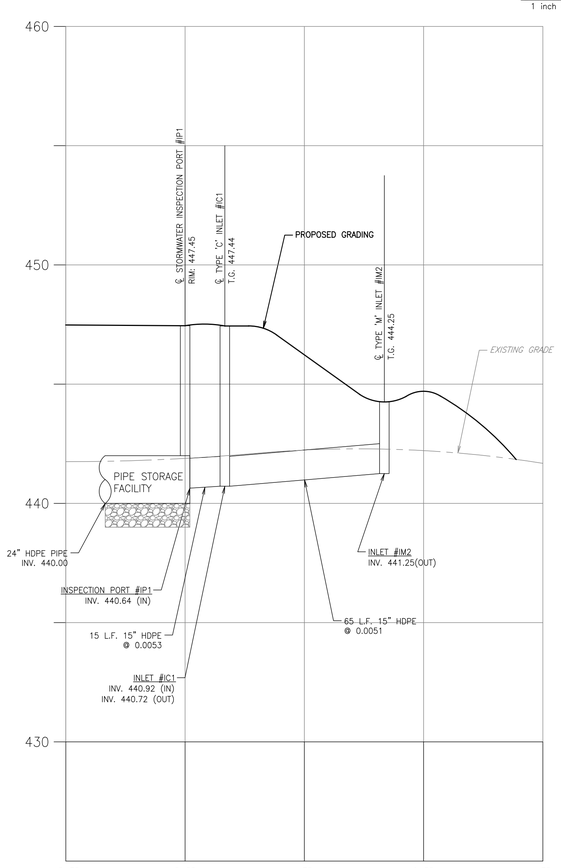
Contractor shall verify the location and elevations of all subsurface utility lines, structures, etc. before the start of work, by calling the Pennsylvania One Call System at 1–800–242–1776.

UTILITIES NOTIFIED

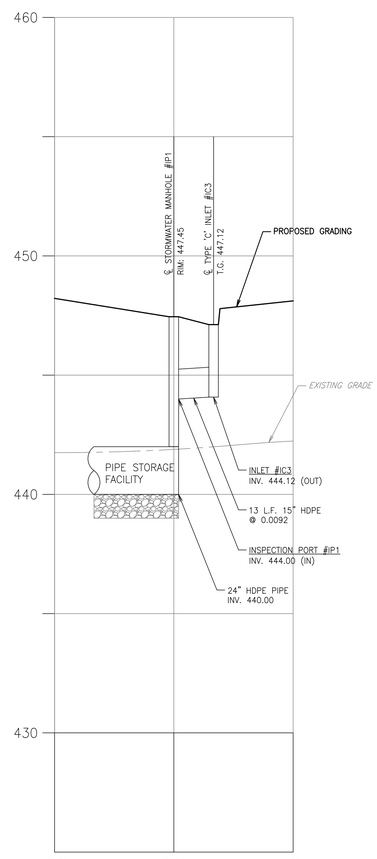
BUCKEYE PIPELINE COMPANY
COMCAST CABLE COMMUNICATIONS, INC.
PECO ENERGY
VERIZON PENNSYLVANIA, INC.
UPPER UWCHLAN TOWNSHIP
UPPER UWCHLAN MUNICIPAL AUTHORITY

LEGEND

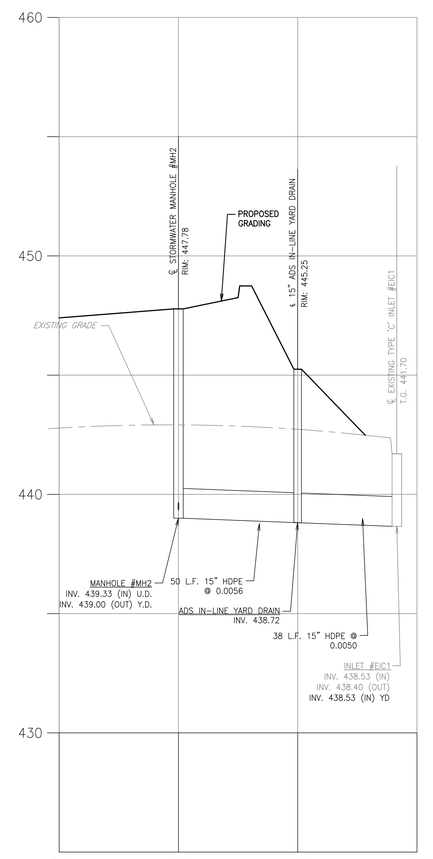
EX. PROPERTY LINE	242 EXISTING CONTOUR	PROP. LIGHT POLE	E PROP. ELEC. LINE	PROP. STORM INLET	W PROP. WATER LINE
PROP. PROPERTY LINE	242 PROPOSED CONTOUR	X EX. FENCE	EX. UTILITY POLE	IC 1 PROP. STORM INLET ID	WL PROP. WATER LATERAL
EX. RIGHT-OF-WAY	x 123.00 EXISTING SPOT ELEV.	MB EX. MAIL BOX	PROP. UTILITY POLE	FW PROP. FIRE WATER LINE	
PROP. RIGHT-OF-WAY	x 123.00 NEW SPOT ELEV.	EX. SIGN	EX. GUY ANCHOR	PROP. SEEPAGE BED	W.V. EX. WATER VALVE
EX. MONUMENT	GEB2 SOILS TYPE	PROP. SIGN	EX. GAS LINE		W.V. PROP. WATER VALVE
PROP. MONUMENT	SOILS LINE	4 EXIST. PARKING SPACES	G PROP. GAS LINE	S EX. SANITARY SEWER LINE	F.H. EX. HYDRANT
EX. IRON PIPE	EX. CONC. CURB	4 PROP. PARKING SPACES	G.V. EX. GAS VALVE	S PROP. SAN. SEWER LINE	F.H. PROP. HYDRANT
PROP. IRON PIPE	PROP. CONC. CURB	(TBR) TO BE REMOVED	G.V. PROP. GAS VALVE	L PROP. SAN. SEWER LATERAL	EX. MANHOLE
EX. EASEMENT	EX. EDGE OF PAVING	T EX. TELE. LINE	EX. STORM SEWER LINE	MH 1 PROP. SANITARY MH. ID	PROP. MANHOLE
PROP. EASEMENT	PROP. EDGE OF PAVING	T PROP. TELE. LINE	PROP. STORM SEWER LINE		15%–25% PRECAUTIONARY SLOPES
EX. WETLANDS	EX. LIGHT POLE	E EX. ELEC. LINE	EX. STORM INLET	W EX. WATER LINE	25%+ PROHIBITIVE STEEP SLOPES



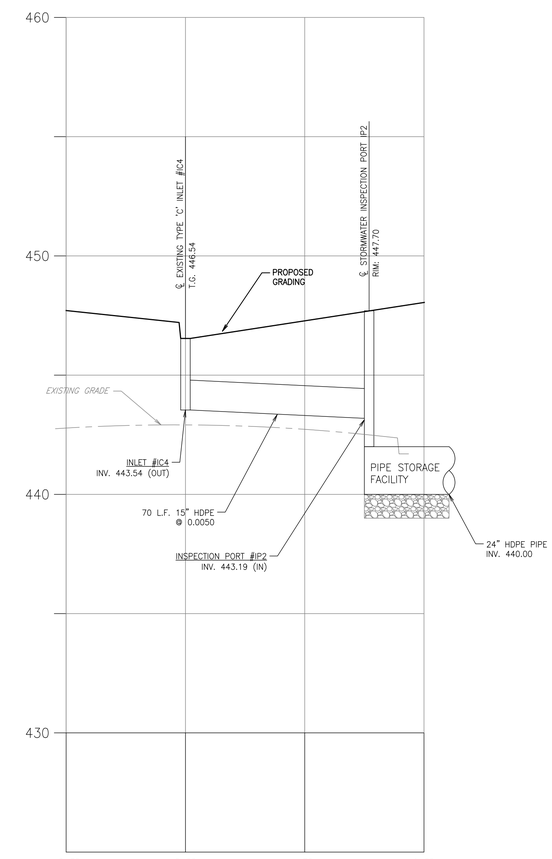
STORM SEWER PROFILE – IM2 TO MH1
HORIZ SCALE: 1"=30'
VERT SCALE: 1"=3"



STORM SEWER PROFILE – IC3 TO MH1
HORIZ SCALE: 1"=30'
VERT SCALE: 1"=3"



STORM SEWER PROFILE – MH4 TO EIC1
HORIZ SCALE: 1"=50'
VERT SCALE: 1"=5"



STORM SEWER PROFILE – IC4 TO MH2
HORIZ SCALE: 1"=30'
VERT SCALE: 1"=3"

DLHowell
Civil Engineering
Land Planning
Environmental
www.DLHowell.com

1250 Wrights Lane
West Chester, PA 19380
Phone: (610) 918-9002
Fax: (610) 918-9003

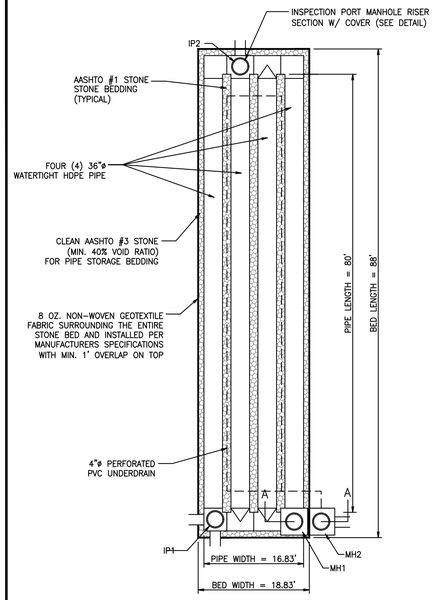
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DAVID W. GIBBONS
ENGINEER
PE076444

REV.	DATE	DESCRIPTION
8		
7		
6		
5		
4		
3	08/04/23	REVISED PER TOWNSHIP REVIEW LETTERS
2	06/01/23	REVISED PER TOWNSHIP REVIEW LETTERS
1		

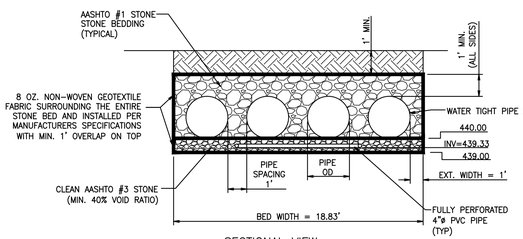
PRELIMINARY/FINAL
PROFILE SHEET

CLIENT: QBD VENTURES
PROJECT: BYERS ROAD PROPERTY
LOCATION: 164 BYERS ROAD
UPPER UWHCLAN TOWNSHIP, CHESTER COUNTY, PA

DATE:	12/21/20
SCALE:	AS SHOWN
DRAWN BY:	AM
CHECKED BY:	DWG
PROJECT NO.:	2146
CAD FILE:	05 PROFILE SHEET.dwg
PLOTTED:	08/04/23
DRAWING NO.:	C05.01
SHEET	06 OF 13



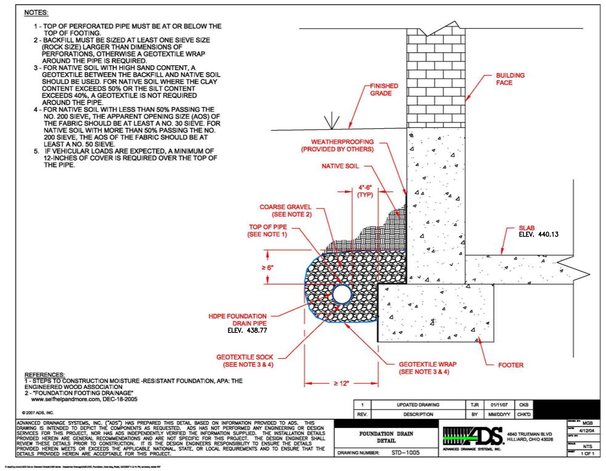
PLAN VIEW

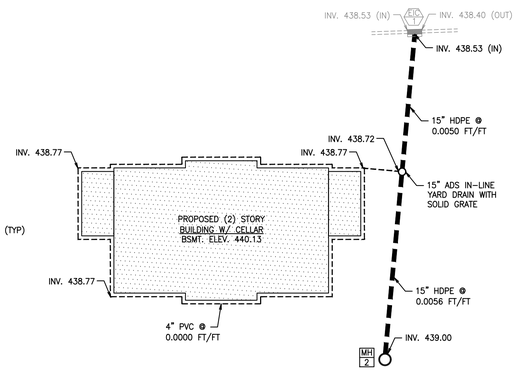


SECTIONAL VIEW

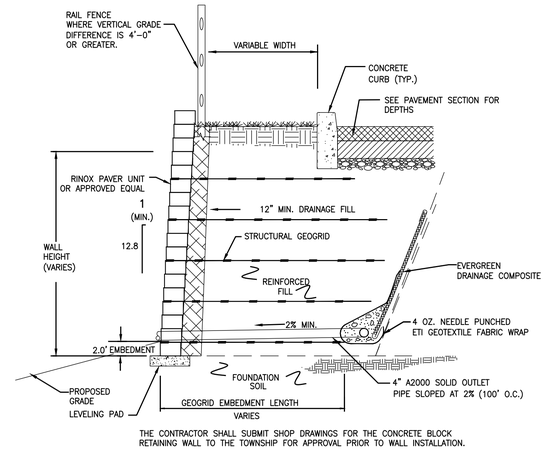
PROPOSED PIPE STORAGE DETAIL
SCALE: NOT TO SCALE

NOTES:
1. PIPE BEDDING MATERIAL SHALL BE PER MANUFACTURER'S SPECIFICATION.
2. HAUNCH MATERIAL SHALL BE PER MANUFACTURER'S SPECIFICATION.
3. GEOTEXTILE FABRIC SHALL CONFORM TO PENNDOT 408 SPECIFICATIONS – SECTION 212 GEOTEXTILES OR LATEST ADDENDA.





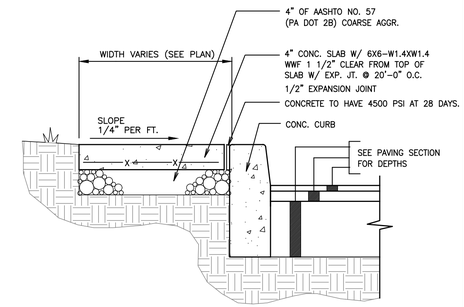
SCHEMATIC – BUILDING & FOUNDATION DRAIN
SCALE: NOT TO SCALE



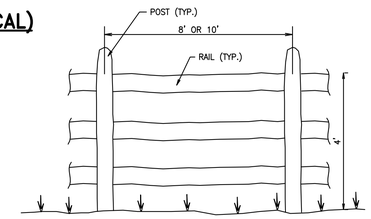
THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE CONCRETE BLOCK RETAINING WALL TO THE TOWNSHIP FOR APPROVAL PRIOR TO WALL INSTALLATION.

(ACTUAL WALL DESIGN BY OTHERS)

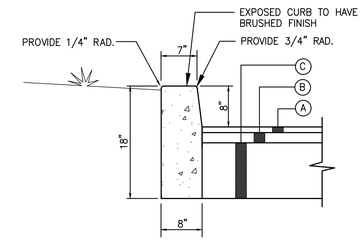
RETAINING WALL DETAIL (TYPICAL)
NO SCALE



TYPICAL SIDEWALK DETAIL
SCALE: NOT TO SCALE



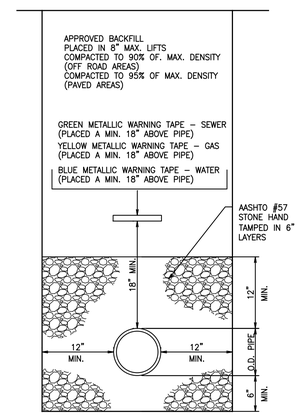
POST & RAIL FENCE
SCALE: NOT TO SCALE



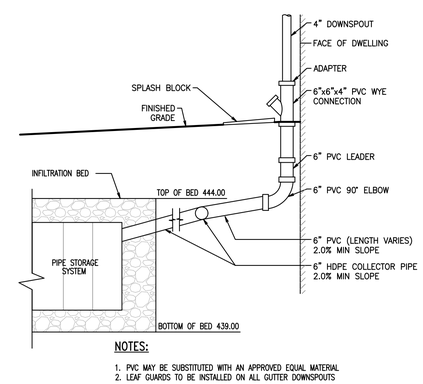
TYPICAL PAVING SECTION
A. 1-1/2" ID-2 WEARING COURSE
B. 2 1/2" ID-2 BINDER COURSE
C. 6" 3A MODIFIED STONE

NOTES:
1. ALL MATERIALS & WORK TO CONFORM TO PennDot FORM 408 SPECIFICATIONS. LATEST EDITION.
2. CONCRETE TO HAVE 3750 P.S.I. AT 28 DAYS.

