

BOARD OF COMMISSIONERS

AGENDA *updated*

Monday, May 18, 2020 - 6:30 PM

VIA ZOOM and Streamed LIVE on YouTube

Pledge of Allegiance

1. Public Participation - *If you would like to participate in the meeting, please send an email to publiccomment@radnor.org. This email address will only be monitored during the meeting. E-mails sent to this address during the meeting will be read into the record.*

2. Consent Agenda

a) Disbursement Review & Approval

3. Committee Reports

A. Motion to Confirm the appointment of Robert V. Tate as Finance Director

B. Resolution #2020-57 - King of Prussia Road/Eagle Road/Pine Tree Road Intersection - Awarding the Civil Engineering Services Contract to Associated Engineering Concepts in the Amount of \$51,000

~~C. Resolution #2020-58 - Roberts Road Culvert - Authorizing Payment of Change Order #1 in the amount of \$36,860.14 to Loftus Construction, Incorporated.~~

D. Ordinance #2020 -11 - (Introduction) – Amending the Township Zoning Ordinance to provide setbacks for residential emergency generators and to provide regulations therefore.

E. Resolution #2020-59 - Award the capital lease financing for three Public Works vehicles previously approved by the Board of Commissioners to Bank Funding, LLC at an interest rate of 1.850% for a term of five years

4. Reports of Standing Committees of the Board

5. New Business

a. Garrett Hill Overlay Zoning Changes (*requested by Commissioner Farhy*)

b. Commercial Marijuana Restrictions (*requested by Commissioner Farhy*)

c. Ban safe injection sites anywhere in Radnor Township. (*requested by Commissioner Farhy*).

d. Board vote to immediately open Radnor Township playgrounds for public use (and directing OEM to provide applicable safety guidelines for the public to follow); and directing the Director of Radnor Township Recreation & Community Programming Department to provide an in person children's summer camp for children of the Township (and directing the OEM to provide applicable safety guidelines for the camp). These actions are to be undertaken in accordance with the Radnor Home Rule Charter. (*requested by Commissioner Booker*)

6. Old Business

7. Public Participation - *If you would like to participate in the meeting, please send an email to publiccomment@radnor.org. This email address will only be monitored during the meeting. E-mails sent to this address during the meeting will be read into the record.*

8. Adjournment

Meeting Notice

There will be a Regular Board of Commissioners meeting held on Monday, May 18, 2020 at 6:30 PM via Zoom and streamed live on the Radnor Township YouTube Channel at <https://www.youtube.com/channel/UCvh6jeMQTvo3ojCTh8wZkbA>. If you would like to participate in the meeting, please send an email to publiccomment@radnor.org. This email address will only be monitored during the meeting. E-mails sent to this address during the meeting will be read into the record.



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RADNOR TOWNSHIP
DISBURSEMENTS SUMMARY
May 18, 2020

The table below summarizes the amount of disbursements made since the last public meeting held on May 11, 2020. As approved by the Board, the Administration is now making weekly accounts payable disbursement batches and publishing those lists on the Township's web site at the following link. Please refer to those files for a detailed listing of the amounts paid by vendor by account code. Also, please visit the [Open Finance](#) program to view the Township's [Checkbook](#), where all vendor payments are available.

Link: <http://radnor.com/728/Disbursements-List>

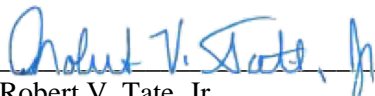
Fund (Fund Number)	2020-5A May 8, 2020	Total
General Fund (01)	\$372,799.00	\$372,799.00
Sewer Fund (02)	14,372.27	14,372.27
Storm Sewer Management (04)	12,411.71	12,411.71
Capital Improvement Fund (05)	3,753.09	3,753.09
OPEB Fund (08)	132,968.77	132,968.77
Investigation Fund (12)	224.00	224.00
The Willows Fund (23)	273.61	273.61
Library Improvement Fund (500)	130.00	130.00
Park & Trail Improvement Fund (501)	6,948.00	6,948.00
GOB19 Project Fund (502)	28,480.40	28,480.40
Total Accounts Payable Disbursements	\$572,360.85	\$572,360.85
<i>Electronic Disbursements</i>	n/a	\$923,029.80
Grand Total	\$572,360.85	\$1,495,390.65

In addition to the accounts payable checks, the Township also has various electronic payments including payroll, debt service, credit card purchases and fees as well as others from time to time. The attached table reflects all the electronic payments made since the last public Board meeting as well as those anticipated prior to the next Board meeting.

The Administration has adopted various internal control and processing procedures to ensure that amounts obligated are within the budgetary limits established by the Board of Commissioners. Those procedures are monitored daily by members of the Finance Department and responsible employees of the various departments. The amounts included in the table above have been scrutinized as part of the internal control and processing procedures and have obtained the required approvals prior to disbursement.

If you should have any questions, please contact the Finance Department.

Respectfully Submitted,


 Robert V. Tate, Jr.
 Acting Finance Director

ELECTRONICALLY PAID DISBURSEMENT LISTING

Estimated Through June 8, 2020

Description	Account No.	Date	Purpose	Amount
Credit Card Revenue Fees	Various Funds	5/10/2020	4/20 Credit Card Revenue Processing Fees	\$7,529.80
Payroll [Pension] Transaction - Estimated	07-492-4980	6/1/2020	6/20 Police Pension Payments	\$240,000.00
Payroll [Pension] Transaction - Estimated	11-495-4980	6/1/2020	6/20 Civilian Pension Payments	\$173,000.00
Payroll [Bi-Weekly] Transaction - Estimated	01-various	5/28/2020	Salaries and Payroll Taxes - General Fund	\$485,000.00
Payroll [Bi-Weekly] Transaction - Estimated	02-various	5/28/2020	Salaries and Payroll Taxes - Sewer Fund	\$17,500.00
Period Total				\$923,029.80

	<u>Original Estimate</u>			<u>Actual Amount</u>
	\$485,000.00	5/14/2020	Salaries and Payroll Taxes - General Fund	\$452,739.10
	\$17,500.00	5/14/2020	Salaries and Payroll Taxes - Sewer Fund	\$6,946.69
	\$502,500.00			\$459,685.79



JACK LARKIN
President
LISA BOROWSKI
Vice President
JAKE ABEL
RICHARD F. BOOKER, ESQ.
DAMIEN ENDERLE
SEAN FARHY
MOIRA MULRONEY, ESQ.

RADNOR TOWNSHIP
301 IVEN AVENUE
WAYNE, PENNSYLVANIA 19087-5297

Phone (610) 688-5600
Fax (610) 688-1279
www.radnor.com

WILLIAM M. WHITE
Township Manager
Township Secretary

JOHN B. RICE, ESQ.
Solicitor

KATHRYN GARTLAND
Treasurer

Date: May 13, 2020
To: Board of Commissioners
From: William M. White, MBA – Township Manager
RE: Finance Director Position

On the May 18, 2020 Board of Commissioners agenda, we will be asking the Board for their confirmation of Bob Tate, CPA as the Township's next Finance Director. Radnor's Charter §6.09, Finance Director, states, "The Township Finance Director shall be qualified by education or experience in financial management and public finance. The Finance Director shall be appointed by the Manager with approval of a majority vote of the total membership of the Board." As such, the motion on Monday's agenda will serve as the Board's confirmation. This is consistent with Director appointments in the past.

Following Code Section §5-58(E), Promotions, I hope it comes as no surprise that we're fortunate to have our next Finance Director candidate already in-house. Mr. Tate has served Radnor for the past eight years and came to us with over thirty years accounting experience in both the private and public sectors. In terms of the job description qualifications, Bob meets all the required and preferred elements, having degree in Business Administration from Drexel with majors in Accounting and Human Resources. Also, as you're aware, Bob is a Certified Public Accountant (CPA). Over his eight years here in Radnor, Bob has always promoted a positive attitude and has become a "go to" person for all departments for anything ranging from HR to Finance. Bob's thoughtful, respectful and professional approach to leadership and financial matters will be a great asset to our Team moving forward.

Compensation: I'm proposing that Bob receive an immediate 5% pay adjustment and that we'll sort out the ultimate compensation once the emergency period is over as we work out other compensation packages as well. In terms benefits, all of Bob's current benefits would remain the same.

Position Details: At this time, the position will only be the Finance Director and will oversee Finance, Human Resources and Information Tech. The "Assistant Township Manager" portion of the title will be eliminated from the position for the time being.

RESOLUTION NO. 2020-57

A RESOLUTION OF RADNOR TOWNSHIP, DELAWARE COUNTY, KING OF PRUSSIA ROAD/EAGLE ROAD/PINE TREE ROAD INTERSECTION - AWARDING THE CIVIL ENGINEERING SERVICES CONTRACT TO ASSOCIATED ENGINEERING CONCEPTS IN THE AMOUNT OF \$51,000

WHEREAS, Radnor Township, Cabrini University, and Eastern University were awarded a Pennsylvania Department of Transportation Multimodal Transportation Fund Grant in the amount of \$1,302,979

WHEREAS, the three entities party to the grant will share equally (1/3) of the local match requirements, at \$186,140 each

WHEREAS, Engineering Services are required to complete the permitting, design, and bidding documents for the project

WHEREAS, Associated Engineering Concepts, with Traffic Planning & Design as a subconsultant has provided a proposal to perform the necessary engineering work to bid the project

NOW, THEREFORE, be it *RESOLVED* by the Board of Commissioners of Radnor Township does hereby Award the Civil Engineering Services Contract to Associated Engineering Concepts, Incorporated, in the Amount of \$51,000 for the King of Prussia Road/Eagle Road/Pine Tree Road Intersection.

SO RESOLVED this 18th day of, May A.D., 2020

RADNOR TOWNSHIP

By: _____
Name: John Larkin
Title: President

ATTEST: _____
William M. White
Manager/Secretary

Radnor Township

PROPOSED LEGISLATION

DATE: May 12, 2020

TO: Radnor Township Board of Commissioners

FROM: Stephen F. Norcini, P.E., Township Engineer

CC: William M. White, Township Manager/Secretary

LEGISLATION: Resolution #2020-57 - King of Prussia Road/Eagle Road/Pine Tree Road Intersection - Awarding the Civil Engineering Services Contract to Associated Engineering Concepts in the Amount of \$51,000

LEGISLATIVE HISTORY: The Board of Commissioners approved Resolution # 2018-09, authorizing the application for a Pennsylvania Department of Transportation (PennDOT) Multimodal Transportation Fund program grant for intersection improvements at the King of Prussia Road/Eagle Road/Pine Tree Road intersection. The grant was applied for by Radnor Township, Cabrini University, and Eastern University. Each entity will fund 1/3 of the required local match. The design of the project to date has been done by Associated Engineering Consultants, Incorporated, (AEC) with Traffic Planning and Design, Incorporated (TPD) as a subconsultant. The project consists of:

- Dedicated turn lanes for:
 - left at SB King of Prussia on to Pine Tree Road
 - left at NB King of Prussia onto Eagle Road
 - right at EB Eagle Road onto King of Prussia Road, and left at
 - left at NB King of Prussia into Cabrini University
- Road widening along the frontages of Cabrini and Eastern Universities
- Storm sewer
- New traffic signals

The project plans are attached for your reference.

PURPOSE AND EXPLANATION: A Highway Occupancy Permit was previously submitted to Penn DOT, and comments provided. To move forward on the project, AEC has submitted a proposal to:

- Prepare permit, construction drawings and bid specifications
- Revise the plans to conform to the PennDOT HOP comments
- Update the signal plans and traffic study
- Submit the revised plans to PennDOT
- Submit to the Township for a grading permit
- Provide construction administration services

The proposal attached provides a much more detailed outline of the proposed engineering.

IMPLEMENTATION SCHEDULE: Pending Board of Commissioners approval, a requisition will be processed. Upon approval, a purchase order will be issued, and AEC will begin work immediately.

FISCAL IMPACT: The project funding is as follows:

King of Prussia Road Intersection Project Funding		
Total Estimated Project Cost	\$1,861,398	
MTF Fund Grant Proceeds	\$1,302,979	
Amount to be funded (local match)	\$558,419	
Radnor Township Share of local match		\$186,140
Cabrini University Share of local match		\$186,140
Eastern University Share of local match		\$186,140

The cost of the AEC Civil Engineering Services Contract is \$51,000. This will be funded out of the local match; of which Radnor Township's share is \$17,000, funded in the CIP.

RECOMMENDED ACTION: *I respectfully request the Board of Commissioners of Radnor Township Award the Civil Engineering Services Contract to Associated Engineering Concepts, Incorporated, in the Amount of \$51,000 for the King of Prussia Road/Eagle Road/Pine Tree Road Intersection.*

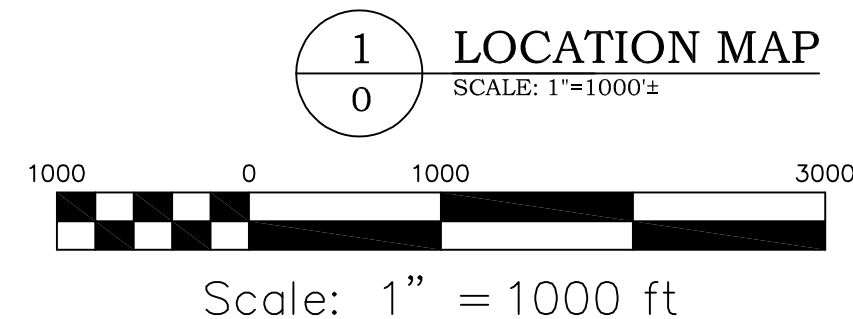
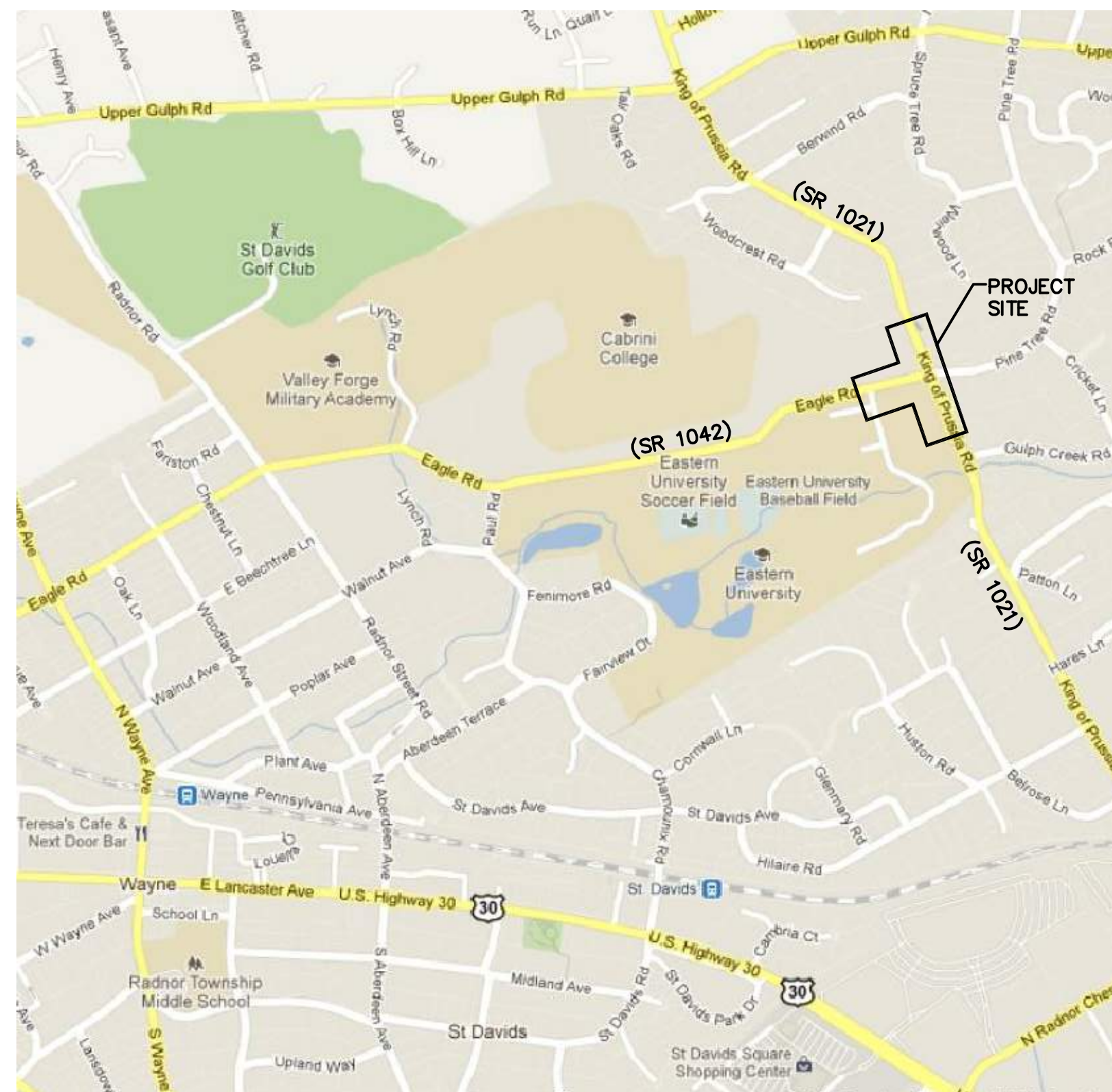
Enclosures: AEC Proposal w/TPD proposal
Project Plan Set

INTERSECTION IMPROVEMENTS

FOR

EAGLE ROAD (S.R. 1042) AND KING OF PRUSSIA ROAD (S.R. 1021)

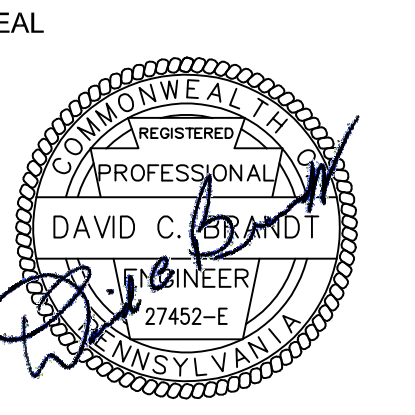
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY



CIVIL DRAWING SCHEDULE		DATE	ISSUE																		
DRAWING NUMBER	DRAWING TITLE	11/18/11	H.O.P. SUBMISSION	05/17/12	H.O.P. RESUBMISSION	08/28/12	H.O.P. RESUBMISSION	03/11/13	H.O.P. RESUBMISSION	10/17/17	RADNOR B.O.C. MEETING										
CS	COVER SHEET	•	•	•	•	•	•	•	•												
1	PENNDOT CONSTRUCTION PLAN	•	•	•	•	•	•	•	•												
2	EXISTING CONDITIONS & DEMOLITION PLAN	•	•	•	•	•	•	•	•												
3	EXISTING UTILITIES DEMOLITION PLAN	•	•	•	•	•	•	•	•												
4	SOIL EROSION CONTROL PLAN	•	•	•	•	•	•	•	•												
5	SITE DEVELOPMENT PLAN	•	•	•	•	•	•	•	•												
6A	ENLARGED INTERSECTION SITE DEVELOPMENT PLAN	•	•	•	•	•	•	•	•												
6B	ENLARGED SITE DEVELOPMENT PLAN	•	•	•	•	•	•	•	•												
7	SITE UTILITIES PLAN	•	•	•	•	•	•	•	•												
8A	ENLARGED INTERSECTION SITE UTILITIES PLAN	•	•	•	•	•	•	•	•												
8B	ENLARGED SITE UTILITIES PLAN	•	•	•	•	•	•	•	•												
9	PAVEMENT MARKING AND SIGNAGE PLAN	•	•	•	•	•	•	•	•												
10	TYPICAL TRAFFIC CONTROL PLANS AND DETAILS	•	•	•	•	•	•	•	•												
11	PENNDOT SITE DETAILS	•	•	•	•	•	•	•	•												
12	PENNDOT STORM SEWER DETAILS	•	•	•	•	•	•	•	•												
13	STORM SEWER PROFILES AND SITE UTILITY DETAILS	•	•	•	•	•	•	•	•												
14	SOIL EROSION CONTROL DETAILS AND NOTES	•	•	•	•	•	•	•	•												
15	REQUIRED RIGHT-OF-WAY PLAN	•	•	•	•	•	•	•	•												
16	SPREAD OF FLOW DRAINAGE AREAS PLAN	•	•	•	•	•	•	•	•												
17	WB-50 TRUCK TURNING MANEUVERS PLANS	•	•	•	•	•	•	•	•												
18	BUS & WB-40 TRUCK TURNING MANEUVERS PLANS	•	•	•	•	•	•	•	•												
19	FIRE TRUCK TURNING MANEUVERS PLANS	•	•	•	•	•	•	•	•												
20	CABRINI ENTRANCE TRUCK TURNING MANEUVERS PLANS	•	•	•	•	•	•	•	•												
21	CABRINI ENTRANCE SIGHT DISTANCE PLAN & PROFILES	•	•	•	•	•	•	•	•												



Associated Engineering Consultants Incorporated
488 Devon Park Drive Suite 113 Wayne Pennsylvania 19087 Tel: 610 668 3880 Fax: 610 668 4566
Civil | Structural | HVAC | Plumbing | Electrical | Fire Protection

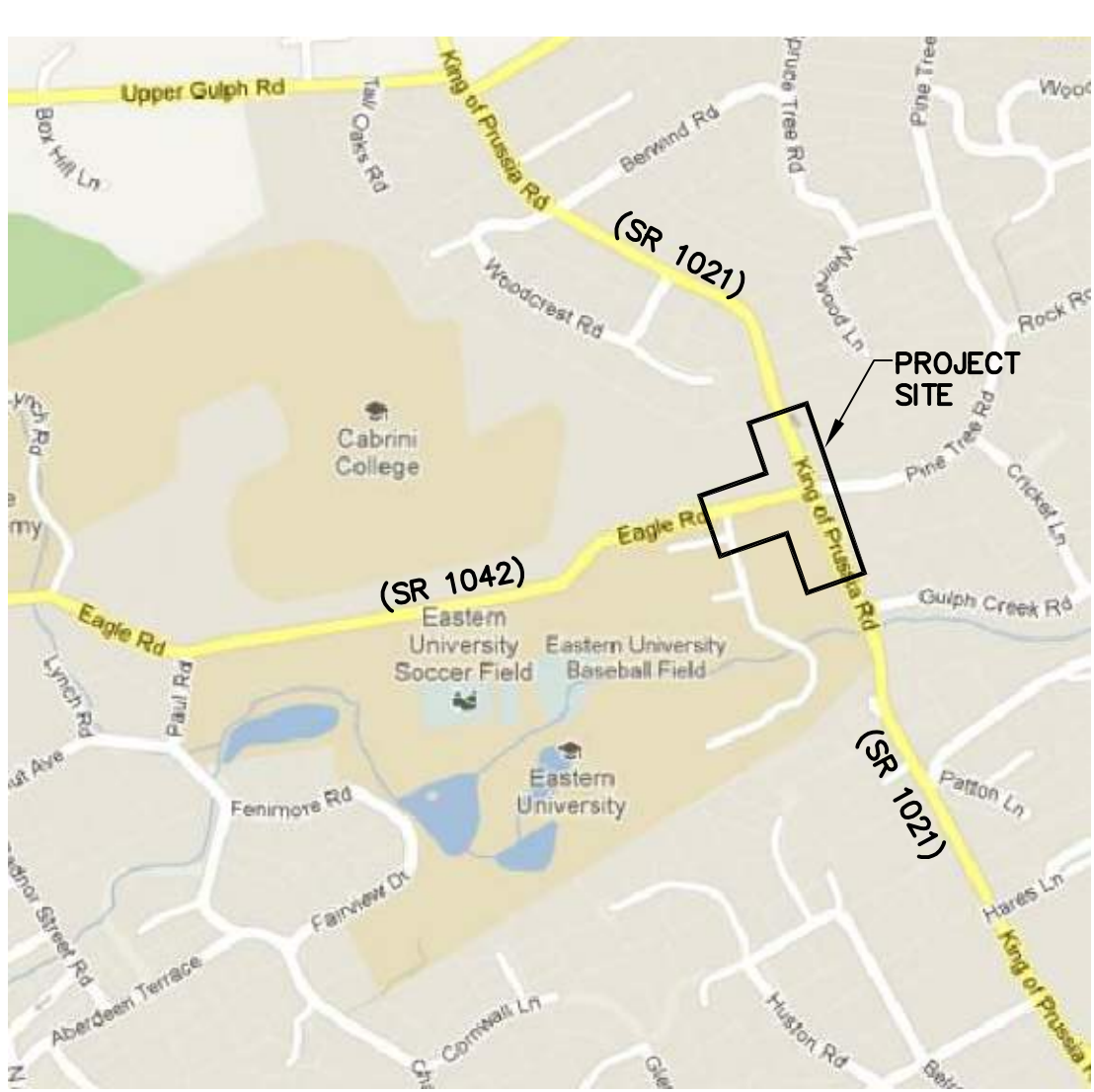
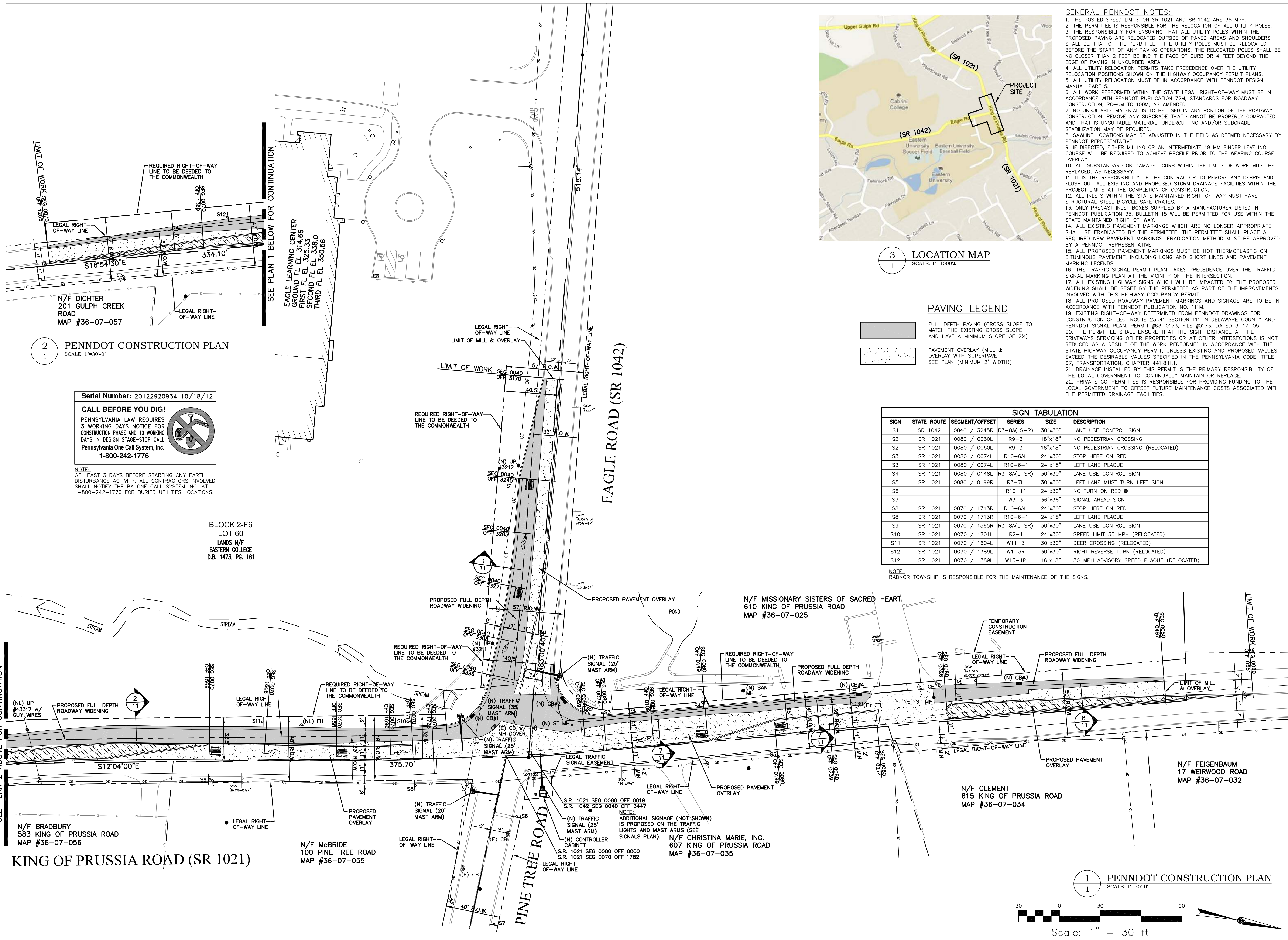


PROJECT
INTERSECTION IMPROVEMENTS
EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
11/18/11	H.O.P. SUBMISSION
05/17/12	H.O.P. RESUBMISSION
08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION
10/17/17	RADNOR B.O.C. MEETING

SHEET TITLE
COVER SHEET
DRAWN BY: BJD
CHECKED BY: KRM
SHEET NO.

CS
SHEET NO. 1 OF 24
PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011



3 LOCATION MAP
SCALE: 1"=1000'

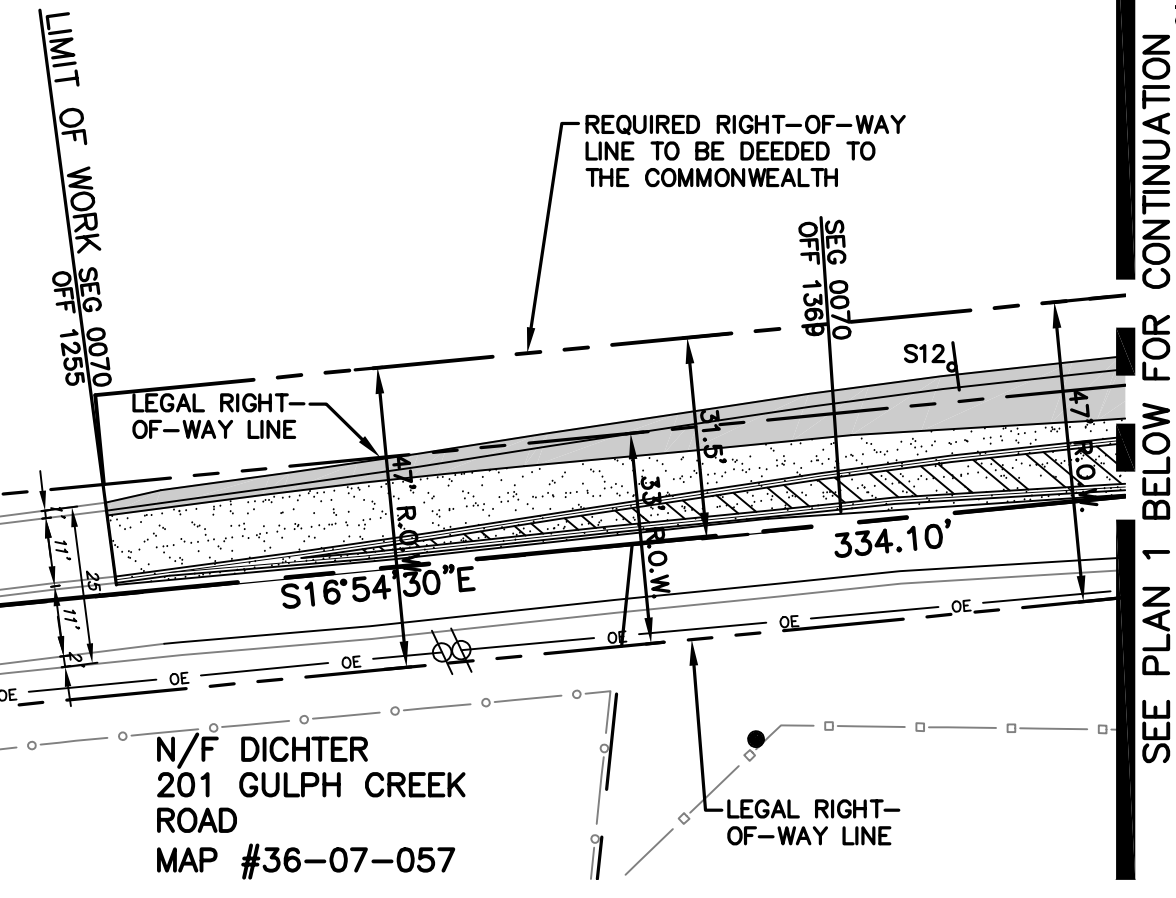
PAVING LEGEND

- FULL DEPTH PAVING (CROSS SLOPE TO MATCH THE EXISTING CROSS SLOPE AND HAVE A MINIMUM SLOPE OF 2%)
- PAVEMENT OVERLAY (MILL & OVERLAY WITH SUPERPAVE - SEE PLAN (MINIMUM 2' WIDTH))

SIGN	STATE ROUTE	SEGMENT/OFFSET	SERIES	SIZE	DESCRIPTION
S1	SR 1042	0040 / 3245R	R3-8A(LS-R)	30"x30"	LANE USE CONTROL SIGN
S2	SR 1021	0080 / 0060L	R9-3	18"x18"	NO PEDESTRIAN CROSSING
S2	SR 1021	0080 / 0060L	R9-3	18"x18"	NO PEDESTRIAN CROSSING (RELOCATED)
S3	SR 1021	0080 / 0074L	R10-6AL	24"x30"	STOP HERE ON RED
S3	SR 1021	0080 / 0074L	R10-6-1	24"x18"	LEFT LANE PLAQUE
S4	SR 1021	0080 / 0148L	R3-8A(L-SR)	30"x30"	LANE USE CONTROL SIGN
S5	SR 1021	0080 / 0199R	R3-7L	30"x30"	LEFT LANE MUST TURN LEFT SIGN
S6	-----	-----	R10-11	24"x30"	NO TURN ON RED
S7	-----	-----	W3-3	36"x36"	SIGNAL AHEAD SIGN
S8	SR 1021	0070 / 1713R	R10-6AL	24"x30"	STOP HERE ON RED
S8	SR 1021	0070 / 1713R	R10-6-1	24"x18"	LEFT LANE PLAQUE
S9	SR 1021	0070 / 1565R	R3-8A(L-SR)	30"x30"	LANE USE CONTROL SIGN
S10	SR 1021	0070 / 1701L	R2-1	24"x30"	SPEED LIMIT 35 MPH (RELOCATED)
S11	SR 1021	0070 / 1604L	W11-3	30"x30"	DEER CROSSING (RELOCATED)
S12	SR 1021	0070 / 1389L	W13-3R	30"x30"	RIGHT REVERSE TURN (RELOCATED)
S12	SR 1021	0070 / 1389L	W13-1P	18"x18"	30 MPH ADVISORY SPEED PLAQUE (RELOCATED)

NOTE: RADNOR TOWNSHIP IS RESPONSIBLE FOR THE MAINTENANCE OF THE SIGNS.

- GENERAL PENNDOT NOTES:**
1. THE POSTED SPEED LIMITS ON SR 1021 AND SR 1042 ARE 35 MPH.
 2. THE PERMITTEE IS RESPONSIBLE FOR THE RELOCATION OF ALL UTILITY POLES.
 3. THE RESPONSIBILITY FOR ENSURING THAT ALL UTILITY POLES WITHIN THE PROPOSED PAVING ARE RELOCATED OUTSIDE OF PAVED AREAS AND SHOULDERS SHALL BE THAT OF THE PERMITTEE. THE UTILITY POLES MUST BE RELOCATED BEFORE THE START OF ANY PAVING OPERATIONS. THE RELOCATED POLES SHALL BE NO CLOSER THAN 2 FEET BEHIND THE FACE OF CURB OR 4 FEET BEYOND THE EDGE OF PAVING IN UNCURBED AREA.
 4. ALL UTILITY RELOCATION PERMITS TAKE PRECEDENCE OVER THE UTILITY RELOCATION POSITIONS SHOWN ON THE HIGHWAY OCCUPANCY PERMIT PLANS.
 5. ALL UTILITY RELOCATION MUST BE IN ACCORDANCE WITH PENNDOT DESIGN MANUAL PART 5.
 6. ALL WORK PERFORMED WITHIN THE STATE LEGAL RIGHT-OF-WAY MUST BE IN ACCORDANCE WITH PENNDOT PUBLICATION 72M, STANDARDS FOR ROADWAY CONSTRUCTION, R0-0M TO 100M, AS AMENDED.
 7. NO UNSUITABLE MATERIAL IS TO BE USED IN ANY PORTION OF THE ROADWAY CONSTRUCTION. REMOVE ANY SUBGRADE THAT CANNOT BE PROPERLY COMPACTED AND THAT IS UNSUITABLE MATERIAL UNDERCUTTING AND/OR SUBGRADE STABILIZATION MAY BE REQUIRED.
 8. SAWLINE LOCATIONS MAY BE ADJUSTED IN THE FIELD AS DEEMED NECESSARY BY PENNDOT REPRESENTATIVE.
 9. IF DIRECTED, EITHER MILLING OR AN INTERMEDIATE 19 MM BINDER LEVELING COURSE WILL BE REQUIRED TO ACHIEVE PROFILE PRIOR TO THE WEARING COURSE OVERLAY.
 10. ALL SUBSTANDARD OR DAMAGED CURB WITHIN THE LIMITS OF WORK MUST BE REPLACED, AS NECESSARY.
 11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ANY DEBRIS AND FLUSH OUT ALL EXISTING AND PROPOSED STORM DRAINAGE FACILITIES WITHIN THE PROJECT LIMITS AT THE COMPLETION OF CONSTRUCTION OF THE HIGHWAY OCCUPANCY PERMIT.
 12. ALL INLETS WITHIN THE STATE MAINTAINED RIGHT-OF-WAY MUST HAVE STRUCTURAL STEEL BICYCLE SAFE GRATES.
 13. ONLY PRECAST INLET BOXES SUPPLIED BY A MANUFACTURER LISTED IN PENNDOT PUBLICATION 35, BULLETIN 15 WILL BE PERMITTED FOR USE WITHIN THE STATE MAINTAINED RIGHT-OF-WAY.
 14. ALL EXISTING PAVEMENT MARKINGS WHICH ARE NO LONGER APPROPRIATE SHALL BE ERADICATED BY THE PERMITTEE. THE PERMITTEE SHALL PLACE ALL REQUIRED NEW PAVEMENT MARKINGS. ERADICATION METHOD MUST BE APPROVED BY A PENNDOT REPRESENTATIVE.
 15. ALL PROPOSED PAVEMENT MARKINGS MUST BE HOT THERMOPLASTIC ON BITUMINOUS PAVEMENT, INCLUDING LONG AND SHORT LINES AND PAVEMENT MARKING LEGENDS.
 16. THE TRAFFIC SIGNAL PERMIT PLAN TAKES PRECEDENCE OVER THE TRAFFIC SIGNAL MARKING PLAN AT THE VICINITY OF THE INTERSECTION.
 17. ALL EXISTING HIGHWAY SIGNS WHICH WILL BE IMPACTED BY THE PROPOSED WIDENING SHALL BE RESET BY THE PERMITTEE AS PART OF THE IMPROVEMENTS INVOLVED WITH THIS HIGHWAY OCCUPANCY PERMIT.
 18. ALL PROPOSED ROADWAY PAVEMENT MARKINGS AND SIGNAGE ARE TO BE IN ACCORDANCE WITH PENNDOT PUBLICATION NO. 111M.
 19. EXISTING RIGHT-OF-WAY DETERMINED FROM PENNDOT DRAWINGS FOR CONSTRUCTION OF LEG. ROUTE 23041 SECTION 111 IN DELAWARE COUNTY AND PENNDOT SIGNAL PLAN, PERMIT #63-0173, FILE #0173, DATED 3-17-05.
 20. THE PERMITTEE SHALL ENSURE THAT THE SIGHT DISTANCE AT THE DRIVEWAYS SERVING OTHER PROPERTIES OR AT OTHER INTERSECTIONS IS NOT REDUCED AS A RESULT OF THE WORK PERFORMED IN ACCORDANCE WITH THE STATE HIGHWAY OCCUPANCY PERMIT, UNLESS EXISTING AND PROPOSED VALUES EXCEED THE DESIRABLE VALUES SPECIFIED IN THE PENNSYLVANIA CODE, TITLE 67, TRANSPORTATION, CHAPTER 441.8.H.1.
 21. DRAINAGE INSTALLED BY THIS PERMIT IS THE PRIMARY RESPONSIBILITY OF THE LOCAL GOVERNMENT TO CONTINUALLY MAINTAIN OR REPLACE.
 22. PRIVATE CO-PERMITTEE IS RESPONSIBLE FOR PROVIDING FUNDING TO THE LOCAL GOVERNMENT TO OFFSET FUTURE MAINTENANCE COSTS ASSOCIATED WITH THE PERMITTED DRAINAGE FACILITIES.



