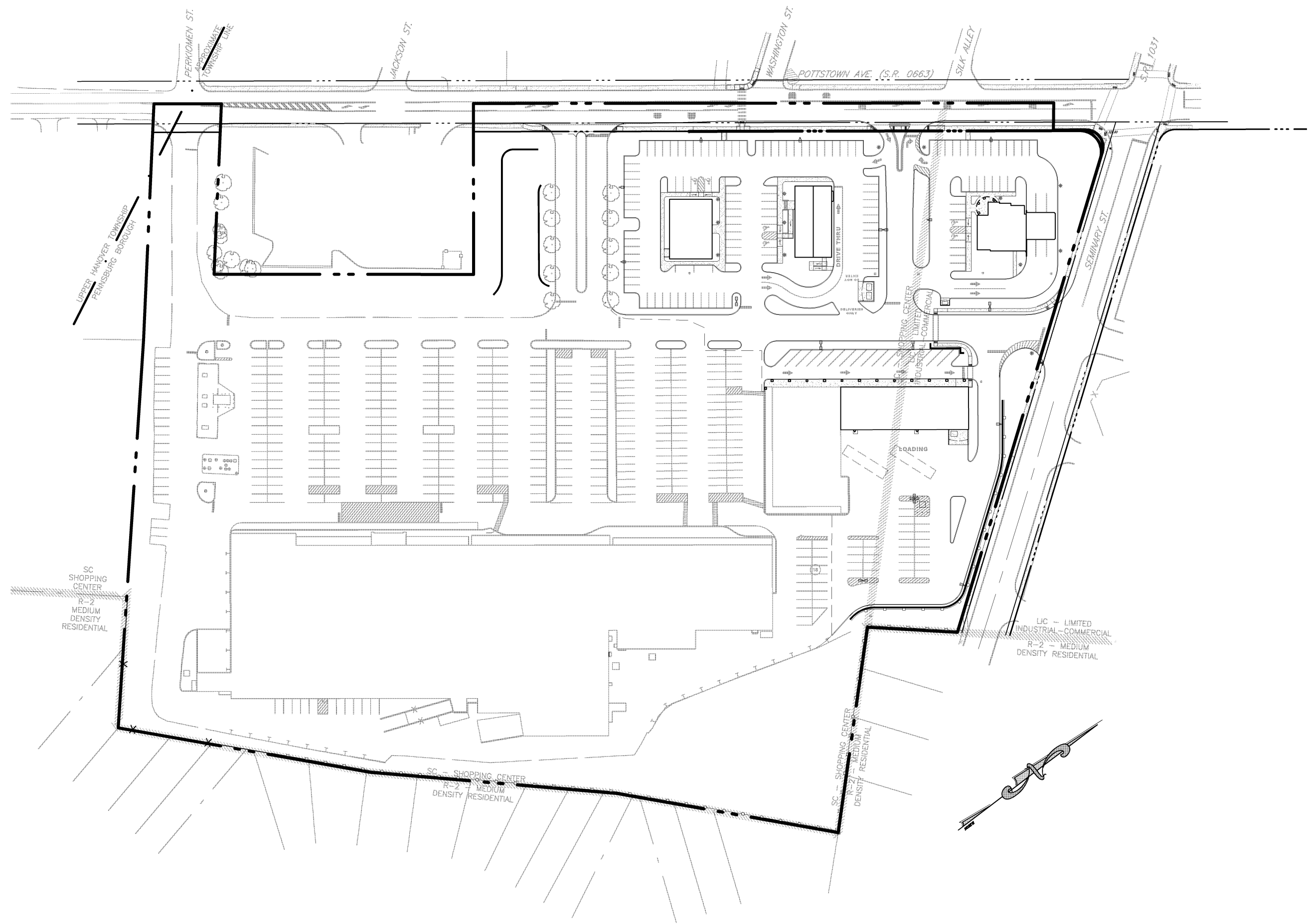
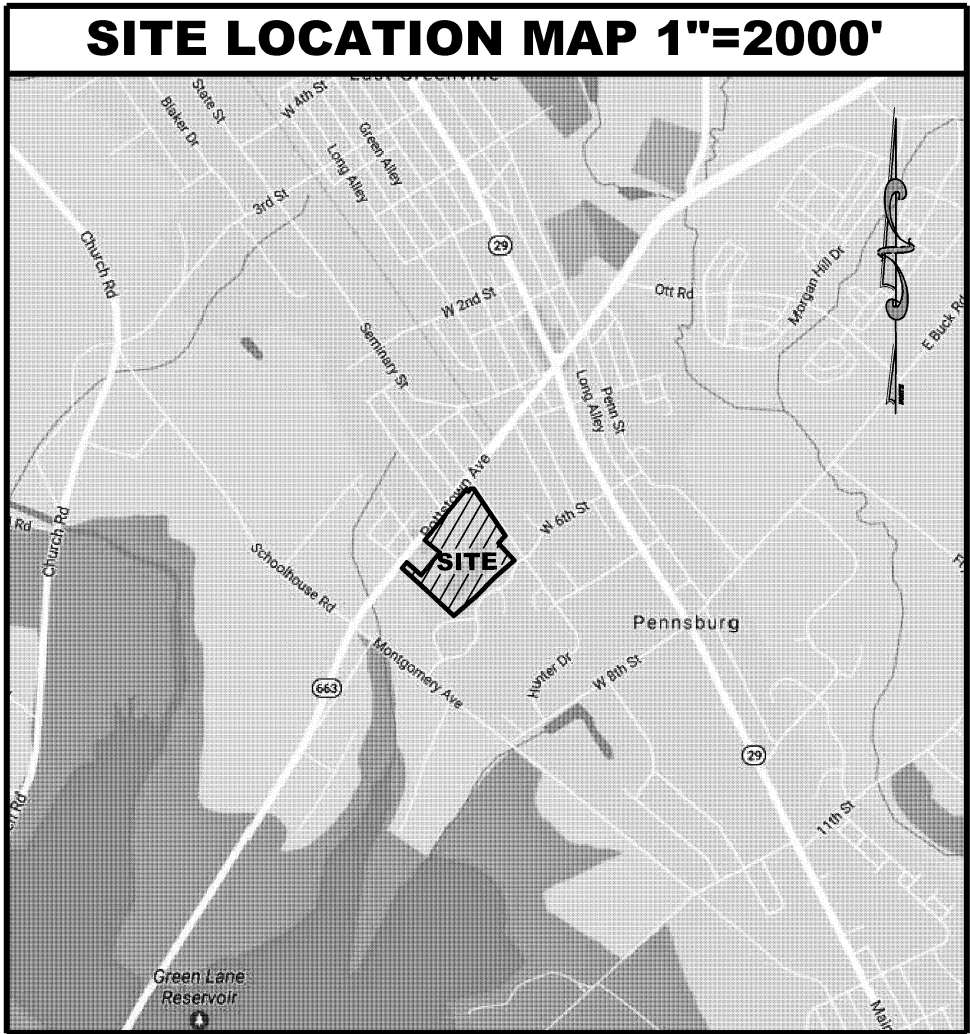


FINAL LAND DEVELOPMENT PLANS

OF

PENNSBURG SQUARE SHOPPING CENTER



SITE SCALE: 1" = 100'

**PENNSBURG BOROUGH, MONTGOMERY
COUNTY, PENNSYLVANIA**

PREPARED FOR

WESTOVER COMPANIES

550 AMERICAN AVE, SUITE #1
KING OF PRUSSIA, PA 19406

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03	EXISTING FEATURES PLAN	01/28/2019
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06	STORM AND CONSTRUCTION DETAILS - PCSWM (A)	01/28/2019
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09	STORM AND CONSTRUCTION DETAILS - PCSWM (D)	01/28/2019
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18	LIGHTING PLAN	07/16/2019
19	LIGHTING DETAILS (A)	01/28/2019
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22	EROSION AND SEDIMENTATION CONTROL PLAN	01/28/2019
23	EROSION AND SEDIMENTATION CONTROL DETAILS (A)	01/28/2019
24	EROSION AND SEDIMENTATION CONTROL DETAILS (B)	01/28/2019
25	PCSWM - PENNSBURG BOROUGH	01/28/2019
26	PCSWM DETAILS - PENNSBURG BOROUGH	01/28/2019
27	POST CONSTRUCTION STORM WATER PLAN - NDPES PERMIT	01/28/2019

ACT 287 NOTIFICATION

THE UNDERGROUND UTILITY LINE PROTECTION LAW
(ACT 287 OF 1974 AS AMENDED BY ACT 187 OF 1996,
ACT 199 OF 2005 AND ACT 121 OF 2008)

SITE SERIAL NO. 20171031260

LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT 187 OF 1996, AS AMENDED BY ACT 187 OF 1996, ACT 199 OF 2005 AND ACT 121 OF 2008, CONTRACTORS MUST VERIFY LOCATIONS OF UNDERGROUND UTILITIES BY NOTIFYING FACILITY OWNERS THROUGH THE ONE-CALL SYSTEM BY DIALING **8-1-1** NO LESS THAN 3, NOR MORE THAN 10 DAYS PRIOR TO EXCAVATION OR DEMOLITION WORK.

ORIGINATION DATE: OCTOBER 18, 2017
REVISION DATE: JANUARY 5, 2017
MARCH 2, 2018
APRIL 10, 2018
APRIL 27, 2018
MAY 1, 2018
MAY 10, 2018
JUNE 13, 2018
JUNE 29, 2018.
AUGUST 3, 2018
SEPTEMBER 14, 2018
OCTOBER 4, 2018
OCTOBER 22, 2018
NOVEMBER 16, 2018
JANUARY 28, 2019
MARCH 8, 2019.
JULY 16, 2019

Civil Engineers | Land Surveyors | Landscape Architects

428 Main Street • Pennsburg, PA 18073 • Phone 267.923.8673 • Fax 267.923.8679
www.horizonengineers.com

Note: These plans are not to be used for construction unless the plan contains a red stamp indicating "ISSUED FOR CONSTRUCTION" by Horizon Engineering Associates, LLC. Horizon Engineering Associates, LLC shall assume no liability for construction performed from plans not containing this stamp.

RECORDING NOTES

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PENNSBURG BOROUGH ZONING AND SUBDIVISION ORDINANCES, AND ALSO THE ZONING HEARING BOARD DECISION OF SEPTEMBER 7, 2017. THE PROPOSAL INCLUDES 18,100 SQUARE FEET OF ADDITIONAL COMMERCIAL BUILDING AND ASSOCIATED PARKING AND DRIVE ALLEYS.

2. THE EXISTING PARCELS AS SHOWN HEREON ARE PROPOSED TO BE CONSOLIDATED INTO ONE PARCEL.

3. PARCEL BOUNDARY, RIGHT-OF-WAY INFORMATION, AND EXISTING FEATURES TAKEN FROM THE ATACSM PLAN FOR PENNSBURG SQUARE SHOPPING CENTER, PREPARED BY GILMORE & ASSOCIATES, INC., DATED AUGUST 11, 2016. SUPPLEMENTAL TOPOGRAPHIC SURVEY PERFORMED BY HORIZON ENGINEERING ASSOCIATES, LLC.

4. CONCRETE MONUMENTS SHALL BE SET AS NOTED ON THIS PLAN. ALL OTHER PROPERTY CORNERS SHALL BE MARKED WITH IRON PINS UPON FINAL GRADING.

5. ALL AREAS WITHIN THE ULTIMATE RIGHT-OF-WAY OF POTTSWOWN AVENUE ARE HEREBY OFFERED FOR DEDICATION TO PENNSBURG BOROUGH.

6. WATER SERVICE SHALL BE PROVIDED BY THE UPPER HANOVER AUTHORITY (UHA). ALL WATER EASEMENTS AND FACILITIES SHALL BE DEDICATED TO THE UPPER HANOVER AUTHORITY (UHA).

7. SANITARY SEWER SERVICE SHALL BE PROVIDED BY UPPER MONTGOMERY JOINT AUTHORITY (UMJA). ALL SEWER EASEMENTS AND FACILITIES SHALL BE DEDICATED TO UPPER MONTGOMERY JOINT AUTHORITY (UMJA).

8. NO PLANTINGS, TREES OR STRUCTURES SHALL BE PERMITTED WITHIN ANY PROPOSED EASEMENTS.

9. EASEMENTS CROSSING LOTS SHALL BE MAINTAINED AS LOWN AREAS BY THE LOT OWNER.

10. GAS, ELECTRIC, TELEPHONE AND CABLE TELEVISION FACILITIES SHALL BE PROVIDED TO ALL UNITS VIA UNDERGROUND SERVICE.

11. THE DETENTION BASIN AND ASSOCIATED CONTROL STRUCTURES ARE PERMANENT STRUCTURES AND SHALL NOT BE REMOVED OR ALTERED. THE OWNER SHALL HAVE THE RESPONSIBILITY FOR THE PERPETUAL MAINTENANCE OF THE DETENTION BASIN, BASIN OUTLET STRUCTURE AND STORM PIPES WHICH ARE LOCATED ON THE PROPERTY. NO CHANGES SHALL BE MADE TO THE STRUCTURES, PIPES OR FINISH GRADING WITHOUT PRIOR WRITTEN APPROVAL FROM THE BOROUGH. THE BOROUGH HAS THE RIGHT TO ENTER EASEMENTS AREAS TO PERFORM ANY REQUIRED MAINTENANCE WHICH HAS NOT BEEN PROPERLY PERFORMED OR CARRIED OUT IN A TIMELY MANNER. THE OWNER OF LAND OVER WHICH THESE EASEMENTS EXIST SHALL BE RESPONSIBLE FOR THE COST OF ANY MAINTENANCE WHICH IS PERFORMED BY THE BOROUGH. THE BOROUGH SHALL LEND THE PROPERTY FOR SAID COSTS UNTIL THE BOROUGH HAS BEEN REIMBURSED. FOR THE PURPOSE OF PROVIDING ACCESS TO THE BOROUGH OF PENNSBURG FOR SAID MAINTENANCE ACTIVITIES, A BLANKET EASEMENT SHALL BE PROVIDED TO PENNSBURG BOROUGH. SAID EASEMENT SHALL BE DRAFTED TO THE MUTUAL SATISFACTION OF THE OWNER AND PENNSBURG BOROUGH. SAID EASEMENT SHALL ALSO COVER EXISTING STORM FACILITIES AS WELL AND ACCORDINGLY, ALL EXISTING STORM SEWER EASEMENTS LOCATED ON THE PROPERTY SHALL BE ABOLISHED IN PERPETUITY.

12. THIS PLAN CONTAINS INFORMATION PERTAINING TO UNDERGROUND UTILITIES WHICH IS FOR GENERAL INFORMATION ONLY, AND MAY NOT BE BASED ON AN ACTUAL SURVEY. ALL SUBSURFACE INFORMATION SHOWN ON THESE PLANS NEEDS TO BE VERIFIED BY THE PLAN USER. THE PREPARER OF THIS PLAN ASSUMES NO RESPONSIBILITY FOR AND MAKES NO REPRESENTATION OR WARRANTIES AS TO THE ACCURACY OF THE LOCATION OF UNDERGROUND UTILITIES OR OTHER UNDERGROUND FEATURES. THE PLAN USER SHALL EXECUTE A PA ONE CALL PRIOR TO ANY EXCAVATION ON THE SITE.

13. A HIGHWAY OCCUPANCY PERMIT IS REQUIRED PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, NO. 428), KNOWN AS THE "STATE HIGHWAY LAW," BEFORE DRIVEWAY ACCESS TO THE STATE HIGHWAY IS PERMITTED. ACCESS TO THE STATE HIGHWAY SHALL BE ONLY AS AUTHORIZED BY A HIGHWAY OCCUPANCY PERMIT. NEITHER THE DEPARTMENT NOR ANY MUNICIPALITY TO WHICH PERMIT ISSUING AUTHORITY HAS BEEN DELEGATED UNDER SECTION 420 OF THE "STATE HIGHWAY LAW" SHALL BE LIABLE IN DAMAGES FOR ANY INJURY TO PERSONS OR PROPERTY ARISING OUT OF THE ISSUANCE OR DENIAL OF A DRIVEWAY PERMIT, OR FOR FAILURE TO REGULATE ANY DRIVEWAY. FURTHERMORE, THE MUNICIPALITY FROM WHICH THE BUILDING PERMIT APPROVAL HAS BEEN REQUESTED SHALL NOT BE HELD LIABLE FOR DAMAGES TO PERSONS OR PROPERTY ARISING OUT OF THE ISSUANCE OR DENIAL OF A DRIVEWAY PERMIT BY THE DEPARTMENT.

14. THE APPROVED IMPROVEMENT CONSTRUCTION PLAN A COPY OF WHICH MAY BE INSPECTED AT THE BOROUGH OFFICE, HAS BEEN MADE A PART OF THE APPROVED FINAL PLAN.

15. THE LARGEST VEHICLE ANTICIPATED TO ACCESS THE PROPOSED SITE IMPROVEMENTS IS THE WB-50 DESIGN VEHICLE.

16. PENNSBURG BOROUGH HAS REMOVED THE RESTRICTION TO USE PARCEL 150001802002 FOR OPEN SPACE AS NOTED ON THE THOSE CERTAIN PLANS ENTITLED "CVSPHARMACY" PREPARED BY PENNOM ASSOCIATES, INC. AND RECORDED IN THE MONTGOMERY COUNTY RECORDER OF DEEDS OFFICE ON 28/05/2005 AT PLAN BOOK 00004, PAGE 0004 (SHEET C-4 AND C-21) (SHOWN AS PARCELS C ON SAID PLANS), IN CONSIDERATION OF PAYMENT OF A FEE BY APPLICANT.

17. THIS PLAN INCORPORATES THE FOLLOWING AGREEMENTS BY REFERENCE AND THE DEVELOPMENT SHOWN HEREON IS UNDER AND SUBJECT TO ALL OF THE TERMS AND CONDITIONS OF THOSE AGREEMENTS WITH THE SAME FORCE AND EFFECT AS IF ALL OF THE TERMS AND CONDITIONS OF THOSE AGREEMENTS WERE SET FORTH HEREON:
1. PENNSBURG BOROUGH LAND DEVELOPMENT IMPROVEMENT AND MAINTENANCE AGREEMENT BY AND BETWEEN PENNSBURG SQUARE ASSOCIATES, L.P. AND PENNSBURG BOROUGH COUNCIL DATED JANUARY 2016, AS THE SAME MAY BE AMENDED FROM TIME TO TIME.
2. FINANCIAL SECURITY AGREEMENT BY AND BETWEEN PENNSBURG SQUARE ASSOCIATES, L.P. AND PENNSBURG BOROUGH COUNCIL DATED JANUARY 2016, AS THE SAME MAY BE AMENDED FROM TIME TO TIME.

ZONING DATA

OBTAINED FROM THE PENNSBURG BOROUGH ZONING ORDINANCE, ORDINANCE 7-55 CHAPTER 110, ARTICLES X AND XVII, DATED 1995, AS AMENDED 6-5-2006.

PROPOSED USE:

"A" RETAIL SALES (SATELLITE USE)
(PERMITTED BY CONDITIONAL USE PURSUANT TO SECTION 110-1001.M)
"B" FAST FOOD / DRIVE-IN EATING ESTABLISHMENT (SATELLITE USE)
(PERMITTED BY CONDITIONAL USE PURSUANT TO SECTION 110-1001.M.(1))
"C" DRIVE-IN BANK OR FINANCIAL INSTITUTION (PAD SITE) (SATELLITE USE)
(PERMITTED BY CONDITIONAL USE PURSUANT TO SECTION 110-2201.B.(7))
"D" RETAIL PROFESSIONAL OFFICE ADDITION TO EXISTING SHOPPING CENTER
(PERMITTED PURSUANT TO SECTION 110-1001)

ZONING DISTRICT:

SC SHOPPING CENTER DISTRICT

MINIMUM REQUIREMENTS

PERMITTED

ACTUAL

MINIMUM TRACT SIZE:

5 AC.

14.37 AC.

MAXIMUM BUILDING COVERAGE:

30 %

20.7 %

MAXIMUM IMPERVIOUS COVERAGE:

75 %

75 %

MINIMUM REQUIRED SETBACK (EXCLUDING SATELLITE USE):

FROM ULTIMATE RIGHT OF WAY:

100 FT.

137 FT.

FROM RESIDENTIAL DISTRICT:

50 FT.

58 FT.

FROM ALL OTHER:

25 FT.

117 FT.

MINIMUM REQUIRED SETBACK FOR SATELLITE USE:

FROM ULTIMATE RIGHT OF WAY:

25 FT.

64 FT.

FROM RESIDENTIAL DISTRICT:

50 FT.

50 FT.

FROM ALL OTHER:

25 FT.

230 FT.

MINIMUM DISTANCE BETWEEN STRUCTURES:

25 FT.

28 FT.

MAXIMUM PERMITTED HEIGHT:

40 FT.

>= 40 FT.

MINIMUM PARKING AND SERVICE AREA SETBACKS:

DISTANCE FROM A PROPERTY LINE ABUTTING A RESIDENTIAL DISTRICT:

25 FT.

132'5" FT.

DISTANCE FROM ALL OTHER PROPERTY LINES:

10 FT.

10 FT.

(**13 FT. FOR EXIST. LOOKING BEHIND BUILDING / 25 FT. FOR PROPOSED)

MAXIMUM BUILDING DIMENSION WITHOUT FACADE VARIATIONS**:

150 FT.

<= 150 FT.

(**PROPOSED SHOPPING CENTER ADDITION)

ZONING DISTRICT:

LIC LIMITED INDUSTRIAL COMMERCIAL DISTRICT

MINIMUM REQUIREMENTS

PERMITTED

ACTUAL

MINIMUM TRACT SIZE:

40,000 S.F.

89,361 S.F.

MAXIMUM BUILDING COVERAGE:

20 %

10 %

MAXIMUM IMPERVIOUS COVERAGE:

75 %

70.5 %

MINIMUM LOT WIDTH:

200 FT.

613 FT.

REQUIRED SETBACKS (BLOS <= 50 FT WIDE, >= 100 FT LONG):

MINIMUM FRONT YARD:

15 FT.

25 FT.

MAXIMUM FRONT YARD:

25 FT.

25 FT.

MINIMUM SIDE YARD:

25 FT.

N/A

MINIMUM REAR YARD:

50 FT.

N/A

MINIMUM SETBACK FROM RESIDENTIAL DISTRICT:

50 FT.

N/A

REQUIRED SETBACKS (BLOS > 50 FT WIDE, > 100 FT LONG):

MINIMUM FRONT YARD:

30 FT.

54 FT.

MAXIMUM FRONT YARD:

80 FT.

54 FT.

MINIMUM SIDE YARD:

25 FT.

225 FT.

MINIMUM REAR YARD:

50 FT.

N/A

MINIMUM SETBACK FROM RESIDENTIAL DISTRICT:

225 FT.

N/A

MINIMUM DISTANCE BETWEEN STRUCTURES:

25 FT.

152 FT.

MAXIMUM PERMITTED HEIGHT:

40 FT.

<= 40 FT.

MINIMUM PARKING AND SERVICE AREA SETBACKS:

DISTANCE FROM A PROPERTY LINE ABUTTING A RESIDENTIAL DISTRICT:

25 FT.

25 FT.

DISTANCE FROM ALL OTHER PROPERTY LINES:

10 FT.

10 FT.

MAXIMUM BUILDING DIMENSION WITHOUT FACADE VARIATIONS**:

100 FT.

<= 100 FT.

(**PROPOSED SHOPPING CENTER ADDITION)

ZONING RELIEF

THE FOLLOWING RELIEF WAS GRANTED BY THE PENNSBURG BOROUGH ZONING HEARING BOARD ON SEPTEMBER 7, 2017, FROM THE PENNSBURG BOROUGH ZONING ORDINANCE, CHAPTER 10, DATED 02-01-2013, AS REVISED.

1. AN INTERPRETATION WAS GIVEN THAT THE PROPOSED RETAIL USE AT BUILDING "A" CONSTITUTES A SATELLITE USE AUTHORIZED BY CONDITIONAL USE UNDER SECTION 110-1001.M.

2. A VARIANCE WAS GRANTED FROM SECTION 110-1003.C TO ALLOW AN ACCESS DRIVE LESS THAN 200 FEET FROM THE NEAREST INTERSECTION OF A PUBLIC STREET. THE PROPOSED RIGHT-IN/RIGHT-OUT ACCESS IS LESS THAN 200 FEET FROM WASHINGTON STREET AND SILK ALLEY.

3. A VARIANCE WAS GRANTED FROM SECTION 110-1405.D TO ALLOW PARKING SPACES PROPOSED WITHOUT THE USE OF BUMPER GUARDS OR WHEEL STOPS.

4. A VARIANCE WAS GRANTED FROM SECTION 110-1405.J TO ALLOW MORE THAN ONE ACCESSWAY ON EACH STREET IT ABUTS, AND TO ALLOW THOSE ACCESSWAYS TO BE MORE THAN 30 FEET WIDE. THE PROPERTY HAS TWO EXISTING ACCESSWAYS ON POTTSWOWN PINE (SR 963) AND IS PROPOSED WITH ONE ADDITIONAL RIGHT-IN/RIGHT-OUT ONLY ACCESSWAY ON THE SAME ROADWAY. THE PROPOSED ACCESSWAY IS GREATER THAN 30 FEET IN WIDTH. THE PROPOSED ACCESSWAY ON SEMINARY STREET IS ALSO GREATER THAN 30 FEET.

5. A VARIANCE WAS GRANTED FROM SECTION 110-2207.A TO ALLOW DIRECT ACCESS FROM THE ABUTTING STREET TO THE PARKING AND SERVICE AREAS FOR PAD SITE USES.

6. A VARIANCE WAS GRANTED FROM SECTION 110-2205 TO PERMIT THE CONSTRUCTION OF PROPOSED BUILDING "C" TO VARY FROM THE REQUIRED BUILDING CHARACTERISTICS FOR BUILDINGS MAINTAINED WITHIN 200 FEET OF AN ARTERIAL STREET.

ZONING DATA

OBTAINED FROM THE PENNSBURG BOROUGH ZONING ORDINANCE, ORDINANCE 7-55 CHAPTER 110, ARTICLES X AND XVII, DATED 1995, AS AMENDED 6-5-2006.

PROPOSED USE:

"A" RETAIL SALES (SATELLITE USE)
(PERMITTED BY CONDITIONAL USE PURSUANT TO SECTION 110-1001.M)
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(PERMITTED BY CONDITIONAL USE PURSUANT TO SECTION 110-1001.M.(1))
"C" DRIVE-IN BANK OR FINANCIAL INSTITUTION (PAD SITE) (SATELLITE USE)
(PERMITTED BY CONDITIONAL USE PURSUANT TO SECTION 110-2201.B.(7))
"D" RETAIL PROFESSIONAL OFFICE ADDITION TO EXISTING SHOPPING CENTER
(PERMITTED PURSUANT TO SECTION 110-1001)

ZONING DISTRICT:

SC SHOPPING CENTER DISTRICT

MINIMUM REQUIREMENTS

PERMITTED

ACTUAL

MINIMUM TRACT SIZE:

5 AC.

14.37 AC.

MAXIMUM BUILDING COVERAGE:

30 %

20.7 %

MAXIMUM IMPERVIOUS COVERAGE:

75 %

75 %

MINIMUM REQUIRED SETBACK (EXCLUDING SATELLITE USE):

FROM ULTIMATE RIGHT OF WAY:

100 FT.

137 FT.

FROM RESIDENTIAL DISTRICT:

50 FT.

58 FT.

FROM ALL OTHER:

25 FT.

117 FT.

MINIMUM REQUIRED SETBACK FOR SATELLITE USE:

FROM ULTIMATE RIGHT OF WAY:

25 FT.

64 FT.

FROM RESIDENTIAL DISTRICT:

50 FT.

50 FT.

FROM ALL OTHER:

25 FT.

230 FT.

MINIMUM DISTANCE BETWEEN STRUCTURES:

25 FT.

28 FT.

MAXIMUM PERMITTED HEIGHT:

40 FT.

>= 40 FT.

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25 FT.

132'5" FT.

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10 FT.

10 FT.

(**13 FT. FOR EXIST. LOOKING BEHIND BUILDING / 25 FT. FOR PROPOSED)

MAXIMUM BUILDING DIMENSION WITHOUT FACADE VARIATIONS**:

150 FT.

<= 150 FT.

(**PROPOSED SHOPPING CENTER ADDITION)

ZONING DISTRICT:

LIC LIMITED INDUSTRIAL COMMERCIAL DISTRICT

MINIMUM REQUIREMENTS

PERMITTED

ACTUAL

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40,000 S.F.

89,361 S.F.

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20 %

10 %

MAXIMUM IMPERVIOUS COVERAGE:

75 %

70.5 %

MINIMUM LOT WIDTH:

200 FT.

613 FT.

REQUIRED SETBACKS (BLOS <= 50 FT WIDE, >= 100 FT LONG):

MINIMUM FRONT YARD:

15 FT.

25 FT.

MAXIMUM FRONT YARD:

25 FT.

25 FT.

MINIMUM SIDE YARD:

25 FT.

N/A

MINIMUM REAR YARD:

50 FT.

N/A

MINIMUM SETBACK FROM RESIDENTIAL DISTRICT:

50 FT.

N/A

REQUIRED SETBACKS (BLOS > 50 FT WIDE, > 100 FT LONG):

MINIMUM FRONT YARD:

30 FT.

54 FT.

MAXIMUM FRONT YARD:

80 FT.

54 FT.

MINIMUM SIDE YARD:

25 FT.

225 FT.

MINIMUM REAR YARD:

50 FT.

N/A

MINIMUM SETBACK FROM RESIDENTIAL DISTRICT:

225 FT.

N/A

MINIMUM DISTANCE BETWEEN STRUCTURES:

25 FT.

152 FT.

MAXIMUM PERMITTED HEIGHT:

40 FT.

<= 40 FT.

MINIMUM PARKING AND SERVICE AREA SETBACKS:

DISTANCE FROM A PROPERTY LINE ABUTTING A RESIDENTIAL DISTRICT:

25 FT.

25 FT.

DISTANCE FROM ALL OTHER PROPERTY LINES:

10 FT.

10 FT.

MAXIMUM BUILDING DIMENSION WITHOUT FACADE VARIATIONS**:

100 FT.

<= 100 FT.

(**PROPOSED SHOPPING CENTER ADDITION)

ZONING RELIEF

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RECORDING NOTES

1. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PENNSBURG BOROUGH ZONING AND SUBDIVISION ORDINANCES, AND ALSO THE ZONING HEARING BOARD DECISION OF SEPTEMBER 7, 2017. THE PROPOSAL INCLUDES 18,100 SQUARE FEET OF ADDITIONAL COMMERCIAL BUILDING AND ASSOCIATED PARKING AND DRIVE ALLEYS.

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3. PARCEL BOUNDARY, RIGHT-OF-WAY INFORMATION, AND EXISTING FEATURES TAKEN FROM THE ATACSM PLAN FOR PENNSBURG SQUARE SHOPPING CENTER, PREPARED BY GILMORE & ASSOCIATES, INC., DATED AUGUST 11, 2016. SUPPLEMENTAL TOPOGRAPHIC SURVEY PERFORMED BY HORIZON ENGINEERING ASSOCIATES, LLC.

4. CONCRETE MONUMENTS SHALL BE SET AS NOTED ON THIS PLAN. ALL OTHER PROPERTY CORNERS SHALL BE MARKED WITH IRON PINS UPON FINAL GRADING.

5. ALL AREAS WITHIN THE ULTIMATE RIGHT-OF-WAY OF POTTSWOWN AVENUE ARE HEREBY OFFERED FOR DEDICATION TO PENNSBURG BOROUGH.

6. WATER SERVICE SHALL BE PROVIDED BY THE UPPER HANOVER AUTHORITY (UHA). ALL WATER EASEMENTS AND FACILITIES SHALL BE DEDICATED TO THE UPPER HANOVER AUTHORITY (UHA).

7. SANITARY SEWER SERVICE SHALL BE PROVIDED BY UPPER MONTGOMERY JOINT AUTHORITY (UMJA). ALL SEWER EASEMENTS AND FACILITIES SHALL BE DEDICATED TO UPPER MONTGOMERY JOINT AUTHORITY (UMJA).

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10. GAS, ELECTRIC, TELEPHONE AND CABLE TELEVISION FACILITIES SHALL BE PROVIDED TO ALL UNITS VIA UNDERGROUND SERVICE.

11. THE DETENTION BASIN AND ASSOCIATED CONTROL STRUCTURES ARE PERMANENT STRUCTURES AND SHALL NOT BE REMOVED OR ALTERED. THE OWNER SHALL HAVE THE RESPONSIBILITY FOR THE PERPETUAL MAINTENANCE OF THE DETENTION BASIN, BASIN OUTLET STRUCTURE AND STORM PIPES WHICH ARE LOCATED ON THE PROPERTY. NO CHANGES SHALL BE MADE TO THE STRUCTURES, PIPES OR FINISH GRADING WITHOUT PRIOR WRITTEN APPROVAL FROM THE BOROUGH. THE BOROUGH HAS THE RIGHT TO ENTER EASEMENTS AREAS TO PERFORM ANY REQUIRED MAINTENANCE WHICH HAS NOT BEEN PROPERLY PERFORMED OR CARRIED OUT IN A TIMELY MANNER. THE OWNER OF LAND OVER WHICH THESE EASEMENTS EXIST SHALL BE RESPONSIBLE FOR THE COST OF ANY MAINTENANCE WHICH IS PERFORMED BY THE BOROUGH. THE BOROUGH SHALL LEND THE PROPERTY FOR SAID COSTS UNTIL THE BOROUGH HAS BEEN REIMBURSED. FOR THE PURPOSE OF PROVIDING ACCESS TO THE BOROUGH OF PENNSBURG FOR SAID MAINTENANCE ACTIVITIES, A BLANKET EASEMENT SHALL BE PROVIDED TO PENNSBURG BOROUGH. SAID EASEMENT SHALL BE DRAFTED TO THE MUTUAL SATISFACTION OF THE OWNER AND PENNSBURG BOROUGH. SAID EASEMENT SHALL ALSO COVER EXISTING STORM FACILITIES AS WELL AND ACCORDINGLY, ALL EXISTING STORM SEWER EASEMENTS LOCATED ON THE PROPERTY SHALL BE ABOLISHED IN PERPETUITY.

12. THIS PLAN CONTAINS INFORMATION PERTAINING TO UNDERGROUND UTILITIES WHICH IS FOR GENERAL INFORMATION ONLY, AND MAY NOT BE BASED ON AN ACTUAL SURVEY. ALL SUBSURFACE INFORMATION SHOWN ON THESE PLANS NEEDS TO BE VERIFIED BY THE PLAN USER. THE PREPARER OF THIS PLAN ASSUMES NO RESPONSIBILITY FOR AND MAKES NO REPRESENTATION OR WARRANTIES AS TO THE ACCURACY OF THE LOCATION OF UNDERGROUND UTILITIES OR OTHER UNDERGROUND FEATURES. THE PLAN USER SHALL EXECUTE A PA ONE CALL PRIOR TO ANY EXCAVATION ON THE SITE.

13. A HIGHWAY OCCUPANCY PERMIT IS REQUIRED PURSUANT TO SECTION 420 OF THE ACT OF JUNE 1, 1945 (P.L. 1242, NO. 428), KNOWN AS THE "STATE HIGHWAY LAW," BEFORE DRIVEWAY ACCESS TO THE STATE HIGHWAY IS PERMITTED. ACCESS TO THE STATE HIGHWAY SHALL BE ONLY AS AUTHORIZED BY A HIGHWAY OCCUPANCY PERMIT. NEITHER THE DEPARTMENT NOR ANY MUNICIPALITY TO WHICH PERMIT ISSUING AUTHORITY HAS BEEN DELEGATED UNDER SECTION 420 OF THE "STATE HIGHWAY LAW" SHALL BE LIABLE IN DAMAGES FOR ANY INJURY TO PERSONS OR PROPERTY ARISING OUT OF THE ISSUANCE OR DENIAL OF A DRIVEWAY PERMIT, OR FOR FAILURE TO REGULATE ANY DRIVEWAY. FURTHERMORE, THE MUNICIPALITY FROM WHICH THE BUILDING PERMIT APPROVAL HAS BEEN REQUESTED SHALL NOT BE HELD LIABLE FOR DAMAGES TO PERSONS OR PROPERTY ARISING OUT OF THE ISSUANCE OR DENIAL OF A DRIVEWAY PERMIT BY THE DEPARTMENT.

14. THE APPROVED IMPROVEMENT CONSTRUCTION PLAN A COPY OF WHICH MAY BE INSPECTED AT THE BOROUGH OFFICE, HAS BEEN MADE A PART OF THE APPROVED FINAL PLAN.

15. THE LARGEST VEHICLE ANTICIPATED TO ACCESS THE PROPOSED SITE IMPROVEMENTS IS THE WB-50 DESIGN VEHICLE.

16. PENNSBURG BOROUGH HAS REMOVED THE RESTRICTION TO USE PARCEL 150001802002 FOR OPEN SPACE AS NOTED ON THE THOSE CERTAIN PLANS ENTITLED "CVSPHARMACY" PREPARED BY PENNOM ASSOCIATES, INC. AND RECORDED IN THE MONTGOMERY COUNTY RECORDER OF DEEDS OFFICE ON 28/05/2005 AT PLAN BOOK 00004, PAGE 0004 (SHEET C-4 AND C-21) (SHOWN AS PARCELS C ON SAID PLANS), IN CONSIDERATION OF PAYMENT OF A FEE BY APPLICANT.

17. THIS PLAN INCORPORATES THE FOLLOWING AGREEMENTS BY REFERENCE AND THE DEVELOPMENT SHOWN HEREON IS UNDER AND SUBJECT TO ALL OF THE TERMS AND CONDITIONS OF THOSE AGREEMENTS WITH THE SAME FORCE AND EFFECT AS IF ALL OF THE TERMS AND CONDITIONS OF THOSE AGREEMENTS WERE SET FORTH HEREON:
1. PENNSBURG BOROUGH LAND DEVELOPMENT IMPROVEMENT AND MAINTENANCE AGREEMENT BY AND BETWEEN PENNSBURG SQUARE ASSOCIATES, L.P. AND PENNSBURG BOROUGH COUNCIL DATED JANUARY 2016, AS THE SAME MAY BE AMENDED FROM TIME TO TIME.
2. FINANCIAL SECURITY AGREEMENT BY AND BETWEEN PENNSBURG SQUARE ASSOCIATES, L.P. AND PENNSBURG BOROUGH COUNCIL DATED JANUARY 2016, AS THE SAME MAY BE AMENDED FROM TIME TO TIME.

ZONING DATA

OBTAINED FROM THE PENNSBURG BOROUGH ZONING ORDINANCE, ORDINANCE 7-55 CHAPTER 110, ARTICLES X AND XVII, DATED 1995, AS AMENDED 6-5-2006.

PROPOSED USE:

"A" RETAIL SALES (SATELLITE USE)
(PERMITTED BY CONDITIONAL USE PURSUANT TO SECTION 110-1001.M)
"B" FAST FOOD / DRIVE-IN EATING ESTABLISHMENT (SATELLITE USE)
(PERMITTED BY CONDITIONAL USE PURSUANT TO SECTION 110-1001.M.(1))
"C" DRIVE-IN BANK OR FINANCIAL INSTITUTION (PAD SITE) (SATELLITE USE)
(PERMITTED BY CONDITIONAL USE PURSUANT TO SECTION 110-2201.B.(7))
"D" RETAIL PROFESSIONAL OFFICE ADDITION TO EXISTING SHOPPING CENTER
(PERMITTED PURSUANT TO SECTION 110-1001)

ZONING DISTRICT:

SC SHOPPING CENTER DISTRICT

MINIMUM REQUIREMENTS

PERMITTED

ACTUAL

MINIMUM TRACT SIZE:

5 AC.

14.37 AC.

MAXIMUM BUILDING COVERAGE:

30 %

20.7 %

MAXIMUM IMPERVIOUS COVERAGE:

75 %

75 %

MINIMUM REQUIRED SETBACK (EXCLUDING SATELLITE USE):

FROM ULTIMATE RIGHT OF WAY:

100 FT.

137 FT.

FROM RESIDENTIAL DISTRICT:

50 FT.

58 FT.

FROM ALL OTHER:

25 FT.

117 FT.

MINIMUM REQUIRED SETBACK FOR SATELLITE USE:

FROM ULTIMATE RIGHT OF WAY:

25 FT.

64 FT.

FROM RESIDENTIAL DISTRICT:

50 FT.

50 FT.

FROM ALL OTHER:

25 FT.

230 FT.

MINIMUM DISTANCE BETWEEN STRUCTURES:

25 FT.

28 FT.

MAXIMUM PERMITTED HEIGHT:

40 FT.

>= 40 FT.

MINIMUM PARKING AND SERVICE AREA SETBACKS:

DISTANCE FROM A PROPERTY LINE ABUTTING A RESIDENTIAL DISTRICT:

25 FT.

132'5" FT.

DISTANCE FROM ALL OTHER PROPERTY LINES:

10 FT.

10 FT.

(**13 FT. FOR EXIST. LOOKING BEHIND BUILDING / 25 FT. FOR PROPOSED)

MAXIMUM BUILDING DIMENSION WITHOUT FACADE VARIATIONS**:

150 FT.

<= 150 FT.

(**PROPOSED SHOPPING CENTER ADDITION)

ZONING DISTRICT:

LIC LIMITED INDUSTRIAL COMMERCIAL DISTRICT

MINIMUM REQUIREMENTS

PERMITTED

ACTUAL

MINIMUM TRACT SIZE:

40,000 S.F.

89,361 S.F.

MAXIMUM BUILDING COVERAGE:

20 %

10 %

MAXIMUM IMPERVIOUS COVERAGE:

75 %

70.5 %

MINIMUM LOT WIDTH:

200 FT.

613 FT.

REQUIRED SETBACKS (BLOS <= 50 FT WIDE, >= 100 FT LONG):

MINIMUM FRONT YARD:

15 FT.

25 FT.

MAXIMUM FRONT YARD:

25 FT.

25 FT.

MINIMUM SIDE YARD:

25 FT.

N/A

MINIMUM REAR YARD:

50 FT.

N/A

MINIMUM SETBACK FROM RESIDENTIAL DISTRICT:

50 FT.

N/A

REQUIRED SETBACKS (BLOS > 50 FT WIDE, > 100 FT LONG):

MINIMUM FRONT YARD:

30 FT.

54 FT.

MAXIMUM FRONT YARD:

80 FT.

54 FT.

MINIMUM SIDE YARD:

25 FT.

225 FT.

MINIMUM REAR YARD:

50 FT.

N/A

MINIMUM SETBACK FROM RESIDENTIAL DISTRICT:

225 FT.

N/A

MINIMUM DISTANCE BETWEEN STRUCTURES:

25 FT.

152 FT.

MAXIMUM PERMITTED HEIGHT:

40 FT.

<= 40 FT.

MINIMUM PARKING AND SERVICE AREA SETBACKS:

DISTANCE FROM A PROPERTY LINE ABUTTING A RESIDENTIAL DISTRICT:

25 FT.

25 FT.

DISTANCE FROM ALL OTHER PROPERTY LINES:

10 FT.

10 FT.

MAXIMUM BUILDING DIMENSION WITHOUT FACADE VARIATIONS**:

100 FT.

<= 100 FT.

(**PROPOSED SHOPPING CENTER ADDITION)

ZONING RELIEF

THE FOLLOWING RELIEF WAS GRANTED BY THE PENNSBURG BOROUGH ZONING HEARING BOARD ON SEPTEMBER 7, 2017, FROM THE PENNSBURG BOROUGH ZONING ORDINANCE, CHAPTER 10, DATED 02-01-2013, AS REVISED.

1. AN INTERPRETATION WAS GIVEN THAT THE PROPOSED RETAIL USE AT BUILDING "A" CONSTITUTES A SATELLITE USE AUTHORIZED BY CONDITIONAL USE UNDER SECTION 110-1001.M.

2. A VARIANCE WAS GRANTED FROM SECTION 110-1003.C TO ALLOW AN ACCESS DRIVE LESS THAN 200 FEET FROM THE NEAREST INTERSECTION OF A PUBLIC STREET. THE PROPOSED RIGHT-IN/RIGHT-OUT ACCESS IS LESS THAN 200 FEET FROM WASHINGTON STREET AND SILK ALLEY.

3. A VARIANCE WAS GRANTED FROM SECTION 110-1405.D TO ALLOW PARKING SPACES PROPOSED WITHOUT THE USE OF BUMPER GUARDS OR WHEEL STOPS.

4. A VARIANCE WAS GRANTED FROM SECTION 110-1405.J TO ALLOW MORE THAN ONE ACCESSWAY ON EACH STREET IT ABUTS, AND TO ALLOW THOSE ACCESSWAYS TO BE MORE THAN 30 FEET WIDE. THE PROPERTY HAS TWO EXISTING ACCESSWAYS ON POTTSWOWN PINE (SR 963) AND IS PROPOSED WITH ONE ADDITIONAL RIGHT-IN/RIGHT-OUT ONLY ACCESSWAY ON THE SAME ROADWAY. THE PROPOSED ACCESSWAY IS GREATER THAN 30 FEET IN WIDTH. THE PROPOSED ACCESSWAY ON SEMINARY STREET IS ALSO GREATER THAN 30 FEET.

5. A VARIANCE WAS GRANTED FROM SECTION 110-2207.A TO ALLOW DIRECT ACCESS FROM THE ABUTTING STREET TO THE PARKING AND SERVICE AREAS FOR PAD SITE USES.

6. A VARIANCE WAS GRANTED FROM SECTION 110-2205 TO PERMIT THE CONSTRUCTION OF PROPOSED BUILDING "C" TO VARY FROM THE REQUIRED BUILDING CHARACTERISTICS FOR BUILDINGS MAINTAINED WITHIN 200 FEET OF AN ARTERIAL STREET.

SITE LOCATION MAP 1"=2000'

RECORDING ACKNOWLEDGMENTS

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF MONTGOMERY

ON THIS _____ DAY OF JANUARY, 2019, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED CYNTHIA D. SMITH, JR., WHO ACKNOWLEDGED HIMSELF TO BE THE MANAGER OF 482 POTTSWOWN AVENUE, LLC, THE GENERAL PARTNER OF PENNSBURG SQUARE ASSOCIATES, L.P., A PENNSYLVANIA LIMITED PARTNERSHIP, AND THAT HE AS SUCH MEMBER BEING AUTHORIZED SO TO DO, ACKNOWLEDGED THAT HE EXECUTED THE FOREGOING INSTRUMENT ON BEHALF OF SUCH LIMITED LIABILITY COMPANY AS A GENERAL PARTNER OF PENNSBURG SQUARE ASSOCIATES, L.P. FOR THE PURPOSES HEREIN CONTAINED.

IN WITNESS WHEREOF, I HEREUNTO SET MY HAND AND OFFICIAL SEAL.

NOTARY PUBLIC
NOTARY PUBLIC MY COMMISSION EXPIRES _____

(SEAL)

PENNSBURG SQUARE ASSOCIATES, L.P., HAS LAID OUT UPON ITS LAND SITUATE IN THE BOROUGH OF PENNSBURG, COUNTY OF MONTGOMERY, COMMONWEALTH OF PENNSYLVANIA, CERTAIN LOTS AND STREETS ACCORDING TO THE ACCOMPANYING PLAN WHICH IS INTENDED TO BE RECORDED. WITNESS MY HAND AND SEAL THIS _____ DAY OF JANUARY, 2019.

BY: 482 POTTSWOWN AVENUE, LLC, GENERAL PARTNER

MANAGER

APPROVED BY THE PENNSBURG BOROUGH COUNCIL THIS _____ DAY OF _____, 20____.

COUNCIL PRESIDENT _____ BOROUGH SECRETARY _____

REVIEWED BY THE PENNSBURG BOROUGH ENGINEER ON THIS _____ DAY OF _____, 20____.

BOROUGH ENGINEER _____

RECORDED IN THE OFFICE FOR THE RECORDING OF DEEDS IN AND FOR THE COUNTY OF MONTGOMERY, AT NORRISTOWN, PENNSYLVANIA IN PLAN BOOK NUMBER _____ PAGE NUMBER _____ ON THIS _____ DAY OF _____, 20____.

RECORDER OF DEEDS _____

MCPC No. 14-0184-002

PROCESSED AND REVIEWED A report has been prepared by the Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date _____ For the Director

Montgomery County Planning Commission

OWNER INFORMATION

THE SUBJECT PARCEL IS IDENTIFIED BY THE FOLLOWING INFORMATION AS RECORDED IN THE OFFICE FOR RECORDING OF DEEDS, MONTGOMERY COUNTY COURTHOUSE IN NORRISTOWN, PENNSYLVANIA.

TOWNSHIP: PENNSBURG BOROUGH COUNTY: MONTGOMERY

PARCEL NO. BLOCK-UNIT DEED BOOK-PAGE PARCEL AREA:

① 150001901001 012-005 5903-01851 13.2895 Ac.

② 150001802002 012-008 6020-00366 1.2595 Ac.

③ 150001890008 012-015 6020-00395 0.3010 Ac.

④ 150001888005 012-012 6020-00459 0.2484 Ac.

⑤ 150001891002 012-011 6020-00459 0.2387 Ac.

⑥ 150001894008 012-015 6020-00360 0.6476 Ac.

⑦ 150001897005 012-016 6020-00360 0.1890 Ac.

⑧ LAND NOT DESCRIBED IN DE 2639, PG. 42 0.2408 Ac.

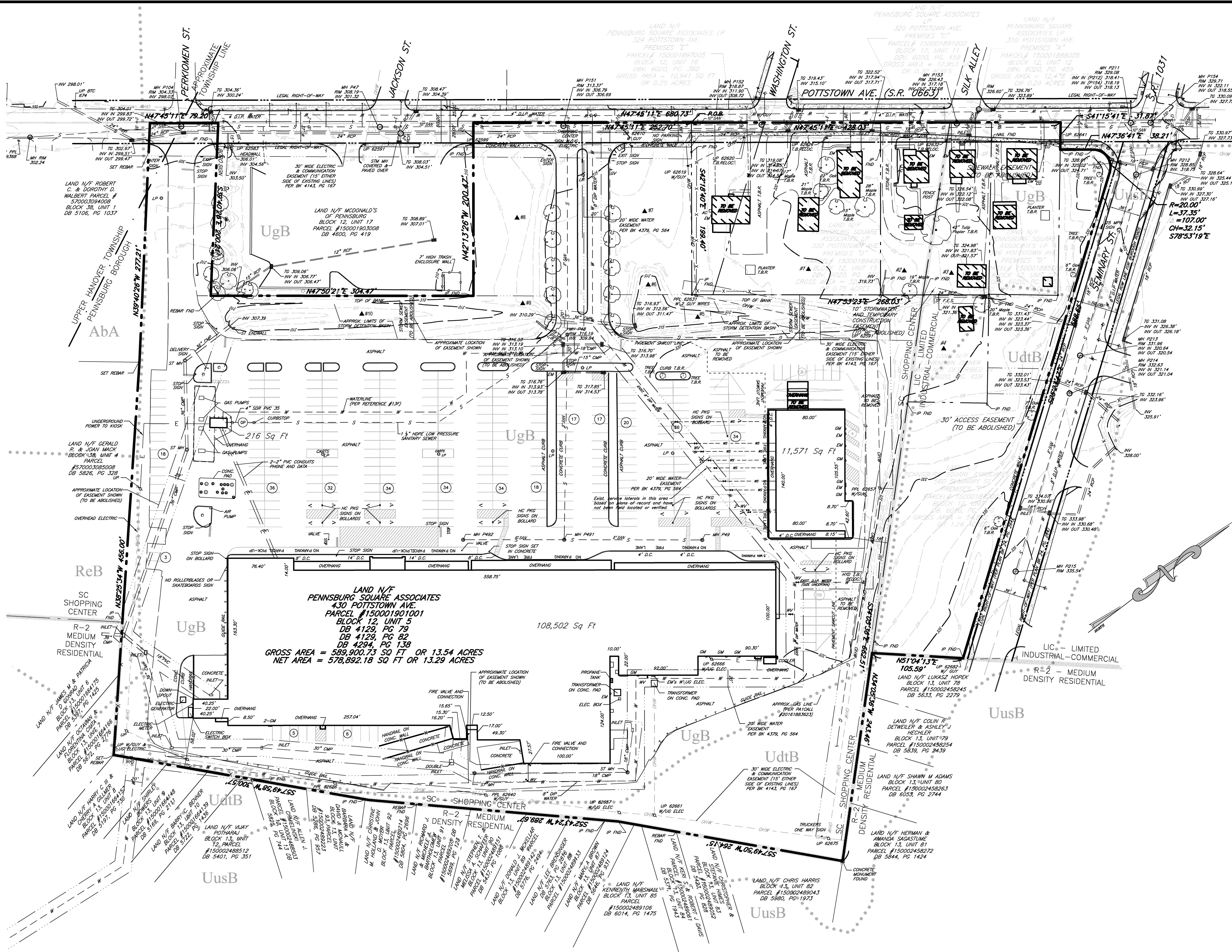
TOTAL GROSS TRACT AREA: 16.9969 Ac.

RECORD OWNER: TOTAL NET TRACT AREA (TO ULT. RW): 16.4169 Ac.

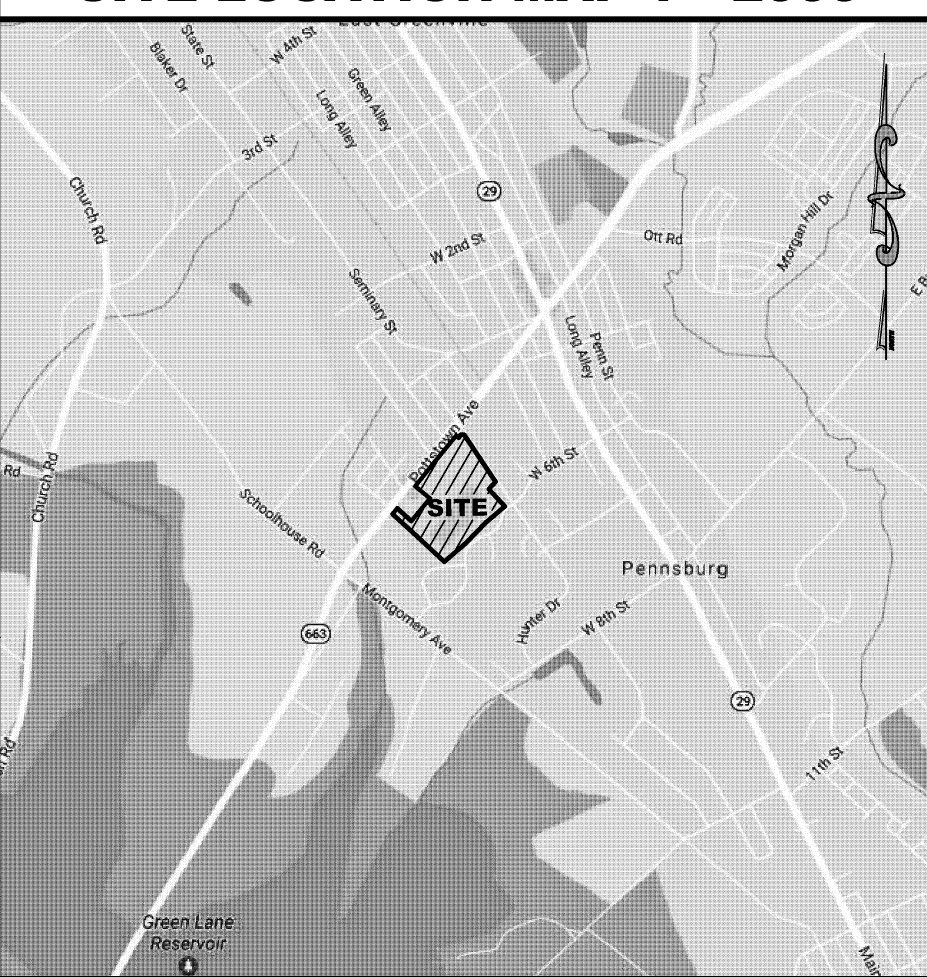
PENNSBURG SQUARE ASSOCIATES LP
500 AMERICAN AVE STE 1
KING OF PRUSSIA, PA 19406

FINAL LAND DEVELOPMENT
LAND DEVELOPMENT PLAN
PENNSBURG SQUARE SHOPPING CENTER
WESTOVER COMPANIES

PROJECT MANAGER
CDS
DRAWING FILE NAME
Sht_ZSub
PLAN ORIGINATOR DATE
10-18-



SITE LOCATION MAP 1"=2000'



OWNER INFORMATION

TOWNSHIP	PENNSBURG	COUNTY	MONTGOMERY
PARCEL NO.	BLOCK-UNIT	DEED BOOK-PAGE	PARCEL AREA:
1	150001901001	012-008	5803.01651
2	150001882002	012-008	6020-00386
3	150001885008	012-013	6020-00355
4	150001886005	012-012	6020-00459
5	150001891002	012-011	6020-00459
6	150001894008	012-015	6020-00380
7	150001897005	012-016	6020-00380
8	LAND NOT DESCRIBED IN DB 2938, PG. 42		

TOTAL GROSS TRACT AREA: 16.9969 Ac.
(BY SURVEY)
TOTAL NET TRACT AREA (TO ULT. RW): 16.4169 Ac.