8" CURBING & PAVING SECTION
SCALE: NOT TO SCALE

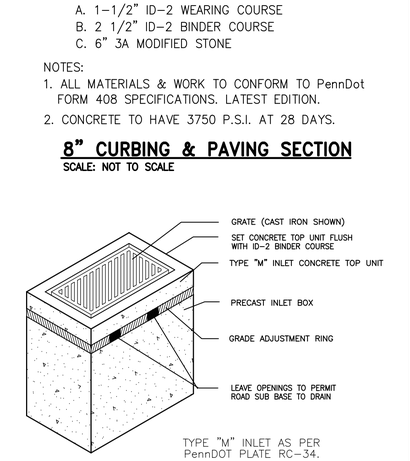


TYPICAL UTILITY TRENCH DETAIL
SCALE: NOT TO SCALE



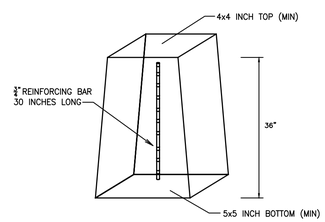
NOTES:
1. PVC MAY BE SUBSTITUTED WITH AN APPROVED EQUAL MATERIAL
2. LEAF GUARDS TO BE INSTALLED ON ALL GUTTER DOWNSPOUTS

DOWNSPOUT CONNECTION DETAIL
NO SCALE



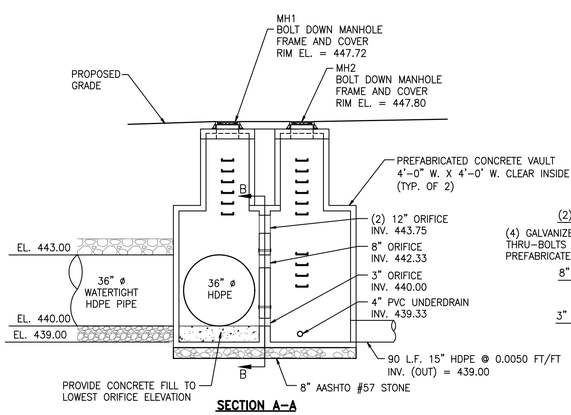
TYPE "M" INLET AS PER PennDOT PLATE RC-34.

TYPE 'M' INLET
SCALE: NOT TO SCALE

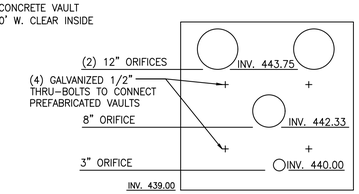


USE PA DOT CLASS A CONCRETE OR BETTER.

CONCRETE MONUMENT DETAIL
NOT TO SCALE

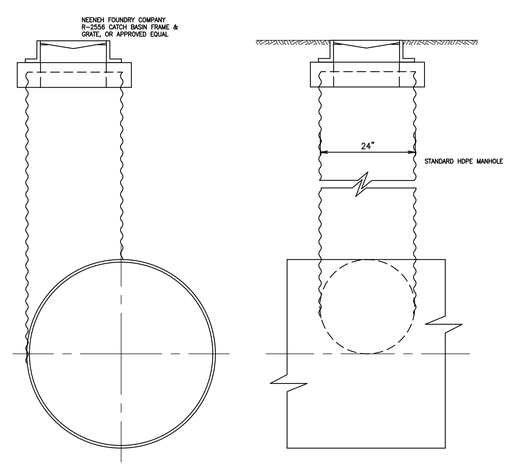


SECTION A–A



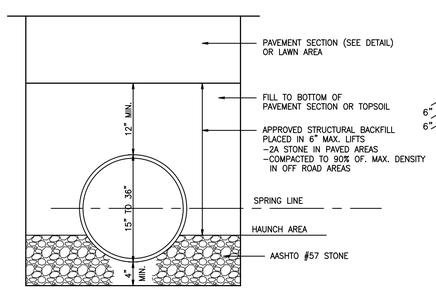
SECTION B–B

OUTLET STRUCTURE @ PIPE STORAGE DETAIL
SCALE: NOT TO SCALE

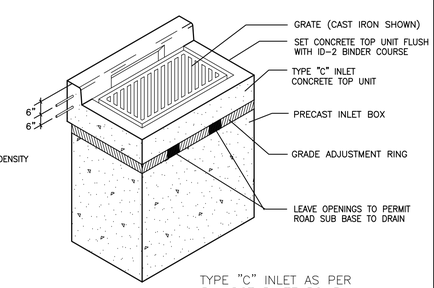


INSPECTION PORT FOR PIPE STORAGE STRUCTURES (TYP.)
SCALE: NOT TO SCALE

OPERATION AND MAINTENANCE:
1. INDIVIDUAL LATERAL LOCATIONS MAY BE REVISED IN THE FIELD TO SAVE INDIVIDUAL TREES.
2. ANY FILL TO OCCUR DOWNHILL OF THE SEEPAGE BEDS SHALL BE COMPACTED TO A 95% MAX. DENSITY
3. INFLOW AND OUTFLOW POINTS OF THE STORMWATER SYSTEM SHOULD BE KEPT CLEAR OF LEAVES AND OTHER DEBRIS. ANY LEAVES OR DEBRIS WILL NEGATIVELY IMPACT THE PERFORMANCE OF THESE SYSTEMS. ALL DOWNSPOUTS AND OVERFLOW PIPES SHOULD BE KEPT IN GOOD WORKING ORDER.



HDPE STORM PIPE TRENCH DETAIL
SCALE: NOT TO SCALE



TYPE "C" INLET AS PER PennDOT PLATE RC-34.

TYPE 'C' INLET
SCALE: NOT TO SCALE

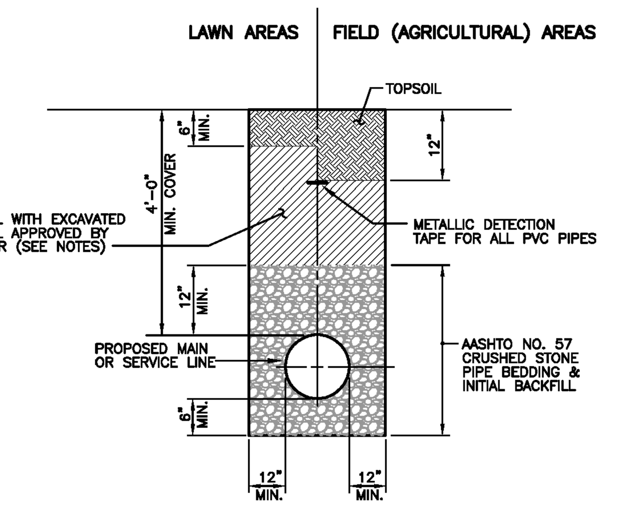
DLHowell
Civil Engineering
Land Planning
Environmental
www.DLHowell.com
1250 Wrights Lane
West Chester, PA 19380
Phone: (610) 918-9002
Fax: (610) 918-9003

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DAVID W. GIBBONS
ENGINEER
PE076444

REV.	DATE	DESCRIPTION
8		
7		
6		
5		
4		
3	08/04/23	REVISED PER TOWNSHIP REVIEW LETTERS
2	06/01/23	REVISED PER TOWNSHIP REVIEW LETTERS
1		

PRELIMINARY/FINAL
DETAIL SHEET
CLIENT: QBD VENTURES
PROJECT: BYERS ROAD PROPERTY
LOCATION: 164 BYERS ROAD UPPER UWHCLAN TOWNSHIP, CHESTER COUNTY, PA

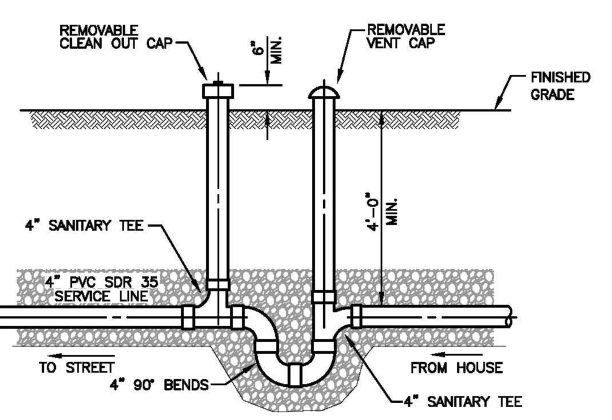
DATE:	12/21/20
SCALE:	AS SHOWN
DRAWN BY:	AM
CHECKED BY:	DWG
PROJECT NO.:	2146
CAD FILE:	06 DETAIL SHEET.dwg
PLOTTED:	08/04/23
DRAWING NO.:	C06.01
SHEET	07 OF 13



SECTION

NOTES:
1. BACKFILL TRENCHES WITH EXCAVATED MATERIAL CONTAINING NO STONES LARGER THAN FOUR (4) INCHES IN ANY DIMENSION.
2. A MAXIMUM OF 20% OF BACKFILL CAN CONSIST OF STONES (NOTED ABOVE) IF EVENLY DISTRIBUTED THROUGHOUT BACKFILL.
3. BACKFILL MATERIAL SHALL BE FREE OF ORGANIC MATERIAL, REFUSE, AND FROZEN MATERIAL SUBJECT TO LIMITATIONS SPECIFIED.
4. BACKFILL SHALL BE PLACED IN 4" LOOSE LIFTS WITH THE USE OF A MECHANICAL TAMPER AND 8" LOOSE LIFTS WITH THE USE OF A VIBRATORY TAMPER.

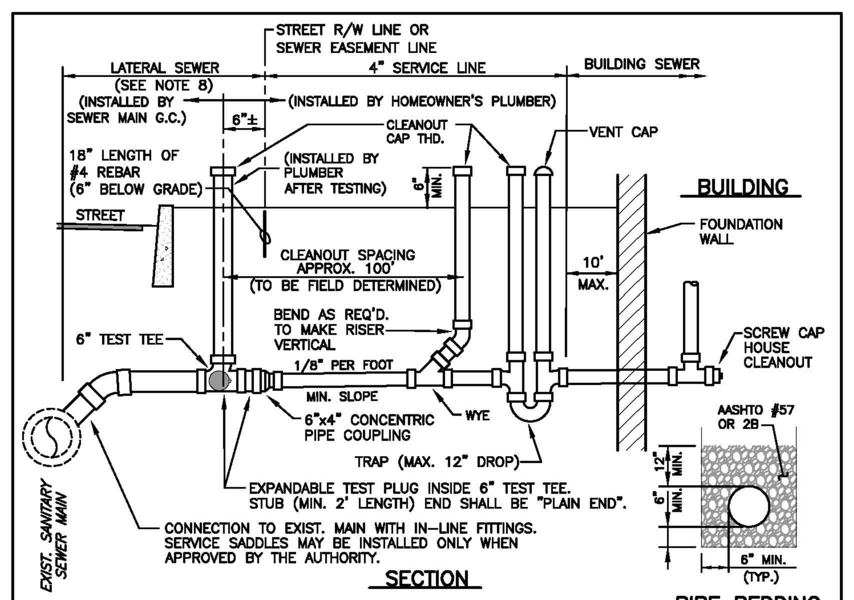
REVISION	DATE		
		Upper Uwchlan Township Municipal Authority	ARRO
4	4/21	STANDARD DETAIL - SEWER SYSTEM	Suite 200, 321 N. Furnace St. Birdsboro, PA 19508 Tel 610.374.5285 Fax 610.374.5287
3	1/13		
2	6/05	TRENCH RESTORATION LAWN/FIELD AREAS	DATE: APRIL 2021
1	11/04		DETAIL: 7000SD29



NOTES:
1. FOR CLEANOUTS LOCATED IN YARDS, CAPS TO REMAIN ABOVE GRADE AT ALL TIMES DURING & AFTER INSTALLATION.
2. CLEANOUTS LOCATED IN PAVED AREAS MUST BE PROVIDED WITH FRAME AND COVER SIMILAR TO CAPS SHOWN ON DETAIL 7000SD19.

SECTION

REVISION	DATE		
		Upper Uwchlan Township Municipal Authority	ARRO
4	4/21	STANDARD DETAIL - SEWER SYSTEM	Suite 200, 321 N. Furnace St. Birdsboro, PA 19508 Tel 610.374.5285 Fax 610.374.5287
3	1/13		
2	6/05	SERVICE LINE CLEANOUT & VENT	DATE: APRIL 2021
1	11/04		DETAIL: 7000SD18

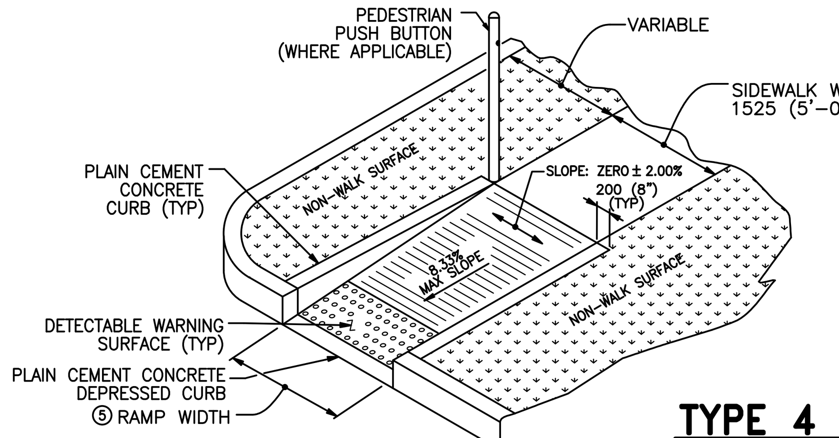


SECTION

PIPE BEDDING

NOTES:
1. PROVIDE 6" OF AASHTO NO. 57 STONE BELOW PIPE AND 12" ABOVE PIPE (TYPICAL ENTIRE LENGTH OF LATERAL AND SERVICE LINE)
2. MINIMUM SLOPE = 1/8" PER FT.
3. MINIMUM DEPTH OF COVER = 4 FT
4. PIPE MATERIALS:
LATERAL SEWER - PVC SDR 35 OR DIP CLASS 52 WHEN INSTALLED IN FILL MATERIAL
SERVICE LINE - PVC SDR 35 OR SCH. 40
5. TO CONDUCT AIR TESTING OF SERVICE LINE, INSTALL EXPANDABLE PLUGS AT LOCATIONS SHOWN.
6. NO SEWER SERVICE LINE VENT CAPS SHALL BE INSTALLED WITHIN A 100-YR FLOOD PLAIN OR WITHIN FLOOD PRONE AREAS.
7. NO VENT CAPS OR CLEANOUTS SHALL BE INSTALLED IN DRIVEWAYS OR OTHER PAVED AREAS, UNLESS SPECIFICALLY APPROVED BY UUTMA. VENTS AND CLEANOUTS LOCATED IN PAVED AREAS MUST BE PROVIDED WITH A FRAME AND COVER IN ACCORDANCE WITH VENT & CLEANOUTS IN PAVED AREAS DETAIL.
8. THE LATERAL SEWER SHALL BE INSTALLED TO THE EDGE OF THE SEWER EASEMENT FOR SEWERS LOCATED IN AN EASEMENT OR TO THE STREET RIGHT-OF-WAY AS A MINIMUM, OR TO SUCH POINT, AS REQUIRED, TO CLEAR STREET SIDEWALKS AND UNDERGROUND UTILITIES.
9. CLEANOUTS AND VENTS IN LAWN AREAS MUST BE 6" MINIMUM ABOVE GRADE.

REVISION	DATE		
		Upper Uwchlan Township Municipal Authority	ARRO
6	4/21	STANDARD DETAIL - SEWER SYSTEM	Suite 200, 321 N. Furnace St. Birdsboro, PA 19508 Tel 610.374.5285 Fax 610.374.5287
5	9/15		
4	10/14		
3	1/13		
2	6/05	LATERAL & SERVICE LINE	DATE: APRIL 2021
1	11/04		DETAIL: 7000SD17



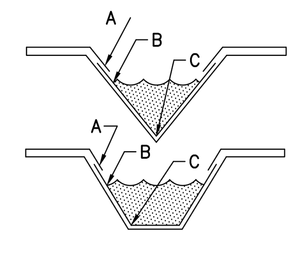
TYPE 4 CURB RAMP
NO SCALE

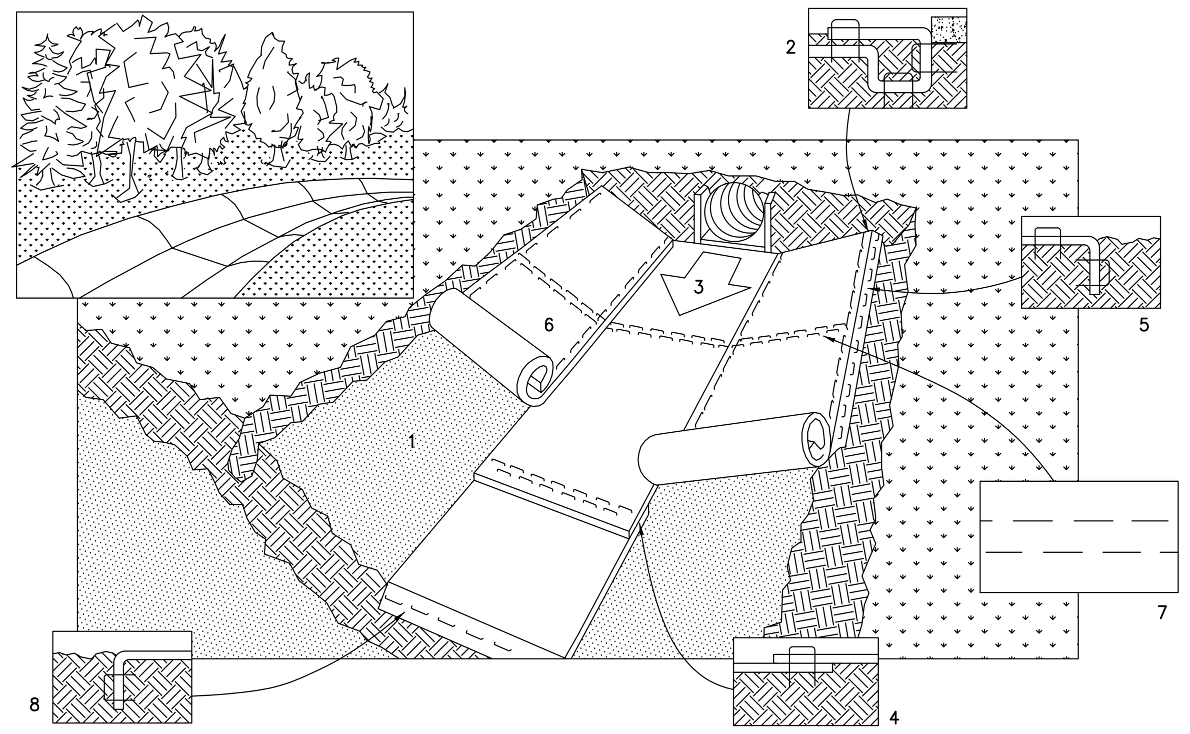
⑤ CURB RAMP WIDTH IS EQUAL TO SIDEWALK WIDTH WHEN THE SIDEWALK WIDTH IS GREATER THAN OR EQUAL TO1220 (4'-0").