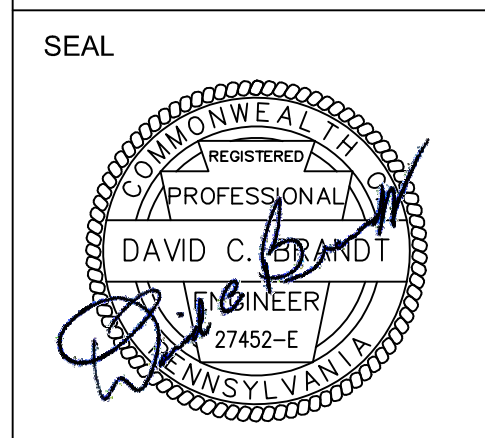
2 PENNDOT CONSTRUCTION PLAN
SCALE: 1"=30'-0"

Serial Number: 20122920934 10/18/12
CALL BEFORE YOU DIG!
PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE-STOP CALL Pennsylvania One Call System, Inc. 1-800-242-1776

NOTE: AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITY, ALL CONTRACTORS INVOLVED SHALL NOTIFY THE PA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR BURIED UTILITIES LOCATIONS.

BLOCK 2-F6
LOT 60
LANDS N/F
EASTERN COLLEGE
D.B. 1473, PG. 161

Associated Engineering Consultants Incorporated
488 Devon Park Drive, Suite 113, Wayne, Pennsylvania 19387
Tel: 610 688 3880 Fax: 610 688 4566
www.aecinc.net



PROJECT

INTERSECTION IMPROVEMENTS
EAGLE ROAD (S.R. 1042) AND KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
11/18/11	H.O.P. SUBMISSION
05/17/12	H.O.P. RESUBMISSION
08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION
10/17/17	RADNOR B.O.C. MEETING

SHEET TITLE

PENNDOT CONSTRUCTION PLAN

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.

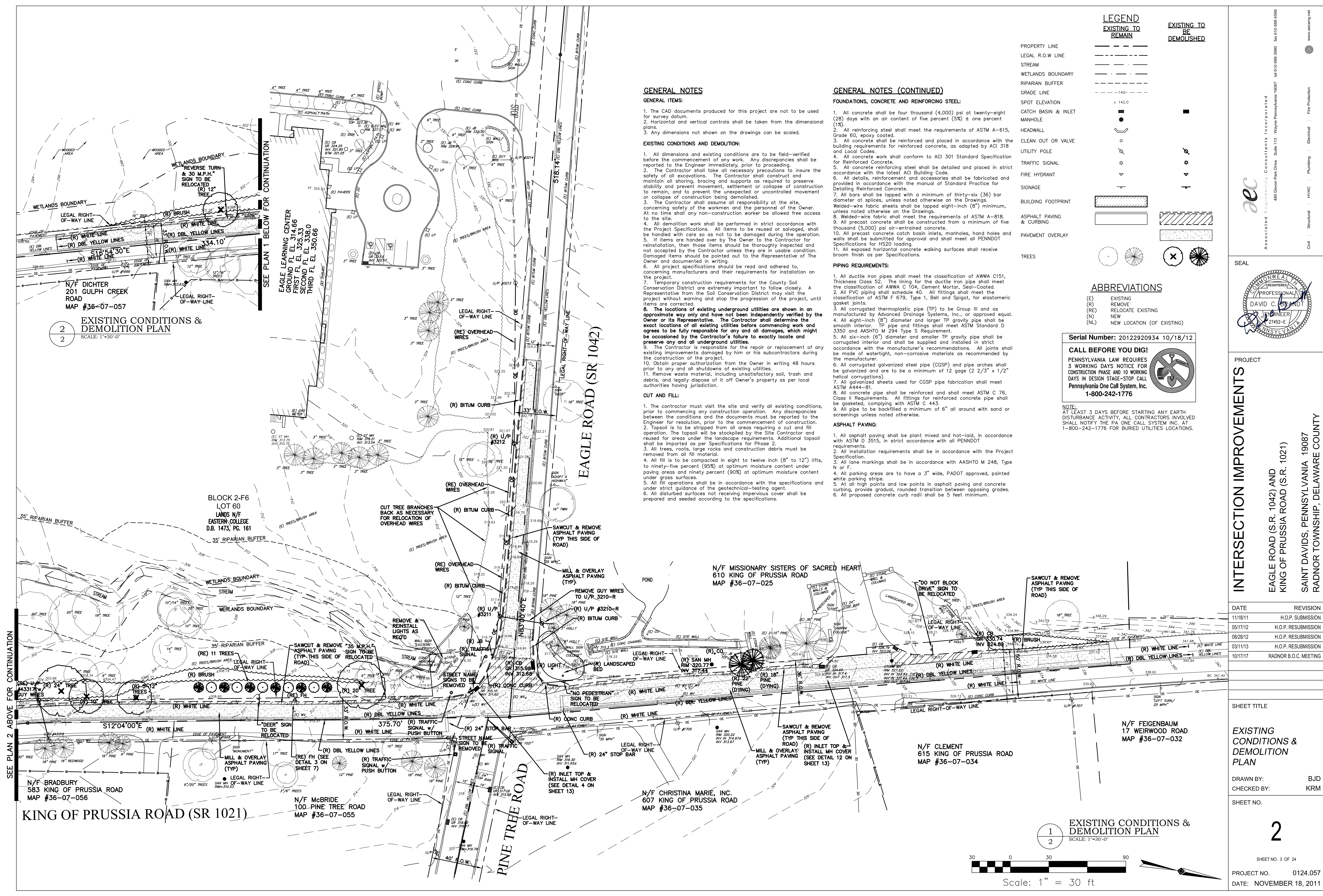
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SHEET NO. 2 OF 24

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

1 PENNDOT CONSTRUCTION PLAN
SCALE: 1"=30'-0"

Scale: 1" = 30 ft



GENERAL NOTES

- GENERAL ITEMS:**
- The CAD documents produced for this project are not to be used for survey datum.
 - Horizontal and vertical controls shall be taken from the dimensional plans.
 - Any dimensions not shown on the drawings can be scaled.

EXISTING CONDITIONS AND DEMOLITION:

- All dimensions and existing conditions are to be field-verified before the commencement of any work. Any discrepancies shall be reported to the Engineer immediately, prior to proceeding.
- The Contractor shall take all necessary precautions to insure the safety of all excavations. The Contractor shall construct and maintain all shoring, bracing and supports as required to preserve stability and prevent movement, settlement or collapse of construction to remain, and to prevent the unexpected or uncontrolled movement or collapse of construction being demolished.
- The Contractor shall assume all responsibility at the site, concerning safety of the workmen and the personnel of the Owner. At no time shall any non-construction worker be allowed free access to the site.
- All demolition work shall be performed in strict accordance with the Project Specifications. All items to be reused or salvaged, shall be handled with care so as not to be damaged during the operation.
- If items are handed over by the Owner to the Contractor for reinstatement, then those items should be thoroughly inspected and not accepted by the Contractor unless they are in usable condition. Damaged items should be pointed out to the Representative of the Owner and documented in writing.
- All project specifications should be read and adhered to, concerning manufacturers and their requirements for installation on the project.
- Temporary construction requirements for the County Soil Conservation District are extremely important to follow closely. A Representative from the Soil Conservation District may visit the project without warning and stop the progression of the project, until items are corrected.
- The locations of existing underground utilities are shown in an approximate way only and have not been independently verified by the Owner or its Representative. The Contractor shall determine the exact locations of all existing utilities before commencing work and agree to be fully responsible for any and all damages, which might be occasioned by the Contractor's failure to exactly locate and preserve any and all underground utilities.
- The Contractor is responsible for the repair or replacement of any existing improvements damaged by him or his subcontractors during the construction of the project.
- Obtain proper authorization from the Owner in writing 48 hours prior to any and all shutdowns of existing utilities.
- Remove waste material, including unsatisfactory soil, trash and debris, and legally dispose of it off Owner's property as per local authorities having jurisdiction.

CUT AND FILL:

- The contractor must visit the site and verify all existing conditions, prior to commencing any construction operation. Any discrepancies between the conditions and the documents must be reported to the Engineer for resolution, prior to the commencement of construction.
- Topsoil is to be stripped from all areas requiring a cut and fill operation. The topsoil will be stockpiled by the Site Contractor and reused for areas under the landscape requirements. Additional topsoil shall be imported as per Specifications for Phase 2.
- All trees, roots, large rocks and construction debris must be removed from all fill material.
- All fill is to be compacted in eight to twelve inch (8" to 12") lifts, to ninety-five percent (95%) at optimum moisture content under paving areas and ninety percent (90%) at optimum moisture content under grass surfaces.
- All fill operations shall be in accordance with the specifications and under strict guidance of the geotechnical-testing agent.
- All disturbed surfaces not receiving impervious cover shall be prepared and seeded according to the specifications.

GENERAL NOTES (CONTINUED)

FOUNDATIONS, CONCRETE AND REINFORCING STEEL:

- All concrete shall be four thousand (4,000) psi at twenty-eight (28) days with an air content of five percent (5%) ± one percent (1%).
- All reinforcing steel shall meet the requirements of ASTM A-615, Grade 60, epoxy coated.
- All concrete shall be reinforced and placed in accordance with the building requirements for reinforced concrete, as adopted by ACI 318 and Local Codes.
- All concrete work shall conform to ACI 301 Standard Specification for Reinforced Concrete.
- All concrete reinforcing steel shall be detailed and placed in strict accordance with the latest ACI Building Code.
- All details, reinforcement and accessories shall be fabricated and provided in accordance with the manual of Standard Practice for Detailing Reinforced Concrete.
- All bars shall be lapped with a minimum of thirty-six (36) bar diameter at splices, unless noted otherwise on the Drawings. Welded-wire fabric sheets shall be lapped eight-inch (8") minimum, unless noted otherwise on the Drawings.
- Welded-wire fabric shall meet the requirements of ASTM A-818.
- All precast concrete shall be constructed from a minimum of five thousand (5,000) psi air-entrained concrete.
- All precast concrete catch basin inlets, manholes, hand holes and walls shall be submitted for approval and shall meet all PENNDOT Specifications for HS20 loading.
- All exposed horizontal concrete walking surfaces shall receive broom finish as per Specifications.

PIPING REQUIREMENTS:

- All ductile iron pipes shall meet the classification of AWWA C151, Thickness Class 52. The lining for the ductile iron pipe shall meet the classification of AWWA C 104, Cement Mortar, Seal-Coated.
- All PVC piping shall schedule 40. All fittings shall meet the classification of ASTM F 679, Type 1, Bell and Spigot, for elastomeric gasket joints.
- All corrugated thermoplastic pipe (TP) to be Group III and as manufactured by Advanced Drainage Systems, Inc., or approved equal.
- All eight-inch (8") diameter and larger TP gravity pipe shall be smooth interior. TP pipe and fittings shall meet ASTM Standard D 3350 and AASHTO M 294 Type S Requirement.
- All six-inch (6") diameter and smaller TP gravity pipe shall be corrugated interior and shall be supplied and installed in strict accordance with the manufacturer's recommendations. All joints shall be made of watertight, non-corrosive materials as recommended by the manufacturer.
- All corrugated galvanized steel pipe (CGSP) and pipe arches shall be galvanized and are to be a minimum of 12 gage (2 2/3" x 1/2" helical corrugations).
- All galvanized sheets used for CGSP pipe fabrication shall meet ASTM A444-81.
- All concrete pipe shall be reinforced and shall meet ASTM C 76, Class II Requirements. All fittings for reinforced concrete pipe shall be gasketed, complying with ASTM C 443.
- All pipe to be backfilled a minimum of 6" all around with sand or screenings unless noted otherwise.

ASPHALT PAVING:

- All asphalt paving shall be plant mixed and hot-laid, in accordance with ASTM D 3515, in strict accordance with all PENNDOT requirements.
- All installation requirements shall be in accordance with the Project Specification.
- All lane markings shall be in accordance with AASHTO M 248, Type N or F.
- All parking areas are to have a 3" wide, PADOT approved, pointed white parking stripe.
- At all high points and low points in asphalt paving and concrete curbing, provide gradual, rounded transition between opposing grades.
- All proposed concrete curb radii shall be 5 feet minimum.

LEGEND

EXISTING TO REMAIN	EXISTING TO BE DEMOLISHED
PROPERTY LINE	---
LEGAL R.O.W. LINE	---
STREAM	---
WETLANDS BOUNDARY	---
RIPARIAN BUFFER	---
GRADE LINE	---
SPOT ELEVATION	x 142.0
CATCH BASIN & INLET	■
MANHOLE	○
HEADWALL	▭
CLEAN OUT OR VALVE	○
UTILITY POLE	○
TRAFFIC SIGNAL	⊛
FIRE HYDRANT	⊛
SIGNAGE	⊛
BUILDING FOOTPRINT	▭
ASPHALT PAVING & CURBING	▭
PAVEMENT OVERLAY	▭
TREES	○

ABBREVIATIONS

(E)	EXISTING
(R)	REMOVE
(RE)	RELOCATE EXISTING
(N)	NEW
(NL)	NEW LOCATION (OF EXISTING)

Serial Number: 20122920934 10/18/12

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE-STOP CALL Pennsylvania One Call System, Inc. 1-800-242-1776

NOTE: AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITY, ALL CONTRACTORS INVOLVED SHALL NOTIFY THE PA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR BURIED UTILITIES LOCATIONS.

Associated Engineering Consultants Incorporated
488 Devon Park Drive, Suite 113, Wayne, Pennsylvania 19387
Tel: 610.688.3880 Fax: 610.688.4566
www.aecinc.net

Professional Engineer
DAVID C. STAMDT
27452-E
PENNSYLVANIA

Seal: CIVIL ENGINEER

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND KING OF PRUSSIA ROAD (S.R. 1021)

SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
11/18/11	H.O.P. SUBMISSION
05/17/12	H.O.P. RESUBMISSION
08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION
10/17/17	RADNOR B.O.C. MEETING

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10/17/17	RADNOR B.O.C. MEETING

SHEET TITLE

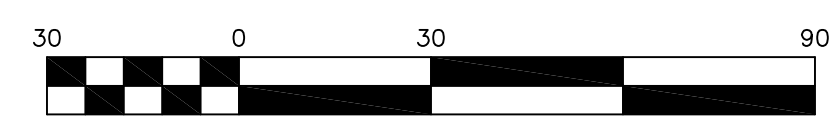
EXISTING CONDITIONS & DEMOLITION PLAN

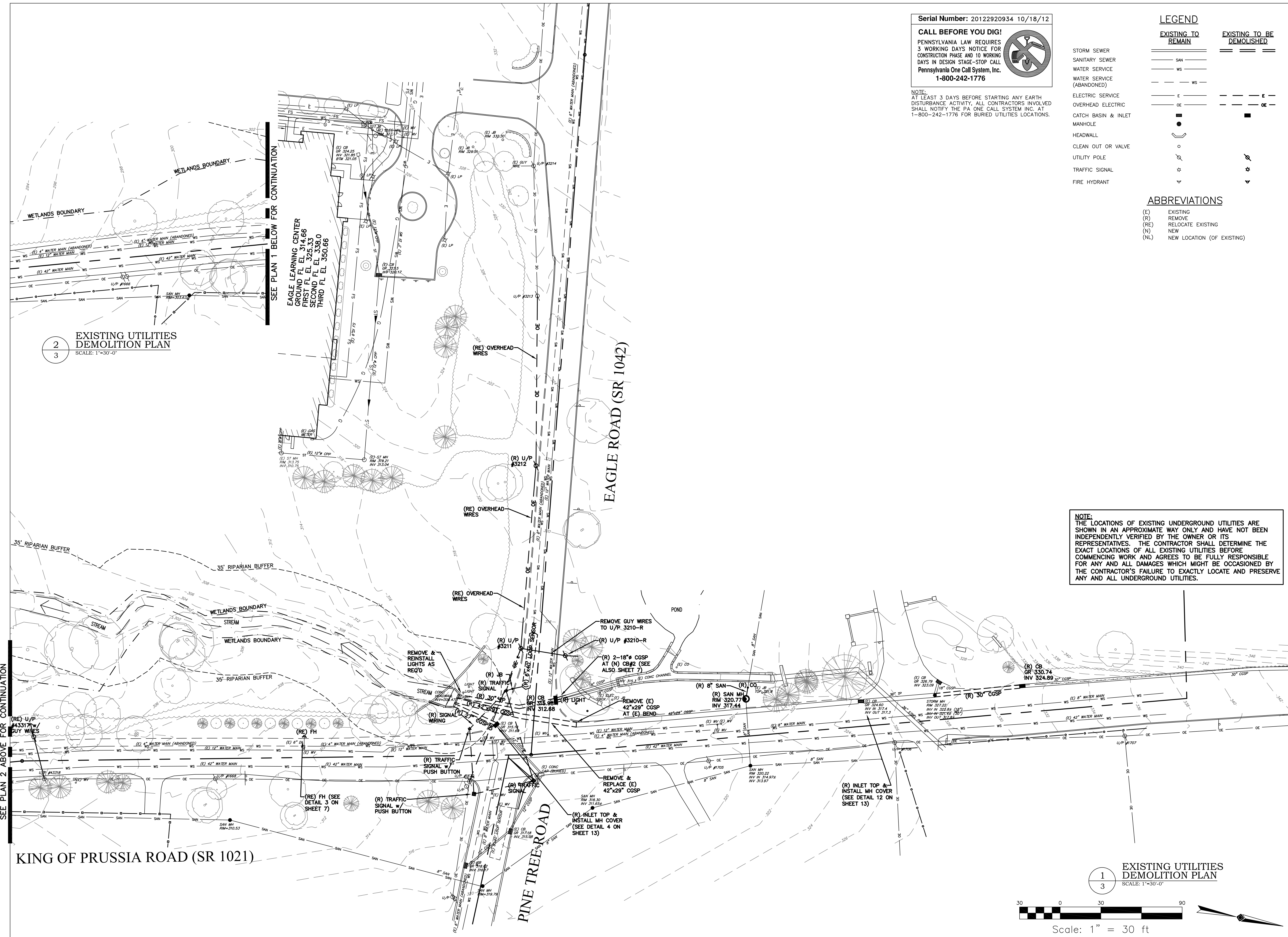
DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.

EXISTING CONDITIONS & DEMOLITION PLAN

SCALE: 1" = 30'-0"





EXISTING UTILITIES DEMOLITION PLAN
SCALE: 1"=30'-0"

Serial Number: 20122920934 10/18/12
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LEGEND

EXISTING TO REMAIN	EXISTING TO BE DEMOLISHED
STORM SEWER	STORM SEWER
SANITARY SEWER	SANITARY SEWER
WATER SERVICE	WATER SERVICE
WATER SERVICE (ABANDONED)	WATER SERVICE (ABANDONED)
ELECTRIC SERVICE	ELECTRIC SERVICE
OVERHEAD ELECTRIC	OVERHEAD ELECTRIC
CATCH BASIN & INLET MANHOLE	CATCH BASIN & INLET MANHOLE
HEADWALL	HEADWALL
CLEAN OUT OR VALVE	CLEAN OUT OR VALVE
UTILITY POLE	UTILITY POLE
TRAFFIC SIGNAL	TRAFFIC SIGNAL
FIRE HYDRANT	FIRE HYDRANT

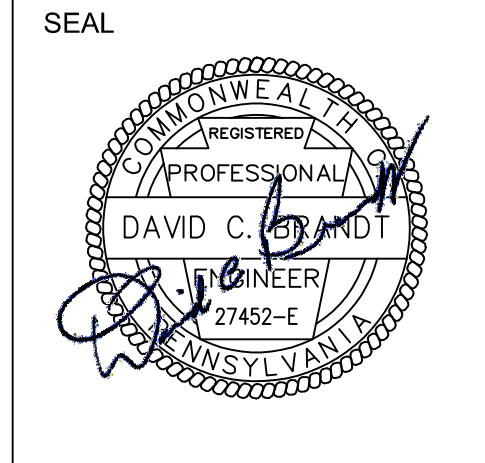
ABBREVIATIONS
(E) EXISTING
(R) REMOVE
(RE) RELOCATE EXISTING
(N) NEW
(NL) NEW LOCATION (OF EXISTING)

NOTE:
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

Associated Engineering Consultants Incorporated
4858 Devon Park Drive Suite 113 Wayne Pennsylvania 19387 tel 610 658 3980 fax 610 658 4566
www.aecinc.net

Professional Engineer
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Civil Structural HVAC Plumbing Electrical Fire Protection

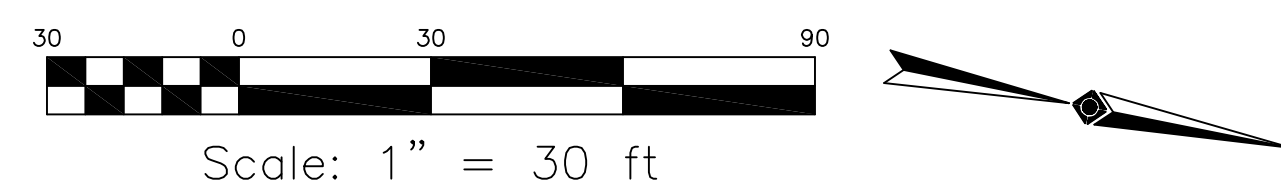


PROJECT
INTERSECTION IMPROVEMENTS
EAGLE ROAD (S.R. 1042) AND KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

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SHEET TITLE
EXISTING UTILITIES DEMOLITION PLAN
DRAWN BY: BJD
CHECKED BY: KRM
SHEET NO.

EXISTING UTILITIES DEMOLITION PLAN
SCALE: 1"=30'-0"



3
SHEET NO. 4 OF 24
PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

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CONSTRUCTION SEQUENCE:

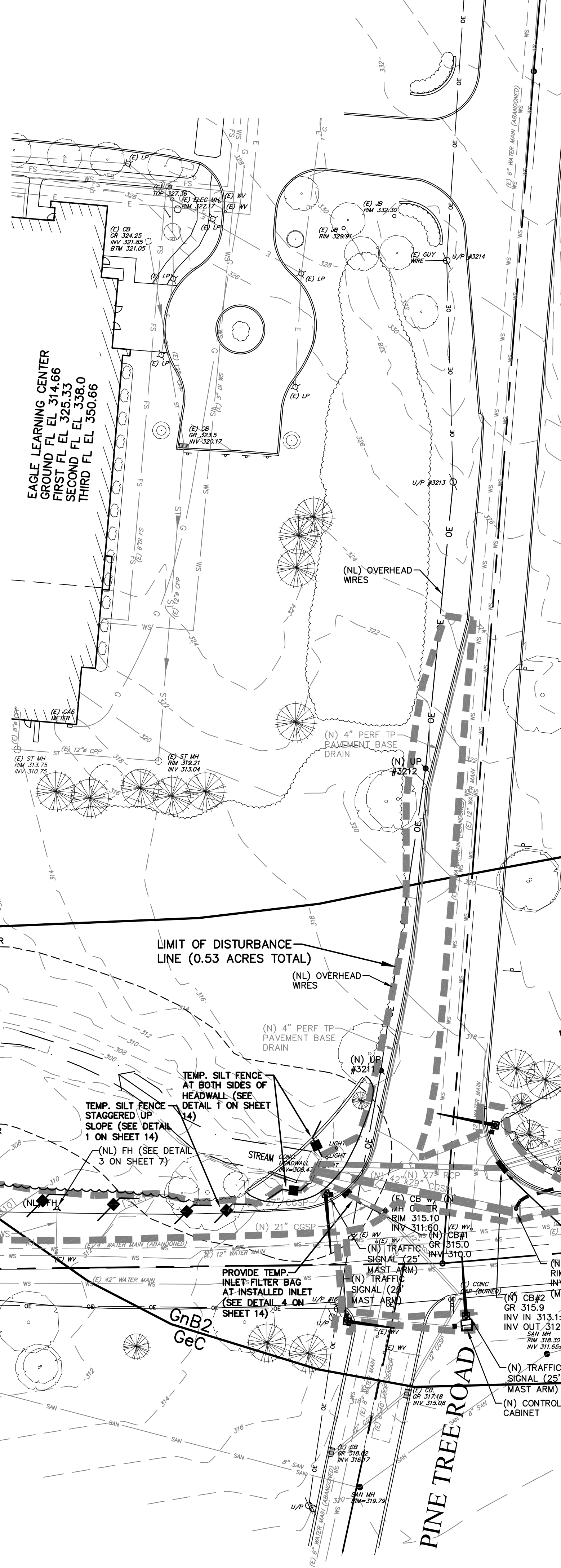
- IN GENERAL:**
 A. All earth disturbance activities shall proceed in accordance with the following sequence. Each stage shall be completed before any following stage is initiated. Clearing and grubbing shall be limited only to those areas described in each stage.
 B. At least 7 days before starting any earth disturbance activities, the Contractor shall invite all subcontractors involved in those activities, the Owner, the Civil Engineer, and all appropriate municipal officials to an on-site pre-construction meeting.
 C. Township engineer shall be notified 48 hours prior to the start of earthmoving activities.
 D. Figure numbers referenced herein refer to PennDOT's Maintenance and Protection of Traffic during construction in PennDOT Publication 213, "Work Zone Traffic Control Guidelines", as amended April 1, 2010, and Title 67 Pa. Code, Chapter 212, "Official Traffic Control Devices", dated February 4, 2006 or most current.
 E. Removal and replacement of the storm pipes shall be performed only when the weather forecast predicts at least 72 hours of rain-free weather.
 F. Any and all open excavations shall be plated at the end of each work day.

SEQUENCE OF CONSTRUCTION:

- Utilizing Figure 10b along the south side of Eagle Road, the electric utility company shall install the new utility poles #3211 and #3212, relocate the overhead wires to the new poles and remove the old utility poles.
- Utilizing Figure 10a along the west side of King of Prussia Road south of Eagle Road, the electric utility company shall install the new guy pole #43317, relocate the overhead guy wires to the new pole and remove the old guy pole.
- Utilizing Figure 10b along the west side of King of Prussia Road south of Eagle Road, the water utility company shall remove the existing fire hydrant, install the new water service to the relocated fire hydrant and install the relocated fire hydrant.
- Install the silt fence adjacent to the existing headwall as shown on the "Soil Erosion Control Plan" Sheet 4.
- Utilizing Figure 10b along the south side of Eagle Road, excavate and remove the existing 27" CGSP pipe from the existing curb inlet to the existing headwall. Install new CB#1, the new 27" CGSP pipe from the headwall to new CB#1, the new 21" CGSP pipe from new CB#1 to the existing curb inlet. Remove the inlet top and install manhole top. Backfill pipe trenches, patch pavement at capped inlet and install temporary inlet filter bag at new CB#1.
- Install the temporary pump, intake pipe, pump discharge pipe and dam at the existing inlet on King of Prussia Road (see Plan for location).
- Utilizing Figure 10b along the south side of Eagle Road, excavate and remove the existing 42"x29" CGSP pipe from the existing headwall to the limit of the temporary traffic controls. Install the new 42"x29" CGSP pipe from the existing headwall to the limit of the temporary traffic controls. Backfill the pipe trench and restore the pavement. Plate the opening at the ends of the existing and new pipes before the next step.
- Utilizing Figure 10b along the north side of Eagle Road, excavate and remove the remainder of the existing 42"x29" CGSP pipe to the new ST MH location. Install new ST MH and the remainder of the new 42"x29" CGSP pipe. Backfill the pipe trench and restore the pavement.
- Once ST MH and the new 42"x29" CGSP pipe are installed and backfilled, remove the temporary dam and pumping system at the existing inlet upslope of ST MH.
- Install the temporary pump, intake pipe, pump discharge pipe and dam at the headwall below the existing concrete canopy (see Plan for location).

CONSTRUCTION SEQUENCE (CONTINUED):

- Utilizing Figure 10b along the south side of Eagle Road, excavate and remove the existing 30" CGSP pipe from the existing headwall to the limit of the temporary traffic controls. Install the new 27" RCP pipe from the existing headwall to the limit of the temporary traffic controls. Backfill the pipe trench and restore the pavement. Plate the opening at the ends of the existing and new pipes before the next step.
- Utilizing Figure 10b along the north side of Eagle Road, excavate and remove the remainder of the existing 30" CGSP pipe, the existing inlet and the two 18" CGSP pipes at the new CB#2 location. Install new CB#2 and the remainder of the new 27" RCP pipe. Backfill the pipe trench and restore the pavement. Install temporary inlet filter bag at new CB#2.
- Once CB#2 and the new 27" RCP pipe are installed and backfilled, remove the temporary dam and pumping system at the existing headwall.
- Utilizing Figure 10b along the west side of King of Prussia Road north of Eagle Road, remove the existing curbing at the northwest corner of the intersection. Install the new pavement base drains to CB#2 and the new concrete curbing. Construct the full depth roadway widening. Regrade and seed between the roadway and the concrete channel. Adjust the sanitary manhole top as noted. Install curlex blankets where shown at slopes steeper than 3:1.
- Utilizing Figure 10b along the west side of King of Prussia Road south of Eagle Road, install the temporary silt fence, staggered up the slope as indicated on the Plan. Remove and relocate the existing trees along the roadway as indicated on Sheets 1 and 5. Relocate the existing signs as indicated. Remove the traffic signal and existing curbing south of new CB#1. Provide temporary traffic signal. Install the new concrete curbing south of new CB#1. Install the new traffic signal south of CB#1. Construct the full depth roadway widening. Regrade and seed the disturbed areas beyond the roadway. Remove the temporary silt fence. Stabilize the areas that are disturbed due to the removal of the temporary control measures.
- Utilizing Figure 10b along the south side of Eagle Road, relocate the existing signs as indicated. Remove the traffic signal and existing curbing west of new CB#1. Provide temporary traffic signal. Install the new pavement base drain to CB#1 and the new concrete curbing west of new CB#1. Construct the full depth roadway widening. Install the new traffic signal west of CB#1. Regrade and seed the disturbed areas beyond the roadway.
- Utilizing Figure 10a along the east side of King of Prussia Road north of Pine Tree Road, remove the existing traffic signal. Install the new traffic signal and new controller cabinet.
- Remove the existing traffic signal located on the southeast corner of the intersection and install the new traffic signal in the same corner.
- Install the silt fence north of the Cabrini College entrance driveway and the temporary inlet filter in existing inlet at the driveway (see Plan for location).
- Install the temporary pump, intake pipe, pump discharge pipe and dams at the existing inlet and manhole on King of Prussia Road (see Plan for locations).
- Utilizing Figure 10a along the west side of King of Prussia Road, remove the existing inlet and 30" CGSP pipe. Install new CB#3 and new 30" CGSP pipe. Backfill the pipe trench and restore the pavement.
- Construct the full depth roadway widening in this area. Regrade and seed the disturbed areas beyond the pavement. Install curlex blankets where shown at slopes steeper than 3:1.
- Remove the temporary pump, pump pipes and dams.
- Utilizing Figure 10a, mill and overlay the existing roadway areas where shown on Sheet 1. Install signs and pavement lane markings as indicated on Sheet 9.
- Once the site area is stabilized to 70% uniform coverage of permanent vegetation, remove the remaining temporary control measures throughout the site. Stabilize all areas that are disturbed due to the removal of the temporary control measures.



TEMP. CONSTRUCTION LEGEND

- LIMIT OF DISTURBANCE LINE (0.53 ACRES TOTAL)
- AREAS TO RECEIVE CURLEX BLANKETS (SEE DETAIL 3 ON SHEET 14)
- TEMPORARY SILT FENCE (SEE DETAIL 1 ON SHEET 14)
- TEMPORARY TREE PROTECTION FENCE (SEE DETAIL 5 ON SHEET 14)

SOIL DATA

- GeC GLENELG CHANNERY SILT LOAM WELL-DRAINED, 8 TO 15% SLOPES DEPTH TO BEDROCK: VERY DEEP DEPTH TO HIGH WATER TABLE: 5'+ PERMEABILITY: MODERATE HYDROLOGIC SOIL GROUP 'B'
- GnB2 GLENVILLE SILT LOAM SOMEWHAT POORLY DRAINED, MODERATELY ERODED, 3 TO 8% SLOPES DEPTH TO BEDROCK: VERY DEEP DEPTH TO HIGH WATER TABLE: 0.5'-3' PERMEABILITY: MODERATE HYDROLOGIC SOIL GROUP 'C'
- We WEHADKEE SILT LOAM POORLY DRAINED, 0 TO 3% SLOPES DEPTH TO BEDROCK: VERY DEEP DEPTH TO HIGH WATER TABLE: 0-0.5' PERMEABILITY: MODERATE HYDROLOGIC SOIL GROUP 'D'

EROSION AND SEDIMENT CONTROL GENERAL NOTES:

- Stockpile heights must not exceed 35 feet. Stockpile slopes must be 2:1 or flatter. Stockpiled topsoil mounds shall be stabilized by applying temporary seed and a perimeter silt fence shall be installed as shown on the plan. Temporary seeding shall be per PENNDOT form 408, Section 804(B).
- The operator shall ensure that the approved erosion and sediment control plan is properly and completely implemented.
- Line construction activities shall be approved by the local Conservation District and the best management practices are implemented, operated and maintained properly and completely. Maintenance shall include inspections of all best management practice facilities. The operator shall maintain and make available complete, written inspection logs of all those inspections. All maintenance work, including cleaning, repair, replacement, regrading and restabilization shall be performed immediately.
- Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the operator shall implement appropriate best management practices to eliminate potential for accelerated erosion and/or sediment pollution.
- Before initiating any revisions to the approved erosion and sediment control plan or revisions to other plans which may affect the effectiveness of the approved E&S control plan, the operator must receive approval of the revisions from the local Conservation District.
- The operator shall ensure that an erosion and sediment control plan has been prepared, approved by the local Conservation District and is being implemented and maintained for all soil and/or rock spoil and borrow areas, regardless of their locations.
- All pumping of sediment-laden water shall be through a sediment control BMP, such as a pumped water filter bag discharging over non-disturbed areas.
- The operator is advised to become thoroughly familiar with the provisions of the Appendix 64, Erosion Control Rules and Regulations, Title 25, Part 1, Department of Environmental Protection, Subpart C, Protection of Natural Resources, Article III, Water Resources, Chapter 102, Erosion Control.
- A copy of the approved erosion and sediment control plan must be available at the project site at all times.
- The E&S control plan mapping must display a PA ONE CALL SYSTEM INCORPORATED symbol including the site identification number.
- Erosion and sediment BMP's must be constructed, stabilized and functional before site disturbance begins within the tributary areas of those BMP's.
- Line construction activities shall be approved by the local Conservation District and a representative of the local Conservation District to an on-site meeting. Also, at least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System, Incorporated at 1-800-242-1776 for buried utilities locations.

EROSION AND SEDIMENT CONTROL GENERAL NOTES (CONTINUED):

- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
- Immediately after earth disturbance activities cease, the operator shall stabilize any areas disturbed by the activities.
- During non-germinating periods, mulch must be applied at the specified rates. Disturbed areas which are not at finished grade and which will be redisturbed within 1 year must be stabilized in accordance with the permanent vegetative stabilization specifications.
- An area shall be considered to have achieved final stabilization when it has a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements.
- OTHER BMP'S:
- Sediment must be removed from storm water inlet protection after each runoff event.
- TEMPORARY STABILIZATION & PERMANENT STABILIZATION:
- Hay or straw mulch must be applied at 3.0 tons per acre.
- Provide "Curlex Blankets" as manufactured by American Excelsior Co., or approved equal, on all slopes 3:1 and steeper.
- Straw mulch shall be applied in long strands, not chopped or finely broken.
- Until the site is stabilized, all erosion and sediment control BMP's must be maintained properly. Maintenance must include inspections of all erosion and sediment control BMP's after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including clean out, repair, replacement, regrading, reseeding, mulching and renetting must be performed immediately. If erosion and sediment control BMP's fail to perform as expected, replacement BMP's, or modifications of those installed will be required.
- Sediment removed from BMP's shall be disposed of in landscaped areas outside of steep slopes, wetlands, floodplains or drainage swales and immediately stabilized, or placed in topsoil stockpiles.
- The operator shall remove from the site, recycle or dispose of all building materials and waste in accordance with PADEP's Solid Waste Management Regulations at 25 Pa. Code 260.1 et seq., 271.1 et seq., and 287.1 et seq. The contractor shall not illegally bury, dump or discharge any building material or wastes at the site.

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WATERSHED NOTE:
 THE PROJECT IS LOCATED IN THE GULPH CREEK WATERSHED, WHICH HAS A CHAPTER 93 RECEIVING WATER CLASSIFICATION OF WWF.