RECORD OWNER:
PENNSBURG SQUARE ASSOCIATES LP
500 AMERICAN AVE STE 1
KING OF PRUSSIA, PA 19406

LEGEND

---	EDGE OF PAVED ROAD
---	EDGE OF UNPAVED ROAD
---	ADJOINING OWNER LOT LINES
---	EXTERIOR TRACT BOUNDARY
---	BUILDING SETBACK LINE
---	PHYSICAL CENTERLINE OF ROADS
---	EDGE OF DRIVEWAY
---	EASEMENT
---	FENCE
---	FEMA FLOOD PLAIN
---	GUIDE RAIL
---	MUNICIPAL BOUNDARY LINES
---	RIGHT-OF-WAY
---	STREAM
---	TRAIL
---	GAS
---	SANITARY SEWER PIPE
---	SANITARY SEWER FORCE MAIN
---	SANITARY SEWER LATERAL
---	STORM SEWER PIPE
---	WATER PIPE
---	4" WATER PIPE
---	6" WATER PIPE
---	8" WATER PIPE
---	12" WATER PIPE
---	16" WATER PIPE
---	24" WATER PIPE
---	RAIN WATER PIPE
---	WATER SERVICE
---	FIRE SERVICE
---	ELECTRIC
---	OVER HEAD WIRE
---	UNDER GROUND WIRE
---	TELEPHONE
---	CABLE TELEVISION
---	CONCRETE WALLS
---	STONE WALL
---	BLOCK WALL
---	WATERS OF THE US
---	WETLAND DELINEATION & FLAG IDENTIFIERS
---	ZONING LINES
---	INTERMEDIATE CONTOURS
---	INDEX CONTOURS
---	SOIL DELINEATION

GENERAL NOTES

1. PARCEL BOUNDARY, RIGHT-OF-WAY INFORMATION, AND EXISTING FEATURES TAKEN FROM THE ALTA/ACSM PLAN FOR PENNSBURG SQUARE SHOPPING CENTER, PREPARED BY GILMORE & ASSOCIATES, INC., DATED AUGUST 11, 2016.
2. SUPPLEMENTAL TOPOGRAPHIC SURVEY PERFORMED BY HORIZON ENGINEERING ASSOCIATES IN 2017.
3. LOCATION OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. ALL LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARK-OUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES.
4. THE WORD "CERTIFY" OR "CERTIFICATE" AS SHOWN AND USED HEREON MEANS AN EXPRESSION OF PROFESSIONAL OPINION REGARDING THE FACTS OF THIS SURVEY AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EXPRESSED OR IMPLIED.
5. THIS PLAN IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OF FENCES, GARAGES, BUILDINGS, OR OTHER EXISTING OR FUTURE IMPROVEMENTS.
6. THIS PLAN IS VALID ONLY WHEN SIGNED IN COLORED INK AND SEALED WITH A RED COLORED SEAL AND WAS PREPARED IN ACCORDANCE WITH THE MINIMUM STANDARD OF ACCURACY OF THE STATE IN WHICH THE PROJECT IS LOCATED.

SOILS DATA

SOILS DATA OBTAINED FROM A SOIL SURVEY OF MONTGOMERY COUNTY, PENNSYLVANIA.

UgB: URBAN LAND, 0 TO 8 PERCENT SLOPES
HYDROLOGIC SOIL GROUP:
HYDROIC SOIL NO
PRIME FARMLAND SOIL: NO FARMLAND OF STATEWIDE IMPORTANCE: NO
DEPTH TO SEASONALLY HIGH WATER TABLE:
DEPTH TO BEDROCK:
DEVELOPMENT LIMITATIONS: N/A
RESOLUTIONS: N/A

UuB: UDORTMENTS, SHALE AND SANDSTONE, 0 TO 8 PERCENT SLOPES
HYDROLOGIC SOIL GROUP: A
HYDROIC SOIL NO
PRIME FARMLAND SOIL: NO FARMLAND OF STATEWIDE IMPORTANCE: NO
DEPTH TO SEASONALLY HIGH WATER TABLE: ABOUT 60 INCHES
DEPTH TO BEDROCK: 20 TO 30 INCHES
LIMITATIONS: LOW DEPTH TO BEDROCK, 5' TO WATER TABLE
RESOLUTIONS: MINIMIZE EXCAVATION IN THOSE AREAS OF SHALLOWER BEDROCK; REDUCE COMPLICATIONS OF WETNESS THROUGH APPROPRIATE USE OF DRAINAGE FACILITIES

ACT 287 NOTIFICATION



THE UNDERGROUND UTILITY LINE PROTECTION LAW
(ACT 287 OF 1974 AS AMENDED BY ACT 197 OF 1996,
ACT 199 OF 2009 AND ACT 121 OF 2008)

SITE SERIAL NO. 20171031260

LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT 287 OF 1974 AS AMENDED BY ACT 197 OF 1996, ACT 199 OF 2009 AND ACT 121 OF 2008, CONTRACTORS MUST VERIFY LOCATIONS OF UNDERGROUND UTILITIES BY NOTIFYING FACILITY OWNERS THROUGH THE ONE-CALL SYSTEM BY CALLING 811 NO LATER THAN 3 WORK MORE THAN 10 DAYS PRIOR TO EXCAVATION OR DEMOLITION WORK.

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PENNSBURG SQUARE SHOPPING CENTER
WESTOVER COMPANIES

PROJECT MANAGER: CDS
DRAWING FILE NAME: SH_XFPL
PLAN ORIGINATOR DATE: 10-18-2017
PLAN SCALE: 1"=50'
PROJECT NUMBER: 2096
SHEET NUMBER: 03 OF 27

EXISTING	DESCRIPTION
----------	-------------

----	EDGE OF PAVED ROAD
----	EDGE OF UNPAVED ROAD
----	ADJOINING OWNER LOT LINES
=====	EXTERIOR TRACT BOUNDARY
-----●-----	BUILDING SETBACK LINE
-----	PHYSICAL CENTERLINE OF ROADS
----	EDGE OF DRIVEWAY
----	EASEMENT
X-----X-----X-----X	FENCE

— — — — —	GUIDE RAIL
— — — — —	MUNICIPAL BOUNDARY LINES
— — — — —	RIGHT-OF-WAY
— — — — —	GAS
— — — — —	SANITARY SEWER PIPE
— — — — —	SANITARY SEWER FORCE MAIN
— — — — —	SANITARY SEWER LATERAL
— — — — —	STORM SEWER PIPE
— — — — —	WATER PIPE
— — — — —	WATER SERVICE
— — — — —	ELECTRIC
— — — — —	OVER HEAD WIRE
— — — — —	UNDER GROUND WIRE
— — — — —	TELEPHONE
— — — — —	CABLE TELEVISION

PkD3
.....
ReC2

PROPOSED	DESCRIPTION
----------	-------------

----	EDGE OF UNPAVED ROAD
----	BUILDING SETBACK LINES
----	CENTERLINE OF ROAD
.....	CLEAR SIGHT DISTANCE
.....	CLEAR SIGHT TRIANGLE
----	DEED-RESTRICTION
.....	EASEMENT
-----	'TYPE'
— X — X — X —	FENCE

T T T T T T T	GUIDE RAIL
---	RIGHT-OF-WAY
G	GAS
S	SANITARY SEWER PIPE
FM	SANITARY SEWER FORCE MAIN
L L	SANITARY SEWER LATERAL
---	STORM SEWER PIPE
--- R/R --- R/R ---	ROOF DRAINS
W	"SIZE" WATER MAIN
WS WS	WATER PIPE
E	WATER SERVICE
	ELECTRIC
OHW	OVER HEAD WIRE
UGW	UNDER GROUND WIRE
T	TELEPHONE
CATV	CABLE TELEVISION

CONCRETE WALL

BLOCK WALL

STONE WALL

INTERMEDIATE CONTOURS LINE

530
INDEX CONTOURS LINE

ALTERED WOODS LINE

NOTE: REFER TO PCSM PLAN AT END OF PLAN SET FOR ALL AREAS OF REQUIRED AMENDED SOILS AND BMP SEQUENCE AND CONSTRUCTION KEY

NOTE: REFER TO PCSM PLAN AT END
OF PLAN SET FOR ALL AREAS OF
REQUIRED AMENDED SOILS AND BMP
SEQUENCE AND CONSTRUCTION KEY

STORM SEWER:

STORM SEWER:

2. UNLESS OTHERWISE NOTED, ALL STORM SEWER PIPING SHALL BE REINFORCED CONCRETE PIPE AND SHALL CONFORM TO PENNDOT FORM 408 (LATEST EDITION), SECTION 601.
3. UNLESS OTHERWISE NOTED, ALL CONCRETE "DW" ENDWALLS SHALL CONFORM TO PENNDOT FORM 408 (LATEST EDITION), SECTION 605. THE TOP OF WALL ELEVATION FOR ALL ENDWALLS SHALL CONFORM TO THE FINISHED GRADE ELEVATION. IN THE EVENT THAT A HIGHER TOP OF WALL ELEVATION IS NECESSARY FOR GRADING, THE "SPECIAL" TOP OF WALL ELEVATION SHALL BE NOTED ON THE PLANS.
4. THE TOP OF GRADE ELEVATION FOR ALL CURBSIDE STORM SEWER INLETS TO BE FOR THE CENTER OF THE INLET AT THE FACE OF CURB. THE CONTRACTOR SHALL PROTECT THE ROADWAY GRADE ALONG THE LENGTH OF THE INLET.
5. ANY SPRINGS ENCOUNTERED DURING ROADWAY CONSTRUCTION SHALL BE OUTLETED BY U-DRAIN TO NEAREST STORM SEWER PILEAGE OR WATERCOURSE. U-DRAIN PLACEMENT TO BE BY THE CONTRACTOR AT HIS OWN RISK.
6. ALL PROPOSED STORM PIPE LENGTHS ARE MEASURED FROM CENTER OF INLET TO CENTER OF INLET.

SANITARY SEWER:

1. ALL MATERIALS AND DETAILS OF CONSTRUCTIONS, INSTALLATION PROCEDURES, AND REQUIREMENT WITH RESPECT TO SANITARY SEWERAGE FACILITIES SHALL BE IN ACCORDANCE WITH THE UPPER SPECIFICATIONS OF THE CITY OF CHICAGO CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR SANITARY SEWER EXTENSIONS (LATEST EDITION).
2. AN 18" VERTICAL CLEARANCE OR 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER MAINS, WHERE POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL CLEARANCE, AN 18" VERTICAL CLEARANCE MUST BE MAINTAINED.
3. EXISTING SANITARY SEWER MANHOLE IS 10" DIA. NEW SANITARY MAIN SHALL BE 8" DIA. 300-P-SPIV PIPE. NEW 18" DIA. 300-P-SPIV PIPE, ALL SANITARY SEWER LATERALS SHALL BE LAID ON THE JOB OF NOT LESS THAN 18".
4. ALL PROPOSED SANITARY SEWER MANHOLES LOCATED IN UNPAVED AREAS SHALL BE PROVIDED WITH WATERTIGHT FRAMES AND COVERS SET EIGHTEEN INCHES ABOVE FINISHED GRADES.
5. PRIOR TO COMMENCING CONSTRUCTION, SHOP DRAWINGS FOR ALL MATERIALS TO BE USED IN THE PROJECT SHALL BE SUBMITTED TO THE DESIGN ENGINEER AS WELL AS, IN ADDITION, ALL MATERIALS TO BE USED ON THE JOB MUST BE INSPECTED BY A REPRESENTATIVE OF UMA TO INSURE CONFORMANCE WITH THE APPROVED SHOP DRAWINGS.
6. ALL CONCRETE ENCASEMENT SHALL BE SHOWN ON THE DRAWINGS AND NO OTHER ENCASEMENT SHALL BE USED WITHOUT THE WRITTEN APPROVAL OF THE DESIGN ENGINEER AS WELL AS, THE WRITTEN APPROVAL OF THE AUTHORITY ENGINEER. ALL ENCASEMENTS SHALL EXTEND TO THE NEXT JOINT BEYOND THE MINIMUM DISTANCE REQUIREMENT.
7. A MINIMUM OF EIGHTEEN (18) INCHES OF VERTICAL CLEARANCE IS REQUIRED BETWEEN ALL UTILITIES AND THE SANITARY SEWER LINES. THIS INCLUDES STREET LATERALS.
8. NO TREE OR BUSH SHALL BE PLACED WITHIN 10 FEET OF A SANITARY SEWER MAIN OR LATERAL.
9. ALL PROPOSED SANITARY PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER

WATER DISTRIBUTION:

1. ALL WATER MAIN CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST REVISION OF THE STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE UPPER HANOVER AUTHORITY.
2. WATER LINE SHALL BE CLASS 52 DUCTILE IRON PIPE WITH CEMENT LINING.
3. ALL WATER VALVES AND CURB STOPS A/D TO BE OPERATED BY THE UPPER HANOVER AUTHORITY STAFF ONLY. CONTRACTOR SHALL COORDINATE OPERATION OF VALVES WITH THE UPPER HANOVER AUTHORITY PERSONNEL ACCORDINGLY.
4. THE RELEASED FIRE HYDRANT SHALL BE REPLACED WITH A NEW HYDRANT AND VALVE (DO NOT REUSE EXISTING HYDRANT).
5. DIFFERING SOURCES IDENTIFY EXISTING FIRE HYDRANT FEED LINE SIZE AS 4" AND 6" (LOCATED ADJACENT TO EXISTING BUILDING BEHIND PROPOSED BUILDING D). CONTRACTOR SHALL VERIFY TO THEIR SATISFACTION PRIOR TO SECURING MATERIALS FOR THIS EXTENSION. IN THE EVENT EXISTING LINE IS 4", EXTENSION MAY BE INSTALLED WITH 4" OR 6" LINE. EXTEND LINE OUTSIDE WITH 6" PIPE.
6. ALL PROPOSED WATER SERVICE LATERALS SHALL BE 2" COPPER TO THE CURB STOP AND THEN 1 1/2" UP TO THE HOUSE.

AS BUILT PLANS REQUIRED:

1. AS BUILT PLANS SHALL BE PROVIDED BY THE CONTRACTOR DOCUMENTING THE AS BUILT CONDITIONS. PLANS SHALL BE PROVIDED AND SEALED BY A PROFESSIONAL LICENSED SURVEYOR. SEALED PLANS AND CAD FILES SHALL BE PROVIDED.
2. THE GENERAL SITE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL AS BUILT PLANS AND PROFILES.
3. AS BUILT PLANS AND PROFILES MUST DOCUMENT ALL COMPONENTS OF THE CONSTRUCTED WATER SUPPLY, SANITARY SEWER, AND STORM SEWER SYSTEMS.
4. AS BUILT PLANS MUST DOCUMENT THE FINISHED GRADE CONDITION OF ALL STORM WATER BMP FACILITIES, INCLUDING BUT NOT LIMITED TO ALL: BASINS, INFILTRATION FACILITIES, RAIN GARDENS, SUBSURFACE SEEP BEDS, AND ANY OTHER BMP NOTED ON THE POST CONSTRUCTION STORM

GENERAL CONSTRUCTION:

1. THIS PLAN CONTAINS INFORMATION PERTAINING TO UNDERGROUND UTILITIES WHICH IS FOR GENERAL INFORMATION ONLY, AND MAY NOT BE BASED ON AN ACTUAL SURFACE LOCATION SURVEY. ALL SURFACE INFORMATION SHOWN ON THESE PLANS NEEDS TO BE VERIFIED BY THE PLAN USER. THE PREPARER OF THIS PLAN ASSUMES NO RESPONSIBILITY FOR AND MAKES NO REPRESENTATION OR WARRANTY AS TO THE ACCURACY OF THE LOCATION OF UNDERGROUND UTILITIES OR OTHER UNDERGROUND FEATURES. THE PLAN USER SHALL EXECUTE A ONE CALL PRIOR TO ANY EXCAVATION ON THE SITE.
2. A MINIMUM VERTICAL CLEARANCE OF 18 INCHES SHALL BE PROVIDED AT ALL UTILITY CROSSINGS, WHERE 18 INCHES OF CLEARANCE CANNOT BE OBTAINED, THE LOWER UTILITY LINE SHALL BE CONCRETE ENCASED FOR A LENGTH OF 20 FEET, CENTERED ABOUT THE CROSSING.
3. ALL CONSTRUCTION SHALL CONFORM TO PENNSBURG BOROUGH STANDARDS AND SPECIFICATIONS, AND ALL STANDARDS AND FORMS ARE LATEST EDITION, WHICHEVER IS APPLICABLE.
4. TOPSOIL SHALL BE REMOVED FROM ALL AREAS OF CONSTRUCTION AND STORED SEPARATELY, PRIOR TO BULK EXCAVATION. UPON COMPLETION OF CONSTRUCTION, THE TOPSOIL SHALL BE REDISTRIBUTED UNIFORMLY TO A MINIMUM DEPTH OF 12" COVER PROPOSED PERVIOUS AREAS WITHIN THE DEVELOPMENT AREA.
5. NO PLANTINGS OR STRUCTURES SHALL BE PERMITTED WITHIN ANY EASEMENTS. ALL EASEMENT AREAS SHALL BE MAINTAINED AS LAWN AREA BY THE PROPERTY OWNER.

SIGN LEGEND:

R5-1	"DO NOT ENTER" SIGN
R6-1L	"ONE WAY" ARROW RIGHT SIGN
R6-1R	"ONE WAY" ARROW RIGHT SIGN
S-A	"NO TRACTOR TRAILERS" SIGN
S-B	"DELIVERY ENTRANCE ONLY" SIGN

NOTE: REFER TO PENNDOT PERMIT PLANS FOR ALL OTHER SIGNAGE

ENGINEER'S CERTIFICATION	SURVEYOR'S CERTIFICATION
--------------------------	--------------------------

100

THE UNDERGROUND UTILITY LINE PROTECTION LAW
(ACT 287 OF 1974 AS AMENDED BY ACT 197 OF 1996,
ACT 199 OF 2006 AND ACT 121 OF 2008)

SITE SERIAL NO. 20171031260

LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT 287 OF 1974 AMENDED BY ACT 187 OF 1966, ACT 19 OF 2005 AND ACT 121 OF 2006, CONTRACTORS MUST VERIFY LOCATIONS OF UNDERGROUND UTILITIES BY NOTIFYING FACILITY OWNERS THROUGH THE ONE-CALL SYSTEM BY DIALING **811** NO LESS THAN 3, NOR MORE THAN 10 DAYS PRIOR TO EXCAVATION OR DEMOLITION WORK.

CYNTHIA D. SMITH

PE-054227-E	ROBERT R. MILLER
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SU-023850-E

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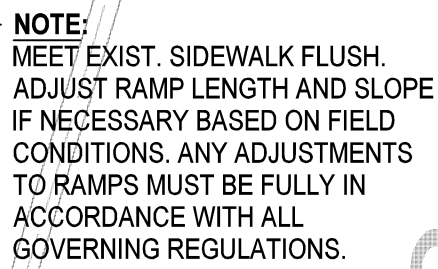
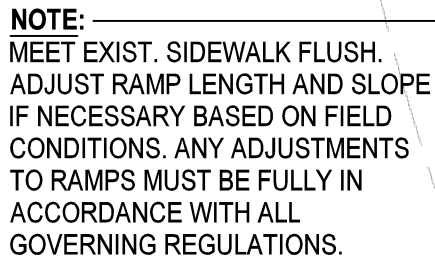
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Civil Engineers | Land Surveyors | Landscape Architects
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www.horizonengr.com

FINAL LAND DEVELOPMENT
STORM SEWER AND GRADING PLAN

**PENNSBURG SQUARE SHOPPING CENTER
WESTOVER COMPANIES**

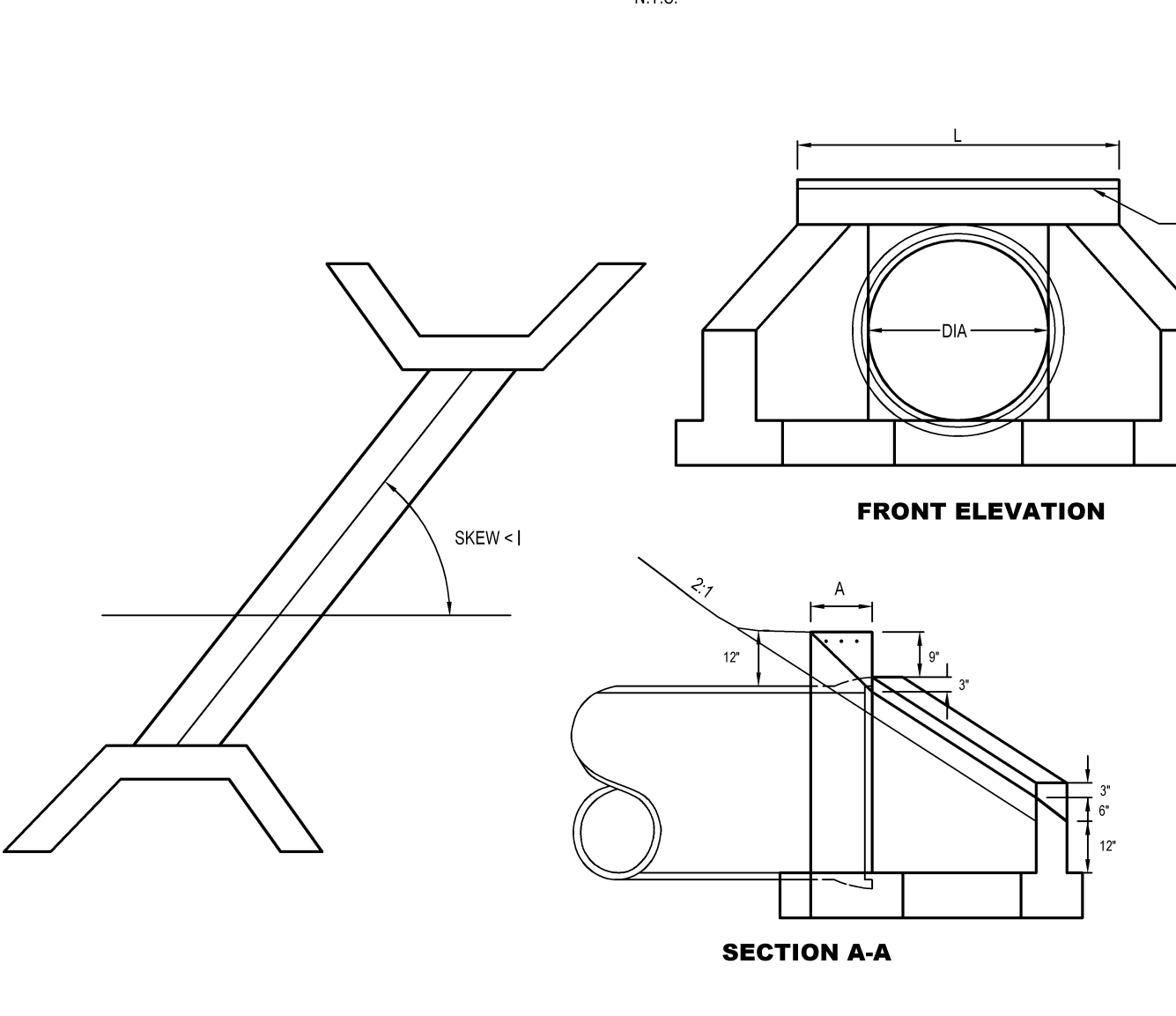
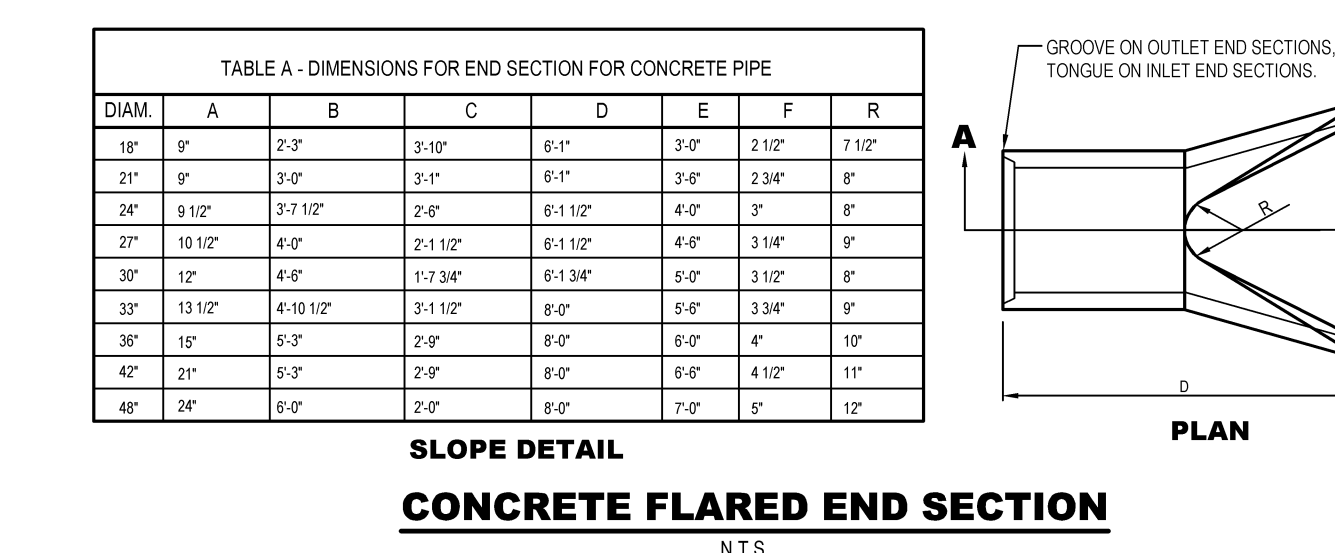
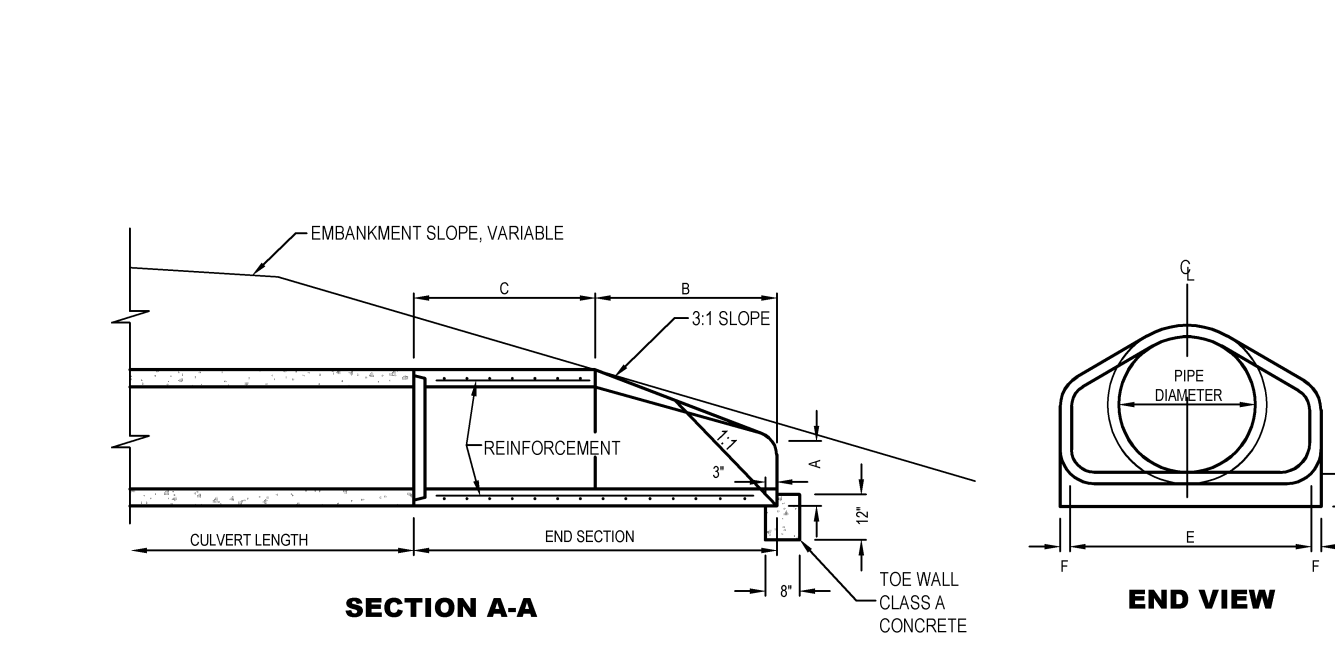
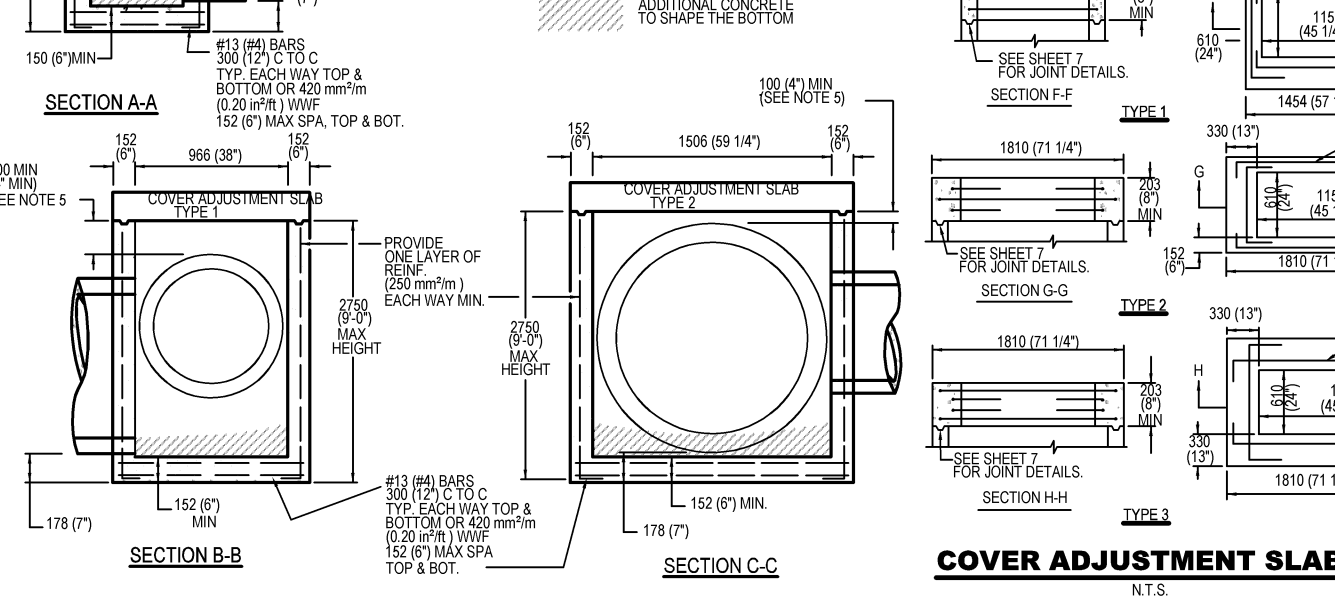
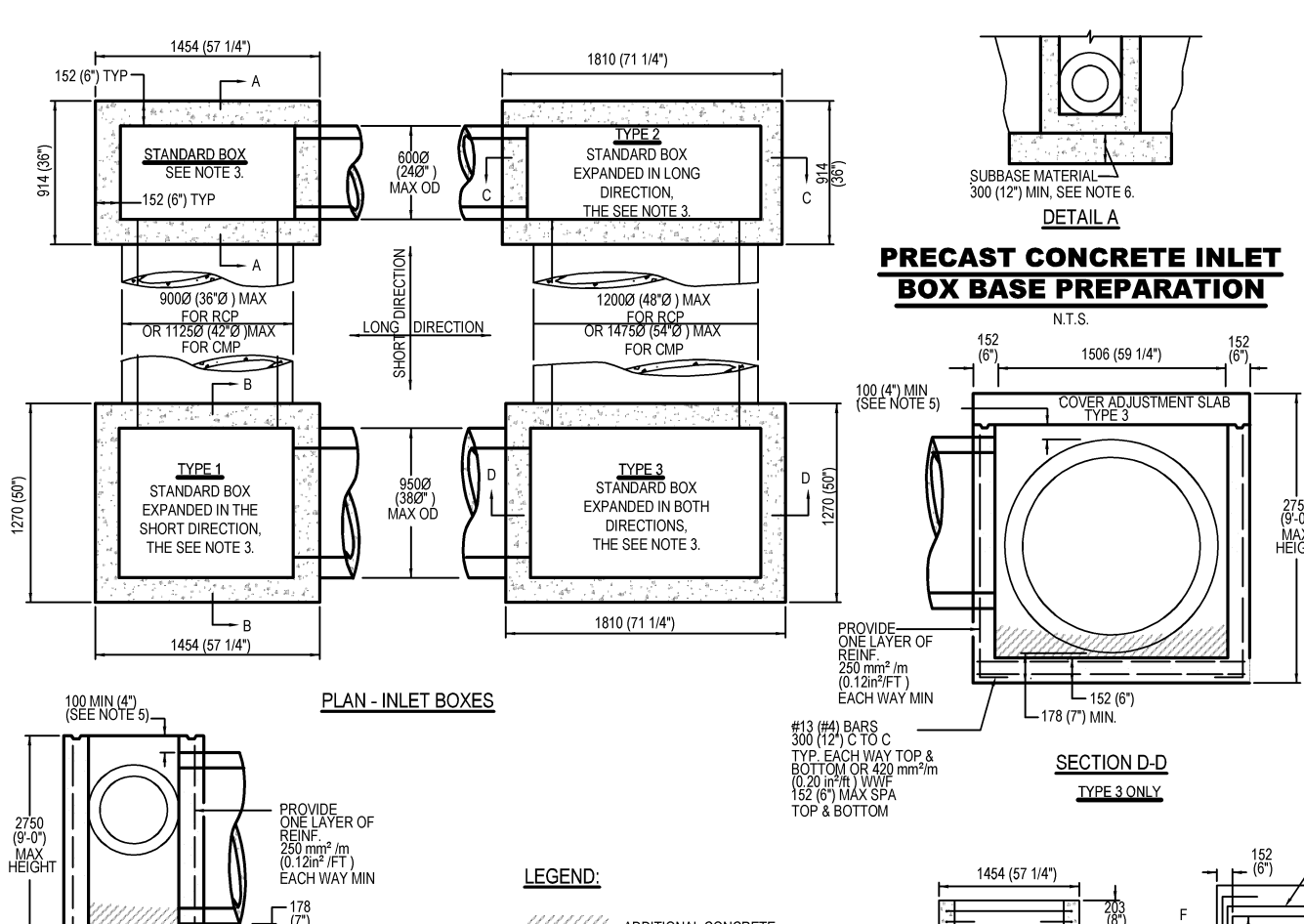
SUE SHAFER
PENNSBURG BOROUGH, MONTGOMERY COUNTY, PENNSYLVANIA

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PLAN ORIGINATION DATE	10-18-2017	
PLAN SCALE	1"=40'	
PROJECT NUMBER	2096	
SHEET NUMBER	04	OF 27



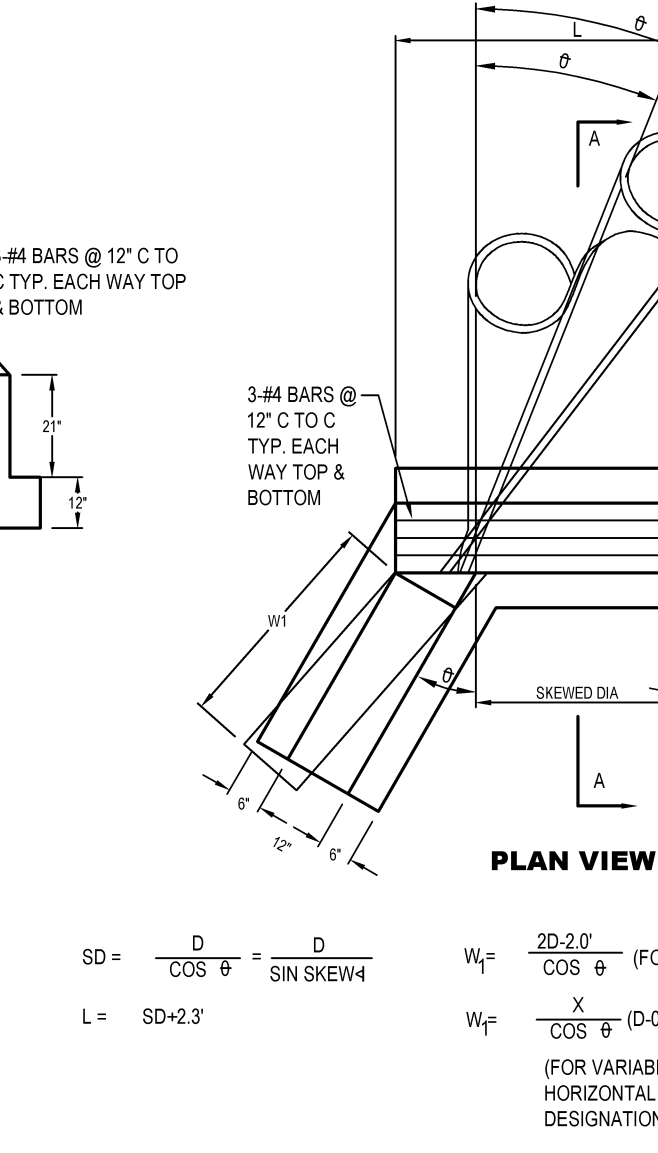
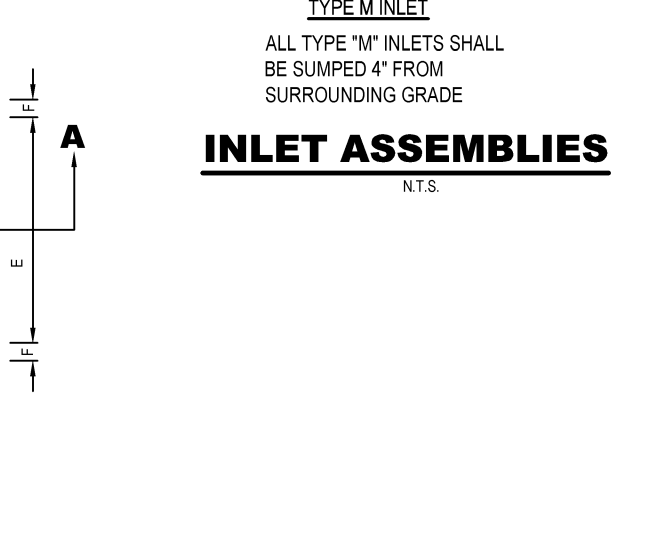
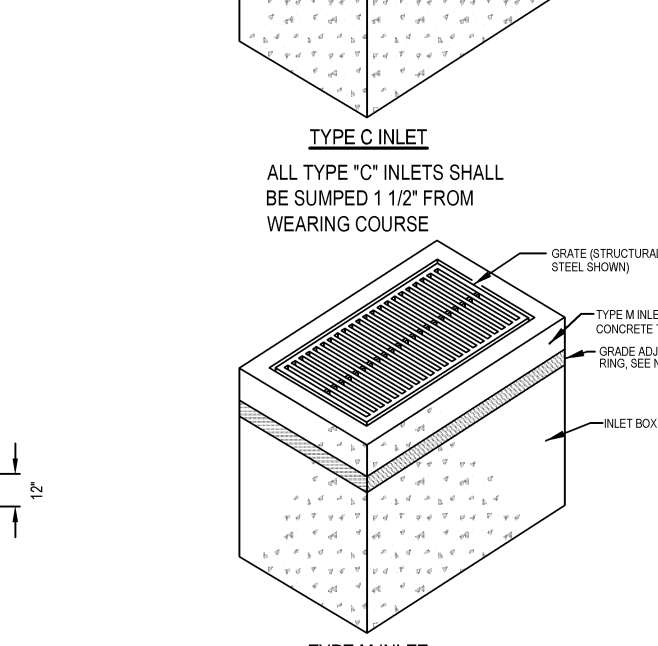
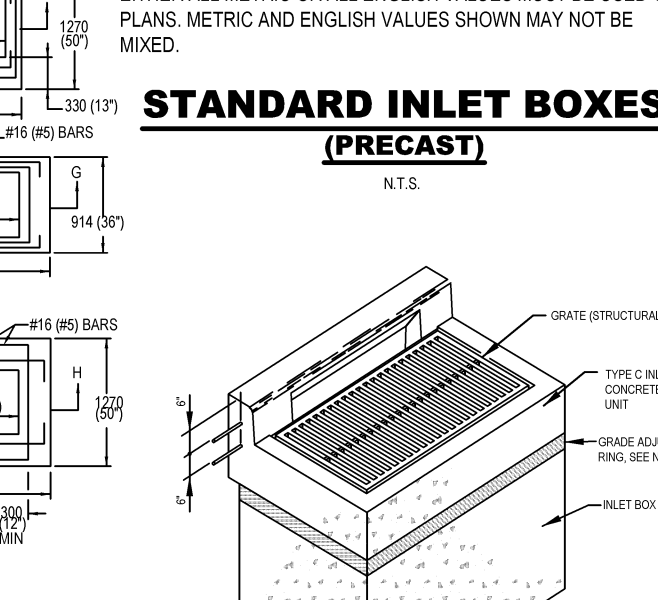
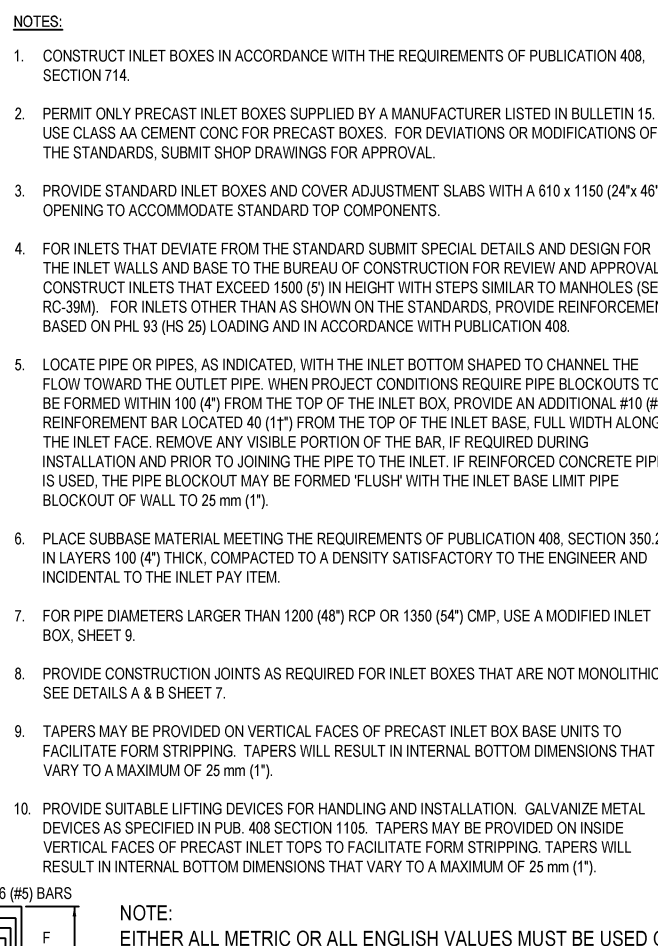
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13	REVISED TO ADD 1-18-19 BY MONTGOMERY COUNTY CONSENTATION BOARD AND INTERNAL REVIEW	01/14/2019
12	REVISED PER 1-18-19 BY MONTGOMERY COUNTY CONSENTATION BOARD AND INTERNAL REVIEW	01/14/2019
11	REVISED PER 1-18-19 BY MONTGOMERY COUNTY CONSENTATION BOARD AND INTERNAL REVIEW	01/14/2019
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5	REVISED PER 1-18-19 BY MONTGOMERY COUNTY CONSENTATION BOARD AND INTERNAL REVIEW	01/14/2019
4	REVISED PER 1-18-19 BY MONTGOMERY COUNTY CONSENTATION BOARD AND INTERNAL REVIEW	01/14/2019
3	REVISED PER 1-18-19 BY MONTGOMERY COUNTY CONSENTATION BOARD AND INTERNAL REVIEW	01/14/2019
2	REVISED PER 1-18-19 BY MONTGOMERY COUNTY CONSENTATION BOARD AND INTERNAL REVIEW	01/14/2019
1	REVISED PER 1-18-19 BY MONTGOMERY COUNTY CONSENTATION BOARD AND INTERNAL REVIEW	01/14/2019

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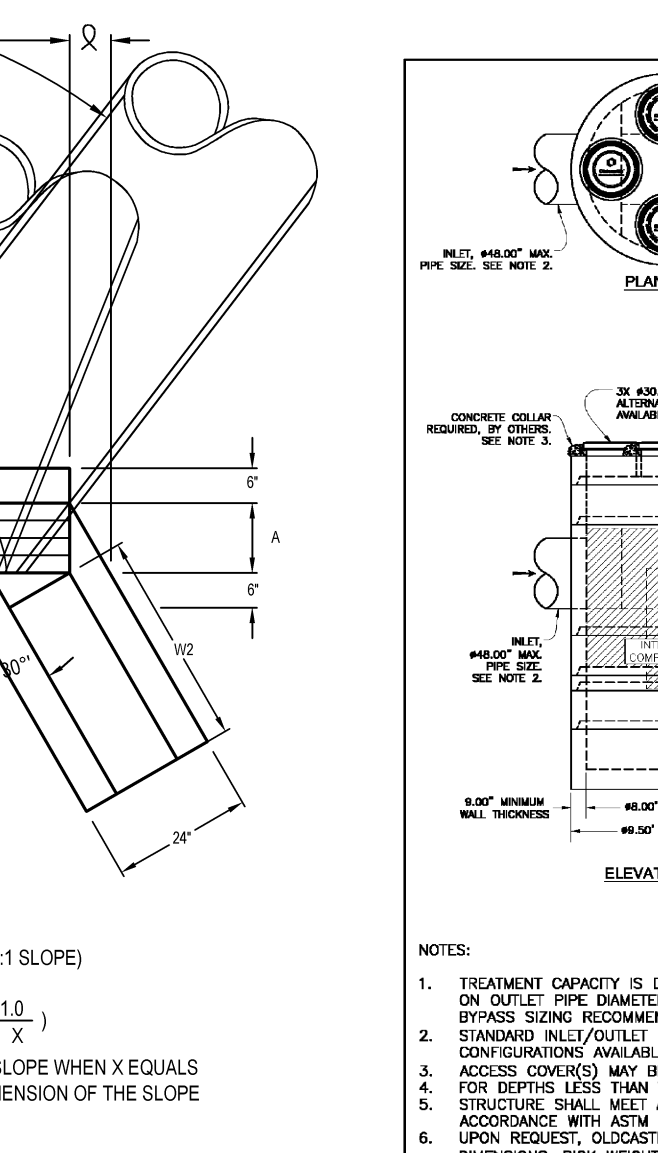
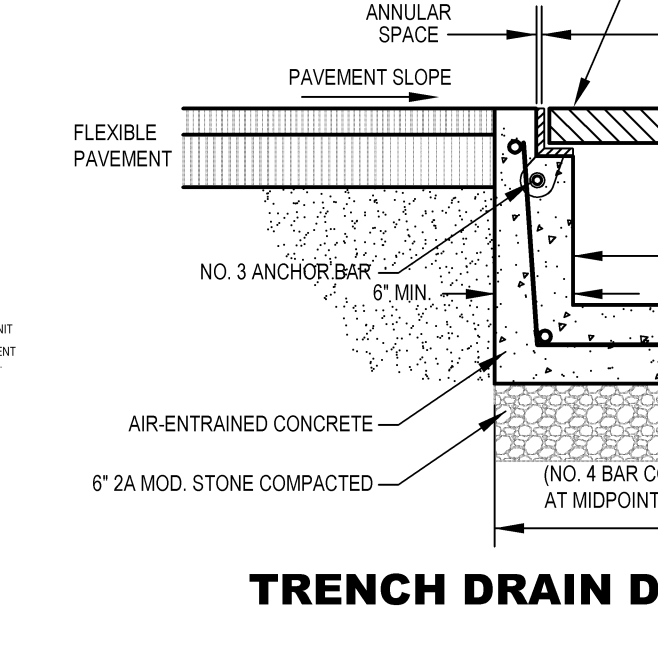
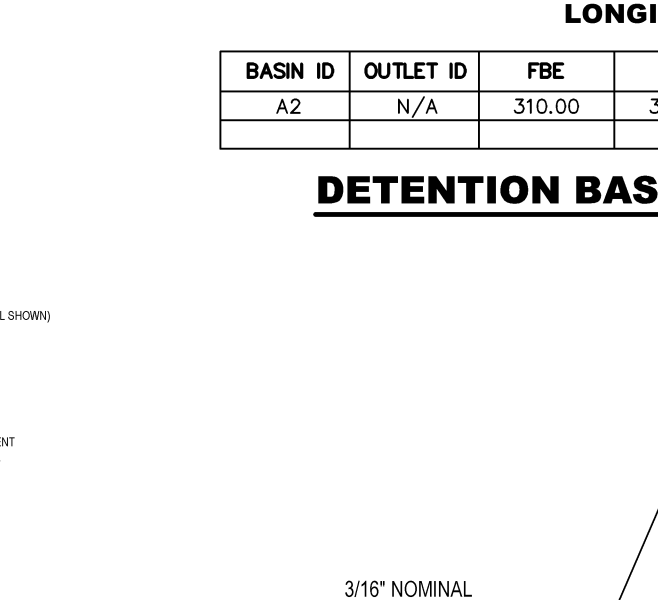
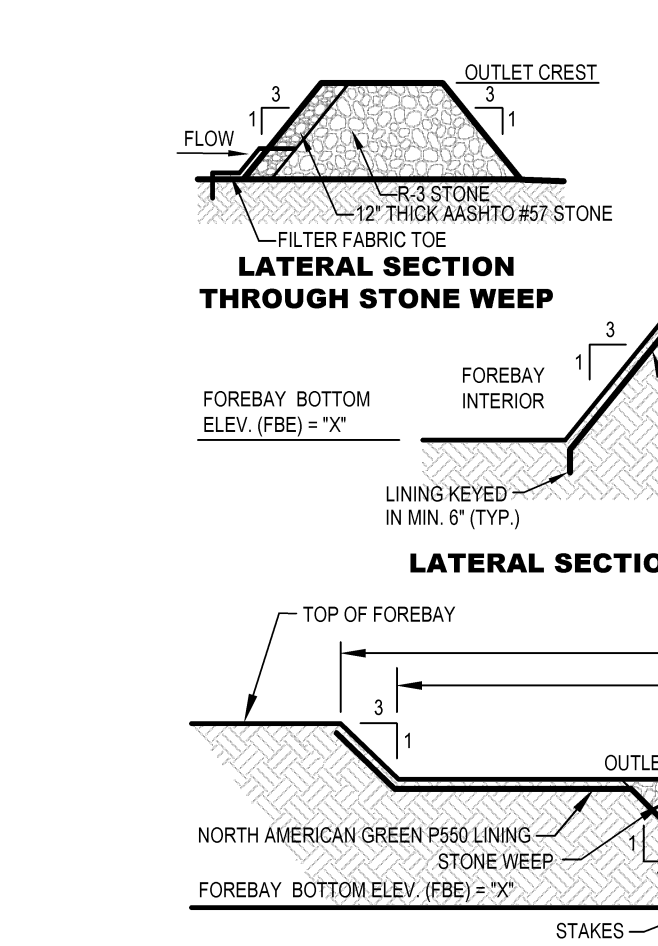
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66"	3'	2'	3'	3'	2'	3'	3'	2'	3'	3'	2'
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TYPE "DW" ENDWALL DETAIL



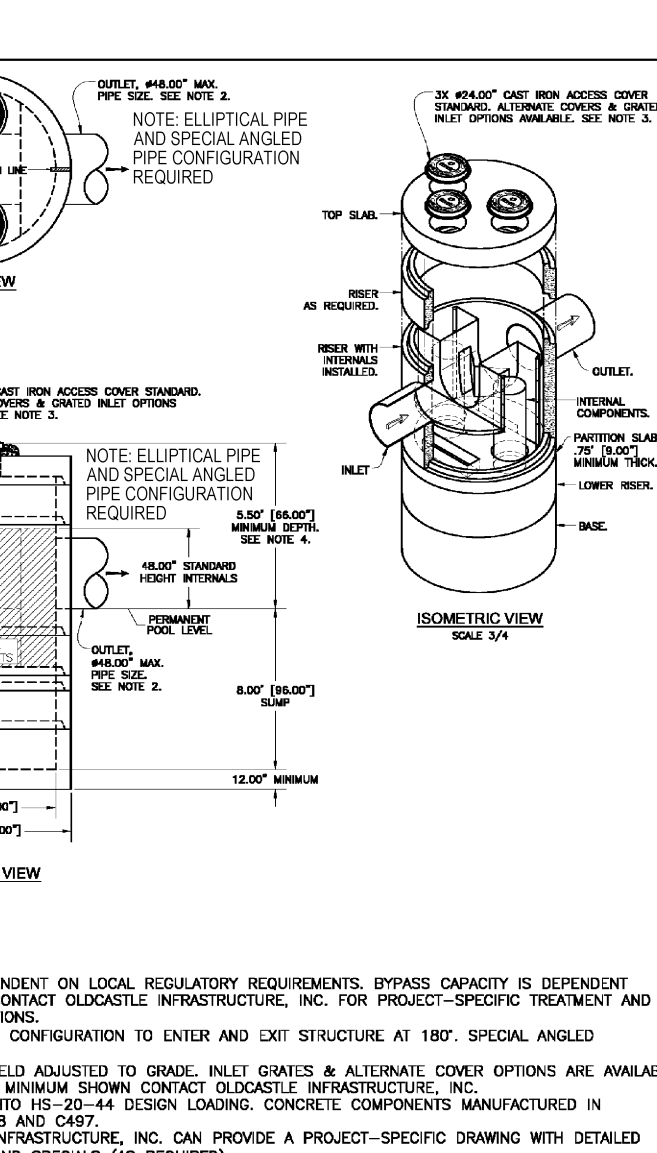
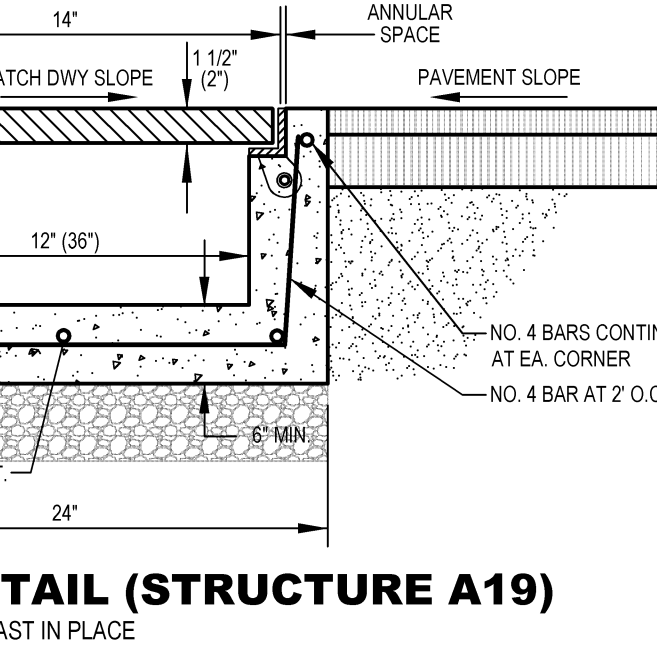
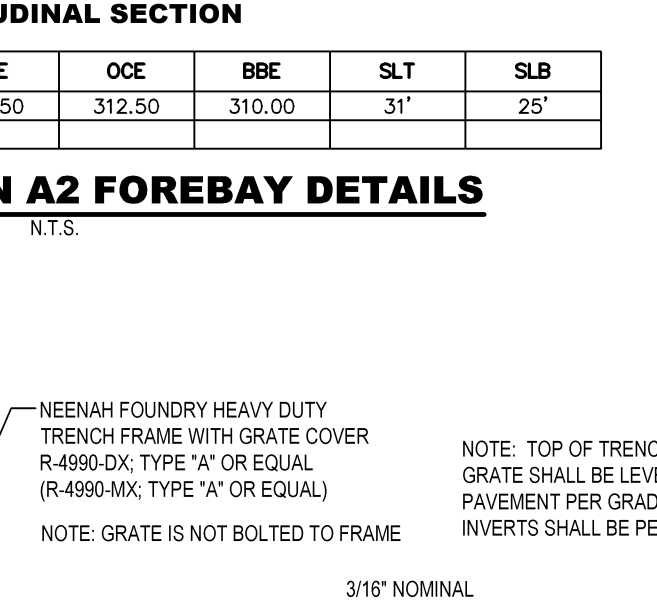
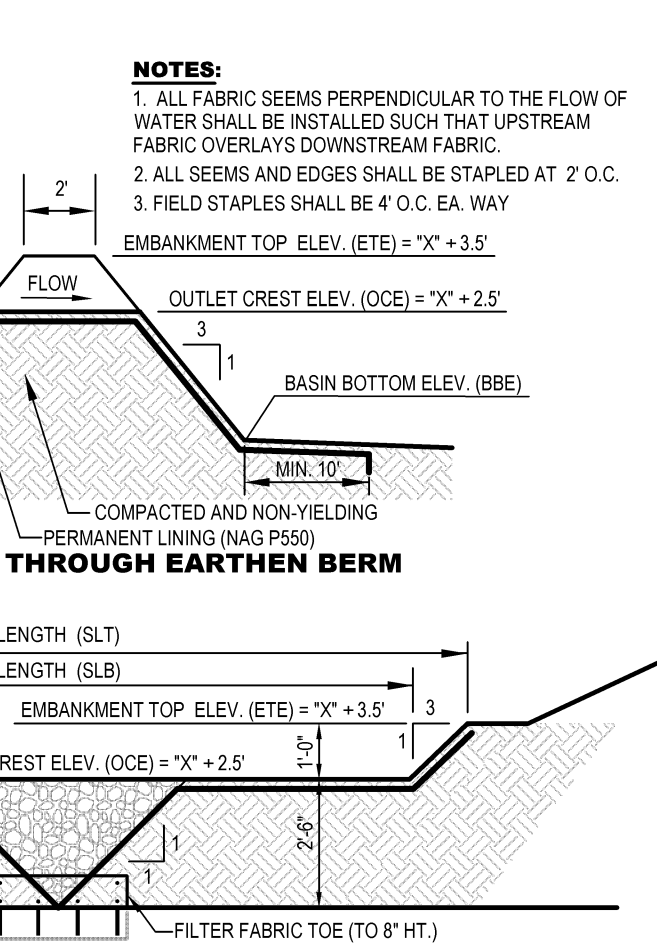
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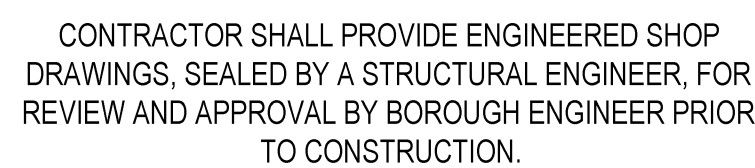
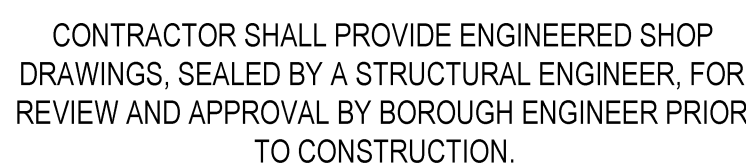
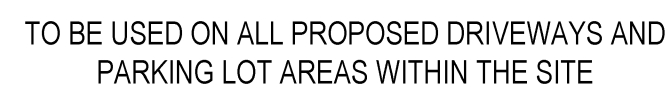
TYPE "DW" ENDWALL DETAIL



STRUCTURE NUMBER	MODEL	LOCATION
1	DVS-96C	ENTRANCE TO UG BASIN A1

HYDRODYNAMIC SEPARATOR DETAIL



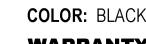


1. RETAINING WALLS SHOW ON THE PLAN AND THE DETAIL SHEETS OF THIS DRAWING SET ARE CONCEPTUAL. THE CONTRACTOR SHALL PROVIDE DETAILED ENGINEERING SUBMITTALS, INCLUDING BUT NOT LIMITED TO, WALL DESIGN, FOUNDATION DESIGN, AND ANCHORING, FOR REVIEW AND APPROVAL BY THE BOROUGHS ENGINEER PRIOR TO CONSTRUCTION.
2. THE WALL DESIGN ENGINEER SHALL VERIFY FOUNDATION SOILS AS BEING CONSISTENT PER THE DESIGN STANDARDS, PARAMETERS, AND/OR LOCAL BUILDING CODES.
3. ALL APPLICABLE PROVISIONS OF THE MANUFACTURERS INSTALLATION INSTRUCTIONS SHALL BE ADHERED TO IN THE DESIGN AND INSTALLATION OF THE WALLS.
4. THE LEVELING PAD SHALL CONSIST OF COMPACTED DRAINAGE AGGREGATE, MINIMUM 6" THICK, OR AS OTHERWISE SPECIFIED BY THE WALL DESIGN ENGINEER.
5. DRAINAGE FLIP 12" THICK SHALL BE INSTALLED BEHIND THE WALL UNITS TO WITHIN 12" OF THE TOP OF THE WALL. DRAINAGE FLIP SHALL BE ASHFO 57 OR 67 STONE OR AS OTHERWISE SPECIFIED BY THE WALL DESIGN ENGINEER.
6. BACKFILL AND BACKFILL AS EACH COURSE OF THE WALL UNITS IS INSTALLED, COMPACTING BACKFILL AGGREGATE FIRST, THEN SOIL, THEN BOTH.
7. COMPACTION SHALL BE TO 95% OF MAXIMUM STANDARD PROCTOR DENSITY. (AST D-698) OR AS REQUIRED BY THE WALL DESIGN ENGINEER.
8. SOIL COMPACTION TESTS SHALL BE TAKEN AS THE WALL IS INSTALLED. THE MINIMUM NUMBER OF TESTS SHALL BE AS DETERMINED BY THE WALL DESIGN ENGINEER.
9. GEODIO TYPE, LENGTH AND LOCATION(S) REQUIRED SHALL AS BE SPECIFIED BY THE WALL DESIGN ENGINEER.
10. THE GROUND SURFACE SHALL BE STABILIZED IMMEDIATELY AFTER THE WALL IS COMPLETED.