⑱ CURB RAMPS REQUIRE A 1220 (4'-0") MINIMUM LANDING WITH A MAXIMUM SLOPE OF 2.00% IN ALL DIRECTIONS WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS.

NOTE: HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE. REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE RECOMMENDATIONS FOR CHANNELS.

CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES





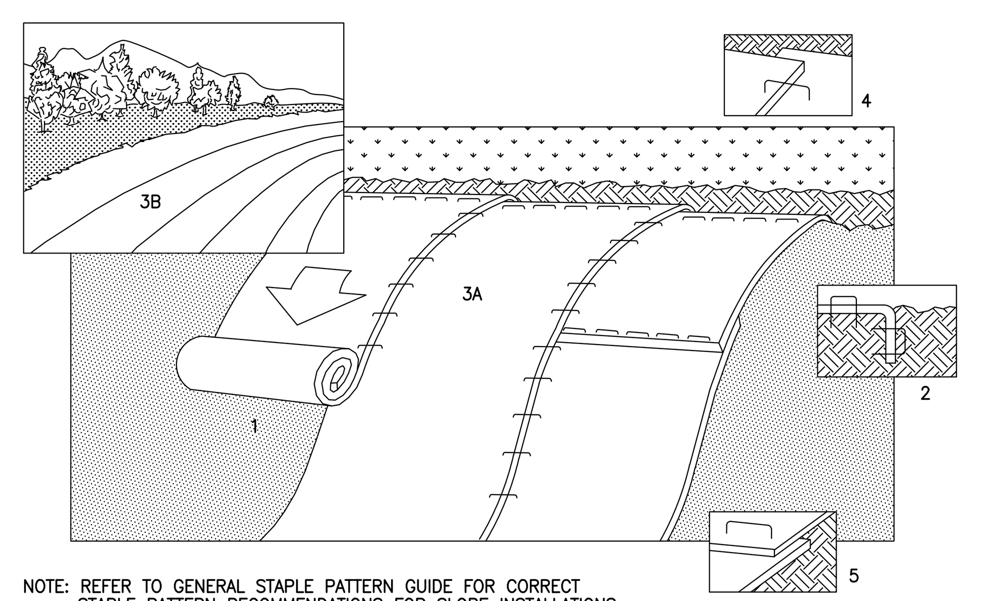
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW ON BOTTOM OF CHANNEL.
4. PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP. USE A DOUBLE ROW OF' STAGGERED STAPLES 4" APART TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. BLANKETS ON SIDE SLOPES MUST BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED (2" FOR C350 MATTING).
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER ENTIRE WIDTH OF THE CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED PATTERN.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

NOTE: 0.98 (MIN) CURLEX I BLANKET TO BE USED FOR CHANNEL APPLICATIONS

AMERICAN EXCELSLOR COMPANY
850 AVENUE H EAST
ARLINGTON, TEXAS
1-888-352-3582

OR APPROVED EQUAL

EROSION CONTROL BLANKET CHANNEL INSTALLATION
NOT TO SCALE



NOTE: REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

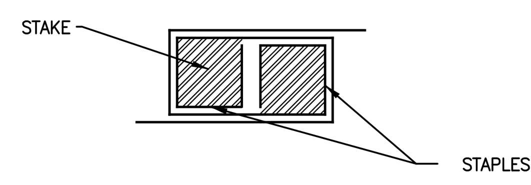
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

NOTE: 0.98 (MIN) CURLEX I BLANKET TO BE USED FOR SLOPE APPLICATIONS

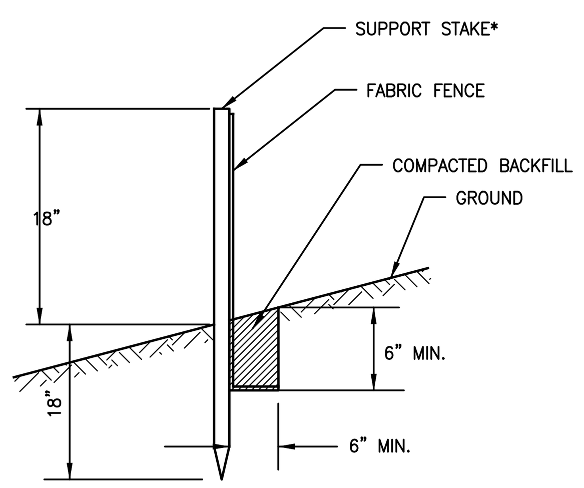
AMERICAN EXCELSLOR COMPANY
850 AVENUE H EAST
ARLINGTON, TEXAS
1-888-352-3582

OR APPROVED EQUAL

EROSION CONTROL BLANKET SLOPE INSTALLATION
NOT TO SCALE



JOINING FENCE SECTIONS



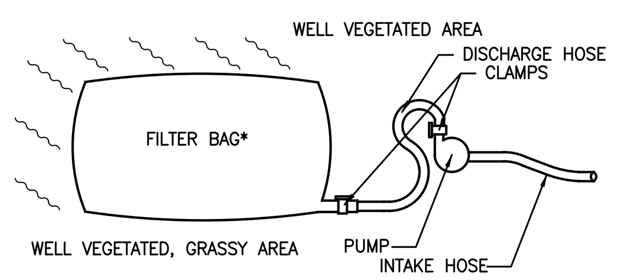
* STAKES SPACED @ 8' MAXIMUM. USE 2" X 2" WOOD OR EQUIVALENT STEEL STAKES.

FILTER FABRIC FENCE MUST BE PLACED AT LEVEL EXISTING GRADE. BOTH ENDS OF THE BARRIER MUST BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT.

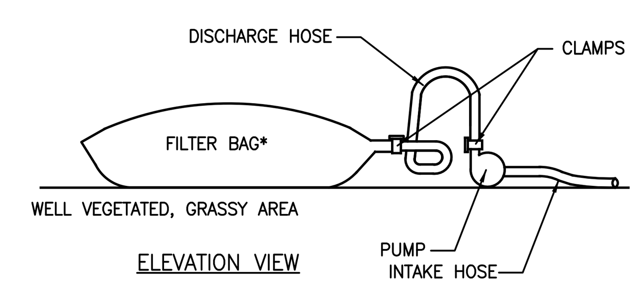
SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.

ANY SECTION OF FILTER FABRIC FENCE WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET. SEE STANDARD CONSTRUCTION DETAIL #18.

STANDARD CONSTRUCTION DETAIL #19
STANDARD FILTER FABRIC FENCE (18" HIGH)
NOT TO SCALE

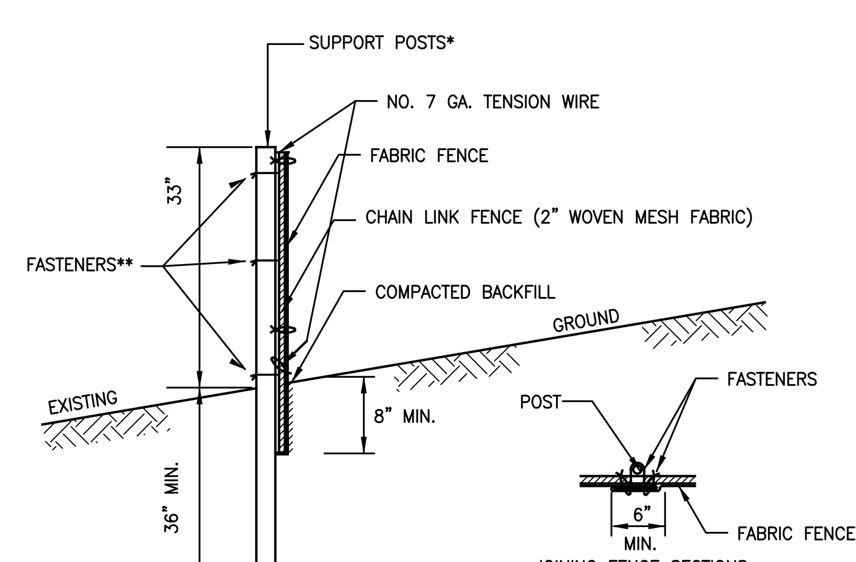


PLAN VIEW



ELEVATION VIEW

STANDARD CONSTRUCTION DETAIL #26
PUMPED WATER FILTER BAG
NOT TO SCALE



* POSTS SPACED @ 10' MAX. USE 2 1/2" DIA. GALVANIZED OR ALUMINUM POSTS.

** CHAIN LINK TO POST FASTENERS SPACED @ 14" MAX. USE NO. 6 GA. ALUMINUM WIRE OR NO. 9 GALVANIZED STEEL PRE-FORMED CLIPS. CHAIN LINK TO TENSION WIRE FASTENERS SPACED @ 60" MAX. USE NO. 10 GA. GALVANIZED STEEL WIRE. FABRIC TO CHAIN FASTENERS SPACED @ 24" MAX. C TO C.

NO. 7 GA. TENSION WIRE INSTALLED HORIZONTALLY AT TOP AND BOTTOM OF CHAIN-LINK FENCE.

FILTER FABRIC FENCE MUST BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER MUST BE EXTENDED AT LEAST 8 FEET UPSLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT.

SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE FENCE.

STANDARD CONSTRUCTION DETAIL #22
SUPER FILTER FABRIC FENCE
NOT TO SCALE

SEEDING, MULCHING AND SODDING

ALL SEEDING, MULCHING AND SODDING SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE CHESTER COUNTY CONSERVATION DISTRICT. ALL SLOPES STEEPER THAN 5H:1V SHALL BE STABILIZED WITH EITHER SOD OR PERMANENT SEEDING AND MULCH ANCHORED IN PLACE WITH JUTE NETTING. NO SLOPES SHALL BE STEEPER THAN 2H:1V.

TEMPORARY AND PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH THE PENN STATE AGRONOMY GUIDE OR AS RECOMMENDED BELOW. DURING NON-GERMINATING PERIODS APPLY MULCH AT THE RATES RECOMMENDED BELOW.

SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR SHALL TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT/DOWN GRADIENT PROPERTIES AS A RESULT OF INCREASED SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND/OR OTHER MULCHES SHALL BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.

TEMPORARY SEEDING SPECIFICATIONS

WHERE IT IS NOT POSSIBLE TO PERMANENTLY STABILIZE A DISTURBED AREA IMMEDIATELY AFTER THE FINAL EARTH MOVING HAS BEEN COMPLETED, TEMPORARY SEEDING SHALL BE DONE IN ACCORDANCE TO THE CHESTER COUNTY CONSERVATION DISTRICT, THE E&S MANUAL AND/OR THE PENN STATE AGRONOMY GUIDE.

AREAS TO BE STABILIZED MUST BE SEEDED/PLANTED IN SUFFICIENT TIME TO GERMINATE, AT LEAST 4 TO 6 WEEKS OF GROWTH PRIOR TO HARD FROSTS. AFTER SEEDING IS COMPLETE, MULCH THE SEEDED AREAS WITH UNROTTED SMALL GRAIN STRAW AT A RATE OF 3 TONS PER ACRE.

SITE PREPARATION: APPLY 4 TONS AGRICULTURAL GRADE LIMESTONE (EQUIVALENT TO 190 LBS. PER 1000 S.F.) PER ACRE PLUS 10-20-10 FERTILIZER AT A RATE 930 LBS. (EQUIVALENT TO 25 LBS. PER 1000 S.F.) PER ACRE AND WORK IN WHERE POSSIBLE. SECURE A SOIL TEST BEFORE MAKING A PERMANENT SEEDING. AFTER SEEDING, MULCH WITH STRAW AT A RATE OF 3.0 TONS PER ACRE.

TEMPORARY SEED MIXTURE: APPLY ANNUAL RYE GRASS AT 40 PLS (LBS/ACRE) (EQUIVALENT TO 1 LBS. PER 1000 S.F.) MINIMUM GERMINATION PERCENTAGE - 85%

PERMANENT SEEDING SPECIFICATIONS
MATERIALS:

* LIMESTONE - RAW, GROUND AGRICULTURAL LIMESTONE CONTAINING MORE THAN 90% CARBONATES.

* COMMERCIAL FERTILIZER (10-20-10) - USE 500 LBS. TO THE ACRE MIXED INTO THE SEEDBED PRIOR TO SEEDING, OR MIXED IN WITH THE SEED IF HYDROSEEDING.

* MULCH - CLEAN OAT OR STRAW SHALL BE FREE FROM MATURE SEED-BEARING STALKS OR ROOTS OF PROHIBITED OR NOXIOUS WEEDS. APPLY AT A RATE OF 3.0 TONS PER ACRE. THE MULCH SHOULD BE STABILIZED UNTIL THE VEGETATIVE COVER IS ESTABLISHED. SPREAD MULCH UNIFORMLY IN A LOOSE LAYER 1/2" TO 1" DEEP. MULCH ANCHORING (MULCH NETTING, PEG AND TWINE, LIQUID MULCH BINDER) SHALL BE ACCOMPLISHED IMMEDIATELY AFTER MULCH PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER.

* SEED MIXTURE - SHALL BEAR A GUARANTEED STATEMENT OF ANALYSIS.

PERMANENT SEEDING SPECIFICATIONS

LAWN AND MOWED AREAS: (PLS = PURE LIVE SEED PERCENTAGE)			MIN. GERMINATION %'S
A. KENTUCKY BLUEGRASS	30 PLS (LBS/ACRE)	12 OZ. PER 1,000 S.F.	75%
PERENNIAL RYEGRASS	20 PLS (LBS/ACRE)	8 OZ. PER 1,000 S.F.	85%
REDTOP	3 PLS (LBS/ACRE)	2 OZ. PER 1,000 S.F.	80%
B. PENNLAWN-FINE FESCUE	40 PLS (LBS/ACRE)	16 OZ. PER 1,000 S.F.	85%
PERENNIAL RYEGRASS	20 PLS (LBS/ACRE)	8 OZ. PER 1,000 S.F.	85%
REDTOP	3 PLS (LBS/ACRE)	2 OZ. PER 1,000 S.F.	80%
SLOPES OR UN-MOWED AREAS:			
C. CROWNVETCH	25 PLS (LBS/ACRE)	10 OZ. PER 1,000 S.F.	65%
PERENNIAL RYEGRASS	25 PLS (LBS/ACRE)	10 OZ. PER 1,000 S.F.	85%

AREAS TO BE STABILIZED MUST BE SEEDED/PLANTED IN SUFFICIENT TIME TO GERMINATE, AT LEAST 4 TO 6 WEEKS OF GROWTH PRIOR TO HARD FROSTS. AFTER SEEDING IS COMPLETE, MULCH THE SEEDED AREAS WITH UNROTTED SMALL GRAIN STRAW AT A RATE OF 3 TONS PER ACRE.

PERMANENT SEEDING SHALL ONLY OCCUR DURING THE DATES LISTED ABOVE. IF AREAS ARE PREPARED FOR SEEDING AT OTHER TIMES, THEN THE PREPARED SEEDBED SHALL BE HEAVILY MULCHED WITH CLEAN UNROTTED SMALL GRAIN STRAW OR SALT HAY AT A RATE OF 3 TONS PER ACRES. THE MULCH SHALL REMAIN IN PLACE UNTIL SEEDING DATES ARE APPROPRIATE. THE MULCH SHALL BE REMOVED; THE AREA SHALL BE DRESSED, SEEDED AND REMULCHED AS DESCRIBED ABOVE.

MAINTENANCE

MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL DEVICES WILL CONSIST OF WEEKLY INSPECTIONS OF EACH DEVICE TO DETERMINE HOW WELL THE SLOPE STABILIZATION MEASURES USED ARE WORKING. ALL FACILITIES WILL BE INSPECTED AFTER EVERY STORM TO DETERMINE THEIR DURABILITY TO WITHSTAND DRIVING RAIN AND EROSION. ALL LOCAL REGULATIONS SHALL BE COMPLIED WITH. ALL DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION EQUIPMENT SHALL BE REPAIRED BEFORE THE END OF EACH WORKING DAY.

THE FOLLOWING MAINTENANCE PROCEDURES SHALL APPLY:

1. ANY SEEDED OR SODDED AREAS THAT HAVE BECOME STRIPPED OF VEGETATION SHALL BE REESTABLISHED WITH APPROPRIATE STABILIZATION MATERIALS. THIS PROCEDURE SHALL BE REPEATED AFTER EVERY SIZABLE STORM UNTIL NO MORE SIGNS OF EROSION ARE EVIDENT.
2. AT MONTHLY INTERVALS, THEREAFTER, INSPECTIONS AND NECESSARY CLEANING WILL BE PERFORMED.
3. ANY FILTER FABRIC FENCE, WHICH HAS BEEN UNDERMINED OR OVERTOPPED, MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET.
4. INFLOW AND OUTFLOW POINTS INTO THE INFILTRATION SYSTEM SHOULD KEEP CLEAR OF LEAVES AND OTHER DEBRIS. ANY LEAVES OR DEBRIS WILL NEGATIVELY IMPACT THE PERFORMANCE OF THESE SYSTEMS. ALL DOWNSPOUTS AND OVERFLOW PIPES SHOULD BE KEPT IN GOOD WORKING ORDER.