Associated Engineering Consultants Incorporated
 488 Devon Park Drive Suite 113 Wayne Pennsylvania 19387
 Tel: 610.688.3880 Fax: 610.688.4566
 www.aecinc.net

SEAL

PROJECT
 INTERSECTION IMPROVEMENTS
 EAGLE ROAD (S.R. 1042) AND KING OF PRUSSIA ROAD (S.R. 1021)
 SAINT DAVIDS, PENNSYLVANIA 19087
 RADNOR TOWNSHIP, DELAWARE COUNTY

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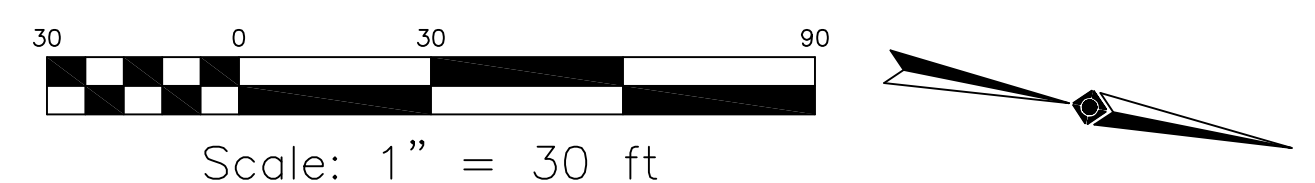
SHEET TITLE
 SOIL EROSION CONTROL PLAN

DRAWN BY: BJD
 CHECKED BY: KRM

SHEET NO. 4

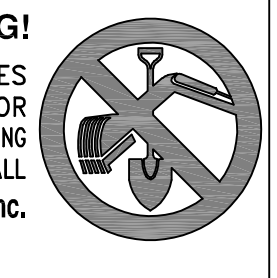
SHEET NO. 5 OF 24
 PROJECT NO. 0124.057
 DATE: NOVEMBER 18, 2011

SOIL EROSION CONTROL PLAN
 SCALE: 1"=30'-0"



Serial Number: 20122920934 10/18/12

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LEGEND

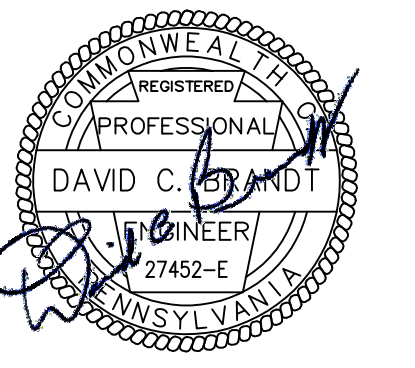
PROPERTY LINE	EXISTING TO REMAIN	PROPOSED
LEGAL R.O.W. LINE	---	---
STREAM	---	---
WETLANDS BOUNDARY	---	---
RIPARIAN BUFFER	---	---
GRADE LINE	---	---
SPOT ELEVATION	x 142.0	x 142.0
CATCH BASIN & INLET	○	■
MANHOLE	○	■
HEADWALL	○	○
CLEAN OUT OR VALVE	○	○
UTILITY POLE	○	○
TRAFFIC SIGNAL	○	○
FIRE HYDRANT	○	○
SIGNAGE	○	○
BUILDING FOOTPRINT	▨	▨
FULL DEPTH PAVING & CONCRETE CURB	▨	▨
PAVEMENT OVERLAY	▨	▨
TREES	○	○

ABBREVIATIONS

(E)	EXISTING
(R)	REMOVE
(RE)	RELOCATE EXISTING
(N)	NEW
(NL)	NEW LOCATION (OF EXISTING)



Associated Engineering Consultants Incorporated
485 Devon Park Drive, Suite 113, Wayne, Pennsylvania 19087
Tel: 610 658 3980 Fax: 610 658 4566



PROJECT

INTERSECTION IMPROVEMENTS
EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
11/18/11	H.O.P. SUBMISSION
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08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION
10/17/17	RADNOR B.O.C. MEETING

SHEET TITLE

SITE DEVELOPMENT PLAN

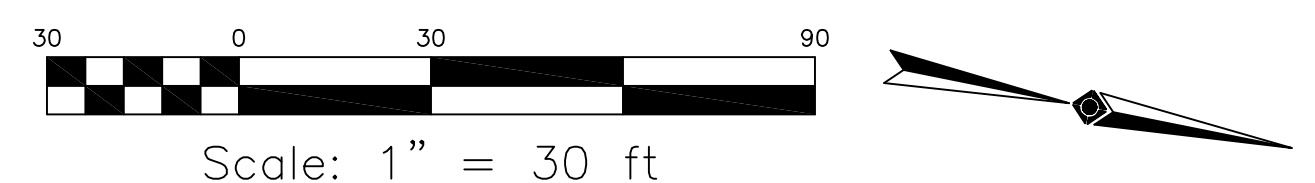
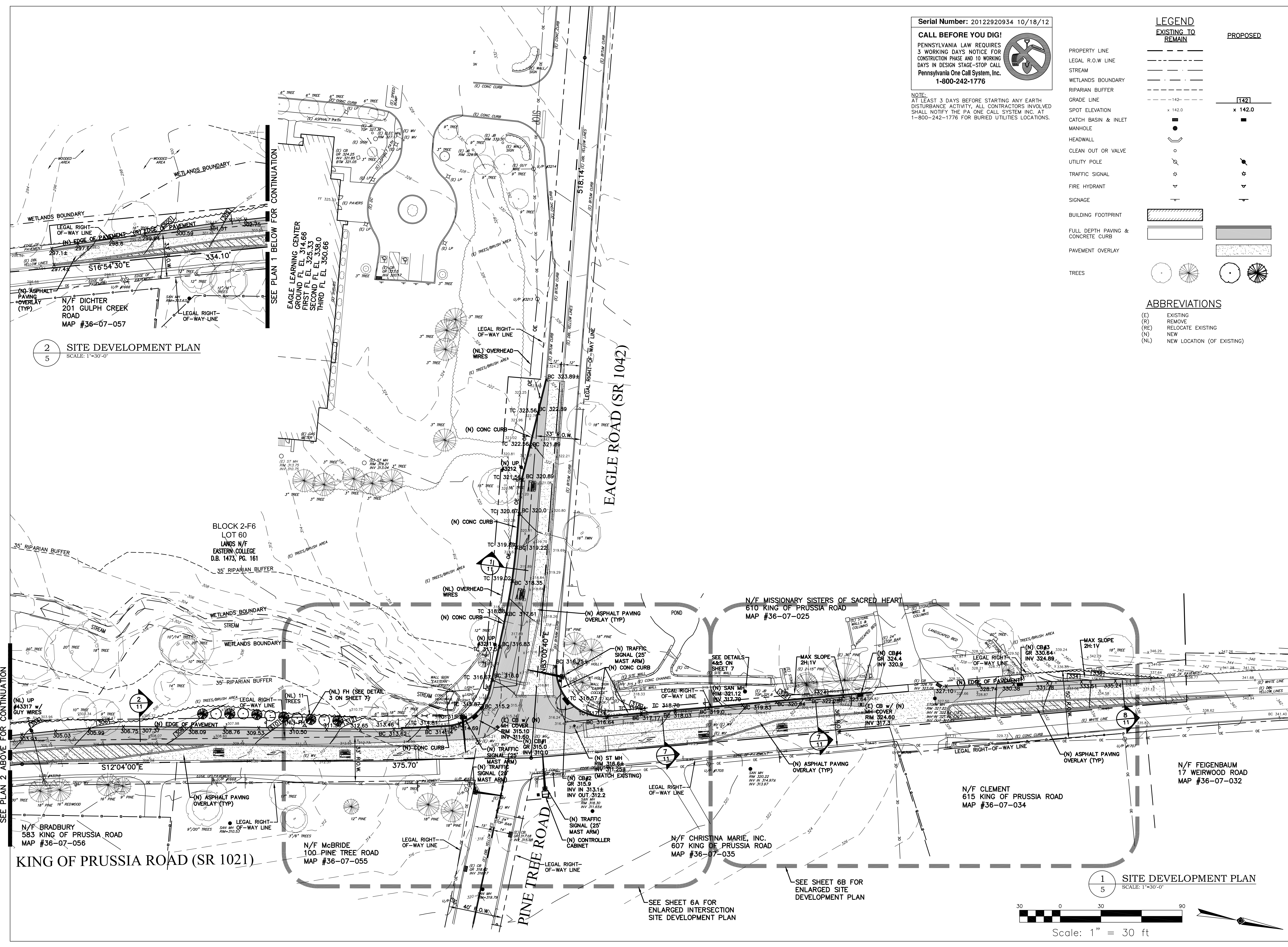
DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.

5

SHEET NO. 6 OF 24

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011



Scale: 1" = 30 ft

1
5 SITE DEVELOPMENT PLAN
SCALE: 1"=30'-0"

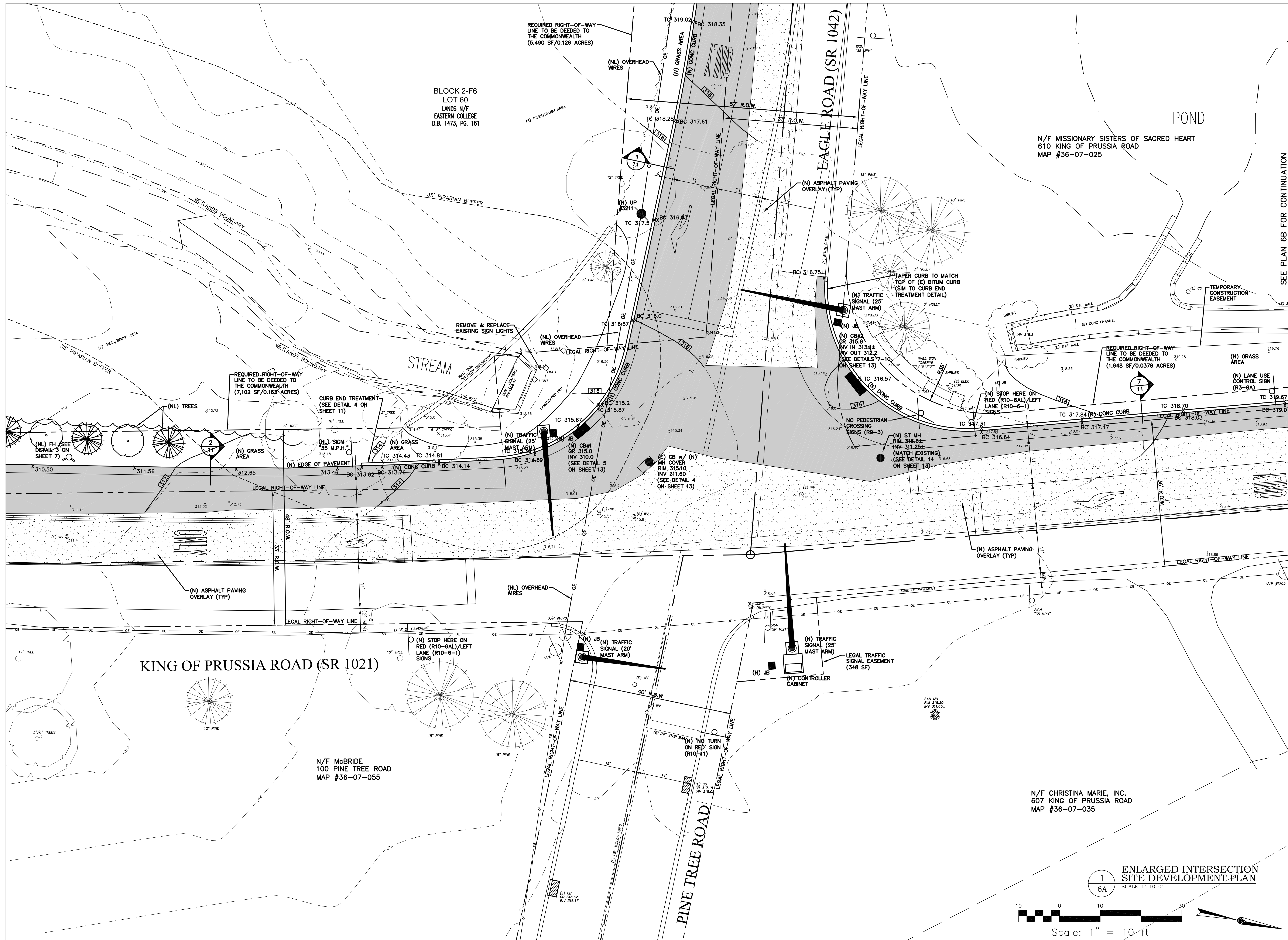
2
5 SITE DEVELOPMENT PLAN
SCALE: 1"=30'-0"

SEE PLAN 2 ABOVE FOR CONTINUATION

SEE PLAN 1 BELOW FOR CONTINUATION

SEE SHEET 6A FOR ENLARGED INTERSECTION SITE DEVELOPMENT PLAN

SEE SHEET 6B FOR ENLARGED SITE DEVELOPMENT PLAN



SEE PLAN 6B FOR CONTINUATION

SEAL

PROJECT

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND KING OF PRUSSIA ROAD (S.R. 1021)

SAINT DAVIDS, PENNSYLVANIA 19087 RADNOR TOWNSHIP, DELAWARE COUNTY

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488 Devon Park Drive Suite 113 Wayne Pennsylvania 19387 Tel: 610 688 3880 Fax: 610 688 4566
www.aecinc.com

REGISTERED PROFESSIONAL ENGINEER
DAVID C. STAMDT
27452-E
PENNSYLVANIA

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ENLARGED INTERSECTION SITE DEVELOPMENT PLAN

DRAWN BY: BJD
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SHEET NO.

ENLARGED INTERSECTION SITE DEVELOPMENT PLAN
SCALE: 1"=10'-0"

Scale: 1" = 10 ft

10 0 10 30

6A

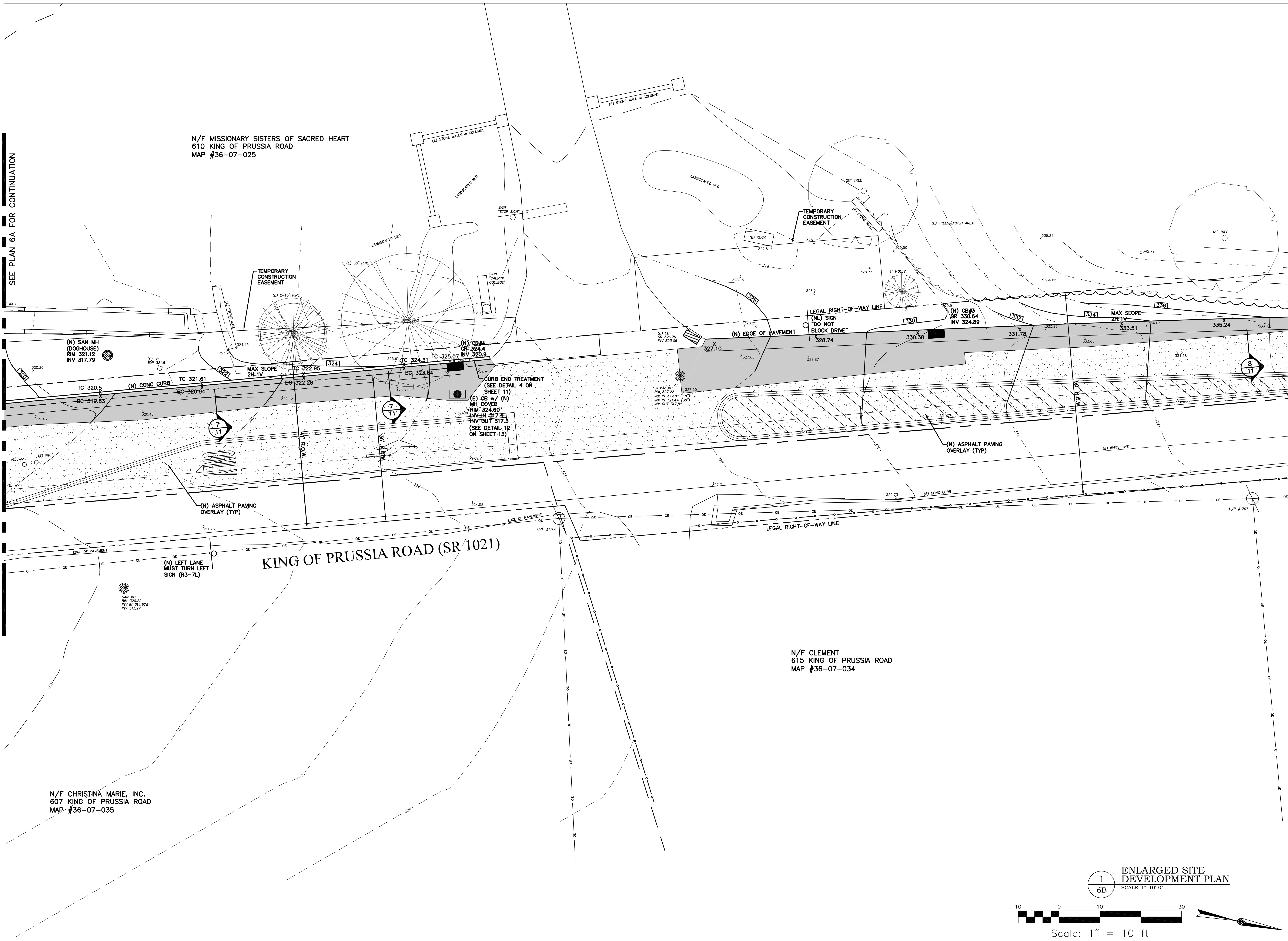
SHEET NO. 7 OF 24

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

F:\AEC_Projects\0124.057000\Drawings\10/17/2017 12:03:53 PM

SEE PLAN 6A FOR CONTINUATION

N/F MISSIONARY SISTERS OF SACRED HEART
610 KING OF PRUSSIA ROAD
MAP #36-07-025



KING OF PRUSSIA ROAD (SR 1021)

N/F CLEMENT
615 KING OF PRUSSIA ROAD
MAP #36-07-034

N/F CHRISTINA MARIE, INC.
607 KING OF PRUSSIA ROAD
MAP #36-07-035



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DATE	REVISION
08/24/13	TEMP. CONSTR. EASEMENT
10/17/17	RADNOR B.O.C. MEETING

SHEET TITLE

ENLARGED
SITE DEVELOPMENT
PLAN

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.

6B

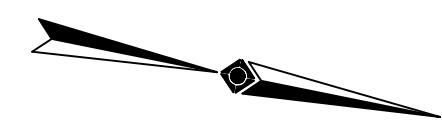
SHEET NO. 8 OF 24

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

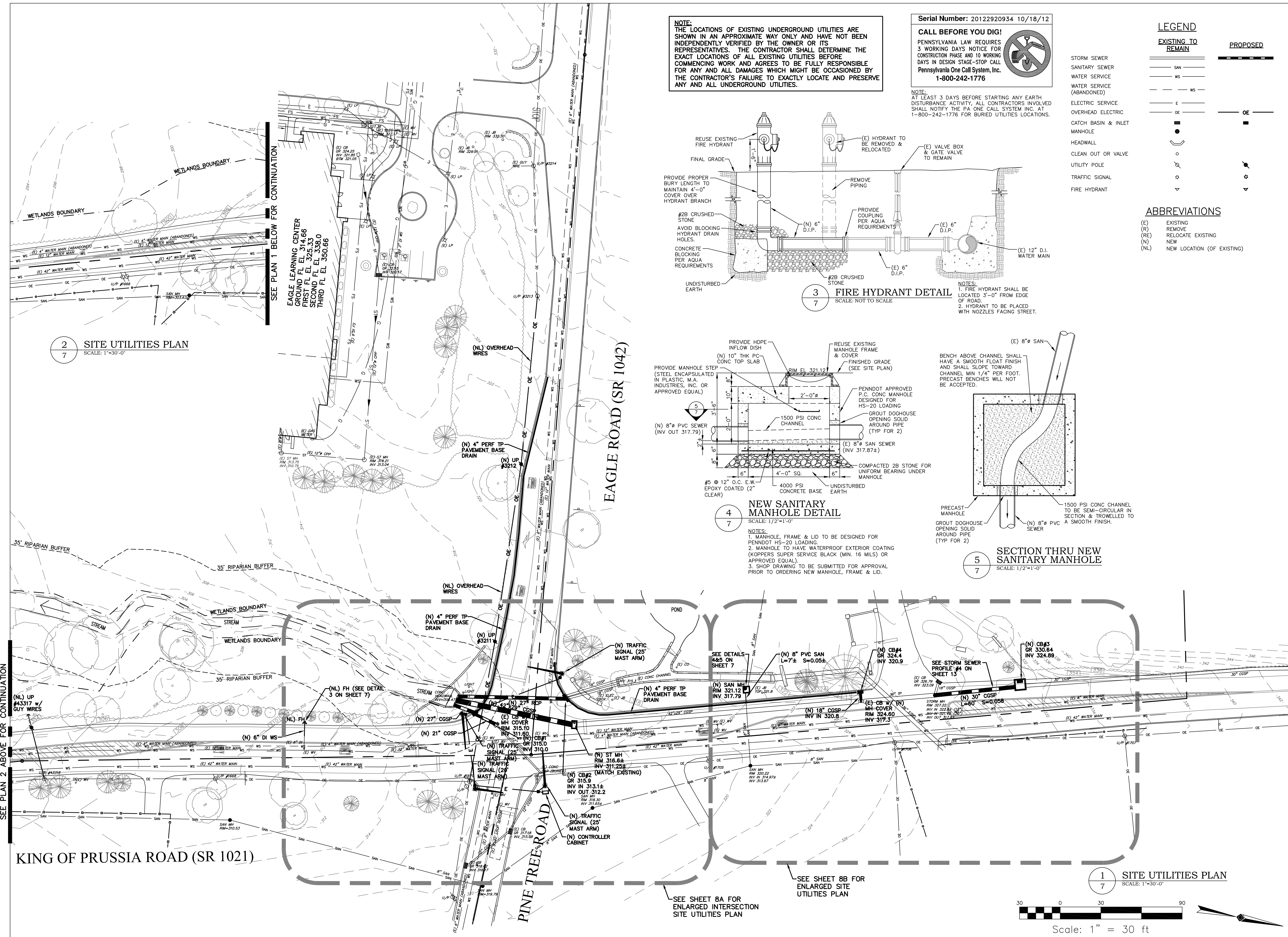
1
6B
ENLARGED SITE DEVELOPMENT PLAN
SCALE: 1"=10'-0"



Scale: 1" = 10 ft



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NOTE:
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Serial Number: 20122920934 10/18/12

CALL BEFORE YOU DIG!
 PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE-STOP CALL
 Pennsylvania One Call System, Inc.
 1-800-242-1776

NOTE:
 AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITY, ALL CONTRACTORS INVOLVED SHALL NOTIFY THE PA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR BURIED UTILITIES LOCATIONS.

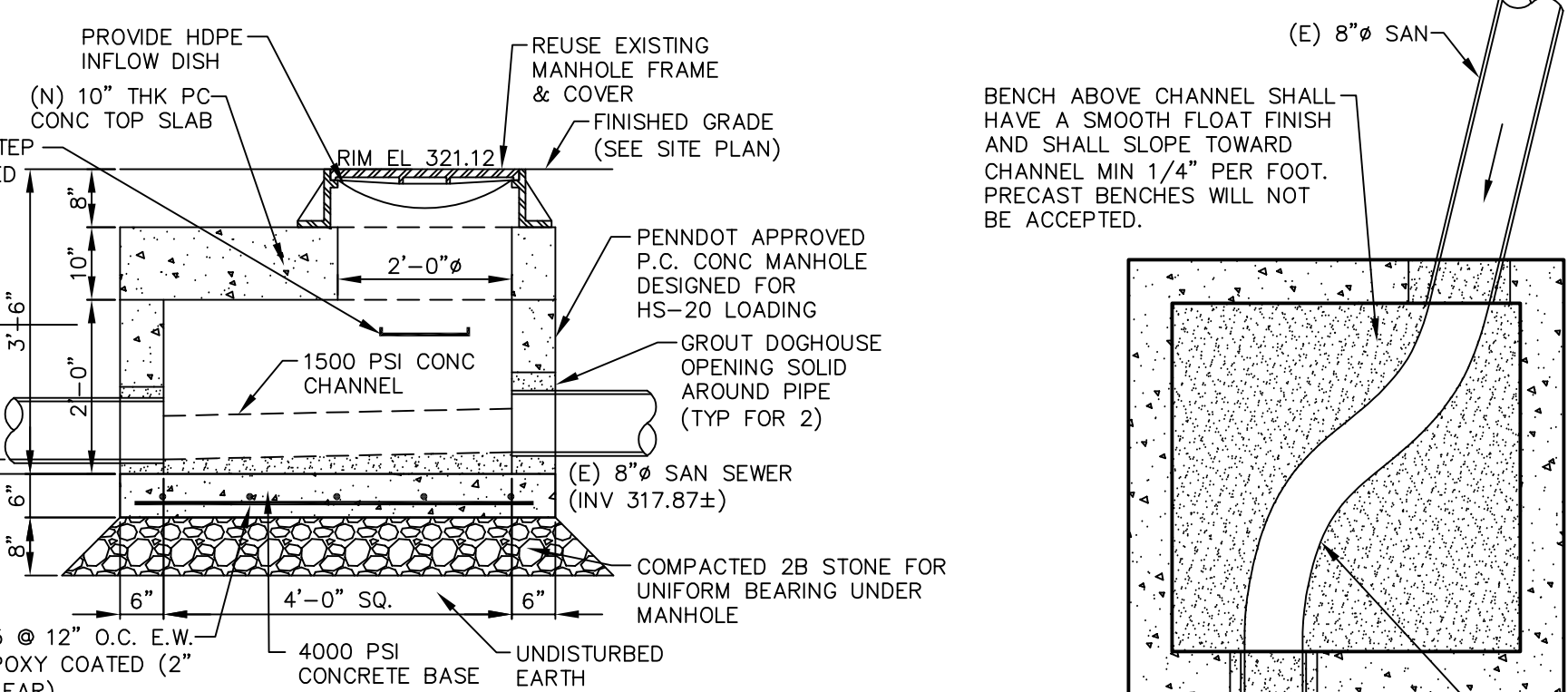
LEGEND

EXISTING TO REMAIN	PROPOSED
STORM SEWER	—
SANITARY SEWER	—
WATER SERVICE	—
WATER SERVICE (ABANDONED)	—
ELECTRIC SERVICE	—
OVERHEAD ELECTRIC	—
CATCH BASIN & INLET	—
MANHOLE	—
HEADWALL	—
CLEAN OUT OR VALVE	—
UTILITY POLE	—
TRAFFIC SIGNAL	—
FIRE HYDRANT	—

ABBREVIATIONS

(E)	EXISTING
(R)	REMOVE
(RE)	RELOCATE EXISTING
(N)	NEW
(NL)	NEW LOCATION (OF EXISTING)

3 FIRE HYDRANT DETAIL
 SCALE: NOT TO SCALE

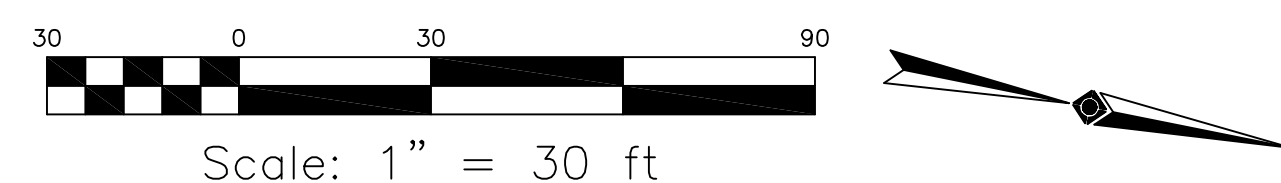


4 NEW SANITARY MANHOLE DETAIL
 SCALE: 1/2"=1'-0"

5 SECTION THRU NEW SANITARY MANHOLE
 SCALE: 1/2"=1'-0"

2 SITE UTILITIES PLAN
 SCALE: 1"=30'-0"

1 SITE UTILITIES PLAN
 SCALE: 1"=30'-0"



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Professional Engineer
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 PENNSYLVANIA

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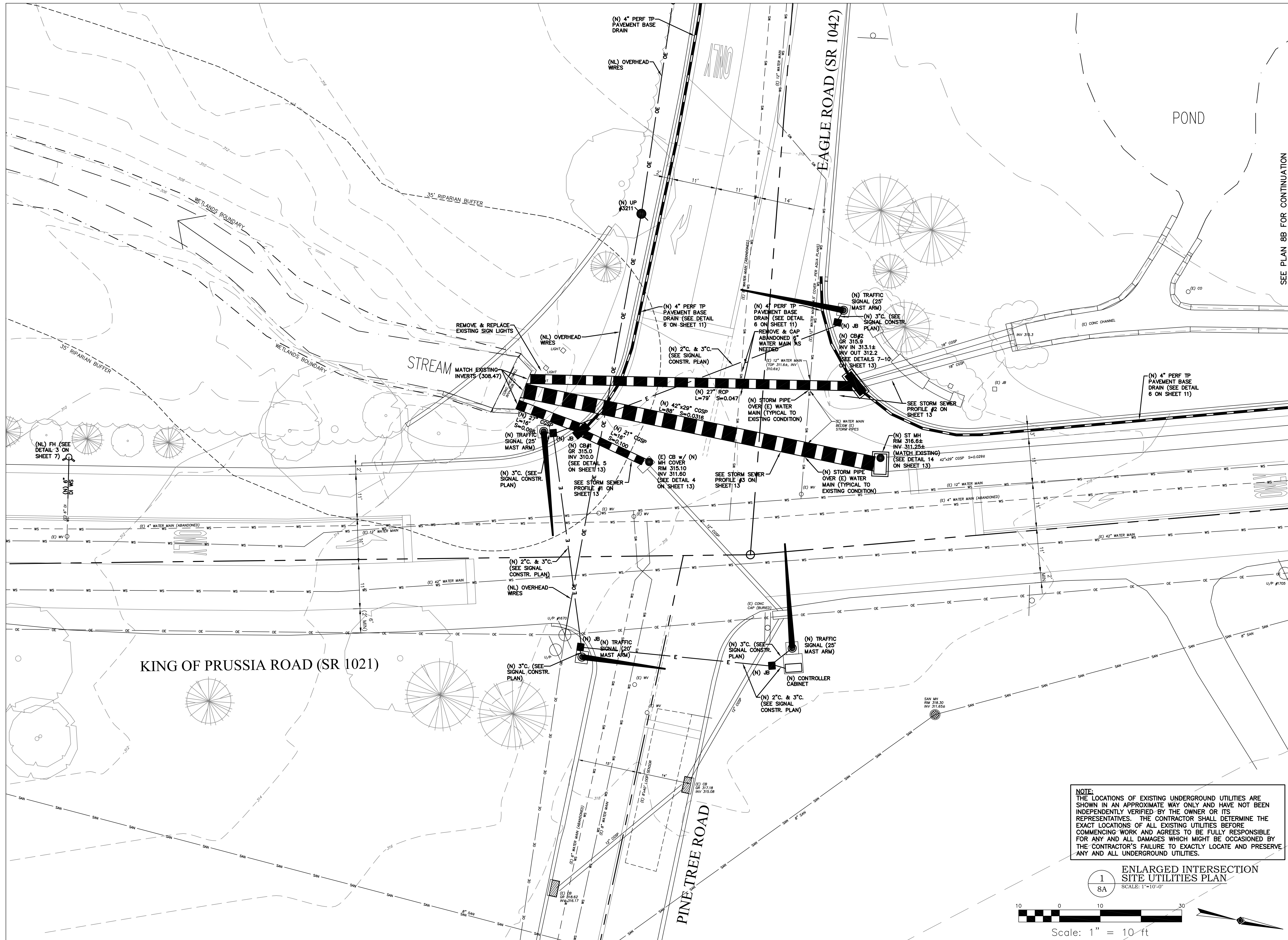
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08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION
10/17/17	RADNOR B.O.C. MEETING

SHEET TITLE
 SITE UTILITIES PLAN

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO. 7

SHEET NO. 9 OF 24
 PROJECT NO. 0124.057
 DATE: NOVEMBER 18, 2011



SEE PLAN 8B FOR CONTINUATION

SEAL

PROJECT

INTERSECTION IMPROVEMENTS

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SAINT DAVIDS, PENNSYLVANIA 19087
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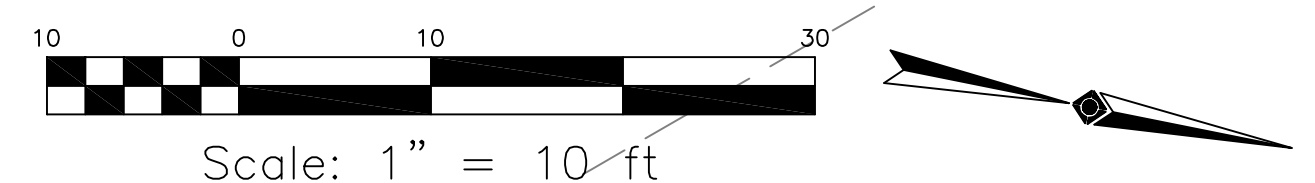
SHEET TITLE

ENLARGED INTERSECTION SITE UTILITIES PLAN

DRAWN BY: BJD
CHECKED BY: KRM
SHEET NO.

NOTE:
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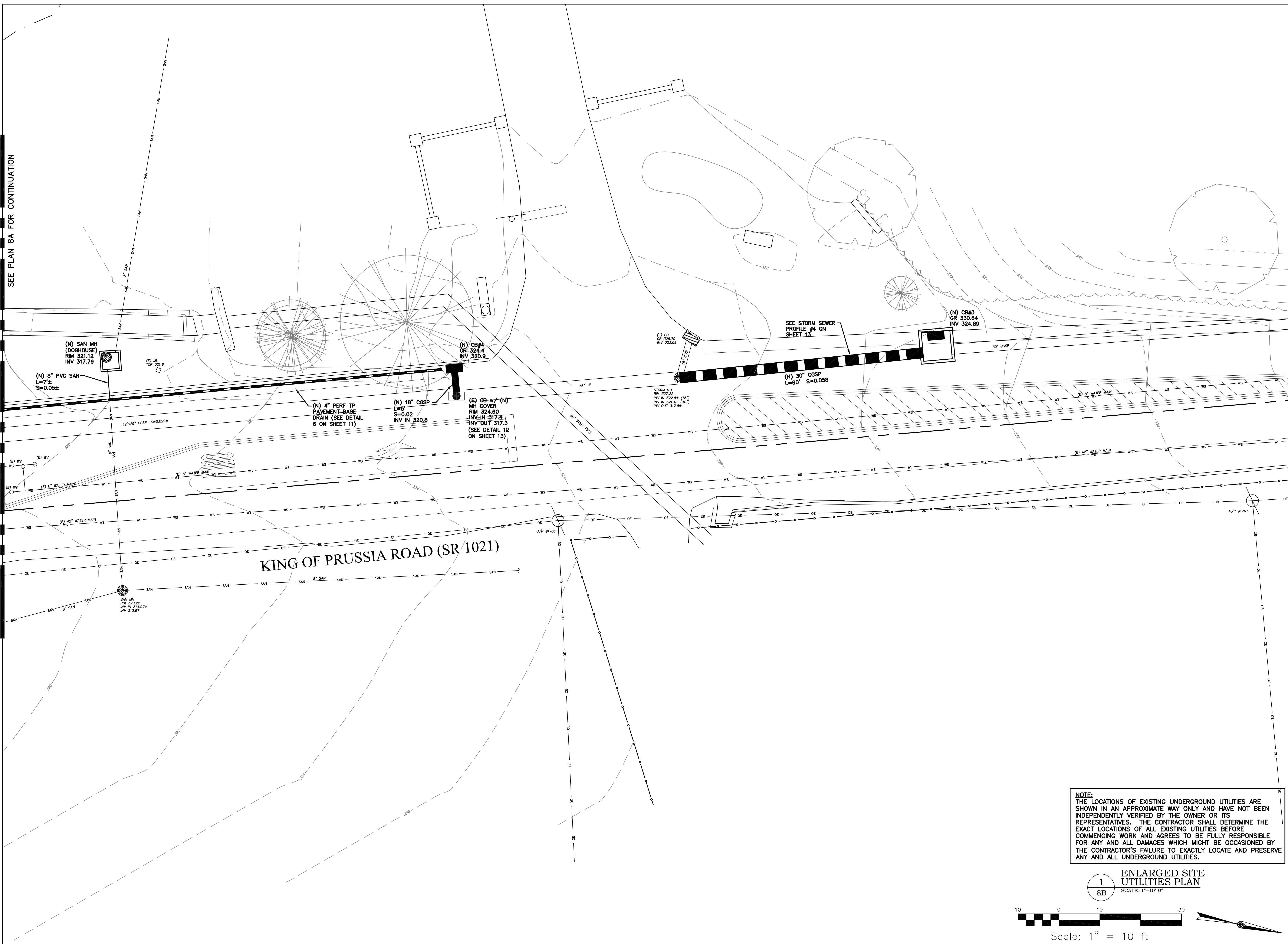
ENLARGED INTERSECTION SITE UTILITIES PLAN
SCALE: 1" = 10'-0"



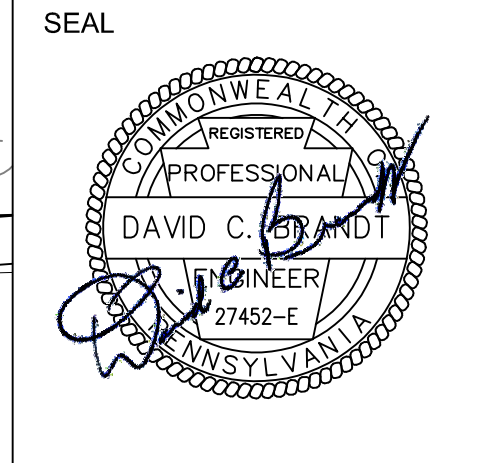
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SHEET NO. 10 OF 24

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011



SEE PLAN BA FOR CONTINUATION



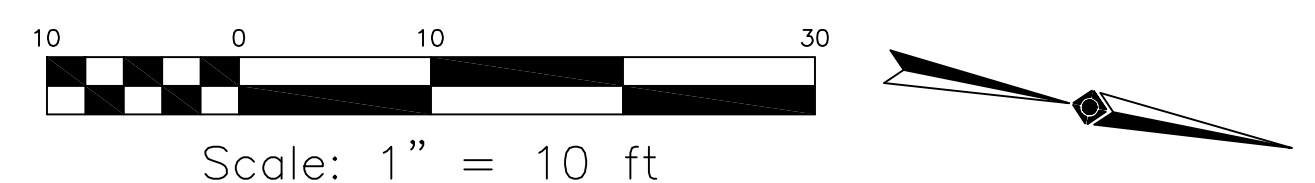
PROJECT
INTERSECTION IMPROVEMENTS
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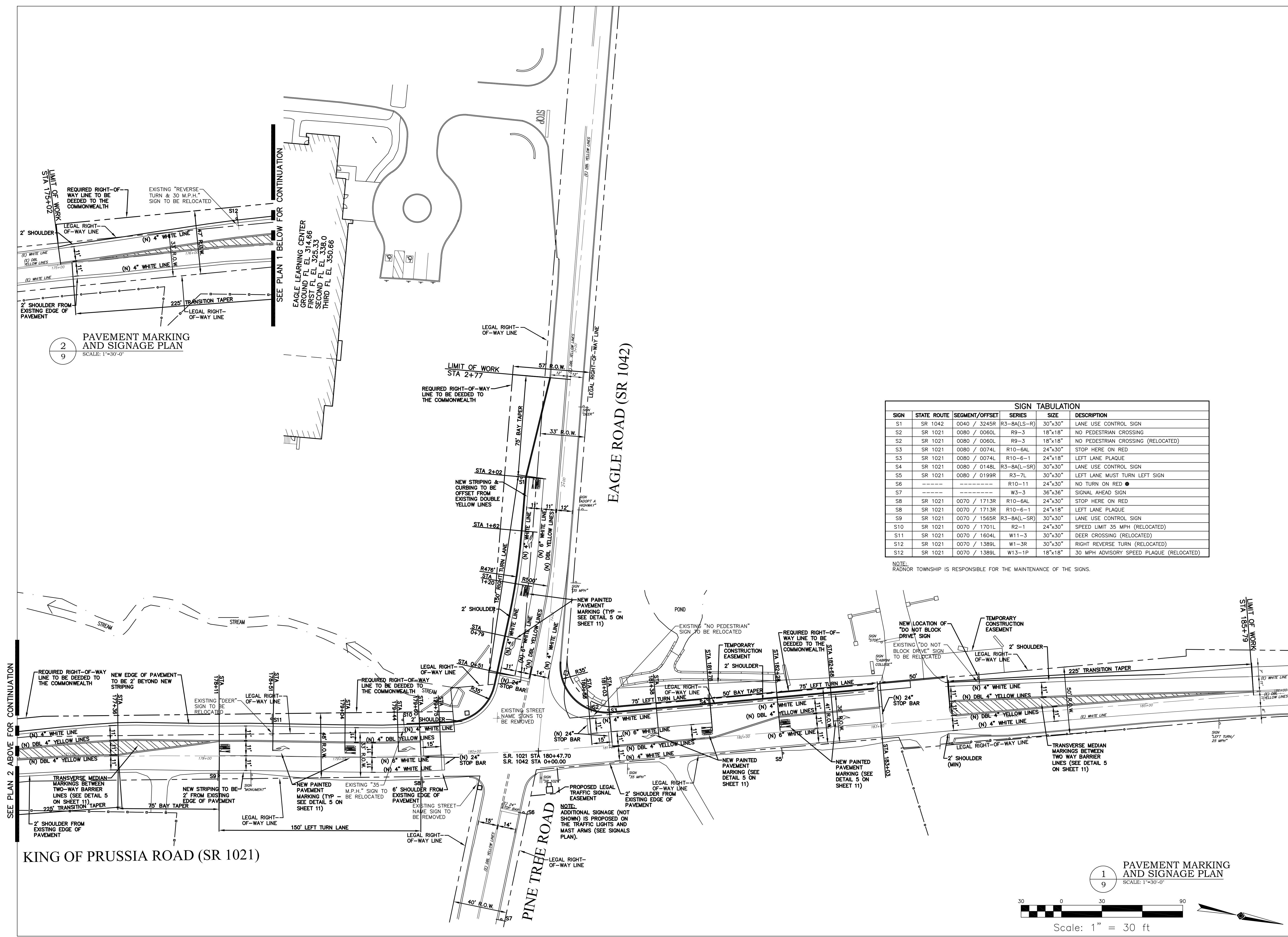
DATE	REVISION
10/17/17	RADNOR B.O.C. MEETING

SHEET TITLE
ENLARGED SITE UTILITIES PLAN
 DRAWN BY: BJD
 CHECKED BY: KRM
 SHEET NO.