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ALUMINUM PICKET FENCE DETAIL



- WARRANTY**
THE ENTIRE FENCE SYSTEM SHALL HAVE A WRITTEN LIMITED LIFETIME WARRANTY AGAINST RUST AND DEFECTS IN WORKMANSHIP AND MATERIALS. IN ADDITION, THE FENCOCOAT FINISH SHALL BE WARRANTED NOT TO CRACK, CHIP, PEEL, OR BUST FOR THE SAME PERIOD.

- LEGEND**
- (1) **HORIZONTAL RAILS:** HORIZONTAL RAILS SHALL BE 1-5/8" CHANNELS FORMED IN A MODIFIED "U" SHAPE. PICKETS SHALL BE 1-1/2" SQUARE AND 12' LONG. THE TOP OF THE RAIL SHALL BE 1-1/8" HIGH. THE TOP WALL SHALL BE .670" THICK AND THE SIDE WALLS 1.000" THICK FOR SUPERIOR VERTICAL LOAD STRENGTH. THERE SHALL BE 3 HORIZONTAL RAILS (4 RAILS FOR 1/2" HIGHER PENCE) IN EACH RAIL BED.
 - (2) **PUNTS:** PUNTS SHALL BE 2-1/2" SQUARE EXTRUSIONS WITH PRE-DRILLED HOLES WHICH ALLOW THE FENCE SECTION TO BE EASILY ASSEMBLED. PUNTS SHALL BE SPACED 71-1/2" ON CENTER AND HAVE 0.75" DIA. HOLES.
 - (3) **CAPS:** THE CAST ALUMINUM CAPS SHALL BE 11-1/2" ON CENTER WITH 4 PICKETS.
 - (4) **PICKETS:** PICKETS SHALL BE 1" SQUARE AND HAVE A WALL THICKNESS OF .670" PICKETS SHALL BE FASTENED TO THE RAILS USING PAINTED STAINLESS STEEL SCREWS. SCREWS SHALL BE USED ON ONLY ONE SIDE OF THE RAIL, LEAVING THE OTHER SIDE A CLEAR PASSAGE. WELDING THE PICKETS TO THE RAILS IS NOT PERMITTED.
 - (5) **TOP FINALS:** TRADITIONAL ENGLISH IMPERIAL QUAD FINALS SHALL BE PROVIDED ON PICKETS. FINALS MAY BE EITHER WELDED TO THE PICKETS OR PERMANENTLY AFFIXED TO TOP OF PICKET.

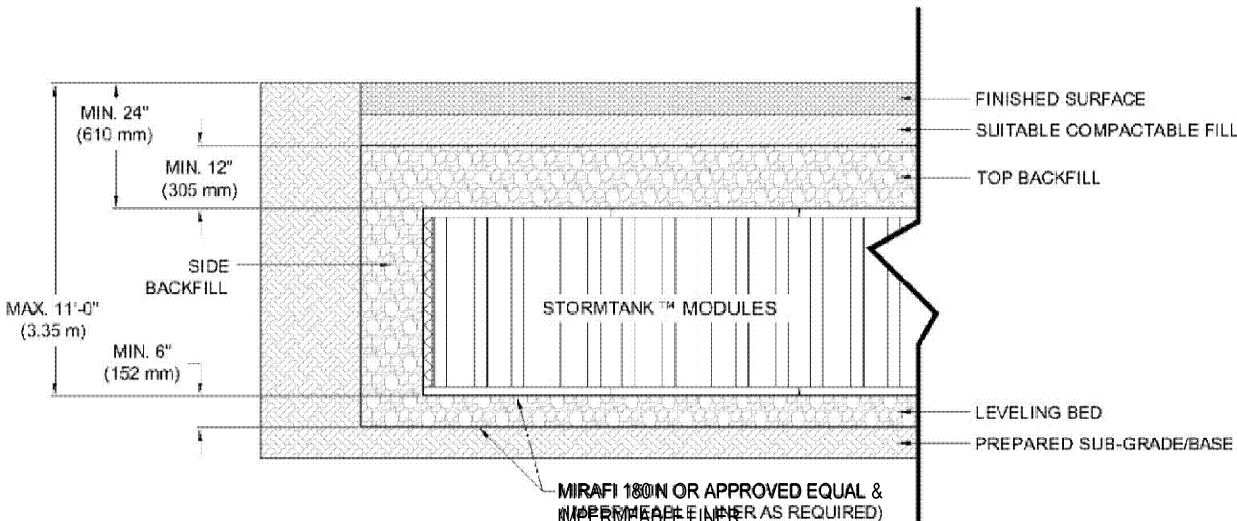
NOTE: ASSEMBLED SECTIONS SHALL SUPPORT A 1,000 LB. VERTICAL LOAD AT THE MIDPOINT OF ANY HORIZONTAL RAIL

[illegible]

Appendix B - Acceptable Fill Materials

Material Location	Description	AASHTO M43 Designation	ASTM D2321 Class	Compaction/Density
Finished Surface	Topsoil, hardscape, stone, concrete or asphalt per engineer of record.	N/A	N/A	Prepare per engineered plans.
Suitable Compactable Fill	Granular well graded soil/aggregate, typically road base or earthen fill, maximum 4" particle size.	56, 57, 6, 67, 68 Earth	I & II III (Earth Only)	Place in max. 12" lifts to a min. 90% standard proctor density.
Top Backfill	Crushed angular stone placed between modules and road base or earthen fill.	56, 57, 6, 67, 68	I & II	Plate compacted to provide evenly distributed layers.
Side Backfill	Crushed angular stone placed between earthen wall and modules.	56, 57, 6, 67, 68	I & II	Place in uniform 12" lifts around the system
Leveling Bed	Crushed angular stone placed to provide level surface for installation of modules.	56, 57, 6, 67, 68	I & II	Plate vibrated to achieve level surface.

* See Appendix C - Material Placement for limitations



- Notes:
- All stone must be angular stone meeting ASTM D2321. Recycled concrete may be utilized when meeting acceptable gradation and ASTM standards.
 - The sub-grade is to be prepared to meet bearing and compaction requirements. Please see engineer of record's design.
 - Storage of materials such as construction materials, equipment, soils, etc. over the StormTank® system is strictly prohibited.
 - Please contact a Geotechnical Engineer and the Brentwood representative prior to utilization of any material not listed above.

Revision Date: 8/20/15

Page 9 of 12

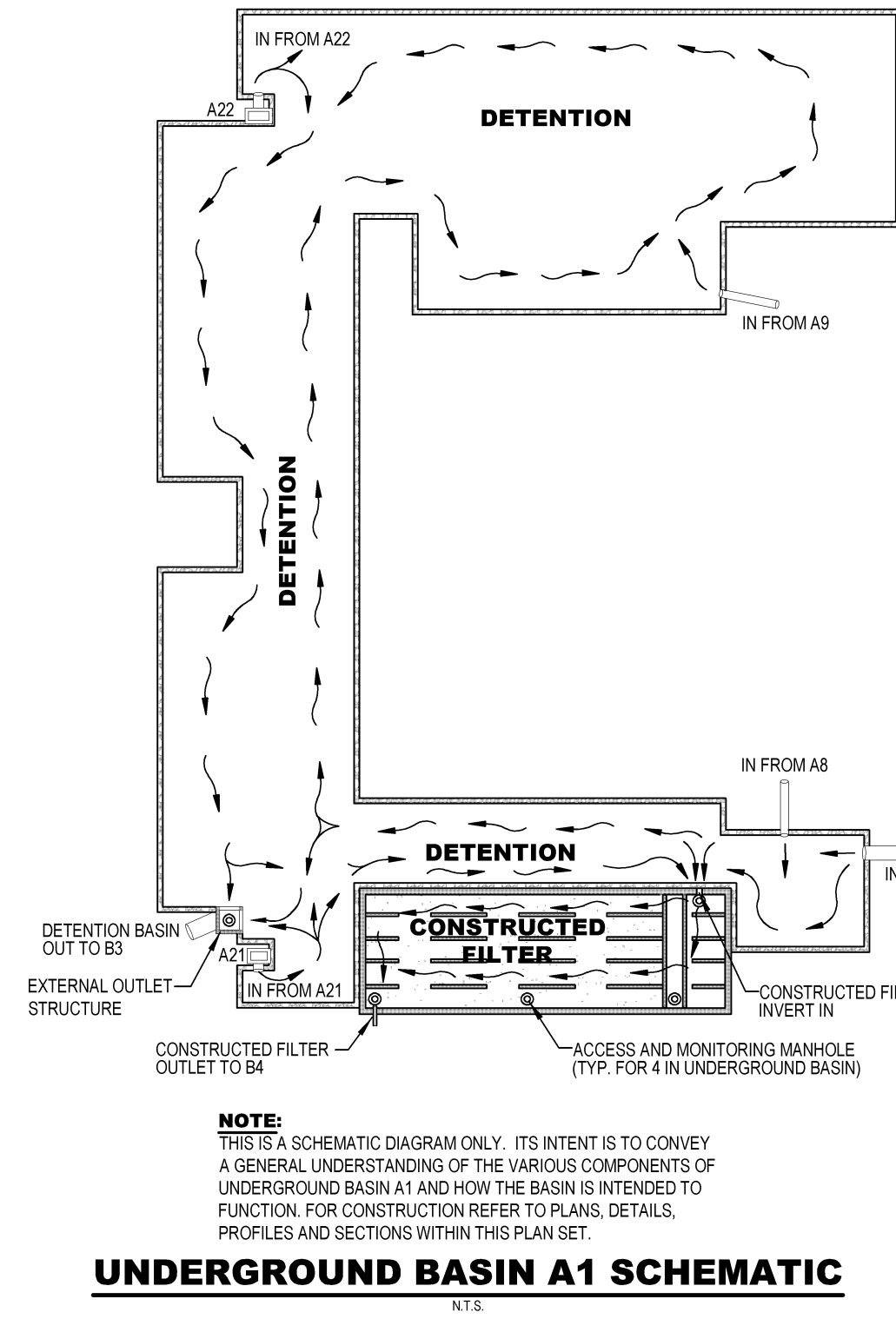
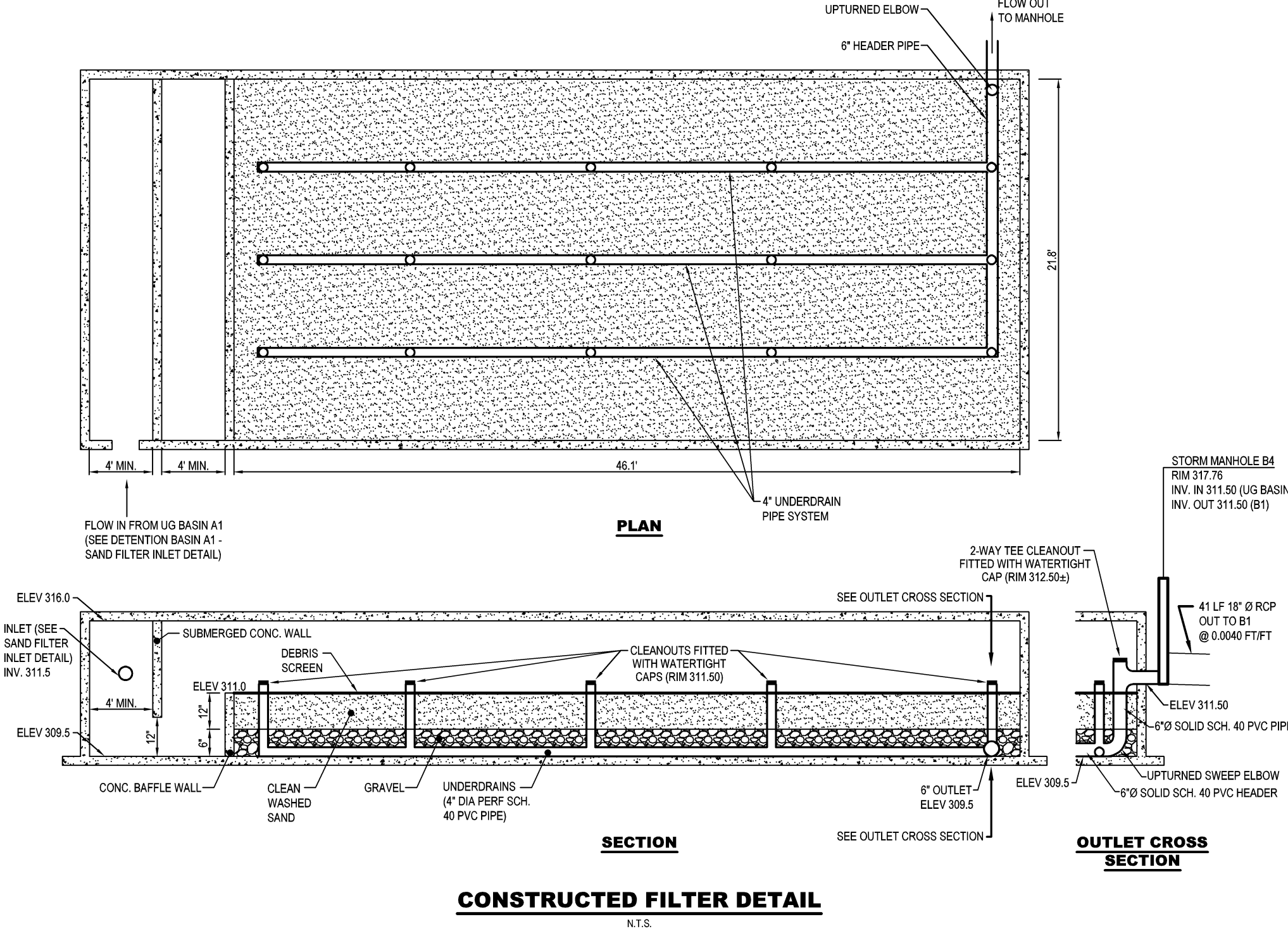
Appendix C - Material Placement Guidelines

Material Location	Placement Methods	Tired Equipment Limitations	Tracked Equipment Limitations	Roller Limitations
Finished Surface	Numerous methods may be utilized. Material dumping onto system should be limited unless otherwise noted.	Asphalt can be dumped into pavers.		Vibratory rollers may only be utilized if compacted cover exceeds 24" (610 mm) or for pavement installation.
Suitable Compactable Fill	Utilize an excavator, skid loader or dozer to place material. (Max. gross operating load of 6,000 lbs. [2,721 kg] or less).	No DUMPING by dump trucks. No wheel loads until approved by Engineer of Record.	SMALL DOZERS ONLY (Max. gross operating load of 6,000 lbs. [2,721 kg] or less).	Static rollers ONLY are permitted until compacted cover exceeds 24" (610 mm).
Top Backfill	Utilize excavator bucket or stone conveyor, positioned off of system, to uniformly backfill on top of the modules. No DUMPING directly onto modules by dump trucks.	No DUMPING by dump trucks. No wheel loads until approved by Engineer of Record.	Utilize an excavator or skid loader (Max. gross operating load of 6,000 lbs. [2,721 kg] once a min. 12" (305 mm) has been placed and compacted.	No rollers allowed at this time.
Side Backfill	Utilize excavator bucket or stone conveyor, positioned off of system, to uniformly backfill around modules. Stone to be placed in max. 12" (305 mm) lifts until stone reaches top of modules.	No equipment is permitted on the modules during the side backfilling process.		
Leveling Bed	No limitations			

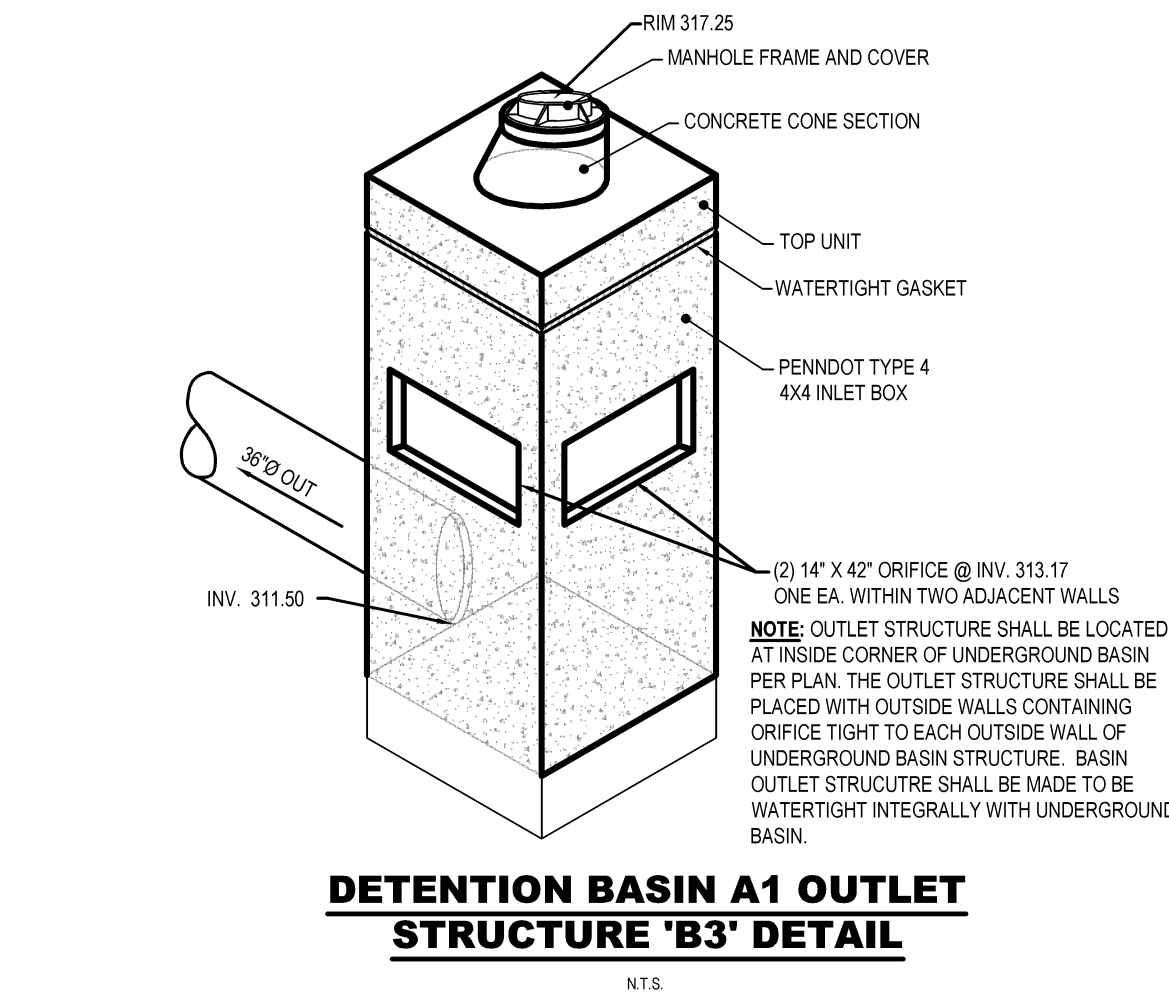
- Notes:
- Storage of materials such as construction materials, equipment, soils, etc. over the StormTank® system is strictly prohibited.
 - Please contact a Brentwood representative/distributor prior to utilization of any equipment not listed above.
 - During paving operations it may be necessary to utilize dump operations for paving equipment. Additional precautions should be utilized to limit the dump distance and prevent rutting of the road base.
 - It is recommended that all backfilling operations be completed with low ground pressure vehicles such as mini excavators, skid steers, etc. All equipment is to access system by a level approach to the system.

Revision Date: 8/20/15

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UNDERGROUND DETENTION BASIN A1 SCHEMATIC



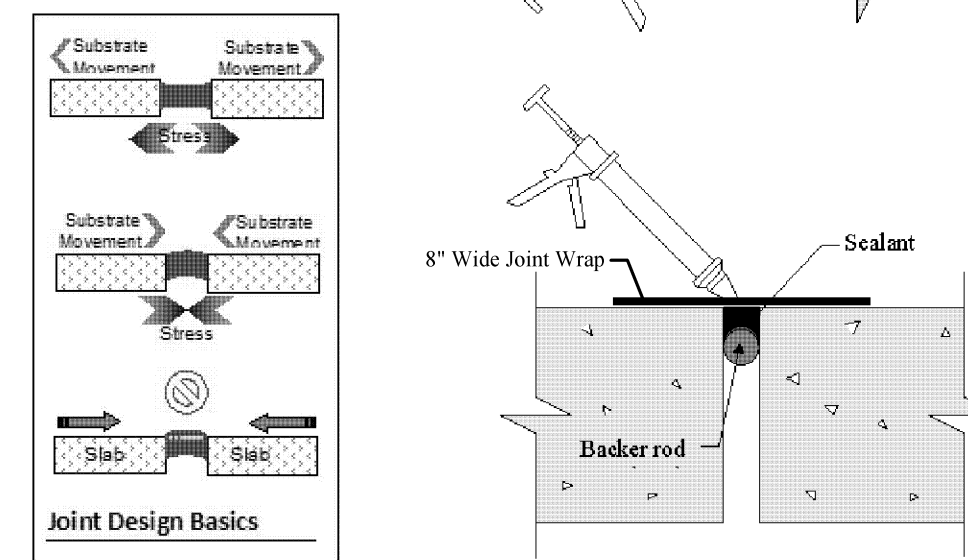
DETENTION BASIN A1 OUTLET STRUCTURE "B3" DETAIL

SIKAFLEX-2C NS EZ EXPANSION JOINT FILLER (APPLICABLE TO JOINTS IN CONCRETE SAND FILTER VAULT)

FIGURE 1 - SIKAFLEX-2C NS EZ (NON-SAG)

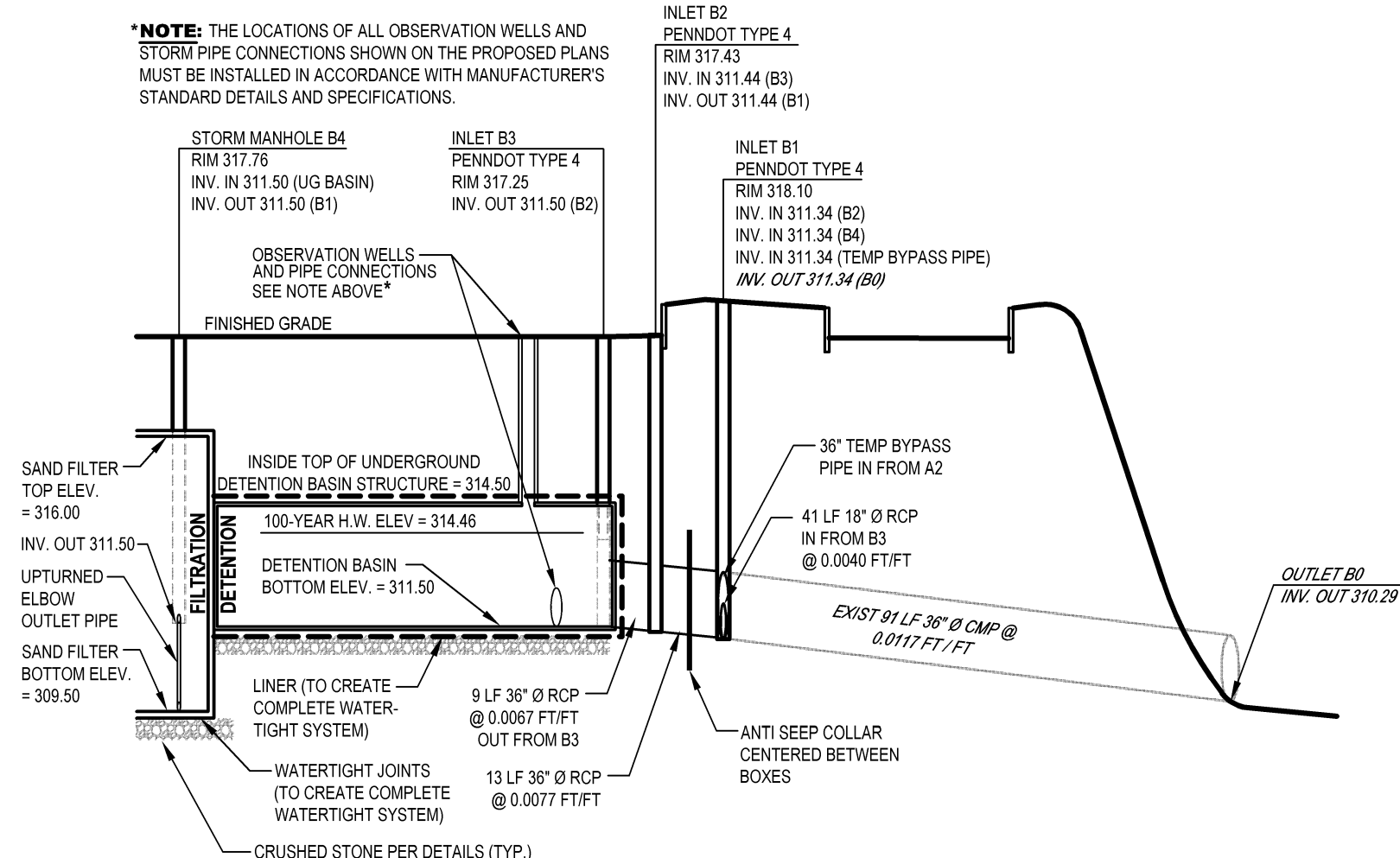
- THOROUGHLY CLEAN JOINT.
- INSTALL APPROPRIATE BACKER MATERIAL TO PREVENT THREE-SIDED ADHESION AND TO CONTROL SEALANT DEPTH.
- APPLY MANUFACTURER APPROVED PRIMER TO CONCRETE SURFACE.
- SIKAFLEX-2C NS EZ SHOULD BE GUNNED INTO JOINT AT MID-POINT OF DESIGNED EXPANSION AND CONTRACTION.
- TOOL AS REQUIRED TO PROPERLY FILL JOINTS.
- INSTALL SPECIFIED JOINT WRAP.

NOTE: SIKAFLEX-2C NS EZ IS DESIGNED FOR ALL TYPES OF JOINTS WHERE MAXIMUM SEALANT DEPTH WILL NOT EXCEED 3/4".



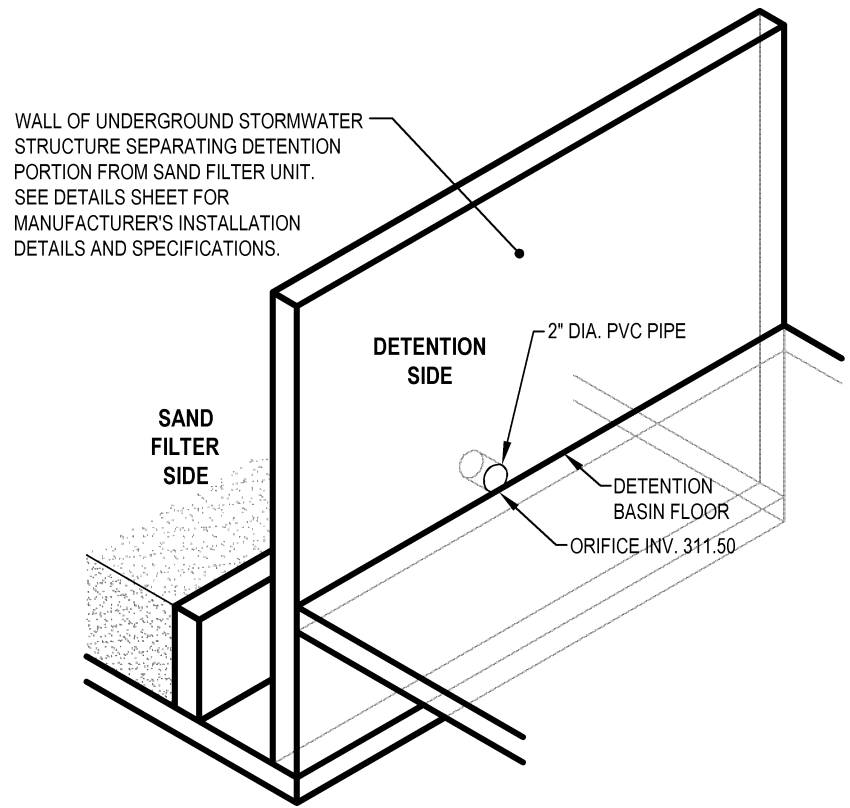
- WATERTIGHT INSTALLATION NOTES FOR DETENTION FACILITY:**
- ENTIRE U.G. DETENTION BASIN SHALL BE MADE WATERTIGHT BY COMPLETE ENCAPSULATION ON BOTTOM, TOP AND ALL SIDES WITH WATERTIGHT LINER (BTL 40 BY BTL INC. OR EQUIVALENT).
 - INSTALLATION OF LINER SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S DETAILS AND WRITTEN SPECIFICATIONS.
 - LINER SHALL BE ENTIRELY UNDERLAIN AND COVERED BY BY 6 OZ. NON-WOVEN GEOTEXTILE FABRIC SUCH THAT WATERPROOF LINER IS SANDWICHED BETWEEN A LAYER OF GEOTEXTILE FABRIC ON EACH SIDE OF THE LINER. SUFFICIENT LAP SHALL BE PROVIDED AT ALL FABRIC SEAMS.
 - ALL PIPE PENETRATIONS SHALL REQUIRE SELF-ADHESIVE WATERTIGHT LINER BOOTS.
 - THE LINER INSTALLATION SHALL BE OBSERVED BY THE DESIGN ENGINEER OR A REPRESENTATIVE OTHERWISE APPOINTED BY THE OWNER. THE CONTRACTOR MUST PROVIDE ADVANCE NOTICE TO ENSURE THE ENGINEER IS PRESENT DURING WATERPROOFING.

- WATERTIGHT INSTALLATION NOTES FOR SAND FILTER CONCRETE VAULT:**
- ENTIRE U.G. SAND FILTER VAULT SHALL BE MADE WATERTIGHT UTILIZING SIKAFLEX-2C NS EZ. A TWO-COMPONENT, NON-SAG, ELASTOMERIC, POLYURETHANE BASE JOINT SEALANT APPLICABLE IN HORIZONTAL, VERTICAL, AND OVERHEAD JOINTS AND SUITABLE FOR WATER SUBMERSION.
 - A PRIMER COMPATIBLE WITH SIKAFLEX-2C NS EZ AND APPROVED BY SIKAFOR USE IN SUBMERGED APPLICATIONS MUST BE UTILIZED ON ALL JOINTS PRIOR TO INSTALLATION OF SIKAFLEX-2C JOINT SEALANT.
 - ALL WRITTEN INSTRUCTIONS PROVIDED BY THE MANUFACTURER(S) SHALL BE STRICTLY ADHERED TO, INCLUDING BUT NOT LIMITED TO: JOINT PREPARATION/CLEANING OF JOINTS, INSTALLATION OF APPROVED BACKER ROD, APPLICATION OF APPROVED JOINT SEALANT PRIMER, INSTALLATION OF JOINT SEALANT AND JOINT WRAP OVER JOINTS.
 - GAPS BETWEEN PIPE PENETRATIONS AND VAULT WALLS GREATER THAN PERMITTED BY SIKAFOR SHALL BE FULLY AND SOLIDLY PACKED WITH NON-SHRINK POLYMER MODIFIED HYDRAULIC CEMENT, FOLLOWED BY SIKAFLEX-2C ADJACENT PIPE WALL.
 - THE WATERPROOFING PROCESS SHALL BE OBSERVED BY THE DESIGN ENGINEER OR A REPRESENTATIVE OTHERWISE APPOINTED BY THE OWNER. THE CONTRACTOR MUST PROVIDE ADVANCE NOTICE TO ENSURE THE ENGINEER IS PRESENT DURING WATERPROOFING.



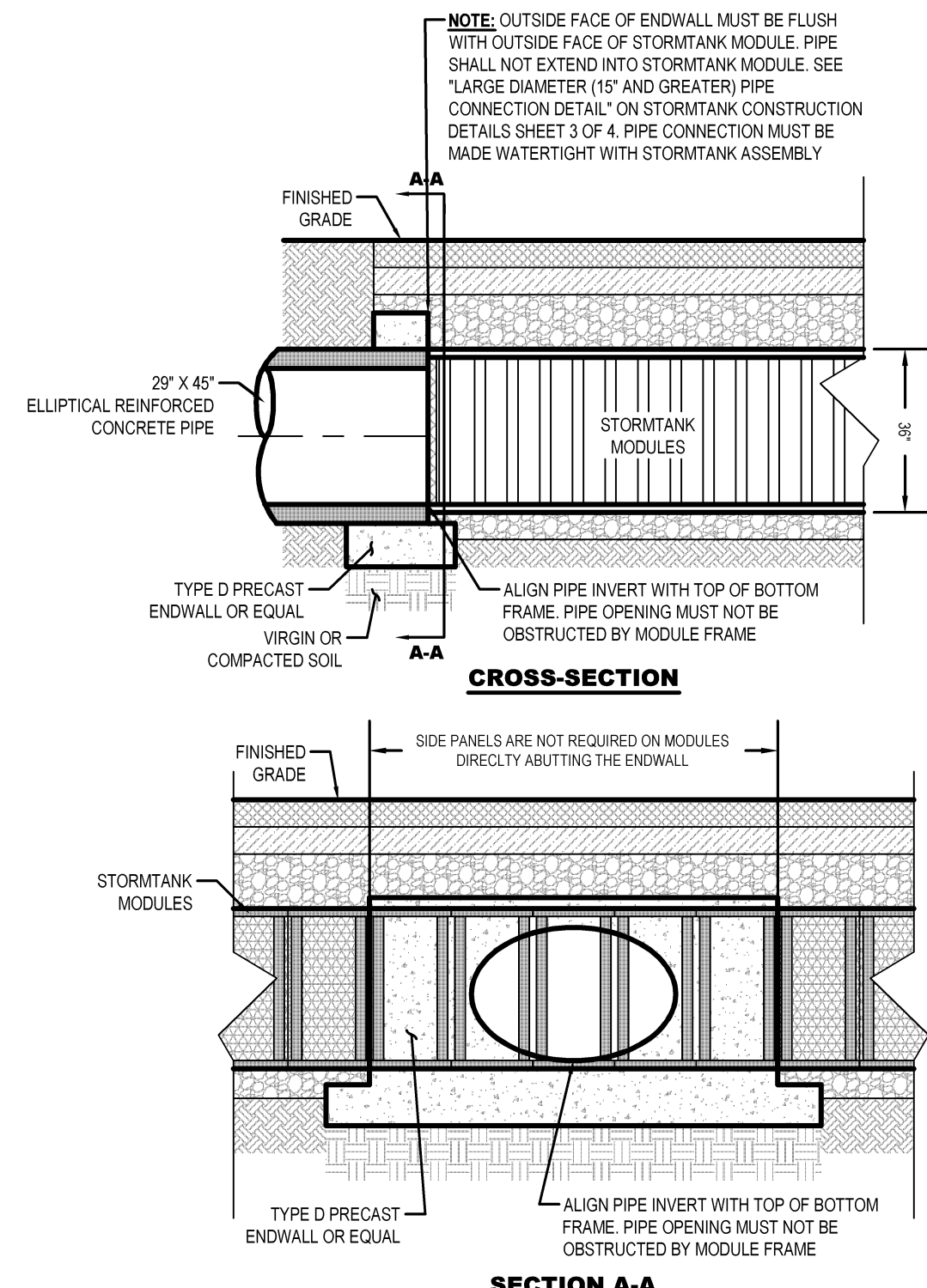
UNDERGROUND DETENTION BASIN A1 - SECTION

N.T.S.



UNDERGROUND DETENTION BASIN A1 - SAND FILTER INLET DETAIL

N.T.S.



SECTION A-A
DETENTION BASIN A1
INLET DETAIL

N.T.S.

NO.	DATE	DESCRIPTION
1	11-12-2011	REVISION: THIS SHEET IS FOR CONSTRUCTION OF THE UNDERGROUND DETENTION BASIN AND INTERNAL REVIEW
2	11-12-2011	REVISION: TO ACCOMMODATE AN ALTERNATIVE UNDERGROUND DETENTION BASIN STRUCTURE
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FINAL LAND DEVELOPMENT
STORM AND CONSTRUCTION DETAILS - PCSWM (D)
PENNSBURG SQUARE SHOPPING CENTER
WESTOVER COMPANIES
POTTSVILLE, PA
PENNSBURG BOROUGH, MONTGOMERY COUNTY, PENNSYLVANIA

PROJECT MANAGER: CDS
DRAWING FILE NAME: Sht_ZC1-Stm-Const-DET
PLAN ORIGINATION DATE: 10-18-2017
PLAN SCALE: N.T.S.
PROJECT NUMBER: 2096
SHEET NUMBER: 09 OF 27

[illegible]

GENERAL CONDITIONS

REVIEW INSTALLATION PROCEDURES AND COORDINATE THE INSTALLATION WITH OTHER CONSTRUCTION ACTIVITIES, SUCH AS GRADING, EXCAVATION, UTILITIES, EROSION CONTROL, ETC.

ENGINEER'S DRAWINGS SUPERSEDE ALL PROVIDED DOCUMENTATION, AS THE INFORMATION FURNISHED IN THIS DOCUMENT IS BASED ON A TYPICAL INSTALLATION. WHEN ALLED BASED ON BENTWOOD'S PREPARATION AND INSTALLATION INSTRUCTIONS OR SIMILAR, A STORMTANK SYSTEM CAN SUPPORT AN HS-20 LOAD. COORDINATE THE INSTALLATION WITH MANUFACTURERS' REPRESENTATION. REPRESENTATION/DISTRIBUTOR TO BE ON-SITE TO REVIEW START-UP PROCEDURES AND INSTALLATION INSTRUCTIONS.

COMPONENTS SHALL BE UNLADDED, HANDLED AND STORED IN AN AREA PROTECTED FROM TRAFFIC AND IN A MANNER TO PREVENT DAMAGE.

ALLIED SHALL BE MAINTAINED ON ALL WALKWAYS ON, BUT VEHICULAR TRAFFIC IS PROHIBITED UNTIL BACKFILL PER MANUFACTURER'S REQUIREMENTS PROTECT THE STORMTANK FROM DAMAGE WITH HEAVY VISIBLE CONSTRUCTION PAPER, FENCING, OR OTHER MEANS UNTIL CONSTRUCTION IS COMPLETE.

ENGINEER SHALL COORDINATE WITH FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, REGULATIONS AND SAFETY REQUIREMENTS.

EXTRA CARE MUST BE TAKEN WHEN TEMPERATURES ARE AT OR BELOW 40° (F) (4° C).

10. STORMTANK® ASSEMBLY

STORMTANK® MODULES:

STORMTANK® MODULES ARE DELIVERED TO THE SITE AS PACKAGED COMPONENTS. REQUIRING SIMPLE ASSEMBLY, NO SPECIAL EQUIPMENT, TOOLS OR BONDING AGENTS ARE REQUIRED. ONLY A RUBBER Mallet. A SINGLE WORKER CAN TYPICALLY ASSEMBLE A MODULE IN TWO MINUTES.

ASSEMBLY INSTRUCTIONS:

1. PLACE A PLATE ON A FIRM, LEVEL SURFACE AND INSERT THE EIGHT (8) COLUMNS INTO THE PLATE RECEIVER CUPS. FIRMLY TAP EACH COLUMN WITH A RUBBER Mallet TO ENSURE THE COLUMN IS SEATED.

2. PLACE A SECOND PLATE ON A FIRM, LEVEL SURFACE. FLIP THE PREVIOUSLY ASSEMBLED COMPONENTS UPSIDE DOWN ONTO THE SECOND PLATE, ALIGNING THE COLUMNS INTO THE PLATE RECEIVER CUPS.

3. ONCE ALIGNED, SEAT THE TOP ASSEMBLY BY A TERNARY TAPS WITH A RUBBER Mallet AT EACH STRUCTURAL COLUMN UNTIL ALL COLUMNS ARE FIRMLY SEATED.

4. SIDE PANELS

4. SIDE PANELS ARE REQUIRED, FIRMLY TAP THE TOP PLATE UPWARD TO RAISE THE TOP PLATE AND INSERT THE SIDE PANEL INTO THE BOTTOM PLATE.

4. ALIGN THE TOP OF THE SIDE PANEL WITH THE TOP PLATE AND FIRMLY SEAT THE TOP PLATE UTILIZING A RUBBER Mallet.

GENERAL NOTES:

REMOVAL PACKAGING MATERIAL AND CHECK FOR DAMAGE BEFORE ANY DAMAGED COMPONENTS TO A STORMTANK ARE DISTRIBUTED OR BENTWOOD PERSONNEL.

STORMTANKS COMPONENTS ARE BACKED BY A ONE YEAR WARRANTY, WHEN INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

20. BASIN EXCAVATION

1. BASED ON EXCAVATION TO ELEVATIONS PER APPROVED PLANS AND EXCAVATION REQUIREMENTS.

2. EXCAVATION DEPTH MUST BE A MINIMUM OF 6" (152 MM) BELOW DESIGNED STORMTANK® MODULE INVERT.

3. STORMTANK® MODULE SHOULD EXTEND A MINIMUM OF 12" (305 MM) ABOVE THE STORMTANK® DIMENSIONS IN EACH LENGTH AND WIDTH. AN ADDITIONAL 24" (610 MM) IN TOTAL LENGTH AND TOTAL WIDTH TO ALLOW FOR ADEQUATE PLACEMENT OF SOLE BOARD MATERIAL.

4. REMOVE OBJECTABLE MATERIAL ENCOUNTERED WITHIN THE EXCAVATION, INCLUDING PROVIDING MATERIAL FROM THE HILLS.

5. FURNISH, INSTALL, MOTOR AND MAINTAIN EXCAVATION SUPPORT (E.G. SHORING, BRACING, TENSION BOLDS, ETC.) AS REQUIRED BY FEDERAL, STATE AND LOCAL LAWS, ORDINANCES, REGULATIONS AND SAFETY REQUIREMENTS.

30. SUB-GRADE REQUIREMENTS

1. SUB-GRADE SHALL BE UNFROZEN, LEVEL (PLUS OR MINUS .1%), AND FREE OF LUMPS OR DEBRIS WITH NO STANDING WATER, MUD OR DRUCK. DO NOT USE MATERIALS NOT WITH MATERIALS THAT ARE FROZEN AND/OR COATED WITH ICE OR FROST.

2. INSTANTLY, UNSUITABLE AND/OR COMPROMISED AREAS MUST BE REPORTED TO THE ENGINEER'S ATTENTION AND NEGATING OFFERS DETERMINED PRIOR TO CORRECTING THE SUB-GRADE.

3. SUB-GRADE MUST BE COMPACTED TO MEET STANDARD PROCTOR DENSITY OR AS APPROVED BY THE ENGINEER OF RECORD. IF CORE REQUIREMENTS RESTRICT SUBGRADE COMPACTING, IT IS THE REQUIREMENT OF THE GEOTECHNICAL ENGINEER TO VERIFY THAT THE BEARING CAPACITY AND SETTLEMENT CRITERIA FOR SUPPORT OF THE SYSTEM ARE MET.

40. STORMTANK® MODULE PLACEMENT

1. DO NOT APPLY VEHICULAR LOAD TO THE MODULES DURING PLACEMENT OF SOLE BOARD. ALL PLACEMENT MUST BE DONE USING EQUIPMENT LOCATED ON THE NATIVE SOIL SURROUNDING THE SYSTEM.

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50. LEVELING BED INSTALLATION

1. INSTALL GEOTEXTILE FABRIC AND LINER MATERIAL, AS SPECIFIED.

a. GEOTEXTILE FABRIC SHALL BE PLACED PER MANUFACTURER'S RECOMMENDATIONS.

b. ADDITIONAL MATERIAL TO BE UTILIZED FOR WRAPPING ABOVE THE SYSTEM MUST BE PROTECTED FROM DAMAGE DURING USE.

2. AFTER THE GEOTEXTILE AND LINER ARE SECURED, PLACE A MINIMUM (152 MM) AVOIDING BED.

a. MATERIAL SHOULD BE A 34" (19 MM) ANGULAR STONE MEETING APPENDIX B, ACCEPTABLE FILL MATERIAL.

b. MATERIAL SHOULD BE RAKED FREE OF VOIDS, LUMPS, DEBRIS, SHARP OBJECTS AND PLATE VIBRATOR TO A LEVEL WITH MAXIMUM HILL SLOPE.

3. CORRECT ANY UNSATISFACTORY CONDITIONS.

50. STORMTANK® MODULE PLACEMENT

1. INSTALL GEOTEXTILE FABRIC AND LINER MATERIAL, AS SPECIFIED.

a. GEOTEXTILE FABRIC AND LINER SHALL BE PLACED PER MANUFACTURER'S RECOMMENDATIONS.

b. ADDITIONAL MATERIAL TO BE UTILIZED FOR WRAPPING ABOVE THE SYSTEM MUST BE PROTECTED FROM DAMAGE DURING USE.

2. MARK THE FOOTPRINT OF THE MODULES FOR PLACEMENT.

3. ENSURE MODULE REVERTER OUTLINE IS SQUARE OR SIMILAR PRIOR TO MODULE PLACEMENT.

4. CARE SHOULD BE TAKEN TO NOTE ANY CONDUITS, PORTS OR OTHER IRREGULAR UNITS TO BE PLACED.

3. INSTALL THE INDIVIDUAL MODULES BY HAND, AS DETAILED BELOW.

a. THE MODULES SHOULD BE INSTALLED AS SHOWN IN THE STORMTANK® MANUAL DRAWINGS WITH THE SHORT SIDE, OR PERMITTER MODULES FACING SHORT SIDE, EXCEPT AS OTHERWISE SPECIFIED.

b. MARK SURE THE TOP/BOTTOM PLATING ARE IN ALIGNMENT IN ALL DIRECTIONS TO WITHIN A MAXIMUM (1/8" (3.2 MM)).

c. FOR DOUBLE STACK CONSTRUCTIONS:

i. INITIAL THE BOTTOM MODULE FIRST. DO NOT INTERFERE VARIOUS MODS HEIGHTS ACROSS LAYERS. JACQUILLING PRIOR TO PROCEEDING TO SECOND LAYER IS OPTIONAL.

ii. JACKING PINS (1 PER MODULE) INTO THE TOP PLATE OF THE BOTTOM MODULE.

iii. PLACE THE UPPER MODULE DIRECTLY ON TOP OF THE BOTTOM MODULE IN THE SAME POSITION, MAKING SURE TO BRIDGE THE PINS.

4. INSTALL THE MODULES TO COMPLETION, TAKING CARE TO AVOID DAMAGE TO THE GEOTEXTILE AND LINER MATERIAL.

5. LOCATE ANY PORTS OR OTHER PENETRATION OF THE STORMTANK®.

6. INSTALL TOP PENETRATIONS IN ACCORDANCE WITH THE APPROVED SUBMITTALS, CONTACT DOCUMENTS AND MANUFACTURER'S RECOMMENDATIONS.

7. UPON COMPLETION OF MODULE INSTALLATION, WRAP THE MODULES IN GEOTEXTILE AND LINER MATERIAL.

a. GEOTEXTILE FABRIC AND LINER SHALL BE WRAPPED AND DECLARED PER MANUFACTURER'S RECOMMENDATIONS.

b. SEAL ANY TOP PENETRATIONS PER MANUFACTURER'S REQUIREMENTS.

60. SIDE BACKFILL

1. INSPECT ALL GEOTEXTILE, ENSURING THAT NO VOIDS OR DAMAGE EXISTS, WHICH WILL ALLOW SEGMENT INTO THE STORMTANK SYSTEM.

2. ADJUST THE STORMTANK INTERFACE GEOTEXTILE ALONG THE SIDE OF THE NATIVE SOIL TO ENSURE THE GEOTEXTILE IS TAUGHT TO THE NATIVE SOIL.

3. ONCE THE GEOTEXTILE IS SECURED, BEGIN TO PLACE THE SIDE BACKFILL.

a. MATERIAL SHOULD BE A 34" (19 MM) ANGULAR STONE MEETING APPENDIX B, ACCEPTABLE FILL MATERIAL.

b. BACKFILL BEDS "EVENLY" AROUND THE PERIMETER WITHOUT EXCEEDING SINGLE 12" (305 MM) LIFTS.

c. PLACE MATERIAL, UTILIZING AN EXCAVATOR, DOOR OR CONVEYOR BUNKER, UTILIZE A PLATE VIBRATOR TO SETTLE THE STONE AND PROVIDE A UNIFORM DISTRIBUTION.

70. TOP BACKFILL (STONE)

1. BEGIN TO PLACE THE TOP BACKFILL.

a. MATERIAL SHOULD BE A 34" (19 MM) ANGULAR STONE MEETING APPENDIX B, ACCEPTABLE FILL MATERIAL.

b. PLACE MATERIAL, UTILIZING AN EXCAVATOR, DOOR OR CONVEYOR BUNKER, APPROPRIATE C. MATERIAL PLACEMENT) AND USE A WALK-BEHIND PLATE VIBRATOR TO SETTLE THE STONE AND PROVIDE AN EVEN DISTRIBUTION.

DO NOT DRIVE ON THE MODULES WITHOUT A MINIMUM 12" (305 MM) COVER.

2. UPON COMPLETION OF TOP BACKFILLING, WRAP THE SYSTEM IN GEOTEXTILE FABRIC AND LINER PER MANUFACTURER'S RECOMMENDATIONS.

3. INSTALL MATERIAL TAPE AROUND THE PERIMETER OF THE SYSTEM TO MARK THE AREA FOR FUTURE UTILITY DETECTION.

80. SUITABLE COMPACTABLE FILL

FOLLOWING TOP BACKFILL, PLACEMENT AND GEOTEXTILE FABRIC WRAPPING, COMPLETE THE INSTALLATION AS NOTED BELOW.

VEGETATED AREA

1. PLACE FILL ONTO THE GEOTEXTILE.

a. MAXIMUM 12" (305 MM) LIFTS, COMPACTED WITH A VIBRATORY PLATE OR WALK BEHIND ROLLER TO A MINIMUM OF 90% STANDARD PROCTOR DENSITY.

b. THE MINIMUM TOP COVER TO FINISHED GRADE SHOULD NOT BE LESS THAN 24" (610 MM) AND THE MAXIMUM DEPTH FROM FINAL GRADE TO THE BOTTOM OF THE LOWEST MODULE SHOULD NOT EXCEED 11' (3.35 M).