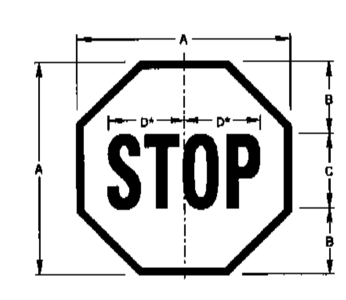
R1-1

STOP SIGN

(a) Justification. The Stop Sign (R1-1) is authorized for use on those streets or highways which intersect with a through highway or at a stop intersection so designated by the Department with reference to State-designated highways or local authorities with reference to highways under their jurisdiction. The R1-1 sign is also authorized for use in work zones involving one-lane, two-way roadways. At intersections where all approaches are controlled by an R1-1 sign, a supplemental ALL-WAY plaque (R1-3P) shall be mounted below each R1-1 sign.

(b) Authorization. Before local authorities designate any highway as a through highway or stop intersection which will intersect or affect a State-designated highway, approval of such designation shall first be obtained from the Department. Approval to install R1-1 signs in work areas shall not require the approval of the Department or local authorities when the conditions stipulated in the Department's Temporary Traffic Control Guidelines are satisfied.

(c) Size. The standard size R1-1 sign shall be 30" x 30" for single lane conventional highways and 36" x 36" for multi-lane conventional highways. The 24" x 24" size shall only be used for alleys with restrictive physical conditions and vehicle usage that prohibits the installation of the standard size R1-1. A sign that is mounted back-to-back with a R1-1 sign should stay within the edges of the R1-1 sign. If necessary, the size of the R1-1 sign should be increased so that any other sign installed back-to-back with it remains within the edges of the R1-1 sign.



DIMENSIONS - IN					
SIGN SIZE A x A	B	C	D	BOR-DER	BLANK STD.
18" x 18"	6	6C	8	0.4	—
24" x 24"	8	8C	10	0.6	B1-24
30" x 30"	10	10C	12.6	0.8	B1-30
36" x 36"	12	12C	15	0.8	B1-36
48" x 48"	16	16C	20	1.2	B1-48

* REDUCE SPACING 40%

COLOR:
LEGEND AND BORDER: WHITE (REFLECTORIZED)
BACKGROUND: RED (REFLECTORIZED)

APPROVED FOR THE SECRETARY OF TRANSPORTATION
By: [signature] Date: 02-29-12
Chief, Traffic Engineering and Permits Section
Bureau of Maintenance and Operations

R1_1.DWG

(S-1) STOP SIGN DETAIL
SCALE: NOT TO SCALE

NOTE:
PROPOSED STOP SIGN SHALL BE 30" X 30" IN SIZE. REFER TO ABOVE DETAIL FOR FURTHER INFORMATION.

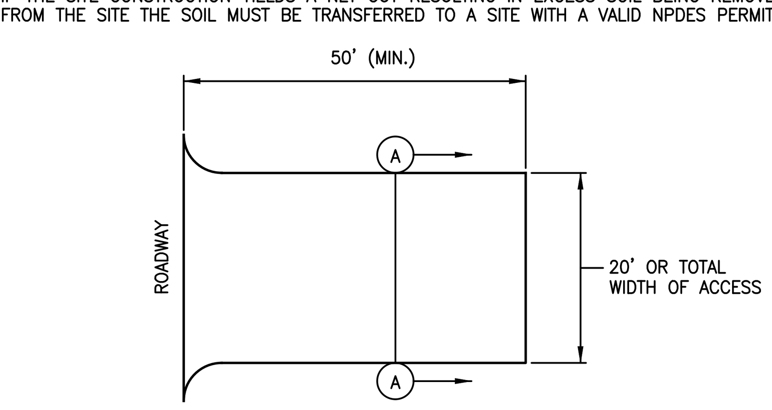
EROSION AND SEDIMENTATION CONTROL GENERAL NOTES

1. A COPY OF THESE EROSION AND SEDIMENTATION CONTROL PLANS MUST BE POSTED AT THE CONSTRUCTION SITE IN ACCORDANCE WITH STATE LAW.
2. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIAL 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.
3. SHOULD UNFORESEEN EROSIVE CONDITIONS DEVELOP DURING CONSTRUCTION, THE CONTRACTOR MUST TAKE ACTION TO REMEDY SUCH CONDITIONS AND TO PREVENT DAMAGE TO ADJACENT PROPERTIES AS A RESULT OF INCREASED RUNOFF AND OR SEDIMENT DISPLACEMENT. STOCKPILES OF WOOD CHIPS, HAY BALES, CRUSHED STONE AND OTHER MULCHES SHOULD BE HELD IN READINESS TO DEAL IMMEDIATELY WITH EMERGENCY PROBLEMS OF EROSION.
4. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE OR OF STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMMEDIATELY IMPLEMENTED BY THE CONTRACTOR TO ELIMINATE SUCH PROBLEMS.
5. THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISION OF APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL RESOURCES, SUB-PART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL,
6. LIMITS OF DISTURBANCE MUST BE CLEARLY MARKED IN THE FIELD PRIOR TO ANY DISTURBANCE. ANY CHANGE OR ENCROACHMENT ONTO THESE AREAS MUST BE APPROVED BY THE TOWNSHIP ENGINEER. ANY ADDITIONAL EARTH DISTURBANCE MAY REQUIRE ADDITIONAL PERMITTING AND SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROLS AFTER EACH STORM 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.

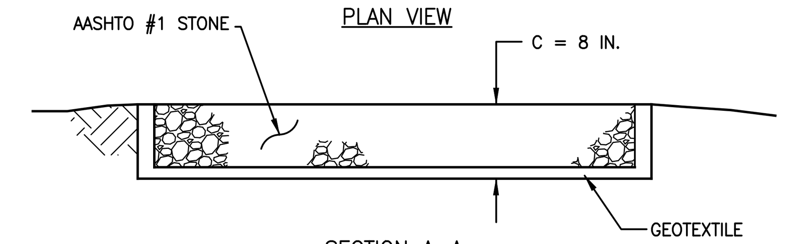
ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, REMULCHING, RESEEDING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMP'S OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.

WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:
A. THE LOCATION & SEVERITY OF THE BMP'S FAILURE & ANY POLLUTION EVENTS.
B. ALL STEPS TAKEN TO REDUCE, ELIMINATE & PREVENT THE RECURRENCE OF THE NON-COMPLIANCE.
C. THE TIME FRAME TO CORRECT THE NONCOMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.

8. UPON COMPLETION OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE THEREOF, THE PROJECT SHALL BE IMMEDIATELY STABILIZED WITH THE APPROPRIATE TEMPORARY OR PERMANENT STABILIZATION. ALL AREAS REQUIRING INTERIM OR FINAL STABILIZATION MUST BE ADDRESSED WITH IMMEDIATE STABILIZATION OF DISTURBANCE. AREAS UTILIZING VEGETATIVE STABILIZATION MUST BE SEEDED / PLANTED AND MULCHED IN SUFFICIENT TIME TO GERMINATE BY OCTOBER 15 OF EACH YEAR. SEEDING WILL BE ACCOMPLISHED THROUGH THE USE OF HYDROSEEDING TECHNIQUES OR CONVENTIONAL SEEDING AND MULCHING AT A RATE OF 3.0 TONS PER ACRE AS RECOMMENDED IN THE PENN STATE AGRONOMY GUIDE.
9. AFTER FINAL STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP'S MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY.
10. SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 ABOVE GROUND HEIGHTS OF SILT FENCING.
11. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITH THIS PLAN.
12. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIAL 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 BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL WASTES AT SITE.
13. EROSION AND SEDIMENTATION CONTROL INSPECTIONS SHALL BE PERFORMED ON A WEEKLY BASIS AND AFTER EVERY RAIN EVENT.
14. ALL SLOPES STEEPER THAN 3:1 MUST UTILIZE EROSION CONTROL BLANKET (CURLEX BLANKET OR APPROVED EQUAL).
15. IF UNSUITABLE MATERIAL IS ENCOUNTERED DURING CONSTRUCTION, A GEOTECHNICAL ENGINEER SHOULD BE ONSITE FOR RESOLUTIONS TO THE UNSUITABLE SOIL.
16. TEMPORARY TOPSOIL STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET, AND SLOPES MUST BE 2:1 OR FLATTER.
17. 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 TOWNSHIP ENGINEER. 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.
18. 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.
19. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE CHESTER COUNTY CONSERVATION DISTRICT, AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATIONS.
20. 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 RE-DISTURBED 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 RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
21. IF THE CONTRACTOR ENCOUNTERS HIGH WATER TABLE, SHALLOW BEDROCK, OR SOIL INSTABILITY DURING SITE CONSTRUCTION, THE DESIGN ENGINEER OR THE ON-SITE GEOTECHNICAL ENGINEER MUST BE CONTACTED IMMEDIATELY FOR CORRECTIVE MEASURES.
22. IF THE SITE CONSTRUCTION YIELDS A NET CUT RESULTING IN EXCESS SOIL BEING REMOVED FROM THE SITE THE SOIL MUST BE TRANSFERRED TO A SITE WITH A VALID NPDES PERMIT.



PLAN VIEW



SECTION A-A

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.

STANDARD CONSTRUCTION DETAIL #16
ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE

DLHowell
Civil Engineering
Land Planning
Environmental
www.DLHowell.com

1250 Wrights Lane
West Chester, PA 19380
Phone: (610) 918-9002
Fax: (610) 918-9003

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DAVID W. GIBBONS
ENGINEER
PE076444

REV.	DATE	DESCRIPTION
8		
7		
6		
5		
4		
3		
2	08/04/23	REVISED PER TOWNSHIP REVIEW LETTERS
1	06/01/23	REVISED PER TOWNSHIP REVIEW LETTERS

PRELIMINARY/FINAL
DETAIL SHEET

CLIENT: QBD VENTURES
PROJECT: BYERS ROAD PROPERTY
LOCATION: 164 BYERS ROAD
UPPER UWHCLAN TOWNSHIP, CHESTER COUNTY, PA

DATE:	12/21/20
SCALE:	AS SHOWN
DRAWN BY:	AM
CHECKED BY:	DWG
PROJECT NO.:	2146
CAD FILE:	07 DETAIL SHEET.dwg
PLOTTED:	08/04/23
DRAWING NO.:	C06.02
SHEET	08 OF 13

BMP GENERAL NOTE

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S 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. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, REMULCHING, RESEEDING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMP'S OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED. WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENTATION POLLUTION THE PERMITTEE OR CO-PERMITTEE SHALL INCLUDE THE FOLLOWING INFORMATION:

THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.

ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON-COMPLIANCE.

THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.

GENERAL PCSM NOTES:

1. 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 RE-DISTURBED 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 RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
2. IF THE CONTRACTOR ENCOUNTERS HIGH WATER TABLE, SHALLOW BEDROCK, SINKHOLES OR SOIL INSTABILITY DURING SITE CONSTRUCTION, THE DESIGN ENGINEER OR THE ON-SITE GEOTECHNICAL ENGINEER MUST BE CONTACTED IMMEDIATELY FOR CORRECTIVE MEASURES.
3. IF GROUNDWATER OR BEDROCK IS ENCOUNTERED DURING THE INSTALLATION OF THE BMP'S STOP WORK AND CONTACT THE TOWNSHIP AND DESIGN ENGINEER FOR AN ALTERNATE STORMWATER BMP LOCATION OR NEW DESIGN.
4. THE EROSION AND SEDIMENTATION CONTROL PLAN HAS BEEN DESIGNED IN AN EFFORT TO MINIMIZE THE EXTENT AND DURATION OF EARTH DISTURBANCE, WHILE PROTECTING THE EXISTING DRAINAGE FEATURES AND VEGETATION. THE E&S PLAN AND CONSTRUCTION SEQUENCE HAS BEEN DEVELOPED AS TO MINIMIZE SOIL COMPACTION, LAND CLEARING, AND IMPERVIOUS AREAS.
5. THE DESIGN WILL PRESERVE THE INTEGRITY OF STREAM CHANNELS AND MAINTAIN AND PROTECT THE PHYSICAL, BIOLOGICAL AND CHEMICAL QUALITIES OF THE DOWNSTREAM WATERSHED.
6. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIAL 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.
7. IF ANY UNFAVORABLE CONDITIONS ARE ENCOUNTERED DURING THE INSTALLATION OF THE BMPS (I.E. GROUNDWATER AND/OR BEDROCK, ETC.)., THE OWNER/ENGINEER SHOULD BE NOTIFIED AND THE PROPOSED SYSTEM SHOULD BE RELOCATED TO A MORE SUITABLE LOCATION ON THE PROPERTY.
8. NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE, ALTER, OR IMPAIR THE EFFECTIVENESS OF ANY STORMWATER BMPS, CONVEYANCES, FACILITIES, AREAS OR STRUCTURES UNLESS THE ACTIVITY IS PART OF AN APPROVED MAINTENANCE PROGRAM, WITHOUT THE WRITTEN APPROVAL OF THE MUNICIPALITY.
9. NO PERSON SHALL PLACE ANY STRUCTURE, FILL, LANDSCAPING, ADDITIONAL VEGETATION, YARD WASTE, BRUSH CUTTINGS, OR OTHER WASTE OR DEBRIS INTO A BMP OR CONVEYANCE, OR WITHIN A STORMWATER EASEMENT, THAT WOULD LIMIT OR ALTER THE FUNCTIONING OF THE STORMWATER BMP OR CONVEYANCE, WITHOUT THE WRITTEN APPROVAL OF THE MUNICIPALITY.
10. AN AS-BUILT SURVEY OF ALL STORMWATER BMP'S AND AN EXPLANATION OF ANY DISCREPANCIES WITH THE OPERATION AND MAINTENANCE PLAN SHALL BE PROVIDED TO UPPER UWCHLAN TOWNSHIP.
11. REPRESENTATIVES OF UPPER UWCHLAN TOWNSHIP OR OTHER GOVERNMENTAL AUTHORITIES SHALL HAVE PERMISSION TO GAIN ACCESS TO THE STORMWATER MANAGEMENT FACILITIES THROUGH A BLANKET EASEMENT OVER THE PROPERTY TO PERFORM INSPECTIONS, MAINTENANCE AND REPAIRS OF THE SYSTEM, AS NECESSARY.

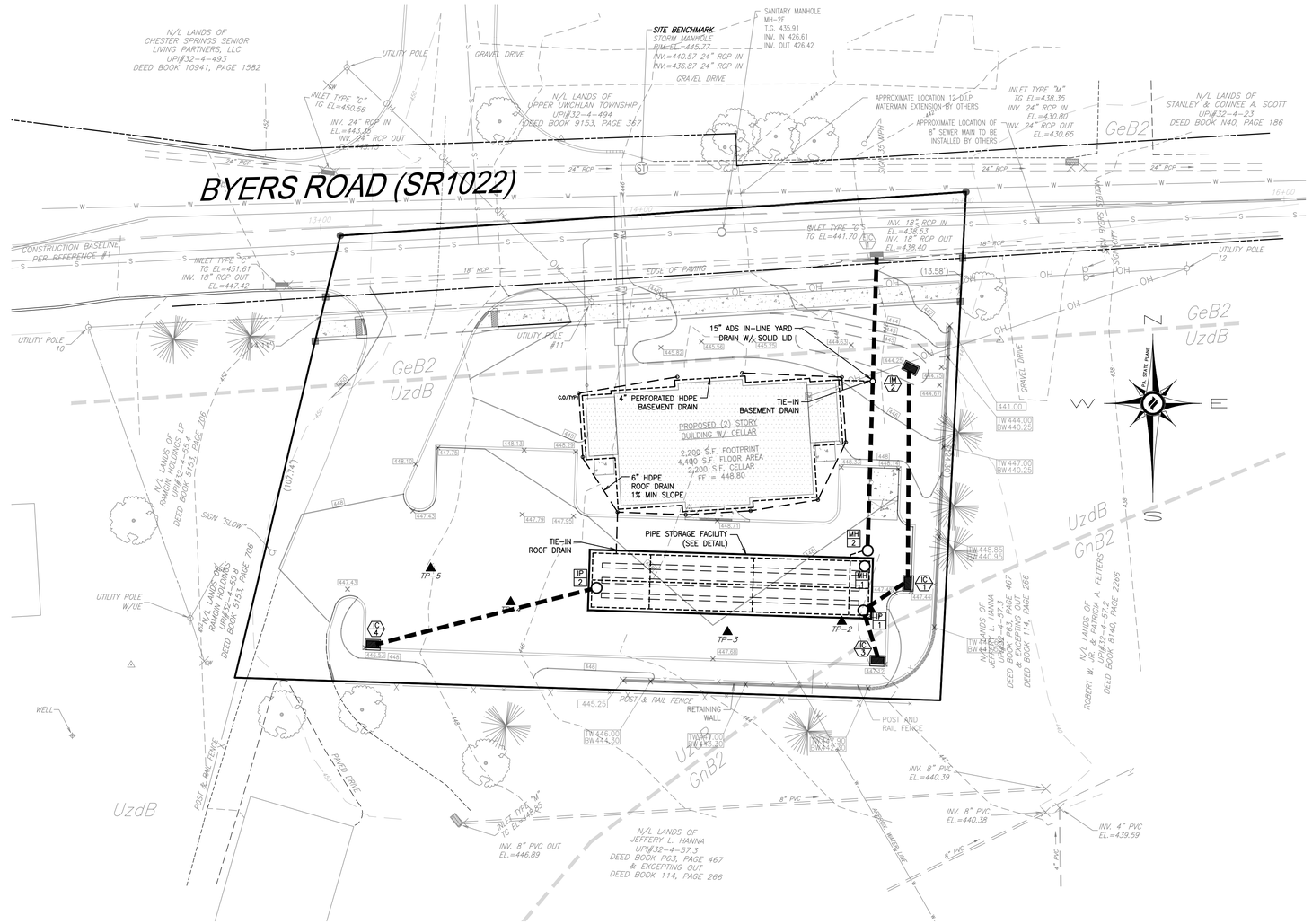
INFILTRATION FACILITY MAINTENANCE AND OPERATION:

INSPECTION: UNDERGROUND BMP SYSTEMS, INLETS, AND PIPING SHALL BE INSPECTED QUARTERLY AND AFTER RAINFALL EVENTS (1"+) BY THE OWNER. INSPECTION ITEMS SHALL INCLUDE THE CONDITION OF THE INSPECTION PORTS AND ANY VISIBLE CONNECTIONS, SEDIMENT ACCUMULATION OR STANDING WATER IN THE INLET AND ANY SETTLING OR BREAKOUTS ALONG THE LENGTH OF THE SYSTEM. INSPECT INLETS FOR BLOCKAGE. ACCUMULATED RUNOFF WITHIN THE STORAGE SYSTEM FROM ALL STORM EVENTS SHOULD BE DISSIPATED WITHIN 72 HOURS.