NOTE:
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1
 ENLARGED SITE UTILITIES PLAN
 SCALE: 1"=10'-0"

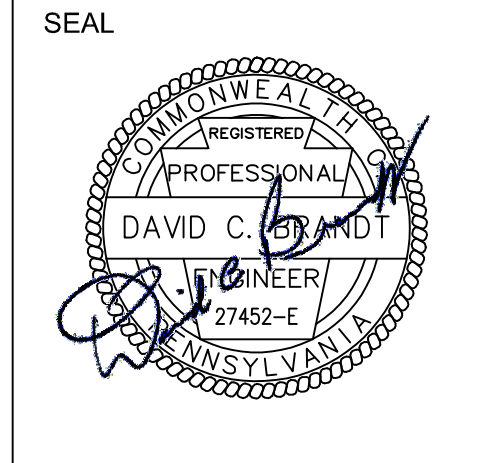




2
9
PAVEMENT MARKING AND SIGNAGE PLAN
SCALE: 1"=30'-0"

SIGN TABULATION					
SIGN	STATE ROUTE	SEGMENT/OFFSET	SERIES	SIZE	DESCRIPTION
S1	SR 1042	0040 / 3245R	R3-BA(LS-R)	30"x30"	LANE USE CONTROL SIGN
S2	SR 1021	0080 / 0060L	R9-3	18"x18"	NO PEDESTRIAN CROSSING
S2	SR 1021	0080 / 0060L	R9-3	18"x18"	NO PEDESTRIAN CROSSING (RELOCATED)
S3	SR 1021	0080 / 0074L	R10-6AL	24"x30"	STOP HERE ON RED
S3	SR 1021	0080 / 0074L	R10-6-1	24"x18"	LEFT LANE PLAQUE
S4	SR 1021	0080 / 0148L	R3-BA(L-SR)	30"x30"	LANE USE CONTROL SIGN
S5	SR 1021	0080 / 0199R	R3-7L	30"x30"	LEFT LANE MUST TURN LEFT SIGN
S6	-----	-----	R10-11	24"x30"	NO TURN ON RED
S7	-----	-----	W3-3	36"x36"	SIGNAL AHEAD SIGN
S8	SR 1021	0070 / 1713R	R10-6AL	24"x30"	STOP HERE ON RED
S8	SR 1021	0070 / 1713R	R10-6-1	24"x18"	LEFT LANE PLAQUE
S9	SR 1021	0070 / 1565R	R3-BA(L-SR)	30"x30"	LANE USE CONTROL SIGN
S10	SR 1021	0070 / 1701L	R2-1	24"x30"	SPEED LIMIT 35 MPH (RELOCATED)
S11	SR 1021	0070 / 1604L	W11-3	30"x30"	DEER CROSSING (RELOCATED)
S12	SR 1021	0070 / 1389L	W1-3R	30"x30"	RIGHT REVERSE TURN (RELOCATED)
S12	SR 1021	0070 / 1389L	W13-1P	18"x18"	30 MPH ADVISORY SPEED PLAQUE (RELOCATED)

NOTE:
RADNOR TOWNSHIP IS RESPONSIBLE FOR THE MAINTENANCE OF THE SIGNS.



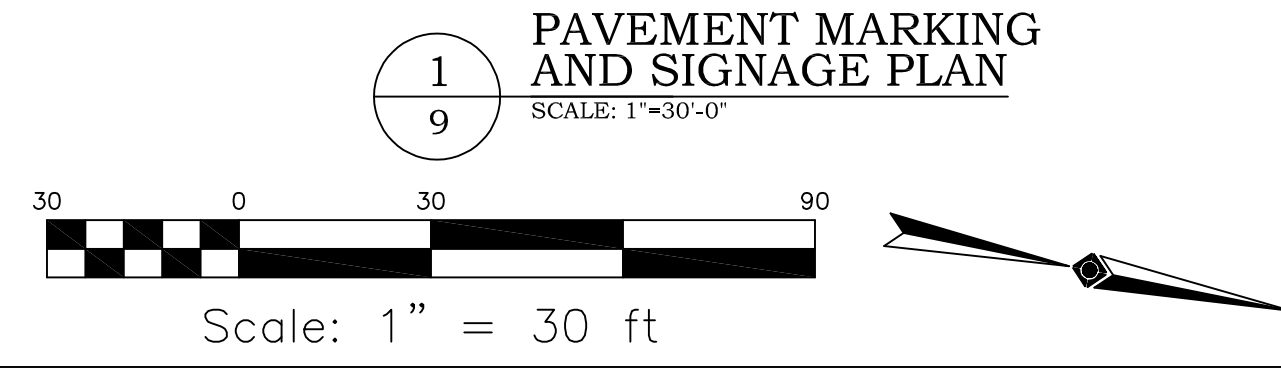
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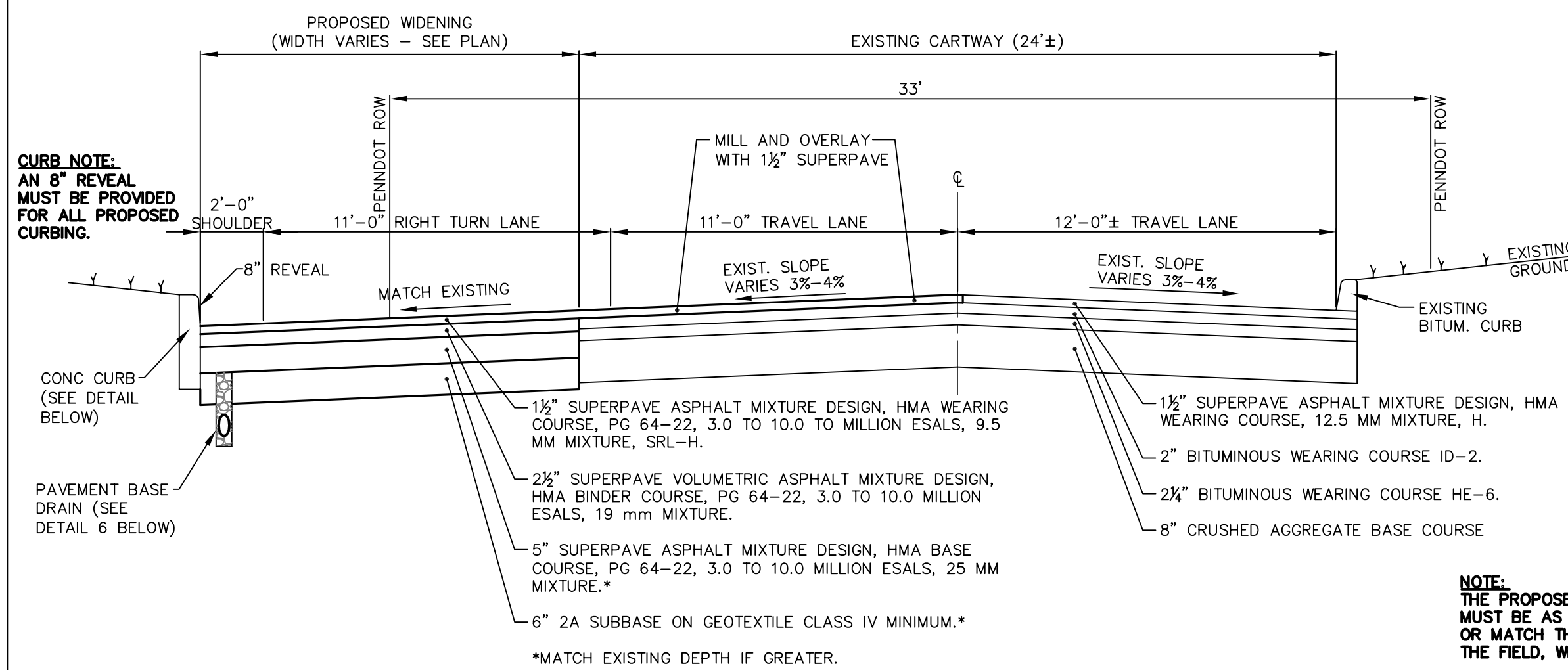
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SHEET TITLE
PAVEMENT MARKING AND SIGNAGE PLAN

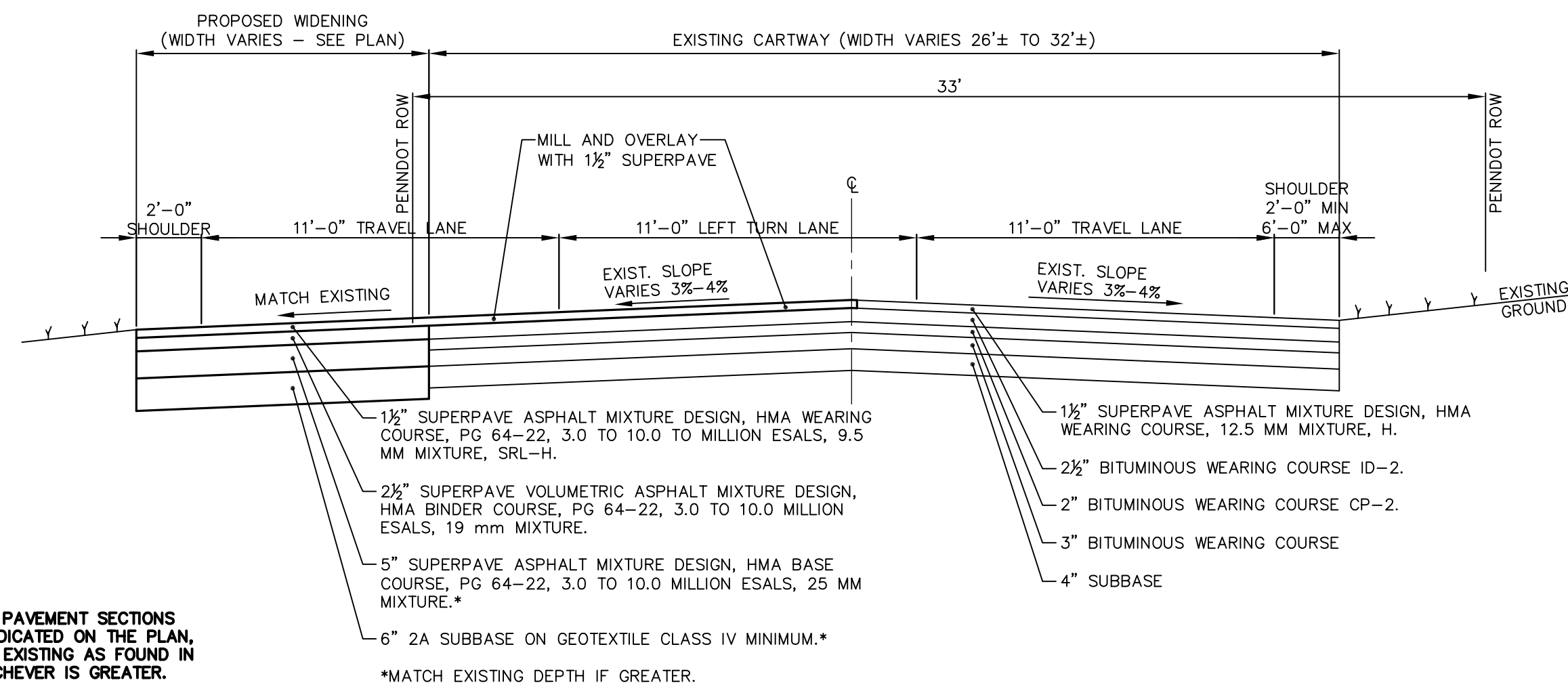
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SHEET NO.
9

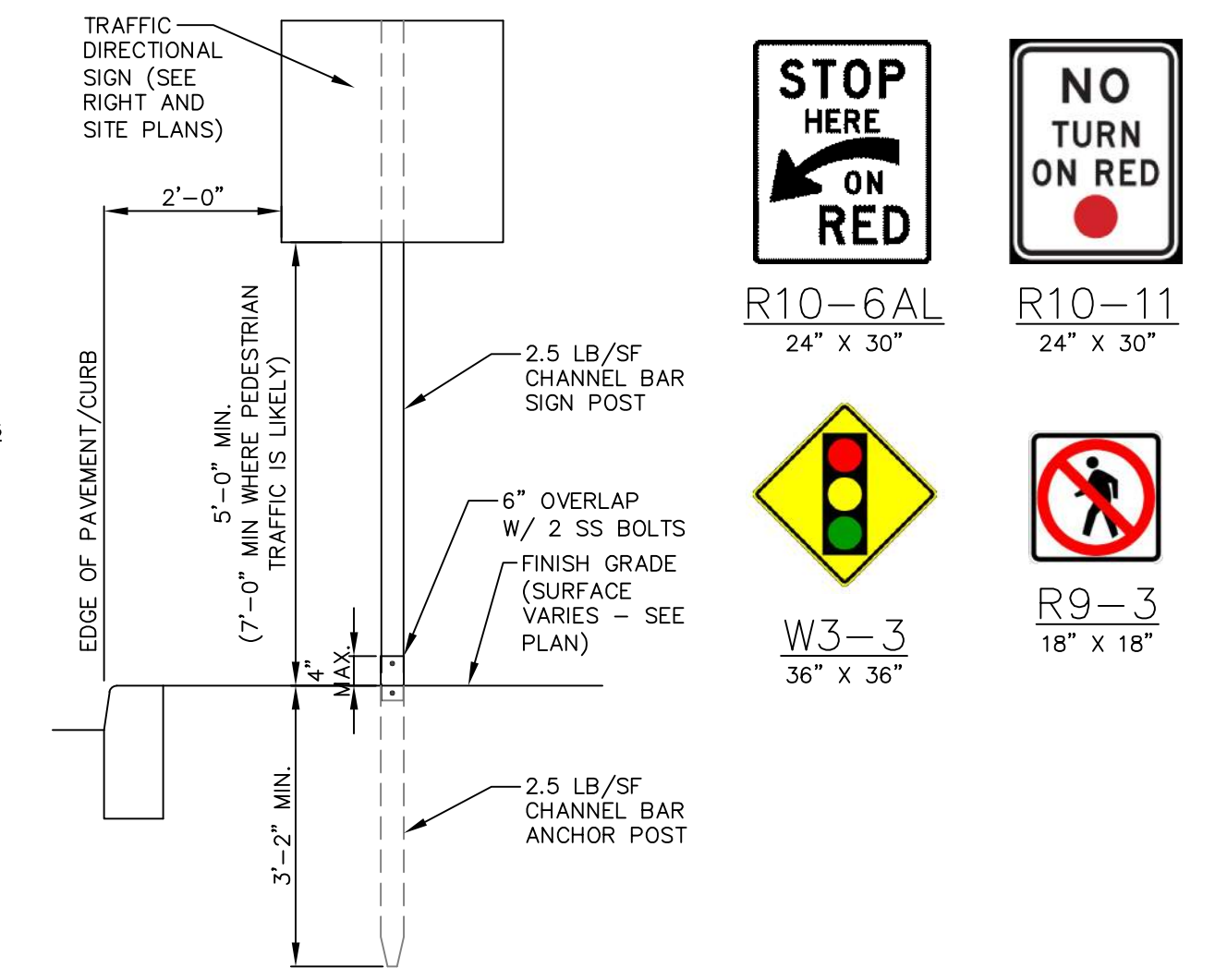




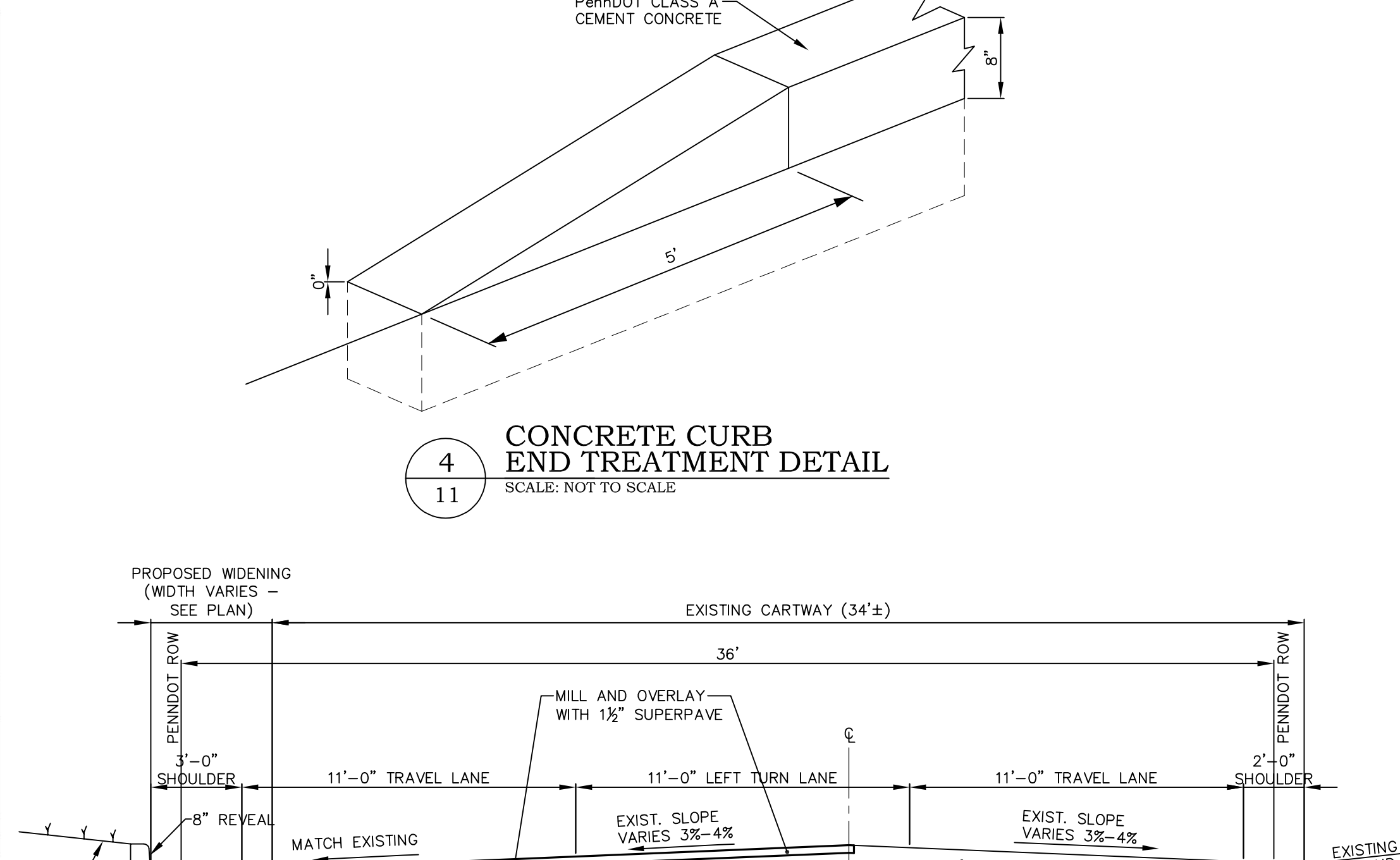
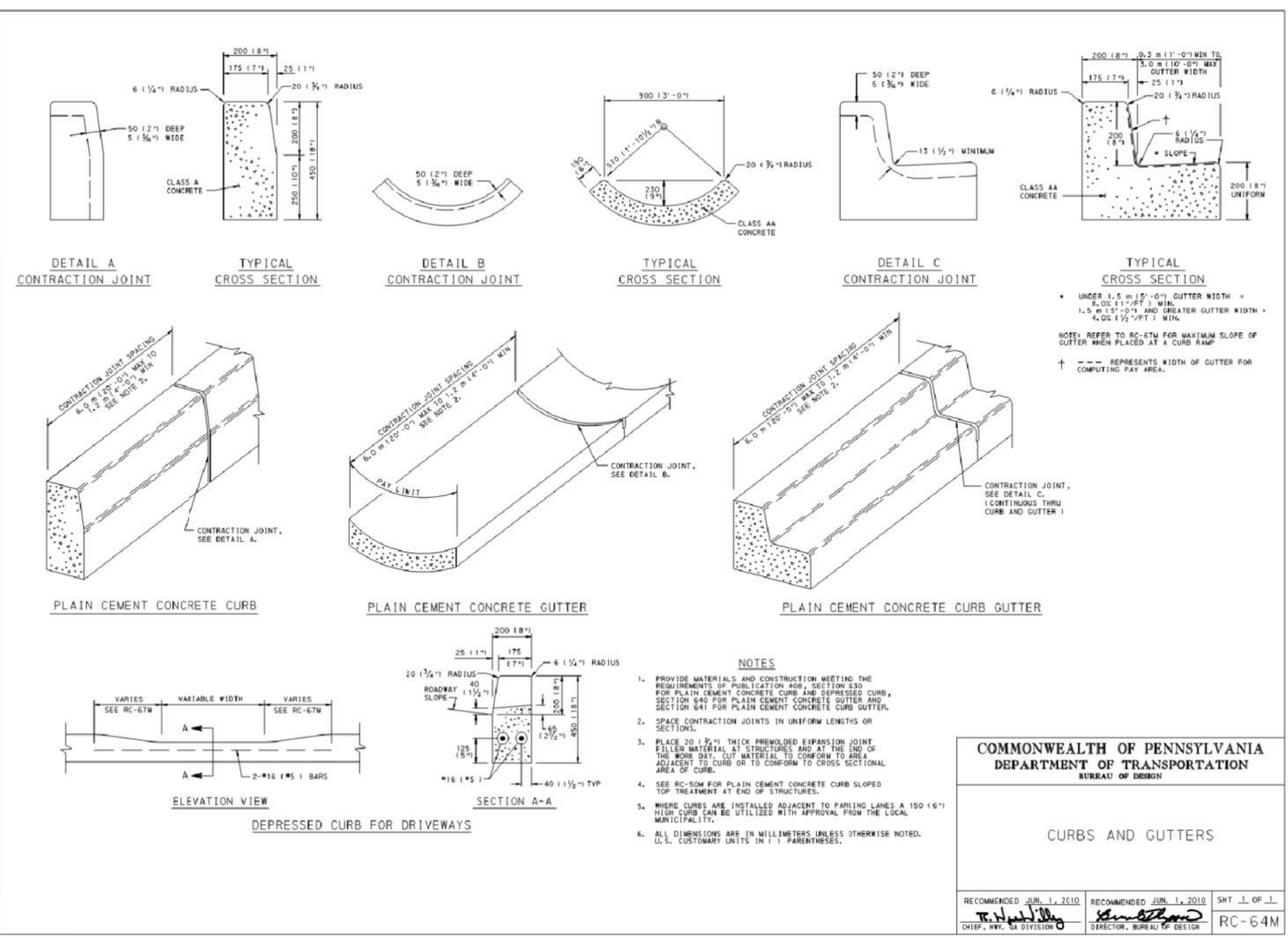
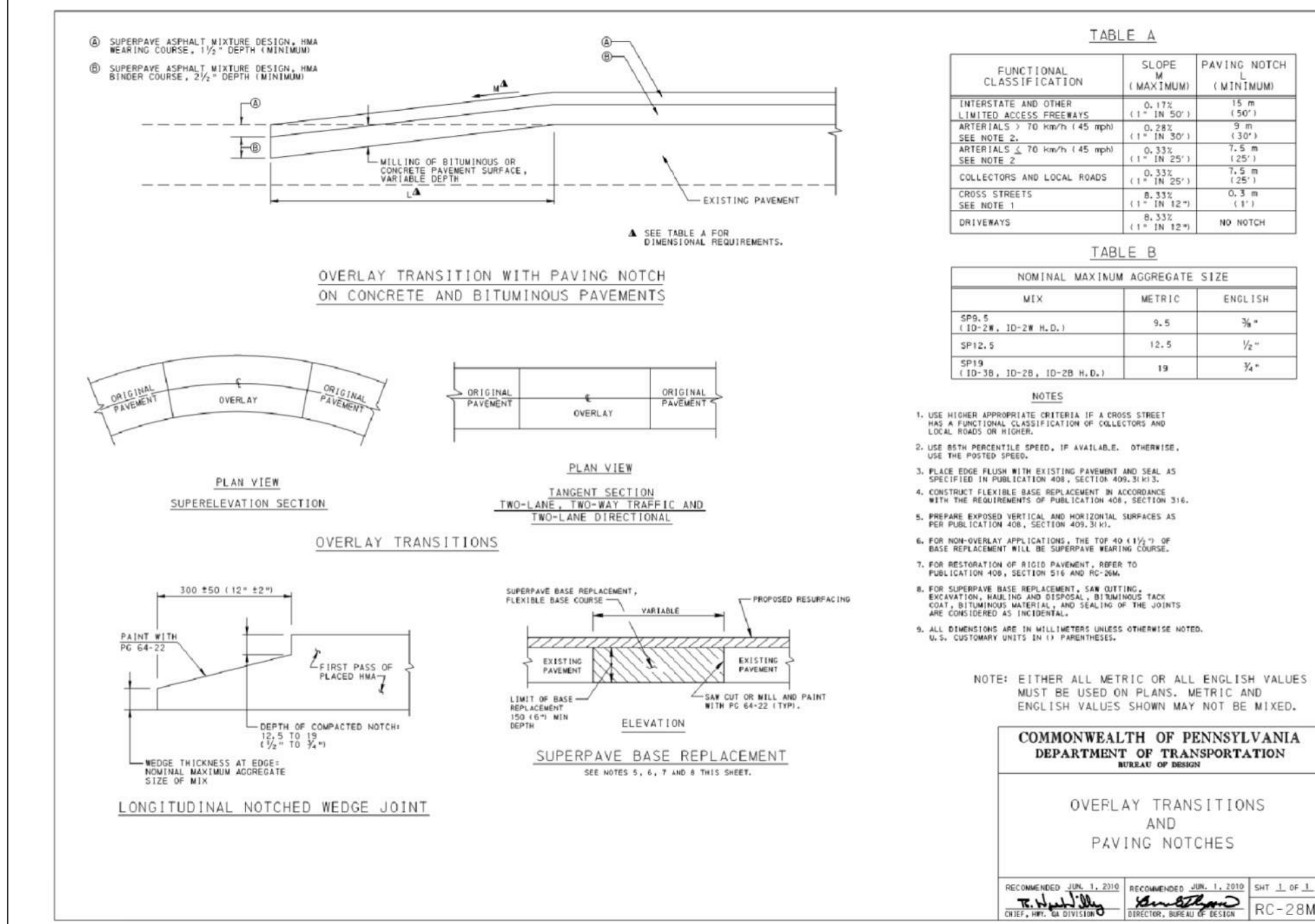
1 S.R. 1042 SECTION
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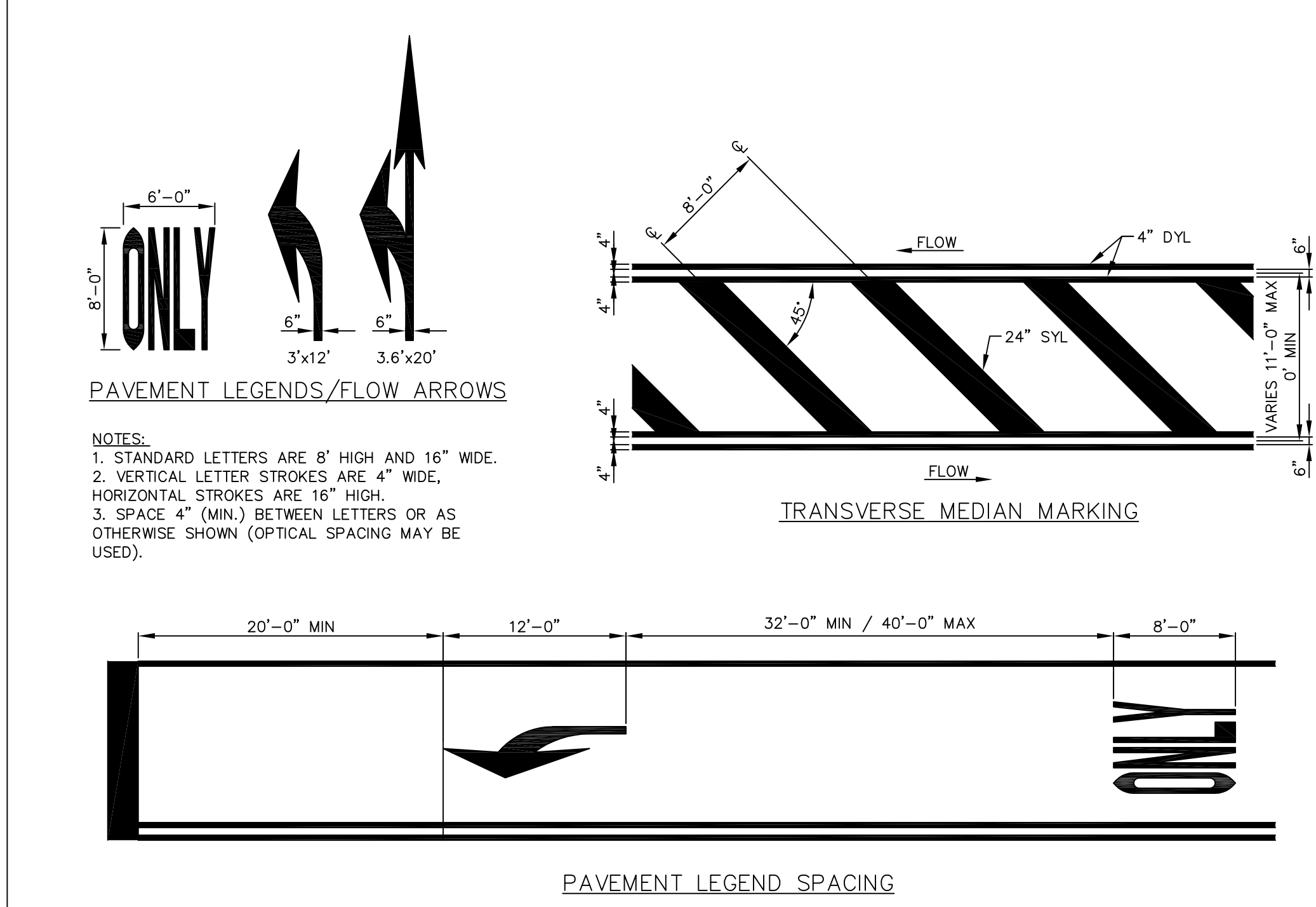
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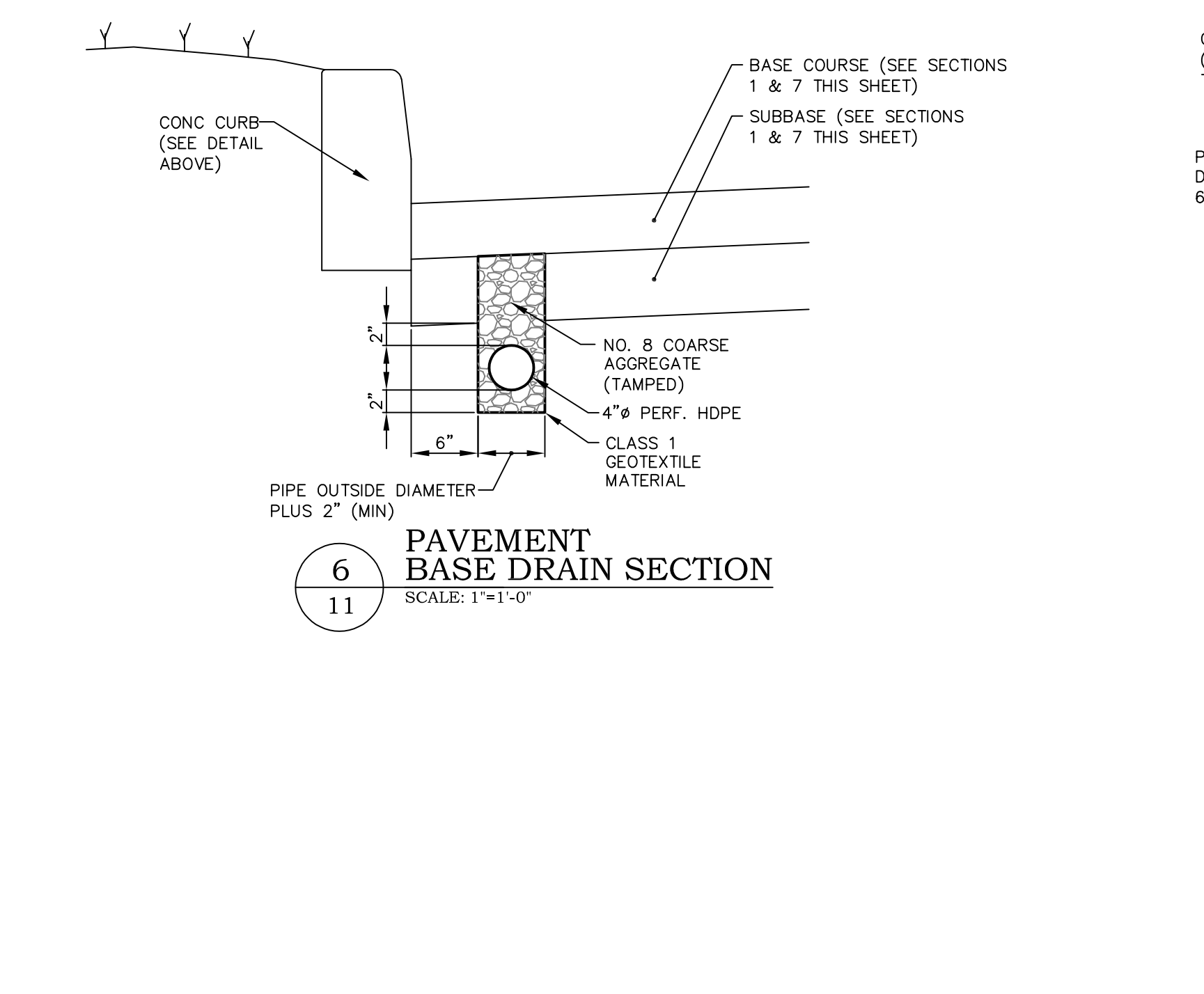
3 TYPICAL SIGN POST DETAIL
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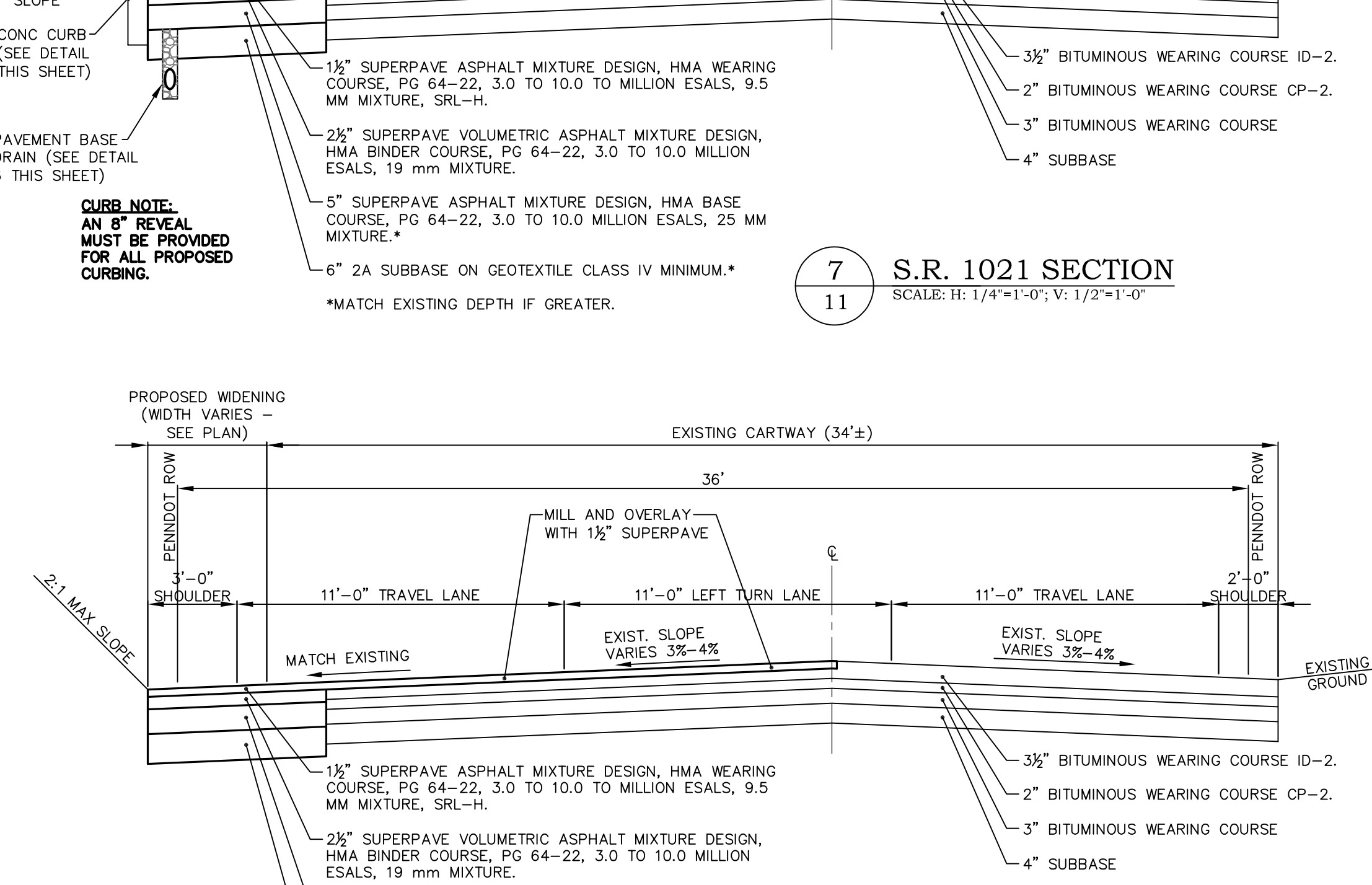
4 CONCRETE CURB END TREATMENT DETAIL
SCALE: NOT TO SCALE



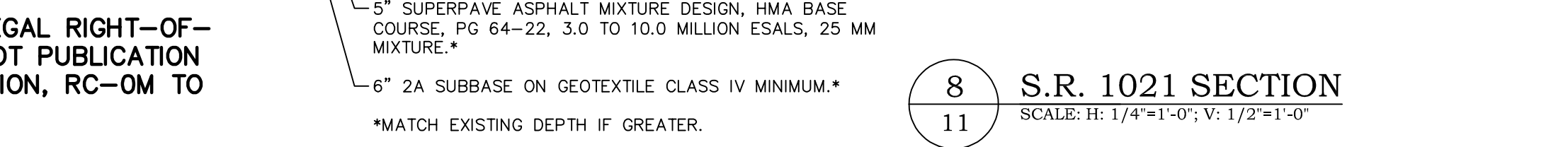
5 PAINTED PAVEMENT MARKINGS
SCALE: 1/8"=1'-0"



6 PAVEMENT BASE DRAIN SECTION
SCALE: 1"=1'-0"



7 S.R. 1021 SECTION
SCALE: H: 1/4"=1'-0"; V: 1/2"=1'-0"



8 S.R. 1021 SECTION
SCALE: H: 1/4"=1'-0"; V: 1/2"=1'-0"

NOTE: ALL WORK PERFORMED WITHIN THE STATE LEGAL RIGHT-OF-WAY MUST BE IN ACCORDANCE WITH PENNDOT PUBLICATION 72M, STANDARDS FOR ROADWAY CONSTRUCTION, RC-0M TO 100M, AS AMENDED.