2. FINISH TO THE SURFACE AND COMPLETE WITH VEGETATIVE COVER.

INFERVIOUS AREA

1. PLACE FILL ONTO THE GEOTEXTILE.

a. MAXIMUM 12" (305 MM) LIFTS, COMPACTED WITH A VIBRATORY PLATE OR WALK BEHIND ROLLER TO A MINIMUM 90% STANDARD PROCTOR DENSITY OR MEET THE ENGINEER OF RECORD'S SPECIFICATION.

b. SUB-BASE MATERIALS SHOULD BE REFERENCED BY THE APPROVED ENGINEERING DRAWINGS.

c. THE MINIMUM TOP COVER TO FINISHED GRADE SHOULD NOT BE LESS THAN 24" (610 MM) AND THE MAXIMUM DEPTH FROM FINAL GRADE TO THE BOTTOM OF THE MODULE SHOULD NOT EXCEED 11' (3.35 M).

2. FINISH TO THE SURFACE AND COMPLETE WITH ASPHALT, CONCRETE, ETC.

Appendix A: Acceptable Fill Materials

Material	Maximum Depth (ft)	Minimum Top Cover (ft)	Maximum Depth from Final Grade (ft)
Gravel	12"	24"	11'
Crushed Stone	12"	24"	1

FINAL LAND DEVELOPMENT		CDS
STORM AND CONSTRUCTION DETAILS - PCSWM (E)		
PENNSBURG SQUARE SHOPPING CENTER		
DESIGNED BY		
WESTOVER COMPANIES		
PROJECT MANAGER		CDS
DRAWING FILE NAME		Sht_ZO-Stm-Cons-Det
PLAN ORGANIZATION DATE		10-16-2017
PLAN SCALE		N.T.S.
PROJECT NUMBER		2096
SHEET NUMBER		40

PENNINSBURG FORT COUGH, MONSIEURY COUNTY, PENNSILVANIA

STORM SEWER:

1. UNLESS OTHERWISE NOTED, ALL STORM SEWER INLETS SHALL BE EITHER PENNDOT TYPE "C" OR TYPE "M" AND SHALL CONFORM TO FORM 408 (LATEST EDITION), SECTION 605.
2. UNLESS OTHERWISE NOTED, ALL STORM SEWER PIPING SHALL BE REINFORCED CONCRETE PIPE AND SHALL CONFORM TO PENNDOT FORM 408 (LATEST EDITION), SECTION 601.
3. UNLESS OTHERWISE NOTED, ALL CONCRETE "D" END WALLS SHALL CONFORM TO PENNDOT FORM 408 (LATEST EDITION), SECTION 605. THE TOP OF WALL ELEVATIONS FOR ALL ENDWALLS SHALL CONFORM TO THESE STANDARDS FOR THE ASSOCIATED PIPE SIZE. IN THE EVENT THAT A HIGHER TOP OF WALL ELEVATION IS NECESSARY FOR GRADING, THE "SPECIAL" TOP OF WALL ELEVATION SHALL BE NOTED ON THE PLANS.
4. THE TOP OF GRADE ELEVATION FOR ALL CURBSIDE STORM SEWER INLETS IS FOR THE CENTER OF THE INLET AT THE FACE OF CURB. THE CONTRACTOR SHALL PROTECT THE ROADWAY GRADE ALONG THE LENGTH OF THE INLET.
5. ANY SPRINGS ENCOUNTERED DURING ROADWAY CONSTRUCTION SHALL BE OUTLETED BY U-DRAIN TO NEAREST STORM SEWER FACILITY OR WATERCOURSE. U-DRAIN PLACEMENT TO BE BY THE DIRECTION OF THE TOWNSHIP ENGINEER.
6. ALL PROPOSED STORM PIPE LENGTHS ARE MEASURED FROM CENTER OF INLET TO CENTER OF INLET.

1. ALL MATERIALS AND DETAILS OF CONSTRUCTIONS, INSTALLATION PROCEDURES, AND REQUIREMENTS WITH RESPECT TO SANITARY SEWERAGE FACILITIES SHALL BE IN ACCORDANCE WITH THE UPPER MOUNTAIN WATER DISTRICT AUTHORITY (UWA) STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR SANITARY SEWER EXTENSIONS (LATEST EDITION).
2. AN 18-INCH VERTICAL CLEARANCE OR A 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER MAINS, WHERE POSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL SEPARATION. MINIMUM VERTICAL CLEARANCE SHALL BE 18" OVER STREET LATERALS.
3. EXISTING SANITARY SEWER MAIN PIPING IS 10" DIA. NEW SANITARY MAIN SHALL BE 12" DIA. SDR-26 PVC PIPE. NEW LATERALS SHALL BE 6" DIA. SDR-26 PVC PIPE. ALL SANITARY SEWER LATERALS SHALL BE LAID ON A SLOPE OF NOT LESS THAN 1%.
4. ALL PROPOSED SANITARY SEWER MANHOLES LOCATED IN UNPAVED AREAS SHALL BE PROVIDED WITH WASTEWATER FRAMES AND 18" DIA. 12" HIGH INCHES ABOVE FINISHED GRADE.
5. PRIOR TO COMMENCING CONSTRUCTION, SHOP DRAWINGS FOR ALL MATERIALS TO BE USED IN THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM MUST BE SUBMITTED TO UWA. IN ADDITION, ALL MATERIALS TO BE USED ON THE JOB MUST BE INSPECTED BY A REPRESENTATIVE OF UWA TO INSURE CONFORMANCE WITH THE APPROVED SHOP DRAWINGS.
6. ALL CONCRETE ENCASUREMENT SHALL BE SHOWN ON THE DRAWINGS AND NO OTHER ENCASUREMENT SHALL BE INSTALLED WITHOUT THE APPROVAL OF THE DESIGN ENGINEER AS WELL AS WRITTEN APPROVAL OF THE AUTHORITY ENGINEER. ALL ENCASEMENTS SHALL EXTEND TO THE NEXT JOINT BEYOND THE MINIMUM DISTANCE REQUIREMENT.
7. A MINIMUM OF EIGHTEEN (18) INCHES OF VERTICAL CLEARANCE IS REQUIRED BETWEEN ALL UTILITIES AND THE SANITARY SEWER MAIN OR STREET LATERALS.
8. NO TREE OR BUSH SHALL BE PLACED WITHIN 10 FEET OF A SANITARY SEWER MAIN OR LATERAL.
9. ALL PROPOSED SANITARY PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

1. ALL WATER MAIN CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST REVISION OF THE STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE UPPER HANOVER AUTHORITY.
2. WATER LINE SHALL BE CLASS 52 DUCTILE IRON PIPE WITH CEMENT LINING.
3. ALL WATER VALVES AND CURB STOP S ARE TO BE OPERATED BY THE UPPER HANOVER AUTHORITY STAFF ONLY. CONTRACTOR SHALL COORDINATE OPERATION OF VALVES WITH THE UPPER HANOVER AUTHORITY. CONTRACTOR SHALL ADVISE THE UPPER HANOVER AUTHORITY OF ANY VALVE OPERATIONS.
4. THE RELOCATED FIRE HYDRANT SHALL BE REPLACED WITH A NEW HYDRANT AND VALVE (DO NOT REUSE EXISTING HYDRANT OR VALVE).
5. DIFFERING SOURCES IDENTIFY EXISTING FIRE HYDRANT FEED LINE SIZE AS 4" AND 6" LOCATED ADJACENT TO EXISTING BUILDING BEHIND PROPOSED BUILDING D. CONTRACTOR SHALL VERIFY TO THEIR SATISFACTION PRIOR TO SECURING MATERIALS FOR THIS EXTENSION. IN THE EVENT EXISTING FEED LINE SIZE IS 4" CONTRACTOR SHALL EXTEND LINE TO 6" WITH 2" PIPE.
6. ALL PROPOSED WATER SERVICE LATERALS SHALL BE 2" COPPER TO THE CURB STOP AND THEN 2" HDPE FROM THE CURB STOP TO THE BUILDING UNLESS NOTED OTHERWISE.

1. AS BUILT PLANS SHALL BE PROVIDED BY THE CONTRACTOR DOCUMENTING THE AS-BUILT CONDITIONS. PLANS SHALL BE PREPARED AND SEALED BY A PROFESSIONAL LICENSED SURVEYOR. SEALED PLANS AND CAD FILES SHALL BE PROVIDED.
2. THE GENERAL SITE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL AS BUILT PLANS AND PROFILES.
3. AS BUILT PLANS AND PROFILES MUST DOCUMENT ALL COMPONENTS OF THE CONSTRUCTED WATER SUPPLY, SANITARY SEWER, AND STORM SEWER SYSTEMS.
4. AS BUILT PLANS MUST DOCUMENT THE FINISHED GRADE CONDITION OF ALL STORM WATER BMP AREAS, INCLUDING BUT NOT LIMITED TO ALL BASINS, INFILTRATION FACILITIES, RAIN GARDENS, SUBSURFACE SEEPAGE BASINS, AND ANY OTHER BMP NOTED ON THE POST CONSTRUCTION STORM WATER PLANS. NO TOPSOIL SHALL BE REMOVED FROM THE SITE.

1. THIS PLAN CONTAINS INFORMATION PERTAINING TO UNDERGROUND UTILITIES WHICH IS FOR GENERAL INFORMATION ONLY, AND MAY NOT BE BASED ON AN ACTUAL SUBSURFACE LOCATION SURVEY. ALL SUBSURFACE INFORMATION SHOWN ON THESE PLANS NEEDS TO BE VERIFIED BY THE PLAN USER. THE USER OF THIS PLAN ASSUMES ALL LIABILITY FOR THE REPRESENTATION OF WARRANTIES AS TO THE ACCURACY OF THE LOCATION OF UNDERGROUND UTILITIES OR OTHER UNDERGROUND FEATURES. THE PLAN USER SHALL EXECUTE A POA ONE CALL PRIOR TO ANY EXCAVATION OR TRENCHING.
2. A MINIMUM VERTICAL CLEARANCE OF 18 INCHES SHALL BE PROVIDED AT ALL UTILITY CROSSINGS. WHERE 18 INCHES OF CLEARANCE CAN NOT BE OBTAINED, THE LOWER UTILITY LINE SHALL BE CONCRETE ENCASED FOR A LENGTH OF 20 FEET, CENTERED ABOUT THE CROSSING.
3. ALL CONSTRUCTION SHALL CONFORM TO PENNSBURG BOROUGH STANDARDS AND SPECIFICATIONS FOR CONSTRUCTION OF STANDARD STREETS AND SIDEWALKS AS APPLICABLE.
4. TOPSOIL SHALL BE REMOVED FROM ALL AREAS OF CONSTRUCTION AND STORED SEPARATELY PRIOR TO BULK EXCAVATION. UPON COMPLETION OF CONSTRUCTION, THE TOPSOIL SHALL BE REDISTRIBUTED UNIFORMLY TO A MINIMUM DEPTH OF 12" OVER PROPOSED PERVIOUS AREAS WITHIN THE EXCAVATED AREA.
5. NO PLANTINGS OR STRUCTURES SHALL BE PERMITTED WITHIN ANY EASEMENTS. ALL EASEMENT AREAS SHALL BE MAINTAINED AS LAWN AREA BY THE PROPERTY OWNER.

R1-1	"STOP" SIGN	30"X30"
R5-1	"DO NOT ENTER" SIGN	24"X24"
R6-1L	"ONE WAY" ARROW RIGHT SIGN	12"X36"
R6-1R	"ONE WAY" ARROW RIGHT SIGN	12"X36"
S-A	"NO TRACTOR TRAILERS" SIGN	18"X24"
S-B	"DELIVERY ENTRANCE ONLY" SIGN	20"X28"

NOTE: REFER TO PENNDOT PERMIT PLANS FOR ALL OTHER SIGNS NOT IDENTIFIED ON THESE PLANS.

THE FOLLOWING THREE PRIMARY ACTIVITIES CAN BE DONE IN ANY ORDER TO SUIT OVERALL CONSTRUCTION SCHEDULE. EACH ACTIVITY ITSELF SHOULD BE COMPLETED UTILIZING THE SEQUENCE OUTLINED FOR THAT ACTIVITY AS NOTED BELOW. ALL ACTIVITIES SHALL BE DONE IN ACCORDANCE WITH THE UPPER HANOVER AUTHORITY STANDARDS AND SPECIFICATIONS.

1. SHUT OFF WATER SUPPLY TO FIVE EXISTING RESIDENTIAL WATER SERVICES.
2. ABANDON TWO EXISTING LATERAL SERVICE LINES (PERMANENT) AS FOLLOWS:
 - a. CLOSE CORPORATION STOP VALVE ISOLATING SERVICE LINE FROM MAIN.
 - b. CLOSE CURB STOP VALVE AND CUT SERVICE LINE JUST BEYOND CURB STOP AND PERMANENTLY CAP.
 - c. WITH CURB STOP IN THE CLOSED POSITION, REMOVE CURB BOX AND VALVE STEM. CONCRETE ENCASE ENTIRE CURB STOP AND SERVICE LINE CAP.
 - d. REMOVE EXISTING SERVICE LATERAL FROM CURB STOP BACK TO EXISTING DWELLING.
3. REPLACE THREE EXISTING WATER SERVICE LINES AS FOLLOWS (BUILDINGS A AND C):
 - a. OPEN TRENCH OF EXISTING LATERAL TO BE REMOVED, CLOSE CORPORATION STOP, CUT EXISTING SERVICE LINE JUST BEYOND CURB STOP AND PERMANENTLY CAP.
 - b. REMOVE EXISTING LINE IN ITS ENTIRETY BEYOND CAPPED CORPORATION STOP.
 - c. INSTALL NEW SERVICE TAP AND CORPORATION STOP UTILIZE SAME TRENCH NEAR LATERAL. INSTALL NEW LATERAL AND CURB STOP FOR FUTURE CONNECTION AND EXTENSION TO SERVICE BUILDING.
4. BUILDING A, B AND C: NO NEW EXTENSION OF SERVICE LINE TO BUILDING IN COORDINATION WITH OTHER SITE CONSTRUCTION ACTIVITIES.

1. VERIFY THAT ISOLATION VALVE FEELS EXISTING HYDRANT SERVICE LINE / MAIN. ISOLATE / SHUT OFF WATER SUPPLY TO EXISTING FIRE HYDRANT TO BE RELOCATED.
2. IT IS CERTAIN WHETHER THIS EXISTING FEED LINE / MAIN IS 4" OR 6". IF THE EXISTING LINE IS 4" IN SIZE, THE MAIN LINED WITH 4" OR 6" PIPE. OTHERWISE, MATCH EXISTING PIPE SIZE OF 6" FOR EXTENSION.
3. REMOVE EXISTING HYDRANT. EXTEND EXISTING WATER MAIN INCLUDING TEE TO NEW HYDRANT LOCATION. NON-RETURN VALVE TO BE INSTALLED ON EXISTING WATER SERVICE LINES TO CURB STOP / ISOLATION VALVES; INSTALL HYDRANT IN NEW LOCATION (USE NEW HYDRANT - DO NOT REUSE EXISTING HYDRANT).
4. TEST AND DISINFECT EXTENSION.
5. OPEN ISOLATION VALVES AND CHARGE EXTENSION AND HYDRANT.
6. BUILDINGS DOW TO READY FOR EXTENSION OF SERVICE LINES TO BUILDING IN COORDINATION WITH OTHER SITE CONSTRUCTION ACTIVITIES.

1. INSTALL STAINLESS STEEL TAPPING SLEEVE AND VALVE ON MAIN FOR NEW HYDRANT;
INSTALL CONCRETE THRUST BLOCK IN ACCORDANCE WITH DETAILS.
2. INSTALL NEW HYDRANT INCLUDING IN ACCORDANCE WITH DETAILS.
3. TEST AND DISINFECT NEW HYDRANT;
4. OPEN ISOLATION VALVES TO CHARGE NEW HYDRANT.



EXISTING	DESCRIPTION
---	EDGE OF PAVED ROAD
---	EDGE OF UNPAVED ROAD
- - -	ADJOINING OWNER LOT LINES
=====	EXTERIOR TRACT BOUNDARY
- - - - -	BUILDING SETBACK LINE
-----	PHYSICAL CENTERLINE OF ROAD
---	EDGE OF DRIVEWAY
-----	EASEMENT
- x - - - x - - - x - - -	FENCE

PROPOSED	DESCRIPTION
---	EDGE OF UNPAVED ROAD
---	BUILDING SETBACK LINES
---	CENTERLINE OF ROAD
.....	CLEAR SIGHT DISTANCE
.....	CLEAR SIGHT TRIANGLE
---	DEED-RESTRICTION
.....	EASEMENT

SOILS DATA OBTAINED FROM A SOIL SURVEY OF MONTGOMERY COUNTY, PENNSYLVANIA.

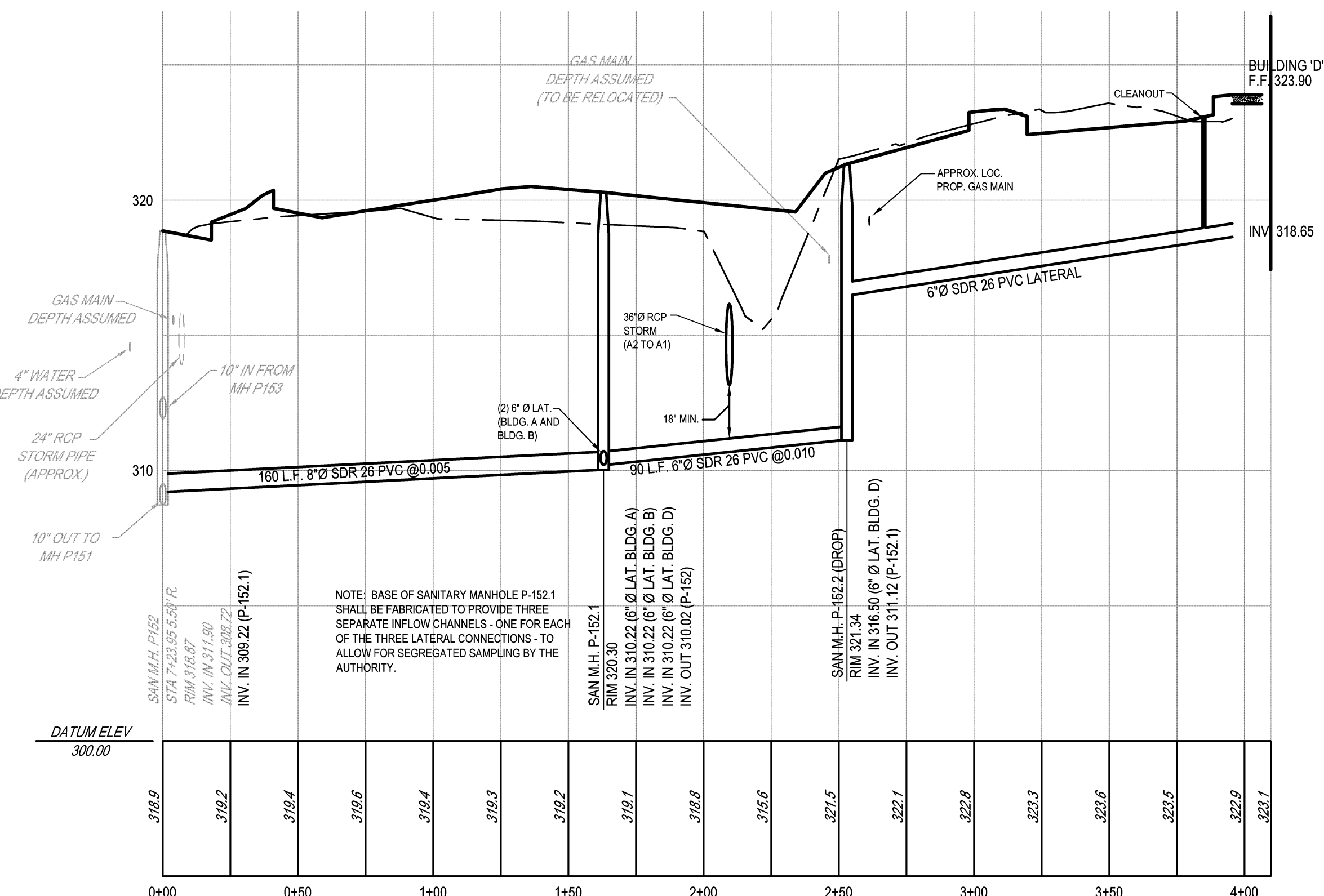
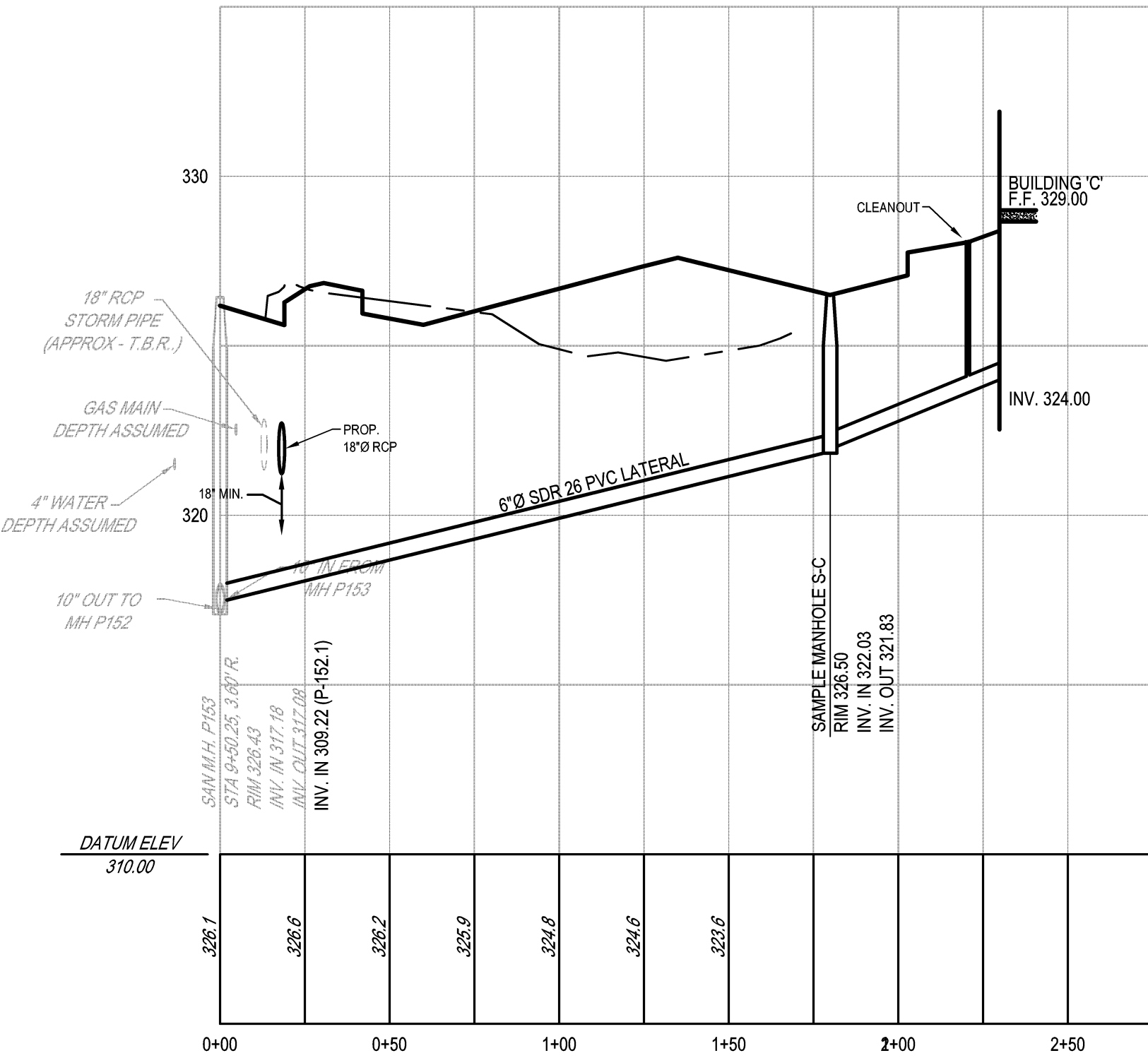
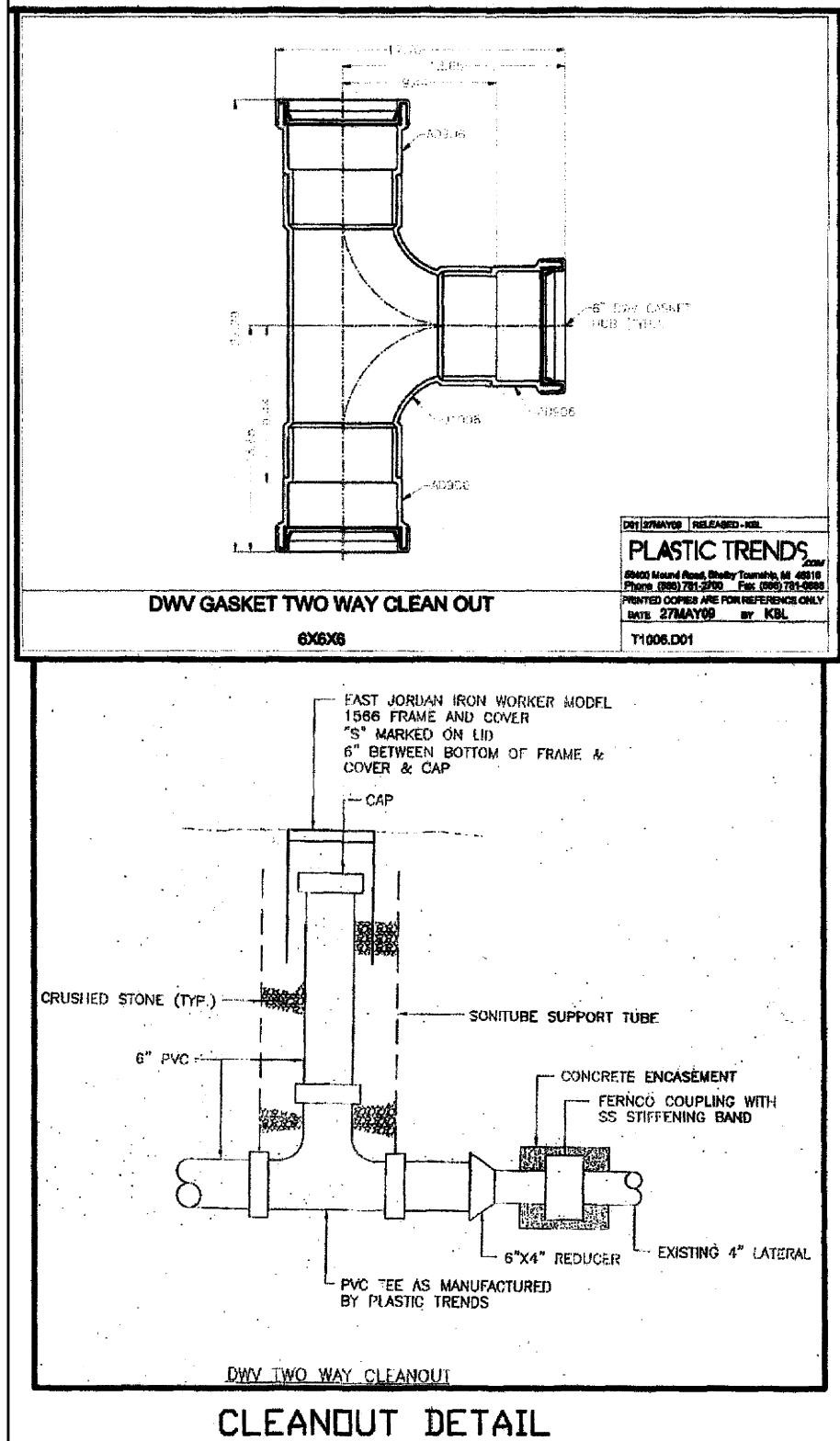
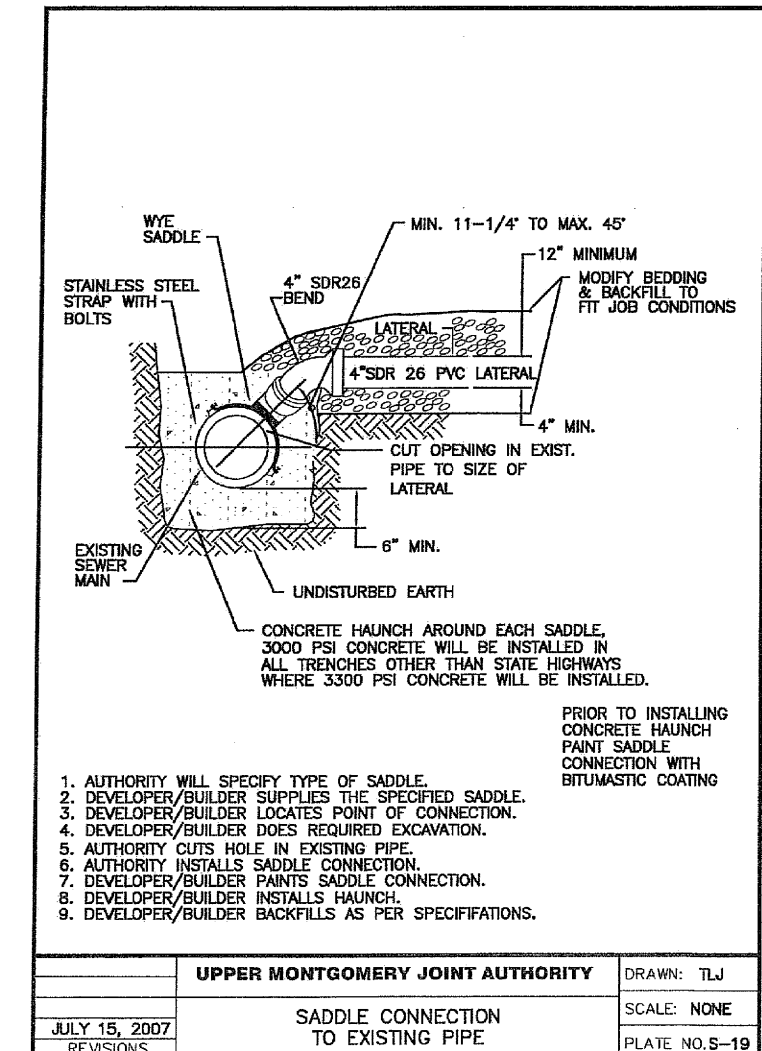
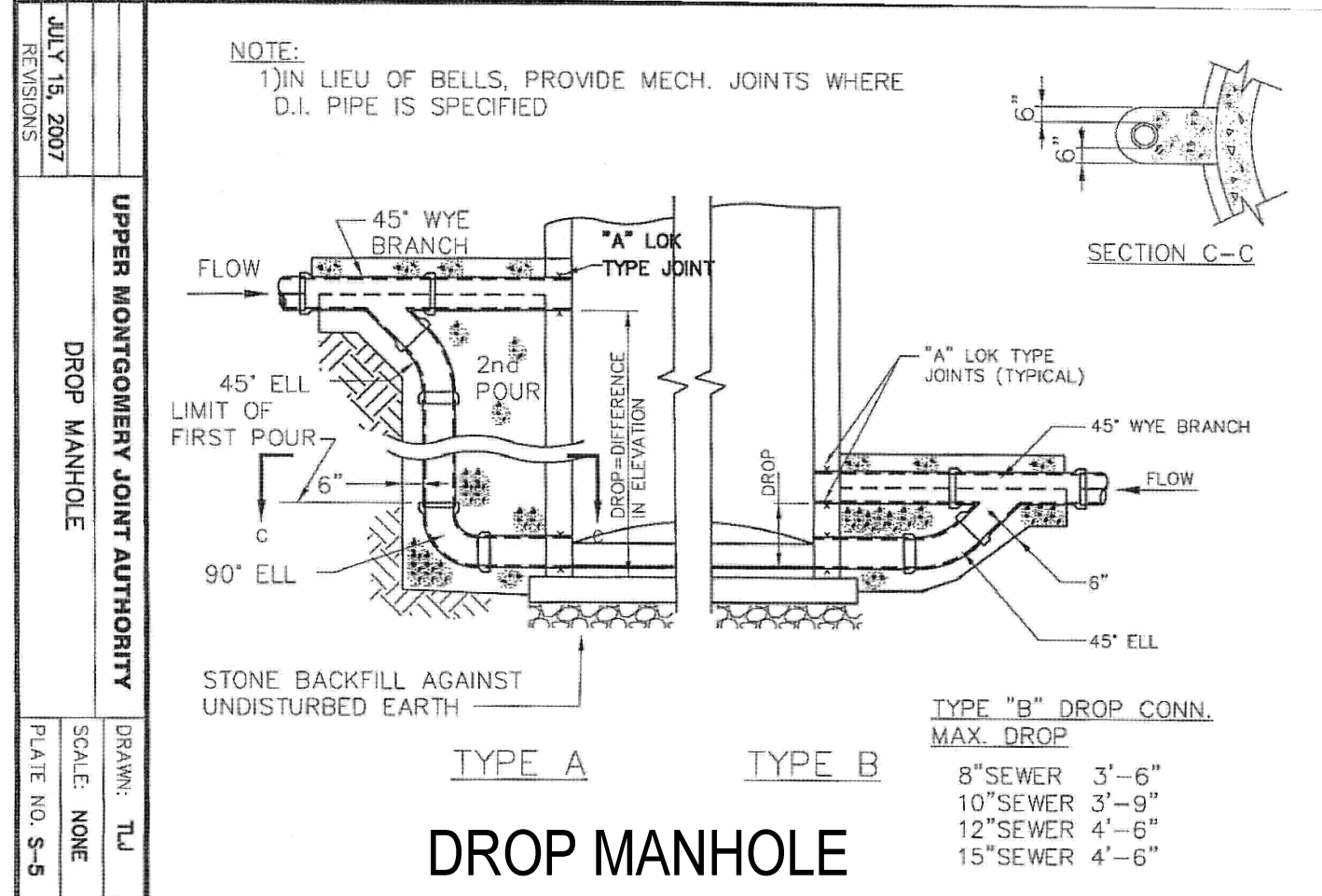
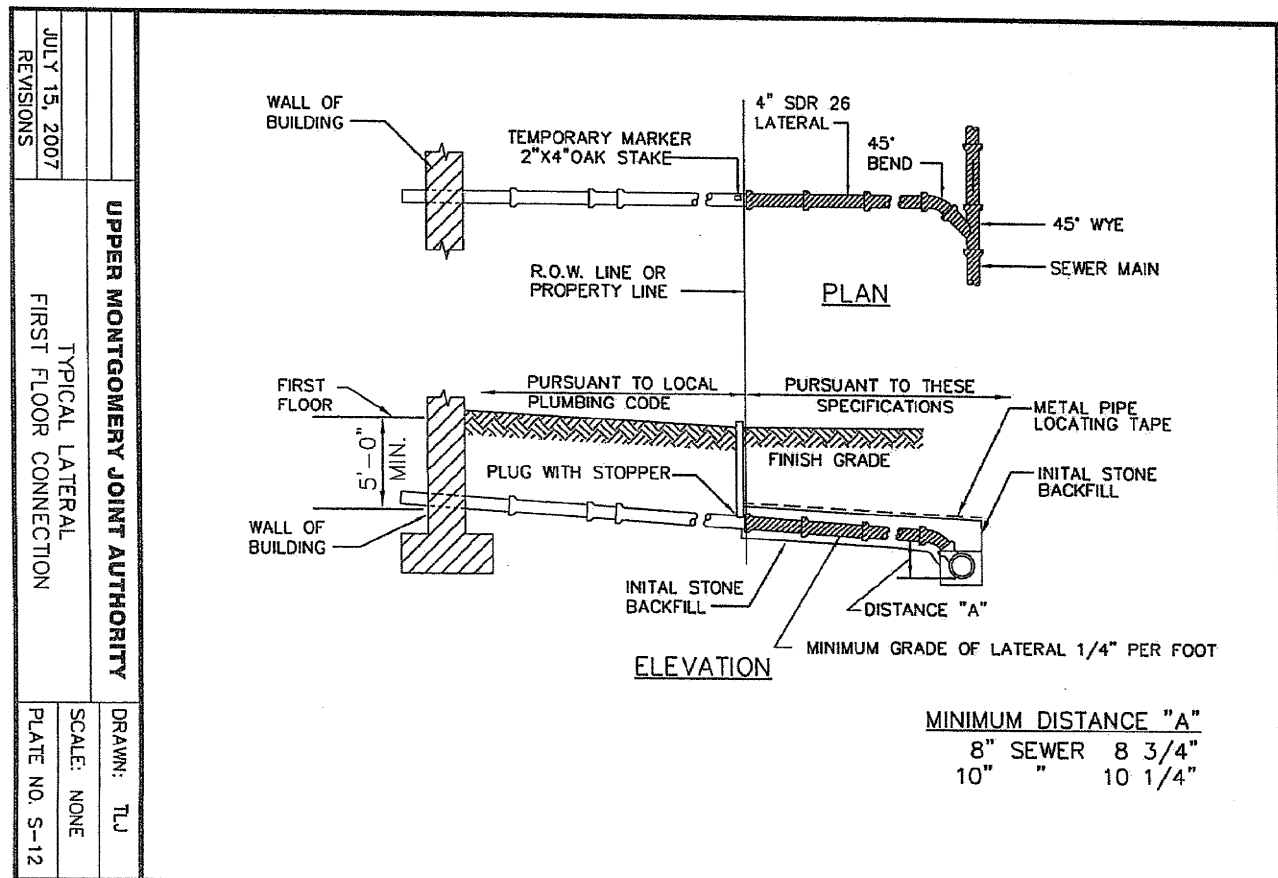
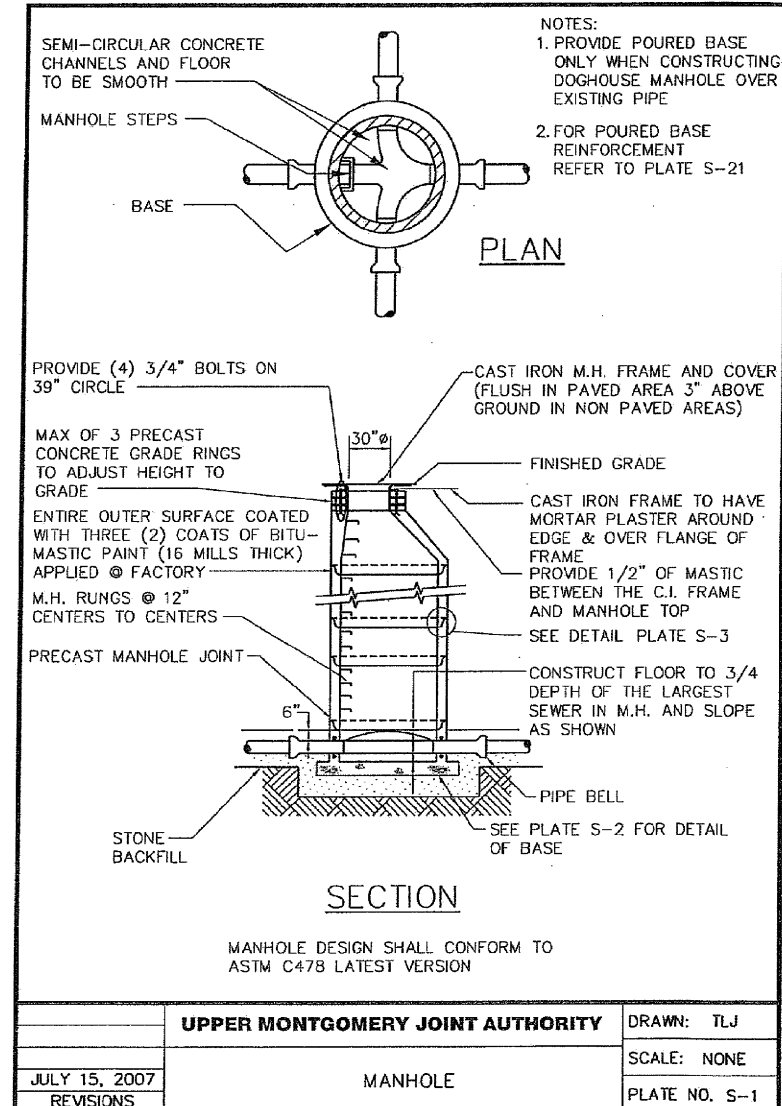
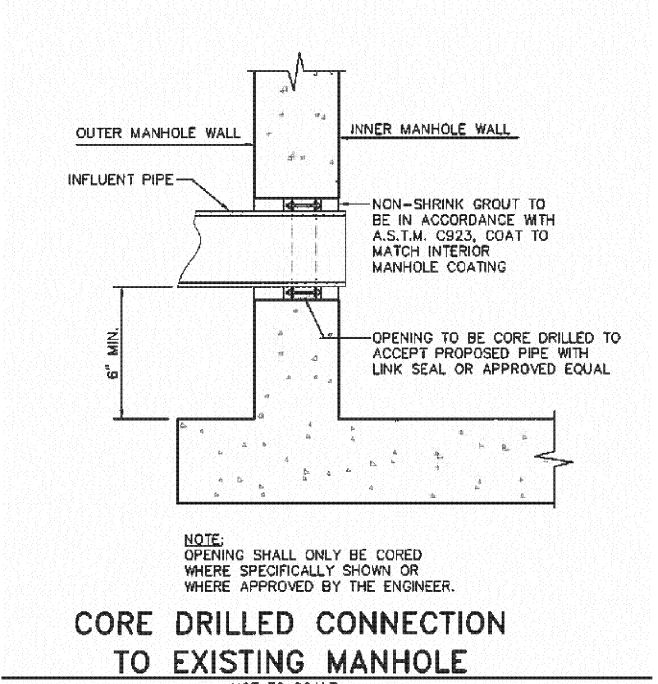
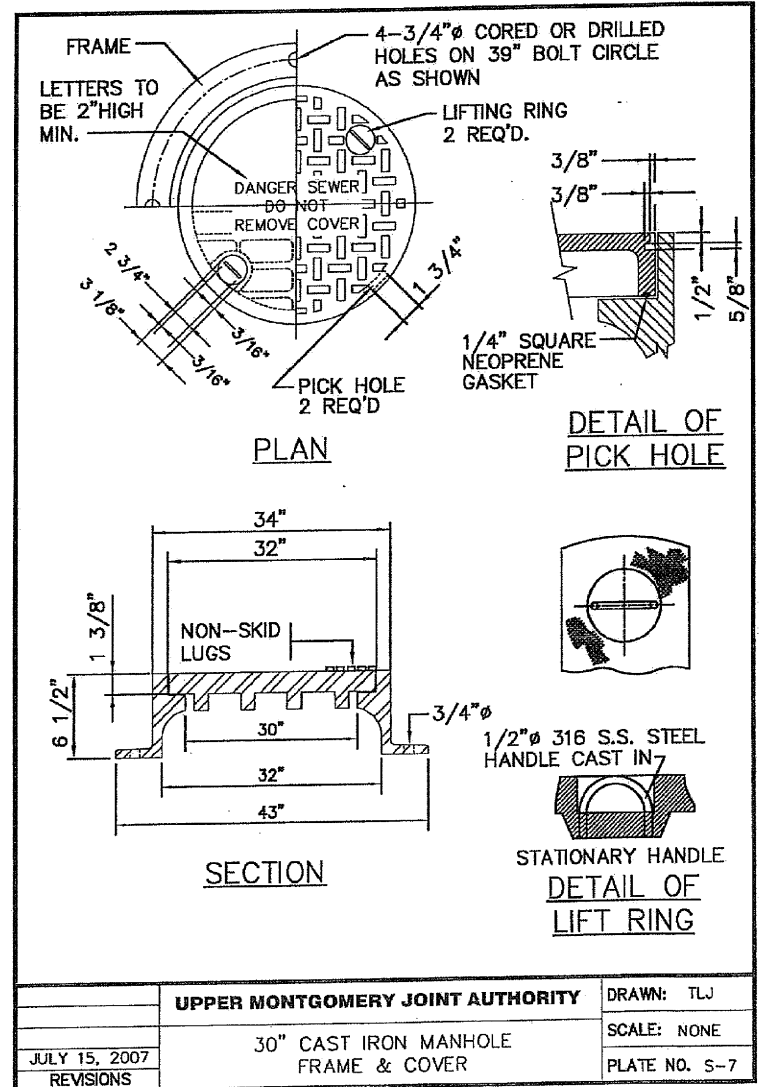
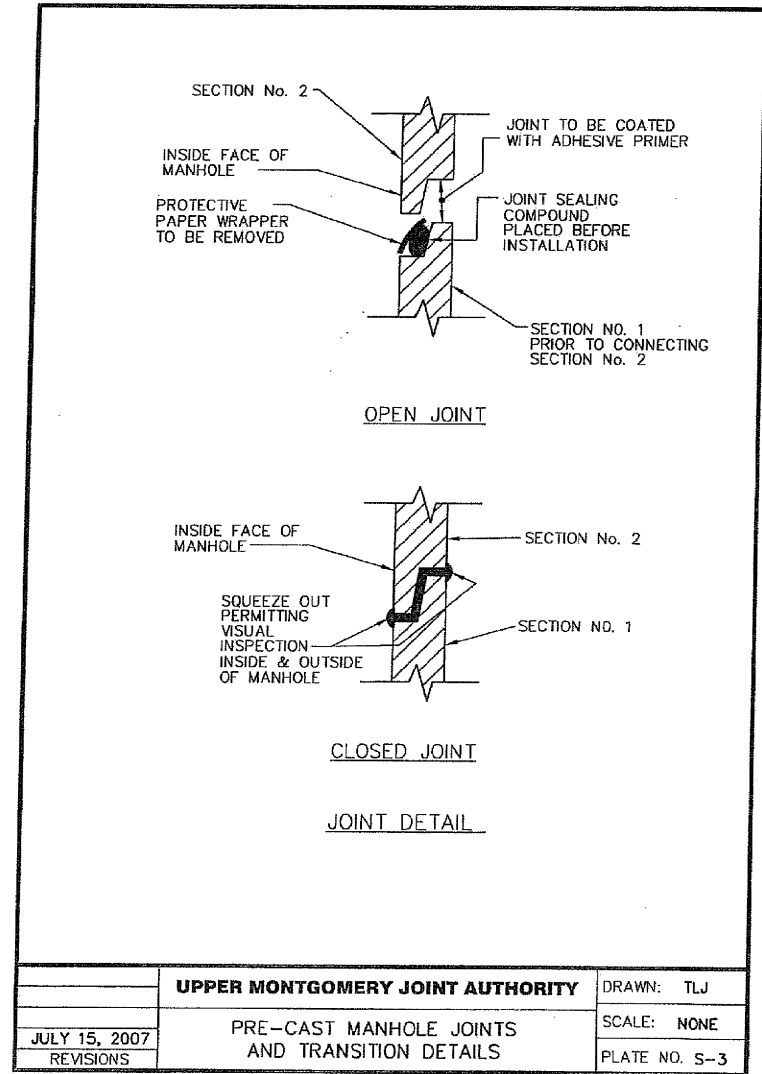
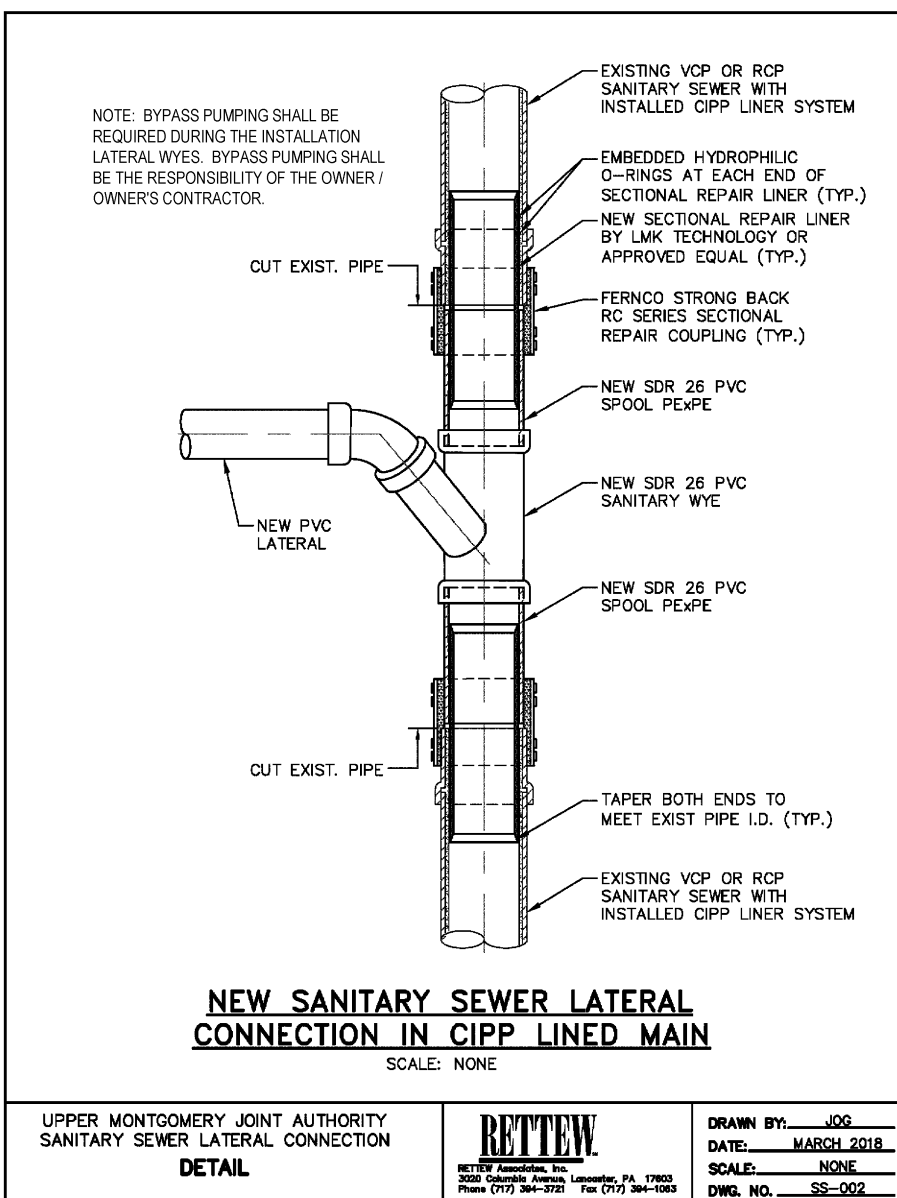
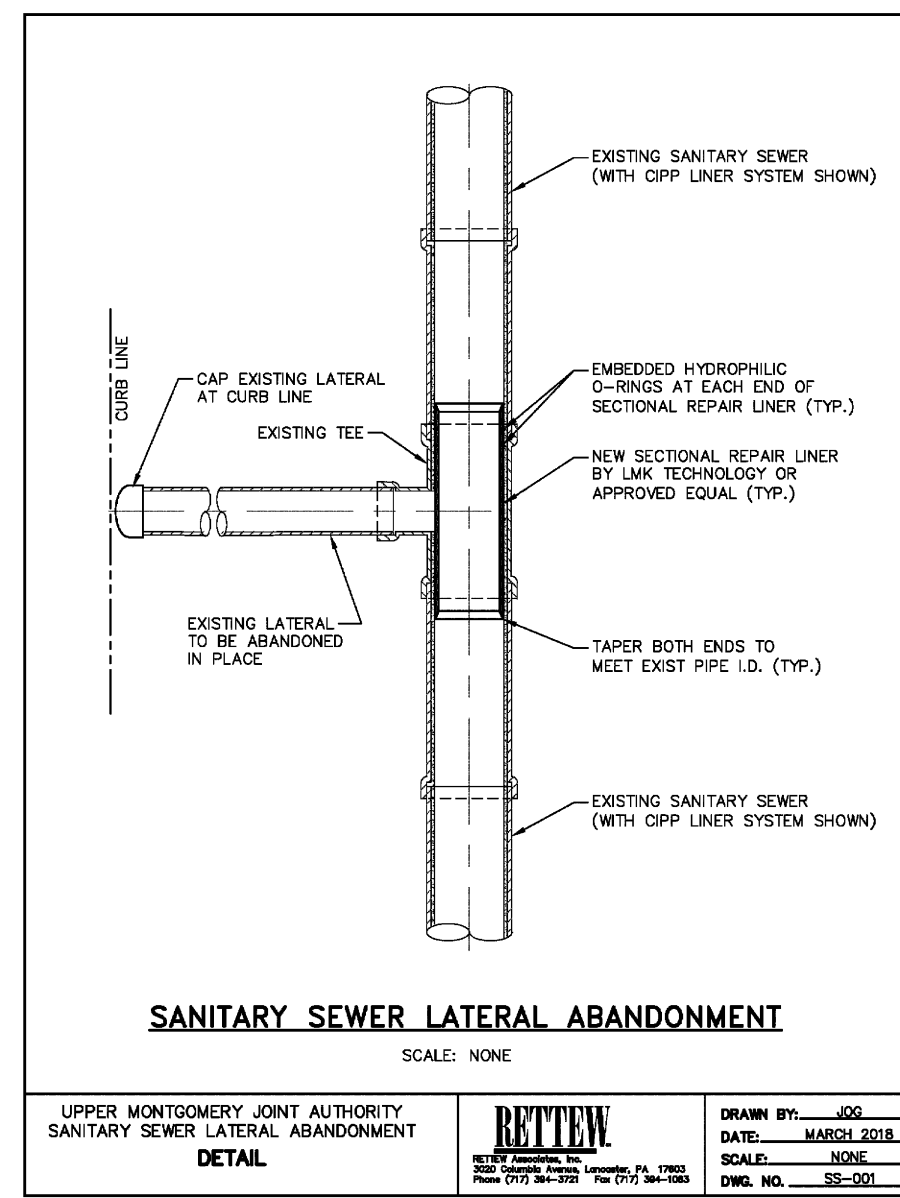
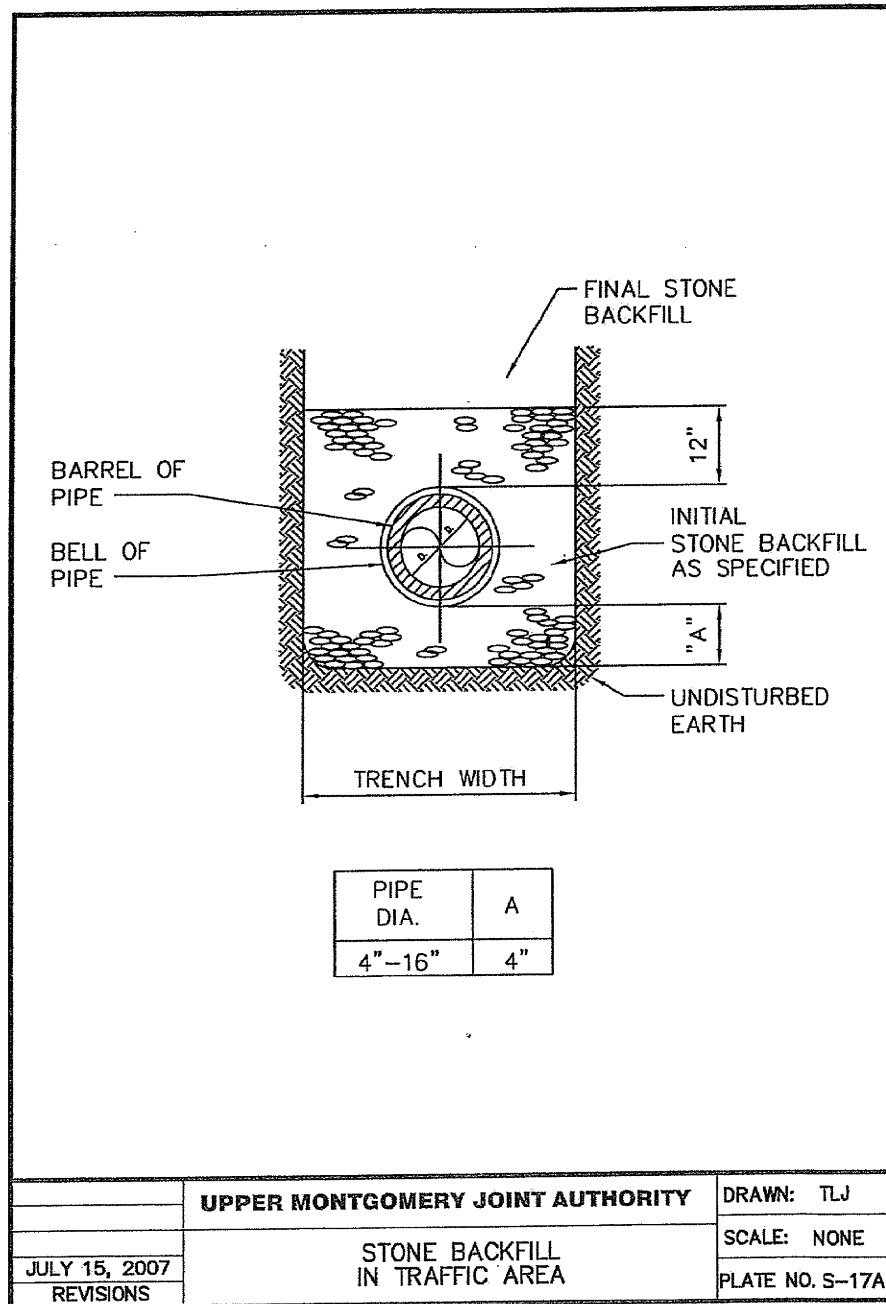
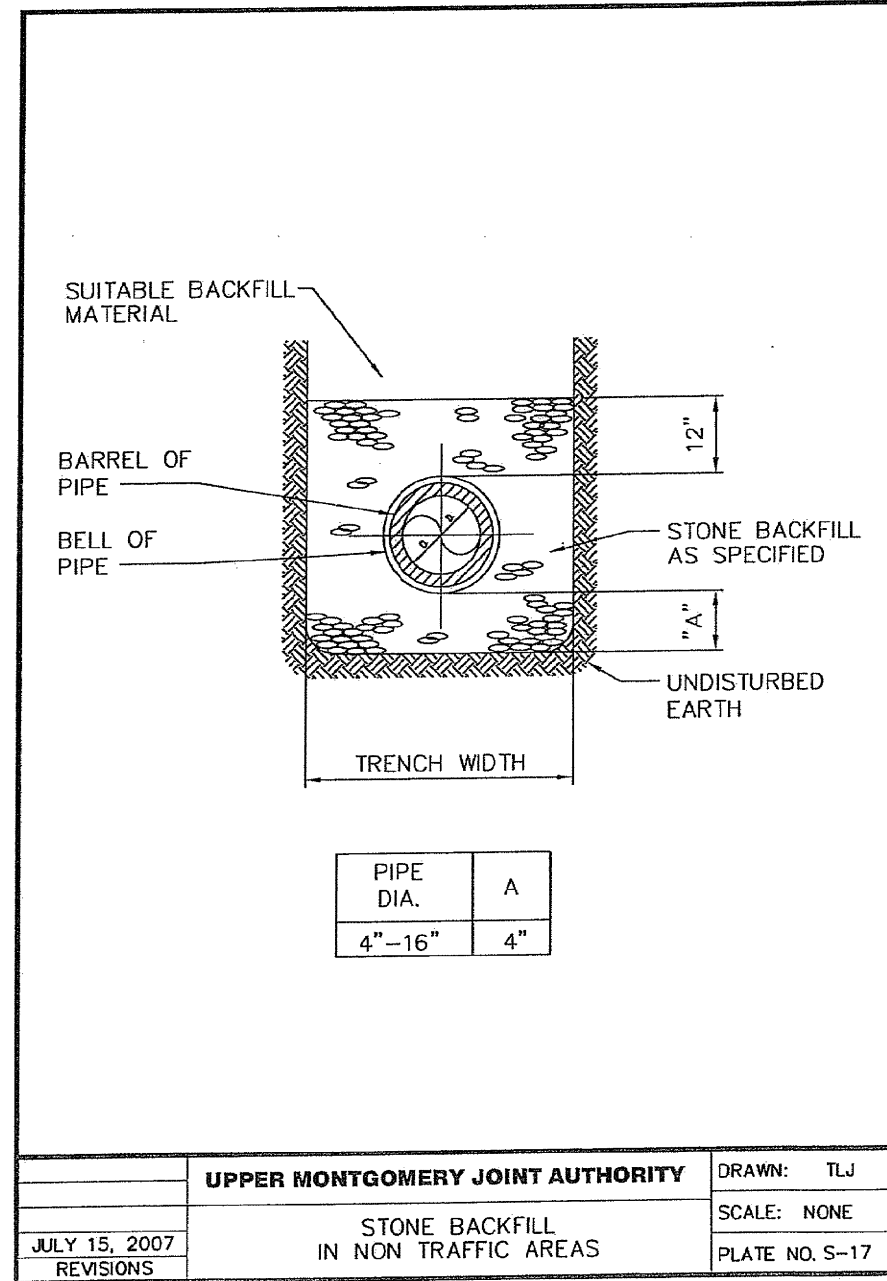
UgB: URBAN LAND, 0 TO 8 PERCENT SLOPES
HYDROLOGIC SOIL GROUP:
HYDROIC SOIL: NO
PRIME FARILAND SOIL: NO FARMILAND OF STATEWIDE IMPORTANCE: NO
DEPTH TO SEASONALLY HIGH WATER TABLE:
DEPTH TO BEDROCK:
DEVELOPMENT LIMITATIONS: N/A
RESOLUTIONS: N/A