MAINTENANCE: DURING THE REGULAR INSPECTIONS AT THE INTERVAL NOTED ABOVE, THE OWNER SHALL REMOVE ANY ACCUMULATED SEDIMENT AND DEBRIS FROM INLET. UNCLOG PIPE CONNECTIONS AS NECESSARY AND REPAIR ANY DAMAGED PIPING. IF SIGNIFICANT SETTLEMENT HAS OCCURRED, AND THE COLLECTED RUNOFF DOES NOT DEWATER, CONSULT THE TOWNSHIP AND THE ENGINEER OF RECORD FOR APPROPRIATE RENOVATION MEASURES. ANY ISSUES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE TOWNSHIP ENGINEER WITH APPROPRIATE REMEDIATION BEING IMPLEMENTED WITHIN 60 DAYS.

STORMWATER BMP NOTES:

1. COMPACTION IS TO BE MINIMIZED IN THE AREAS DESIGNATED FOR THE UNDERGROUND SYSTEM.
2. BED FILTER FABRIC AND STONE SHOULD BE KEPT CLEAN OF SOIL/SEDIMENT DURING THE INSTALLATION PROCESS. IF INSPECTION INDICATES THAT SOIL SEDIMENT HAS ENTERED THE BED, APPROPRIATE MEASURES (I.E. CLEANING THE SOIL/SEDIMENT FROM THE FABRIC, STONE, ETC. AND OR REPLACEMENT OF THE FABRIC AND STONE) SHOULD BE ADDRESSED.
3. ALL STONE FOR THE CONSTRUCTION OF THE INFILTRATION BED SHOULD BE UNIFORMLY GRADED AND CLEAN WASHED AGGREGATE.
4. THE BOTTOM OF THE BED SHALL BE UNDISTURBED OR UNCOMPACTED SUBGRADE.
5. THE BOTTOM OF THE BED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF THE AGGREGATE.



PCSM & O&M PLAN

SCALE: 1"=20'

20 0 10 20 40

GRAPHIC SCALE
1 inch = 20 feet

CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE-STOP CALL

Pennsylvania One Call System, Inc

1-800-242-1776

ONE CALL NOTE
NO SCALE

ACT 287 SERIAL NUMBER 20092592101
D. L. Howell & Associates, Inc. does not guarantee the accuracy of the locations for existing subsurface utility lines, structures, etc. shown on the plans, nor does D. L. Howell & Assoc., Inc. guarantee that all subsurface utility lines, structures, etc. are shown.

Contractor shall verify the location and elevations of all subsurface utility lines, structures, etc. before the start of work, by calling the Pennsylvania One Call System at 1-800-242-1776.

UTILITIES NOTIFIED
BUCKEYE PIPELINE COMPANY
COMCAST CABLE COMMUNICATIONS, INC.
PECO ENERGY
VERIZON PENNSYLVANIA, INC.
UPPER UWCHLAN TOWNSHIP
UPPER UWCHLAN MUNICIPAL AUTHORITY

SOIL TYPE(S)

GeB2 - GLENELG CHANNERY SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
GeB2 - GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
UzdB - URBAN LAND-UDORTHENTS, SCHIST AND GNEISS COMPLEX, 0 TO 8 PERCENT SLOPES

RECEIVING SURFACE WATERS - 102.8(f)(5)

***THE PENNSYLVANIA TITLE 25, CHAPTER 93 CLASSIFICATION FOR THE RECEIVING WATERS OF THE COMMONWEALTH**

UNNAMED TRIBUTARY (UNT) TO PICKERING CREEK IN THE PICKERING CREEK WATERSHED: A HIGH QUALITY-TROUT STOCKING FISHERY (HQ-TSF) WATER COURSE

LEGEND

EX. PROPERTY LINE	242	EXISTING CONTOUR		PROP. LIGHT POLE	E	PROP. ELEC. LINE		PROP. STORM INLET	W	PROP. WATER LINE
PROP. PROPERTY LINE	242	PROPOSED CONTOUR	X	EX. FENCE	O	EX. UTILITY POLE	IC 5	PROP. STORM INLET ID	WL	PROP. WATER LATERAL
EX. RIGHT-OF-WAY	X 123.00	EXISTING SPOT ELEV.	MB	EX. MAIL BOX	O	PROP. UTILITY POLE		PROP. SEEPAGE BED	FW	PROP. FIRE WATER LINE
PROP. RIGHT-OF-WAY	x 123.00	NEW SPOT ELEV.		EX. SIGN	G	EX. GAS LINE	S	EX. SANITARY SEWER LINE	W.V.	PROP. WATER VALVE
EX. MONUMENT	GEB2	SOILS TYPE		PROP. SIGN	G	PROP. GAS LINE	S	PROP. SAN. SEWER LINE	F.H.	EX. HYDRANT
PROP. MONUMENT		SOILS LINE		EXIST. PARKING SPACES	G.V.	EX. GAS VALVE	L	PROP. SAN. SEWER LATERAL	F.H.	PROP. HYDRANT
EX. IRON PIPE		EX. CONC. CURB		PROP. PARKING SPACES	G.V.	PROP. GAS VALVE	MH 1	PROP. SANITARY MH. ID		EX. MANHOLE
PROP. IRON PIPE		PROP. CONC. CURB	(TBR)	TO BE REMOVED		EX. STORM SEWER LINE				PROP. MANHOLE
EX. EASEMENT		EX. EDGE OF PAVING	T	EX. TELE. LINE		PROP. STORM SEWER LINE	W	EX. WATER LINE		15%-25% PRECAUTIONARY SLOPES
PROP. EASEMENT		PROP. EDGE OF PAVING	T	PROP. TELE. LINE		EX. STORM INLET				25%+ PROHIBITIVE STEEP SLOPES
EX. WETLANDS		EX. LIGHT POLE	E	EX. ELEC. LINE						

STORMWATER NOTE:

REFERENCE THE STORMWATER MANAGEMENT REPORT PREPARED FOR 164 BYERS ROAD, AS PREPARED BY DL HOWELL, DATED DECEMBER 21, 2020 AND LAST REVISED SEPTEMBER 14, 2021, FOR STORMWATER MANAGEMENT CALCULATIONS ASSOCIATED WITH THIS PROJECT. PLEASE NOTE THAT THE STORMWATER MANAGEMENT FACILITY HAS BEEN DESIGNED FOR THE TOTAL IMPERVIOUS COVERAGE PROPOSED ON THIS PLAN.

STORMWATER MANAGEMENT OPERATION & MAINTENANCE STATEMENT

UNDER AND SUBJECT, NEVERTHELESS, TO THE FOLLOWING CONDITIONS AND RESTRICTIONS: PRIOR TO THE CONSTRUCTION OF A BUILDING OR ANY OTHER EARTHMOVING ACTIVITIES, THE PROPERTY OWNER SHALL CONSTRUCT THE PERMANENT STORMWATER MANAGEMENT FACILITIES AS SHOWN ON THE STORMWATER MANAGEMENT PLAN PREPARED BY D.L. HOWELL & ASSOCIATES, INC., DATED **DECEMBER 21, 2020 AND LAST REVISED AUGUST 4, 2023** AND APPROVED BY UPPER UWCHLAN TOWNSHIP; THEREAFTER, THE PROPERTY OWNER, HIS HEIRS, EXECUTORS, ADMINISTRATORS, SUCCESSORS, AND ASSIGNS ("OWNER"), AT HIS OR HER SOLE COST OF EXPENSE, SHALL OPERATE, MAINTAIN AND REPAIR SAID STORMWATER MANAGEMENT FACILITIES ON THE LOT IN ACCORDANCE WITH SAID PLAN, SO THAT THE FACILITIES SHALL AT ALL TIMES CONTINUE TO OPERATE AND FUNCTION IN THE SAME MANNER AND CAPACITY AS THEY WERE DESIGNED. IN THE EVENT OF THE FAILURE OF THE OWNER TO COMPLY WITH THESE CONDITIONS AND RESTRICTIONS, UPPER UWCHLAN TOWNSHIP SHALL HAVE SAID STORMWATER MANAGEMENT FACILITIES REPAIRED OR RESTORED AS REQUIRED, AND THE COSTS THEREOF SHALL BE ASSESSED TO THE OWNER; SAID ASSESSMENT SHALL BE A CHARGE AND A CONTINUING LIEN UPON THE PROPERTY HEREIN. THE TOWNSHIP, BEFORE IT MAY EXERCISE THIS RIGHT, SHALL NOTIFY THE OWNER BY CERTIFIED MAIL OF ITS INTENTION TO TAKE THE AFORENOTED ACTION. THE NOTICE SHALL SET FORTH IN WHAT MANNER THE OWNER HAS NEGLECTED THE OPERATION AND MAINTENANCE OF OR REPAIR TO THE STORMWATER MANAGEMENT FACILITIES, AND IF THE OWNER FAILS TO CORRECT OR REPAIR THE ITEMS LISTED IN THE NOTICE FROM THE TOWNSHIP PRIOR TO THE IDENTIFIED DEADLINE, THEN AND ONLY THEN MAY THE TOWNSHIP EXERCISE THIS RIGHT.

(SIGN) (PRINT) (DATE)
PROPERTY OWNER

CERTIFICATE OF ACCURACY - ENGINEER

I, DAVID W. GIBBONS, ON THIS DATE 08/07/2023, HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THE SWM SITE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE UPPER UWCHLAN TOWNSHIP ORDINANCE NO. 2013-05, STORMWATER MANAGEMENT ORDINANCE.

DAVID W. GIBBONS, P.E. LICENSE NUMBER PE 076444

I HEREBY ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED SWM SITE PLAN SHALL BE SUBMITTED TO AND APPROVED BY THE MUNICIPALITY, AND THAT A REVISED EROSION 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.

(SIGNATURE) (DATE)

I _____ (PROPERTY OWNER), ACKNOWLEDGE THAT THE STORMWATER MANAGEMENT BMP's ARE PERMANENT FIXTURES THAT CAN BE ALTERED OR REMOVED ONLY AFTER APPROVAL BY UPPER UWCHLAN TOWNSHIP.

(SIGNATURE) (DATE)

DLHowell
Civil Engineering
Land Planning
Environmental
www.DLHowell.com

1250 Wrights Lane
West Chester, PA 19380
Phone: (610) 918-9002
Fax: (610) 918-9003

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DAVID W. GIBBONS
ENGINEER
PE076444

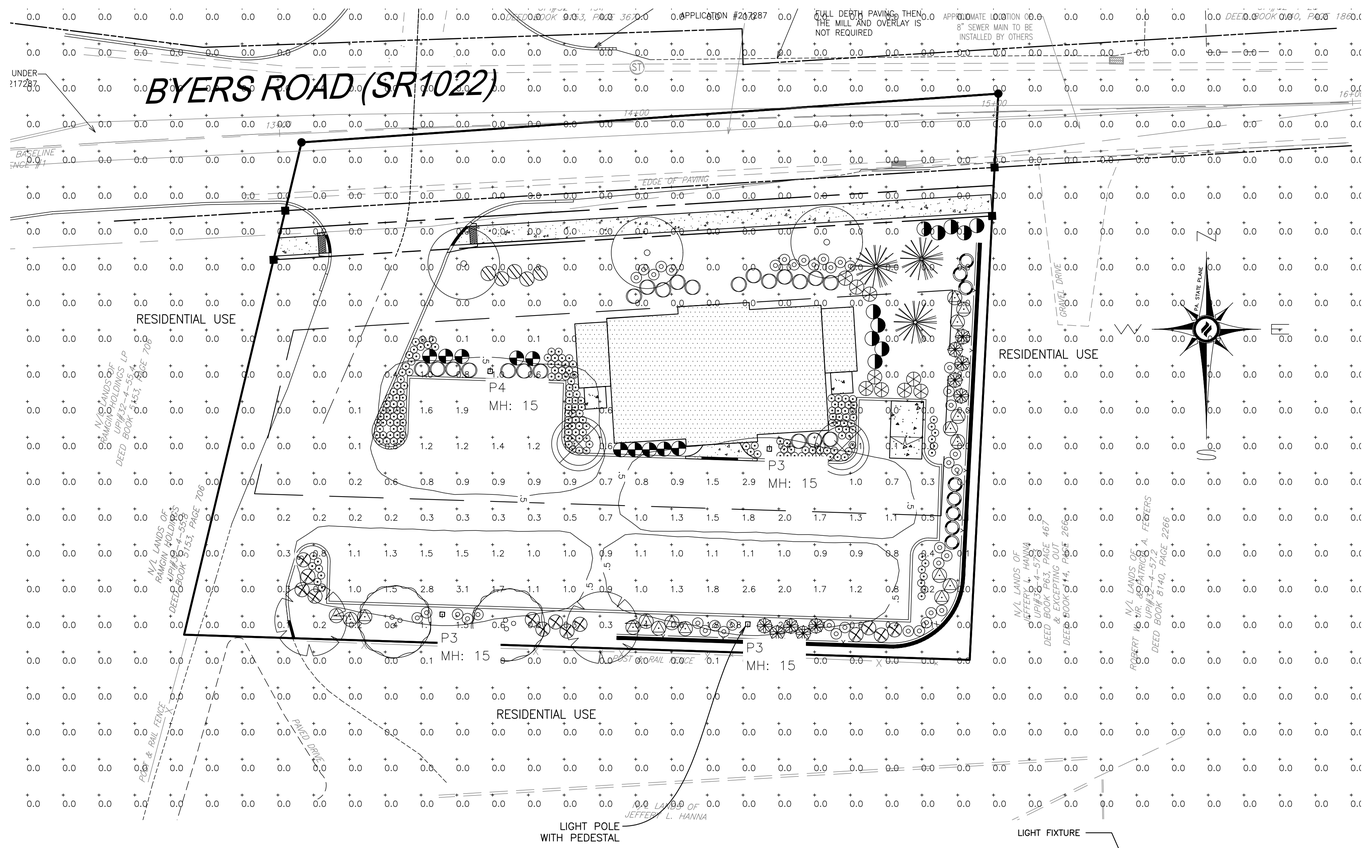
REV.	DATE	DESCRIPTION
8		
7		
6		
5		
4		
3	08/04/23	REVISED PER TOWNSHIP REVIEW LETTERS
2	06/01/23	REVISED PER TOWNSHIP REVIEW LETTERS
1		

PRELIMINARY/FINAL
PCSM & O&M PLAN
CLIENT: QBD VENTURES
PROJECT: BYERS ROAD PROPERTY
LOCATION: 164 BYERS ROAD
UPPER UWHCLAN TOWNSHIP, CHESTER COUNTY, PA

DATE:	12/21/20
SCALE:	1"=20'
DRAWN BY:	AM
CHECKED BY:	DWG
PROJECT NO.:	2146
CAD FILE:	08 PCSMM PLAN.dwg
PLOTTED:	08/04/23
DRAWING NO.:	C07.01
SHEET	09 OF 13

Luminaire Schedule											
Symbol	Qty	Label	LLF	Description	Lum. Watts	Lum. Lumens	BUG Rating	Mounting Height	Arrangement Watts	Arrangement Luminaire Lumens
	1	P4	0.900	NLS - NV-1-T4-16L-1-30K8-UNV-XX-XX-HSS	56	3539	B0-U0-G1	15	56	3539
	3	P3	0.900	NLS - NV-1-T3-16L-1-30K8-UNV-XX-XX-HSS	56	3522	B0-U0-G1	15	56	3522

Calculation Summary										
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Grid Z	PtSpcLr	PtSpcTb
East Vertical Calc	Illuminance	Fc	0.01	0.0	0.0	N.A.	N.A.	0 to 10	5	5
South Vertical Calc	Illuminance	Fc	0.03	0.1	0.0	N.A.	N.A.	0 to 10	5	5
West Vertical Calc	Illuminance	Fc	0.01	0.0	0.0	N.A.	N.A.	10 to 0	5	5
Parking Lot	Illuminance	Fc	1.21	3.7	0.2	6.05	18.50			



LIGHTING PLAN

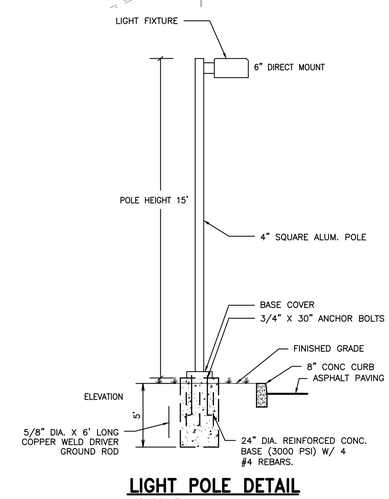
SCALE: 1"=20'

20 0 10 20 40

GRAPHIC SCALE
1 inch = 20 feet

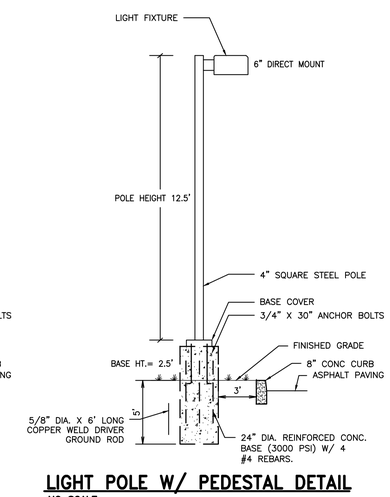
GENERAL NOTES:

1. POST APPROVAL ALTERATIONS TO LIGHTING PLANS OR INTENDED SUBSTITUTIONS FOR APPROVED LIGHTING EQUIPMENT SHALL BE SUBMITTED TO THE TOWNSHIP FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
2. THE TOWNSHIP RESERVES THE RIGHT TO CONDUCT POST–INSTALLATION NIGHTTIME INSPECTIONS TO VERIFY COMPLIANCE WITH COMMITMENTS MADE ON THE APPROVED PLAN, AND IF APPROPRIATE, TO REQUIRE REMEDIAL ACTION AT NO EXPENSE TO THE TOWNSHIP.
3. NON–SECURITY LIGHTING FIXTURES SHALL BE EXTINGUISHED ONE HOUR AFTER CLOSE OF BUSINESS OR 11:00 P.M., WHICHEVER IS EARLIER. THE LIGHTING FIXTURES WILL BE CONTROLLED BY PHOTOCELL AND TIMER.
4. SECURITY LIGHTING LIGHT LEVELS ARE TO BE REDUCED TO 25% BETWEEN 11:00 P.M. AND DAWN. HOWEVER, AT THIS TIME, NO SECURITY LIGHTING IS PROPOSED.
5. A PROGRAMMABLE TIMER WITH DAYLIGHT SAVINGS TIME PROGRAMMABILITY, WITH BATTERY BACK–UP, SHALL BE UTILIZED TO AUTOMATICALLY CONTROL THE NON–SECURITY LIGHTS.
6. ALL EXTERIOR LIGHTING, INCLUDING BUT NOT LIMITED TO THAT FOR THE ILLUMINATION OF FLAG, SOFFIT, CANOPY, SIGN, FACADE, BUILDING ENTRANCE, AND WALKWAY SHALL COMPLY WITH SLDO SECTION 162.58.D..
7. ALL LIGHT POLES ADJACENT TO PARKING AREAS AND/OR DRIVEWAYS SHALL BE INSTALLED THREE (3) FEET FROM THE BACK OF THE CURB.