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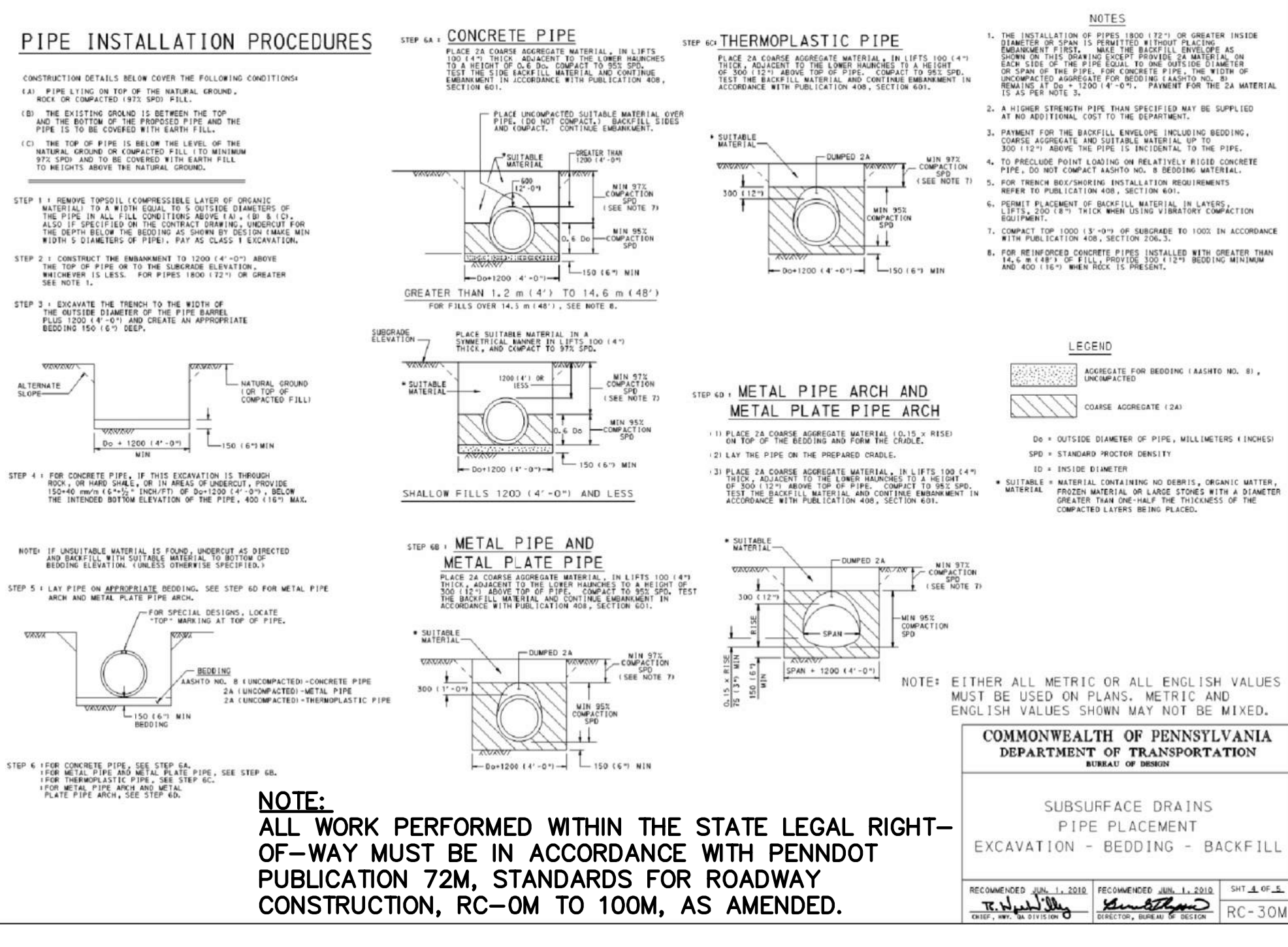
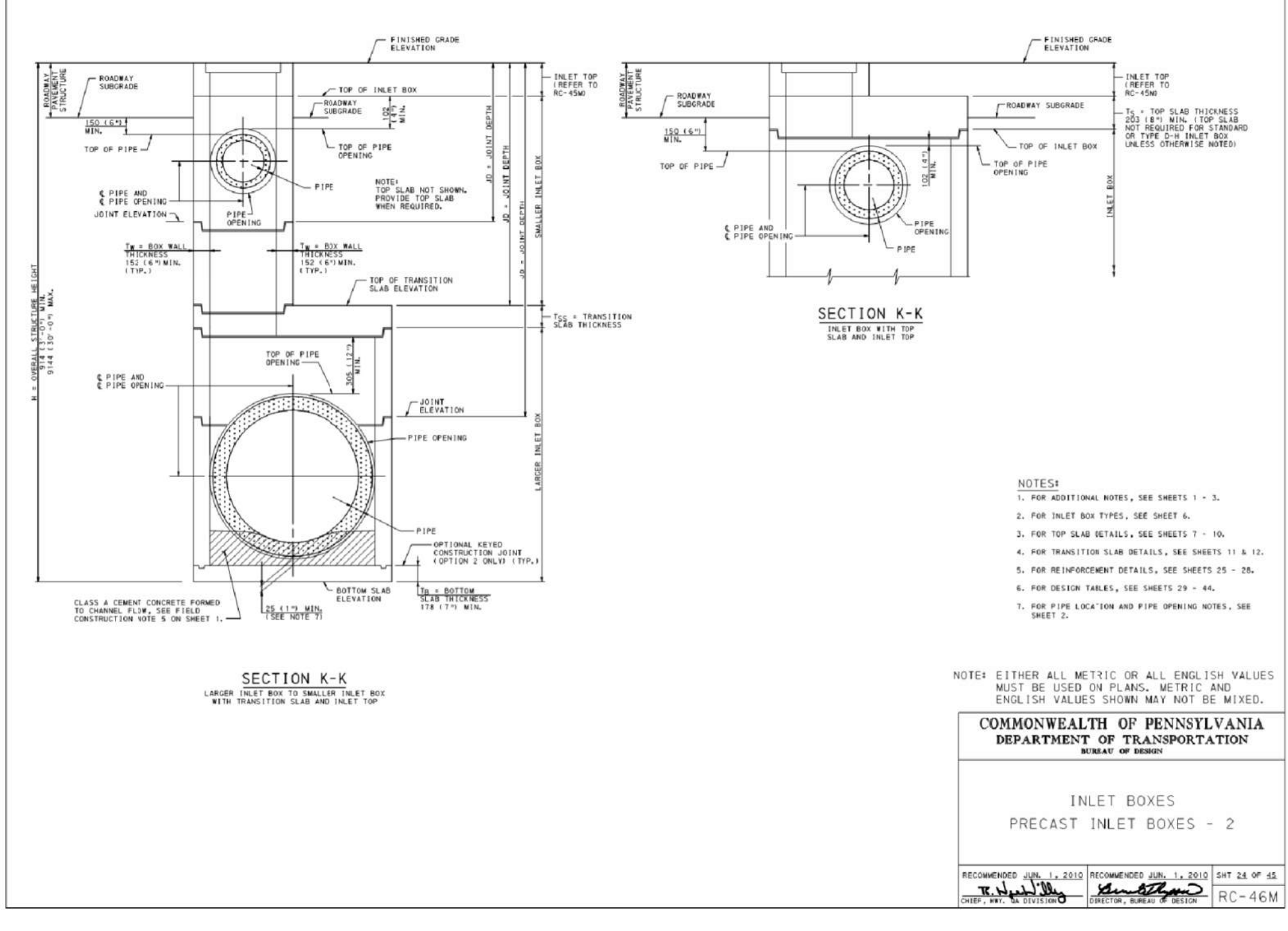
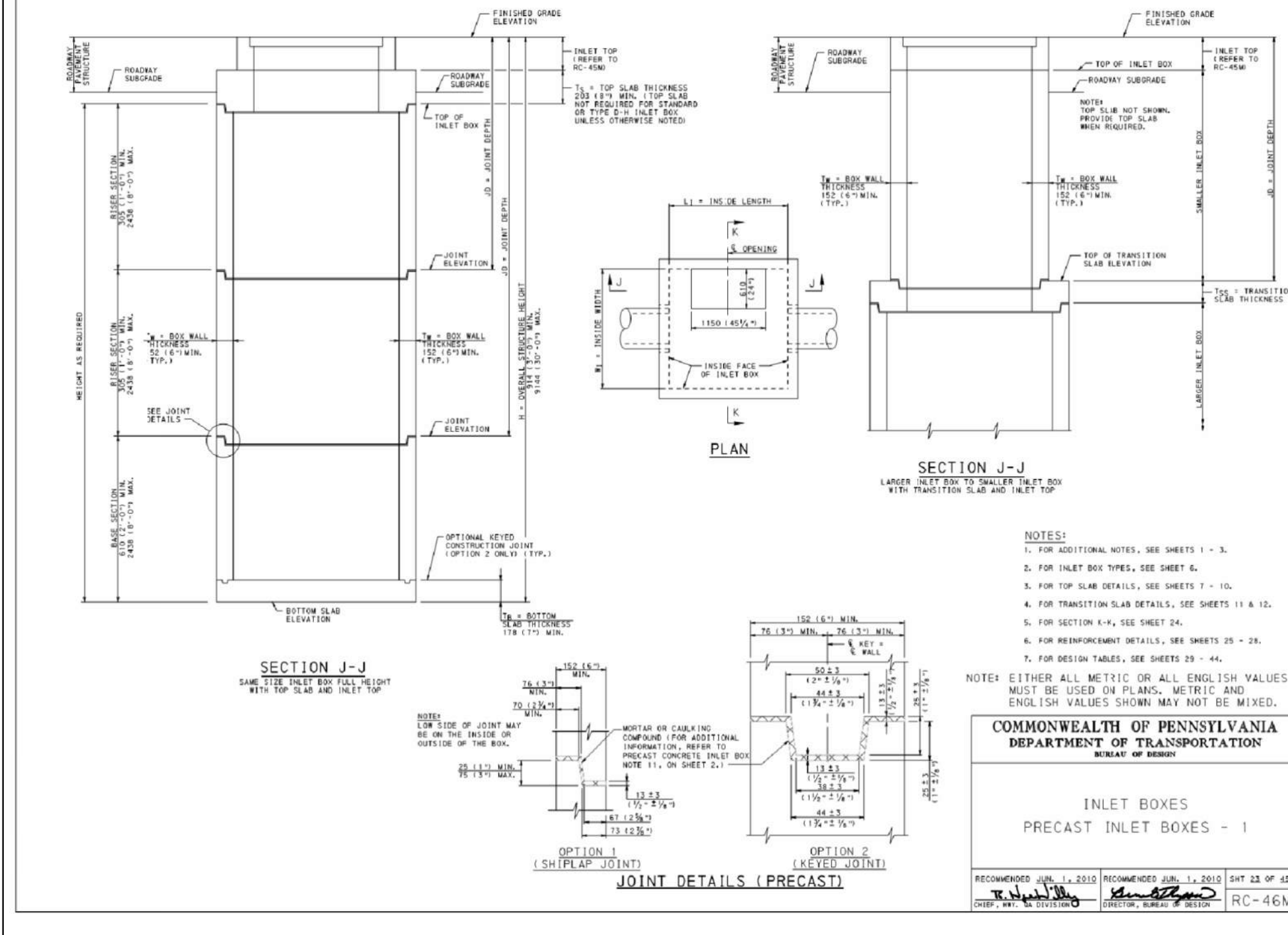
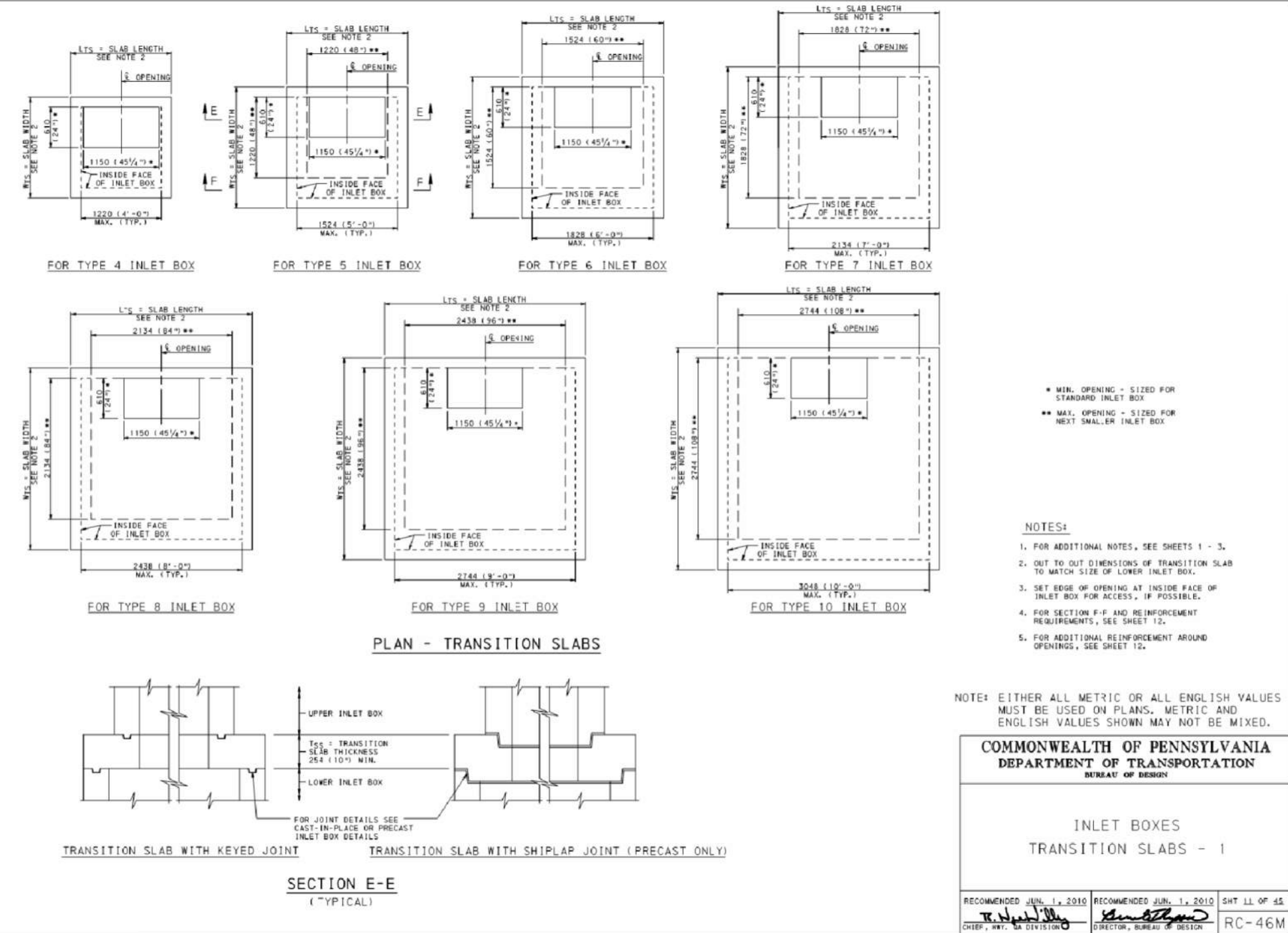
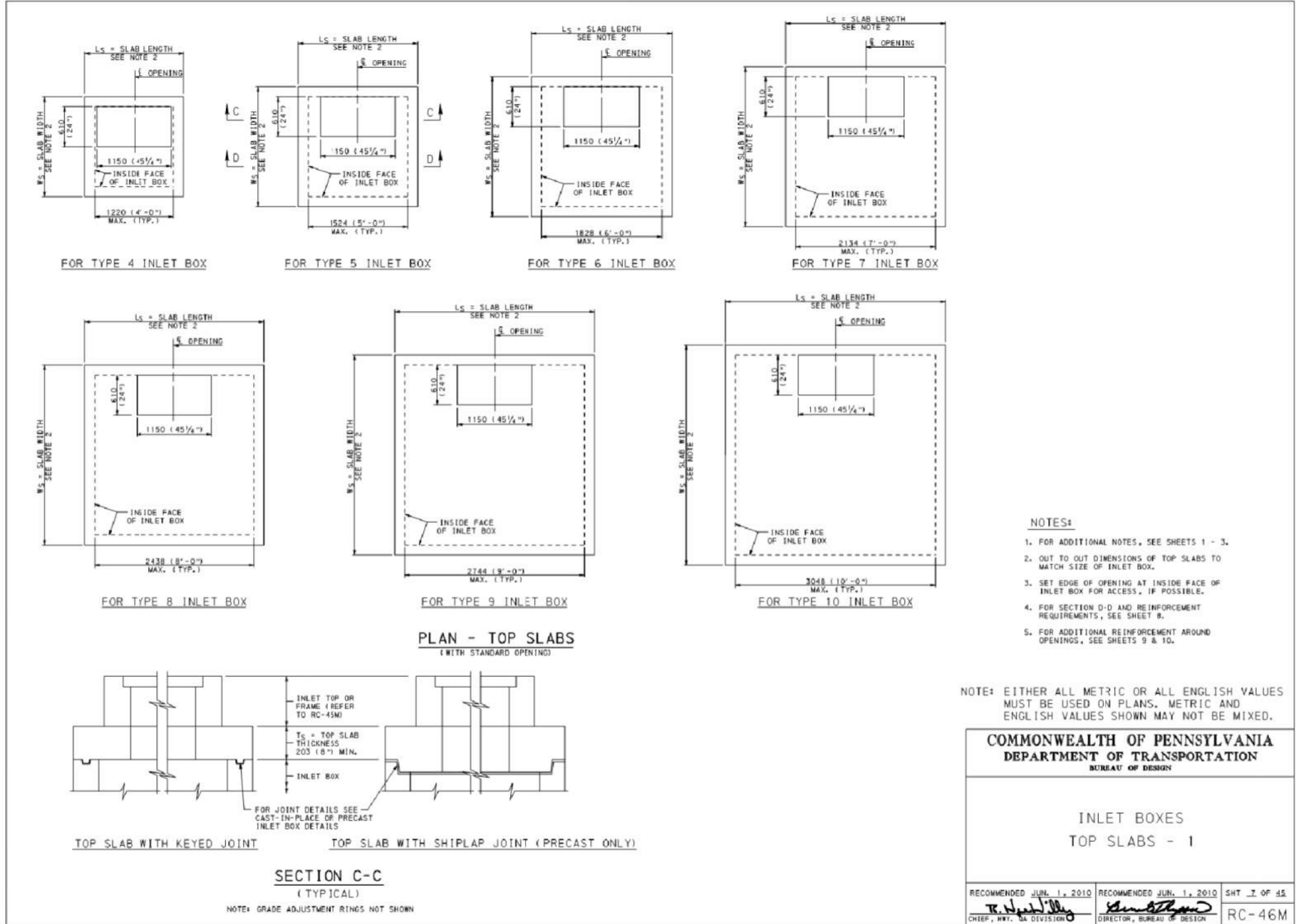
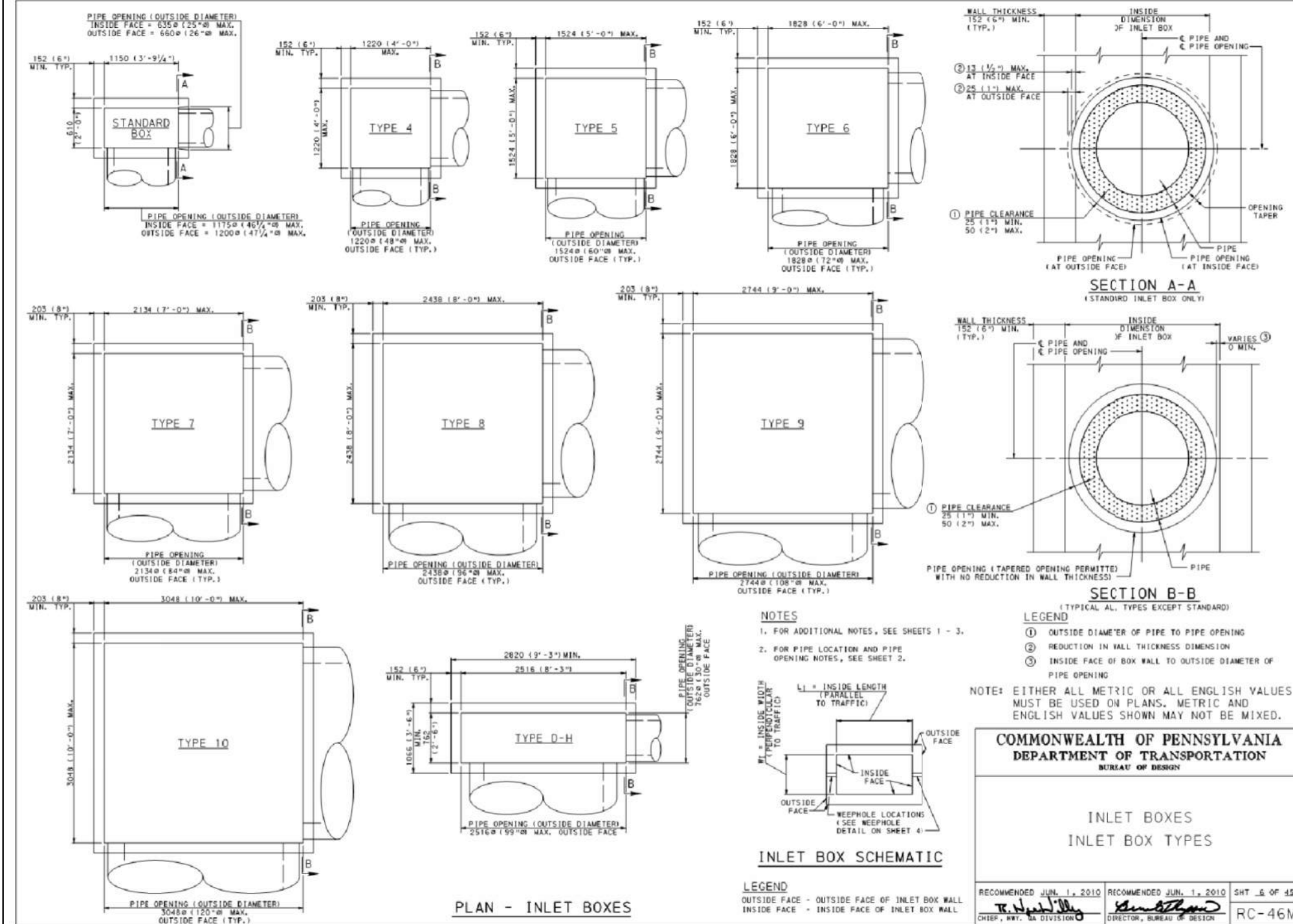
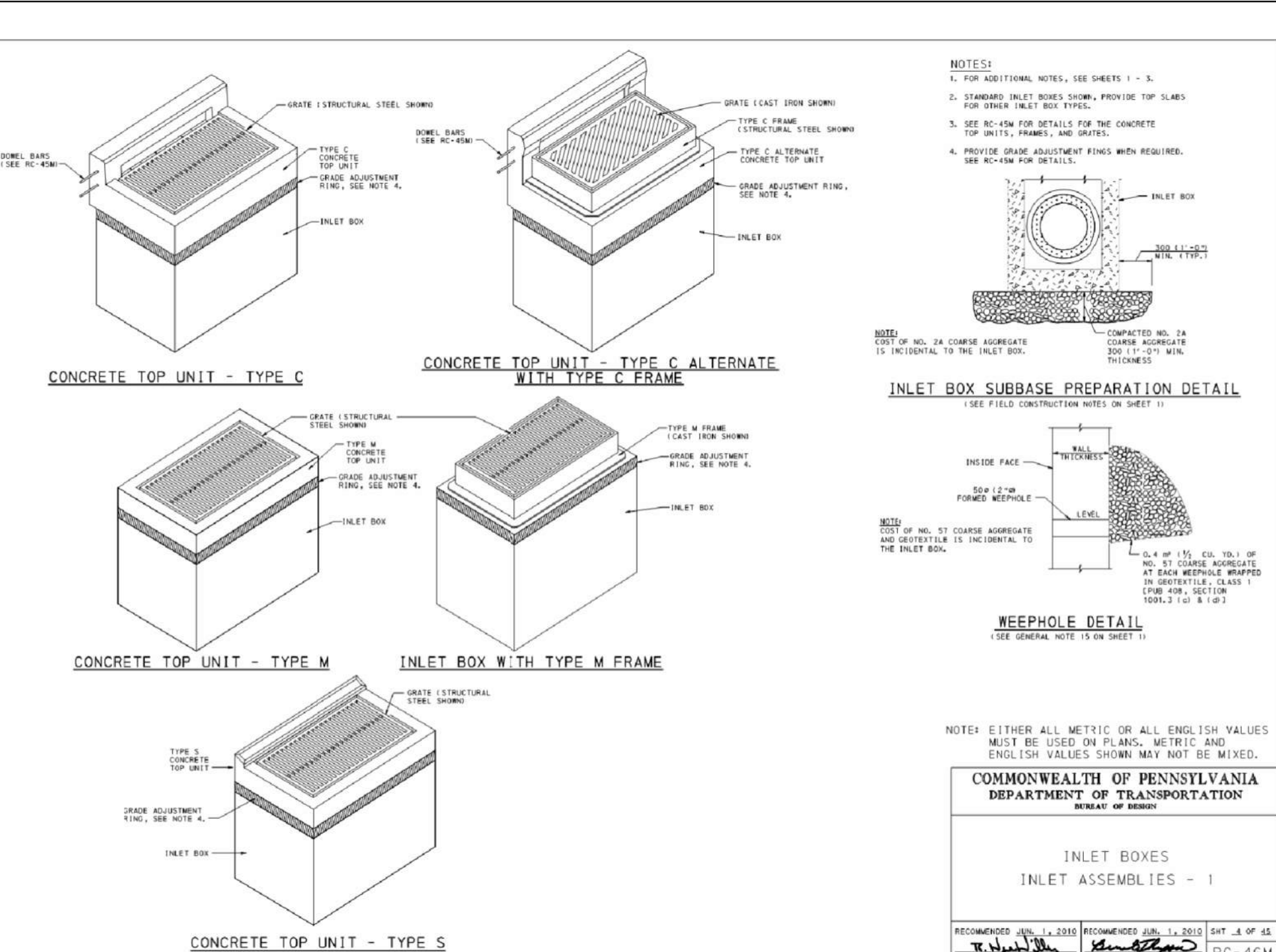
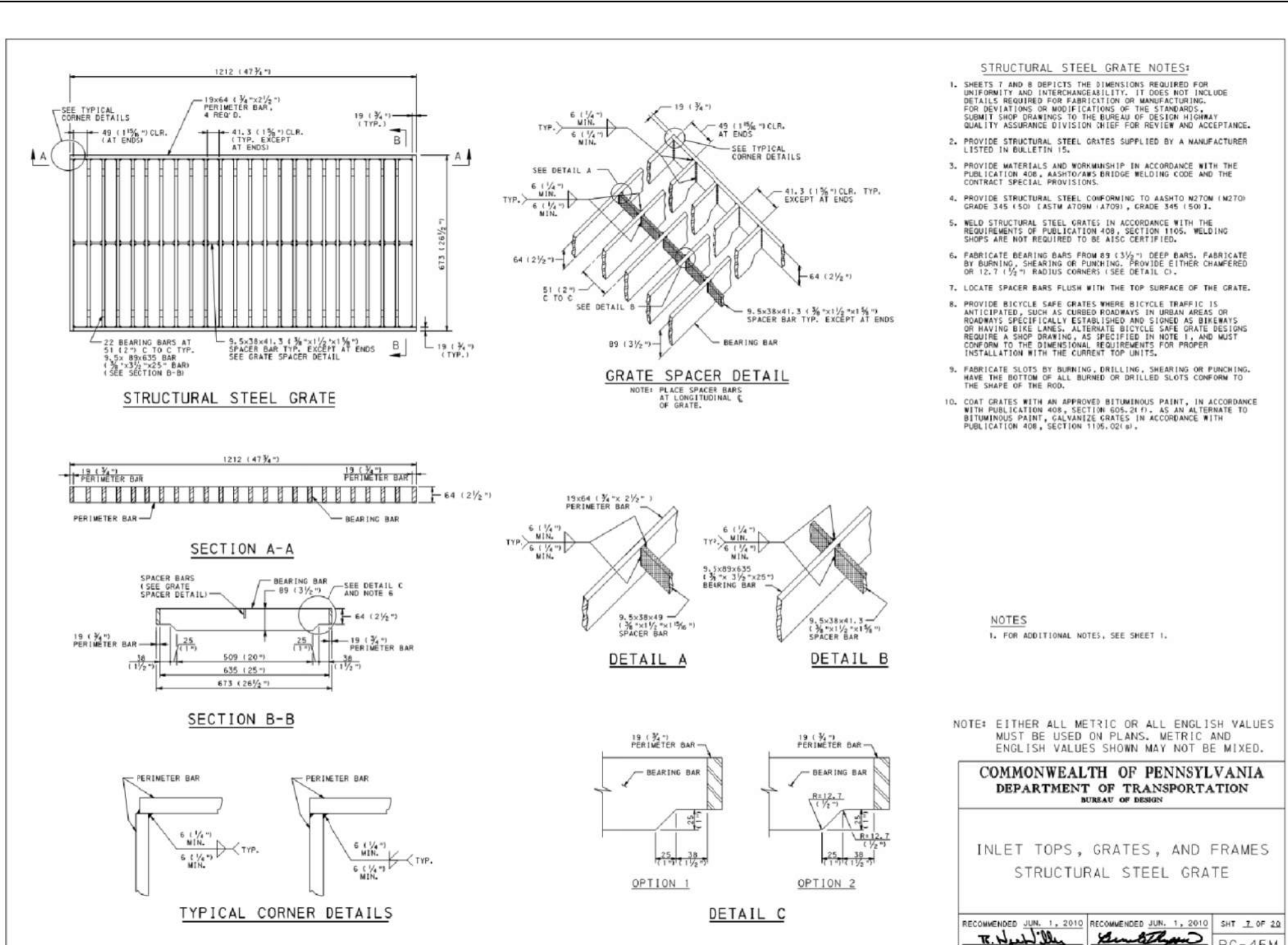
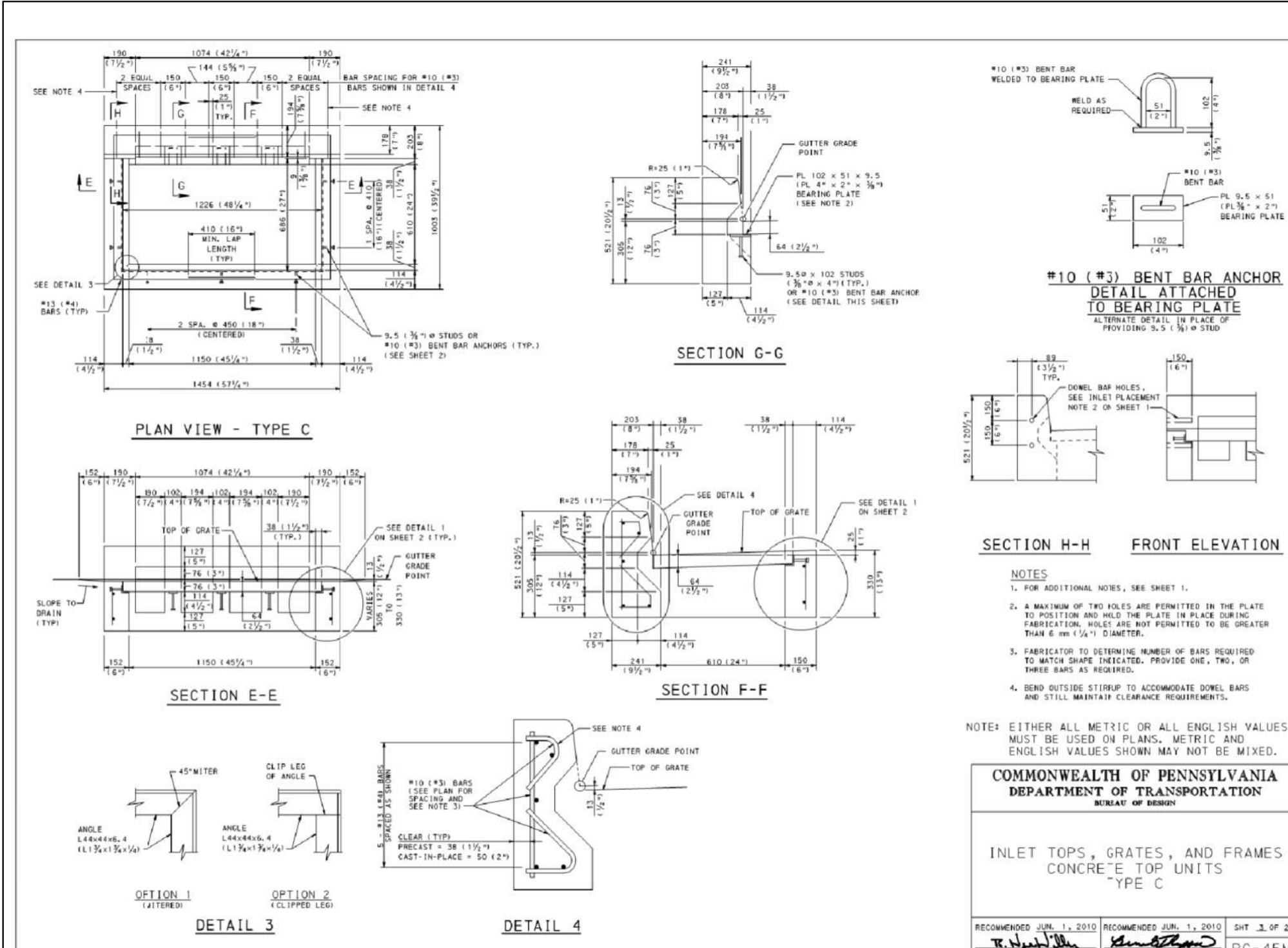
PENNDOT SITE DETAILS

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.

11

SHEET NO. 14 OF 24
PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011



Associated Engineering Consultants Incorporated
485 Devon Park Drive Suite 113 Wayne Pennsylvania 19387 Tel: 610 688 3880 Fax: 610 688 4566

DAVID C. STANDT
REGISTERED PROFESSIONAL ENGINEER
PENNSYLVANIA
27452-E

PROJECT
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REVISION H.O.P. RESUBMISSION

DATE 03/11/13
REVISION H.O.P. RESUBMISSION

DATE 10/17/17
REVISION RADNOR B.O.C. MEETING

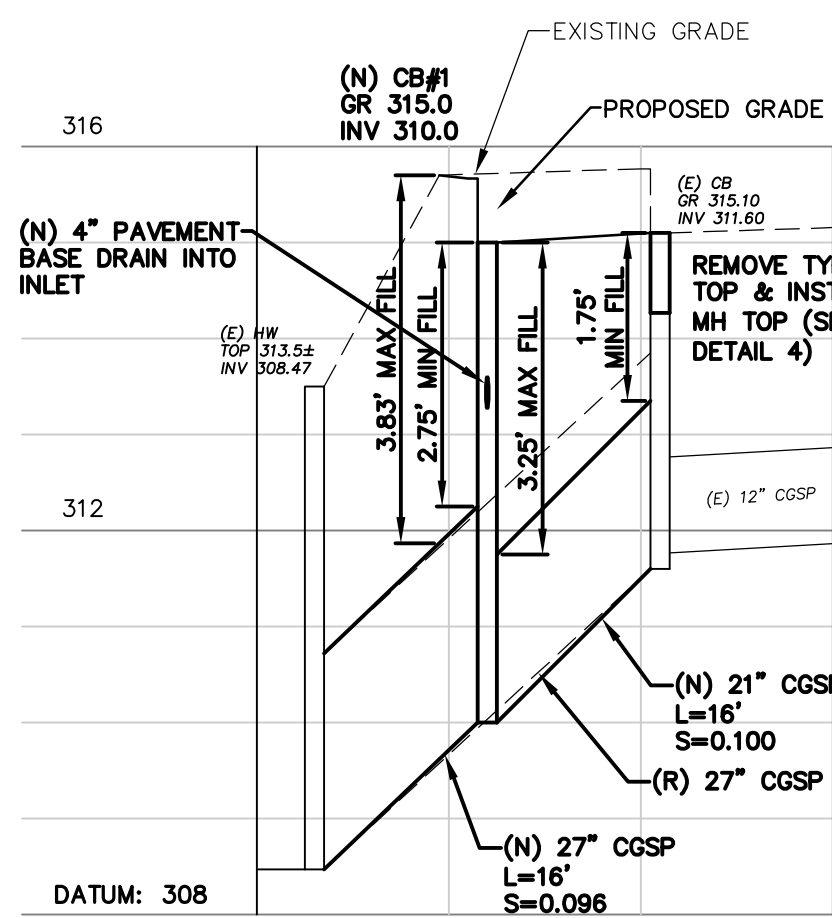
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PENNDOT STORM SEWER DETAILS