UgB: URBAN/THIRSTS, SHALE AND SANDSTONE, 0 TO 6 PERCENT SLOPES
HYDROLOGIC SOIL GROUP: A
HYDROIC SOIL: NO
PRIME FARILAND SOIL: NO FARMILAND OF STATEWIDE IMPORTANCE: NO
DEPTH TO SEASONALLY HIGH WATER TABLE: ABOUT 60 INCHES
DEPTH TO BEDROCK: 20 TO 30 INCHES
LIMITATIONS: LOW DEPTH TO BEDROCK: 5 TO 6 WATER TABLE
RESOLUTIONS: MINIMIZE EXCAVATION: THOSE AREAS OF SMALLER BEDROCK, REDUCE
THE RISK OF WETNESS THROUGH APPROPRIATE USE OF DRAINAGE FACILITIES

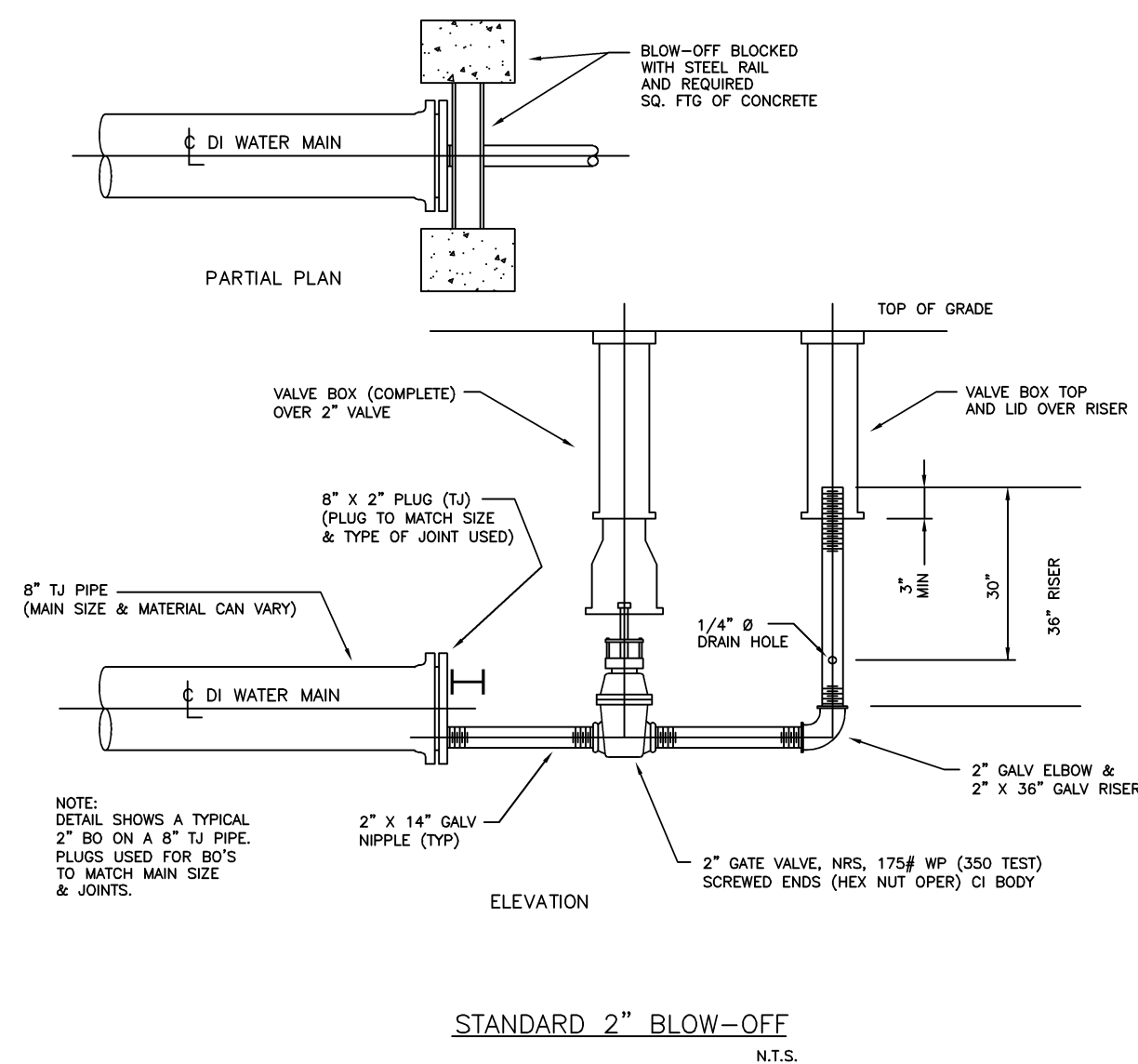
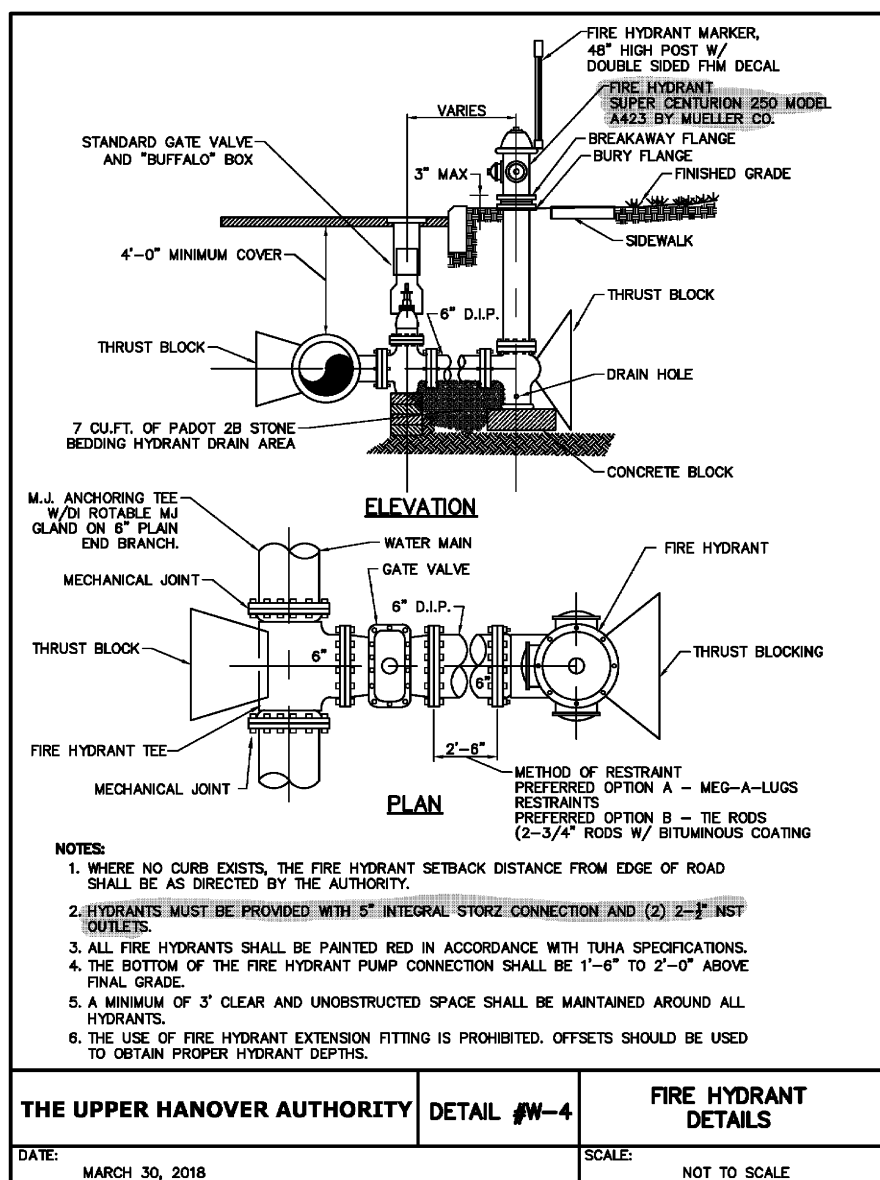
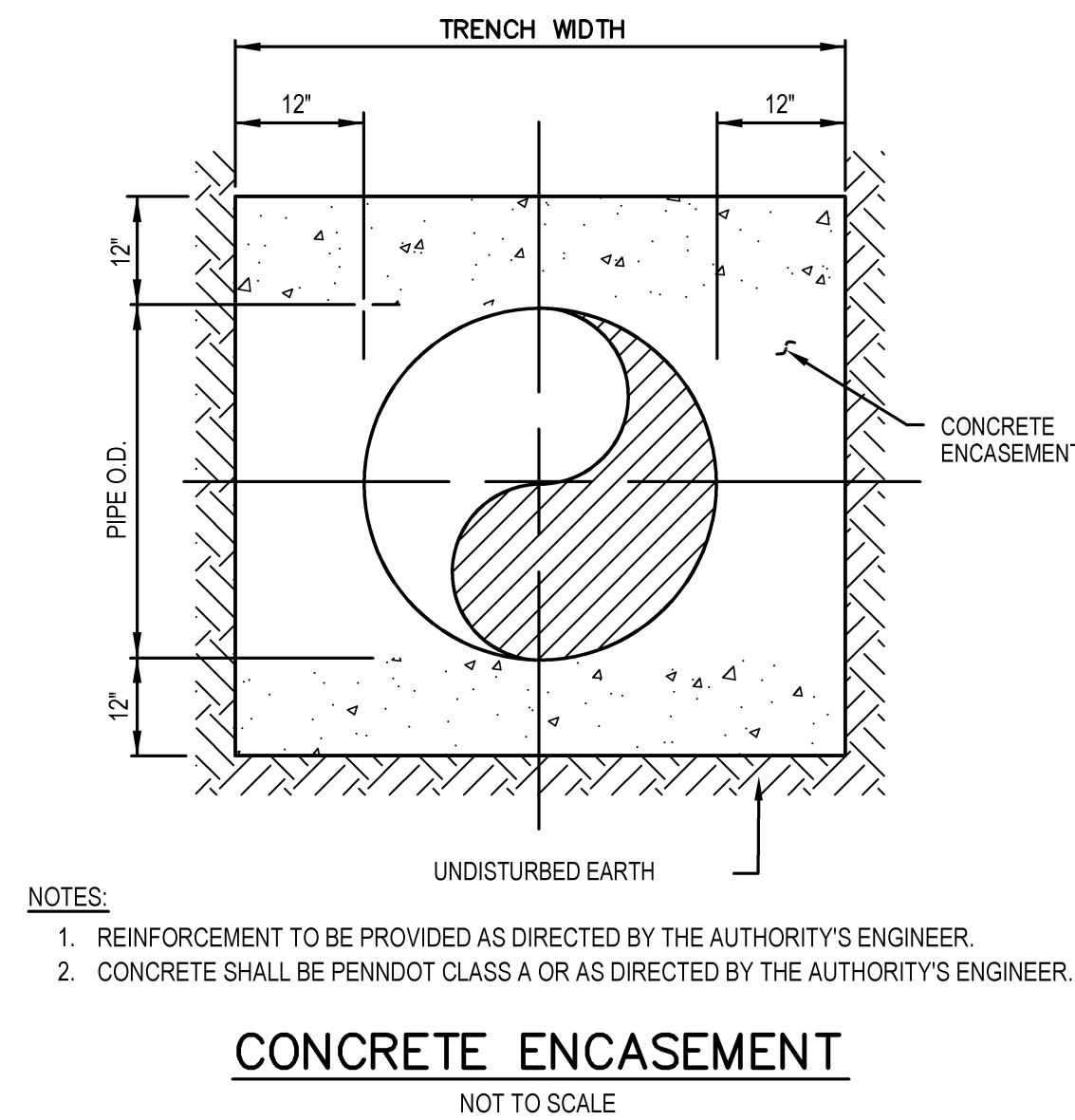
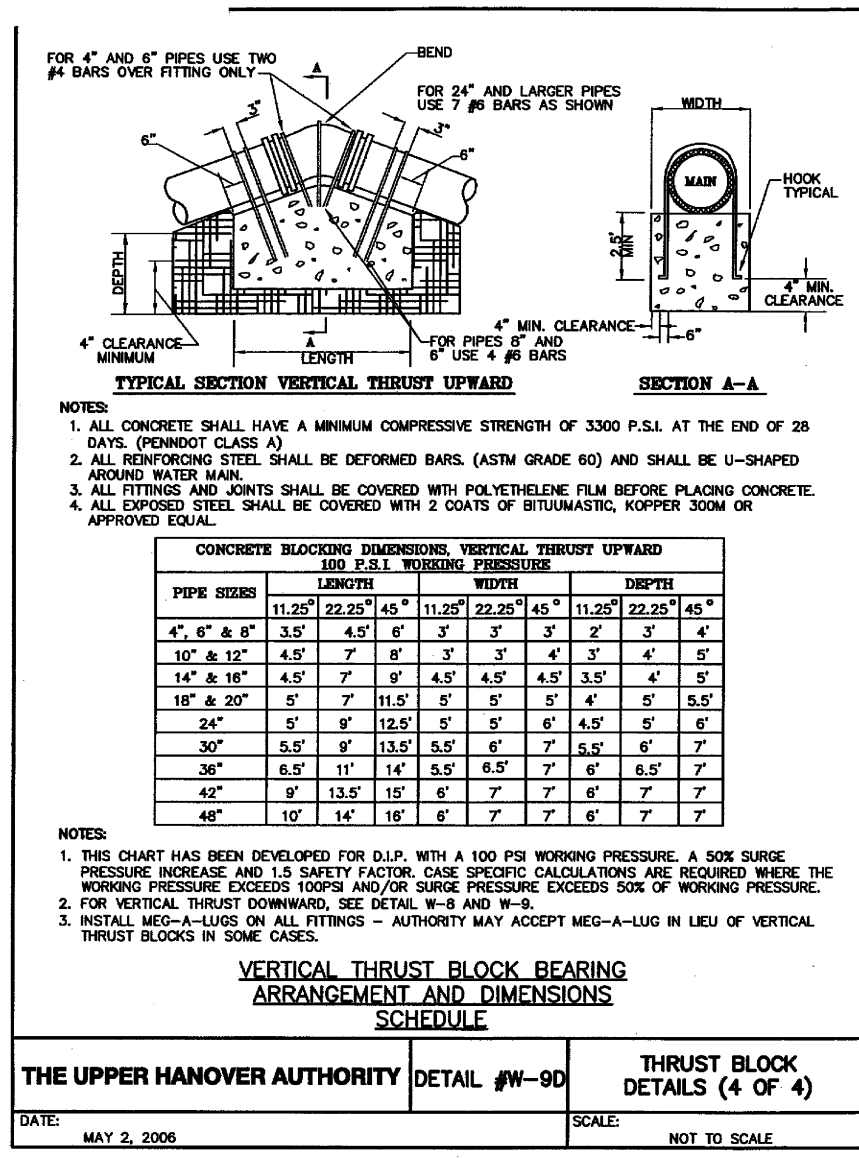
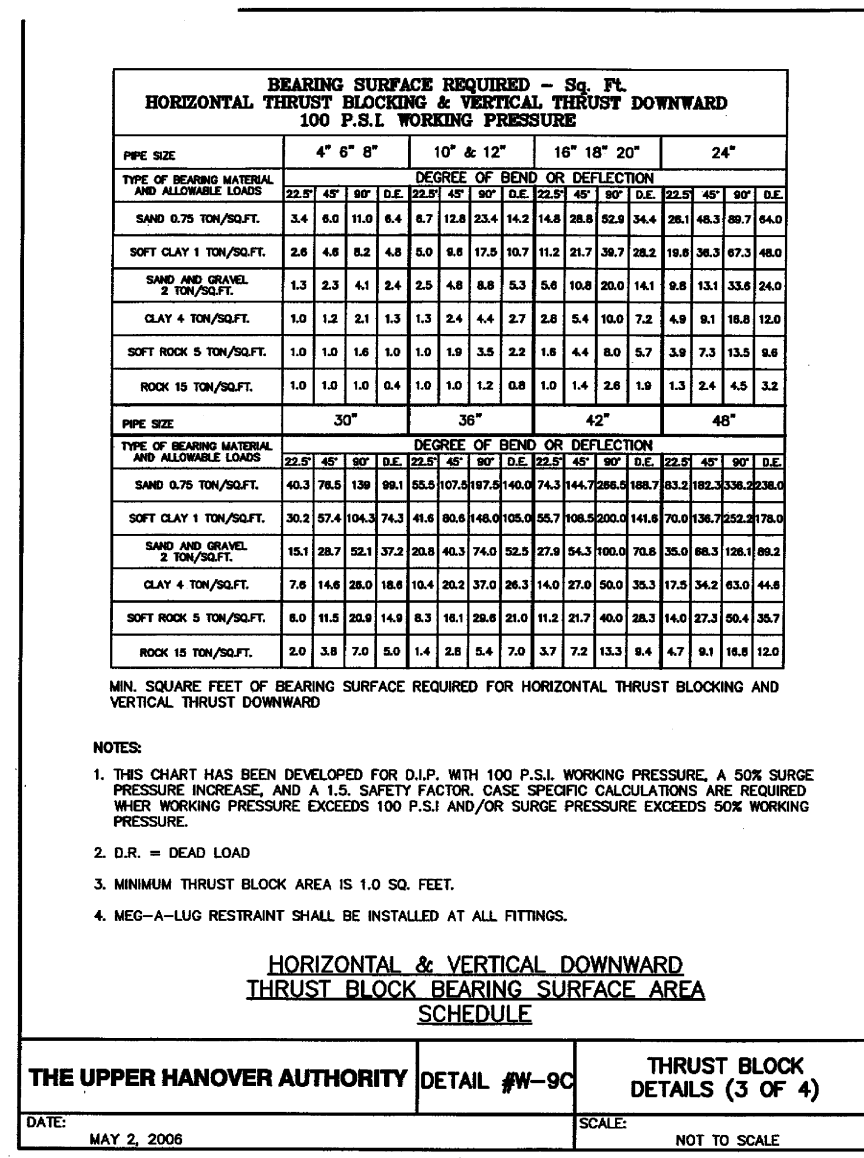
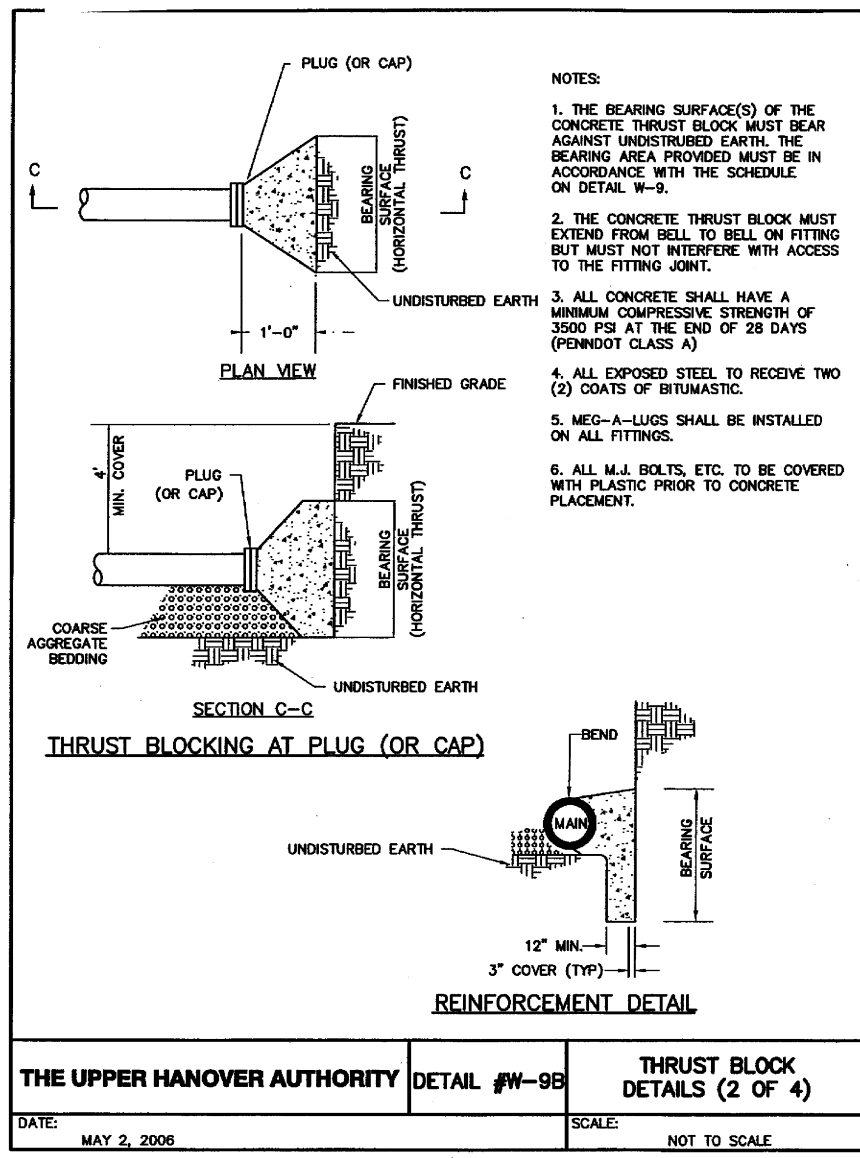
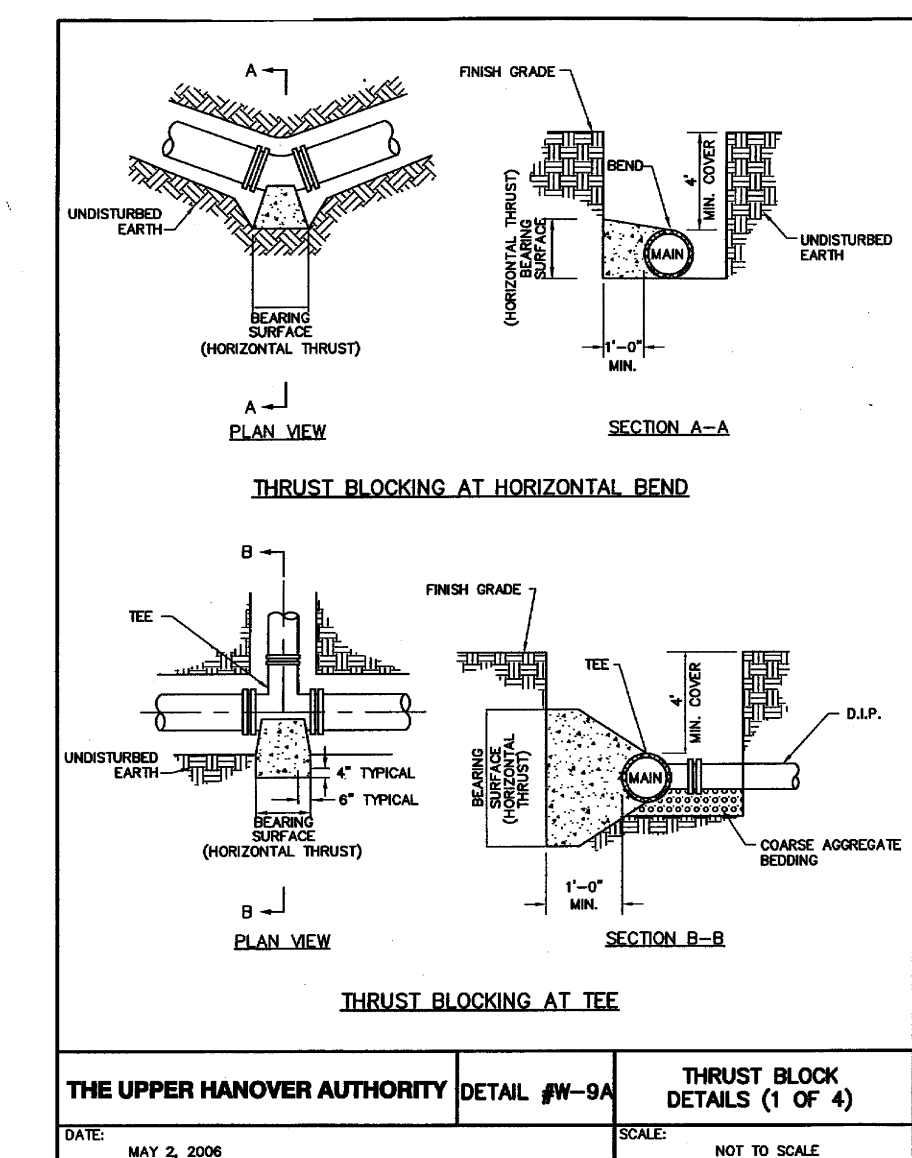
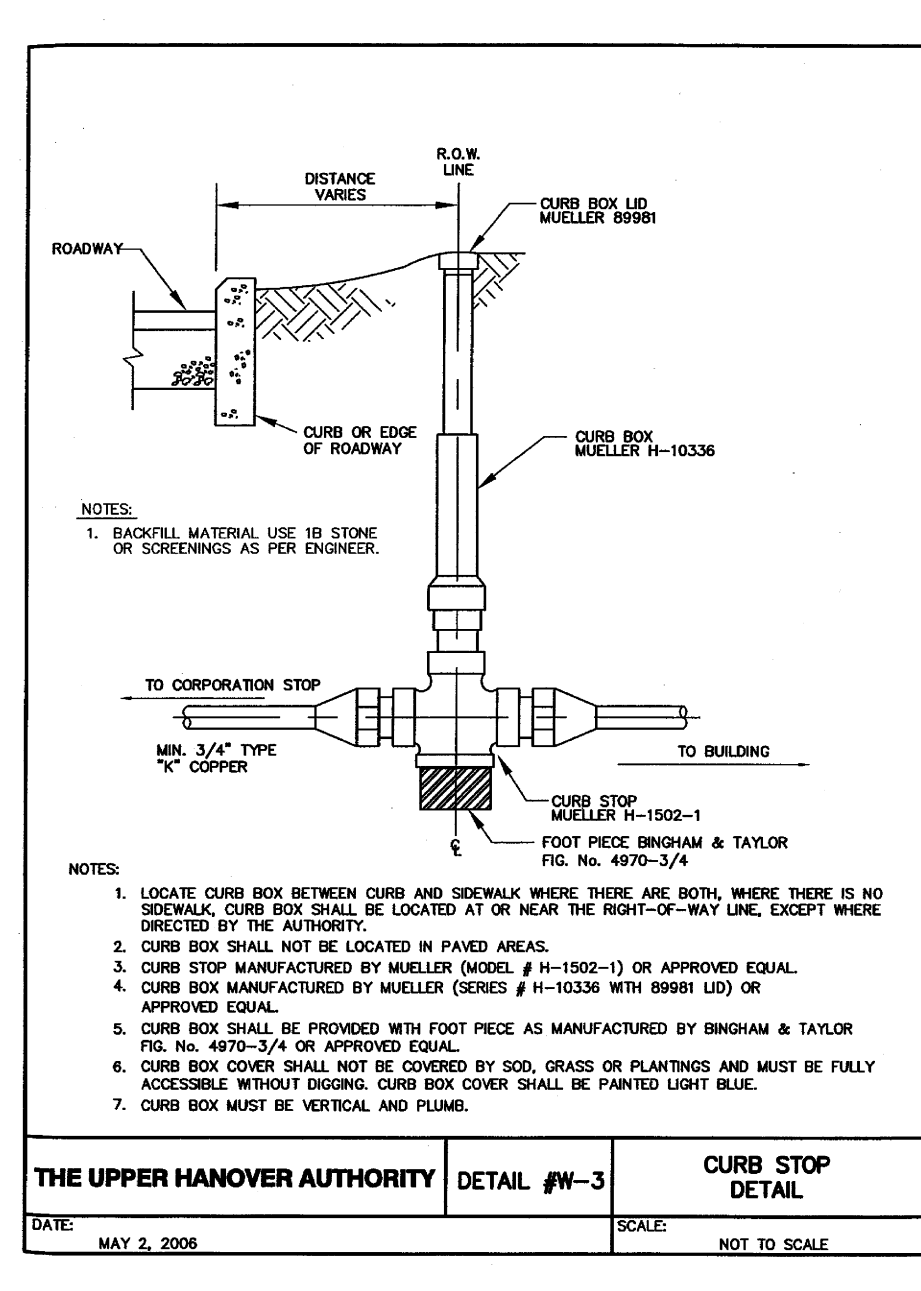
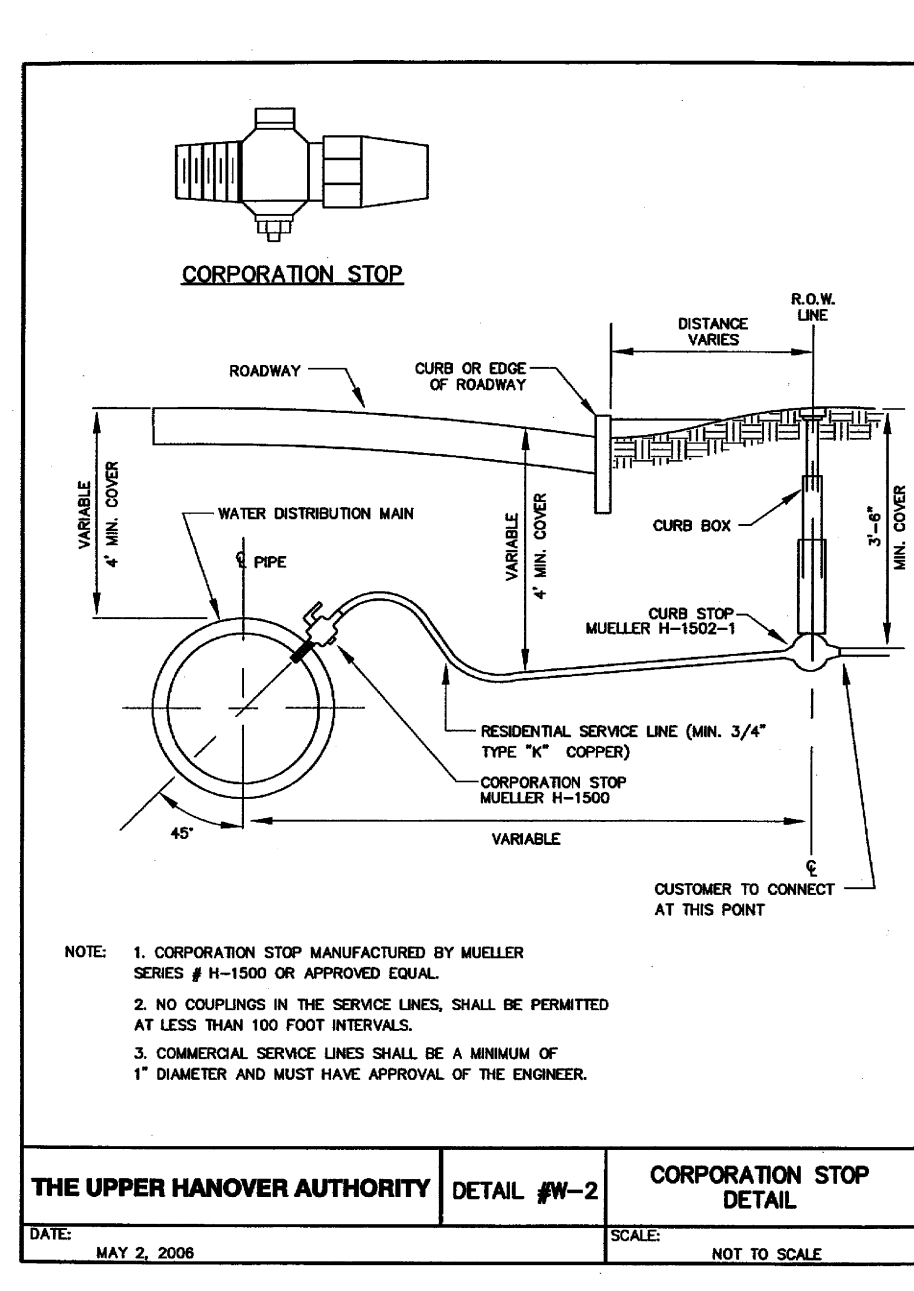
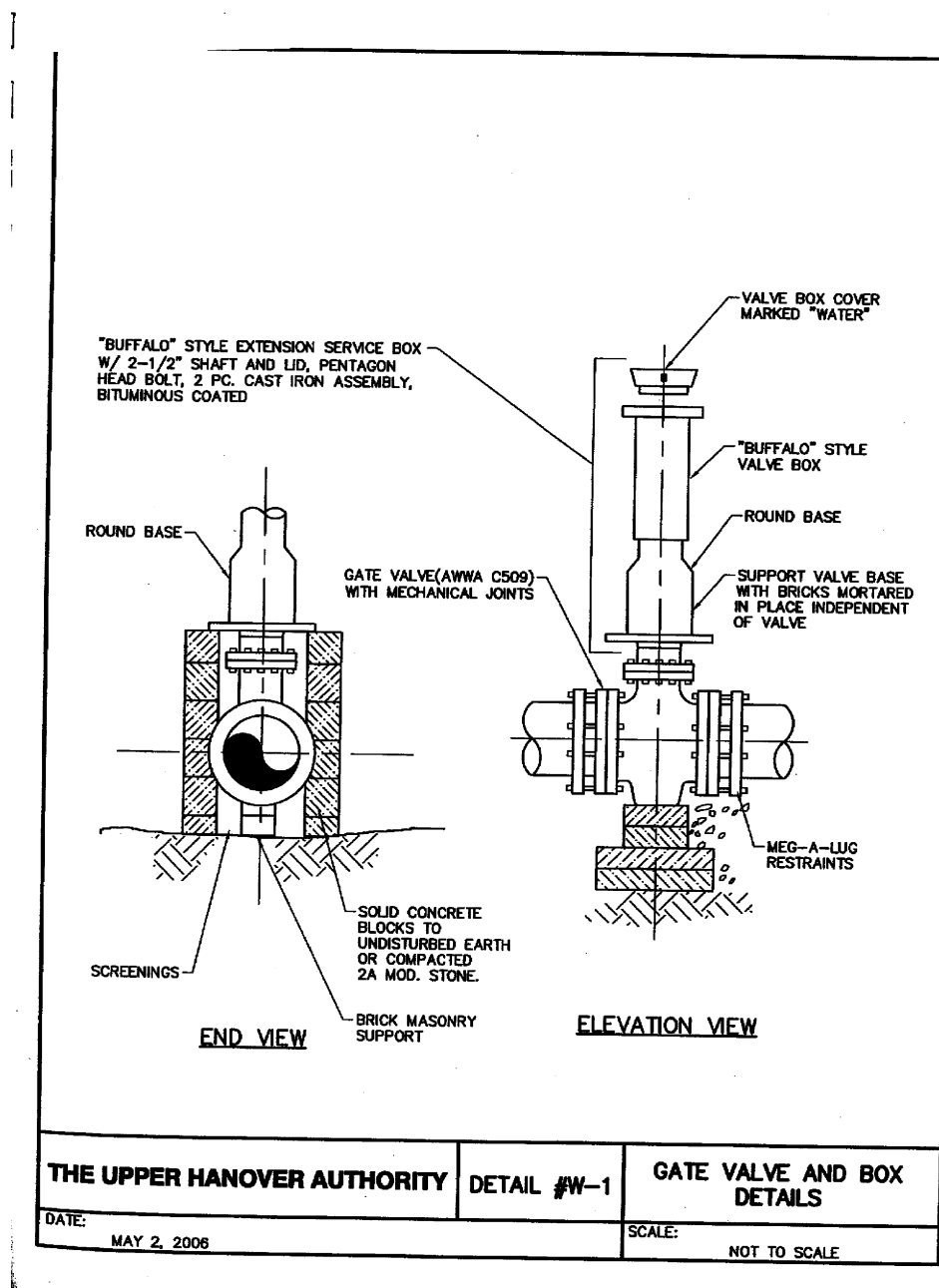
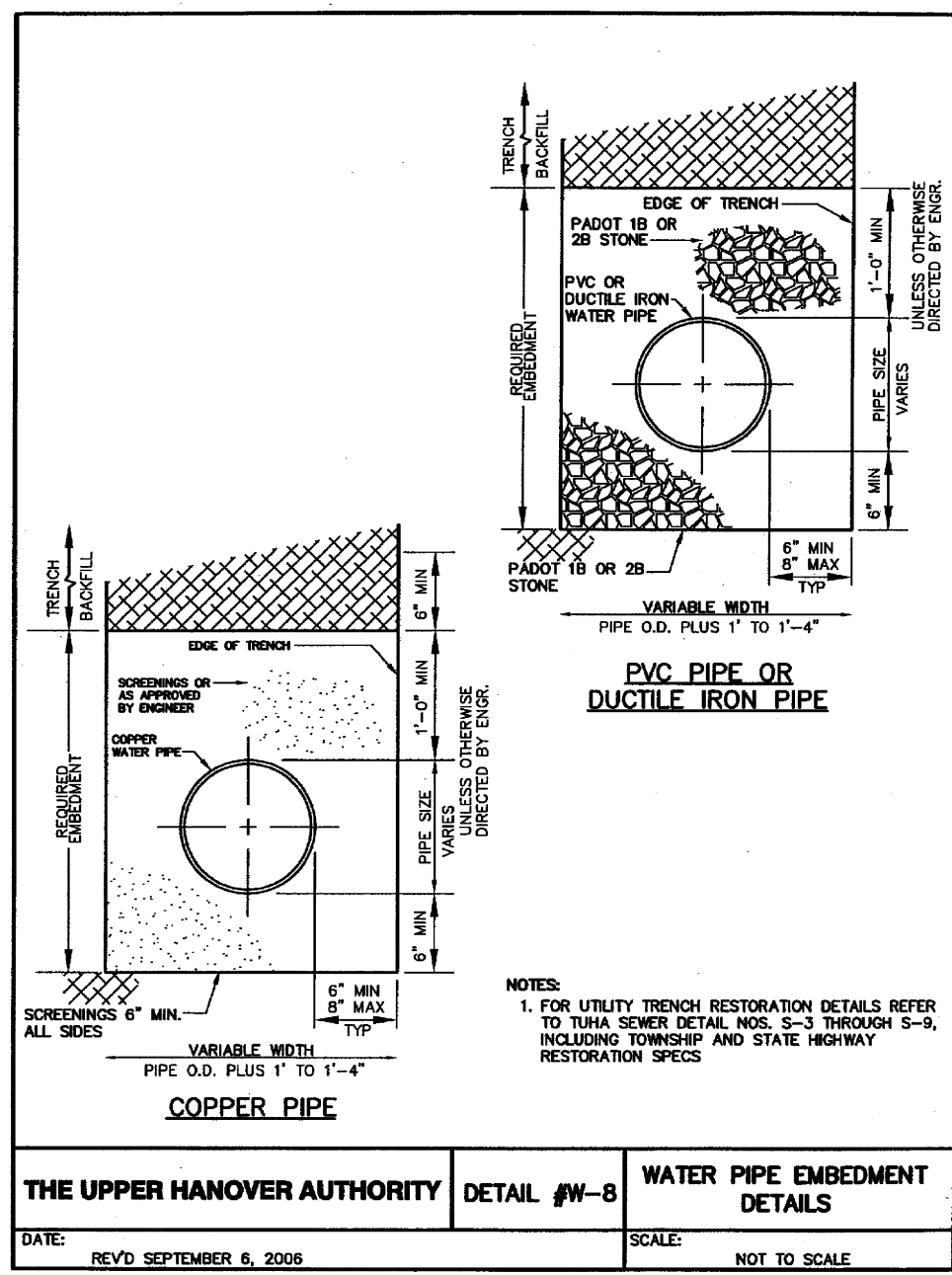
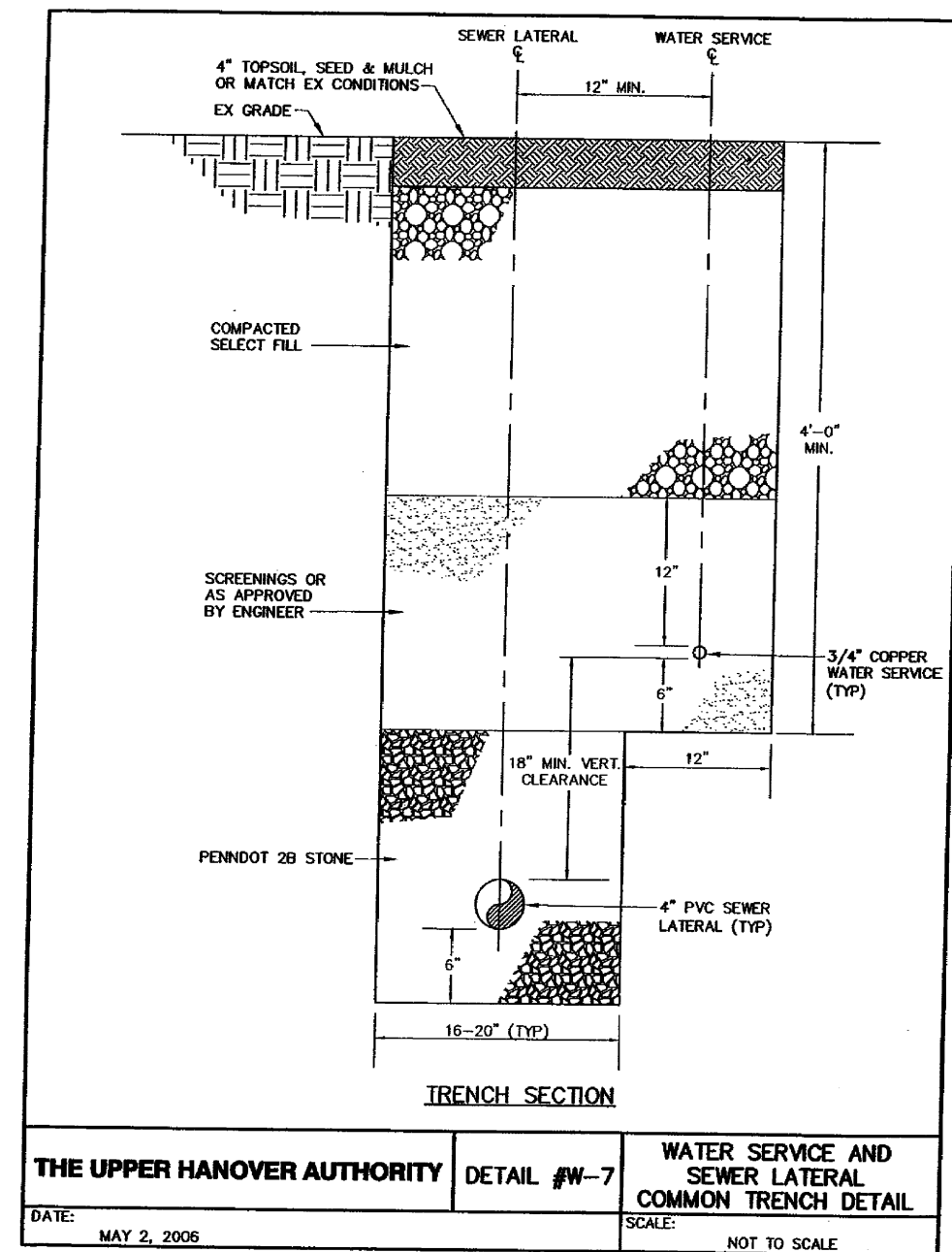
THE UNDERGROUND UTILITY LINE PROTECTION LAW
(ACT 287 OF 1974 AS AMENDED BY ACT 187 OF 1996,
ACT 199 OF 2005 AND ACT 121 OF 2008)

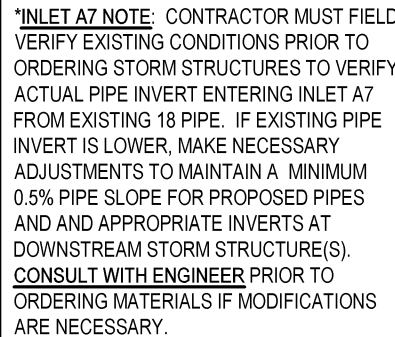
SITE SERIAL NO. 20171031260

ATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN
DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE
AND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY
TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND
LINES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO
REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT 287 OF 1974, AS
AMENDED BY ACT 187 OF 1996, ACT 199 OF 2005 AND ACT 121 OF 2008,
TRACTORS MUST VERIFY LOCATIONS OF UNDERGROUND
UTILITIES BY NOTIFYING FACILITY OWNERS THROUGH THE ONE-CALL
SYSTEM BY DIALING 811 NO LESS THAN 3, NOR MORE THAN 10 DAYS
BEFORE ANY EXCAVATION.

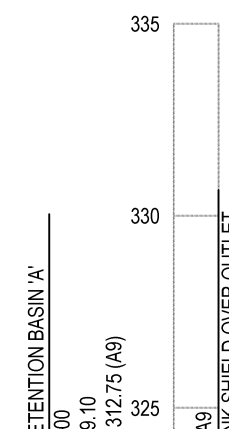


SANITARY SEWER PROFILE
P152.2 TO P152 AND LATERAL TO BUILDING D
 (1"=40' H, 1" = 4'V)

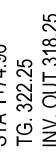




STORM SEWER PROFILE A7 / A20 - A6



STORM SEWER PROFILE A8 - UG BASIN



CONSTRUCTION NOTES

- STORM SEWER:**
- 1. UNLESS OTHERWISE NOTED, ALL STORM SEWER INLETS SHALL BE EITHER PENNDOT TYPE "C" OR TYPE "M" AND SHALL CONFORM TO FORM 408 (LATEST EDITION), SECTION 605.
 - 2. UNLESS OTHERWISE NOTED, ALL STORM SEWER PIPING SHALL BE REINFORCED CONCRETE PIPE AND SHALL CONFORM TO REINFORCED FORM OR LATEST EDITION, SECTION 601.
 - 3. UNLESS OTHERWISE NOTED, ALL CONCRETE "DW" ENHALLOWS SHALL CONFORM TO PENNDOT FORM 408 (LATEST EDITION), SECTION 605. THE "TOP OF DW" ELEVATION FOR ALL ENHALLOWS SHALL CONFORM TO THESE STANDARDS FOR THE ASSOCIATED PIPE SIZE. IN THE EVENT THAT A HIGHER TOP OF DW ELEVATION IS NECESSARY FOR GRADING, THE SPECIAL "TOP OF DW ELEVATION" SHALL BE NOTED ON THE PLAN.
 - 4. THE TOP OF GRADE ELEVATION FOR ALL CURBSIDE STORM SEWER INLETS IS FOR THE CENTER OF THE INLET AT THE FACE OF CURB. THE CONTRACTOR SHALL PROJECT THE ROADWAY GRADE ALONG THE LENGTH OF THE INLET.
 - 5. ANY SPRINGS ENCOUNTERED DURING ROADWAY CONSTRUCTION SHALL BE OUTLETED BY U-DRAIN TO NEAREST STORM SEWER FACILITY OR WATERCOURSE. U-DRAIN PLACEMENT TO BE BY THE DIRECTION OF THE TOWNSHIP ENGINEER.
 - 6. ALL PROPOSED STORM PIPE LENGTHS ARE MEASURED FROM CENTER OF INLET TO CENTER OF INLET.

1. ALL MATERIALS AND DETAILS OF CONSTRUCTIONS, INSTALLATION PROCEDURES, AND REQUIREMENTS WITH RESPECT TO SANITARY SEWERAGE FACILITIES SHALL BE IN ACCORDANCE WITH THE UPPER MONTGOMERY JOINT AUTHORITY (UMJA) STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR SANITARY SEWER EXTENSIONS (LATEST EDITION).

2. AN 18-INCH VERTICAL CLEARANCE OR A 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER MAINS, WHERE POSSIBLE TO MAINTAIN A 10-FOOT VERTICAL CLEARANCE. IF A 10-FOOT HORIZONTAL SEPARATION CANNOT BE MAINTAINED
3. EXISTING SANITARY SEWER MAIN PIPING IS 10" DIA. NEW SANITARY MAIN SHALL BE 6" DIA. SDR-26-PCV PIPE. NEW LATERALS SHALL BE 6" DIA. SDR-26-PCV PIPE. ALL SANITARY SEWER LATERAL SHALL BE LAID ON A SLOPE OF NOT LESS THAN 1%.
4. ALL PROPOSED SANITARY SEWER MANHOLES LOCATED IN UNPAVED AREAS SHALL BE PROVIDED WITH WATER-TIGHT FLAPS AND COVERS SET EIGHTEEN INCHES ABOVE FINISHED GRADES.
5. PRIOR TO COMMENCING CONSTRUCTION, SHOP DRAWINGS FOR ALL MATERIALS TO BE USED IN THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM SHALL BE SUBMITTED TO UUA. IN ADDITION, ALL MATERIALS TO BE USED ON THE PROJECT SHALL BE INSPECTED BY A REPRESENTATIVE OF UUA TO INSURE CONFORMANCE WITH THE APPROVED SHOP DRAWINGS.
6. ALL CONCRETE ENCASEMENT SHALL BE SHOWN ON THE DRAWINGS AND NO OTHER ENCASEMENT SHALL BE INSTALLED WITHOUT THE WRITTEN APPROVAL OF THE DESIGN ENGINEER AS WELL AS WRITTEN APPROVAL OF THE AUTHORITY ENGINEER. ALL ENCASEMENTS SHALL EXTEND TO THE NEXT EXISTING OR PROPOSED STREET.
7. A MINIMUM OF EIGHTEEN (18) INCHES OF VERTICAL CLEARANCE IS REQUIRED BETWEEN ALL UTILITIES AND THE SANITARY SEWER LINES. THIS INCLUDES STREET LATERALS.
8. NO TREE OR BUSH SHALL BE PLACED WITHIN 10 FEET OF A SANITARY SEWER MAIN OR LATERAL.
9. ALL PROPOSED SANITARY PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

1. ALL WATER MAIN CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST REVISION OF THE STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE UPPER HANOVER AUTHORITY.
2. WATER LINE SHALL BE CLASS 52 DUCTILE IRON PIPE WITH CEMENT LINING.

3. ALL WATER VALVES AND CURBS STOP ARE TO BE OPERATED BY THE UPPER HANDOVER AUTHORITY STAFF ONLY. CONTRACTOR SHALL COORDINATE OPERATION OF VALVES WITH THE UPPER HANDOVER AUTHORITY PERSONNEL ACCORDINGLY.
4. THE RELOCATED FIRE HYDRANT SHALL BE REPLACED WITH A NEW HYDRANT AND VALVE (DO NOT REUSE EXISTING HYDRANT OR VALVE).
5. DIFFERING SOURCES IDENTIFY EXISTING FIRE HYDRANT FEED LINE SIZE AS 4" AND 6" (LOCATED ADJACENT TO EXISTING BUILDING BEHIND PROPOSED BUILDING D). CONTRACTOR SHALL VERIFY TO EXISTING HYDRANT FEED LINE SIZE BY EXCAVATING MATERIALS FOR THIS EXISTENCE. IN THE EVENT EXISTING LINE IS 4" EXISTENCE MAY BE INSTALLED WITH 4" OR 6" LINE. OTHERWISE, EXTEND LINE WITH 6" PIPE.
6. ALL PROPOSED WATER SERVICE LATERALS SHALL BE 2" COPPER TO THE CURBS STOP AND THEN 2" HDPE FROM THE CURB STOP TO THE BUILDING UNLESS NOTED OTHERWISE.

1. AS BUILT PLANS SHALL BE PROVIDED BY THE CONTRACTOR DOCUMENTING THE AS-BUILT CONDITIONS. PLANS SHALL BE PREPARED AND SEALED BY A PROFESSIONAL LICENSED SURVEYOR. SEALED PLANS AND CAD FILES SHALL BE PROVIDED.