LIGHT POLE DETAIL

NO SCALE



LIGHT POLE W/ PEDESTAL DETAIL

NO SCALE

LEGEND

	EX. PROPERTY LINE	242	EXISTING CONTOUR		PROP. LIGHT POLE	E	PROP. ELEC. LINE		PROP. STORM INLET	W	PROP. WATER LINE
	PROP. PROPERTY LINE	242	PROPOSED CONTOUR	X	EX. FENCE	O	EX. UTILITY POLE	10 1	PROP. STORM INLET ID	WL	PROP. WATER LATERAL
	EX. RIGHT-OF-WAY	X 123.00	EXISTING SPOT ELEV.	MB	EX. MAIL BOX	O	PROP. UTILITY POLE		PROP. SEEPAGE BED	FW	PROP. FIRE WATER LINE
	PROP. RIGHT-OF-WAY	x 123.00	NEW SPOT ELEV.		EX. SIGN		EX. GUY ANCHOR	S	EX. SANITARY SEWER LINE	W.V.	EX. WATER VALVE
	EX. MONUMENT	GEB2	SOILS TYPE		PROP. SIGN	G	EX. GAS LINE	S	PROP. SAN. SEWER LINE	W.V.	PROP. WATER VALVE
	PROP. MONUMENT		SOILS LINE		EXIST. PARKING SPACES	G	PROP. GAS LINE	L	PROP. SAN. SEWER LATERAL	F.H.	EX. HYDRANT
	EX. IRON PIPE		EX. CONC. CURB		PROP. PARKING SPACES	G.V.	EX. GAS VALVE	MH 1	PROP. SANITARY MH. ID	F.H.	PROP. HYDRANT
	PROP. IRON PIPE		PROP. CONC. CURB	(TBR)	TO BE REMOVED	G.V.	PROP. GAS VALVE	W	EX. WATER LINE		EX. MANHOLE
	EX. EASEMENT		EX. EDGE OF PAVING	T	EX. TELE. LINE		EX. STORM SEWER LINE				PROP. MANHOLE
	PROP. EASEMENT		PROP. EDGE OF PAVING	T	PROP. TELE. LINE		PROP. STORM SEWER LINE				
	EX. WETLANDS		EX. LIGHT POLE	E	EX. ELEC. LINE		EX. STORM INLET				

DLHowell
Civil Engineering
Land Planning
Environmental
www.DLHowell.com

1250 Wrights Lane
West Chester, PA 19380
Phone: (610) 918-9002
Fax: (610) 918-9003

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
DAVID W. GIBBONS
ENGINEER
PE076444

REV.	DATE	DESCRIPTION
8		
7		
6		
5		
4		
3	08/04/23	REVISED PER TOWNSHIP REVIEW LETTERS
2	06/01/23	REVISED PER TOWNSHIP REVIEW LETTERS
1		

PRELIMINARY/FINAL
LIGHTING PLAN

CLIENT: QBD VENTURES
PROJECT: BYERS ROAD PROPERTY
LOCATION: 164 BYERS ROAD
UPPER UWHCLAN TOWNSHIP, CHESTER COUNTY, PA

DATE:	12/21/20
SCALE:	1"=20'
DRAWN BY:	AM
CHECKED BY:	DWG
PROJECT NO.:	2146
CAD FILE:	09 LIGHTING PLAN.dwg
PLOTTED:	08/04/23
DRAWING NO.:	C08.01
SHEET	10 OF 13

Submitted by Penn Lighting Associates

Penn Lighting ASSOCIATES	Job Name: Byers Road Property - Precon	Catalog Number: NV-1-T4-16L-1-30K8-UNV-XX-XX-HSS Notes:	Type: P4 PENN23-226269

NLS LIGHTING

NV-1

AREA, SITE & ROADWAY

FORM AND FUNCTION
- Sleek, low profile housing
- Spec grade performance
- Engineered for optimum thermal management
- Low depreciation rate
- Reduces energy consumption and costs up to 65%
- Exceeds IES foot candle levels utilizing the least number of poles and fixtures per project
- Optical system designed for:
  - Parking Lots
  - Auto Dealerships
  - General Area Lighting

CONSTRUCTION
- Die Cast Aluminum
- External cooling fins
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP-65 seal for electronics compartment
- One-piece Optics Plate™ mounting silicone Micro Optics
- Two-piece silicone Micro Optic system ensures IP-67 level seal around each PCB
- Grade 2 Clear Anodized Optics Plate™ standard

FINISH
- 3-5 mils electrostatic powder coat.
- NLS' standard high-quality finishes prevent corrosion, protects against extreme environmental conditions

WARRANTY
Five-year limited warranty for drivers and LEDs.

LED WATTAGE CHART

	16L	32L	48L	64L
350 milliamps	18w	-	-	-
530 milliamps	28w	-	-	-
700 milliamps	36w	71w	104w	136w
1050 milliamps	56w	106w	156w	205w

Project Name: | Type:

Cat#	Light Dist.	# of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Options
NV-1 (NV-1)	Type 2 (T2)	16 (16L)	350 (35)	2700K, 70 CRI (27K7)	120-277 (UNV)	Architectural Sweep Arm (ASA)	Bronze Textured (BRZ)	Bird Spikes (BS)
	Type 3 (T3)	32 (32L)	530 (53)	2700K, 80 CRI (27K8)	347-480 (HV)	Direct Pole 3" Arm Single, D180 (DPS3)	White Textured (WHT)	Marine Grade Finish (MGF)
	Type 4 (T4)	48 (48L)	700 (7)	3000K, 70 CRI (30K7)		Direct Pole 7" Arm D180, D90, T90, T120, Quad (DPS7)	Smooth White Gloss (SWT)	Optic Plate Painted to Match Fixture (OPP)
	Type 5 (T5)	64 (64L)	1050 (1)	3000K, 80 CRI (30K8)		Knuckle Mount (KM)	Silver (SVR)	Nema 7-Pin Receptacle (PE7)
	Nema 2 24° Narrow Beam (N2)			3500K, 80 CRI (35K8)		Wall Mount (WM)	Black Textured (BLK)	Photocell + Receptacle (PCR)
	Nema 3 30° Narrow Beam (N3)			4000K, 70 CRI (40K7)		Trunnion Mount (TM)	Smooth Black Gloss (SBK)	Receptacle + Shorting Cap (PER)
				4000K, 80 CRI (40K8)		Tennis Arm (TA)	Graphite Textured (GPH)	FSP-211 with Motion Sensor (FSP-20) 9'-20' Heights (FSP-40) 21'-40' Heights
				5000K, 70 CRI (50K7)		Mast Arm (MA)	Grey Textured (GRY)	Quick Mount Bracket (QMB)
				5000K, 80 CRI (50K8)			Custom (CS)	Retrofit Mount Bracket (RQMB)
								Round Pole Adaptor 3"-4" Pole (RPA4)
								Round Pole Adaptor 5"-6" Pole (RPA5)
								Rotated Optic Left (ROL)
								Rotated Optic Right (ROR)
								Automotive House Side Shield (AHS)
								House Side Shield (HSS)
								Black Hardware (BH)
								Black Optic Frame (BOF)

Notes:
1. Consult Factory for Lead Time. Consult Factory for 90 CRI Requests.
2. For Round Pole Specify RPA4 or RPA5
3. Standard finish is stainless steel. Can be painted to match fixture
4. Universal Voltage 120-277
5. HSS not applicable with Nema 2 and Nema 3 Optics
6. 3000K or lower must be selected to meet International Dark-Sky Association certification.

REV. 12.01.22 — 1

Submitted by Penn Lighting Associates

Penn Lighting ASSOCIATES	Job Name: Byers Road Property - Precon	Catalog Number: NV-1-T4-16L-1-30K8-UNV-XX-XX-HSS Notes:	Type: P4 PENN23-226269

PRODUCT SPECIFICATIONS

ELECTRICAL
- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver
- Driver power factor at maximum load is ≥ .95, THD maximum load is 15%
- LED Drivers Ambient Temp. Min is -40°C and Ambient Temp. Max ranges from 50°C to 55°C and, in some cases, even higher. Consult the factory for revalidation by providing the fixture catalog string before quoting and specifying it.
- All internal wiring UL certified for 600 VAC and 105°C
- All drivers, controls, and sensors housed in enclosed IP65 compartment
- CRI 70, 80 or 90
- Color temperatures: 2700K, 3000K, 3500K, 4000K, 5000K
- Surge Protection: 20KVA supplied as standard.

CONSTRUCTION
- Die Cast Aluminum
- External cooling fins
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP65 seal for electronics compartment
- One-piece Optics Plate™ mounting silicone Micro Optics
- Two-piece silicone Micro Optic system ensures IP67 level seal around each PCB
- Grade 2 Clear Anodized Optics Plate™ standard

OPTIONS
- BIRD SPIKES (BS) - Offers a practical and humane deterrent for larger bird species and provides a cost-effective long-term solution to nuisance bird infestations and protects your property.
- MARINE GRADE FINISH (MGF) - A multi-step process creating protective finishing coat against harsh environments. Chemically washed in a 5 stage cleaning system. Pre-baked, Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer. Oven Baked. Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.
- OPTIC PLATE PAINTED TO MATCH FIXTURE (OPP) - Optic plate is clear anodized as standard. The optic plate can be powder coated to match the finish of the fixture.
- QUICK MOUNT BRACKET (QMB) - Optional Cast Aluminum Bracket designed for quick mounting on Direct Square or Round Poles. Cleat mounts directly to pole for easily hung fixtures. Has a 2"x4" Drill Pattern.
- RETROFIT MOUNT BRACKET - Optional Cast Aluminum Bracket designed for quick mounting on Direct Square or Round Poles. Cleat mounts directly to pole for easily hung fixtures. Drill Pattern is adjustable from 2"x4" to 2"x6".
- ROUND POLE ADAPTER (RPA) - When using round poles, specify Round Pole Adapter (RPA). Specify RPA4 when installing on 3"-4" round poles, and RPA5 when installing on 5"-6" round poles.
- ROTATED OPTICS (ROL) (ROR) - Rotated optics are designed for perimeter lighting for auto dealerships.
- SHIELDS (HSS, AHS) - House Side Shield (HSS) is designed for full property line cut-off. Automotive House Side Shield (AHS) is a single-sided shield allowing partial cut-off on either side or front of luminaire.
- BLACK HARDWARE (BH) - Optional black, zinc coated steel hardware.
- BLACK OPTIC FRAME (BOF) - Optional black optic frame. Standard is white.

CONTROL OPTIONS
- FSP-211 (FSP-X) - Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
  - All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
  - FSP-20 mounting heights 9-20 feet
  - FSP-40 mounting heights 21-40 feet.
  - Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field.
  - FSIR-100 commissioning remote is required to change sensor settings. Please contact factory for ordering.
- Controls Agnostics: Please contact factory for your preferred controls option.
- NEMA 7-PIN RECEPTACLE (PE7)—An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.
- PHOTOCELL + RECEPTACLE (PCR)—7-Pin Receptacle and Electronic Twist Lock Photocell for dusk to dawn operation.
- RECEPTACLE + SHORTING CAP (PER)—7-Pin Receptacle and Shorting Cap.

FINISH
- 3-5 mils electrostatic powder coat.
- NLS Light's standard high-quality finishes prevent corrosion protects against and extreme environmental conditions

WARRANTY
Five-year limited warranty for drivers and LEDs.

OPTICS
Silicone optics high thermal stability and light output provide higher powered LEDs with minimized lumen depreciation. UV stability with scratch resistance increases exterior application durability. Silicone optics do not yellow, crack or brittle over time

LISTINGS
- Certified to UL 1598
- UL 8750
- CSA C22.2 No. 250.0
- DesignLights Consortium®(DLC)
- DesignLights Consortium Premium®(DLCP)
- IP65/ IP67 Rated
- 3G Vibration Rated per ANSI C136.31-2010
- IDA Dark Sky Approved
- IK10 Rated

The information and specifications on this document are subject to change without any notification. All values are design, nominal, typical or prorated values when measured under internal and external laboratory conditions.

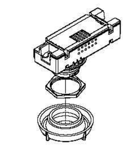
NLS LIGHTING 701 Kingshill Place, Carson, CA 90746 Call Us Today (310) 341-2037 nlslighting.com 2

Submitted by Penn Lighting Associates

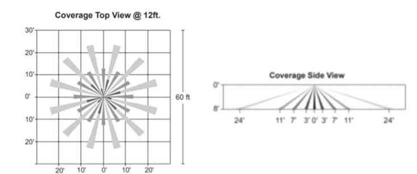
Penn Lighting ASSOCIATES	Job Name: Byers Road Property - Precon	Catalog Number: NV-1-T4-16L-1-30K8-UNV-XX-XX-HSS Notes:	Type: P4 PENN23-226269

PRODUCT SPECIFICATIONS

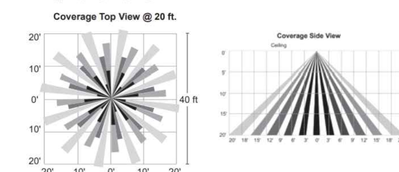
CONTROLS
- **DIMMING CONTROL (FSP)**—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
  - All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
  - FSP-8 mounting heights 8 feet and below
  - FSP-20 mounting heights 9-20 feet
  - FSP-40 mounting heights 21-40 feet.
  - Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field.



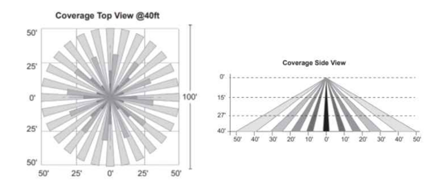
FSP-8



FSP-20



FSP-40

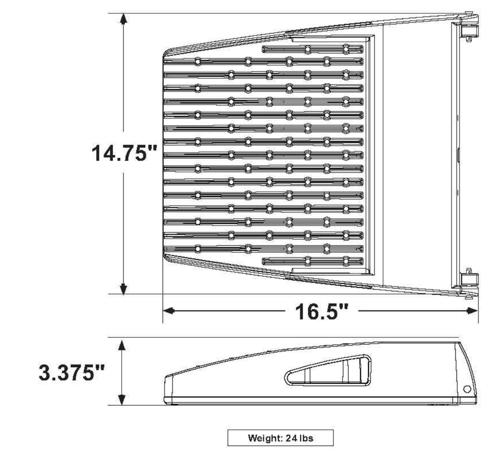


NLS LIGHTING 701 Kingshill Place, Carson, CA 90746 Call Us Today (310) 341-2037 nlslighting.com 3

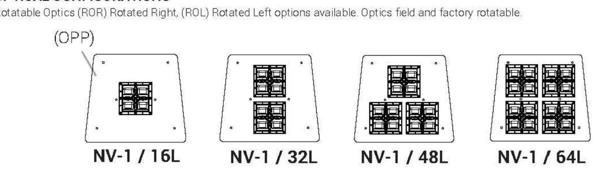
Submitted by Penn Lighting Associates

Penn Lighting ASSOCIATES	Job Name: Byers Road Property - Precon	Catalog Number: NV-1-T4-16L-1-30K8-UNV-XX-XX-HSS Notes:	Type: P4 PENN23-226269

PRODUCT SPECIFICATIONS

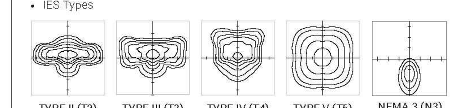


OPTICAL CONFIGURATIONS
Rotatable Optics (ROR) Rotated Right, (ROL) Rotated Left options available. Optics field and factory rotatable.