DRAWN BY: BJD
CHECKED BY: KRM

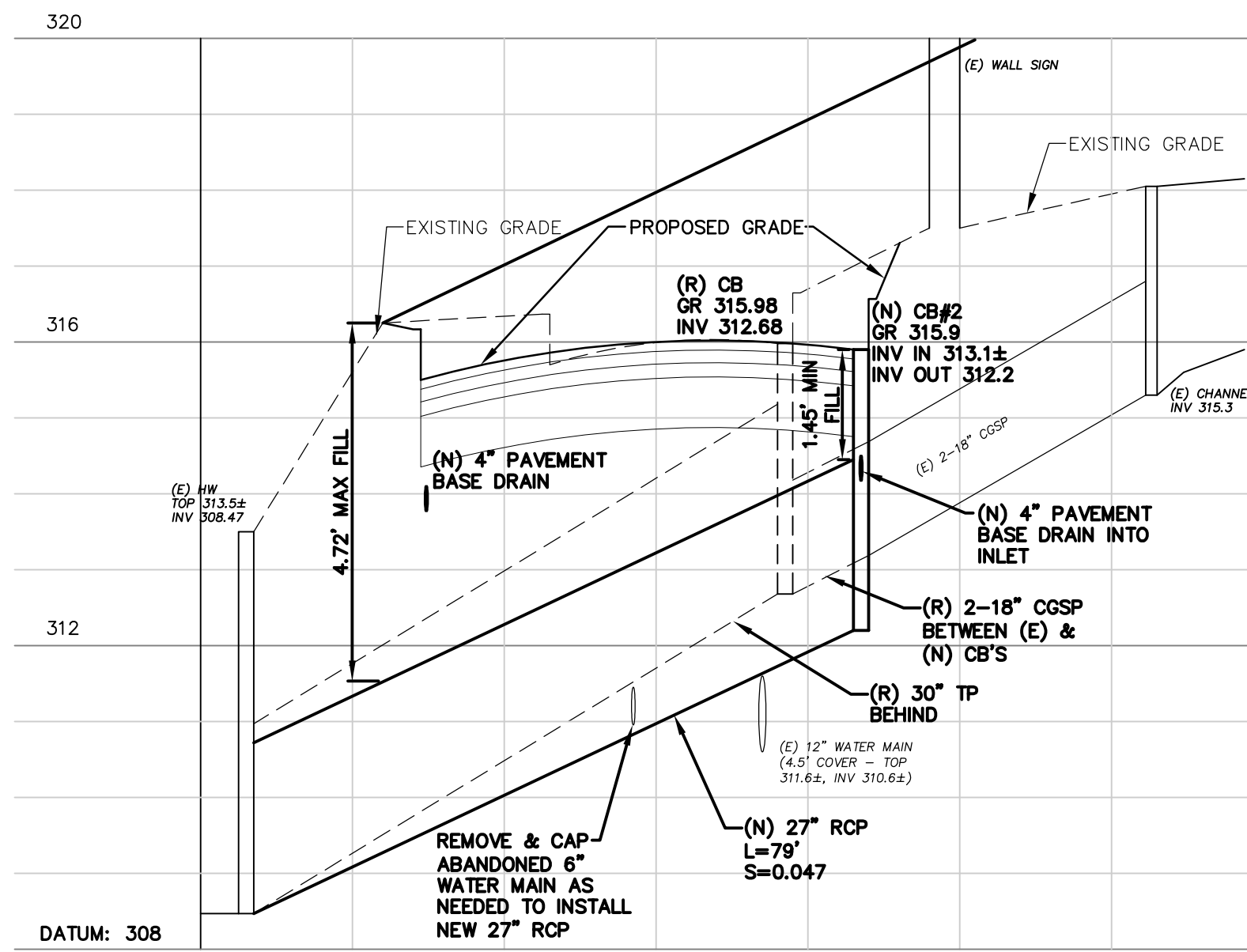
SHEET NO. 12

DATE NOVEMBER 18, 2011

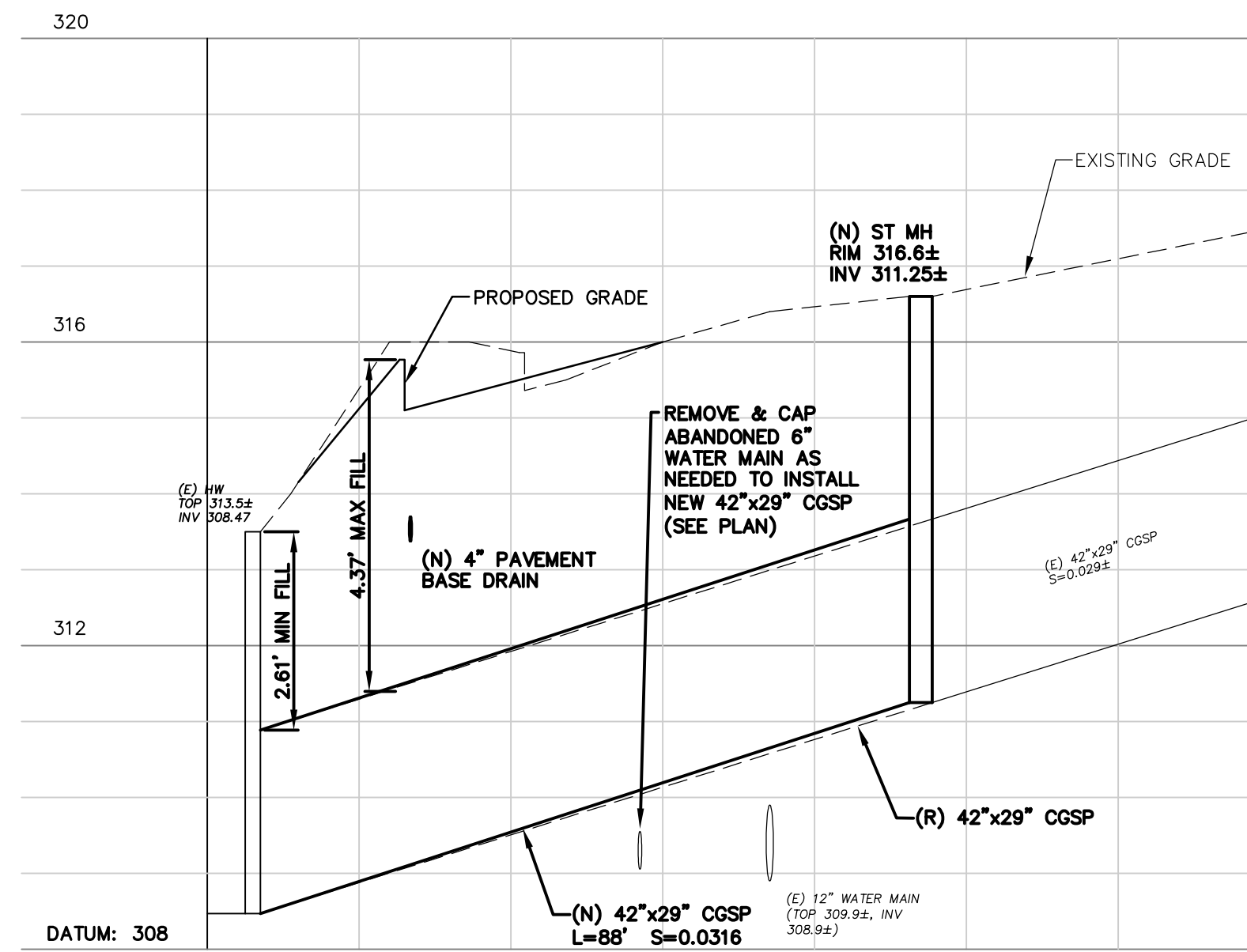
PROJECT NO. 0124.057
DATE NOVEMBER 18, 2011



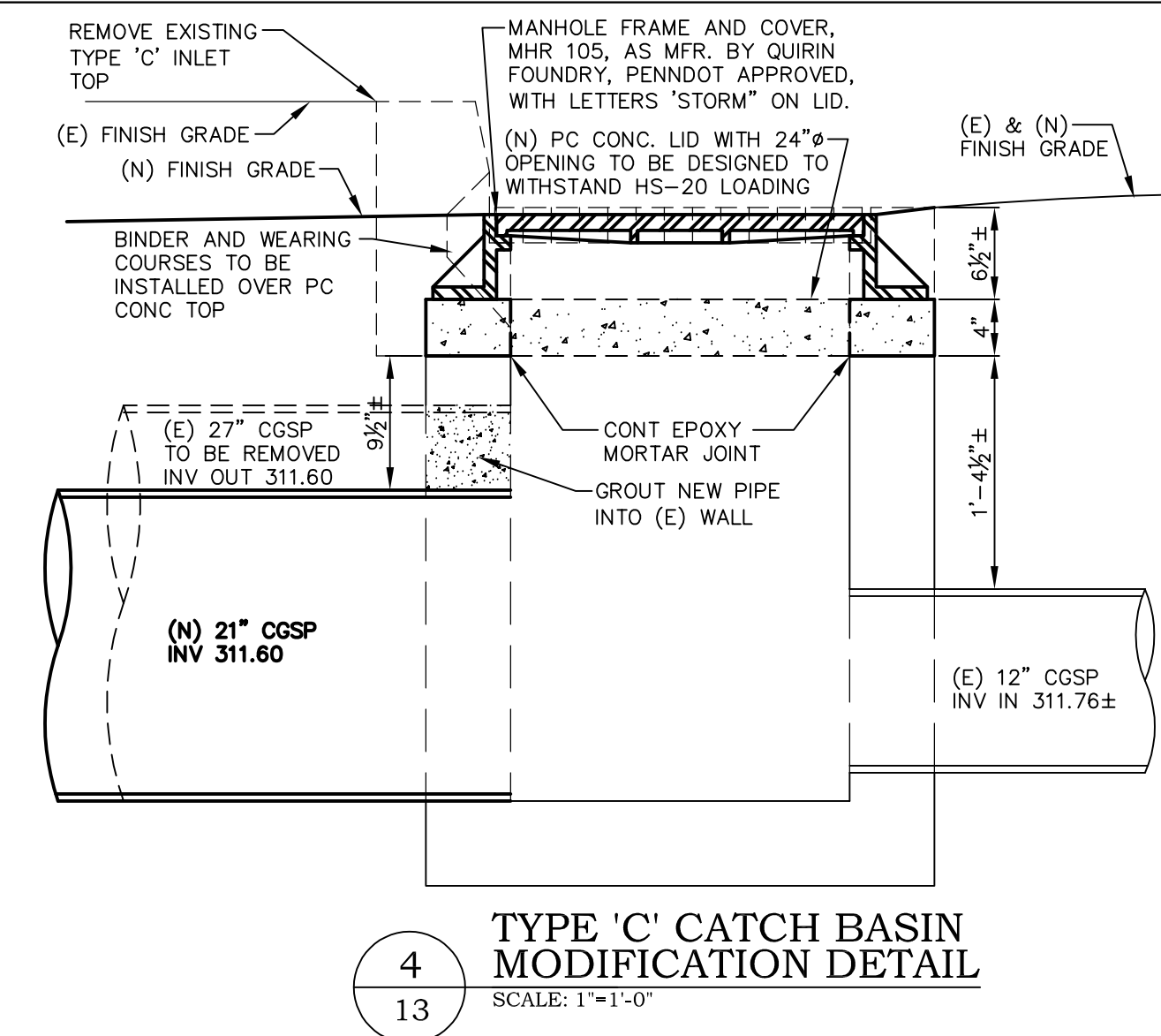
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13 **STORM SEWER PROFILE #1**
SCALE: H: 1"=20'; V: 1"=2'



2
13 **STORM SEWER PROFILE #2**
SCALE: H: 1"=20'; V: 1"=2'



3
13 **STORM SEWER PROFILE #3**
SCALE: H: 1"=20'; V: 1"=2'

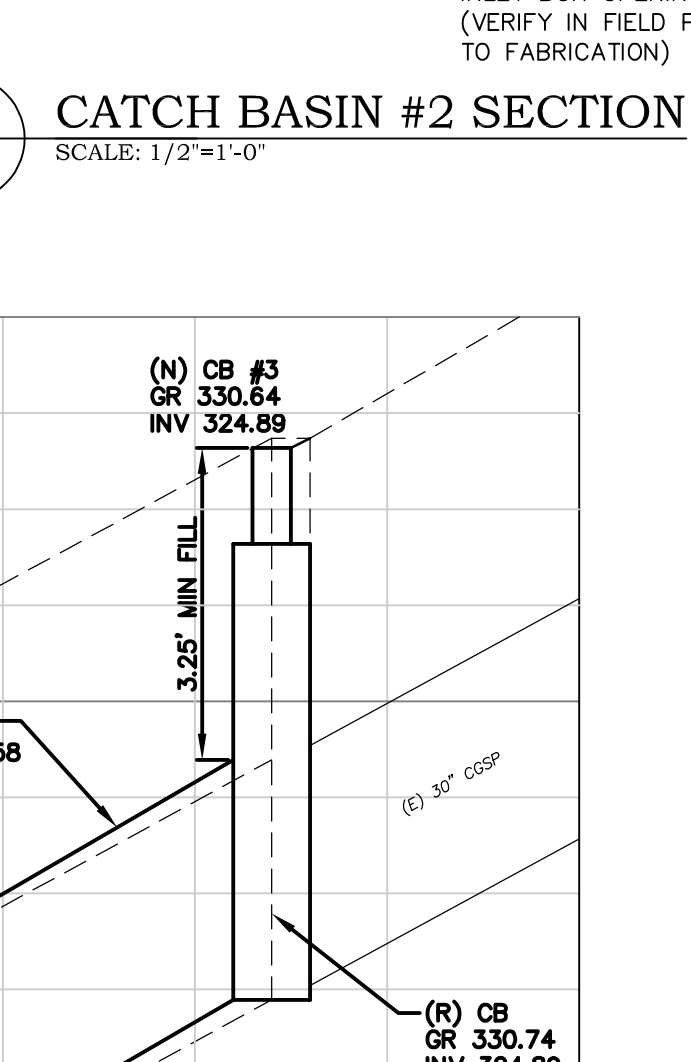
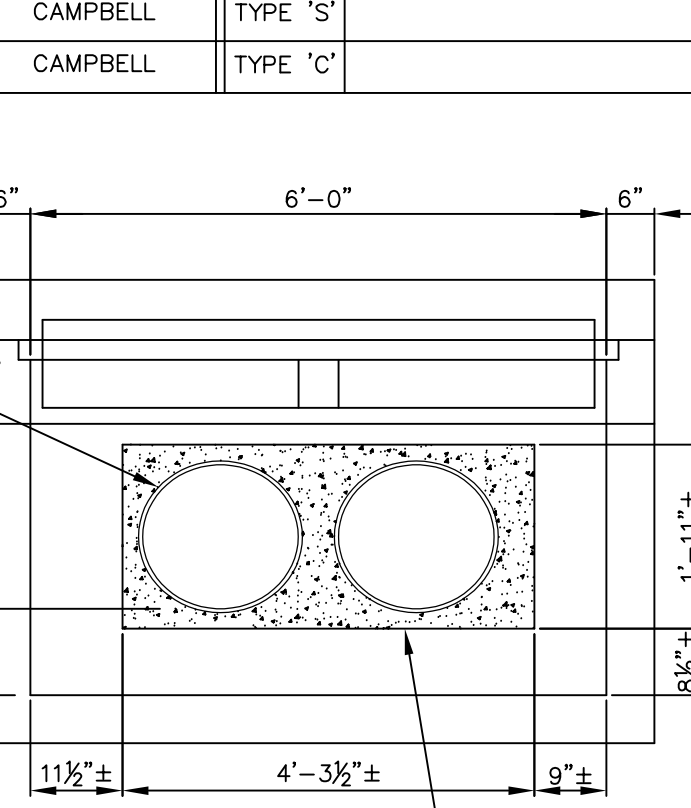
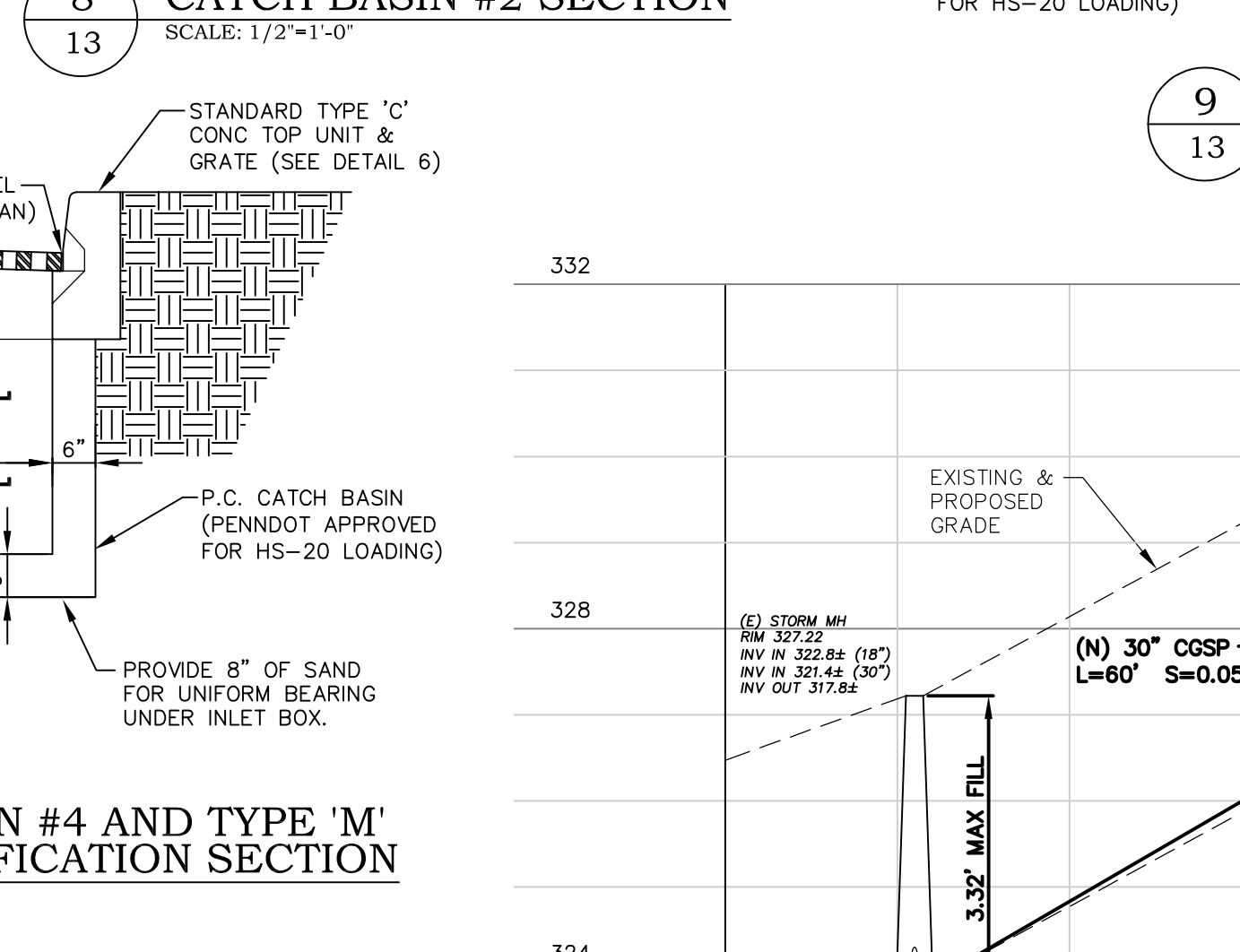
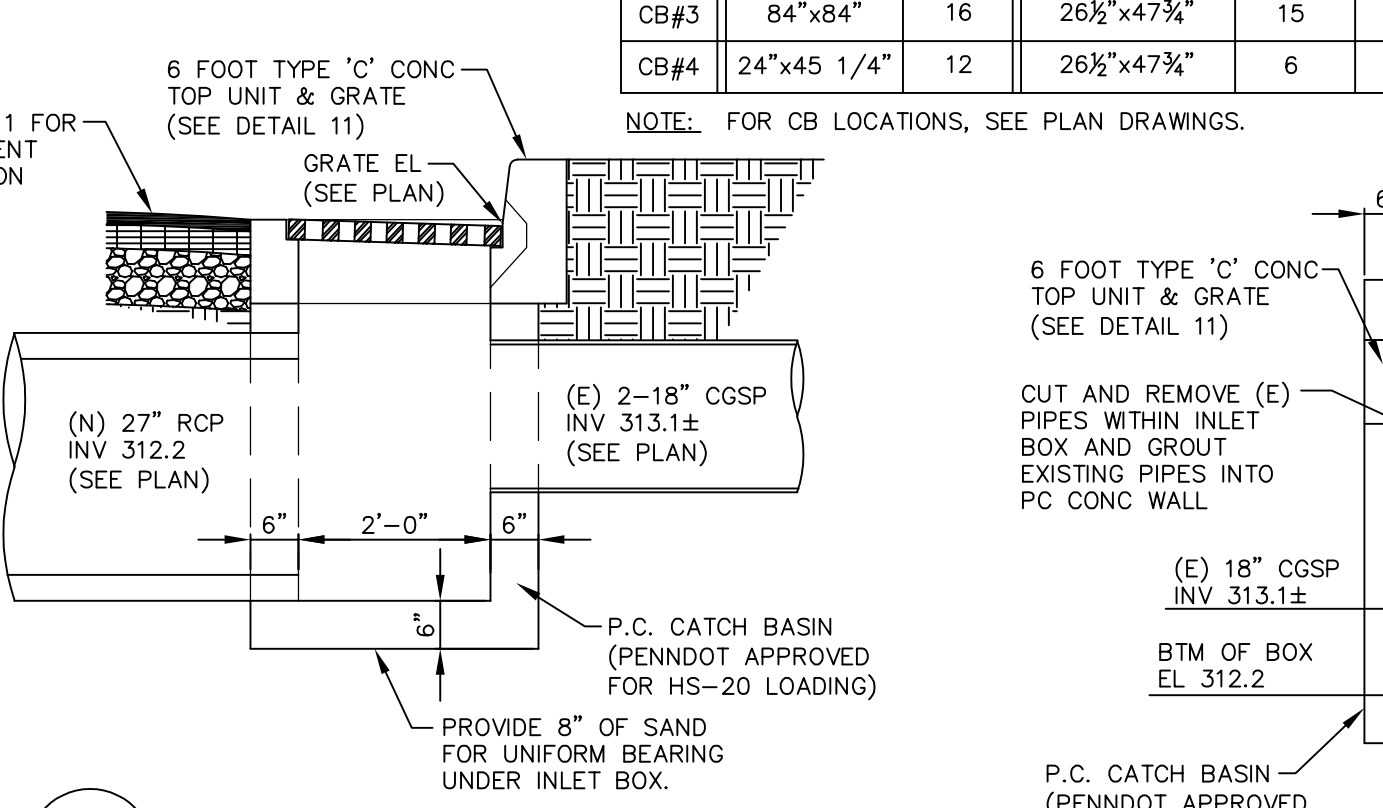
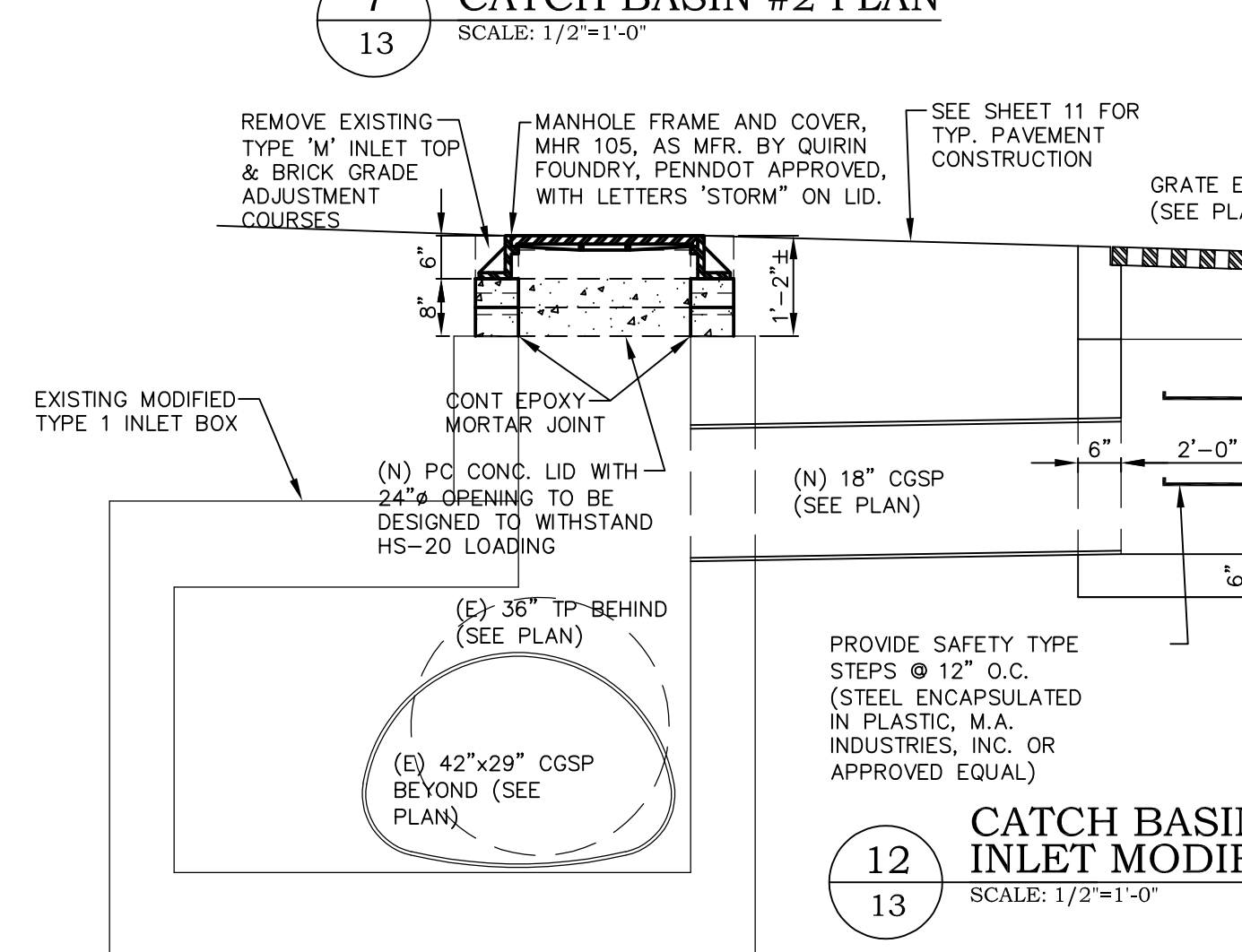
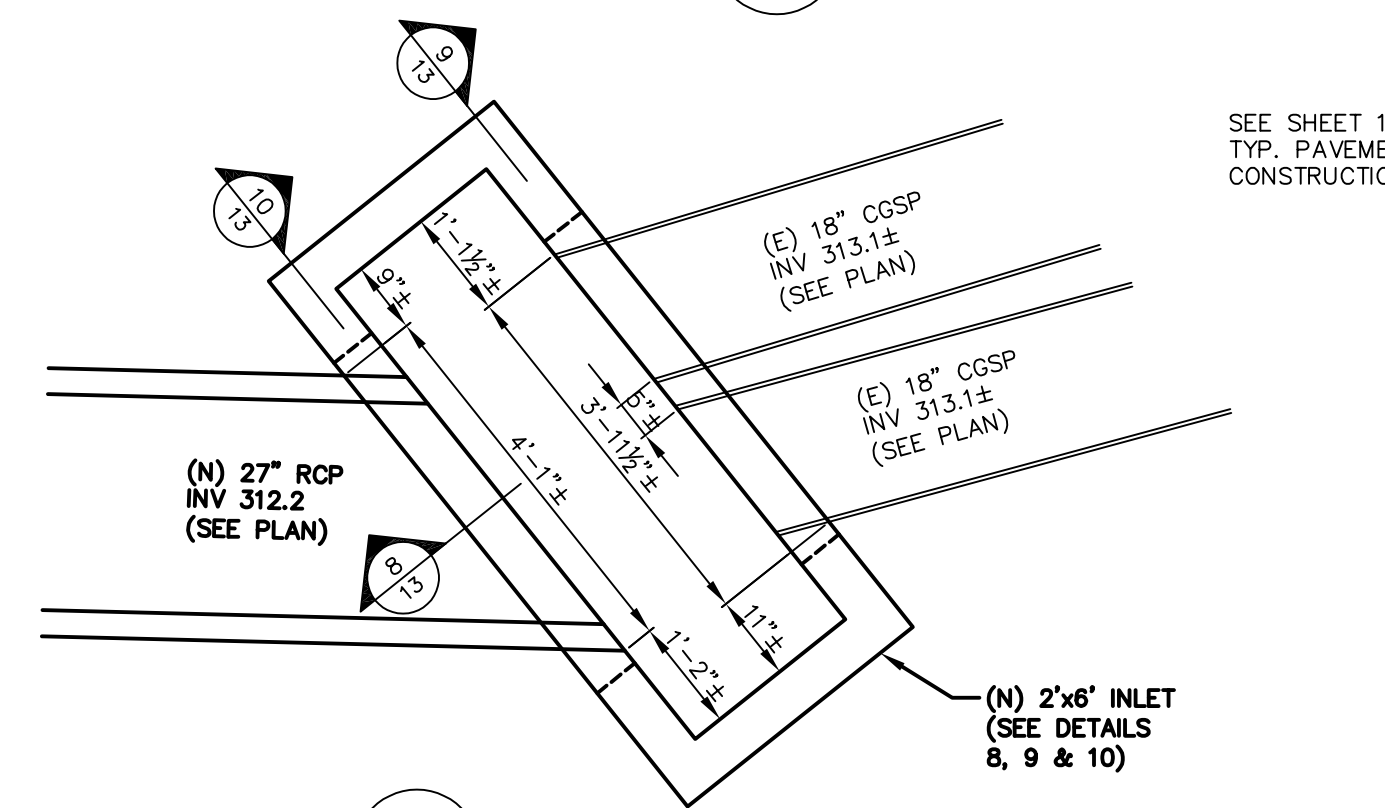
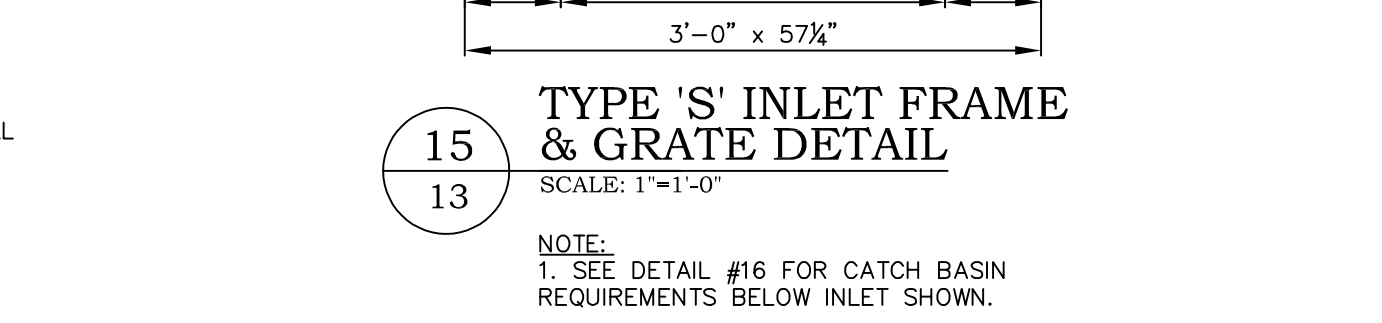
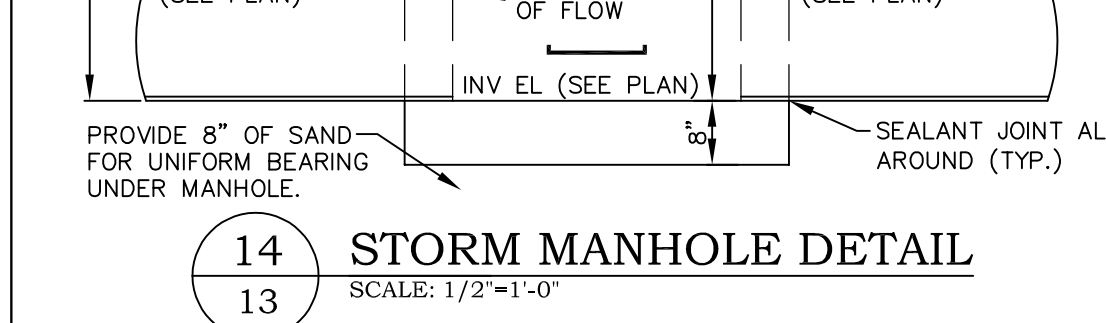
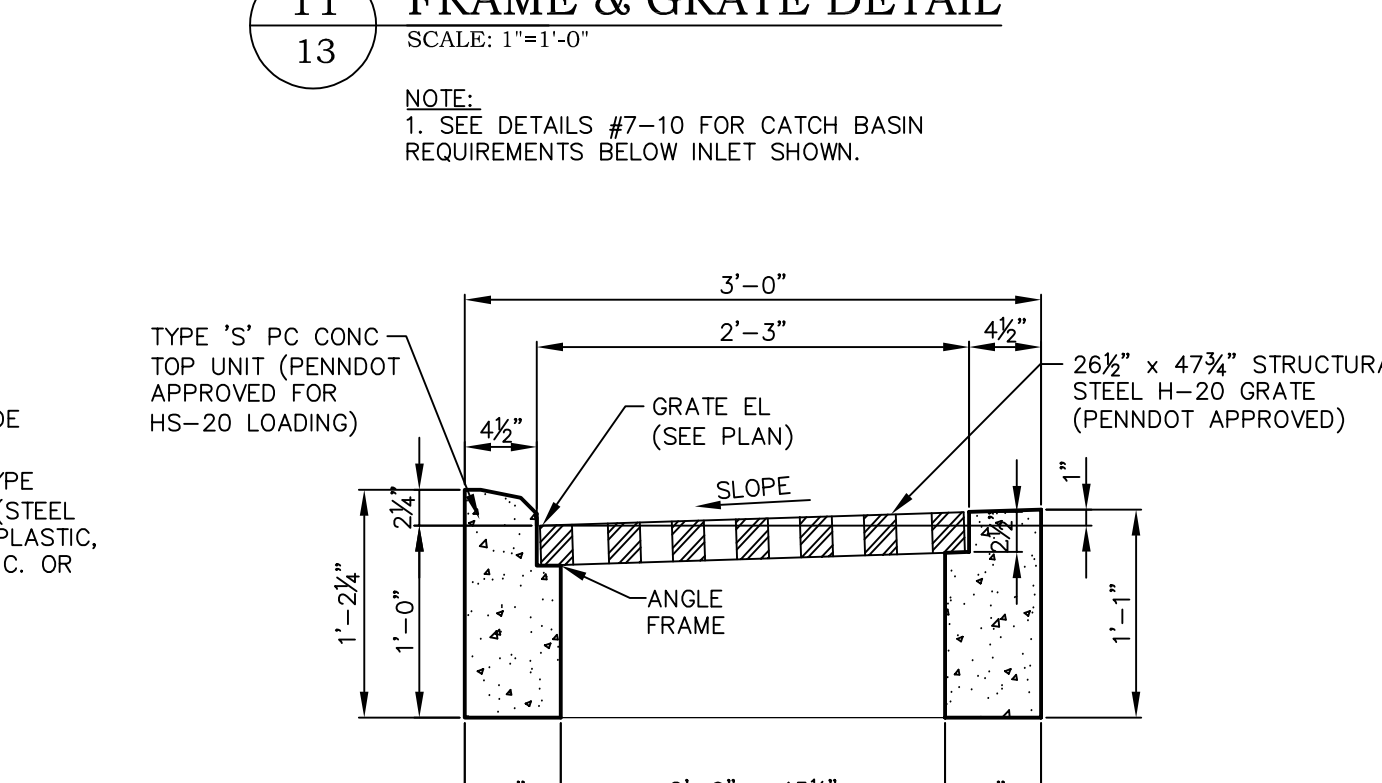
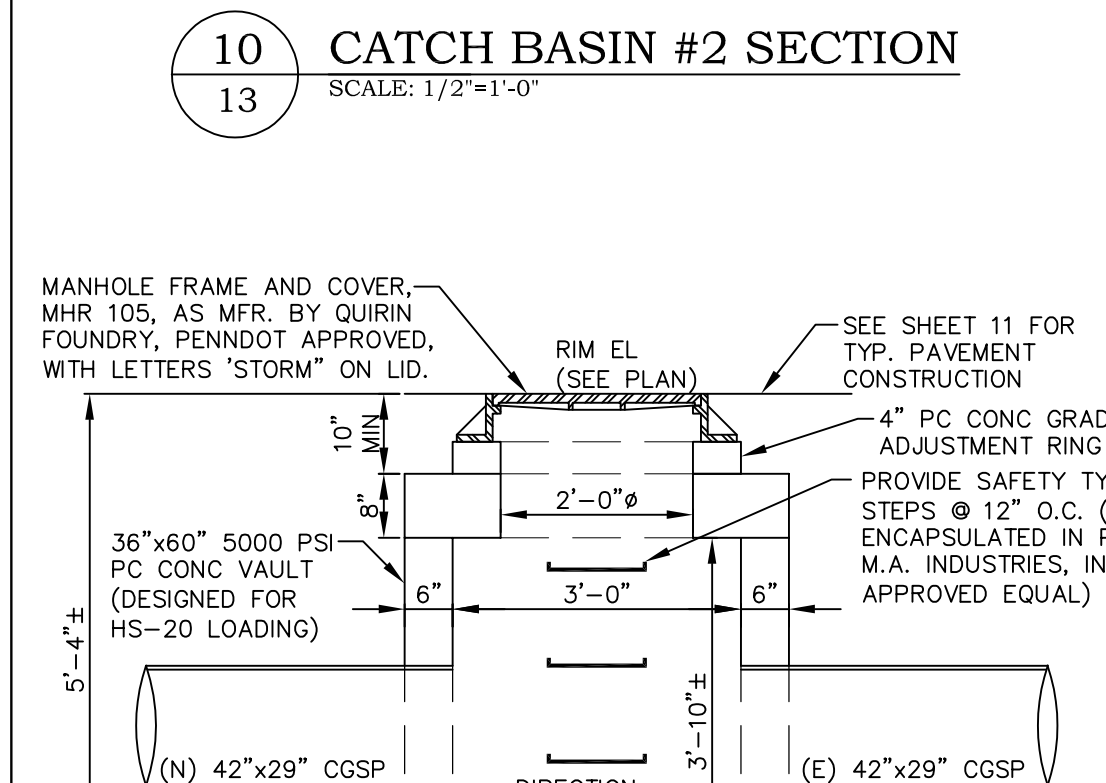
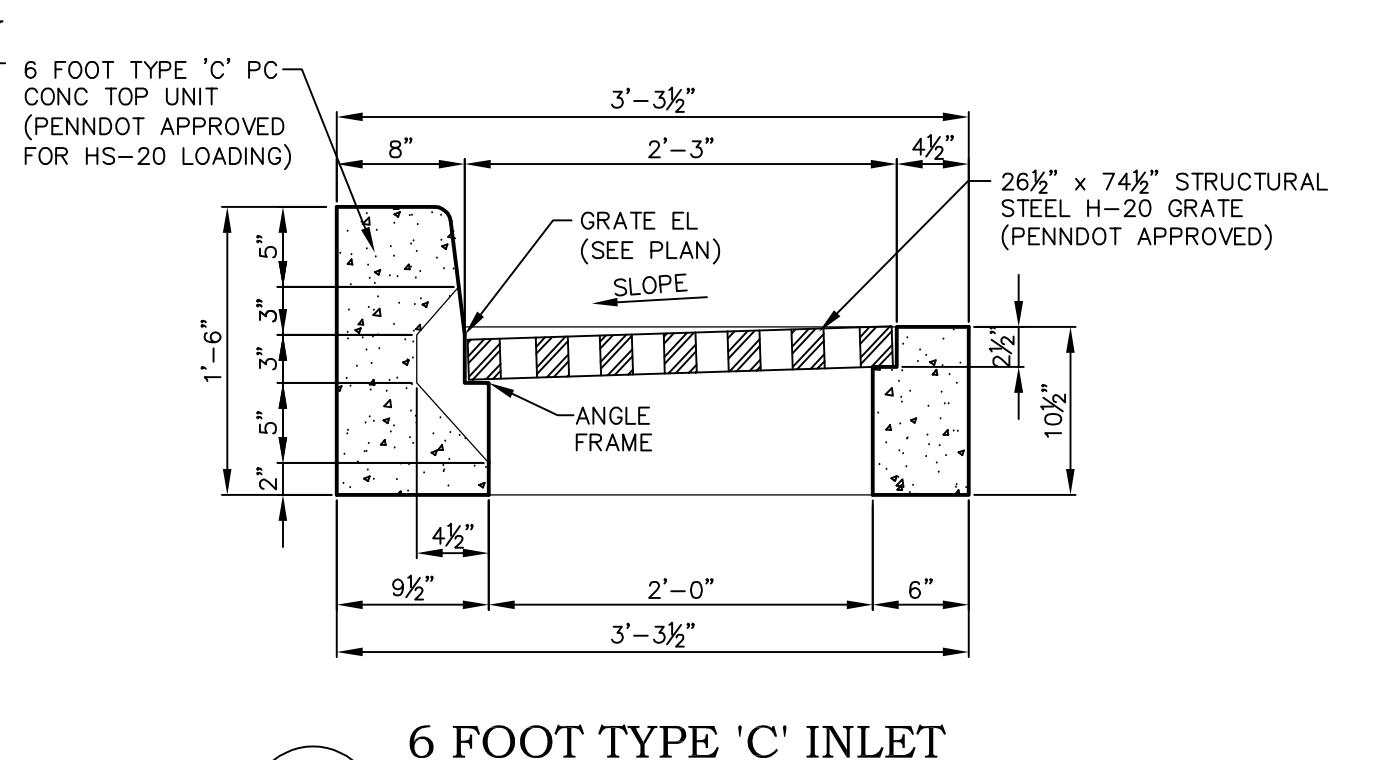
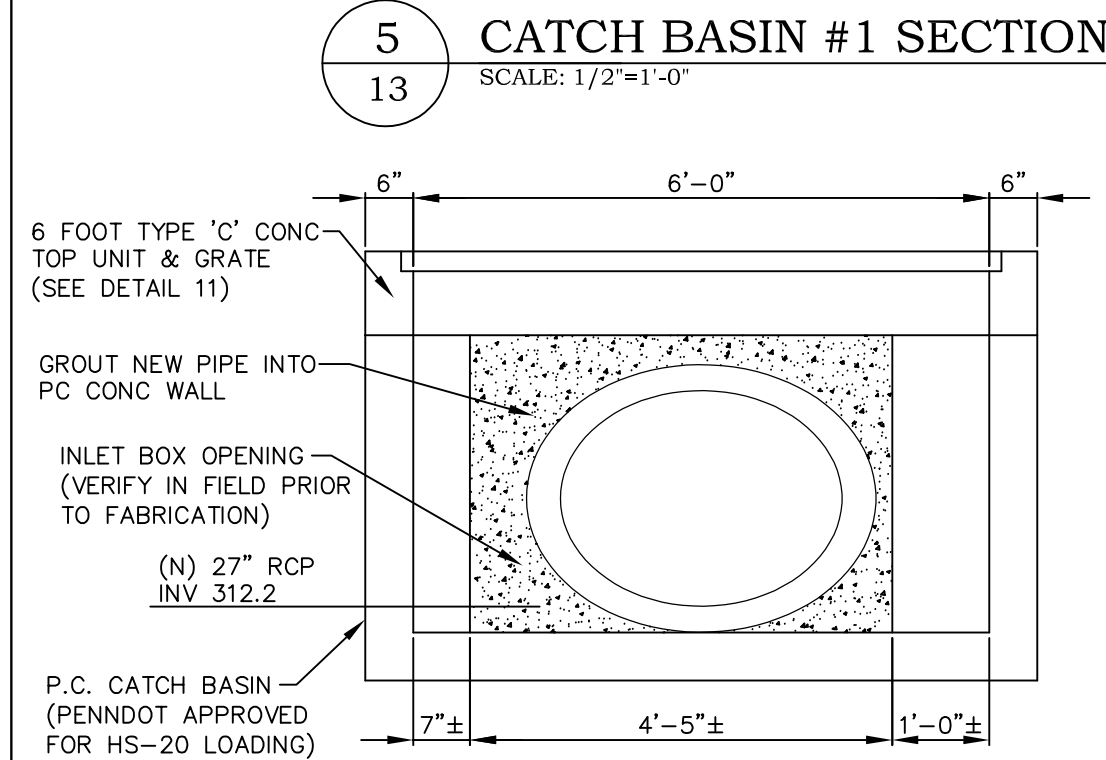
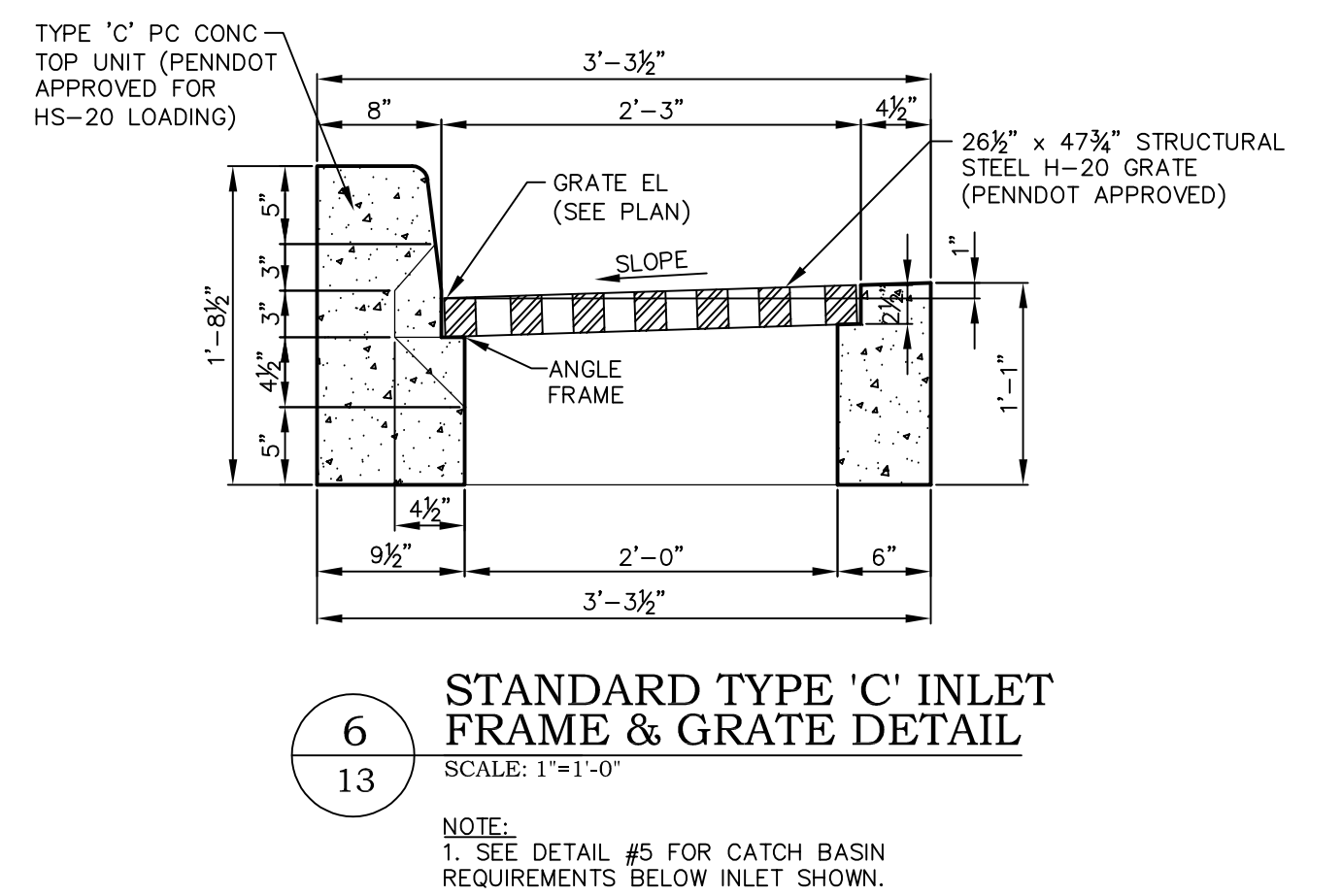
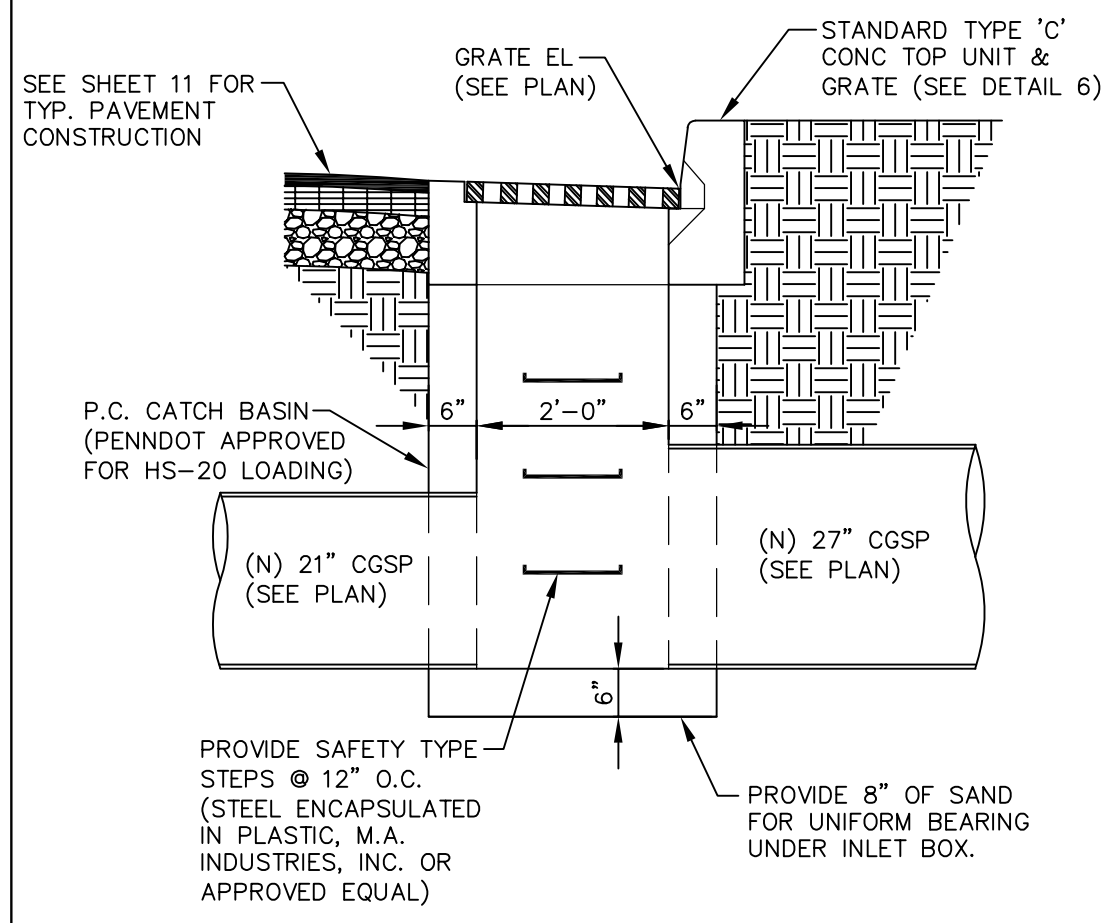