2. THE GENERAL SITE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL AS BUILT PLANS AND PROFILES.
3. AS BUILT PLANS AND PROFILES MUST DOCUMENT ALL COMPONENTS OF THE CONSTRUCTED WATER SUPPLY, SANITARY SEWER, AND STORM SEWER SYSTEMS.
4. AS BUILT PLANS MUST DOCUMENT THE FINISHED GRADE CONDITION OF ALL STORM WATER BMP FACILITIES, INCLUDING BUT NOT LIMITED TO ALL BASINS, INFILTRATION FACILITIES, RAIN GARDENS, SUBSURFACE SEEPAGE BEDS, AND ANY OTHER BMP NOTED ON THE POST CONSTRUCTION STORM WATER PLANS. NO TOPSOIL SHALL BE REMOVED FROM THE SITE.

1. THIS PLAN CONTAINS INFORMATION PERTAINING TO UNDERGROUND UTILITIES WHICH IS FOR GENERAL INFORMATION ONLY, AND MAY NOT BE BASED ON AN ACTUAL SUBSURFACE LOCATION SURVEY. ALL SUBSURFACE INFORMATION SHOWN ON THESE PLANS NEEDS TO BE VERIFIED BY THE PLAN USER. THE PREPARER OF THIS PLAN ASSUMES NO RESPONSIBILITY FOR AND MAKES NO REPRESENTATION OR WARRANTIES AS TO THE ACCURACY OF THE LOCATION OF UNDERGROUND UTILITIES OR OTHER UNDERGROUND FEATURES. THE PLAN USER SHALL EXECUTE A PA ONE CALL PRIOR TO ANY EXCAVATION.

- ON THE SITE.
- A. MINIMUM VERTICAL CLEARANCE OF 18 INCHES SHALL BE PROVIDED AT ALL UTILITY CROSSINGS. WHERE 18 INCHES OF CLEARANCE CAN NOT BE OBTAINED, THE LOWER UTILITY LINE SHALL BE RELOCATED FOR A LENGTH OF 30 FEET, CENTERED ABOUT THE CROSSING.
- B. ALL CONSTRUCTION SHALL CONFORM TO PENNSBURG BOROUGH STANDARDS AND SPECIFICATIONS OR PENN. D.O.T. STANDARDS AND FORM 406 (LATEST EDITION), WHICHEVER IS APPLICABLE.
- C. TOPSOIL SHALL BE REMOVED FROM ALL AREAS OF CONSTRUCTION AND STORED SEPARATELY, PRIOR TO BULK EXCAVATION. UPON COMPLETION OF CONSTRUCTION, THE TOPSOIL SHOULD BE REDISTRIBUTED UNIFORMLY TO A MINIMUM DEPTH OF 12" OVER PROPOSED PERVIOUS AREAS WITHIN THE EXCAVATED AREA.
- D. NO PLANTINGS OR STRUCTURES SHALL BE PERMITTED WITHIN ANY EASEMENTS. ALL EASEMENT AREAS SHALL BE MAINTAINED AS LAWN AREA BY THE PROPERTY OWNER.

R1-1	"STOP" SIGN	30"X30"
R5-1	"DO NOT ENTER" SIGN	24"X24"
R6-1L	"ONE WAY" ARROW RIGHT SIGN	12"X36"
R6-1R	"ONE WAY" ARROW RIGHT SIGN	12"X36"
S-A	"NO TRACTOR TRAILERS" SIGN	18"X24"
S-B	"DELIVERY ENTRANCE ONLY" SIGN	20"X28"

NOTE: REFER TO PENNDOT PERMIT PLANS FOR ALL OTHER SIGNS NOT IDENTIFIED ON THESE PLANS.

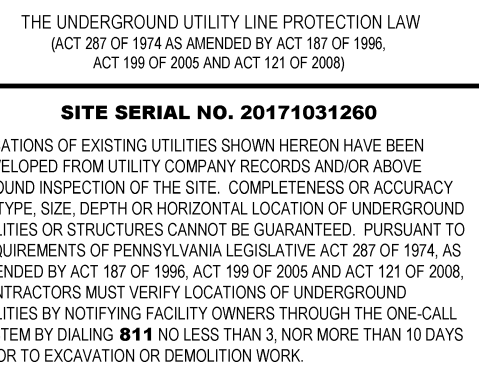
STORM SEWER PROFILE A17 - A12

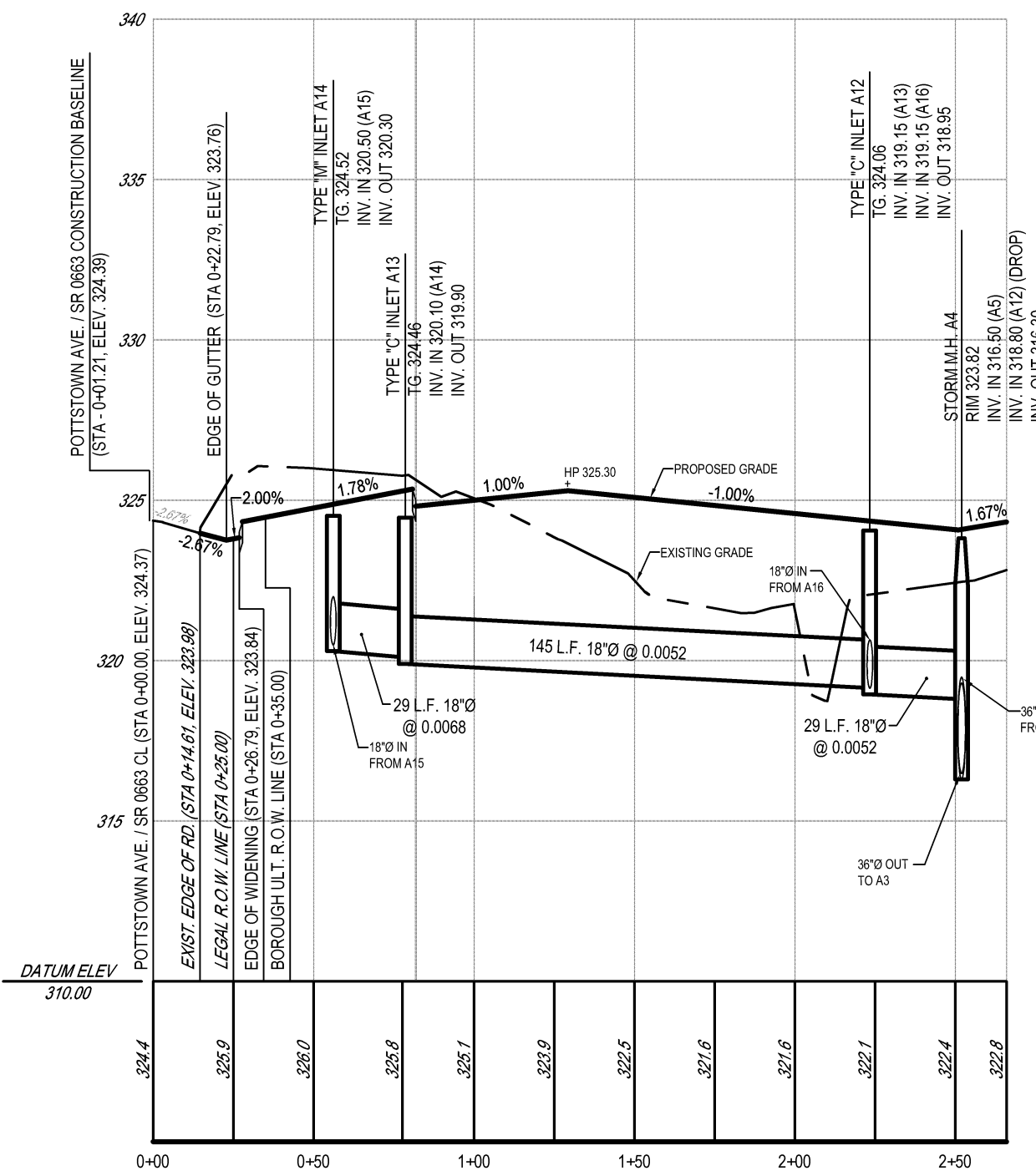
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A19 - A5

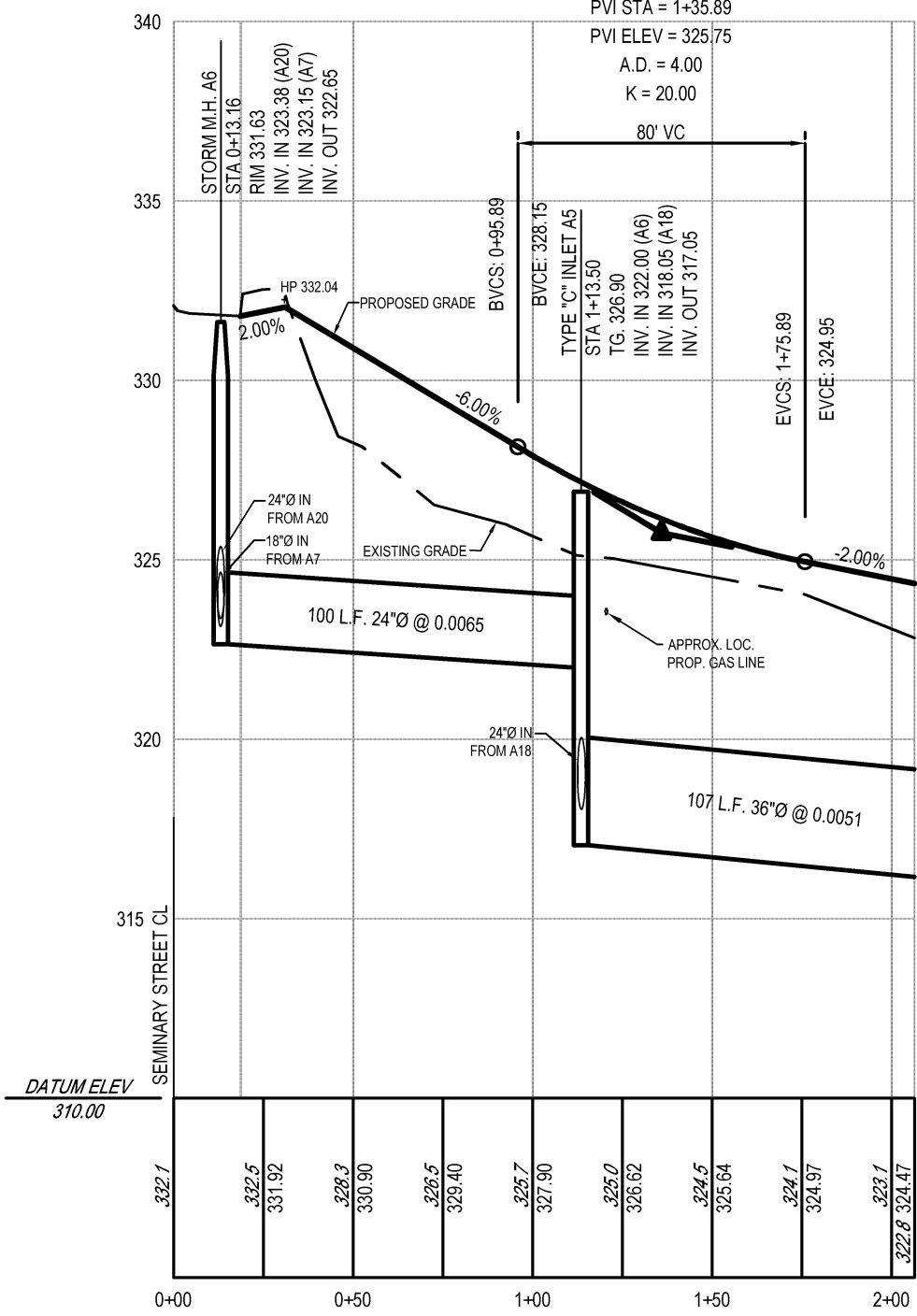
STORM SEWER PROFILE D1 - D0

ACT 287 NOTIFICATION

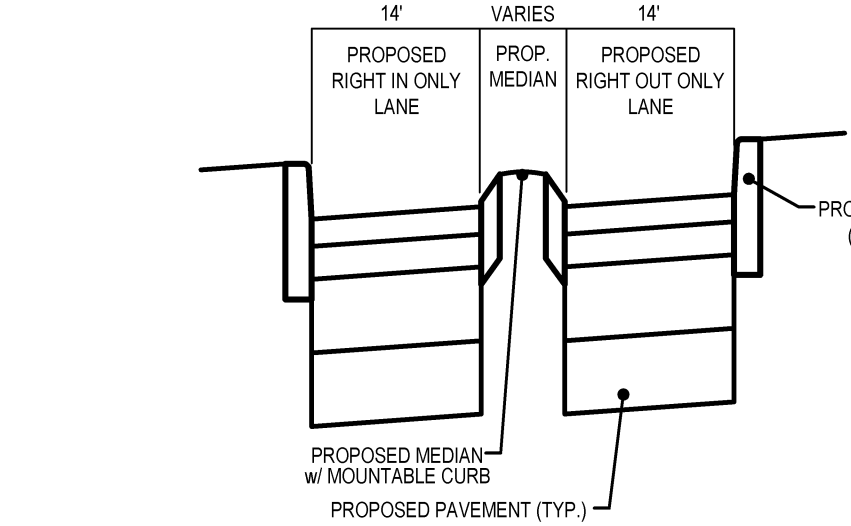
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DRIVE A PROFILE
STA. 0+00 - 2+66.00



DRIVE B PROFILE
STA. 0+00 - 2+06.40



PROPOSED PAVEMENT MATERIAL AS DELINEATED ON PENNDOT PLANS

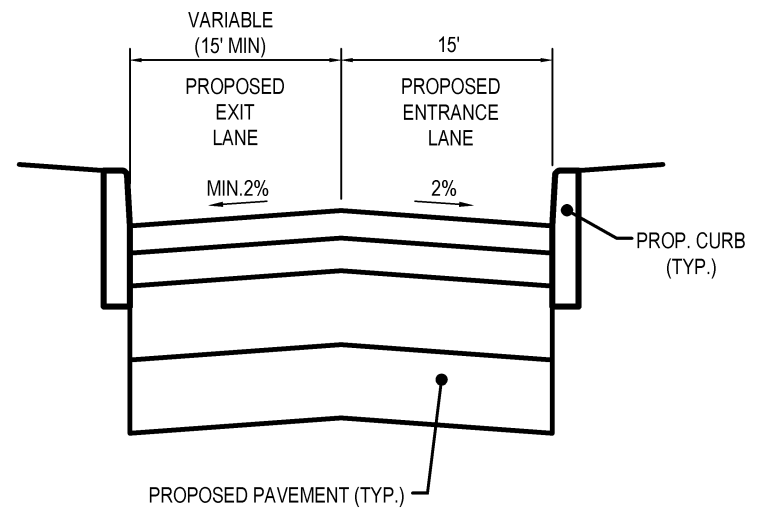
- 1 1/2" SUPERPAVE ASPHALT MIXTURE DESIGN, WMA WEARING COURSE, PG 64-22, 0.1% TO 1.0% MILLION ESALS, 5.5 MM MIXTURE, SRM-E
- 2 1/2" SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BINDER COURSE, PG 64-22, 0.1% TO 1.0% MILLION ESALS, 10.5 MM MIXTURE
- 4" SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BASE COURSE, PG 64-22, 0.1% TO 1.0% MILLION ESALS, 25.0 MM MIXTURE
- 4" SUBBASE (NO. 2A) (PER PENNDOT PUBL. 406, SECT. 309)

PROPOSED PAVEMENT MATERIAL OUTSIDE PENNDOT LIMITS

- 1 1/2" SUPERPAVE ASPHALT MIXTURE DESIGN, WMA WEARING COURSE, PG 64-22, 0.1% TO 1.0% MILLION ESALS, 5.5 MM MIXTURE, SRM-E
- 3 1/2" SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BINDER COURSE, PG 64-22, 0.1% TO 1.0% MILLION ESALS, 10.5 MM MIXTURE
- 4" SUBBASE (NO. 2A MODIFIED) (PER PENNDOT PUBL. 406, SECT. 309)
- COMPACTED SUBGRADE

SITE DRIVEWAY 'A'
TYPICAL SECTION

N.T.S.



PROPOSED PAVEMENT MATERIAL

- 1 1/2" SUPERPAVE ASPHALT MIXTURE DESIGN, WMA WEARING COURSE, PG 64-22, 0.1% TO 1.0% MILLION ESALS, 5.5 MM MIXTURE, SRM-E
- 3 1/2" SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BINDER COURSE, PG 64-22, 0.1% TO 1.0% MILLION ESALS, 10.5 MM MIXTURE
- 4" SUBBASE (NO. 2A MODIFIED) (PER PENNDOT PUBL. 406, SECT. 309)
- COMPACTED SUBGRADE

SITE DRIVEWAY 'B'
TYPICAL SECTION

N.T.S.

CONSTRUCTION NOTES

STORM SEWER:

- UNLESS OTHERWISE NOTED, ALL STORM SEWER INLETS SHALL BE EITHER PENNDOT TYPE "C" OR TYPE "M" AND SHALL CONFORM TO FORM 408 (LATEST EDITION), SECTION 805.
- UNLESS OTHERWISE NOTED, ALL STORM SEWER PIPING SHALL BE REINFORCED CONCRETE PIPE AND SHALL CONFORM TO PENNDOT FORM 408 (LATEST EDITION), SECTION 801.
- UNLESS OTHERWISE NOTED, ALL CONCRETE "DW" ENDWALLS SHALL CONFORM TO PENNDOT FORM 408 (LATEST EDITION), SECTION 805. THE TOP OF WALL ELEVATION FOR ALL ENDWALLS SHALL CONFORM TO THESE STANDARDS FOR THE ASSOCIATED PIPE SIZE. IN THE EVENT THAT A HIGHER TOP OF WALL ELEVATION IS NECESSARY FOR GRADING, THE "SPECIAL" TOP OF WALL ELEVATION SHALL BE NOTED ON THE PLANS.
- THE TOP OF GRATE ELEVATION FOR ALL CURBSIDE STORM SEWER INLETS IS FOR THE CENTER OF THE INLET AT THE FACE OF CURB. THE CONTRACTOR SHALL PROJECT THE ROADWAY GRADE ALONGS THE LENGTH OF THE INLET.
- ANY SPRINGS ENCOUNTERED DURING ROADWAY CONSTRUCTION SHALL BE OUTLETTED BY U-DRAIN TO NEAREST STORM SEWER FACILITY OR WATERCOURSE. U-DRAIN PLACEMENT TO BE BY THE DIRECTION OF THE TOWNSHIP ENGINEER.
- ALL PROPOSED STORM PIPE LENGTHS ARE MEASURED FROM CENTER OF INLET TO CENTER OF INLET.

SANITARY SEWER:

- ALL MATERIALS AND DETAILS OF CONSTRUCTIONS, INSTALLATION PROCEDURES, AND REQUIREMENTS WITH RESPECT TO SANITARY SEWERAGE FACILITIES SHALL BE IN ACCORDANCE WITH THE UPPER MONTGOMERY JOINT AUTHORITY (UMJA) STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR SANITARY SEWER EXTENSIONS (LATEST EDITION).
- AN 18-INCH VERTICAL CLEARANCE OR A 10-FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ALL SANITARY SEWER AND WATER MAINS. WHERE IMPOSSIBLE TO MAINTAIN A 10-FOOT HORIZONTAL CLEARANCE, AN 18-INCH VERTICAL CLEARANCE MUST BE MAINTAINED.
- EXISTING SANITARY SEWER MAIN PIPING IS 10" DIA. NEW SANITARY MAIN SHALL BE 8" DIA. SDR-35 PVC PIPE. NEW LATERALS SHALL BE 8" DIA. SDR-26 PVC PIPE. ALL SANITARY SEWER LATERALS SHALL BE LAID ON A SLOPE OF NOT LESS THAN 1%.
- ALL PROPOSED SANITARY SEWER MANHOLES LOCATED IN UNPAVED AREAS SHALL BE PROVIDED WITH WATERTIGHT FRAMES AND COVERS SET EIGHTEEN INCHES ABOVE FINISHED GRADES.
- PRIOR TO COMMENCING CONSTRUCTION, SHOP DRAWINGS FOR ALL MATERIALS TO BE USED IN THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM MUST BE SUBMITTED TO UMJA. IN ADDITION, ALL MATERIALS TO BE USED ON THE JOB MUST BE INSPECTED BY A REPRESENTATIVE OF UMJA TO INSURE CONFORMANCE WITH THE APPROVED SHOP DRAWINGS.
- ALL CONCRETE ENCASEMENT SHALL BE SHOWN ON THE DRAWINGS AND NO OTHER ENCASEMENT SHALL BE INSTALLED WITHOUT THE WRITTEN APPROVAL OF THE DESIGN ENGINEER AS WELL AS WRITTEN APPROVAL OF THE AUTHORITY ENGINEER. ALL ENCASEMENTS SHALL EXTEND TO THE NEXT JUNCTION BEYOND THE MINIMUM DISTANCE REQUIREMENT.
- A MINIMUM OF EIGHTEEN (18) INCHES OF VERTICAL CLEARANCE IS REQUIRED BETWEEN ALL UTILITIES AND THE SANITARY SEWER LINES. THIS INCLUDES STREET LATERALS.
- NO TREE OR BUSH SHALL BE PLACED WITHIN 10 FEET OF A SANITARY SEWER MAIN OR LATERAL.
- ALL PROPOSED SANITARY PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

WATER DISTRIBUTION:

- ALL WATER MAIN CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST REVISION OF THE STANDARD CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE UPPER HANOVER AUTHORITY.
- WATER LINE SHALL BE CLASS 52 DUCTILE IRON PIPE WITH CEMENT LINING.
- ALL WATER VALVES AND CURB STOPS ARE TO BE OPERATED BY THE UPPER HANOVER AUTHORITY STAFF ONLY. CONTRACTOR OR SHALL COORDINATE OPERATION OF VALVES WITH THE UPPER HANOVER AUTHORITY PERSONNEL ACCORDINGLY.
- THE RELOCATED FIRE HYDRANT SHALL BE REPLACED WITH A NEW HYDRANT AND VALVE (DO NOT REUSE EXISTING HYDRANT OR VALVE).
- DIFFERING SOURCES IDENTIFY EXISTING FIRE HYDRANT FEED LINE SIZE AS 4" AND 6" (LOCATED ADJACENT TO EXISTING BUILDINGS BEHIND PROPOSED BUILDING D). CONTRACTOR SHALL VERIFY TO THEIR SATISFACTION PRIOR TO SECURING MATERIALS FOR THIS EXTENSION. IN THE EVENT EXISTING LINE IS 4", EXTENSION MAY BE INSTALLED WITH 4" OR 6" LINE. OTHERWISE, EXTEND LINE WITH 6" PIPE.
- ALL PROPOSED WATER SERVICE LATERALS SHALL BE 2" COPPER TO THE CURB STOP AND THEN 2" HDPE FROM THE CURB STOP TO THE BUILDING UNLESS NOTED OTHERWISE.

AS BUILT PLANS REQUIRED:

- AS BUILT PLANS SHALL BE PROVIDED BY THE CONTRACTOR DOCUMENTING THE AS-BUILT CONDITIONS. PLANS SHALL BE PREPARED AND SEALED BY A PROFESSIONAL LICENSED SURVEYOR. SEALED PLANS AND CAD FILES SHALL BE PROVIDED.
- THE GENERAL SITE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL AS BUILT PLANS AND PROFILES.
- AS BUILT PLANS AND PROFILES MUST DOCUMENT ALL COMPONENTS OF THE CONSTRUCTED WATER SUPPLY, SANITARY SEWER, AND STORM SEWER SYSTEMS.
- AS BUILT PLANS MUST DOCUMENT THE FINISHED GRADE CONDITION OF ALL STORM WATER BMP FACILITIES, INCLUDING BUT NOT LIMITED TO ALL BAGINS, INFILTRATION FACILITIES, RAIN GARDENS, SUBSURFACE SEPARATE BEDS, AND ANY OTHER BMP NOTED ON THE POST CONSTRUCTION STORM WATER PLANS. NO TOPSOIL SHALL BE REMOVED FROM THE SITE.

GENERAL CONSTRUCTION:

- THIS PLAN CONTAINS INFORMATION PERTAINING TO UNDERGROUND UTILITIES WHICH IS FOR GENERAL INFORMATION ONLY, AND MAY NOT BE BASED ON AN ACTUAL SUBSURFACE LOCATION SURVEY. ALL SUBSURFACE INFORMATION SHOWN ON THESE PLANS NEEDS BE VERIFIED BY THE PLAN USER. THE PREPARED OF THIS PLAN ASSUMES NO RESPONSIBILITY FOR AND MAKES NO REPRESENTATION OR WARRANTIES AS TO THE ACCURACY OF THE LOCATION OF UNDERGROUND UTILITIES OR OTHER UNDERGROUND FEATURES. THE PLAN USER SHALL EXECUTE A PA ONE CALL PRIOR TO ANY EXCAVATION ON THE SITE.
- A MINIMUM VERTICAL CLEARANCE OF 18 INCHES SHALL BE PROVIDED AT ALL UTILITY CROSSINGS. WHERE 18 INCHES OF CLEARANCE CAN NOT BE OBTAINED, THE LOWER UTILITY LINE SHALL BE CONCRETE ENCASED FOR A LENGTH OF 20 FEET, CENTERED ABOUT THE CROSSING.
- ALL CONSTRUCTION SHALL CONFORM TO PENNSBURG BOROUGH STANDARDS AND SPECIFICATIONS OR PENN. D.O.T. STANDARDS AND FORM 408 (LATEST EDITION), WHICHEVER IS APPLICABLE.
- TOPSOIL SHOULD BE REMOVED FROM ALL AREAS OF CONSTRUCTION AND STORED SEPARATELY. PRIOR TO BULK EXCAVATION, UPON COMPLETION OF CONSTRUCTION, THE TOPSOIL SHOULD BE REDISTRIBUTED UNIFORMLY TO A MINIMUM DEPTH OF 12" OVER PROPOSED PERVIOUS AREAS WITHIN THE DEVELOPMENT AREA.
- NO PLANTINGS OR STRUCTURES SHALL BE PERMITTED WITHIN ANY EASEMENTS. ALL EASEMENT AREAS SHALL BE MAINTAINED AS LAWN AREA BY THE PROPERTY OWNER.

SIGN LEGEND:

R1-1	"STOP" SIGN	30"X30"
R5-1	"DO NOT ENTER" SIGN	24"X24"
R5-1L	"ONE WAY" ARROW RIGHT SIGN	12"X36"
R6-1R	"ONE WAY" ARROW RIGHT SIGN	12"X36"
S-A	"NO TRACTOR TRAILERS" SIGN	18"X24"
S-B	"DELIVERY ENTRANCE ONLY" SIGN	20"X28"

NOTE: REFER TO PENNDOT PERMIT PLANS FOR ALL OTHER SIGNS NOT IDENTIFIED ON THESE PLANS.

ACT 287 NOTIFICATION



THE UNDERGROUND UTILITY LINE PROTECTION LAW
(ACT 287 OF 1974 AS AMENDED BY ACT 187 OF 1996,
ACT 199 OF 2005 AND ACT 121 OF 2008)

SITE SERIAL NO. 20171031260

LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN
DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE
GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY
OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND
UTILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO
REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT 287 OF 1974, AS
AMENDED BY ACT 187 OF 1996, ACT 199 OF 2005 AND ACT 121 OF 2008,
CONTRACTORS MUST VERIFY LOCATIONS OF UNDERGROUND
UTILITIES BY NOTIFYING FACILITY OWNERS THROUGH THE ONE-CALL
SYSTEM BY CALLING 811 NO LESS THAN 3, NOR MORE THAN 10 DAYS
PRIOR TO EXCAVATION OR DEMOLITION WORK.

Note: These plans are not to be used for construction unless the plan contains a red stamp indicating issued for construction by Horizon Engineering Associates, LLC. Horizon Engineering Associates, LLC shall assume no liability for construction performed from plans not containing this stamp.

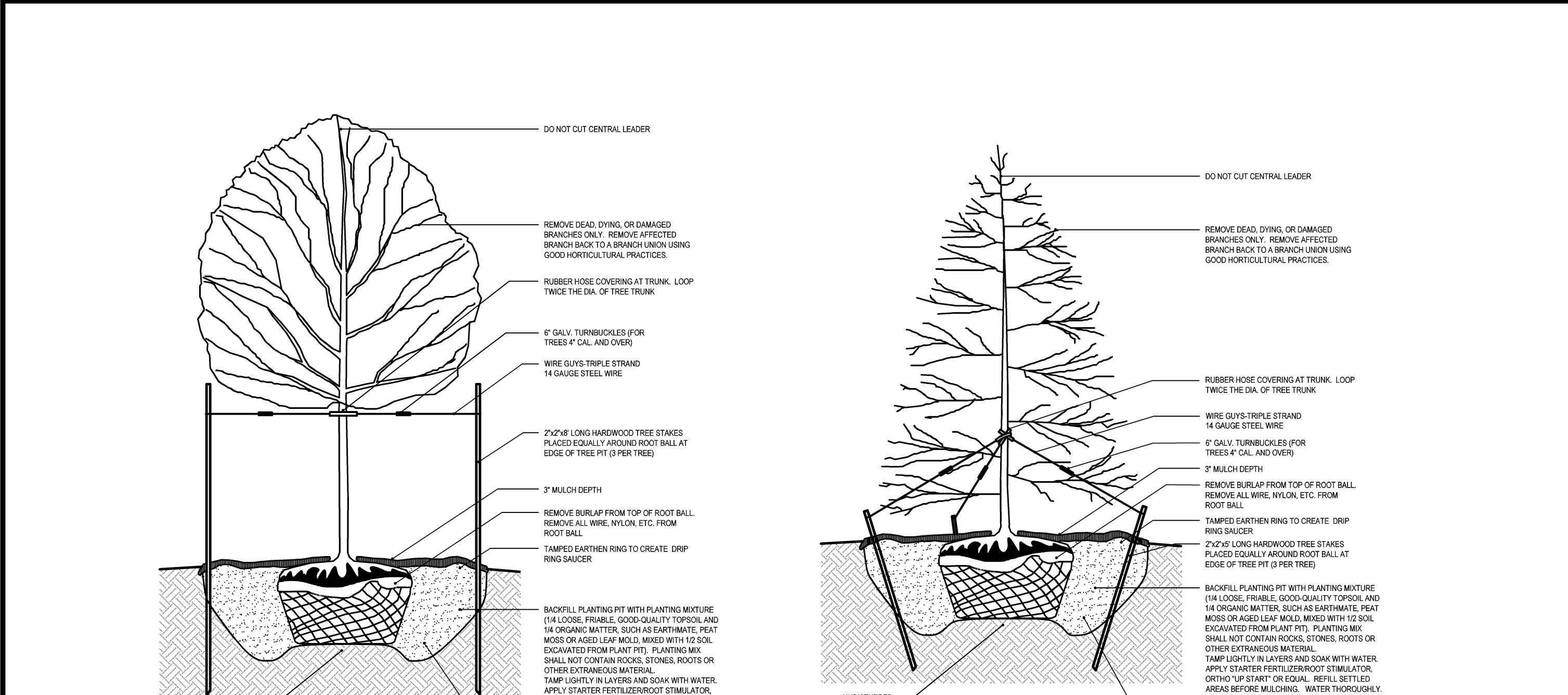
NO.	REVISION	DATE	BY	DESCRIPTION
1	ISSUED FOR PERMIT	11-10-2017	SHL	ISSUED FOR PERMIT
2	REVISED PER PLAN REVIEW	11-10-2017	SHL	REVISED PER PLAN REVIEW
3	REVISED PER PLAN REVIEW	11-10-2017	SHL	REVISED PER PLAN REVIEW
4	REVISED PER PLAN REVIEW	11-10-2017	SHL	REVISED PER PLAN REVIEW
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14	REVISED PER PLAN REVIEW	11-10-2017	SHL	REVISED PER PLAN REVIEW

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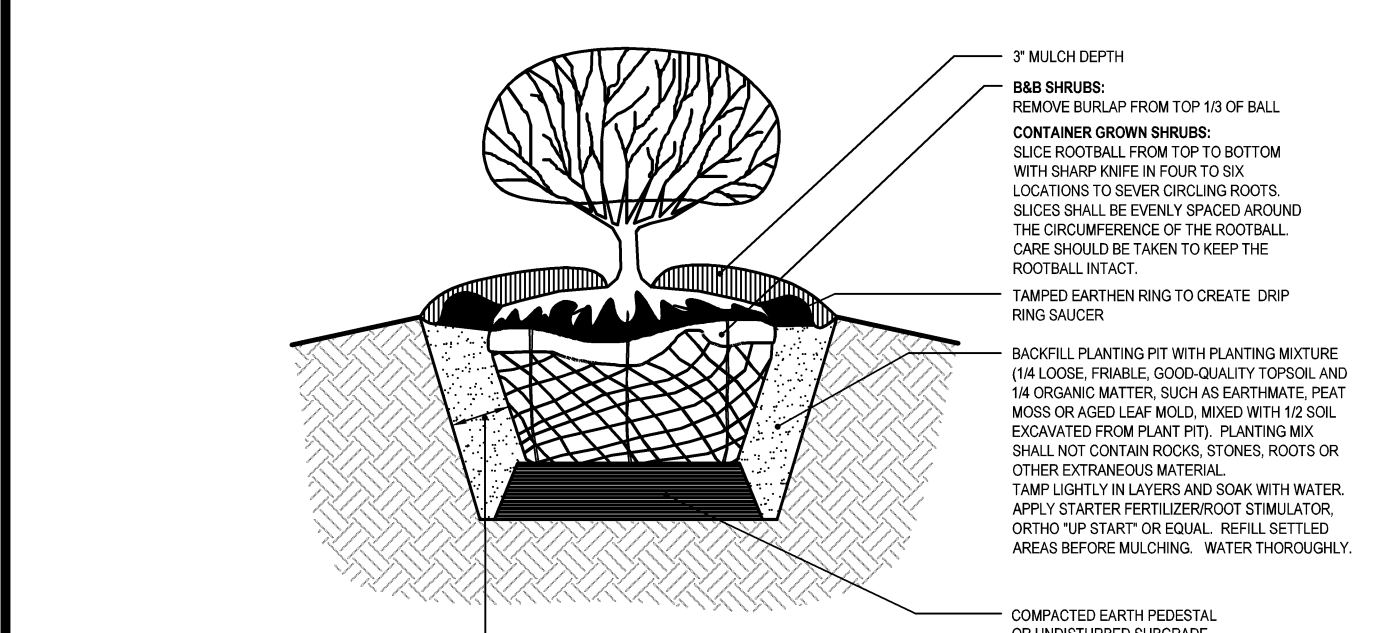
THE TOWNSHIP OF
PENNSBURG BOROUGH, MONTGOMERY COUNTY, PENNSYLVANIA

PROJECT MANAGER	CDS
DRAWING FILE NAME	ShL_ZPProf-Stm
PLAN ORIGINATION DATE	10-18-2017
PLAN SCALE	1"=50' H 1"=5' V
PROJECT NUMBER	2096
SHEET NUMBER	15 OF 27



DECIDUOUS TREE PLANTING DETAIL

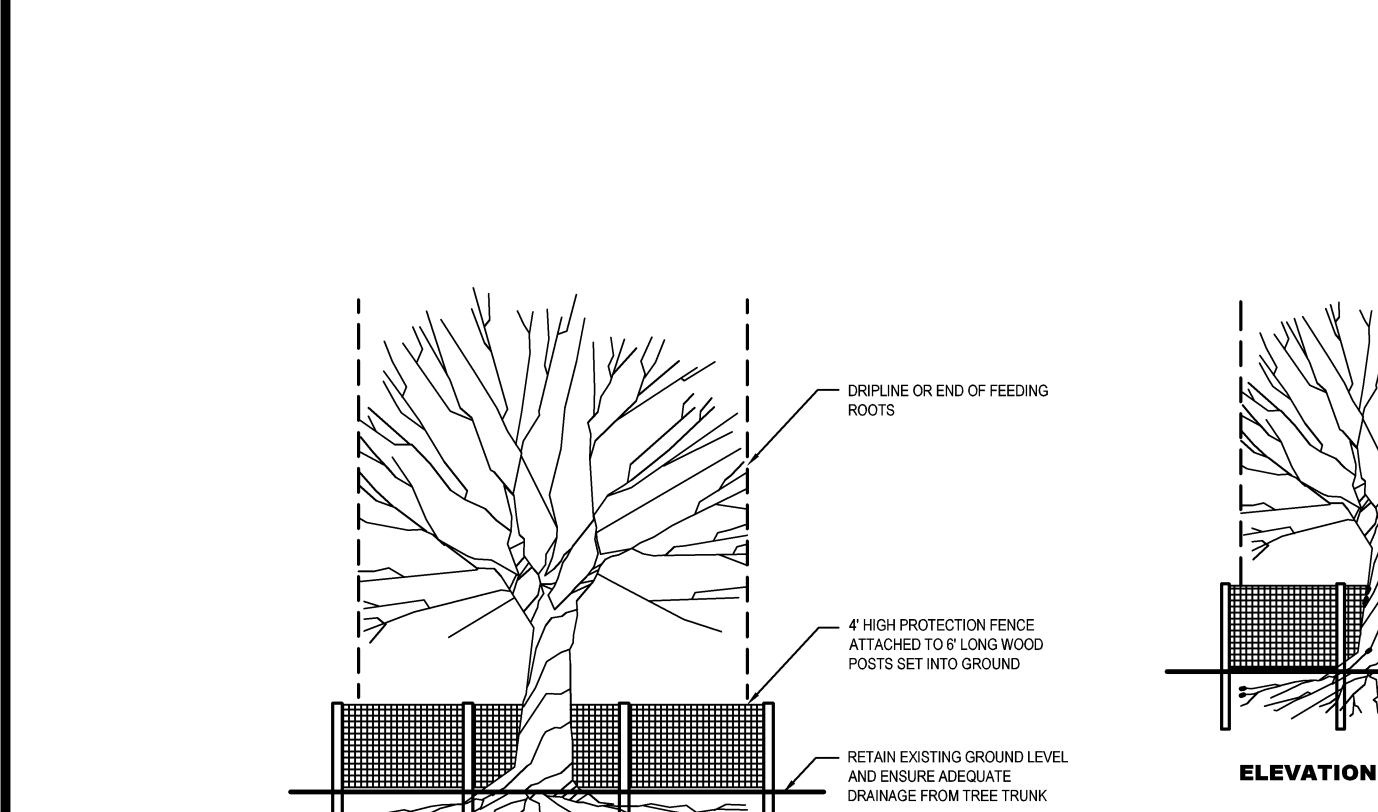
N.T.S.



SHRUB PLANTING DETAIL

N.T.S.

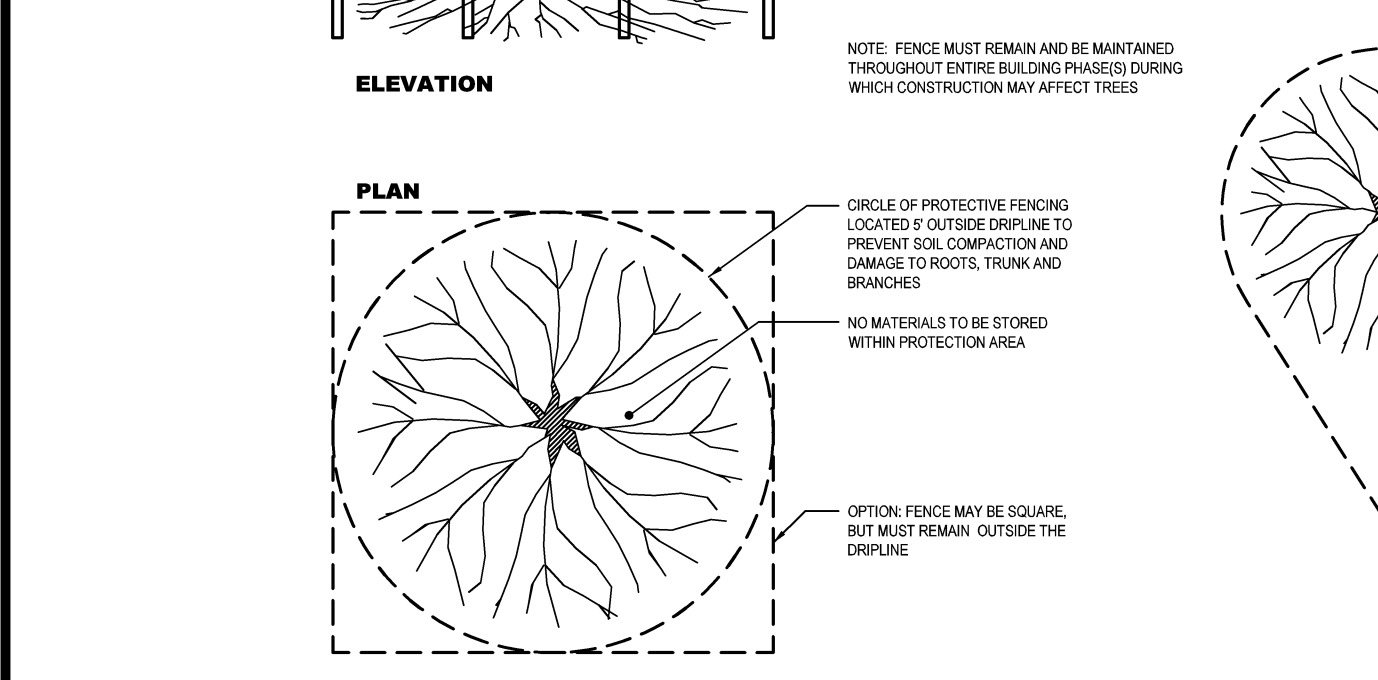
NOTE: ALL SHRUBS AND GROUNDCOVERS MUST BE PLANTED WITH A WATER STORING POLYMER ROOT GEL (SUCH AS SOIL MOIST BY JEN CHEMICAL INC.) IN THE BACKFILL MIX.



PERENNIAL & GROUNDCOVER PLANTING DETAIL

N.T.S.

NOTE: ALL SHRUBS AND GROUNDCOVERS MUST BE PLANTED WITH A WATER STORING POLYMER ROOT GEL (SUCH AS SOIL MOIST BY JEN CHEMICAL INC.) IN THE BACKFILL MIX.



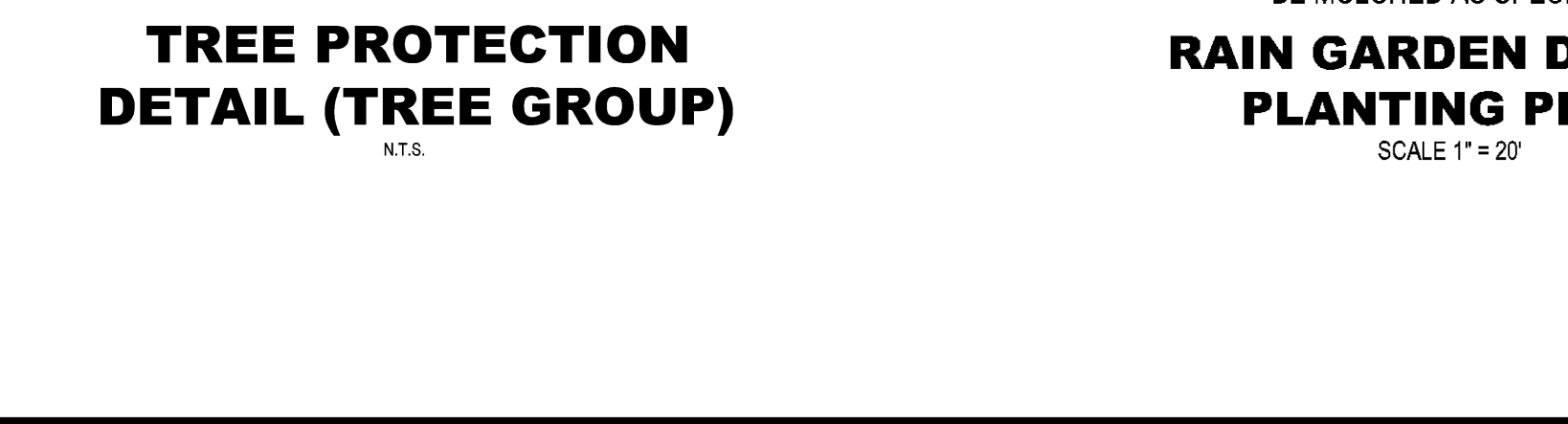
TREE PROTECTION DETAIL (SINGLE TREE)

N.T.S.



TREE PROTECTION DETAIL (TREE GROUP)

N.T.S.



RAIN GARDEN DETAIL PLANTING PLAN

SCALE 1\"/>

PLANT SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	QTY.	REMARKS
CANOPY / SHADE TREES							
ACRu	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2.5'- 3'- C	B&B	--	9	SINGLE CENTRAL LEADER
ACGr	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGAR MAPLE	2.5'- 3'- C	B&B	--	9	SINGLE CENTRAL LEADER
BtNi	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	10'- 12'- HT.	B&B	--	6	CLUMP FORM, MIN 3 STEMS
GLT	GLEHDTIA TRACANTHOSA INTERIMS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	2.5'- 3'- C	B&B	--	8	
LSt	LIQUIDAMBAR SYRACUFA	SWEETGUM	2.5'- 3'- C	B&B	--	3	SINGLE CENTRAL LEADER
QuPi	QUERCUS RUBRA	NORTHERN RED OAK	2.5'- 3'- C	B&B	--	8	
UnPiA	UNIONIS PARVIFOLIA	LACEBARK ELM	2.5'- 3'- C	B&B	--	28	
						TOTAL:	69
FLOWERING / ORNAMENTAL TREES							
ACGr	AMELANSCHER X GRANDIFLORA AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	8'- 10'- HT.	B&B	--	3	MULTISTEM
CoCa	CORNUS CANADENSIS	DOGWOOD REDBUD	8'- 10'- HT.	B&B	--	6	MULTISTEM
MaJi	MAGNOLIA 'LANE'	LANE MAGNOLIA	8'- 10'- HT.	B&B	--	3	MULTISTEM SPECIMAN
MaVi	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	8'- 10'- HT.	B&B	--	4	MULTISTEM SPECIMAN
MvSi	MALUS 'SUTZYFAM'	SUGAR 'TIE' CRABAPPLE	2'-2.5'- C	B&B	--	6	
PyYe	PRUNUS X YEDOMENSIS 'AKESONO'	AKESONO YOSHINO CHERRY	2'-2.5'- C	B&B	--	3	SPECIMAN
						TOTAL:	25
EVERGREEN TREES							
PlAo	PICEA ABIES	NORWAY SPRUCE	6'- 7'- HT.	B&B	10'-12'- OC.	27	FULL BRANCHING & DENSE
PlBa	PICEA OMORICA	SERBIAN SPRUCE	6'- 7'- HT.	B&B	10'- 10'- C.	12	FULL BRANCHING & DENSE
						TOTAL:	39
SHRUBS							
CAU	CLETHRA ALABAMA 'HUMMINGBIRD'	HUMMINGBIRD SWEETSHRUB	#5	CONT.	3'-0'- C.	25	FULL BRANCHING & DENSE
HyPi	HYDRANGEA PANICULATA 'LIME-GHIT'	LIME-GHIT PANICLE HYDRANGEA	#5	CONT.	3'-0'- C.	33	FULL BRANCHING & DENSE
GL	'LEX GLABRA' 'GEM BOX' (NO SUBSTITUTIONS)	GEMBOX DWARF NINEBARK	#5	CONT.	3'-0'- C.	10	FULL BRANCHING & DENSE
GL	'LEX GLABRA' 'SHAMROCK'	SHAMROCK NINEBARK	#5	CONT.	4'-0'- C.	9	FULL BRANCHING & DENSE
WtPi	'LEX VERTICILLATA' 'BERRY POPPINS'	BERRY POPPINS D' WINTERBERRY	#5	CONT.	4'-0'- C.	9	FULL BRANCHING & DENSE
WtMv	'LEX VERTICILLATA' 'MR POPPINS'	MR POPPINS DW' WINTERBERRY	#5	CONT.	4'-0'- C.	2	FULL BRANCHING & DENSE
ViPi	ITEA VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET SWEETSPIRE	#5	CONT.	3'-0'- C.	23	FULL BRANCHING & DENSE
						TOTAL:	111
GROUNDCOVER							
BaV	ELYMIUS ARENARIUS 'BLUE DUNE'	BLUE DUNE LYME GRASS	#1	CONT.	24"-0'- C.	50	FLYING BOTTLE BRUSH, BUT NOT GEL
VmI	VINCA MINOR 'BOWLER'S VARIETY'	BOWLER'S VARIETY CREEPING MYRTLE	2'-2.5'- POT		8"-0'- C.	1325	FLYING BOTTLE BRUSH, BUT NOT GEL
						TOTAL:	1375

BASIN BOTTOM SEED MIX

THE FOLLOWING SEED MIX IS TO BE INSTALLED IN AREAS ON THE PLAN NOTED AS **BASIN BOTTOM SEED MIX**.

BOTANICAL NAME	COMMON NAME	PERCENT (%) OF MIX BY WEIGHT
AGROSTIS ALBA	REDTOP	30%
AGROSTIS STOLONIFERA	CREeping BENTGRASS	20%
CAREX ALPINOIDEA	FOX SEDGE	25%
CAREX COMOSA	COSMOS SEDGE	15%
EROPHILUM VIRGINICUM	COTTON GRASS	10%
JUNCUS CANADENSIS	CANADA RUSH	5%

THE ABOVE SEED MIX SHALL BE INSTALLED AT THE RATE OF 15 LBS / ACRE PURE LIVE SEED.

ANNUAL RYE NURSERY GRASS (LOLLUM MULTIFLORUM) AT THE RATE OF 10 LBS / ACRE

NO MOW SEED MIX

THE FOLLOWING SEED MIX IS TO BE INSTALLED IN AREAS ON THE PLAN NOTED AS **NO MOW SEED MIX**.

NO MOW LAWN SEED MIX, A SPECIALLY DESIGNED BLEND OF SIX FINE FESCUE GRASSES THAT GROW TO FORM A DENSE SOD WHICH THRIVES IN FULL SUN OR PARTIAL SHADE. HARD FESCUE (FESTUCA DURELLII), SHEEP FESCUE (FESTUCA RUBRA SUBS. FALLAX), RED FESCUE (FESTUCA RUBRA), CREeping RED FESCUE (FESTUCA RUBRA VAR. RUBRA).

THE ABOVE SEED MIX SHALL BE INSTALLED AT THE RATE OF 5 LBS / 1,000 S.F.

SEED MIX IS AVAILABLE FROM PRAIRIE NURSERY, WESTFIELD, WI. 800-478-9453. WWW.PRAIRIENURSERY.COM

FOREBAY PLUGS

THE FOLLOWING PERENIALS SHALL BE INSTALLED IN THE BOTTOM OF FOREBAY:

– PLUGS SHALL BE A MINIMUM SIZE OF 2'x2'x5" DEEP, SUCH AS "LP50 DEEP PLUG" BY NORTHCREEK NURSERIES (WWW.NORTHCREEKNURSERIES.COM). CONTAINER GROWN PLANTS (1 GALLON SIZE) MAY BE SUBSTITUTED FOR DEEP ROOT PLUGS. PLANT SPECIES SHALL BE PLACED IN DRIFTS THROUGHOUT THE BMP AND MAY BE INTERMIXED. CREATIVE ARRANGEMENT IS ENCOURAGED.

—PLUGS SHALL BE A MINIMUM SIZE OF 2\"/>

—FOR EACH FOREBAY, REFER TO PLANS AND DETAILS FOR RAIN GARDENS FOR DEEP ROOT PLUGS. PLANT SPECIES SHALL BE PLACED IN DRIFTS THROUGHOUT THE BMP AND MAY BE INTERMIXED. CREATIVE ARRANGEMENT IS ENCOURAGED.

INSTALLATION SEQUENCING NOTES:
1. INSTALL 2\"/>

INSTALLATION GENERAL NOTES:
1. PLANTS SHALL BE PLACED ACROSS THE ENTIRE FOREBAY BOTTOM.
2. INSTALL 2\"/>

COMPOST SOIL AMENDMENT QUALITY
A. THE FINAL, RESULTING COMPOST SOIL AMENDMENT MUST MEET ALL OF THE MANDATORY CRITERIA IN TABLE 4.

Table 4. Adsorbed Mass of Nutrients and Metals in Untreated and Treated Soil
Plot Runoff From 30-Minute, High-Intensity (100-mm/hr) Rainstorm

Compost Treatments	Baseline	Composted	Topsoil
Element	Baseline	Geometric Mean (mg)	Baseline
Boron	0.01 ¹	<0.01 ¹	0.01 ¹
Copper	0.02 ¹	<0.01 ¹	0.01 ¹
Lead	0.01 ¹	<0.01 ¹	0.01 ¹
Nickel	0.01 ¹	<0.01 ¹	0.01 ¹
Phosphorus	0.01 ¹	<0.01 ¹	0.01 ¹
Potassium	0.01 ¹	<0.01 ¹	0.01 ¹

Means within the same row with different letter designations are significantly different (p<0.05).

4. COMPOST SOIL AMENDMENT INSTALLATION
A. AMENDED SOIL MIX SHALL BE PREPARED AS FOLLOWS:
(1) EXISTING ON-SITE TOPSOIL OR IMPORTED TOPSOIL SHALL BE BLENDED WITH THE SPECIFIED PRODUCTS.
(2) COMPOST PRODUCTS SHALL BE ADDED AT A VOLUMETRIC RATE OF 1\"/>

B. INSTALLATION PROCEDURE:
(1) AREAS SPECIFIED ON THE PLAN TO RECEIVE AMENDED SOILS SHALL BE BROUGHT TO REQUIRED ROUGH GRADE TO ACCOMMODATE THE INSTALLATION OF THE SPECIFIED DEPTH OF AMENDED SOILS (MIN. 12\"/>

(2) PRIOR TO PLACEMENT OF COMPOST, THE EXCAVATING CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THE SUBSOIL IS IN A LOOSE FRAGILE CONDITION TO A DEPTH AT LEAST 24 INCHES BELOW THE PROPOSED FINISHED TOPSOIL GRADE. SUBSOIL SHALL BE SCRIPPED, RIPPER OR TILLED (TILTING IN COMPACTED AREAS NOT OTHERWISE ACCESSIBLE BY MACHINERY) TO ACHIEVE THIS CONDITION, RIPPING SHALL BE A TWO-DIRECTIONAL, AND THERE SHALL BE NO EROSION RILLS OR WASHOUTS IN THE SUBSOIL SURFACE EXCEEDING 3 INCHES IN DEPTH.

(3) PREPARE AMENDED SOIL MIX AND INSTALL PREPARED MIX OVER THE PREPARED SUBGRADE AS FOLLOWS:
FIRST LIFT: PLACE 4\"/>

(4) DO NOT ROLL OR OTHERWISE MECHANICALLY COMPACT THE PLACED SOIL. AVOID EXCESSIVE COMPACTION DURING PLACEMENT OF THE PREPARED SOIL MIX. LIMIT COMPACTION TO THAT PROVIDED BY BULLDOZER TRACKING ONLY. LIMIT NUMBER OF PASSES MADE BY SINGLE AREA. UPON CONCLUSION OF INSTALLATION, THE SPECIFIED TOTAL DEPTH OF PREPARED SOIL MIX SHALL BE IN PLACE.

(5) PROHIBIT ACCESS TO ANY AREA OF AMENDED SOIL ONCE INSTALLATION IS COMPLETE. ABSOLUTELY NO CONSTRUCTION ACTIVITY OR VEHICULAR TRAFFIC IS PERMITTED WITHIN THE AREA OF INSTALLATION.

(6) TEMPORARY ORANGE CONSTRUCTION FENCING MUST BE ERRECTED AND MAINTAINED ALONG THE ENTIRE PERIMETER OF INSTALLED AMENDED SOIL UNTIL ALL CONSTRUCTION ACTIVITY CONCLUDES ON SITE.

(7) AFTER PERMANENT PLANTING/SEEDING, 3 INCHES OF MULCH SHALL BE APPLIED OVER ALL AREAS NOT PROTECTED BY GRASS OR OTHER DENSELY PLANTED AREAS (E.G. MEADOW).