*** OPTIC PLATE PAINTED TO MATCH FIXTURE FINISH (OPP)**– Optic Plate standard clear anodized, Grade 2. When (OPP) specified, Optic Plate finish will match fixture finish.

OPTICS
Silicone optics high photothermal stability and light output provides higher powered LEDs with minimized lumen depreciation LED life. UV and thermal stability with scratch resistance increases exterior application durability.
- IES Types



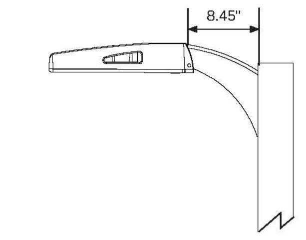
NLS LIGHTING 701 Kingshill Place, Carson, CA 90746 Call Us Today (310) 341-2037 nlslighting.com 4

Submitted by Penn Lighting Associates

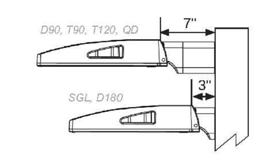
Penn Lighting ASSOCIATES	Job Name: Byers Road Property - Precon	Catalog Number: NV-1-T4-16L-1-30K8-UNV-XX-XX-HSS Notes:	Type: P4 PENN23-226269

MOUNTING OPTIONS

ARCHITECTURAL SWEEP ARM (ASA)
Cast Sweep Arm includes (as standard) Internal Quick Mount Bracket.



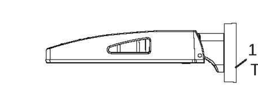
DIRECT POLE (DP)
Standard mounting arm is extruded aluminum in lengths of 3" and 7".
**Arm lengths may vary depending on configuration*



DPX ARM LENGTH

DPX ARM LENGTH	SGL	D90	D180	D180	T90	T120	QD
NV-1	3"	7"	3"	7"	7"	7"	7"

WALL MOUNT (WM)
Cast Aluminum Plate for direct wall mount. 3" extruded aluminum arm mounts directly to a cast wall mount box.



EPA

EPA	SGL	D90	D180	T90	T120	QD
NV-1-DP3	0.46		0.92			
NV-1-DP7		1.14	1.05	1.34	1.37	1.34
NV-1-KM	0.54	N/A	1.08	N/A	N/A	N/A
NV-1-ASA	0.75	1.29	1.50	1.99	2.05	1.99

MOUNTING CONFIGURATION: Single (SGL), Double (D-90), Double (D-180), Triple (T-90), Triple (T-120), Quad (QD)

NLS LIGHTING 701 Kingshill Place, Carson, CA 90746 Call Us Today (310) 341-2037 nlslighting.com 5

Submitted by Penn Lighting Associates

Penn Lighting ASSOCIATES	Job Name: Byers Road Property - Precon	Catalog Number: NV-1-T3-16L-1-30K8-UNV-XX-XX-HSS Notes:	Type: P3 PENN23-226269

NLS LIGHTING — NV-1 — AREA, SITE & ROADWAY (as above; Light Dist. selected: Type 3 (T3))

Submitted by Penn Lighting Associates

Penn Lighting ASSOCIATES	Job Name: Byers Road Property - Precon	Catalog Number: NV-1-T3-16L-1-30K8-UNV-XX-XX-HSS Notes:	Type: P3 PENN23-226269

PRODUCT SPECIFICATIONS (as above) nlslighting.com 2

Submitted by Penn Lighting Associates

Penn Lighting ASSOCIATES	Job Name: Byers Road Property - Precon	Catalog Number: NV-1-T3-16L-1-30K8-UNV-XX-XX-HSS Notes:	Type: P3 PENN23-226269

PRODUCT SPECIFICATIONS — CONTROLS, FSP-8, FSP-20, FSP-40 (as above) nlslighting.com 3

Submitted by Penn Lighting Associates

Penn Lighting ASSOCIATES	Job Name: Byers Road Property - Precon	Catalog Number: NV-1-T3-16L-1-30K8-UNV-XX-XX-HSS Notes:	Type: P3 PENN23-226269

PRODUCT SPECIFICATIONS — OPTICAL CONFIGURATIONS, OPTICS (as above) nlslighting.com 4

Submitted by Penn Lighting Associates

Penn Lighting ASSOCIATES	Job Name: Byers Road Property - Precon	Catalog Number: NV-1-T3-16L-1-30K8-UNV-XX-XX-HSS Notes:	Type: P3 PENN23-226269

MOUNTING OPTIONS (as above) nlslighting.com 5

DLHowell
Civil Engineering
Land Planning
Environmental
www.DLHowell.com
1250 Wrights Lane
West Chester, PA 19380
Phone: (610) 918-9002
Fax: (610) 918-9003

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — DAVID W. GIBBONS — PE076444

REV.	DATE	DESCRIPTION
8		
7		
6		
5		
4		
3		
2	08/04/23	REVISED PER TOWNSHIP REVIEW LETTERS
1	06/01/23	REVISED PER TOWNSHIP REVIEW LETTERS

PRELIMINARY/FINAL
LIGHTING SPECIFICATIONS PLAN

CLIENT: QBD VENTURES
PROJECT: BYERS ROAD PROPERTY
LOCATION: 164 BYERS ROAD UPPER UWCHLAN TOWNSHIP, CHESTER COUNTY, PA

DATE:	12/21/20
SCALE:	AS SHOWN
DRAWN BY:	AM
CHECKED BY:	DWG
PROJECT NO.:	2146
CAD FILE:	09 LIGHTING PLAN.dwg
PLOTTED:	08/04/23
DRAWING NO.:	C08.02
SHEET	11 OF 13

PLANTING SCHEDULE

QTY	SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	NOTES
SECTION 162-57. LANDSCAPE DESIGN STANDARDS (SALDO)					
(LANDSCAPE DESIGN STANDARDS)					
STREET TREES					
3		*QUERCUS PALUSTRIS*	PIN OAK	3- 3.5" CAL., 14- 16' HT., SPACING AS SHOWN	
		(PLEASE NOTE ALTERNATE LOCATION)			
(MINIMUM PLANTING STANDARDS)					
BUILDING AREA LANDSCAPING					
2		*PRUNUS SUBHIRTELLA 'AUTUMNALIS*	AUTUMN FLOWERING CHERRY	3- 3.5" CAL., 12-14' HT., 6- 7' SP., B&B	
5		*ILEX VERTICILLATA*	WINTERBERRY HOLLY	24-30" HT., 24-30" SP.	
3		*CLETHERA ALNIFOLIA 'HUMMINGBIRD'*	HUMMINGBIRD SUMMERSWEET	24-30" HT., 24-30" SP.	
5		*CEPHALOTAXUS HARRINGTONIA*	JAPANESE PLUM YEW	24-30" HT., 24-30" SP.	
14		*HYPERICUM CALYCINUM 'SUNBURST'*	ST. JOHNS WORT	24-30" HT., 24-30" SP.	
15		*ILEX GLABRA 'SHAMROCK'*	DWARF SHAMROCK INKBERRY	24-30" HT., 24-30" SP.	
PARKING & LOADING AREA LANDSCAPING, & PARKING LOT SCREEN & INTERIOR SHADE TREES					
3		*QUERCUS PHELLOS*	WILLOW OAK	3- 3.5" CAL., 12-14' HT., 6- 7' SP., B&B.	
2		*TILIA CORDATA 'GREENSPIRE'*	GREENSPIRE LINDEN	3- 3.5" CAL., 12-14' HT., 6- 7' SP., B&B.	
6		*CLETHERA ALNIFOLIA 'HUMMINGBIRD'*	HUMMINGBIRD SUMMERSWEET	24-30" HT., 24-30" SP.	
5		*CEPHALOTAXUS HARRINGTONIA*	JAPANESE PLUM YEW	24-30" HT., 24-30" SP.	
7		*ILEX GLABRA 'SHAMROCK'*	DWARF SHAMROCK INKBERRY	24-30" HT., 24-30" SP.	
169		*JUNIPERUS CONFERTA*	SHORE JUNIPER	1 GAL CONT.	
EXISTING ROAD FRONTAGE REQUIREMENT					
5		*ILEX x MESERVEAE 'CHINA GIRL'*	CHINA GIRL HOLLY	24-30" HT., 24-30" SP.	
5		*ILEX VERTICILLATA*	WINTERBERRY HOLLY	24-30" HT., 24-30" SP.	
TRACT BOUNDARY REQUIREMENT					
3		*CRYPTOMERIA JAPONICA 'RADICANS'*	JAPANESE CEDAR	8' HT., 4-5' SP., B&B	
8		*CORNUS SERICEA*	RED TWIG DOGWOOD	24-30" HT., 24-30" SP.	
27		*HYPERICUM CALYCINUM 'SUNBURST'*	ST. JOHNS WORT	24-30" HT., 24-30" SP.	
10		*ITEA VIRGINICA 'LITTLE HENRY*	LITTLE HENRY SWEETSPIRE	24-30" HT., 24-30" SP.	
13		*MYRICA PENSYLVANICA*	NORTHERN BAYBERRY	24-30" HT., 24-30" SP.	
17		*VIBURNUM TRILOBUM 'COMPACTUM'*	COMPACT AMERICAN CRANBERRYBUSH	24-30" HT., 24-30" SP.	
10,000 SF.		SEEDED LAWN AREA			

NOTES:
1. ALL DISTURBED AREAS ARE TO BE FINE GRADED, RAKED AND SEEDED.
2. CONTRACTOR IS TO VERIFY SEEDING QUANTITY PRIOR TO BID.

LEGEND

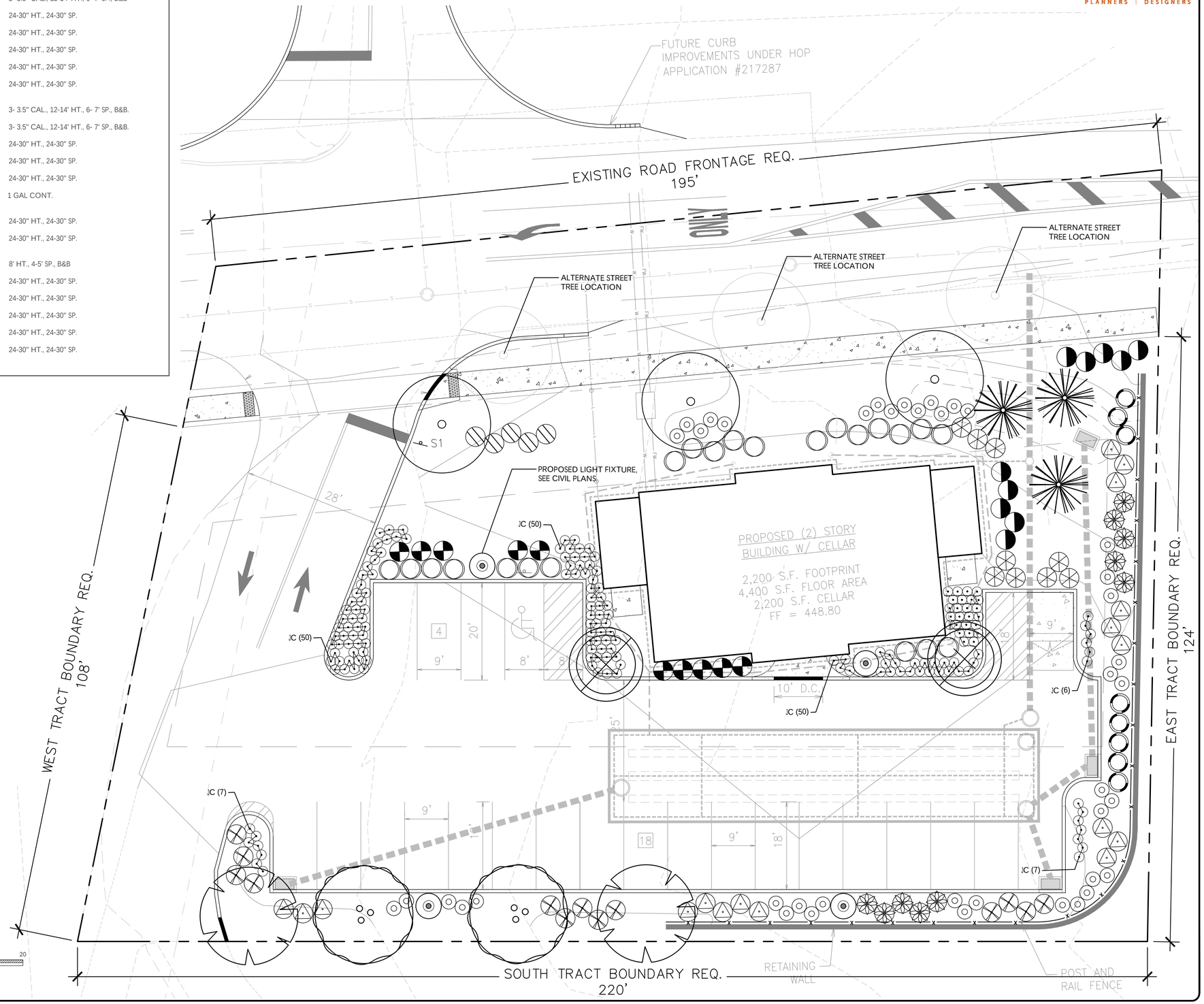
PROPOSED LIGHT FIXTURE, SEE CIVIL PLANS.

SITE PLAN NOTES:

1. ALL LINES AND GRADE WORK NOT PRESENTLY ESTABLISHED AT THE SITE SHALL BE LAID OUT BY A REGISTERED LAND SURVEYOR OR PROFESSIONAL CIVIL ENGINEER EMPLOYED BY THE CONTRACTOR IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. THIS PLAN TO BE USED FOR LANDSCAPING AND SITE IMPROVEMENT PURPOSED ONLY.
3. PLANS CREATED FROM DRAWINGS FROM D.L. HOWELL & ASSOCIATES, INC. ENGINEERING DATED, 02/16/2023.
4. LOCATION OF ALL UNDERGROUND UTILITIES SHALL BE VERIFIED AND MARKED IN THE FIELD, PRIOR TO ANY DIGGING OPERATIONS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING EXISTING TREES AND PLANT MATERIAL WITHIN THE AREA OF PROPOSED IMPROVEMENTS.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL DEBRIS OFF-SITE, CLEAN-UP OF ALL PAVED AREAS (ROADWAYS, SIDEWALKS, ETC.); AND RESTORATION OF ALL DISTURBED LAWN AREAS.
7. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR ANY DAMAGE TO UNDERGROUND UTILITIES DAMAGED.
8. CONTRACTOR SHALL PROVIDE SCREENED PLANTING SOIL WHERE PLANTING IS TO OCCUR. 36" DEPTH. 6" DEPTH AT LAWN AREAS.
9. FOLLOWING COMPLETION OF ALL PLANTING INSTALLATION WORK, THE CONTRACTOR SHALL BE REQUIRED TO RESTORE ALL DISTURBED LAWN AREAS.
10. NO TREE SHALL BE PLANTED CLOSER THAN 10 FEET FROM AN UNDERGROUND UTILITY.
11. ALL LINES ARE PARALLEL OR PERPENDICULAR UNLESS SHOWN OTHERWISE.
12. VERIFY LAYOUT OF ALL PROPOSED WORK TO EXISTING CONDITIONS. REPORT DISCREPANCIES BEFORE ANY CLEARING OR EXCAVATION IS DONE.
13. PROVIDE STAKED LAYOUT ON SITE FOR OWNER AND LANDSCAPE ARCHITECT'S REVIEW PRIOR TO COMMENCING WORK.
14. ALL DIMENSIONS SHOWN ARE TO FACE OF MATERIALS, UNLESS SHOWN OTHERWISE.
15. PLEASE NOTE, CLIENT DID NOT RETAIN STUART AND ASSOCIATES, LLC.. TO PROVIDE LONG TERM MAINTENANCE SPECIFICATIONS FOR THE LANDSCAPE MATERIAL.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING PA ONE CALL AND LOCATING ALL UNDERGROUND UTILITIES BEFORE ANY DIGGING OR PLANT REMOVAL OCCURS.
17. CONTRACTOR SHALL INSTALL SILT FENCE IN ANY AREAS WHERE SOIL MAY RUNOFF INTO PARKING AREAS OR INTO EXISTING INLETS.
18. FOLLOWING THE COMPLETION, THE EXISTING VEGETATION WILL BE INSPECTED FOR HEALTH AND QUALITY, AND IF NOT DEEMED IN GOOD CONDITION, REPLACED WITH THE EQUIVALENT COMPENSATORY PLANTINGS.
19. V.I.F. = VERIFY IN FIELD.