4
13 **TYPE 'C' CATCH BASIN MODIFICATION DETAIL**
SCALE: 1"=1'-0"

INLET & CATCH BASIN SCHEDULE

C.B. NO.	INLET BOX MIN. SIZE	INLET BOX DETAIL	GRATE SIZE	FRAME & GRATE DETAIL	FRAME & GRATE MFR.	FRAME & GRATE CAT. NO.	REMARKS
CB#1	24"x45 1/4"	5	26 1/2"x47 3/4"	6	CAMPBELL	TYPE 'C'	
CB#2	24"x72"	7-10	26 1/2"x74 1/2"	11	CAMPBELL	TYPE 'C'	
CB#3	84"x84"	16	26 1/2"x47 3/4"	15	CAMPBELL	TYPE 'S'	
CB#4	24"x45 1/4"	12	26 1/2"x47 3/4"	6	CAMPBELL	TYPE 'C'	

NOTE: FOR CB LOCATIONS, SEE PLAN DRAWINGS.



13
13 **STORM SEWER PROFILE #4**
SCALE: H: 1"=20'; V: 1"=2'

Associated Engineering Consultants Incorporated
485 Devon Park Drive Suite 113 Wayne Pennsylvania 19087 tel 610 668 3880 fax 610 668 4566

DAVID C. STANFORD
REGISTERED PROFESSIONAL ENGINEER
27452-E PENNSYLVANIA

INTERSECTION IMPROVEMENTS
EAGLE ROAD (S.R. 1042) AND KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

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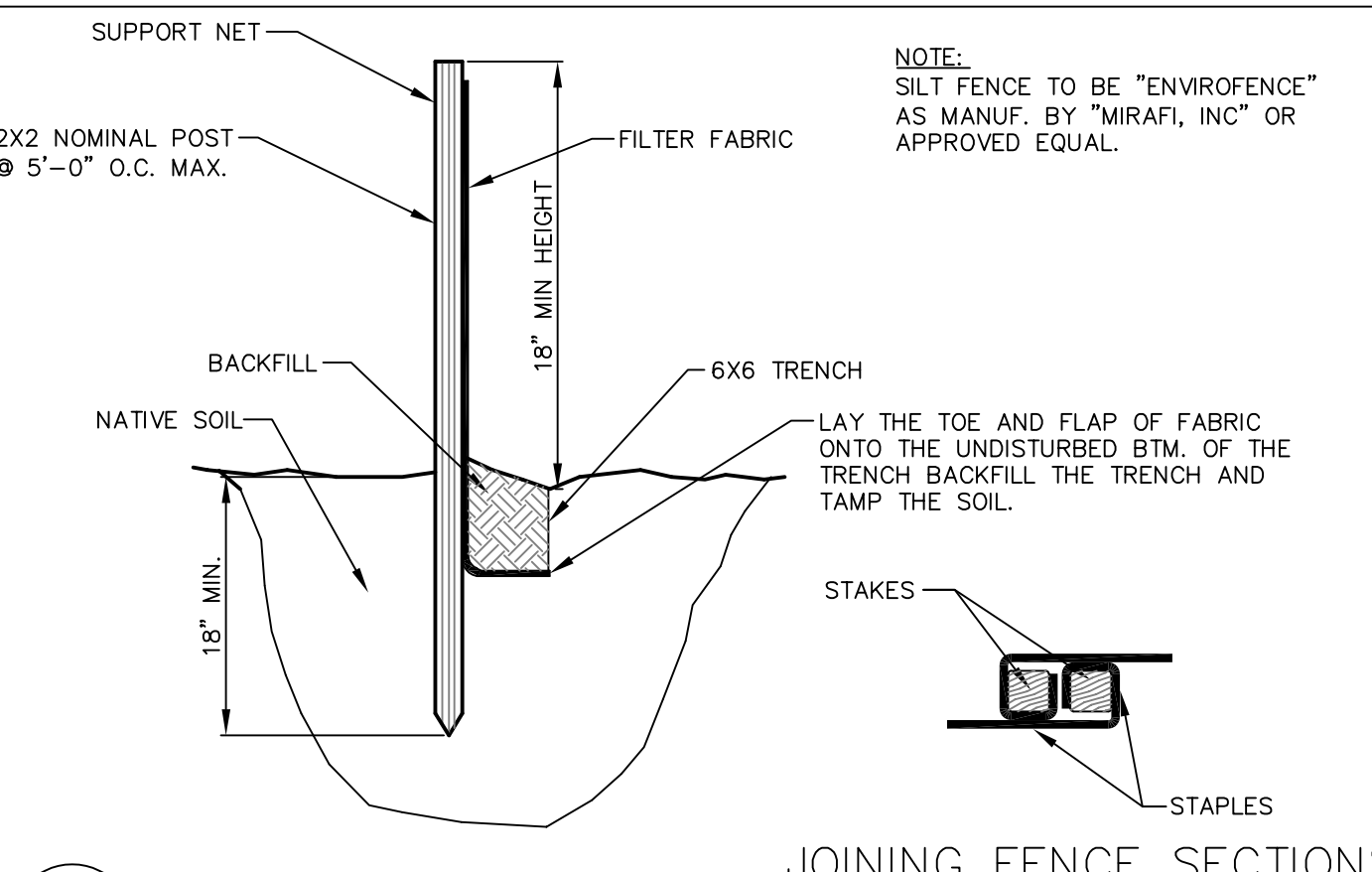
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DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO. **13**

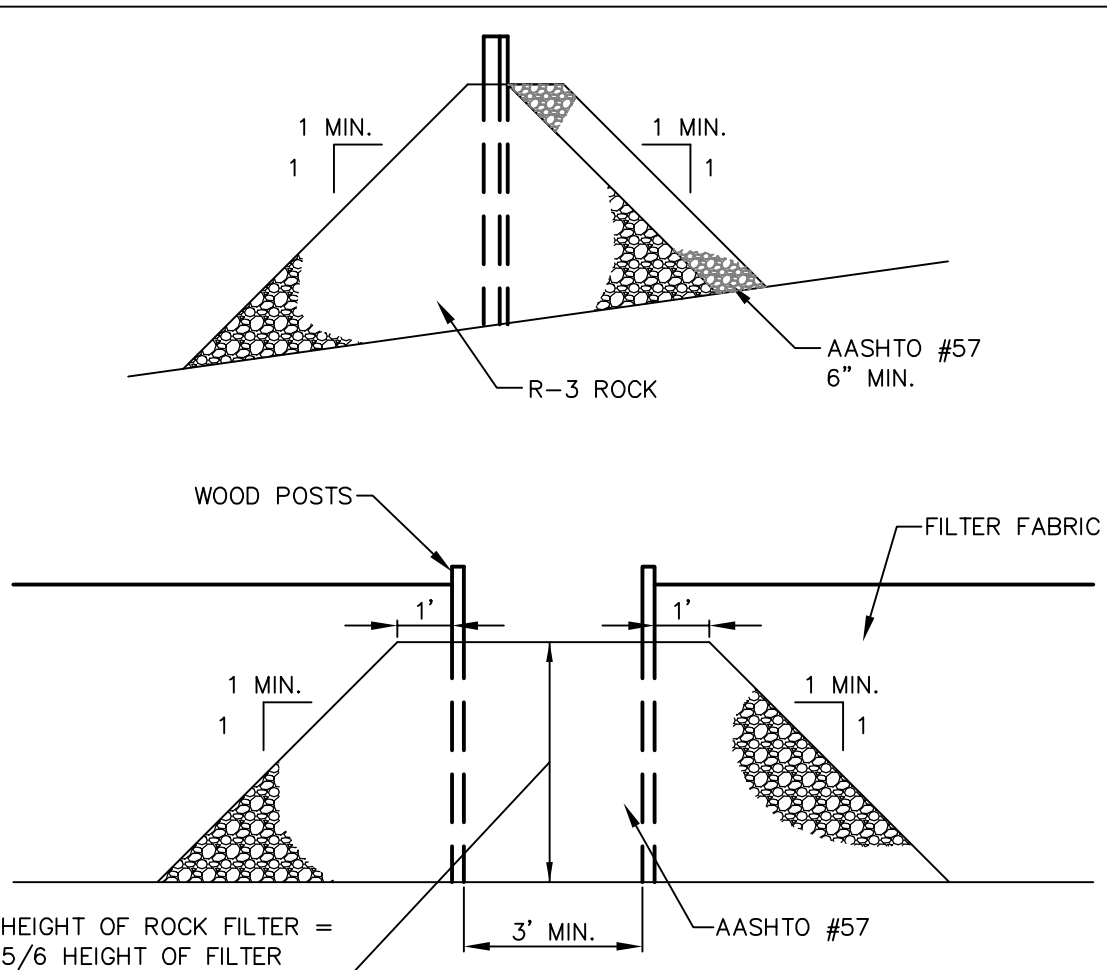
SHEET NO. 16 OF 24
PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

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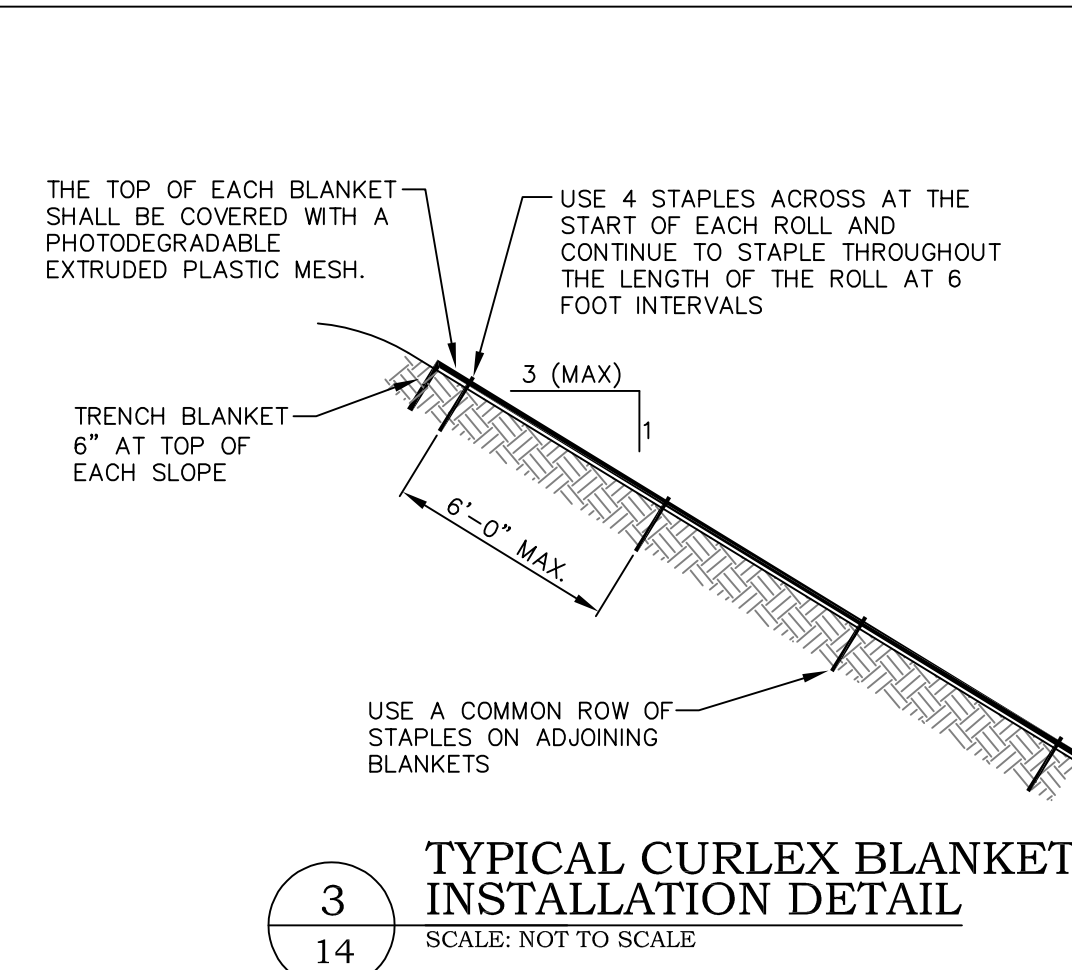
1 SILT FENCE DETAIL
SCALE: NOT TO SCALE
(LOCATION SHOWN THUS ON SHEET 3)

NOTES:
1. SILT FENCE SHALL NOT BE REMOVED UNTIL A 70% UNIFORM COVERAGE OF PERMANENT VEGETATION IS ESTABLISHED.
2. SEDIMENT MUST BE REMOVED WHERE ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF SILT FENCING.
3. LOCATION SHOWN THUS ON PLAN.



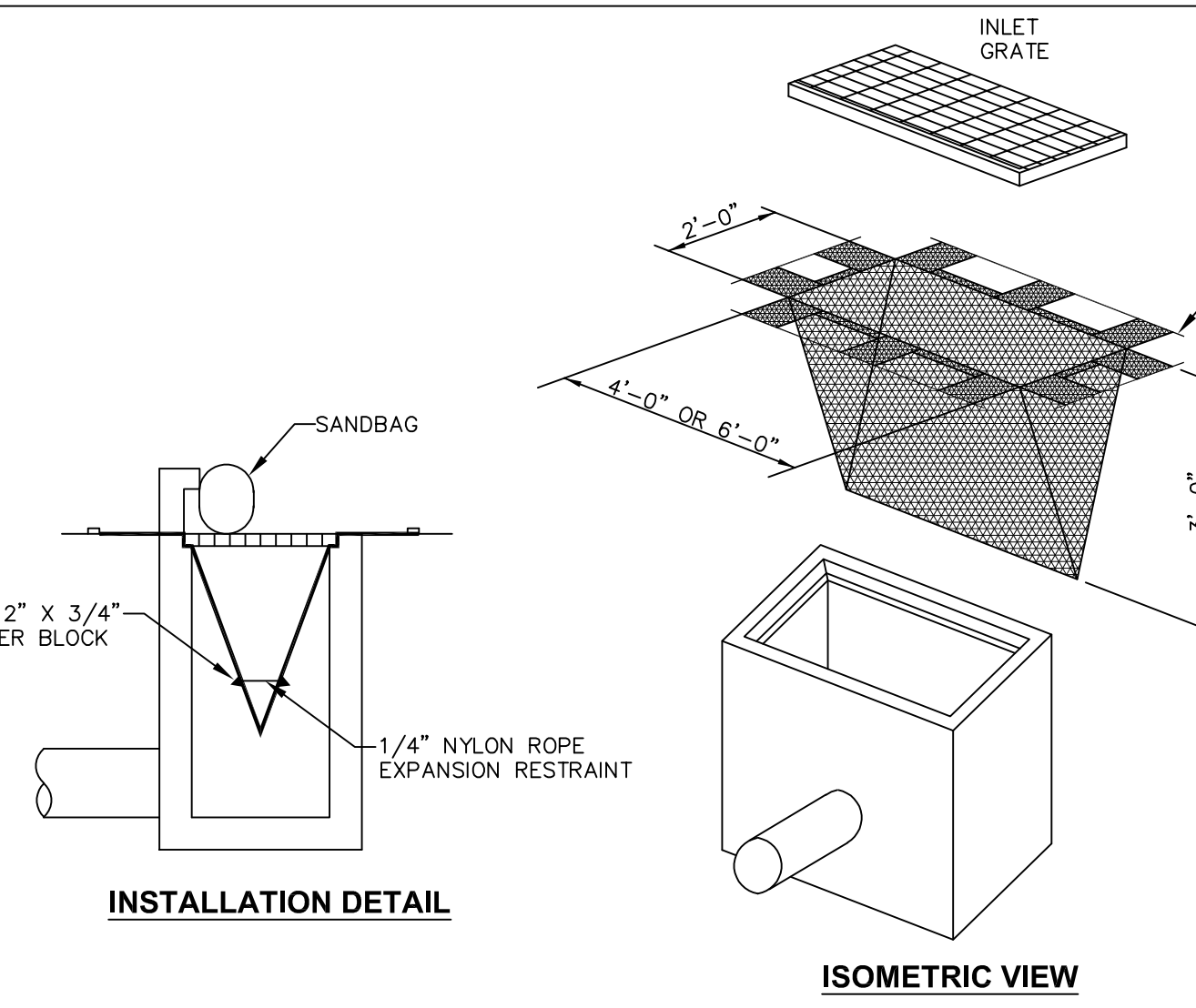
2 ROCK FILTER OUTLET
SCALE: NOT TO SCALE

NOTE:
TO BE INSTALLED WHERE SILT FENCE HAS BEEN OVERSTRESSED BY SEDIMENT BUILD UP.



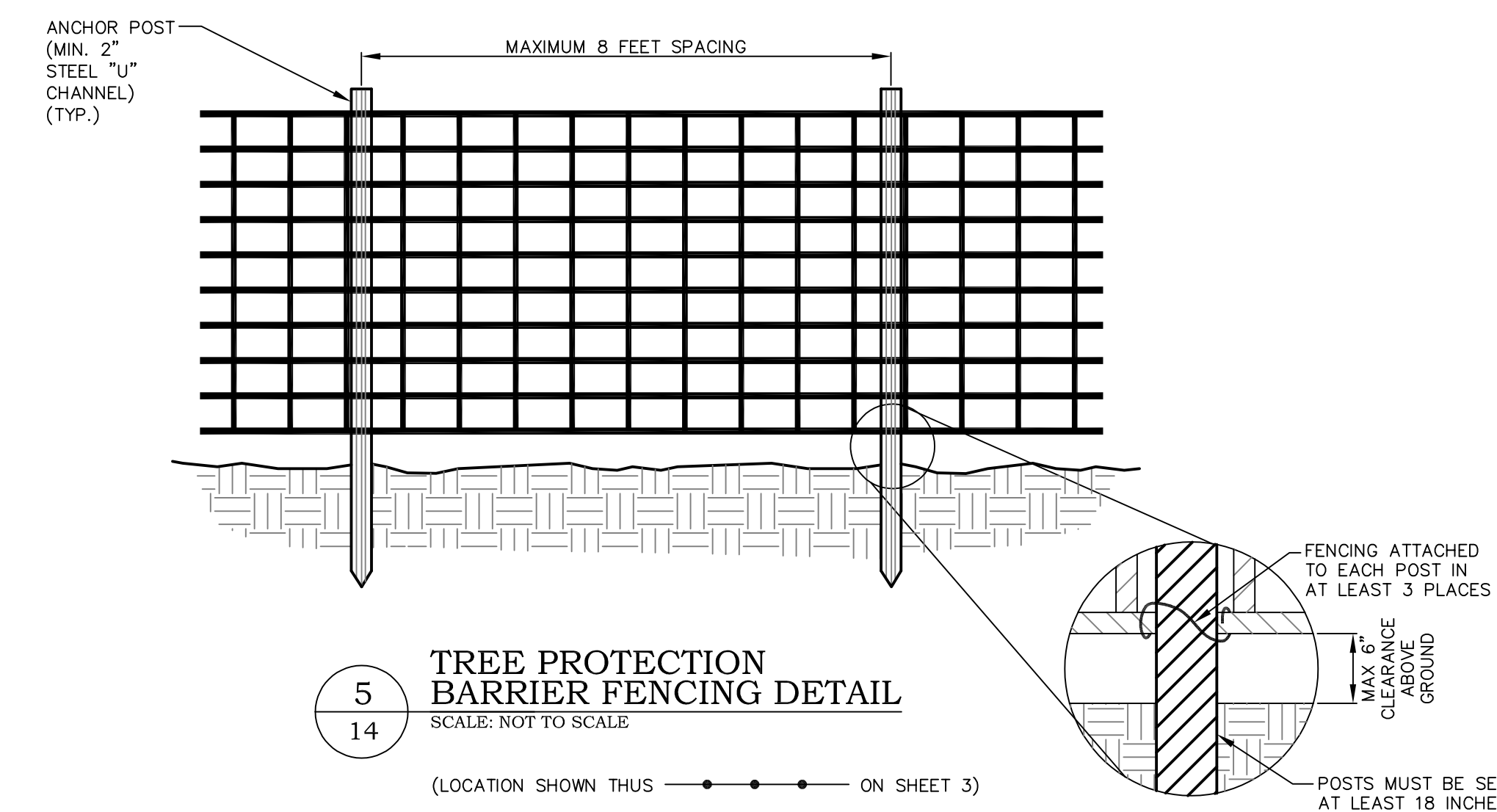
3 TYPICAL CURLEX BLANKET INSTALLATION DETAIL
SCALE: NOT TO SCALE
(LOCATION SHOWN THUS ON SHEET 3)

NOTES:
1. PROVIDE CURLEX BLANKET AS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY, OR APPROVED EQUAL.
2. INSTALL ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
3. EACH EDGE OF FABRIC IS TO OVERLAP 6" MIN.
4. ALL STAPLES SHALL BE MADE OF WIRE, 0.091" IN DIAMETER OR GREATER, "U" SHAPED WITH LEGS 6" IN LENGTH AND A 1" CROWN.



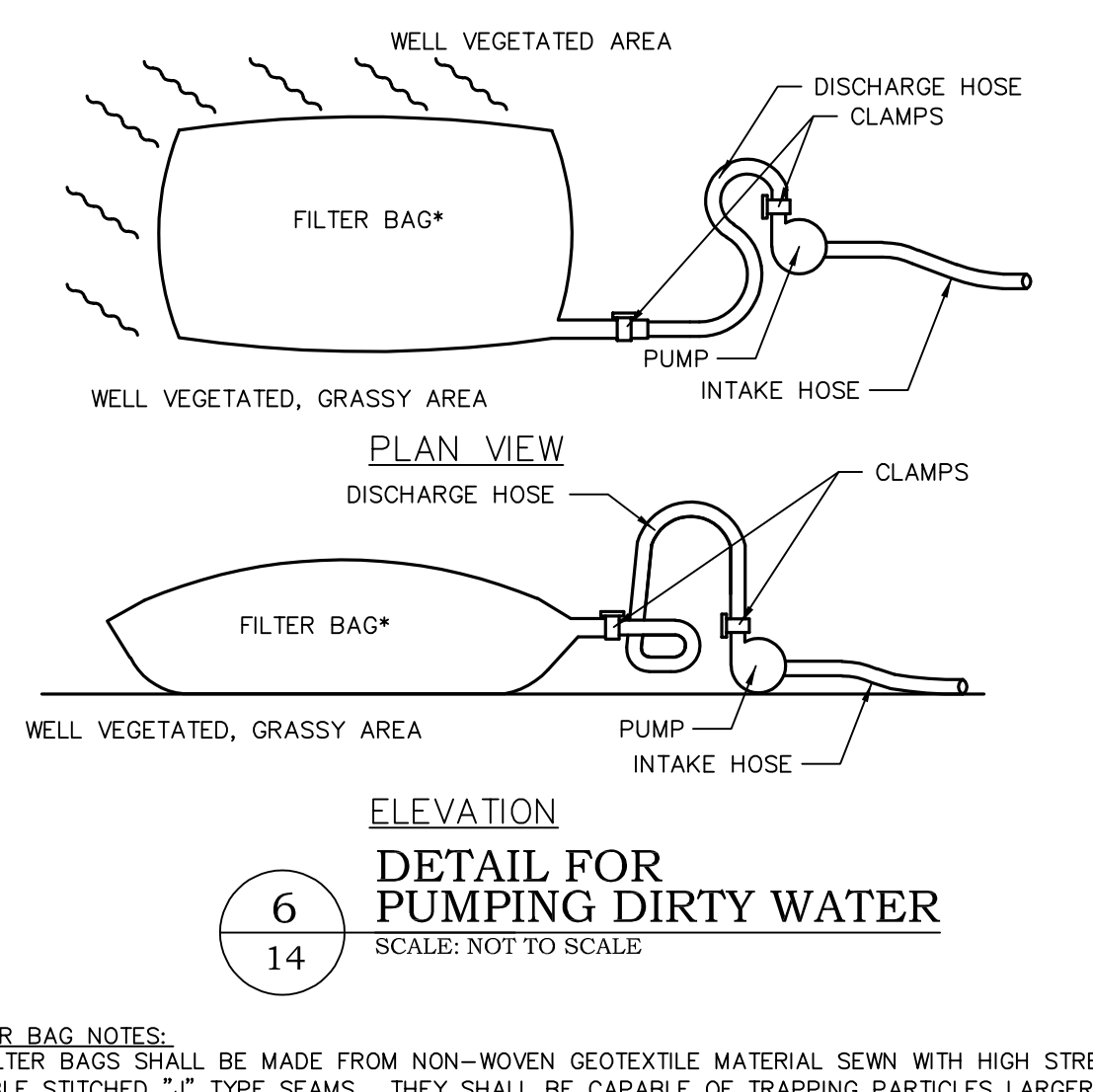
4 TEMPORARY ROADWAY TYPE 'C' INLET FILTER BAG DETAIL
SCALE: NOT TO SCALE

NOTES:
1. INSPECT INLET FILTER BAG AFTER EACH RUNOFF EVENT. MAINTAIN AS REQUIRED TO ENSURE PROPER FUNCTIONING OF THE BAG.
2. REMOVE ACCUMULATED SEDIMENT/DEBRIS WHEN THE INLET FILTER REACHES ONE-HALF MAXIMUM CAPACITY.
3. REPLACE FILTER BAG IF RIPPED OR TORN.
4. USE SANDBAGS AT TYPE 'C' INLET CURB OPENINGS TO PREVENT BYPASS FLOW.
5. REMOVE AND PROPERLY DISPOSE OF INLET FILTER BAG WHEN NO LONGER NEEDED.



5 TREE PROTECTION BARRIER FENCING DETAIL
SCALE: NOT TO SCALE
(LOCATION SHOWN THUS ON SHEET 3)

NOTES:
1. PROTECTION BARRIER SHALL BE 4 FEET HIGH, CONSTRUCTED OF DURABLE AND HIGHLY VISIBLE MATERIAL (PLASTIC ORANGE CONSTRUCTION FENCE AND SNOW FENCE MAY BE USED).
2. PROTECTION BARRIERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE WORK AT THE SITE.
3. ADDITIONAL WARNING SIGNS SHOULD ALSO BE PLACED ON THE FENCING AND IN APPROPRIATE AREAS NEAR THE WORK ZONE.
4. TREE PROTECTION FENCE SHALL BE INSPECTED & MAINTAINED BY THE CONTRACTOR AT THE END OF EVERY DAY FOR THE DURATION OF THE PROJECT. THE FENCE SHALL BE REPAIRED WHERE NECESSARY.



6 DETAIL FOR PUMPING DIRTY WATER
SCALE: NOT TO SCALE

FILTER BAG NOTES:
1. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
2. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME HALF FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.
3. BAGS SHALL BE LOCATED IN A WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. GEOTEXTILE TO BE MIRAFI EROSION CONTROL/VEGETATION MAT, STYLE 1M8 AS MANUFACTURED BY TC MIRAFI, INC., OR APPROVED EQUAL. INSTALL AS PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%
4. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.
5. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR HALF THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.
6. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.
7. INSTALL PUMP AT FIRST SIGN OF PONDING WATER.

FILL MATERIAL NOTES:
If the site will need to import or export material from the site, the responsibility for performing environmental due diligence and determination of clean fill will rest with the General Contractor.

DEFINITIONS:
Clean Fill is defined as: Uncontaminated, non-water soluble, non-decomposable, inert, solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and is recognizable as such. The term does not include materials placed in or on the waters of the Commonwealth unless otherwise authorized. (The term "used asphalt" does not include milled asphalt or asphalt that has been processed for re-use).
Clean Fill affected by a spill or release of a regulated substance: Fill materials affected by a spill or release of a regulated substance still qualifies as clean fill provided the testing reveals that the fill material contains concentrations of regulated substances that are below the residential limits in Tables FP-1a and FP-1b found in the Department's policy "Management of Fill".
Any person placing clean fill that has been affected by a spill or release of a regulated substance must use form FP-001 to certify the origin of the fill material and the results of the analytical testing to qualify the material as clean fill. Form FP-001 must be retained by the owner of the property receiving the fill. A copy of Form FP-001 can be found at the end of these instructions.

Environmental due diligence: The applicant must perform environmental due diligence to determine if the fill materials associated with the project qualify as clean fill. Environmental due diligence is defined as: Investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of property ownership, review of property use history, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits. Analytical testing is not a required part of due diligence unless visual inspection and/or review of the past land use of the property indicates that the fill may have been subjected to a spill or release of regulated substance. If the fill may have been affected by a spill or release of a regulated substance, it must be tested to determine if it qualifies as clean fill. Testing should be performed in accordance with Appendix A of the Department's policy "Management of Fill".
NOTE: Fill material that does not qualify as clean fill is regulated fill. Regulated fill is waste and must be managed in accordance with the Department's municipal or residual waste regulations based on 25 Pa. Code Chapters 287 Residual Waste Management or 271 Municipal Waste Management, whichever is applicable. These regulations are available on-line at www.pacode.com.

UTILITY LINE TRENCH EXCAVATION

1. Limit advanced clearing and grubbing operations to a distance equal to two times the length of the pipe installation that can be completed in one day.
2. Work crews and equipment for trenching, pipe installation and backfilling shall be self-contained and separate from clearing, grubbing, site restoration and stabilization operations.
3. All soil excavated from the trench shall be placed on the uphill side of the trench.
4. Limit daily trench excavation to the length of pipe placement and backfilling that can be completed that same day.
5. Water which accumulates in the open trench shall be completely removed by pumping before pipe placement and/or backfilling begins. Water removed from the trench shall be pumped through a filtration device.
6. On the day following pipe placement and backfilling, the disturbed area shall be graded to final contours and appropriate temporary erosion and sediment pollution control measures/facilities shall be installed. Stabilization shall be done immediately after the backfilling is complete.

EROSION AND SEDIMENTATION CONTROL CONSTRUCTION NOTES:

1. SILT FENCE: Silt fences shall be installed downslope of all areas to be disturbed before any work begins. Silt fence shall be installed as near as possible to the locations shown on the plan. Installation shall be as follows:
 - a. Silt fencing must be installed parallel to existing contours or constructed level alignments. Both ends of each fence section must be extended at least 8 feet upslope at 45 degrees to the main fence alignment.
 - b. Dig a 6" deep trench along the upslope side of the fence line.
 - c. Install fence posts 18" below the ground surface at 8' maximum intervals on a slight angle toward the anticipated runoff source.
 - d. Stretch and fasten filter fabric to the upslope side of the support stakes. Wherever reinforced fabric fence is installed, the reinforcement mesh shall be fastened to the stakes prior to the fabric.
 - e. At fabric ends, both ends should be wrapped around the support stake and stapled. If the fabric comes already attached to the stakes, the end stakes shall be held together while the fabric is wrapped around the stakes at least one revolution prior to driving the stakes.
 - f. The bottom of the fence shall be anchored by placing the fabric in the bottom of the trench, and backfilling and compacting the fill material in the trench.
 - g. Guy wires shall be attached to reinforced silt fence. An acceptable alternative is to stake straw bales on the downslope side of the fence.
 - h. Silt fence shall be inspected weekly and after each runoff event. Needed repairs shall be performed immediately after the inspection. Damaged fences shall be immediately replaced. Rock filter outlets shall be installed where fences have become overstressed due to sediment build up.
2. Stormwater inlets must be protected until the tributary areas are stabilized.
3. STRUCTURAL AND CONSTRUCTION FILL: In all areas where structural or construction fill is to be placed, "grubbing" shall be carried out prior to placing any fill. All trees, brush and other vegetation within the construction fill areas shall be removed from the site.
4. DUST CONTROL: To control dust generation on-site, the contractor shall wear construction traffic routes and staging areas.
5. TEMPORARY VEGETATION BY SITE CONTRACTOR: Upon completion of an earth disturbance activity or any stage or phase of an activity, the site shall be immediately seeded, mulched or otherwise protected from accelerated erosion and sedimentation. Temporary seeding shall be as follows:
 1. Lime shall be evenly broadcast @ 190 lbs/1,000 sq. ft. (or as per soil test).
 2. 10-25-25 Basic Fertilizer shall be evenly broadcast at the rate of 25 lbs/1,000 sq. ft.
 3. Seed with annual ryegrass at a rate of 1 lb/1,000 sq. ft.
 If the season prevents the establishment of a temporary vegetative cover, the disturbed areas will be mulched with straw, or equivalent material, at a rate of 140 pounds per 1000 square feet. Mulch should be applied regardless of the time of year.
6. EXISTING ROADWAY CLEANING: Contractor shall maintain a clean approach to the site. If the dirt and/or debris builds up on existing asphalt surfaces, the site contractor shall professionally clean that surface to the satisfaction of the authority having jurisdiction.
7. Inlet protection shall be applied, as detailed on the plan, to every inlet which has been constructed to the roadway subbase elevation.
8. Pollutants such as fuels, lubricants, bitumens, raw sewage and other harmful materials shall not be discharged into or near rivers, streams and impoundments or into natural or manmade channels leading thereto.