BASIN / BMP SPECIFICATIONS

SITE PREPARATION:
ELIMINATE ALL INVASIVE SPECIES AND WEED GROWTH PRIOR TO SEED INSTALLATION USING AN APPROPRIATE HERBICIDE TO CONTROL UNDESIRABLE VEGETATION. SUPPLEMENT TOPSOIL WITH LEAF COMPOST MIXED THOROUGHLY INTO THE TOP MINIMUM 12 INCHES OF TOPSOIL. FOR OPTIMAL SEED ESTABLISHMENT, SOIL PH SHALL BE BETWEEN 5.5 AND 6.5.

THE INFILTRATION (WHERE APPLICABLE) AND PLANT GROWTH AREAS SHOULD BE LOOSE AND FRAGILE, HIGH IN ORGANIC MATTER, AND CONSTRUCTED WITHOUT COMPACTION FROM HEAVY EQUIPMENT. BY USING THE DUG AND DROP METHOD, ONE CAN USE AN EXCAVATOR TO DIG AND DROP EACH AREA OF THE BOTTOM SOIL IN A LOOSE MANNER. AT THIS POINT, COMPOST AND ANY OTHER SOIL AMENDMENTS CAN BE INCORPORATED. EXCAVATION MACHINERY DOES NOT MOVE OVER THE FINISHED SURFACE. THIS AVOIDS UNDESIRABLE COMPACTION. NATIVE VEGETATION CAN BE PLANTED OR SEEDDED OVER THIS UNEVEN, ABSORBENT SURFACE.

INSTALLATION OF PLANTINGS:
PLANTINGS SHALL BE INSTALLED ONLY BETWEEN MID-MARCH AND MID-JUNE OR FROM MID-SEPTEMBER TO EARLY NOVEMBER.

FOR OPTIMUM RESULTS, SEEDS MUST BE INSTALLED BETWEEN EARLY APRIL TO MID-JUNE TO PROVIDE THE PLANTS WITH A FULL GROWING SEASON TO BUILD STRONG ROOT RESERVES FOR WINTER HARDNESS. UNLESS OTHERWISE INFEASIBLE, CONSTRUCTION OF THE PERMANENT BMP FACILITIES SHOULD BE SCHEDULED TO ALLOW FOR INSTALLATION OF THE SPECIFIED SEEDS WITHIN THIS TIME FRAME. IN NO CASE SHALL SEED BE INSTALLED PRIOR TO APRIL, OR LATER THAN SEPTEMBER 15. IF NECESSARY, INSTALL ANNUAL RYE COVER CROP (SUCH AS BARLEY, OATS, OR RYE) FOR OVER WINTERING, FOLLOWED BY SITE PREPARATION AND APPLICATION OF THE SPECIFIED SEED DURING THE FOLLOWING SPRING.

MULCH THREE FEET BENEATH THE ROOT BALL AREA OF TREES AND SHRUBS IN BMP WITH A 3 INCH LAYER OF FINELY CRUSHED TOPSOIL OR MULCH. MULCH SHALL NOT BE INSTALLED OVER SEEDED AREAS. DO NOT INSTALL SEED DIRECTLY THROUGH OR UNDER SHRUBS.

SEEDING APPLICATION:
SEEDING AND PLANTING SHOULD BEGIN IMMEDIATELY UPON COMPLETION OF THE STRUCTURE WHEN THE SOIL IS READY TO BE SEED. SEEDING SHOULD BE DONE IMMEDIATELY AFTER THE STRUCTURE IS COMPLETED. IF THE SOIL IS FLOODED, BROADCAST SEED EVENLY OVER EACH UNIT BY HAND SEEDING OR GREEN SEEDING. SEEDING RATES ARE GENERALLY LOW, OF THE USE OF A SEED FILLER (SUCH AS PAM-12) BY BANCOR LLC, GREENSBAY WI. (877) 460-5600.

UNLESS OTHERWISE SPECIFIED, SEED SHALL BE A MIX OF 1/3 PART PAM-12 (I.E., 4-12 LB. OF PAM-12 MIXED WITH 12 LB. OF SEED), APPLY HYDROMULCH OR LIGHT LAYER OF SALT-HAY, THRESHED STRAW OR PINE NEEDLES (STRAW COCONUT MATS OVER AREAS OF EXPECTED CONCENTRATED FLOWS TO CONTROL EROSION AND PROTECT EMERGING SEEDLINGS FROM EXTREME TEMPERATURES AND DRYING OUT). MULCH SHOULD BE SPRAYED TO ALLOW SUNLIGHT TO REACH THE GROUND. TRACKING OF SEED INTO BASIN SIDE SLOPES IS PERMITTED ONLY WHEN SOIL IS DRY. TRACKING IS NOT PERMITTED WHEN THE SOIL IS WET OR EXCESSIVELY MOIST. TRACKING IS NEVER PERMITTED IN THE BASE OF THE STRUCTURE.

NATURALIZED BMP FACILITY MAINTENANCE:
SEEDLINGS AND TRANSPLANTED TREES AND SHRUBS NEED TEMPORARY WATER UNTIL THEY BECOME WELL ROOTED. IRRIGATION OF PLANTED AREAS IS OF HIGH VALUE UNTIL PLANTS BECOME ESTABLISHED.

THE SEEDED PORTION OF THE BMP SHALL BE LIGHTLY IRRIGATED DAILY FOR A PERIOD OF TWO TO THREE WEEKS AFTER PLANTING IS COMPLETED TO MAINTAIN SOIL MOISTURE TO PROMOTE SEED GERMINATION AND ONCE WEEKLY THEREAFTER FOR A MINIMUM OF THE FIRST GROWING SEASON WHEN THERE IS INSUFFICIENT RAINFALL TO PROMOTE VIGOROUS ROOT ESTABLISHMENT (GENERALLY LESS THAN ONE INCH OF RAIN PER WEEK). TREES AND SHRUBS SHALL BE IRRIGATED TWO TIMES WEEKLY FOR THE FIRST GROWING SEASON AND NECESSARY THEREAFTER FOR A MINIMUM OF THE SECOND GROWING SEASON WHEN THERE IS INSUFFICIENT RAINFALL TO PROMOTE VIGOROUS ROOT ESTABLISHMENT (GENERALLY WHEN THERE IS LESS THAN ONE INCH OF RAIN PER WEEK).

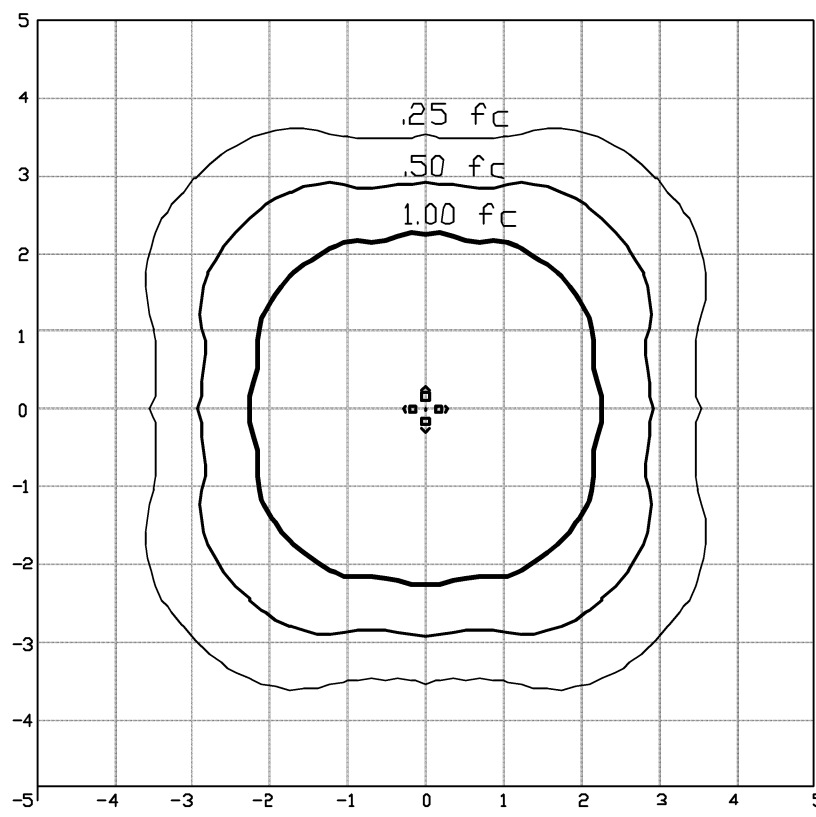
DURING THE FIRST YEAR, WHENEVER THE SEEDING VEGETATION REACHES 12 TO 18 INCHES TALL, IT SHOULD BE MOWED TO NO LESS THAN 8 INCHES BY ROTARY MOWER OR MOW EATER/BLADE TRIMMER TO PREVENT TREES FROM GOING TO SEED. DO NOT MOW WITH A LAWN MOWER. THEREAFTER, THE BIRDS SHALL BE LEFT TO NATURALIZE. OPTIONALLY, EVERY ONE TO FIVE YEARS THE MEADOW AREAS MAY BE MOWN TO A HEIGHT OF 6 INCHES IN LATE SEPTEMBER OR SPRING PRIOR TO MARCH 15, OR AS AN ALTERNATIVE TO MOWING, A HERBICIDE TREATMENT SHOULD NOT OCCUR AT ANY OTHER TIMES OF YEAR TO PROTECT NESTING WILDBIRDS. SPOT TREAT INVASIVE PLANTS WITH AN APPROPRIATE WATER-SAFE GLYPHOSATE HERBICIDE (ROXONE) DURING THE FIRST TWO GROWING SEASONS AT A MINIMUM AND AS NECESSARY THEREAFTER TO PREVENT REDUCTION OF COMPOST AND SOIL MOISTURE FOR ESTABLISHMENT FOR DESIRABLE SPECIES. WOODY PLANT SPECIES SHALL BE LEFT TO NATURALIZE AND SHALL NOT BE DISTURBED BY MEADOW MAINTENANCE.

AMENDED SOIL SPECIFICATION

AREAS IDENTIFIED ON THE PLAN TO RECEIVE **AMENDED SOILS** SHALL RECEIVE AMENDED SOILS AS SPECIFIED HEREIN.

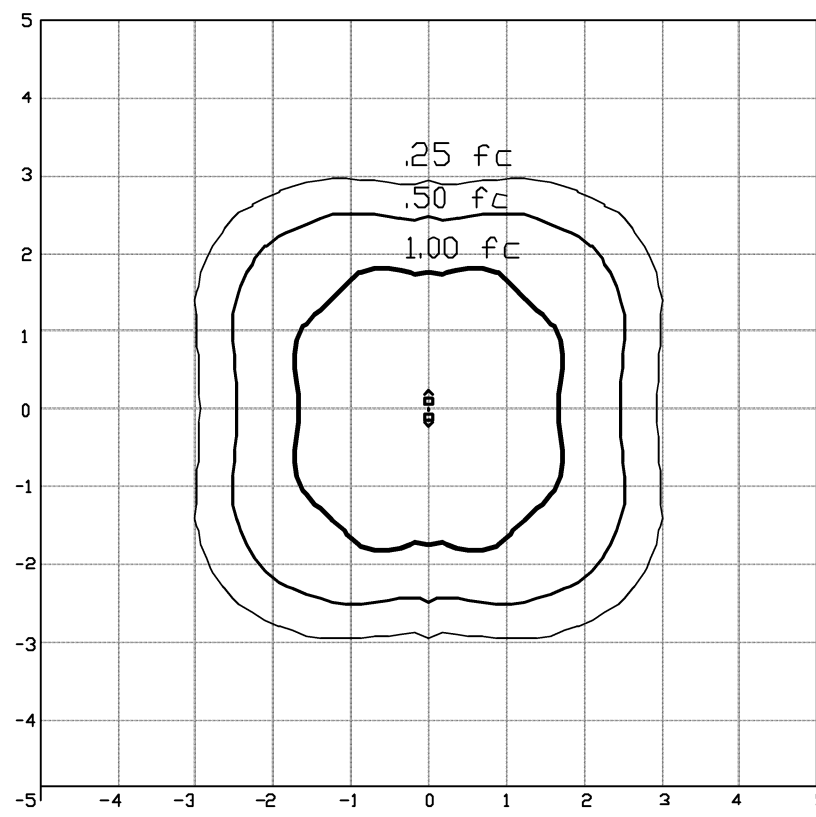
SPECIFICATIONS
1. **SCOPE**
THE AMENDED SOIL APPLICATION COVERS THE USE OF COMPOST AND MANUFACTURED MICROBIAL PRODUCTS FOR SOIL AMENDMENT. SOIL AMENDMENT IS NECESSARY TO INCREASE INFILTRATION POTENTIAL AND SUPPORT HEALTHY VEGETATIVE COMMUNITIES.

2. **COMPOST MATERIALS**
A. PRODUCTS SPECIFIED FOR USE IN THIS APPLICATION INCLUDE THE FOLLOWING. UTILIZING MORE THAN ONE OF THE FOLLOWING MAY PROVIDE ADDED BENEFIT AND IS ENCOURAGED.
(A) COMPOSTED YARD AND GARDEN MATERIALS
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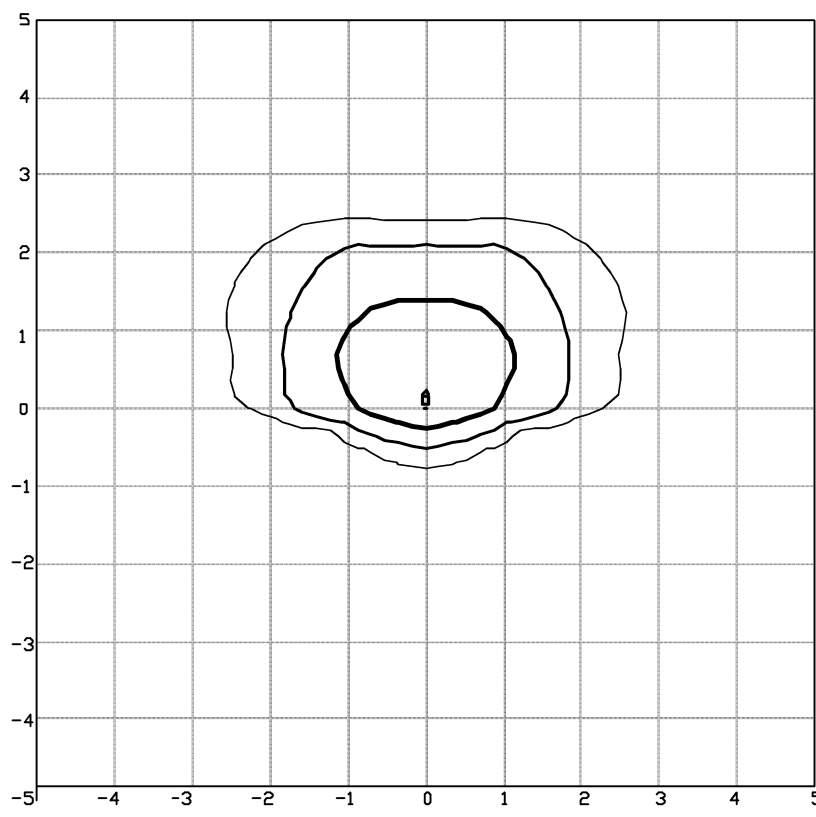
A
AMERICAN ELECTRIC LIGHTING
'ATB 0 LED'
30BLED85 LED Array
83 W LED
4000K CCT
Type R4 Forward Throw Flat Lens
Quad Head@90 Degrees
Color: Gray
25 ft Pole Height
Pole: Holophane RTS2570B

1 Block = 1 Mounting Height



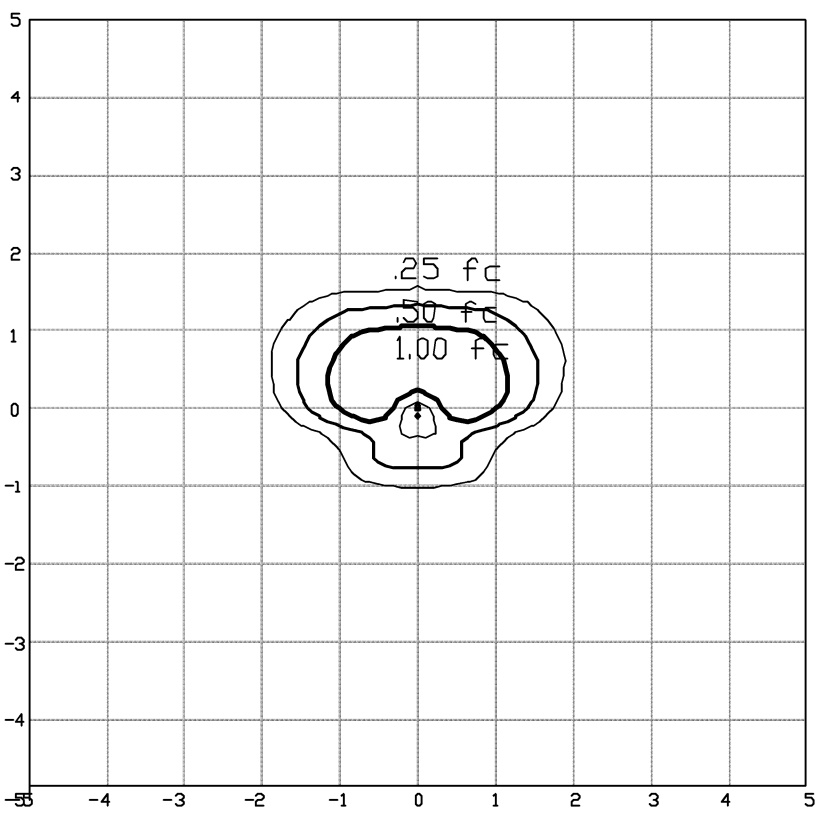
B
AMERICAN ELECTRIC LIGHTING
'ATB 0 LED'
30BLED85 LED Array
83 W LED
4000K CCT
Type R5 Square Throw Flat Lens
Twin Head@180 Degrees
Color: Gray
25 ft Pole Height
Pole: Holophane RTS2559B

1 Block = 1 Mounting Height



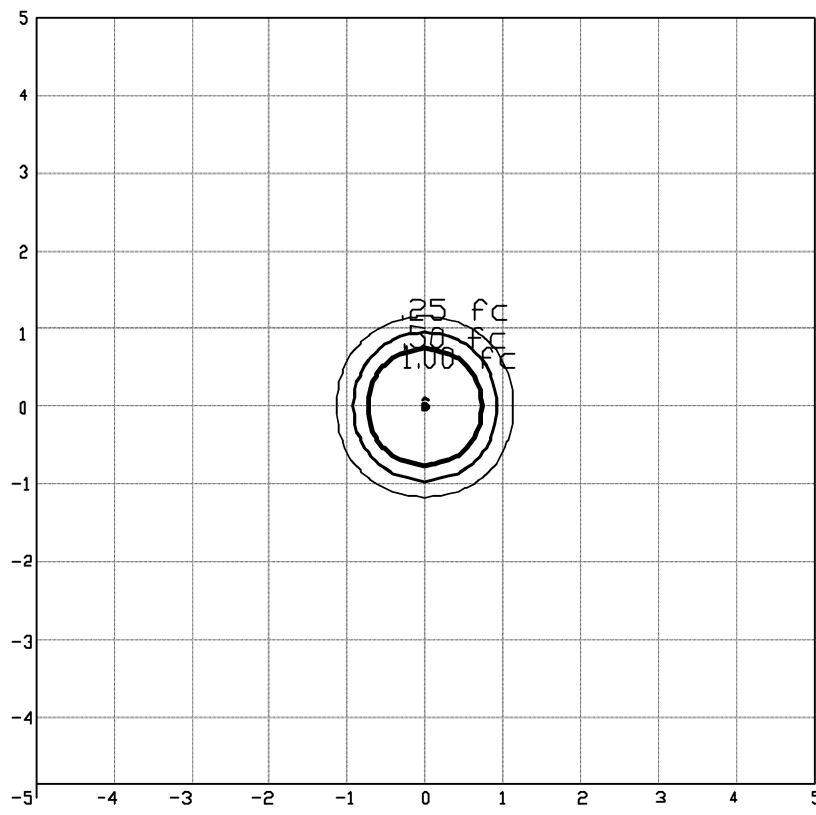
C
AMERICAN ELECTRIC LIGHTING
'ATB 0 LED'
30BLED85 LED Array
83 W LED
4000K CCT
Type R4 Forward Throw Flat Lens
Single Rear Shield
Color: Gray
25 ft Pole Height
Pole: Holophane RTS2559B

1 Block = 1 Mounting Height



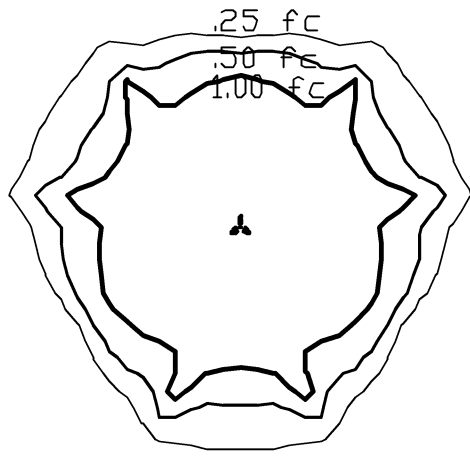
D
AMERICAN ELECTRIC LIGHTING
'POSTOP 245 CONTEMPO LED'
20LED10 LED Array
72W LED
4000K CCT
Type R3 Optic Lens
Single
14 ft Pole Height
Pole: Holophane RTA1450C

1 Block = 1 Mounting Height

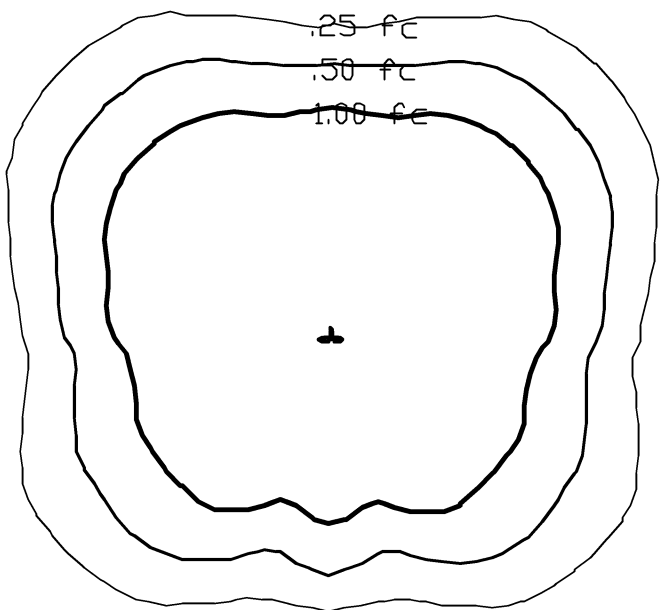


E
AMERICAN ELECTRIC LIGHTING
'POSTOP 245 CONTEMPO LED'
20LED10 LED Array
72W LED
4000K CCT
Type V Symmetric Glass Lens
Single Hood Style A
Color: Gray
14 ft Pole Height
Pole: Holophane RTA1450C

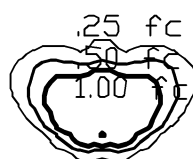
1 Block = 1 Mounting Height



EXISTING FIXTURE
'Ex-1'



EXISTING FIXTURE
'Ex-2'



EXISTING FIXTURE
'Ex-3'

NOTE: ALL PROPOSED LAMPS ARE TO BE 4000K LED.

Schedule											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A	1	American Electric Lighting	ATB0 30BLED85 XXXXX R4 4K/5K QUAD@90 DEGREES 25 FT MOUNTING HEIGHT	ATB0 SERIES LED 850MA TYPE 4 4000K/5000K CCT	LED Array	1	ATB0_30BLED85_XX_XXX_R4_4K_5K.ies	10588	0.85	332
	B	6	American Electric Lighting	ATB0 30BLED85 XXXXX R5 4K/5K TWIN HEAD@180 DEGREES 25 FT POLE	ATB0 SERIES LED 850MA TYPE 5 4000K/5000K CCT	LED Array	1	ATB0_30BLED85_XX_XXX_R5_4K_5K.ies	11208	0.85	166
	C	6	American Electric Lighting	ATB0 30BLED85 XXXXX R4 4K/5K HSS SINGLE 25 FT POLE REAR SHIELD	ATB0 SERIES LED 850MA TYPE 4 4000K/5000K CCT HSS	LED Array	1	ATB0_30BLED85_XX_XXX_R4_4K_5K_HSS.ies	8372	0.85	83
	D	6	American Electric Lighting	245L 20LEDE10 XXXX 4K R3 RNA SINGLE 14 FT POLE	245L CONTEMPO LED, ACRYLIC TYPE 3 ASYM. ACRYLIC RAIN PANEL OPTIC	LED	1	245L_20LEDE10_XXXX_4K_R3_RNA.ies	5976	0.85	71
	E	6	American Electric Lighting	245L 20LEDE10 XXXX 4K R5 AY SINGLE 14 FT POLE	245L CONTEMPO LED, ACRYLIC TYPE 5 SYM. REFRACTIVE OPTIC	LED	1	245L_20LEDE10_XXXX_4K_R5_AY.ies	5308	0.85	72
	Ex-1	5	EXISTING FLOOD-LIGHTING 3@130 30 FT POLE HEIGHT	HFA 400M RN (PROBE)	LARGE HAZARDOUS LOCATION FLOODLIGHT WITH IP65 AND UL CLASS 1 DIVISION 2 RATING AND RN DISTRIBUTION	ONE 400-WATT CLEAR BT-37 METAL HALIDE HORIZONTAL POSITION	1	HFA_400M_RN_(PROBE).ies	32000	0.72	1386
	Ex-2	1	EXISTING AREA LIGHTING 3@90 DEGREES 30 FT POLE HEIGHT	DSX1 LED P6 40K TFTM MVOLT	DSX1 LED P6 40K TFTM MVOLT	LED	1	DSX1_LED_P6_40K_TFTM_MVOLT.ies	19037	0.84	489
	Ex-3	1	EXISTING WALL MOUNT SINGLE 14 FT HEIGHT	TWH 100M FS	DIE-CAST GENERAL PURPOSE WALLPACK WITH GLASS REFRACTOR AND FULL SHIELD	ONE 100-WATT CLEAR ED-17 METAL HALIDE HORIZONTAL POSITION	1	TWH_100M_FS.ies	8500	0.72	140

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Adjacent Existing Parking Lot	+	1.2 fc	55.5 fc	0.0 fc	N/A	N/A
Bldg A Parking	+	1.3 fc	3.1 fc	0.5 fc	6.2:1	2.6:1
Bldg B Exit	+	1.1 fc	1.2 fc	1.0 fc	1.2:1	1.1:1
Bldg B Parking	+	1.2 fc	2.7 fc	0.5 fc	5.4:1	2.4:1
Bldg C Parking	+	1.1 fc	2.8 fc	0.5 fc	5.6:1	2.2:1
Bldg D Drive Lanes	+	1.5 fc	3.2 fc	0.5 fc	6.4:1	3.0:1
Bldg D Parking Front Lot	+	1.4 fc	2.3 fc	0.6 fc	3.8:1	2.3:1
Bldg D Rear Service & Parking	+	1.5 fc	6.6 fc	0.3 fc	22.0:1	5.0:1
Entrance Drive New Pottstown Ave	+	1.1 fc	2.2 fc	0.3 fc	7.3:1	3.7:1
Entrance Drive New Seminary Street	+	1.6 fc	2.4 fc	0.6 fc	4.0:1	2.7:1
Existing Entrance Drive	+	2.6 fc	37.2 fc	0.1 fc	372.0:1	26.0:1
Pottstown Ave	+	0.2 fc	6.7 fc	0.0 fc	N/A	N/A
Ramp	+	5.6 fc	14.2 fc	1.3 fc	10.9:1	4.3:1
Seminary Street	+	0.1 fc	0.6 fc	0.0 fc	N/A	N/A
Zone A & B	+	1.7 fc	3.5 fc	0.6 fc	5.8:1	2.8:1

Note: These plans are not to be used for construction unless the plan contains a red stamp indicating 'issued for construction' by Horizon Engineering Associates, LLC. Horizon Engineering Associates, LLC shall assume no liability for construction performed from plans not containing this stamp.

NO.	DATE	REVISION
18	06-30-2018	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
17	11-16-2017	REVISION: TO ACCOMMODATE AN ALTERNATIVE LANDSCAPE AND STORMWATER BASIN STRUCTURE
16	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
15	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
14	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
13	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
12	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
11	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
10	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
9	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
8	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
7	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
6	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
5	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
4	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
3	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
2	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW
1	10-26-2017	REVISION: PER PLAN REVIEW BY MONROE COUNTY CONSERVATION OFFICE AND INTERNAL REVIEW

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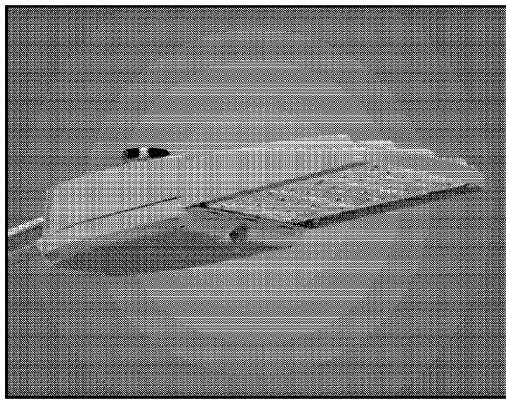
FINAL LAND DEVELOPMENT
LIGHTING DETAILS (A)
PENNSBURG SQUARE SHOPPING CENTER
WESTOVER COMPANIES
PENNSBURG BOROUGH, MONROE COUNTY, PENNSYLVANIA

PROJECT MANAGER	CDS
DRAWING FILE NAME	Sht_LZan-DET
PLAN ORIGINATION DATE	10-18-2017
PLAN SCALE	N.T.S.
PROJECT NUMBER	2096
SHEET NUMBER	19 OF 27



Autobahn Series ATB0 Roadway Lighting

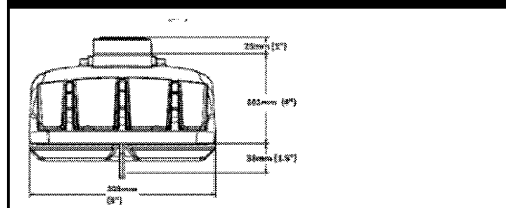
PRODUCT OVERVIEW



Applications:

Roadways
Off ramps
Residential streets
Parking lots

DIMENSIONS



Effective Projected Area (EPA): The EPA for the ATB0 is 0.76 sq. ft.
Approx. Wt. = 14 lbs.

STANDARDS

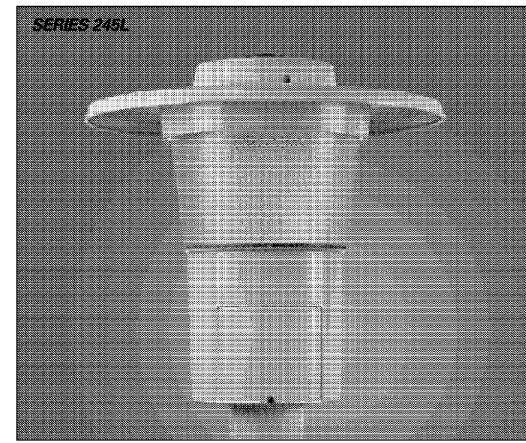
DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/DLC to confirm which versions are qualified.
Color temperatures of 3-3000K must be specified for International Dark-Sky Association certification.
Rated for -40°C to 40°C ambient
CSA Certified to U.S. and Canadian standards
Complies with ANSI: C136.2, C136.10, C136.14, C136.31, C136.15, C136.37

Note: Specifications subject to change without notice. Actual performance may differ as a result of end-user environment and application.
© 2014-2018 Acuity Brands Lighting, Inc. ATB0 02/27/18



Contempo LED Series 245L

PRODUCT OVERVIEW



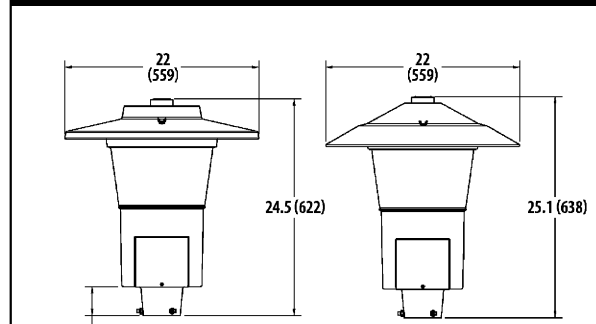
Features:

- Die-cast aluminum housing and spun aluminum hood for long-life performance
- Optical assembly designed for maximum performance, available in Type II, Type III and Type V
- Multi-gasketing to provide weatherproof protection of optical assembly for full illumination performance
- Hinged hood and captive screw latching provision afford quick, easy access to electrical and optical areas for servicing
- Available with two different style hoods and an added scroll option for a more decorative look
- Cone mounting fitter with three set screws allows secure installation to pole sizes 2-3/8" or 3" O.D.
- Prismatic reflectors available in acrylic, glass and polycarbonate
- Rain pattern lens available in acrylic or polycarbonate
- Surge protection device (standard) exceeds ANSI C82.41 Category C1 criteria (surge tested at 10kV/5kA)
- Complies with ANSI: C136.2, C136.10, C136.15
- CSA listed and suitable for up to 30°C ambient
- Rated L70, LED life greater than 100,000 hours at 25°C
- Replaces up to 150W HPS light source incumbent models
- LED electronic 0V-10V dimmable driver
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/DLC to confirm which versions are qualified.

Applications:

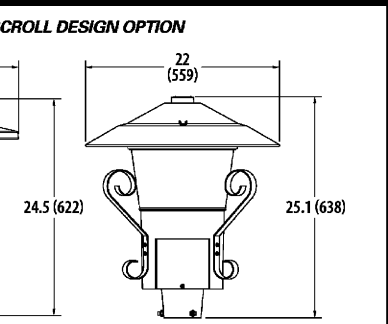
Streetscapes
Walkways
Pathways
Parks

DIMENSIONS



Effective Projected Area (EPA)
The EPA for the Contempo Series 245L is 1.3 sq. ft.
Approx. Wt. = 32 lbs.

DIMENSIONS

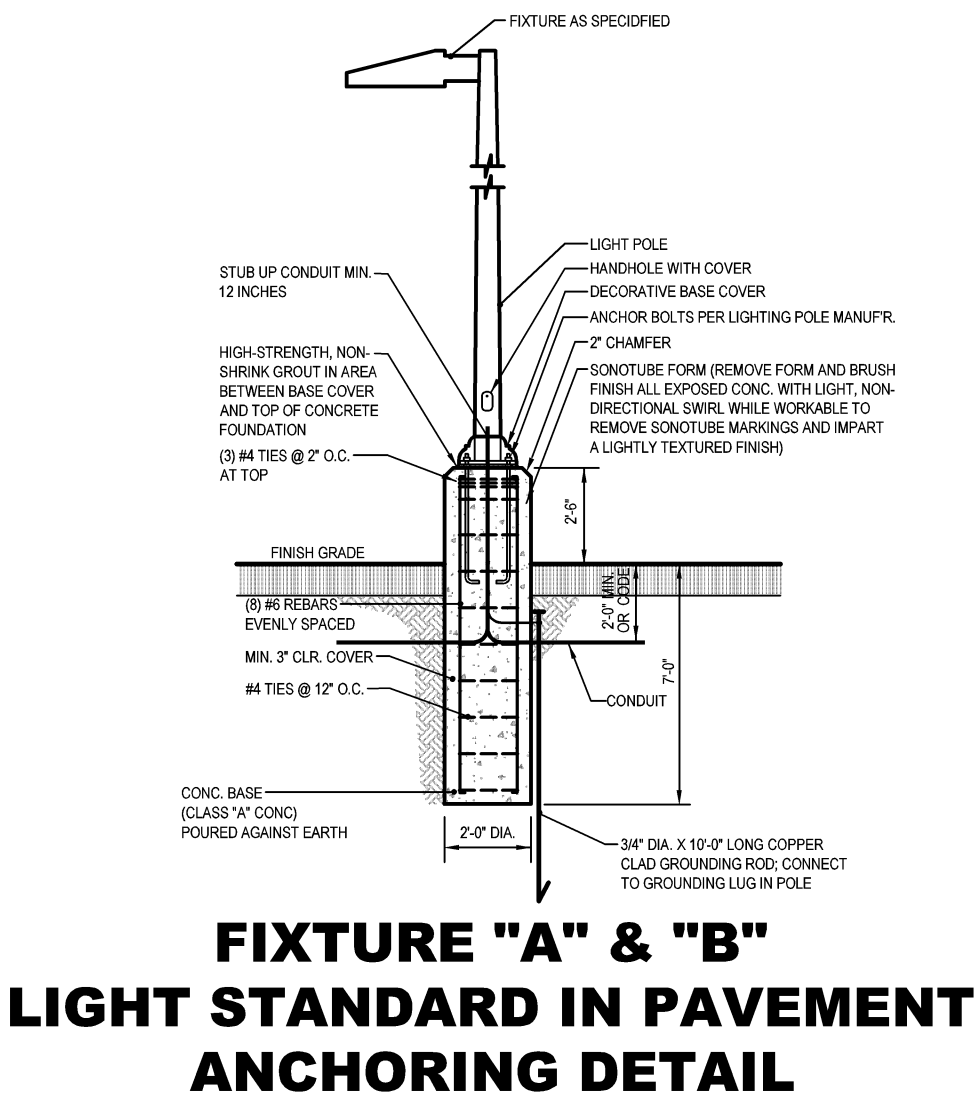


Effective Projected Area (EPA)
The EPA for the Decorative Scroll Option is 1.8 sq. ft.
Approx. Wt. = 32 lbs.

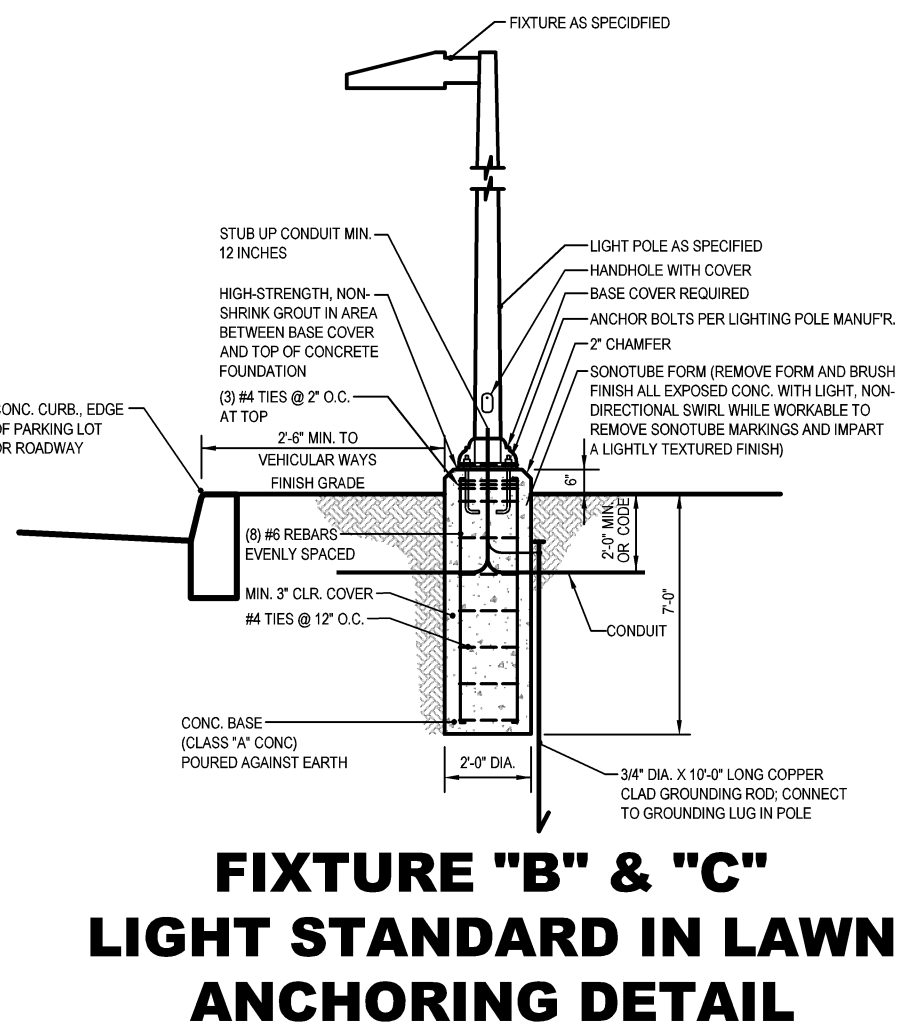
All dimensions are inches (imperial) unless otherwise noted.



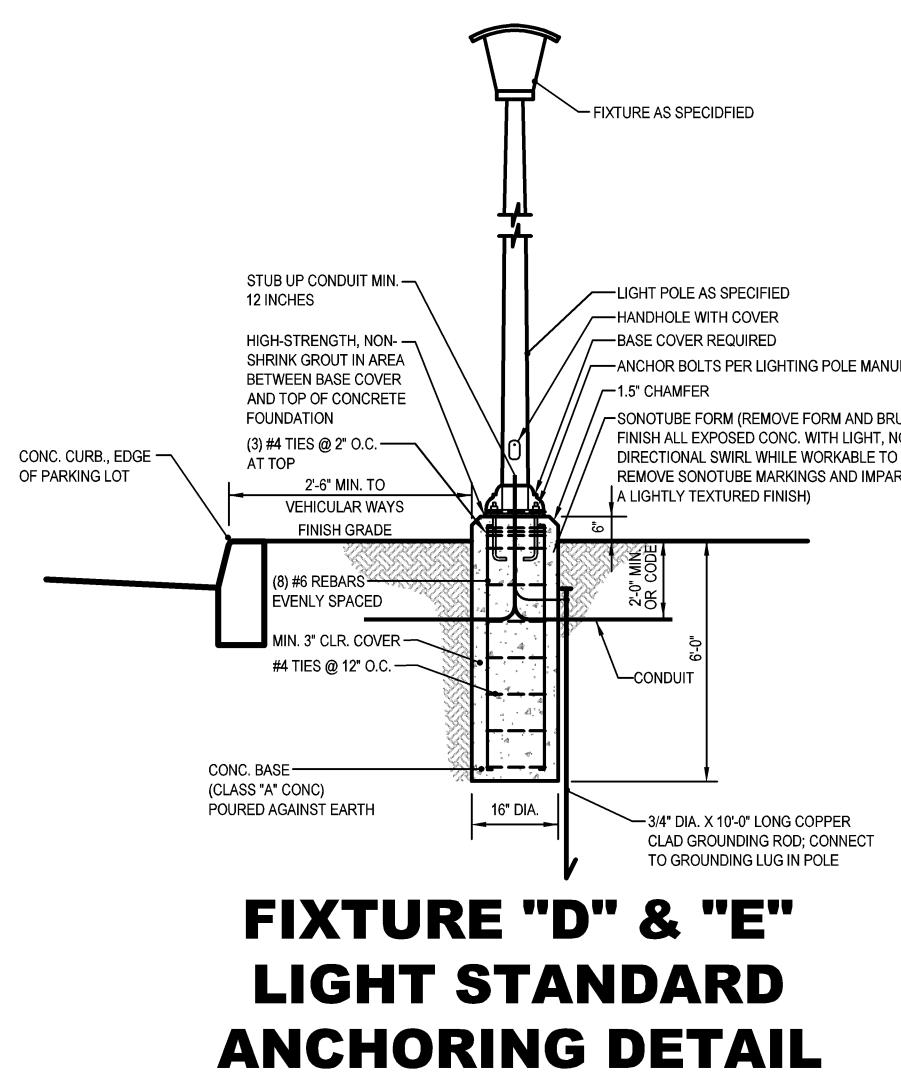
Note: Specifications subject to change without notice.
Contempo Series 245L LED



N.T.S.



N.T.S.



N.T.S.

Note: These plans are not to be used for construction unless the plan contains a red stamp indicating "issued for construction" by Horizon Engineering Associates, LLC. Horizon Engineering Associates, LLC shall assume no liability for construction performed from plans not containing this stamp.

NO.	DATE	REVISION
14	03-20-2018	REVISED FOR PENNSBURG SQUARE SHOPPING CENTER AND WESTOVER COMPANIES
13	11-15-2017	REVISED TO ACCOMMODATE AN ALTERNATIVE LANDSCAPE STANDARD (BASE STRUCTURE)
12	10-18-2017	REVISED FOR PENNSBURG SQUARE SHOPPING CENTER AND WESTOVER COMPANIES
11	09-14-2017	REVISED FOR PENNSBURG SQUARE SHOPPING CENTER AND WESTOVER COMPANIES
10	09-14-2017	REVISED FOR PENNSBURG SQUARE SHOPPING CENTER AND WESTOVER COMPANIES
9	09-14-2017	REVISED FOR PENNSBURG SQUARE SHOPPING CENTER AND WESTOVER COMPANIES
8	09-14-2017	REVISED FOR PENNSBURG SQUARE SHOPPING CENTER AND WESTOVER COMPANIES
7	09-14-2017	REVISED FOR PENNSBURG SQUARE SHOPPING CENTER AND WESTOVER COMPANIES
6	09-14-2017	REVISED FOR PENNSBURG SQUARE SHOPPING CENTER AND WESTOVER COMPANIES
5	09-14-2017	REVISED FOR PENNSBURG SQUARE SHOPPING CENTER AND WESTOVER COMPANIES
4	09-14-2017	REVISED FOR PENNSBURG SQUARE SHOPPING CENTER AND WESTOVER COMPANIES
3	09-14-2017	REVISED FOR PENNSBURG SQUARE SHOPPING CENTER AND WESTOVER COMPANIES
2	09-14-2017	REVISED FOR PENNSBURG SQUARE SHOPPING CENTER AND WESTOVER COMPANIES
1	09-14-2017	REVISED FOR PENNSBURG SQUARE SHOPPING CENTER AND WESTOVER COMPANIES

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FINAL LAND DEVELOPMENT
LIGHTING DETAILS (B)

PENNSBURG SQUARE SHOPPING CENTER
WESTOVER COMPANIES

PENNSBURG BOROUGH, MONTGOMERY COUNTY, PENNSYLVANIA

PROJECT MANAGER	CDS
DRAWING FILE NAME	Sht_Zlan-DET
PLAN ORIGINATION DATE	10-18-2017
PLAN SCALE	N.T.S.
PROJECT NUMBER	2096
SHEET NUMBER	20 OF 27

ANCHOR BOLTS – Steel anchor bolts shall be per AASHTO M314 or ASTM F 1554 - Grade 55, hot dip galvanize. Nuts and washers shall be per AASHTO M314-90 or ASTM F 1554 – hot dip galvanized.

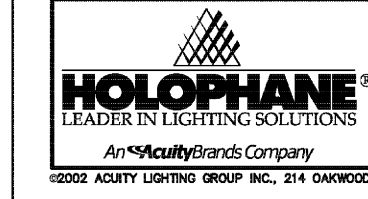


1 2 3 4 5

ISH	BK	BLACK PAINT
	BZ	BRONZE PAINT
	GN	GREEN PAINT
	GR	GRAY PAINT
	HG	HOT DIP GALVANIZE
	PP	PRIME PAINT
	WH	WHITE PAINT
CTIONS	1	FESTOON BOX
	2	NUT COVER
	3	TAMPER RESISTANT SCREWS
	4	VIBRATION DAMPENER

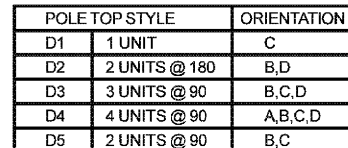
2. "AO" added to the pole catalog prefix designates architectural outdoor products. EPA and weight data is the same as shown.

RTS AASHTO.PMD (HL-2077A) 5/29/13



ORDER NO: _____	DRAWING NO. _____
TYPE: _____	CAD MODEL: <u>BR-1055-XX</u>
	DATE: <u>10-21-03</u>
	Sheet 1 of 1

ANCHOR BOLTS – Steel anchor bolts shall be per AASHTO M314 or ASTM F 1554 - Grade 55, hot dip galvanize. Nuts and washers shall be per AASHTO M314-90 or ASTM F 1554 – hot dip galvanized.

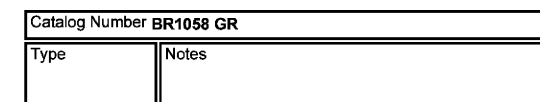
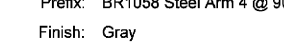
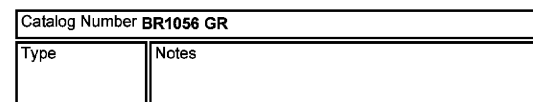
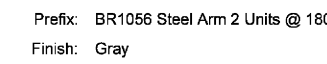


1	2	3	4	5
1	2	3	4	5

AK	BLACK ANODIZE
AZ	BRONZE ANODIZE
BJZ	BLACK PAINT
BJZ	BRONZE PAINT
GB	GREEN PAINT
GR	GRAY PAINT
SN	SATIN BRUSH
WH	WHITE PAINT
1	FESTOON BOX
2	BASE COVER
3	TAMPER RESISTANT
4	SCREW
QR	VIBRATION
	DAMPENER

2. "AO" added to the pole catalog prefix designates architectural outdoor products. EPA and weight data is the same as shown on tables without AO prefix.

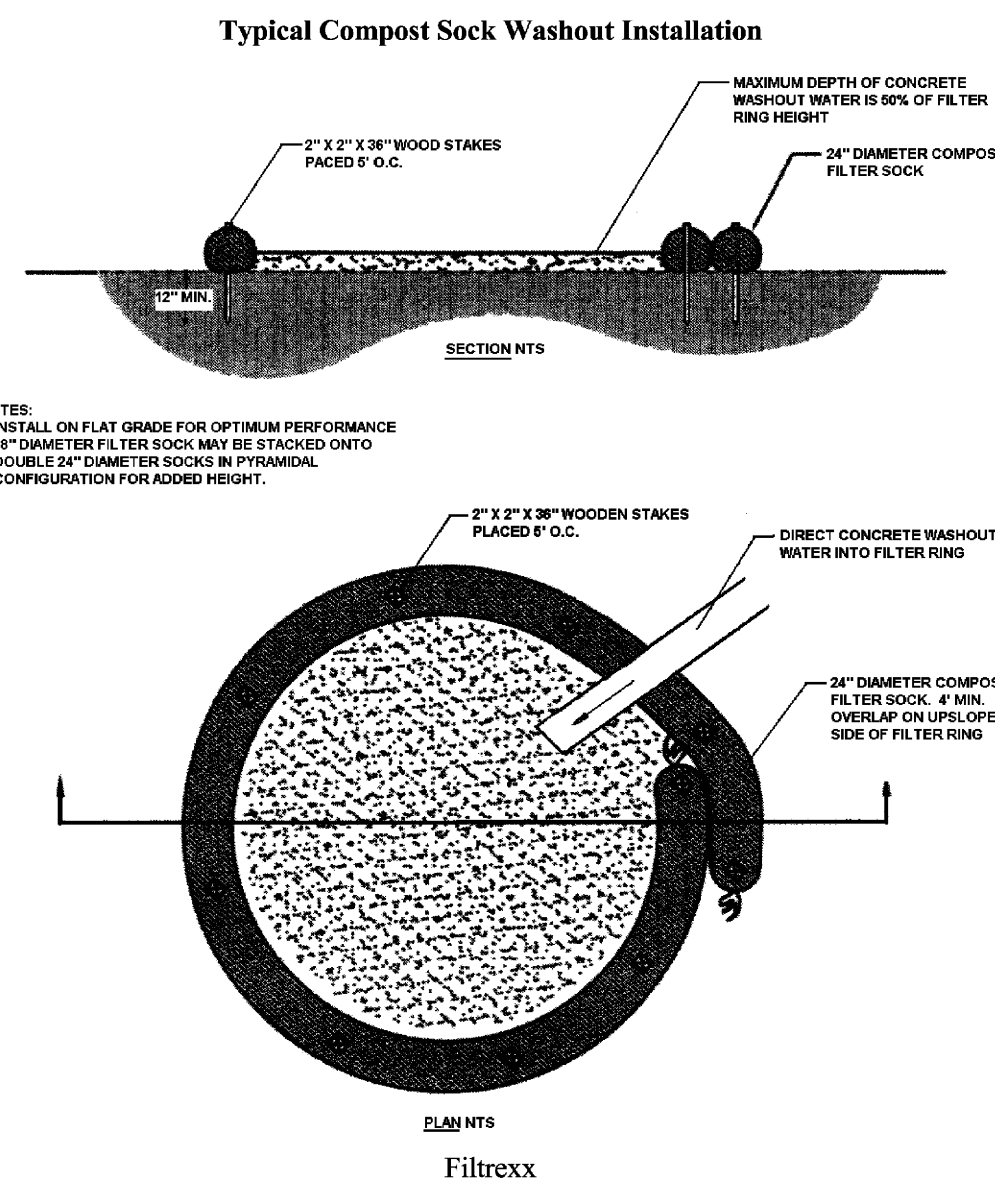
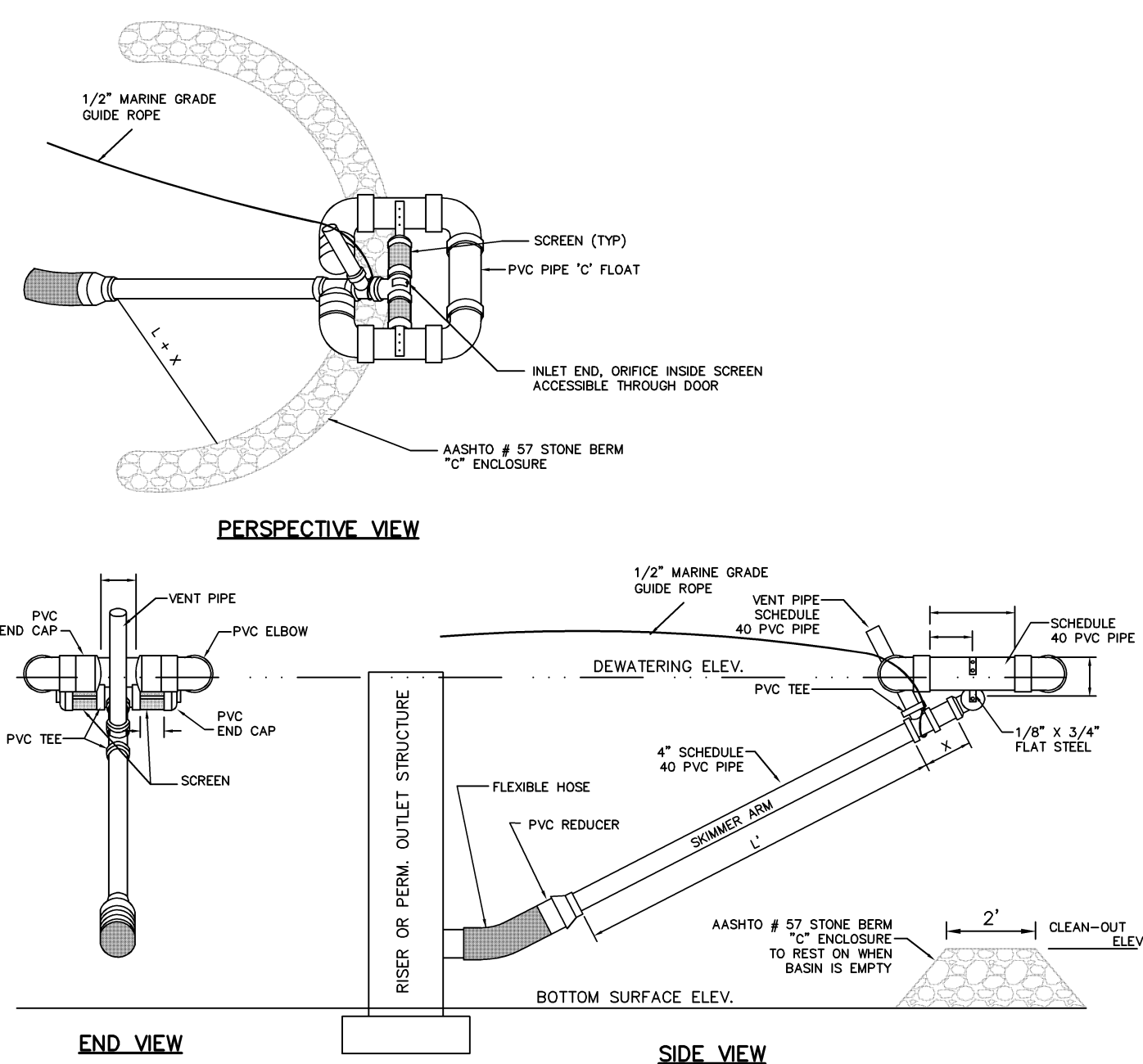
RTA PMD (HL-2076) 5/20/13



Catalog #8R1056 GR Dwg. # HLP-40648 Page: 1 of

Catalog #BR1058 GR Dwg. # HLP-32486 Page: 1 of 1

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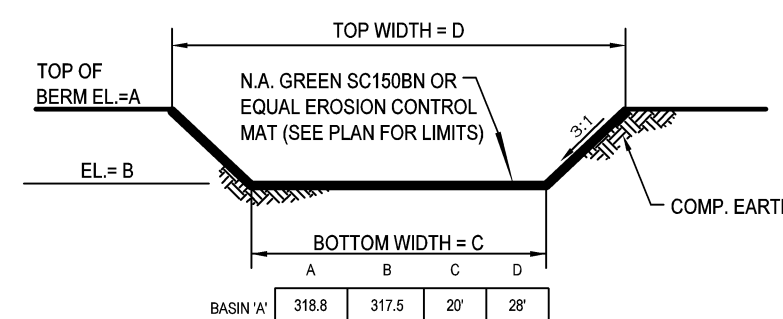
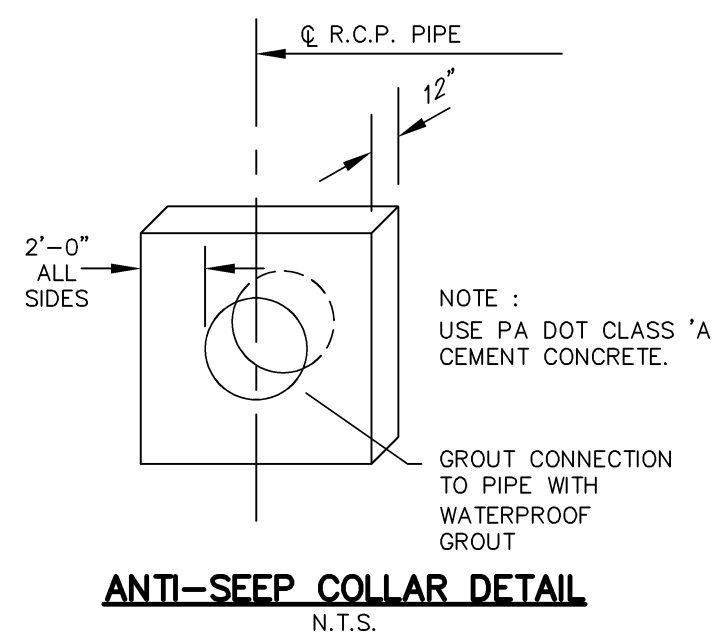
* ALSO REFER TO SKIMMER DETAIL, BAFFLE DETAIL, EMERGENCY SPILLWAY, ENERGY DISSIPATOR

CLEAN OUT STAKES MUST BE PLACED AT HALF DISTANCES FROM POINT OF CONCENTRATED INFLOWS TO SEDIMENTATION BASIN OUTLETS. WHEN SEDIMENT HAS ACCUMULATED TO THE CLEAN OUT ELEVATION ON ANY STAKE, THE SEDIMENT MUST BE REMOVED TO RESTORE BASIN CAPACITIES.