NOTE:

1. SEE PLANTING SCHEDULES AND CHARTS L9.00



GRAPHIC SCALE
1 inch = 10 feet

stuart
LANDSCAPE ARCHITECTS PLANNERS | DESIGNERS

DLHowell
Civil Engineering
Land Planning
Environmental
www.DLHowell.com

1250 Wrights Lane
West Chester, PA 19380
Phone: (610) 918-9002
Fax: (610) 918-9003

REV.	DATE	DESCRIPTION
8		
7		
6		
5		
4	08/04/2023	REVISED PER TWP REVIEW LETTER
3	03/03/2023	REVISED PER TWP REVIEW LETTER
2	09/17/2022	REVISED PER TWP REVIEW LETTER
1		

PRELIMINARY
LANDSCAPE PLAN

CLIENT: QBD VENTURES
PROJECT: BYERS ROAD PROPERTY
LOCATION: 164 BYERS ROAD, UPPER UWCHLAN TOWNSHIP CHESTER COUNTY, PA

DATE:	12/21/2021
SCALE:	1"=10'
DRAWN BY:	KKM
CHECKED BY:	PJS
PROJECT NO.:	2146
CAD FILE:	QBD VENTURES TLP.dwg
PLOTTED:	08/04/2023
DRAWING NO.:	C09.01
SHEET	12 OF 13

PLANTING SCHEDULE

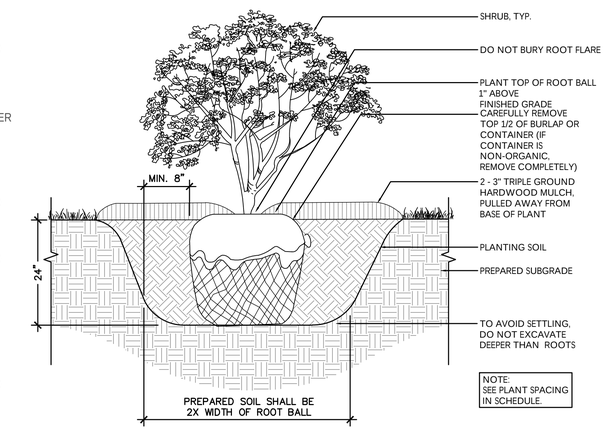
QTY	SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE	NOTES
SECTION 162-57. LANDSCAPE DESIGN STANDARDS (SALDO)					
(LANDSCAPE DESIGN STANDARDS)					
STREET TREES					
3		*QUERCUS PALUSTRIS*	PIN OAK	3- 3.5" CAL., 14- 16' HT., SPACING AS SHOWN	
		(PLEASE NOTE ALTERNATE LOCATION)			
(MINIMUM PLANTING STANDARDS)					
BUILDING AREA LANDSCAPING					
2		*PRUNUS SUBHIRTELLA 'AUTUMNALIS*	AUTUMN FLOWERING CHERRY	3- 3.5" CAL., 12-14' HT., 6- 7' SP., B&B	
5		*ILEX VERTICILLATA*	WINTERBERRY HOLLY	24-30" HT., 24-30" SP.	
3		*CLETHERA ALNIFOLIA 'HUMMINGBIRD'*	HUMMINGBIRD SUMMERSWEET	24-30" HT., 24-30" SP.	
5		*CEPHALOTAXUS HARRINGTONIA*	JAPANESE PLUM YEW	24-30" HT., 24-30" SP.	
14		*HYPERICUM CALYCINUM 'SUNBURST'*	ST. JOHNS WORT	24-30" HT., 24-30" SP.	
15		*ILEX GLABRA 'SHAMROCK'*	DWARF SHAMROCK INKBERRY	24-30" HT., 24-30" SP.	
PARKING & LOADING AREA LANDSCAPING, & PARKING LOT SCREEN & INTERIOR SHADE TREES					
3		*QUERCUS PHELLOS*	WILLOW OAK	3- 3.5" CAL., 12-14' HT., 6- 7' SP., B&B.	
2		*TILIA CORDATA 'GREENSPIRE'*	GREENSPIRE LINDEN	3- 3.5" CAL., 12-14' HT., 6- 7' SP., B&B.	
6		*CLETHERA ALNIFOLIA 'HUMMINGBIRD'*	HUMMINGBIRD SUMMERSWEET	24-30" HT., 24-30" SP.	
5		*CEPHALOTAXUS HARRINGTONIA*	JAPANESE PLUM YEW	24-30" HT., 24-30" SP.	
7		*ILEX GLABRA 'SHAMROCK'*	DWARF SHAMROCK INKBERRY	24-30" HT., 24-30" SP.	
169		*JUNIPERUS CONFERTA*	SHORE JUNIPER	1 GAL CONT.	
EXISTING ROAD FRONTAGE REQUIREMENT					
5		*ILEX x MESERVEAE 'CHINA GIRL'*	CHINA GIRL HOLLY	24-30" HT., 24-30" SP.	
5		*ILEX VERTICILLATA*	WINTERBERRY HOLLY	24-30" HT., 24-30" SP.	
TRACT BOUNDARY REQUIREMENT					
3		*CRYPTOMERIA JAPONICA 'RADICANS'*	JAPANESE CEDAR	8' HT., 4-5' SP., B&B	
8		*CORNUS SERICEA*	RED TWIG DOGWOOD	24-30" HT., 24-30" SP.	
27		*HYPERICUM CALYCINUM 'SUNBURST'*	ST. JOHNS WORT	24-30" HT., 24-30" SP.	
10		*ITEA VIRGINICA 'LITTLE HENRY*	LITTLE HENRY SWEETSPIRE	24-30" HT., 24-30" SP.	
13		*MYRICA PENSYLVANICA*	NORTHERN BAYBERRY	24-30" HT., 24-30" SP.	
17		*VIBURNUM TRILOBUM 'COMPACTUM'*	COMPACT AMERICAN CRANBERRYBUSH	24-30" HT., 24-30" SP.	
10,000 SF.		SEEDED LAWN AREA			

NOTES:
1. ALL DISTURBED AREAS ARE TO BE FINE GRADED, RAKED AND SEEDED.
2. CONTRACTOR IS TO VERIFY SEEDING QUANTITY PRIOR TO BID.

UPPER UWCHLAN TOWNSHIP - TOWNSHIP LANDSCAPING REQUIREMENTS

DISTRICT : C1 : VILLAGE COMMERCIAL DISTRICT

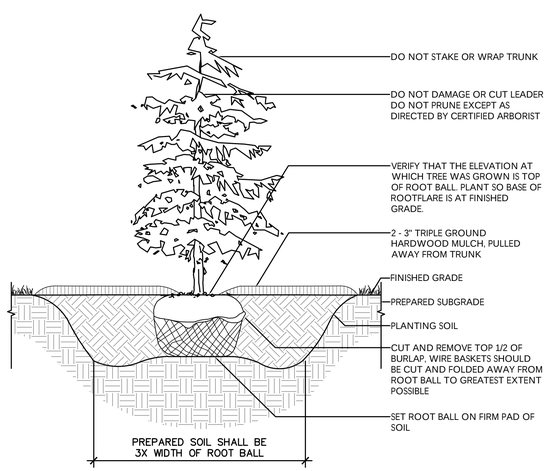
CODE LANGUAGE	REQUIRED	PROPOSED
§162-57. LANDSCAPE DESIGN, INSTALLATION, AND MAINTENANCE STANDARDS (SALDO)		
(C) LANDSCAPE DESIGN STANDARDS		
6(b). STREET TREES SPACING SHALL BE NO GREATER THAN 50 FEET. ROAD FRONTAGE = 195 FT. /50' = 4 STREET TREES	4 DECIDUOUS TREES	3* (WAIVER REQ)
7(c). THE INTERIOR OF A PARKING LOT SHALL HAVE 1 SHADE TREE FOR EVERY 5 PARKING SPACES. 22 SPACES /5 = 4.4 SHADE TREES	5 DECIDUOUS TREES	SATISFIED BY PARKING & LOADING LANDSCAPING REQUIREMENT (BELOW)
(D) MINIMUM PLANTING STANDARDS		
PER 1,000 SF OF GROSS BUILDING AREA - 2,200 SF		
2 - (3-3.5" CAL. MIN.) DECIDUOUS TREE /1,000 SF 2,200 SF / 1,000 SF = 2.2 2.2 x 2 = 4.4 DECIDUOUS TREES	5 DECIDUOUS TREES	2* (WAIVER REQ.)
1 - (8' HT/ MIN.) EVERGREEN TREE /1,000 SF 2,200 SF / 1,000 SF = 2.2 2.2 x 1 = 2.2 EVERGREEN TREES	3 EVERGREEN TREES	0* (WAIVER REQ.)
8 - (24-30" HT.) SHRUBS /1,000 SF 2,200 SF / 1,000 SF = 2.2 2.2 x 8 = 17.6 SHRUBS	18 SHRUBS	42 SHRUBS
PER 2,000 SF OF PARKING OR LOADING AREA - 8,370 SF		
1 - DECIDUOUS TREE /2,000 SF 8,370 SF / 2,000 SF = 4.2 4.2 x 1 = 4.2 DECIDUOUS TREES	5 DECIDUOUS TREES	5 DECIDUOUS TREES
1 - EVERGREEN TREE /2,000 SF 8,370 SF / 2,000 SF = 4.2 4.2 x 1 = 4.2 EVERGREEN TREES	5 EVERGREEN TREES	0* (WAIVER REQ.)
4 - SHRUBS /2,000 SF 8,370 SF / 2,000 SF = 4.2 4.2 x 4 = 16.8 SHRUBS	17 SHRUBS	18 SHRUBS AND 20 GROUNDCOVER PLANTINGS
PER 100 LF OF NEW AND EXISTING ROAD FRONTAGE EXISTING ROAD FRONTAGE 195 LF 2 - DECIDUOUS TREE /100 LF 195 LF / 100 LF = 1.9 1.9 x 2 = 3.8 DECIDUOUS TREES	4 DECIDUOUS TREES	0* (WAIVER REQ.)
1 - EVERGREEN TREE /100 LF 195 LF / 100 LF = 1.9 1.9 x 1 = 1.9 EVERGREEN	2 EVERGREEN TREES	0* (WAIVER REQ.)
5 - SHRUBS /100 LF 195 LF / 100 LF = 1.9 1.9 x 5 = 9.5 SHRUBS	10 SHRUBS	10 SHRUBS
PER 100 LF OF EXISTING TRACT BOUNDARY - 452 LF 1 - DECIDUOUS TREE /100 LF 452 LF / 100 LF = 4.5 4.5 x 1 = 4.5 DECIDUOUS TREES	5 DECIDUOUS TREES	0* (WAIVER REQ.)
2 - EVERGREEN TREE /100 LF 452 LF / 100 LF = 4.5 4.5 x 2 = 9 EVERGREEN TREES	9 EVERGREEN TREES	3* (WAIVER REQ.)
8 - SHRUBS /100 LF 452 LF / 100 LF = 4.5 4.5 x 8 = 36 SHRUBS	36 SHRUBS	75 SHRUBS



2 SHRUB PLANTING DETAIL, TYP.
SCALE : 1" = 1'-0"

GENERAL PLANTING NOTES:

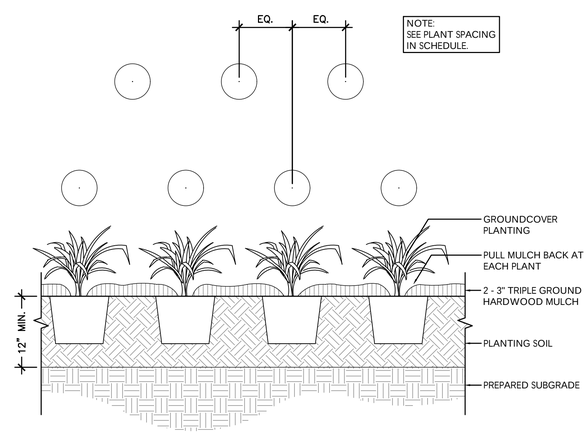
1. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR 18 MONTHS.
2. ALL PLANT MATERIAL SHALL BE OF SPECIMEN QUALITY.
3. ALL PLANT MATERIAL SHALL BE LAID OUT IN FIELD BY LANDSCAPE ARCHITECT. (NOTE: NO SHRUBS SHALL BE PLANTED UNTIL ALL TREE PLANTING IS COMPLETED.)
4. ALL PLANT MATERIAL SHALL BE THOROUGHLY WATERED DURING INSTALLATION AND THROUGHOUT THE GUARANTEE PERIOD.
5. ALL PLANT MATERIAL SHALL BE WATERED BY CONTRACTOR AT LEAST THREE (3) TIMES IN ABSENCE OF NATURAL RAINFALL OR UNTIL THE END OF THE GUARANTEE PERIOD.
6. ALL TREES SHALL BE PROVIDED WITH A 3" DEEP SAUCER, CONSISTING OF SHREDDED OAK BARK MULCH.
7. ALL PLANT MATERIALS SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARDS FOR NURSERY STOCK (ANSI Z60.1-2004). PLANT ACCORDING TO ANSI A300 PART 6.
8. CONTRACTOR SHALL PROVIDE LANDSCAPE ARCHITECT WITH NURSERY SOURCE OF ALL PLANT MATERIAL. LANDSCAPE ARCHITECT SHALL PERFORM A SITE VISIT TO INSPECT NURSERY SOURCE PRIOR TO DELIVERY OF ANY PLANT MATERIAL.
9. ALL TREES AND SHRUBS DELIVERED TO THE SITE SHALL BE INSPECTED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING. ALL TREES AND SHRUBS SHALL HAVE WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTANICAL AND COMMON NAME.
10. ALL PLANT SUBSTITUTIONS MUST BE APPROVED BY THE TOWNSHIP .
11. ANY PLANT MATERIAL EXHIBITING SIGNS OF DISEASE, INSECTS, EGGS, LARVAE AND DEFECTS SUCH AS KNOTS, SUN-SCALD, INJURIES, ABRASIONS OR DISFIGUREMENT SHALL BE REJECTED.
12. ALL PROPOSED SHRUBS SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS, CONSISTING OF 3" OF OAK BARK MULCH.
13. SCARIFY THE SUBGRADE AND SIDES OF THE PLANTING HOLE WHEN PLANTING IN CLAY SOILS (MORE THAN 15% CLAY).
14. LIFT AND SET THE TREE BY ROOTBALL ONLY. DO NOT LIFT USING THE TREE TRUNK AND DO NOT USE TREE TRUNK AS A LEVER.
15. SET THE TOP OF THE ROOTBALL LEVEL WITH THE SOIL SURFACE OR SLIGHTLY HIGHER IF THE SOIL IS PRONE TO SETTLING.
16. AFTER THE TREE IS SET IN PLACE, REMOVE BURLAP, WIRE AND STRAPS FROM AT LEAST THE UPPER 1/2 OF THE ROOTBALL.
17. PRUNING SHALL BE LIMITED TO DEAD, DISEASED, OR BROKEN LIMBS ONLY AND SHALL BE IN ACCORDANCE WITH THE ANSI A300 SPECIFICATIONS. IF ADDITIONAL PRUNING IS NECESSARY, IT SHALL BE DONE BY A CERTIFIED ARBORIST.
18. REMOVE ANY TRUNK WRAP REMAINING AT TIME OF PLANTING. NO WRAPS SHALL BE PLACED ON TRUNK.
19. DO NOT REMOVE TREE IDENTIFICATION TAGS UNTIL THE LANDSCAPE ARCHITECT HAS CONFIRMED CORRECT SPECIES MATCHES THE PROJECT PLANTING SCHEDULE.
20. LANDSCAPING MATERIALS SHALL BE FIELD ADJUSTED DURING INSTALLATION TO AVOID CONFLICT BETWEEN THE LIGHT FIXTURES, UTILITIES, AND TREE CANOPIES.



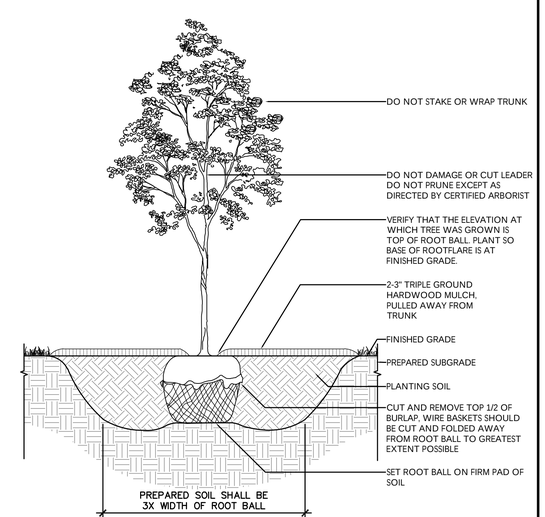
NOTES:

1. TO AVOID SETTLING, DO NOT DIG THE HOLE DEEPER THAN THE ROOT BALL DEPTH.
2. SCARIFY THE SUBGRADE AND SIDES OF THE PLANTING HOLE WHEN PLANTING IN CLAY SOILS.

4 EVERGREEN TREE PLANTING DETAIL, TYP.
SCALE : 1/2" = 1'-0"



3 GROUNDCOVER PLANTING DETAIL , TYP.
SCALE : 1" = 1'-0"



NOTES:

1. TO AVOID SETTLING, DO NOT DIG THE HOLE DEEPER THAN THE ROOT BALL DEPTH.
2. SCARIFY THE SUBGRADE AND SIDES OF THE PLANTING HOLE WHEN PLANTING IN CLAY SOILS.

1 TREE PLANTING DETAIL, TYP.
SCALE : 1/2" = 1'-0"

stuart
LANDSCAPE ARCHITECTS PLANNERS | DESIGNERS

DLHowell
Civil Engineering
Land Planning
Environmental
www.DLHowell.com

1250 Wrights Lane
West Chester, PA 19380
Phone: (610) 918-9002
Fax: (610) 918-9003

PENNSYLVANIA PATRICK J. STUART REGISTERED LANDSCAPE ARCHITECT

REV.	DATE	DESCRIPTION
8		
7		
6		
5		
4	08/04/2023	REVISED PER TWP REVIEW LETTER
3	03/03/2023	REVISED PER TWP REVIEW LETTER
2	09/17/2022	REVISED PER TWP REVIEW LETTER
1		

PRELIMINARY
LANDSCAPE DETAILS

CLIENT: QBD VENTURES
PROJECT: 164 BYERS ROAD PROPERTY
LOCATION: 164 BYERS ROAD, UPPER UWCHLAN TOWNSHIP CHESTER COUNTY, PA

DATE:	12/21/2021
SCALE:	VARIES
DRAWN BY:	KKM
CHECKED BY:	PJS
PROJECT NO.:	2146
CAD FILE:	QBD VENTURES TLP.dwg
PLOTTED:	08/04/2023
DRAWING NO.:	C09.02
SHEET	13 OF 13