SEDIMENTATION BASIN MUST BE PROTECTED FROM UNAUTHORIZED ACTS OF THIRD PARTIES

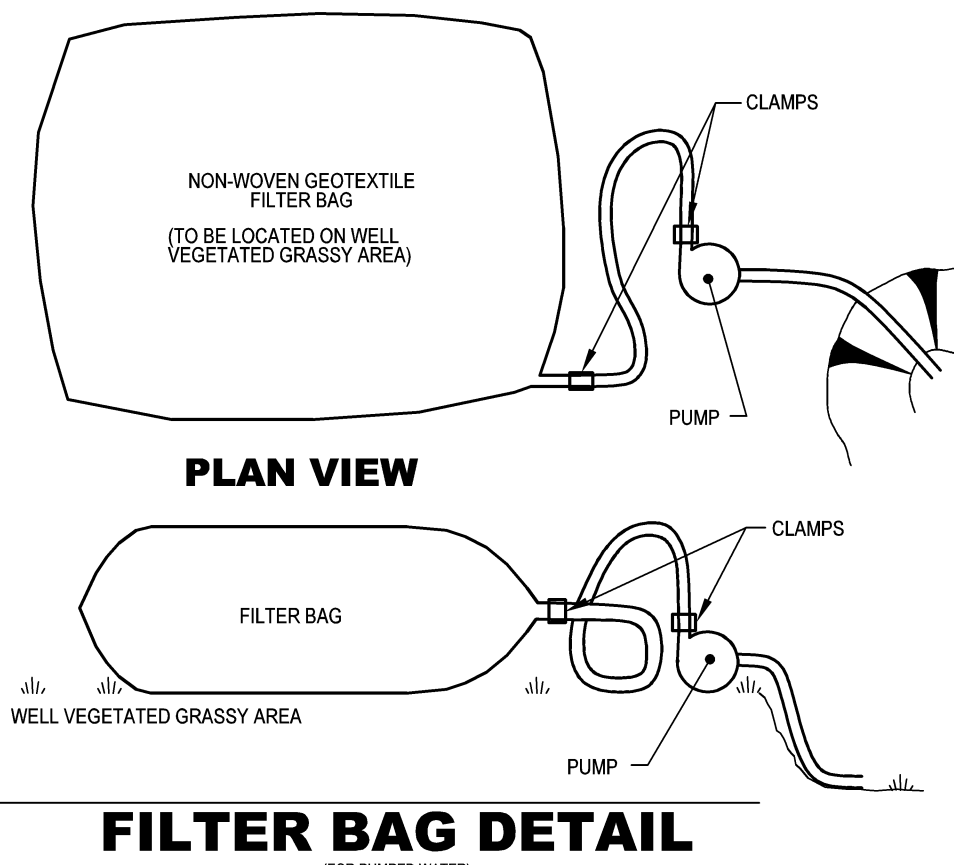
SEDIMENTATION BASINS W/ FAIRCLOTH SKIMMERS*

N.T.S.



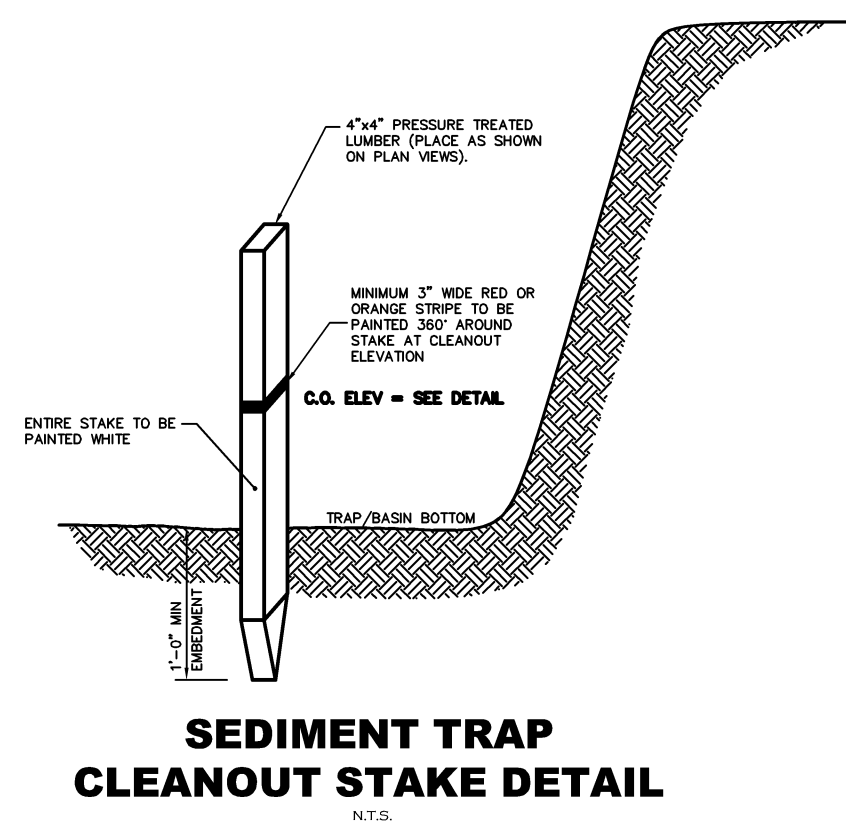
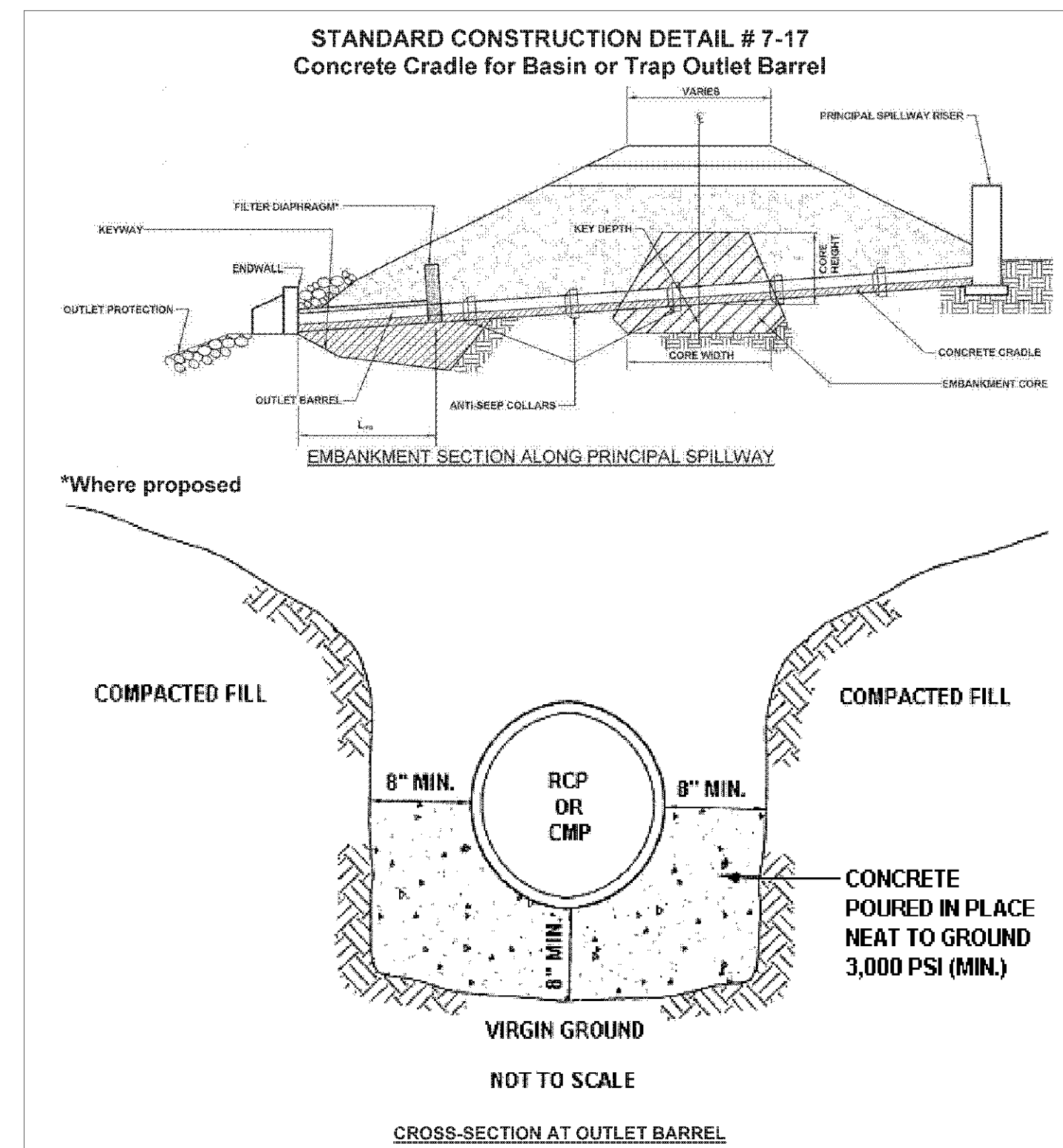
TYPICAL CROSS-SECTION SEDIMENT BASIN EMERGENCY SPILLWAY

N.T.S.



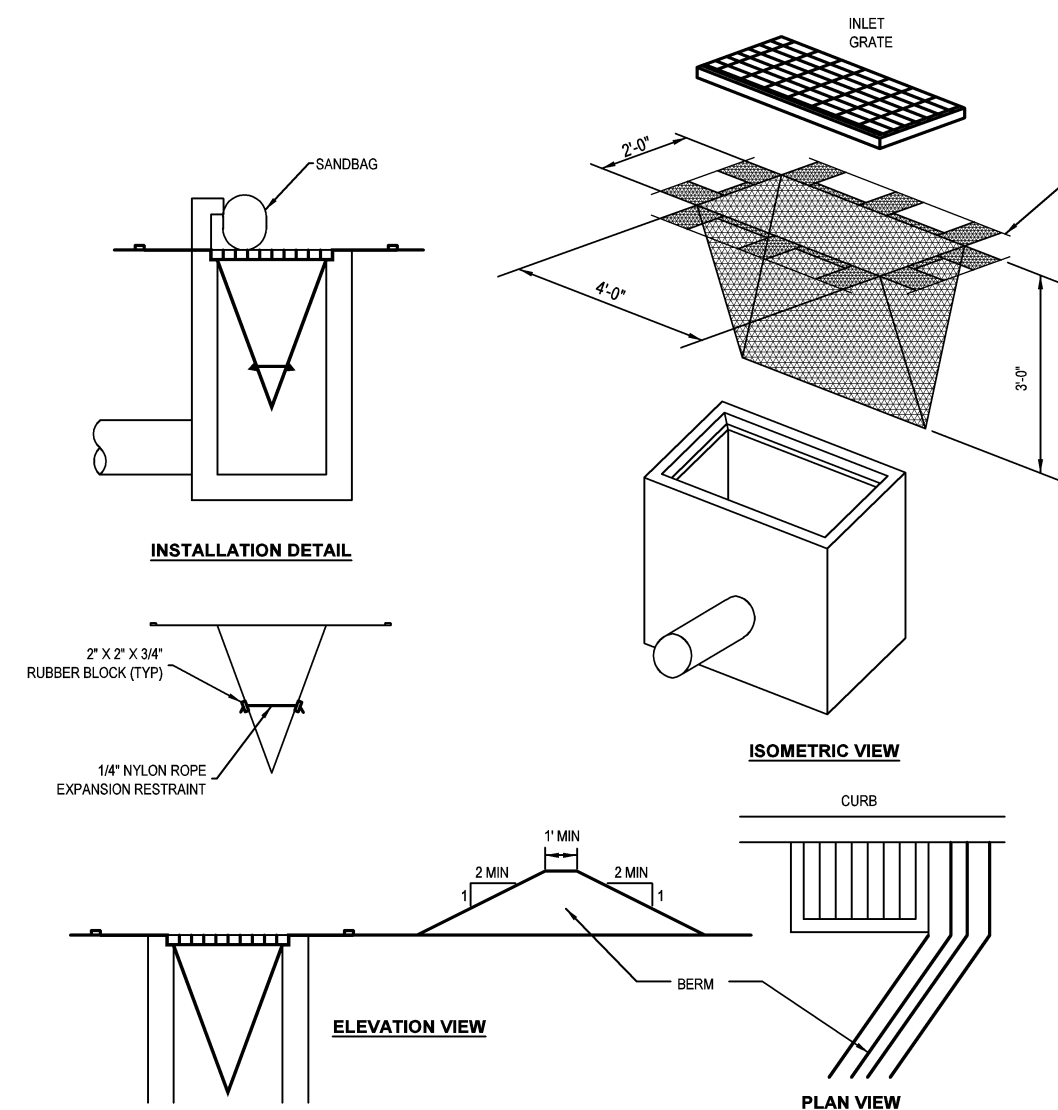
FILTER BAG DETAIL

(FOR PUMPED WATER)



SEDIMENT TRAP CLEANOUT STAKE DETAIL

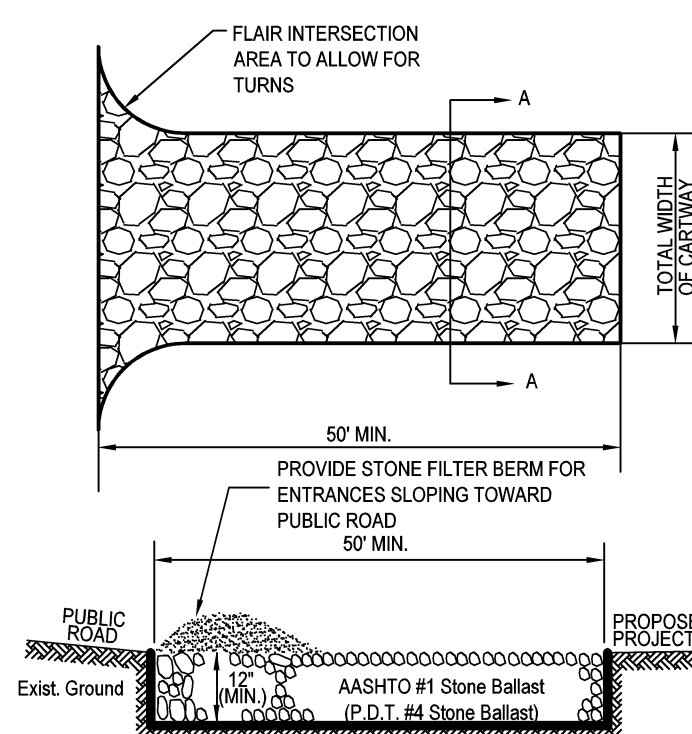
NT2



INLET FILTER BAG (CURBED ROADWAYS)

N.T.S.

- NOTES:
1. A SUITABLE IMPERVIOUS GEOMEMBRANE SHOULD BE PLACED AT THE LOCATION OF THE WASHOUT.
2. COMPOST SOCKS SHOULD BE STAKED IN THE MANNER RECOMMENDED BY THE MANUFACTURER AROUND THE PERIMETER OF THE GEOMEMBRANE SO AS TO FORM A RING WITH THE ENDS OF THE SOCK LOCATED AT THE UPOLE CORNER.
3. CARE MUST BE TAKEN TO ENSURE CONTINUOUS CONTACT OF THE SOCK WITH THE GEOMEMBRANE AT ALL LOCATIONS.
4. WHERE NECESSARY, SOCKS MAY BE STACKED AND STAKED SO AS TO FORM A TRIANGULAR CROSS-SECTION.
5. THE WASHOUT FACILITY SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.
6. ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY.
7. GEOMEMBRANE SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.



PROVIDE GEOTEXTILE LINING BELOW
ENTIRE PAD. (PROPEX 2002 OR
EQUIV.)

TIRE CLEANING AREA

ING CONSTRUCTION

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11	REVIEWED BY 1. A. C. BARNES FOR UNIVERSITY COUNTY CONSERVATION AND HISTORICAL REVIEW	20-05-2017
10	REVIEWED BY 1. A. C. BARNES FOR UNIVERSITY COUNTY CONSERVATION AND HISTORICAL REVIEW	11-05-2017
9	REVIEWED BY 1. A. C. BARNES FOR UNIVERSITY COUNTY CONSERVATION AND HISTORICAL REVIEW	09-05-2017
8	REVIEWED BY 1. A. C. BARNES FOR UNIVERSITY COUNTY CONSERVATION AND HISTORICAL REVIEW	09-05-2017
7	REVIEWED BY 1. A. C. BARNES FOR UNIVERSITY COUNTY CONSERVATION AND HISTORICAL REVIEW	09-05-2017
6	REVIEWED BY 1. A. C. BARNES FOR UNIVERSITY COUNTY CONSERVATION AND HISTORICAL REVIEW	09-05-2017
5	REVIEWED BY 1. A. C. BARNES FOR UNIVERSITY COUNTY CONSERVATION AND HISTORICAL REVIEW	09-05-2017
4	REVIEWED BY 1. A. C. BARNES FOR UNIVERSITY COUNTY CONSERVATION AND HISTORICAL REVIEW	09-05-2017
3	REVIEWED BY 1. A. C. BARNES FOR UNIVERSITY COUNTY CONSERVATION AND HISTORICAL REVIEW	09-05-2017
2	REVIEWED BY 1. A. C. BARNES FOR UNIVERSITY COUNTY CONSERVATION AND HISTORICAL REVIEW	09-05-2017
1	REVIEWED BY 1. A. C. BARNES FOR UNIVERSITY COUNTY CONSERVATION AND HISTORICAL REVIEW	09-05-2017

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FINAL LAND DEVELOPMENT
EROSION AND SEDIMENTATION CONTROL DETAILS (A)
PENNSBURG SQUARE SHOPPING CENTER
2809 KADYOR
WESTOVER COMPANIES

SITE SITUATE IN
PENNSBURG BOROUGH MONTGOMERY COUNTY PENNSYLVANIA

PROJECT MANAGER	CDS
DRAWING FILE NAME	Sht_ZES-DET
PLAN ORIGINATION DATE	10-18-2017
PLAN SCALE	N.T.S.
PROJECT NUMBER	2096
SHEET NUMBER	

23 OF 27

SEEDING NOTES

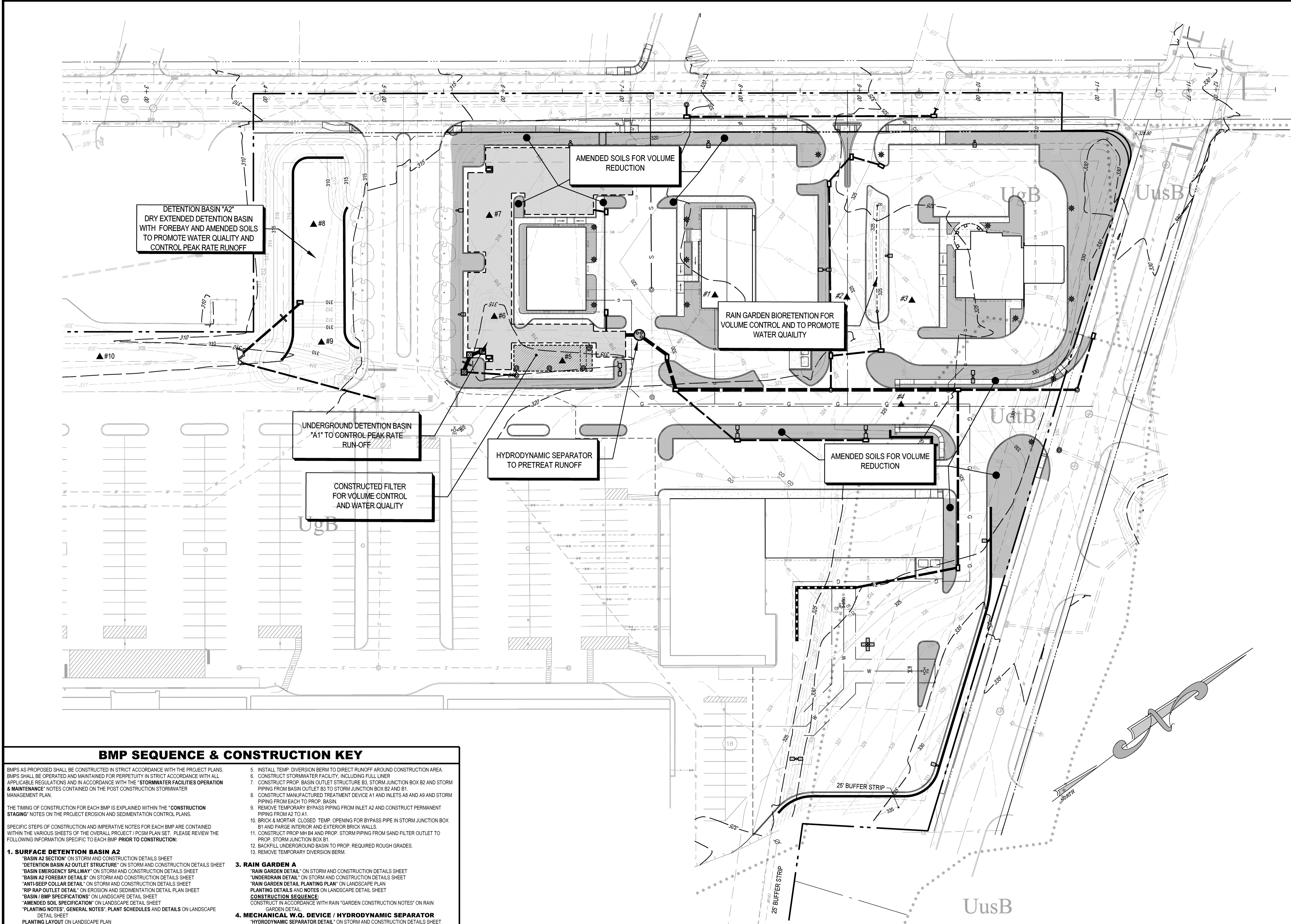
PLAN
T
DET



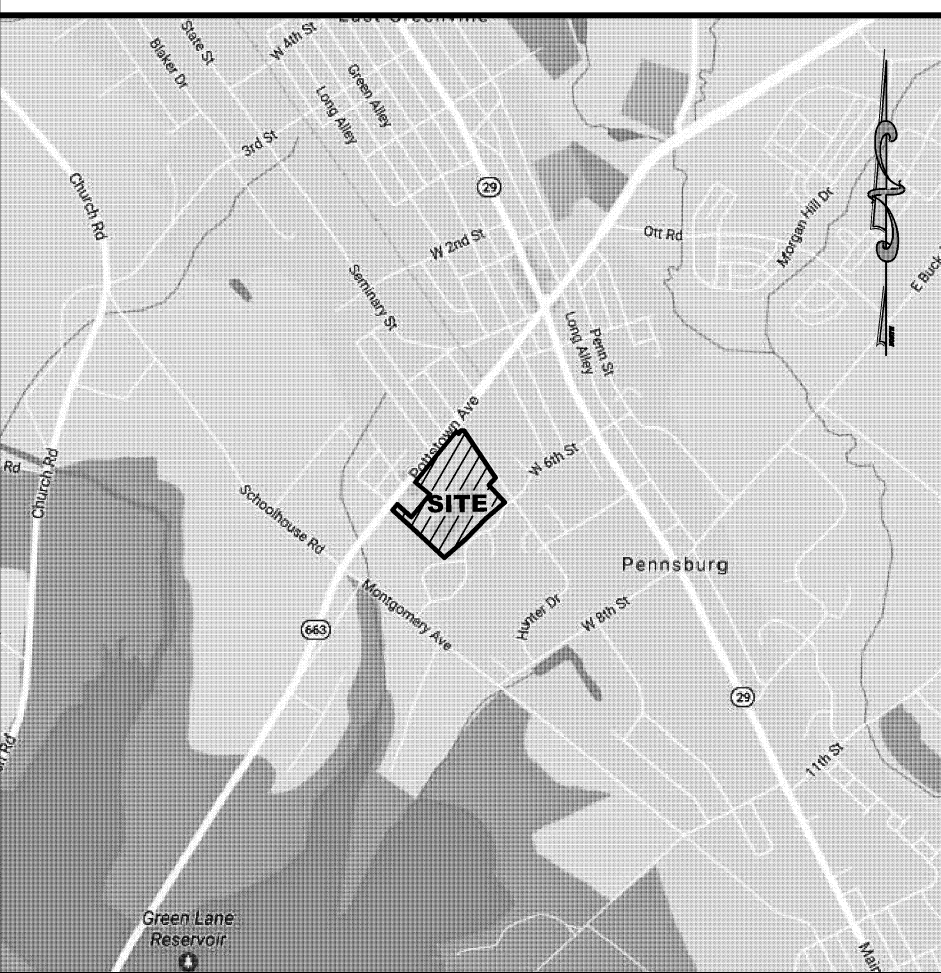
1. IRRIGATE SEEDLINGS REGULARLY AS NEEDED FOR THE FIRST GROWING SEASON AND AS NEEDED THEREAFTER TO ESTABLISH AND MAINTAIN A DENSE STAND OF VEGETATION OVER SILTBOX.
2. INSERT SILTBOX MONTHLY AND FOLLOWING LARGE STORM EVENTS:
 - A. REPLACE WOOD STAKES AS NEEDED TO MAINTAIN PLACEMENT OF SILTBOX.
 - B. IF MINOR DAMAGE TO THE SILTBOX OUTER LINING OCCURS, REPLACE ANY LOST FILLING MATERIAL AND MEND HOLE WITH HEAVY SYNTHETIC STRIP. OVERLAY LARGE HOLES WITH GEOTEXTILE FABRIC AND LASH TOGETHER WITH HEAVY SYNTHETIC STRING.
 - C. IF ONE OF THE SILTBOX LININGS IS REPLACED OR DAMAGED BEYOND REPAIR, REPLACE WITH SAME OR SIMILAR MATERIAL, IF UNAVAILABLE, INFILL WITH A FILTER BERM CONSTRUCTED OF OPEN GRADE CRUSHED STONE TO MATCH HEIGHT OF EXISTING SILTBOX.

N.T.S.

SITE SITUATE IN
PENNSBURG BOROUGH MONTGOMERY COUNTY PENNSYLVANIA



SITE LOCATION MAP 1"=2000'



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OWNER INFORMATION

THE SUBJECT PARCEL IS IDENTIFIED BY THE FOLLOWING INFORMATION AS RECORDED IN THE OFFICE FOR RECORDING OF DEEDS, MONTGOMERY COUNTY COURTHOUSE IN NORRISTOWN, PENNSYLVANIA.			
TOWNSHIP:	PENNSBURG BOROUGH	COUNTY:	MONTGOMERY
PARCEL NO.	BLOCK/LIMIT	DEED BOOK/PAGE	PARCEL AREA:
① 150001901001	012-005	5903-01851	13.2895 Ac.
② 150001882002	012-006	6020-00366	1.2556 Ac.
③ 150001882008	012-013	6020-00365	0.3073 Ac.
④ 150001882005	012-012	6020-00459	0.2468 Ac.
⑤ 150001891002	012-011	6020-00459	0.2387 Ac.
⑥ 150001894008	012-015	6020-00360	0.6476 Ac.
⑦ 150001897005	012-016	6020-00360	0.1890 Ac.
⑧ LAND NOT DESCRIBED IN DB: 2938, PG. 42			0.2408 Ac.
TOTAL GROSS TRACT AREA:			16.9969 Ac.
(BY SURVEY)			16.4169 Ac.
RECORD OWNER: PENNSBURG SQUARE ASSOCIATES LP 500 AMERICAN AVE STE 1 KING OF PRUSSIA, PA 19406			

SOILS DATA

SOILS DATA OBTAINED FROM A SOIL SURVEY OF MONTGOMERY COUNTY, PENNSYLVANIA.

U9b: URBAN LAND, 0 TO 8 PERCENT SLOPES
HYDROLOGIC SOIL GROUP: A
HYDROLOGIC SOIL: NO
FAIRLAND OF STATEWIDE IMPORTANCE: NO
DEPTH TO SEASONALLY HIGH WATER TABLE: ABOUT 60 INCHES
DEPTH TO BEDROCK: 20 TO 30 INCHES
DEVELOPMENT LIMITATIONS: N/A
RESOLUTIONS: N/A

U9b: URBAN LAND, 0 TO 8 PERCENT SLOPES
HYDROLOGIC SOIL GROUP: A
HYDROLOGIC SOIL: NO
FAIRLAND OF STATEWIDE IMPORTANCE: NO
DEPTH TO SEASONALLY HIGH WATER TABLE: ABOUT 60 INCHES
DEPTH TO BEDROCK: 20 TO 30 INCHES
DEVELOPMENT LIMITATIONS: N/A
RESOLUTIONS: MINIMIZE EXCAVATION IN THOSE AREAS OF SHALLOWER BEDROCK; REDUCE COMPLICATIONS OF WETNESS THROUGH APPROPRIATE USE OF DRAINAGE FACILITIES

AS BUILT PLANS REQUIRED:

- AS BUILT PLANS SHALL BE PROVIDED BY THE CONTRACTOR DOCUMENTING THE AS-BUILT CONDITIONS. PLANS SHALL BE PREPARED AND SEALED BY A PROFESSIONAL LICENSED SURVEYOR. SEALED PLANS AND CAD FILES SHALL BE PROVIDED.
- THE GENERAL SITE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL AS BUILT PLANS AND PROFILES.
- AS BUILT PLANS AND PROFILES MUST DOCUMENT ALL COMPONENTS OF THE CONSTRUCTED WATER SUPPLY, SANITARY SEWER, AND STORM SEWER SYSTEMS.
- AS BUILT PLANS MUST DOCUMENT THE FINISHED GRADE CONDITION OF ALL STORM WATER BMP FACILITIES, INCLUDING BUT NOT LIMITED TO ALL BASINS, INFILTRATION FACILITIES, RAIN GARDENS, SUBSURFACE SEEPAGE BEDS, AND ANY OTHER BMP NOTED ON THE POST CONSTRUCTION STORM WATER PLANS.

ALTERATION OF BMPS:

IT SHALL BE UNLAWFUL TO ALTER OR REMOVE ANY PERMANENT STORMWATER BMP REQUIRED BY AN APPROVED BMP OPERATIONS AND MAINTENANCE PLAN, OR TO ALLOW THE PROPERTY TO REMAIN IN A CONDITION WHICH DOES NOT CONFORM TO AN APPROVED BMP OPERATIONS AND MAINTENANCE PLAN, UNLESS AN EXCEPTION IS GRANTED IN WRITING BY THE MUNICIPALITY.

NO PERSON SHALL MODIFY, REMOVE, FILL, LANDSCAPE OR ALTER ANY EXISTING STORMWATER BMP, UNLESS IT IS PART OF AN APPROVED MAINTENANCE PROGRAM, WITHOUT THE WRITTEN APPROVAL OF THE MUNICIPALITY.

NO PERSON SHALL PLACE ANY STRUCTURE, FILL, LANDSCAPE OR VEGETATION TO A STORMWATER BMP OR WITHIN A DRAINAGE EASEMENT, WHICH WOULD LIMIT OR ALTER THE FUNCTIONING OF THE BMP, WITHOUT WRITTEN APPROVAL OF MUNICIPALITY.

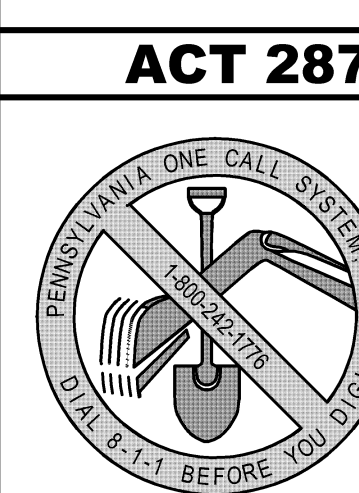
OWNER'S ACKNOWLEDGEMENT

I, _____ OF WESTOVER COMPANIES, ACKNOWLEDGE THAT ANY REVISION TO THE APPROVED DRAINAGE PLAN AND/OR POST CONSTRUCTION STORMWATER MANAGEMENT PLAN MUST BE APPROVED BY PENNSBURG BOROUGH AND THE MONTGOMERY COUNTY CONSERVATION DISTRICT.

ENGINEERS'S CERTIFICATION

I, CYNTHIA D. SMITH, P.E., ON THIS DATE: _____, HEREBY CERTIFY THAT THE DRAINAGE PLAN MEETS ALL DESIGN STANDARDS AND CRITERIA OF THE PENNSBURG BOROUGH STORMWATER ORDINANCE.

ACT 287 NOTIFICATION

	THE UNDERGROUND UTILITY LINE PROTECTION LAW (ACT 287 OF 1974 AS AMENDED BY ACT 187 OF 1996, ACT 199 OF 2003 AND ACT 121 OF 2008)
	SITE SERIAL NO. 20171031260
	LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES CANNOT BE GUARANTEED. PURSUANT TO REQUIREMENTS OF PENNSYLVANIA LEGISLATIVE ACT 287 OF 1974 AS AMENDED BY ACT 187 OF 1996, ACT 199 OF 2003 AND ACT 121 OF 2008, CONTRACTORS MUST VERIFY LOCATIONS OF UNDERGROUND UTILITIES BY NOTIFYING FACILITY OWNERS THROUGH THE ONE-CALL SYSTEM BY CALLING 811 AND NO LESS THAN 3 WORKING DAYS PRIOR TO EXCAVATION OR DEMOLITION WORK.
	DATE: 10-18-2017

BMP SEQUENCE & CONSTRUCTION KEY

- BMPS AS PROPOSED SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE PROJECT PLANS. BMPS SHALL BE OPERATED AND MAINTAINED FOR PERPETUITY IN STRICT ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND IN ACCORDANCE WITH THE "STORMWATER FACILITIES OPERATION & MAINTENANCE" NOTES CONTAINED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN.
- THE TIMING OF CONSTRUCTION FOR EACH BMP IS EXPLAINED WITHIN THE "CONSTRUCTION STAGING" NOTES ON THE PROJECT EROSION AND SEDIMENTATION CONTROL PLANS.
- SPECIFIC STEPS OF CONSTRUCTION AND IMPERATIVE NOTES FOR EACH BMP ARE CONTAINED WITHIN THE VARIOUS SHEETS OF THE OVERALL PROJECT / PCSM PLAN SET. PLEASE REVIEW THE FOLLOWING INFORMATION SPECIFIC TO EACH BMP PRIOR TO CONSTRUCTION:
- SURFACE DETENTION BASIN A2**
 - "BASIN A2 SECTION" ON STORM AND CONSTRUCTION DETAILS SHEET
 - "DETENTION BASIN A2 OUTLET STRUCTURE" ON STORM AND CONSTRUCTION DETAILS SHEET
 - "BASIN EMERGENCY SPILLWAY" ON STORM AND CONSTRUCTION DETAILS SHEET
 - "BASIN A2 FOREBAY DETAILS" ON STORM AND CONSTRUCTION DETAILS SHEET
 - "ANTI-SEEP COLLAR DETAIL" ON STORM AND CONSTRUCTION DETAILS SHEET
 - "RIP RAP OUTLET DETAIL" ON EROSION AND SEDIMENTATION DETAIL PLAN SHEET
 - "BASIN / BMP SPECIFICATIONS" ON LANDSCAPE DETAIL SHEET
 - "AMENDED SOIL SPECIFICATION" ON LANDSCAPE DETAIL SHEET
 - "PLANTING NOTES", GENERAL NOTES, PLANT SCHEDULES AND DETAILS ON LANDSCAPE DETAIL SHEET
 - PLANTING LAYOUT ON LANDSCAPE PLAN
 - CONSTRUCTION SEQUENCE:
 - STRIP AND STOCKPILE TOPSOIL
 - BEGIN BULK EARTHWORK (OVER-EXCAVATE BASIN BOTTOM DEPTH TO ACCOMMODATE AMENDED SOILS)
 - CONSTRUCT EAST RETAINING WALL
 - GRADE AND CONSTRUCT IMPERVIOUS KEY TRENCH, CORE, BERM, WEST RETAINING WALL, OUTLET STRUCTURE C1, C1-CO STORM RUN WITH ANTI-SEEP COLLAR, OUTLET STRUCTURE CO AND RIPRAP APRON
 - CONSTRUCT FOREBAY BERM AND SPILLWAYS
 - PLACE AMENDED SOILS ON BASIN BOTTOM AND TOPSOIL OVER ALL REMAINING AREAS OF BASIN CONSTRUCTION
 - INSTALL SEED AND PLANTINGS
 - STABILIZE ALL DISTURBED AREAS WITH MULCH AND E.C. MATTING
 - SUBSURFACE DETENTION FACILITY BASIN A1**
 - STORMTANK DETAILS AND NOTES ON STORM AND CONSTRUCTION DETAILS SHEETS
 - MANUFACTURERS WRITTEN INSTRUCTIONS
 - "UNDERGROUND DET. BASIN A1 SECTION" ON STORM AND CONSTRUCTION DETAILS SHEET
 - "UNDERGROUND DETENTION BASIN A1 SAND FILTER INLET DETAIL" ON STORM AND CONSTRUCTION DETAILS SHEET
 - "ANTI-SEEP COLLAR DETAIL" ON STORM AND CONSTRUCTION DETAILS SHEET
 - CONSTRUCTION SEQUENCE:
 - STRIP AND STOCKPILE TOPSOIL
 - PERFORM BULK EARTHWORK
 - CONSTRUCT PROP. STORM JUNCTION BOX B1
 - RUN TEMPORARY BYPASS PIPE FROM INLET A2 TO STORM JUNCTION BOX B1
 - RAIN GARDEN A**
 - "RAIN GARDEN DETAIL" ON STORM AND CONSTRUCTION DETAILS SHEET
 - "UNDERDRAIN DETAIL" ON STORM AND CONSTRUCTION DETAILS SHEET
 - "RAIN GARDEN DETAIL PLANTING PLAN" ON LANDSCAPE PLAN
 - PLANTING DETAILS AND NOTES ON LANDSCAPE DETAIL SHEET
 - CONSTRUCTION SEQUENCE:
 - CONSTRUCT IN ACCORDANCE WITH RAIN GARDEN CONSTRUCTION NOTES" ON RAIN GARDEN DETAIL SHEET
 - MECHANICAL W.Q. DEVICE / HYDRODYNAMIC SEPARATOR**
 - "HYDRODYNAMIC SEPARATOR DETAIL" ON STORM AND CONSTRUCTION DETAILS SHEET
 - MANUFACTURERS WRITTEN INSTRUCTIONS
 - CONSTRUCTION SEQUENCE:
 - REFER TO SEQUENCE FOR SUBSURFACE DETENTION FACILITY BASIN A1.
 - SOIL AMENDMENT**
 - "AMENDED SOIL SPECIFICATION" ON LANDSCAPE DETAIL SHEET
 - LOCATIONS FOR PLACEMENT OF AMENDED SOILS ON POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
 - CONSTRUCTION SEQUENCE:
 - CONSTRUCT IN ACCORDANCE WITH "A. COMPOST SOIL AMENDMENT INSTALLATION" NOTES AND ALL PRECEDING INFORMATION CONTAINED WITHIN THE AFOREMENTIONED AMENDED SOIL SPECIFICATIONS.
 - TREE PLANTINGS**
 - "PLANTING NOTES", GENERAL NOTES, PLANT SCHEDULES AND DETAILS ON LANDSCAPE DETAIL SHEET
 - PLANTING LAYOUT ON LANDSCAPE PLAN
 - CONSTRUCTION SEQUENCE:
 - CONSTRUCT IN ACCORDANCE WITH THE AFOREMENTIONED NOTES, SCHEDULES, DETAILS AND PLAN ONCE CONSTRUCTION HAS CONCLUDED IN THE AREA, TOPSOIL IS PLACED AND FINISH GRADING HAS OCCURRED.
- THE ABOVE LIST IS NOT EXHAUSTIVE AND DOES NOT INCLUDE ANCILLARY DETAILS, NOTES AND MATERIALS. CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL INFORMATION CONTAINED IN THE PROJECT PLAN SET AND MANUFACTURERS WRITTEN INSTRUCTIONS.

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FINAL LAND DEVELOPMENT
PCSWM - PENNSBURG BOROUGH
PENNSBURG SQUARE SHOPPING CENTER
DEVELOPED BY
WESTOVER COMPANIES

PROJECT MANAGER: CDS
DRAWING FILE NAME: Sht_PCSWM - Borough
PLAN ORIGINATOR DATE: 10-18-2017
PLAN SCALE: 1"=40'
PROJECT NUMBER: 2096
SHEET NUMBER: 25 OF 27

POST CONSTRUCTION STORMWATER MAINTENANCE BMPs OVERVIEW: FOLLOWING CONSTRUCTION AND INSTALLATION OF PERMANENT BMP FACILITIES, AN ONGOING MAINTENANCE AND INSPECTION PROGRAM SHALL BE EMPLOYED ON A PERIODIC BASIS BY THE OWNER, HIS/HER ASSIGNS OR SUCCESSORS. THE SPECIFIC DETAILS OF THE VARIOUS MAINTENANCE AND INSPECTION REQUIREMENTS ARE DETAILED BELOW.

MAINTENANCE RESPONSIBILITY: DURING CONSTRUCTION, THE SITE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE MAINTENANCE PROCEDURES DETAILED BELOW. UPON CONCLUSION OF CONSTRUCTION FINAL INSPECTION AND WRITTEN APPROVAL OF NOTICE OF TERMINATION, THE RESPONSIBILITY FOR MAINTENANCE OF ALL POST-CONSTRUCTION BMPs SHALL TRANSFER TO THE OWNER OF LAND UPON WHICH A PERMANENT PCSDM BMP SETS OR HIS ASSIGNS OR SUCCESSORS.

PERPETUITY: THE PCSWM BMP FACILITIES ARE INTENDED AS PERMANENT STORMWATER MANAGEMENT FACILITIES AND THEREFORE SHALL BE MAINTAINED FOR PERPETUITY UTILIZING THE FOLLOWING CRITERIA AS A GUIDE: AS STRUCTURES AGE, REPAIRS AND ULTIMATELY REPLACEMENT WILL BE REQUIRED. WITH A PROPER MAINTENANCE SCHEDULE, THE LIFESPAN OF THE TOWNSHIP ENGINEER IF ANY DEFICIENCIES ARE SUSPECTED IN ORDER TO REMOVE THE APPROPRIATE CORRECTIVE ACTION.

SEDIMENT DISPOSAL: DURING CONSTRUCTION, SEDIMENT DERIVED FROM PCSWM FACILITIES MAY BE UTILIZED IN OPEN AREAS OF CONSTRUCTION. UPON THE COMPLETION OF CONSTRUCTION, SEDIMENT MAY BE DEPOSITED ONTO AND STABILIZED. UTILIZED IN OPEN AREAS OF CONSTRUCTION, SEDIMENT MAY BE USED FOR EROSION CONTROL, OR GRASS SEEDING. SEDIMENT MAY BE USED FOR FILL MATERIALS COLLECTED FROM PCSWM BMP FACILITIES—PARTICULARLY MECHANICAL, WATER QUALITY FILTERS AND HYDROMORPHIC DEVICES—MAY CONTAIN PETROLEUM HYDROCARBONS, HEAVY METALS AND OTHER HARMFUL POLLUTANTS. THE LANDOWNER OR OPERATOR OF THE FACILITY SHOULD BE IDENTIFYING WHETHER ANY HARMFUL MATERIALS ARE PRESENT AND IF SO, FOR DETERMINING THE PROPER MEANS OF DISPOSAL.

[illegible]

- AT LEAST FOUR (4) TIMES PER YEAR AND AFTER ALL MAJOR RAINFALL EVENTS INSPECT SMALL ORIFICE INTO SAND FILTER TO

- [illegible]

5. WATER QUALITY FILTERS AND HYDRODYNAMIC DEVICES:
FOLLOW THE MANUFACTURE'S GUIDELINES FOR MAINTENANCE, ALSO TAKING INTO ACCOUNT EXPECTED POLLUTANT LOAD AND SITE CONDITIONS.

- PCSWM LONG TERM OPERATIONS & MAINTENANCE REQUIREMENTS:**
- UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSWM BMPs ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE.

FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS IN THE COUNTY OF LOS ANGELES, CALIFORNIA, WITHIN 90 DAYS OF THE DATE OF THE PERMIT, AND THE INSTRUMENT SHALL BE RECORDED IN THE PUBLIC RECORDS OF THE COUNTY OF LOS ANGELES, CALIFORNIA, WITHIN 90 DAYS OF THE DATE OF THE PERMIT.

THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSM BMPs OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE AND PROVIDE NOTICE THEREOF TO THE DEPARTMENT.

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs LOCATED ON THE PROPERTY.

THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OF THE CONSERVATION DISTRICT.

AND BELIEF THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES."

IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs.

- THE NOTICE OF TERMINATION MUST INCLUDE:
- (1) THE FACILITY NAME, ADDRESS AND LOCATION.
 - (2) THE OPERATOR NAME AND ADDRESS.
 - (3) THE PERMIT NUMBER.
 - (4) THE REASON FOR PERMIT TERMINATION.
 - (5) IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPs IN ACCORDANCE WITH § 102.8(M) AND PROOF OF COMPLIANCE WITH § 102.8(M)(2).

ALTERATION OF BMPS:

CALCULATIONS:
REFERENCE IS HEREBY MADE TO THE POST-CONSTRUCTION STORMWATER MANAGEMENT NARRATIVE, PREPARED BY HORIZON ENGINEERING

[illegible]

NOTE:
LICENSED PROFESSIONAL OR DESIGNEE SHALL BE ON-SITE FOR THE FOLLOWING CRITICAL STAGES OF THE PCSWM PLAN IMPLEMENTATION:
 INSTALLATION OF UNDERGROUND DETENTION FACILITY "A1"
 INSTALLATION OF DRY EXTENDED DETENTION BASIN "A2" WITH FOREBAY
 INSTALLATION OF AMENDED SOILS
 INSTALLATION OF RAIN GARDEN "A"

Test Pit #	Pit Depth (in)	Depth to Redoximorphic Features/Mottling (in)	Depth to Water (in)	Depth to Excavation Refusal (in)	Test Depth (in)	Average Infiltration Results (in/hr)	Recommended Design Rate (in/hr)
1	96	13	NE	96			
2	91	31	NE	NE	5.5	1.0	0.5
3	84	24	NE	NE	1.0		
4	84	12	NE	84			
5	36	6	36	32	24	0.0	
6	42	24	NE	24	N/A		
7	55	28	NE	50	24	0.25	
8	58	18	NE	43	6	0.5	
9	48	24	NE	NE	24	0.0	
10	12	6	NE	12	N/A		

BIMPS AS PROPOSED SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH THE PROJECT PLANS. BIMPS SHALL BE OPERATED AND MAINTAINED FOR PERPETUITY IN STRICT ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND IN ACCORDANCE WITH THE "STORMWATER FACILITIES OPERATION & MAINTENANCE" NOTES CONTAINED ON THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN.

5. INSTALL TEMP. DIVERSION BERM TO DIRECT RUNOFF AROUND CONSTRUCTION AREA.
6. CONSTRUCT STORMWATER FACILITY, INCLUDING FULL LINER
7. CONSTRUCT PROP. BASIN OUTLET STRUCTURE B3, STORM JUNCTION BOX B2 AND STORM PIPING FROM BASIN OUTLET B3 TO STORM JUNCTION BOX B2 AND B1.
8. CONSTRUCT MANUFACTURED TREATMENT DEVICE A1 AND INLETS A8 AND A5 AND STORM PIPING FROM EACH TO PROP. BASIN

SPECIFIC STEPS OF CONSTRUCTION AND IMPERATIVE NOTES FOR EACH BMP ARE CONTAINED WITHIN THE VARIOUS SHEETS OF THIS PROJECT. PLEASE REVIEW THE FOLLOWING INFORMATION SPECIFIC TO EACH BMP. **PRIOR TO CONSTRUCTION:**

- 2. SUBSURFACE DETENTION FACILITY BASIN A1**
STORMWATER DETAILS AND NOTES ON STORM AND CONSTRUCTION DETAILS SHEETS
 MANUFACTURERS' WRITTEN INSTRUCTIONS
 "UNDERGROUND DET. BASIN A1 SECTION" ON STORM AND CONSTRUCTION DETAILS SHEET
 "UNDERGROUND DETENTION BASIN A1 SAND FILTER INLET DETAIL" ON STORM AND CONSTRUCTION DETAILS SHEET
 "ANTI-SIPHON COLLAR DETAIL" ON STORM AND CONSTRUCTION DETAILS SHEET
CONSTRUCTION SEQUENCE:
 1. STRIP AND STOCKPILE TOPSOIL
 2. PERFORM BULK EARTHWORK
 3. CONSTRUCT PROP. STORM JUNCTION BOX B1.
- 6. LANDSCAPE DETAIL**
 "PLANTING NOTES: GENERAL NOTES": PLANT SCHEDULES AND DETAILS ON LANDSCAPE DETAIL SHEET
 "LANDSCAPE LAYOUT" ON LANDSCAPE PLAN
CONSTRUCTION SEQUENCE:
 CONSTRUCT IN ACCORDANCE WITH THE AFOREMENTIONED NOTES, SCHEDULES, DETAILS AND PLAN ONCE CONSTRUCTION HAS CONCLUDED IN THE AREA, TOPSOIL IS PLACED AND FINISH GRADING HAS OCCURRED.
- THE ABOVE LIST IS NOT EXHAUSTIVE AND DOES NOT INCLUDE ANCELLARY DETAILS, NOTES AND MATERIALS. CONTRACTOR IS RESPONSIBLE FOR ADDING TO ALL INFORMATION CONTAINED IN THE PROJECT PLAN SET AND MANUFACTURERS' WRITTEN INSTRUCTIONS.

	INFILTRATION TEST PIT LOCATION
	MANUFACTURED STORMWATER TREATMENT DEVICE
	VEGETATED SWALE
	NPDES PERMIT BOUNDARY
	SOILS DELINEATION LINE

THERE ARE NO KNOWN GEOLOGICAL FORMATIONS PRESENT ON THE SITE.

DECLINING STATEMENT

INDIVIDUALS RESPONSIBLE FOR EARTH DISTURBANCE ACTIVITIES MUST ENSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. MEASURES SHOULD BE PLANNED AND IMPLEMENTED FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL. WHEREVER POSSIBLE, RECYCLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL.

THIS PLAN MINIMIZES EXTENT OF IMPERVIOUS AREA BY CONSTRUCTING THE MINIMAL AMOUNT OF PARKING SPACES. THIS PLAN MAXIMIZES PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION BY REDUCING RATE TO EXISTING DISCHARGE POINTS. THIS PLAN MINIMIZES EXTENT OF LAND CLEARING AND GRADING BY ONLY DISTURBING AREAS NECESSARY FOR CONSTRUCTION. DURATION OF EARTH DISTURBANCE HAS BEEN LIMITED BY PROVIDING AN EFFICIENT SEQUENCE OF

CONSTRUCTION TO THE CONTRACTOR. SOIL COMPACTION IS MINIMIZED BY MINIMIZING THE EXTENT AND DURATION OF CONSTRUCTION ACTIVITIES. THE PLAN UTILIZES A PROPOSED DETENTION BASIN AND UNDERGROUND DETENTION SYSTEM TO CONTROL THE PEAK RATE RUNOFF. AMENDED SOILS MITIGATE THE 2-YEAR VOLUME INCREASE. WATER QUALITY IS BEING MITIGATED BY AMENDED SOILS,

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NOTE: REFER TO PCSM PLAN AT END OF PLAN SET FOR ALL AREAS OF REQUIRED AMENDED SOILS AND BMP SEQUENCE AND CONSTRUCTION KEY

MULCH BED BETWEEN TOP OF WALL AND OUTSIDE EDGE OF FENCE LINE

PERMANENT LAWN SEED ALL DISTURBED AREAS UNLESS NOTED OTHERWISE

25' BUFFER STRIP

27 PiAb

CONTINUOUS MULCH BED (APPROX. 2,750 SF)

THE UNDERGROUND UTILITY LINE PROTECTION LAW
(ACT 287 OF 1974 AS AMENDED BY ACT 187 OF 1996,
ACT 199 OF 2005 AND ACT 121 OF 2006)

SITE SERIAL NO. 2171031260

LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN
DEVELOPED FROM UTILITY COMPANY RECORDS AND/OR ABOVE
GROUND INSPECTION OF THE SITE. COMPLETENESS OR ACCU-
RACY, TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDER-
GROUND STRUCTURES CANNOT BE GUARANTEED. PURSU-
ANCE OF PENNSYLVANIA LEGISLATIVE ACT 287 OF 1974
AS AMENDED BY ACT 187 OF 1996, ACT 199 OF 2005 AND ACT 121
OF 2006, CONTRACTORS MUST VERIFY LOCATIONS OF UNDERGROUND
UTILITIES BY NOTIFYING FACILITY OWNERS THROUGH THE ONE
CALL SYSTEM BY DIALING **811** NO LESS THAN 3, NOR MORE THAN 10
BUSINESS DAYS PRIOR TO EXCAVATION OR DEMOLITION WORK.

Horizon
ENGINEERING
Civil Engineers | Land Surveyors | Landscape Architects
428 Main Street • Pottsville, PA 18073 • Phone 267.923.8673 • Fax 267.923.8679

FINAL LAND DEVELOPMENT
INSTRUCTION STORM WATER PLAN - NDPES PERMIT
URG SQUARE SHOPPING CENTER
WESTOVER COMPANIES
PREPARED FOR

POS	PENN
PROJECT MANAGER	
CDS	
DRAWING FILE NAME	
Sht_PCSWM	
PLAN ORIGINATION DATE	
10-18-2017	
PLAN SCALE	
1"=40'	
PROJECT NUMBER	
2096	
SHEET NUMBER	
27	27