PERMANENT VEGETATION BY CONTRACTOR:

GRADING AND SUB-SOIL PREPARATION

All areas that will receive permanent vegetation, such as, but not limited to, turf and planting beds, shall be prepared in the following manner:

- A. Sub soils shall be native material free from any construction debris, stones larger than 3", organic material such as wood or dead plants larger than 2" in diameter. Any additional fill soil material brought onto site must be inspected by owner for suitability.
- B. Where Sub soils are backfilled or constructed in depths greater than 2 feet, each 2 foot lift shall be compacted to minimize subsidence.
- C. Sub grade to be graded to within 6" of contours called for on plan, to provide proper drainage and be free of standing water.
- D. Sub soils to be scarified and loosened to relieve surface compaction prior to placement of topsoil.
- E. After approval of subsoil grading, no additional equipment or vehicles may be driven on the area approved, except for equipment used in landscape operations. Any compaction or depressions must be corrected to reestablish proper sub grade as previously approved, prior to installation of topsoil and plant material.

TOPSOIL APPLICATION AND TREATMENT:

- A. After topsoil (6" minimum thickness) is graded to the proper elevations, the following materials shall be applied and tilled (mixed) into the top 4" of the surface:
 1. Lime shall be evenly broadcast @ 190 lbs/1,000 sq. ft. (or as per soil test).
 2. Soil Conditioner shall be evenly broadcast @ 50 lbs/1,000 sq. ft.
 3. 10-25-25 Basic Fertilizer shall be evenly broadcast at the rate of 25 lbs/1,000 sq. ft.
 4. Soil Amendment (Axis or Isolite) is evenly mixed into the top 4" of the field surface.
- B. After incorporation of the above materials, the topsoil shall be re-firmed by dry-rolling (topsoil moisture content must be near zero percent) with a five (5) ton roller on a dual flotation tire agricultural tractor.
- C. The surface grades shall be surveyed and any undulations or irregularities resulting from applications and soil structuring shall be corrected.
- D. Any stones larger than 2 inches in any dimension, shall be removed from the top 3" utilizing a mechanical rock picker.
- E. Final grading shall be accomplished utilizing an automatic draft sensing hydraulic land plane attached to a flotation tire agricultural tractor.
- F. Cultivate and restructure the topsoil to a depth of 3-4". Grade tolerance shall be held to 1/4" per foot.
- G. Cultivate and till the soil to a depth of 4-6" (depth may be limited by subsurface conditions).
- H. Re-grade, re-firm and rake the soil surface. This is a smoothing and leveling operation to establish the final crown contours and elevations.
- I. Final stone pick the surface of any stones larger than 1" in any dimension.

SEEDING AND MULCHING:

- A. Only Flotation Tire Equipment will be permitted after final grade approval.
- B. Drill seeding shall be accomplished by utilizing a 4' wide seeder constructed with 16 rows of steel slicers spaced 3" or less on center and capable of placing seed 1/4" into the surface at a rate of 8 lbs. per 1000 square feet.
- C. Seed shall be Villanova Mixture Lot No. L20M-4-FSVSM-2, as supplied by Fisher and Son Co., Inc.: 237 King Street, Malvern, PA 19355.
- D. Mulching - The Contractor shall mulch all newly seeded areas with salt hay, at the rate of 140 pounds per 1,000 square feet in accordance with DEP specifications.
- E. Provide manufacturer's fabric and straw combination to all seeded areas on banks 3 to 1 or steeper and where potential erosion may take place.

MAINTENANCE:

- A. Seeded lawn maintenance shall be for not less than 60 days after substantial completion.
 - a. If seeded in fall and not given full 60 days of maintenance, or if not considered acceptable at that time, continue maintenance the following spring until acceptable lawn is established.
- B. Maintain lawns by watering, fertilizing, weeding, mowing, trimming and other operations such as rolling, regrading and replanting, as required, to establish a smooth, acceptable lawn; free of eroded or bare areas.
- C. When seeding is completed, including maintenance, Owner will make an inspection to determine acceptability.
- D. When it becomes necessary, the Owner shall inform the Contractor of unsatisfactory conditions of erosion and sediment devices, at such time the Contractor shall improve the conditions of said devices to meet with the approval of the Owner.
- E. Should unforeseen erosive conditions develop during construction the Contractor shall take action to remedy such conditions and to prevent damage to adjacent properties as a result of increased runoff and/or sediment displacement.
- F. Seeded areas that have been washed away shall be filled and graded as necessary and then reseeded. This procedure shall be repeated after each storm or until no more signs of erosion are evident.

Associated Engineering Consultants Incorporated
488 Devon Park Drive Suite 113 Wayne Pennsylvania 19087 tel 610 688 3880 fax 610 688 4666
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Civil | Structural | HVAC | Plumbing | Electrical | Fire Protection

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DAVID C. SCHMIDT
REGISTERED PROFESSIONAL ENGINEER
27452-E
PENNSYLVANIA

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND KING OF PRUSSIA ROAD (S.R. 1021)

SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

PROJECT	REVISION
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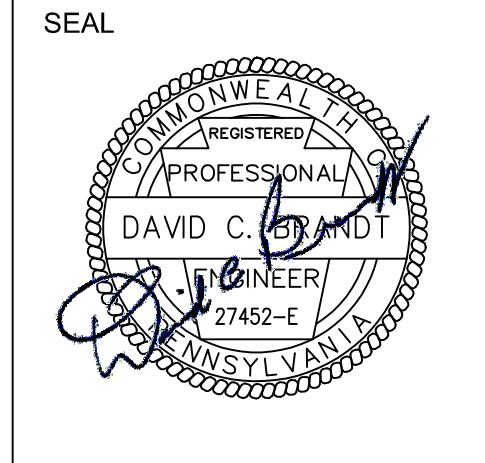
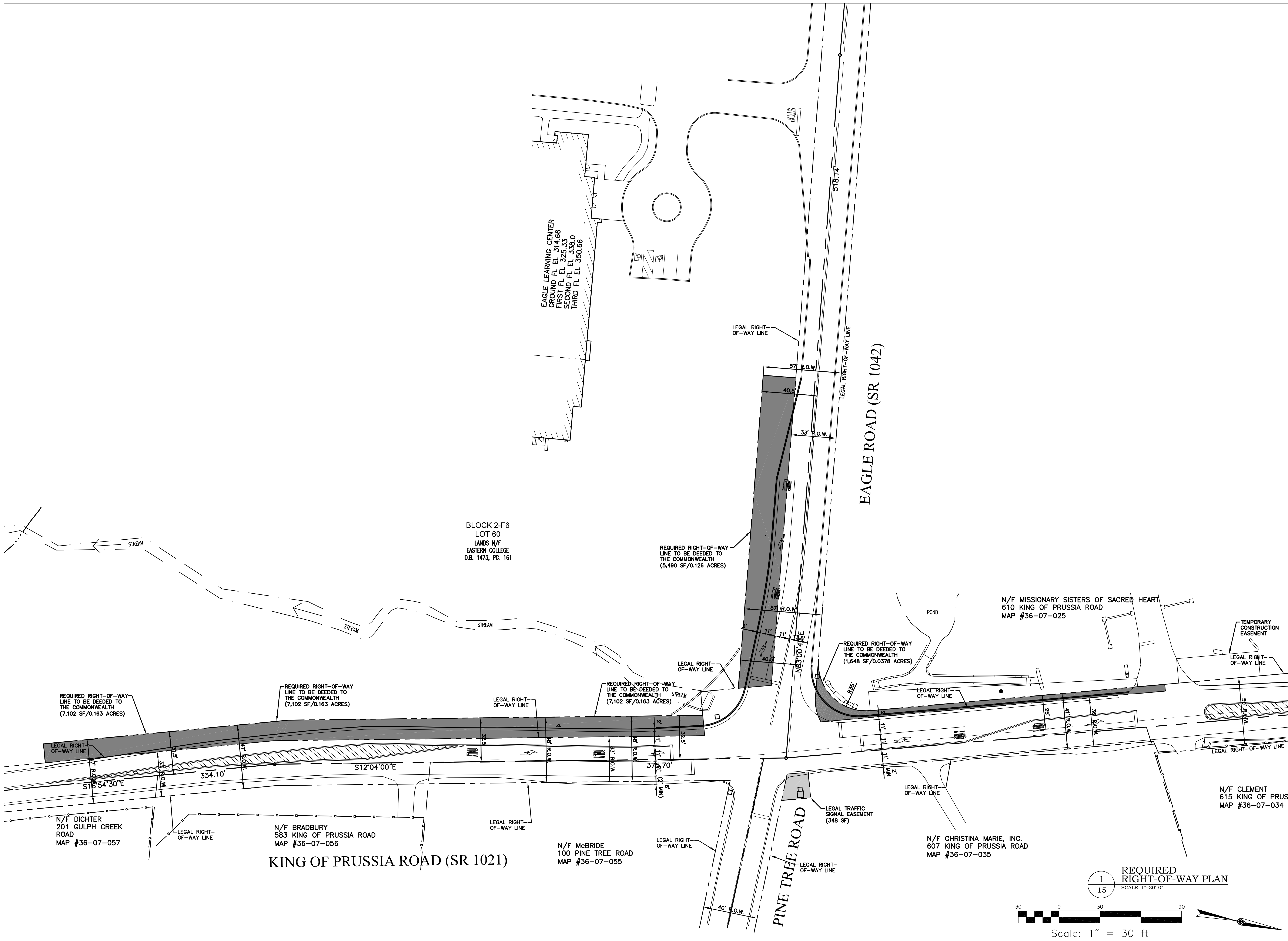
SOIL EROSION CONTROL DETAILS AND NOTES

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO. 14

SHEET NO. 17 OF 24

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011



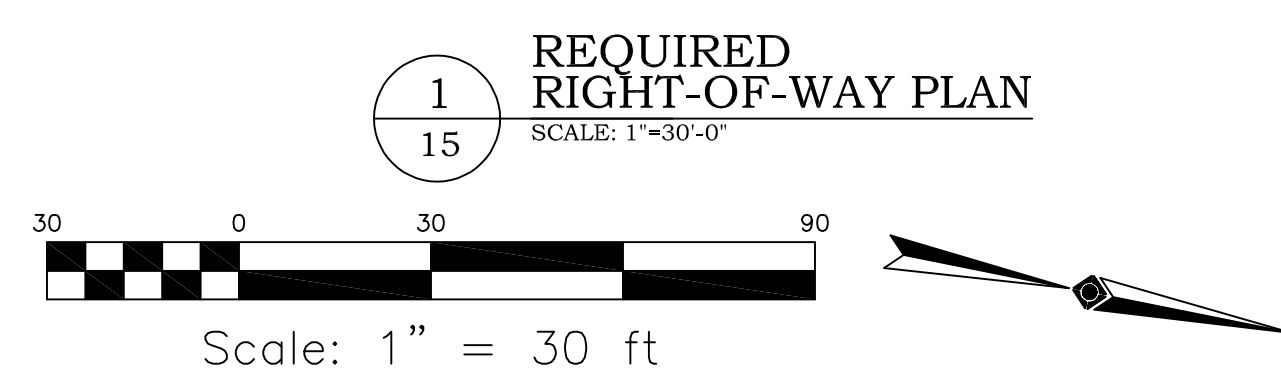
PROJECT
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 KING OF PRUSSIA ROAD (S.R. 1021)
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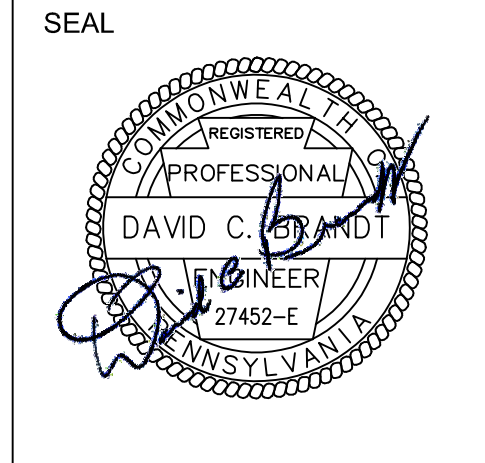
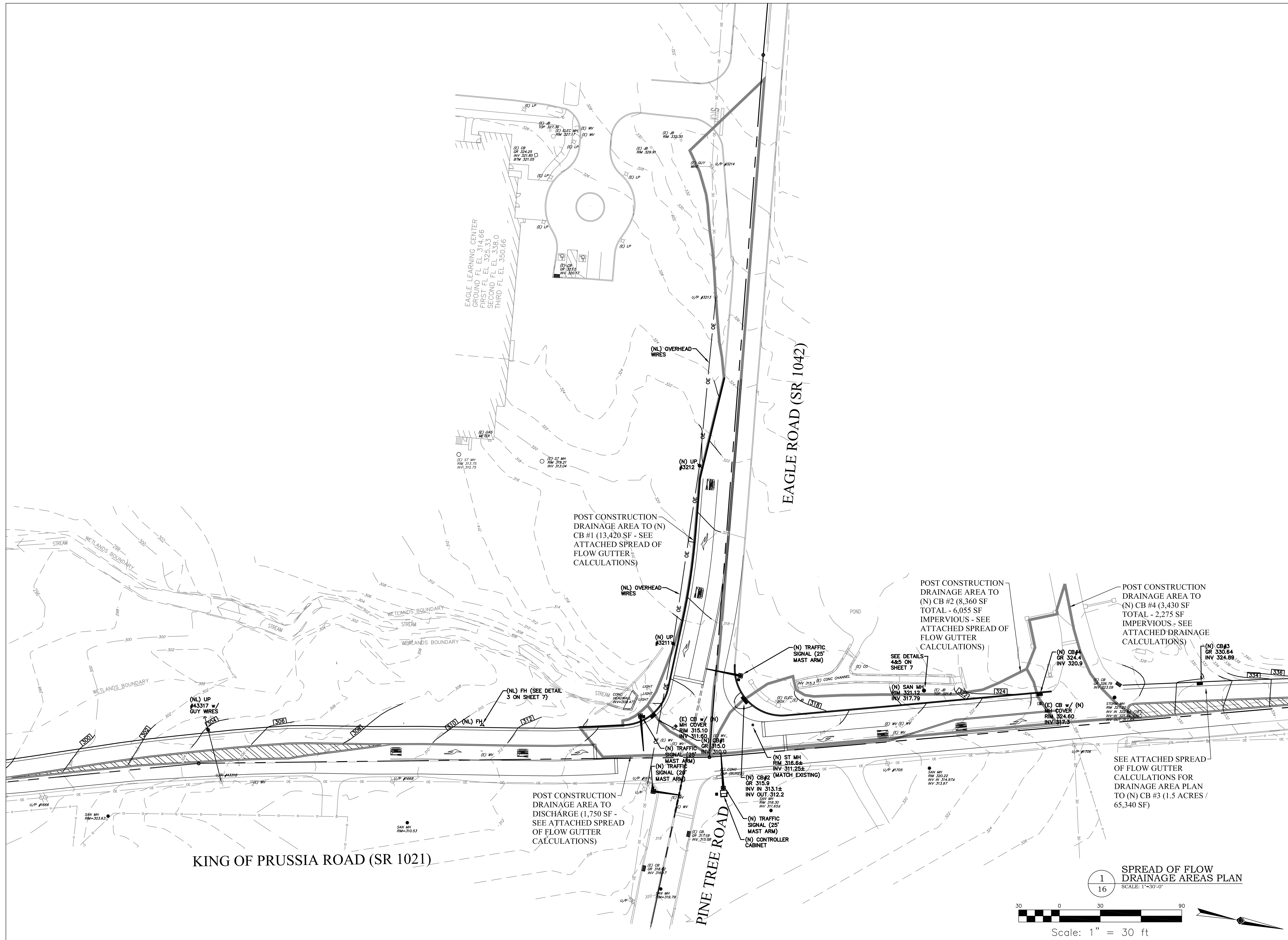
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10/17/17	RADNOR B.O.C. MEETING

SHEET TITLE
REQUIRED RIGHT-OF-WAY PLAN

DRAWN BY: BJD
 CHECKED BY: KRM

SHEET NO.
15
 SHEET NO. 18 OF 24
 PROJECT NO. 0124.057
 DATE: NOVEMBER 18, 2011





PROJECT

INTERSECTION IMPROVEMENTS

EAGLE ROAD (S.R. 1042) AND KING OF PRUSSIA ROAD (S.R. 1021)

SAINT DAVIDS, PENNSYLVANIA 19087
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10/17/17	RADNOR B.O.C. MEETING

SHEET TITLE

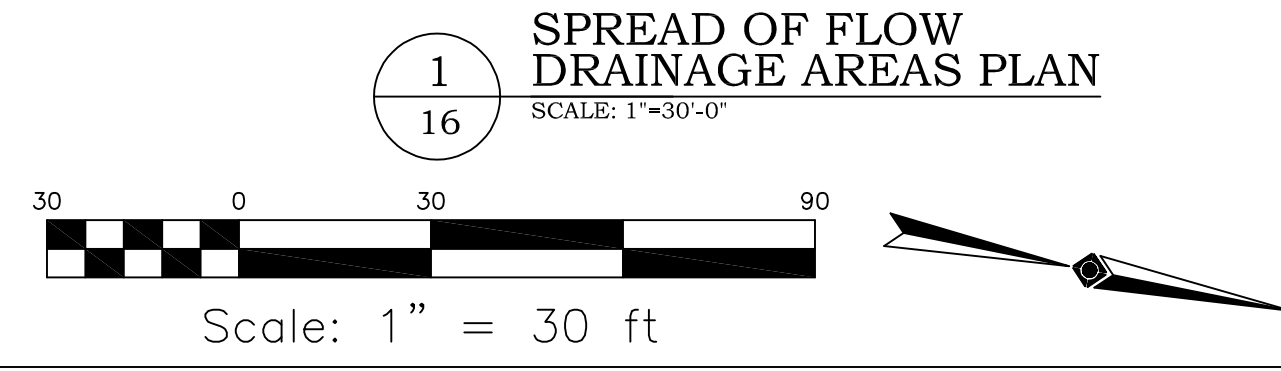
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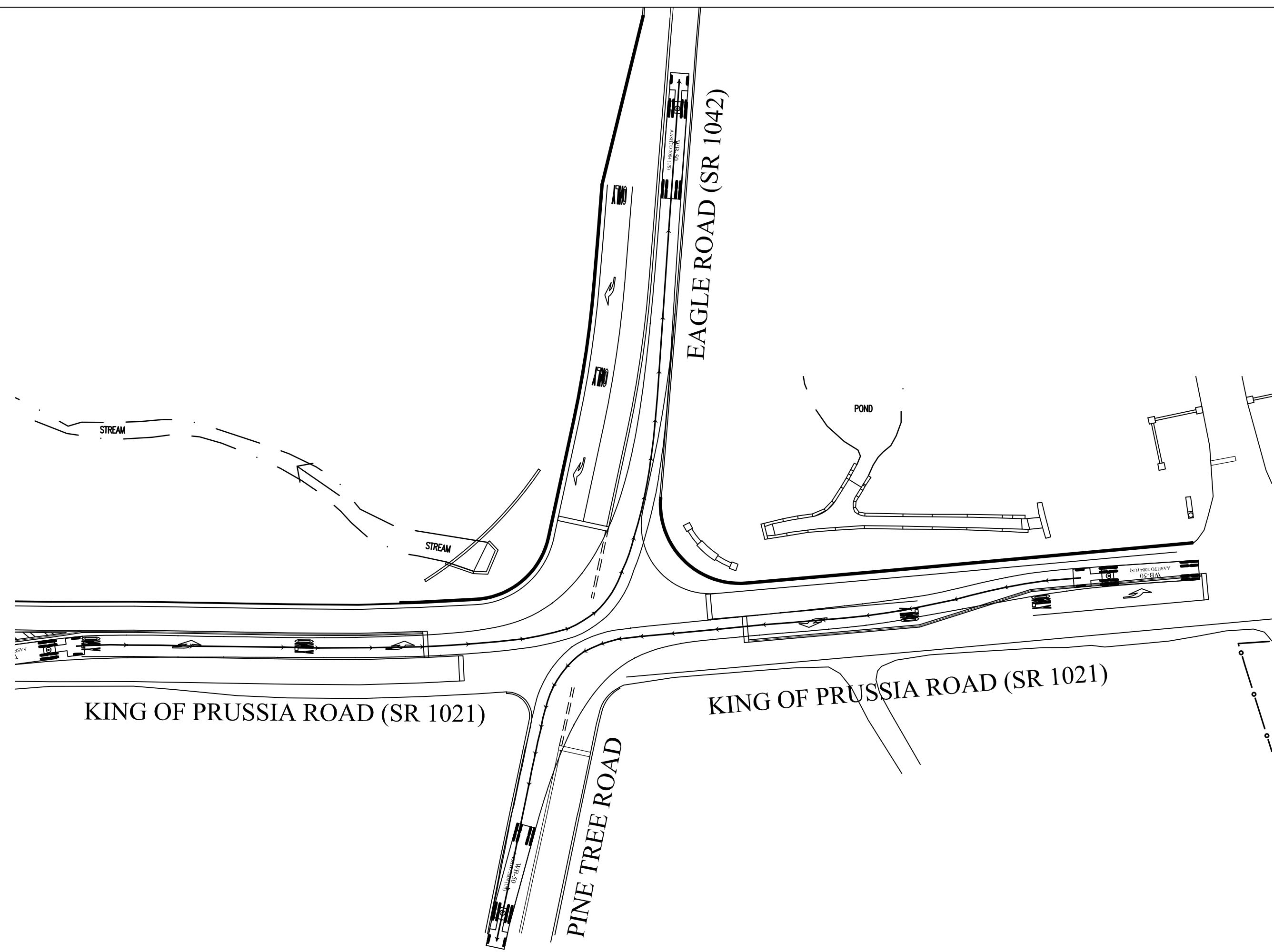
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CHECKED BY: KRM

SHEET NO. 16

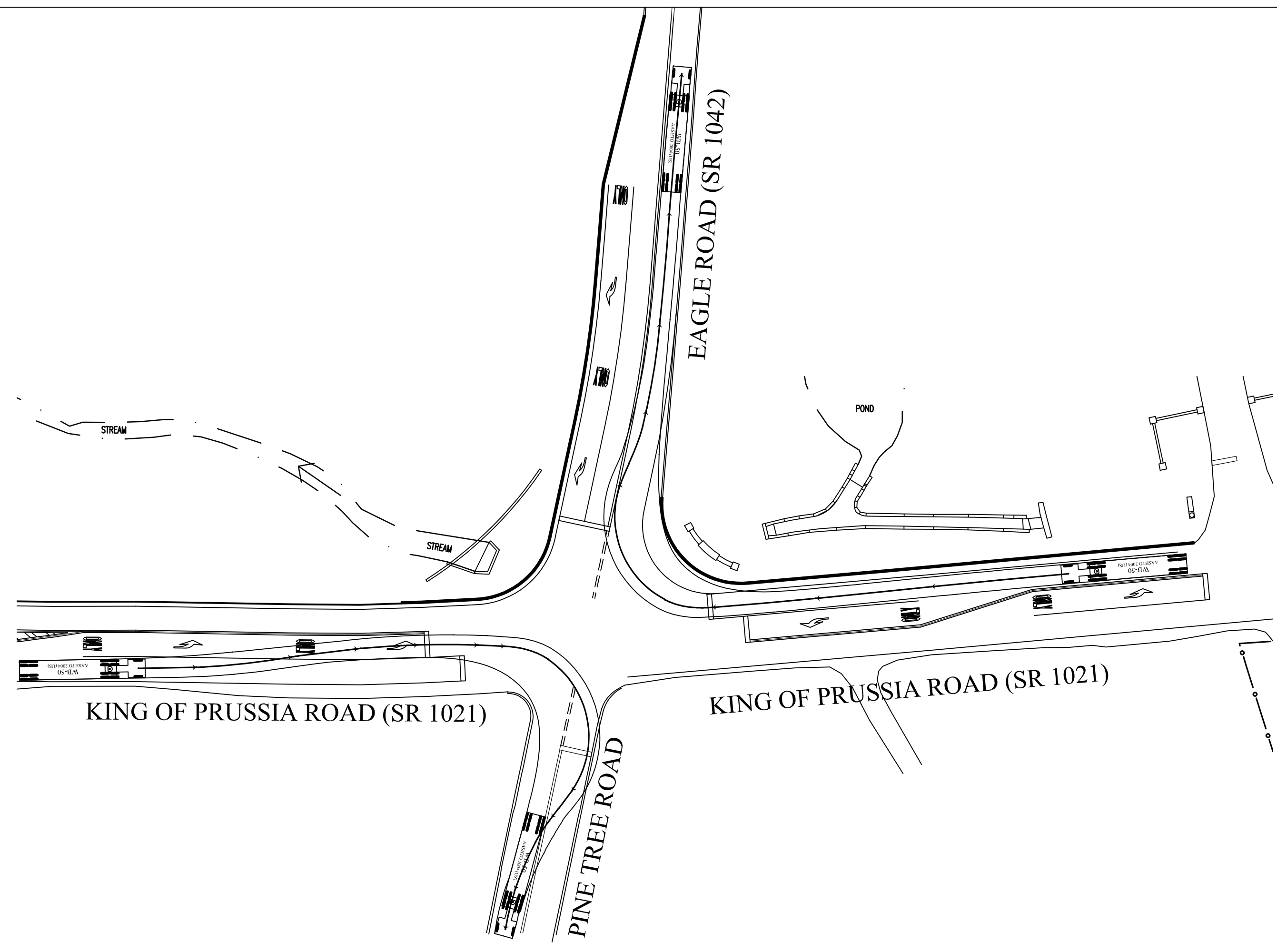
SHEET NO. 19 OF 24

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011

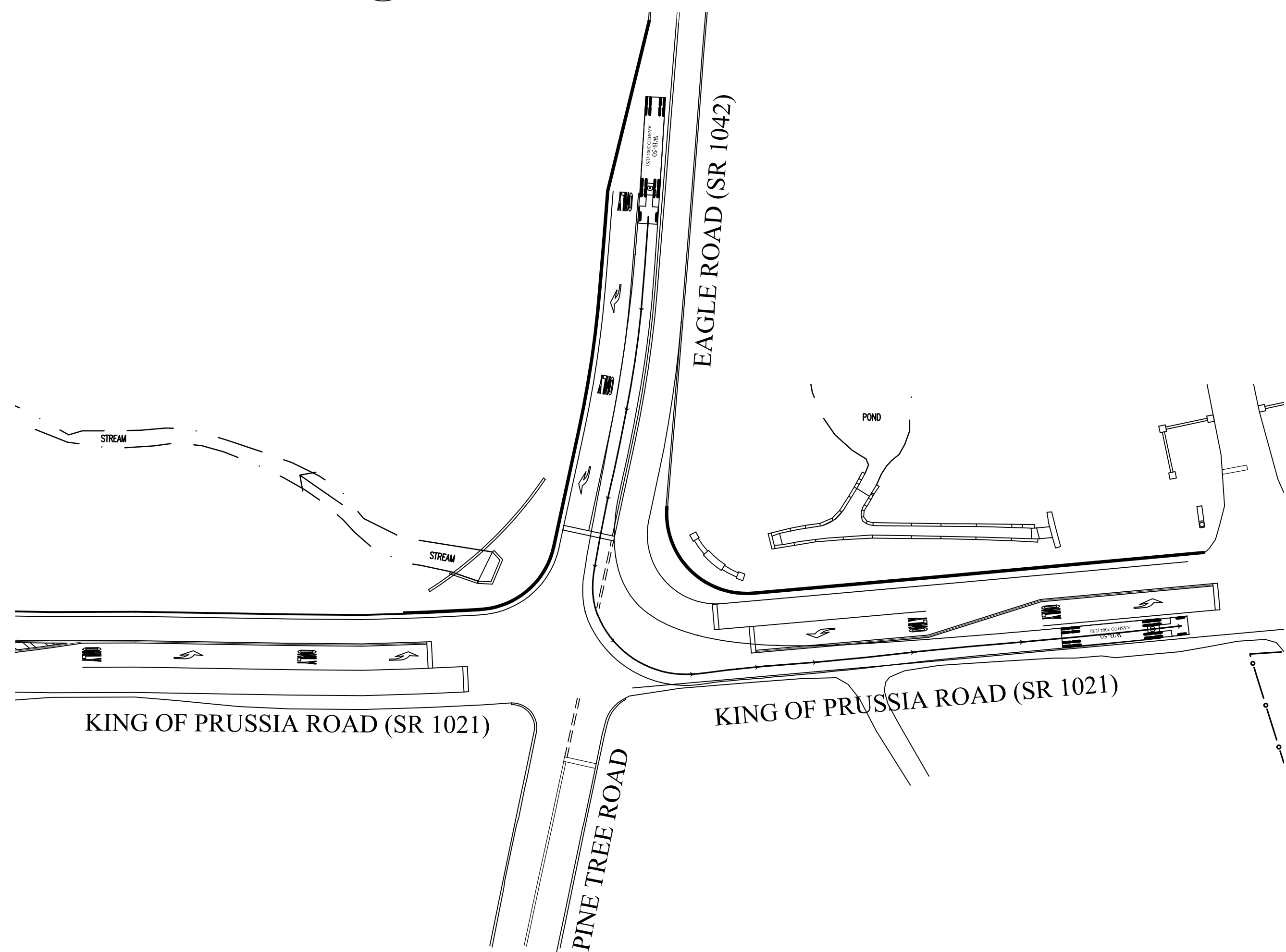




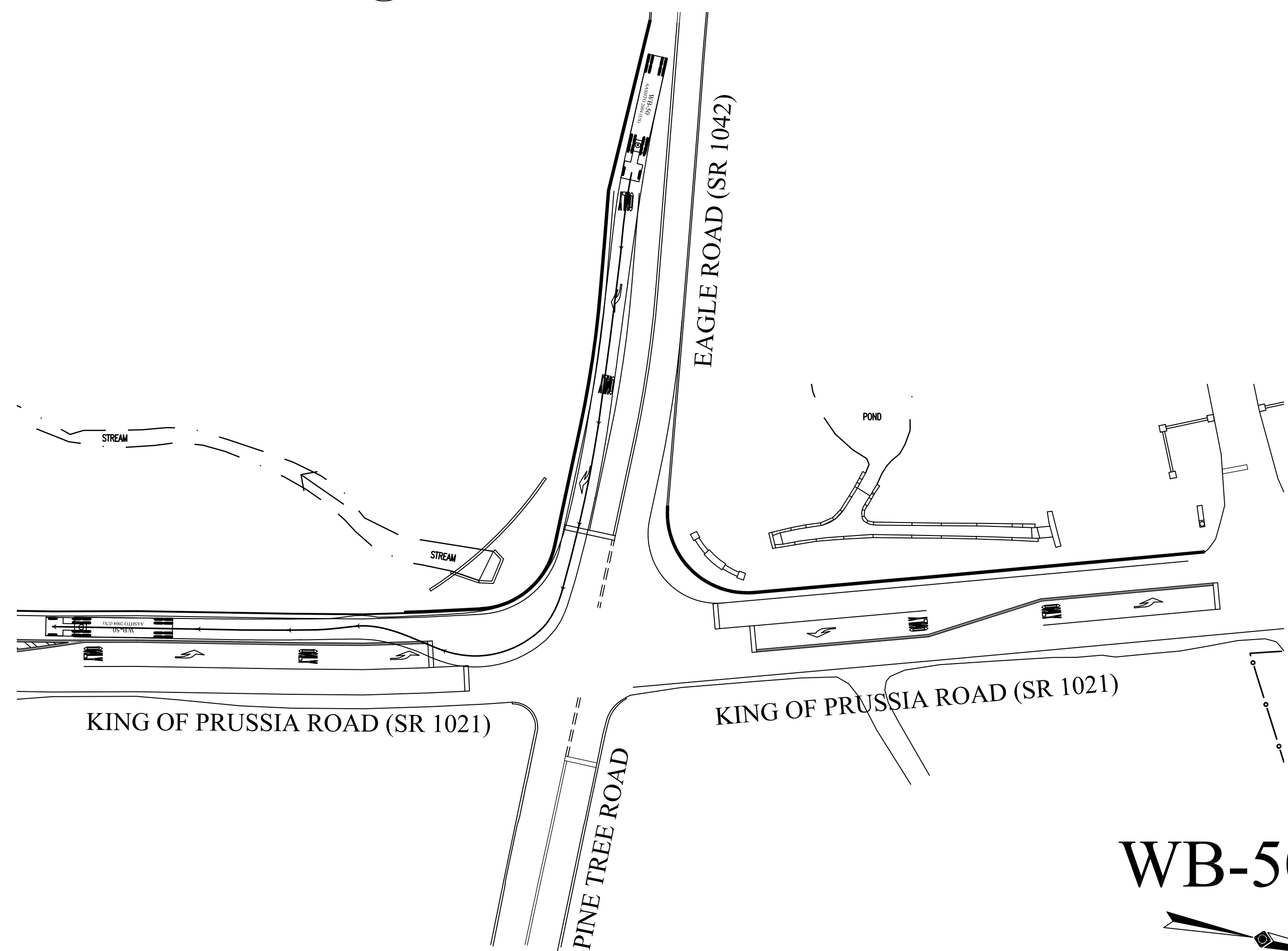
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17 S.R. 1021 LEFT TURN MANEUVERS PLAN
SCALE: 1"=40'-0"



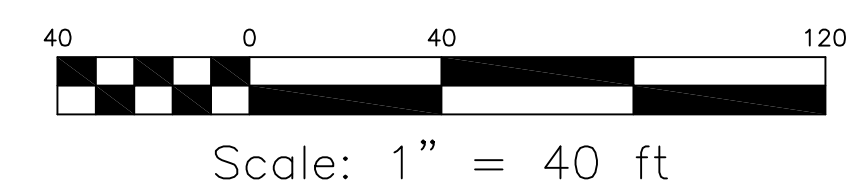
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2
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SCALE: 1"=40'-0"



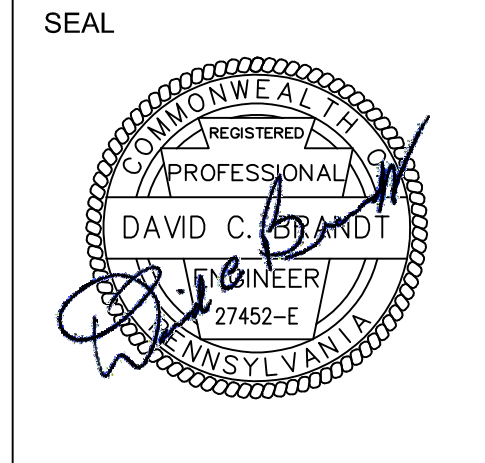
4
17 S.R. 1042 RIGHT TURN MANEUVERS PLAN
SCALE: 1"=40'-0"



WB-50

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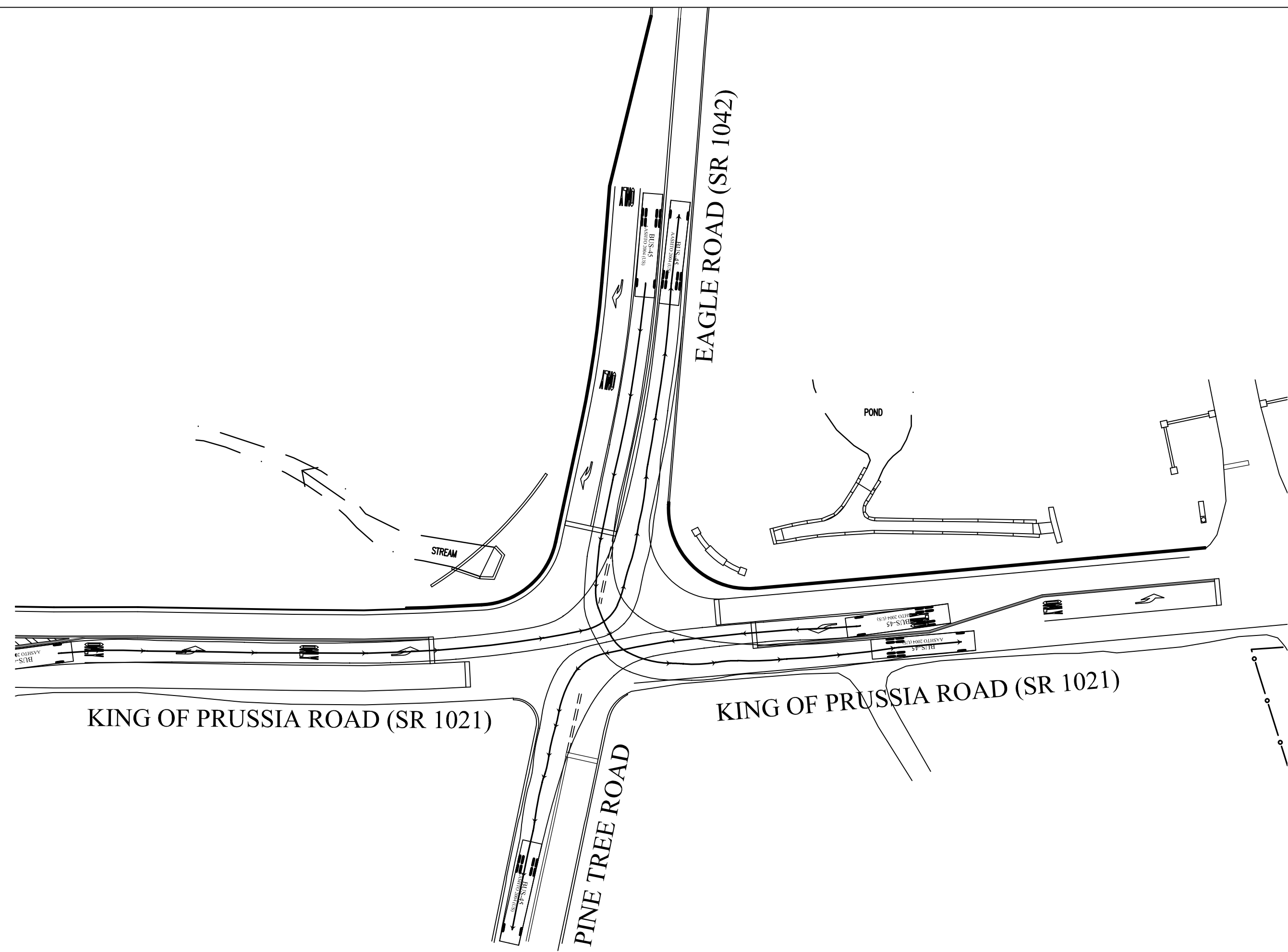
PROJECT
INTERSECTION IMPROVEMENTS
EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
08/28/12	H.O.P. RESUBMISSION
03/11/13	H.O.P. RESUBMISSION
10/17/17	RADNOR B.O.C. MEETING

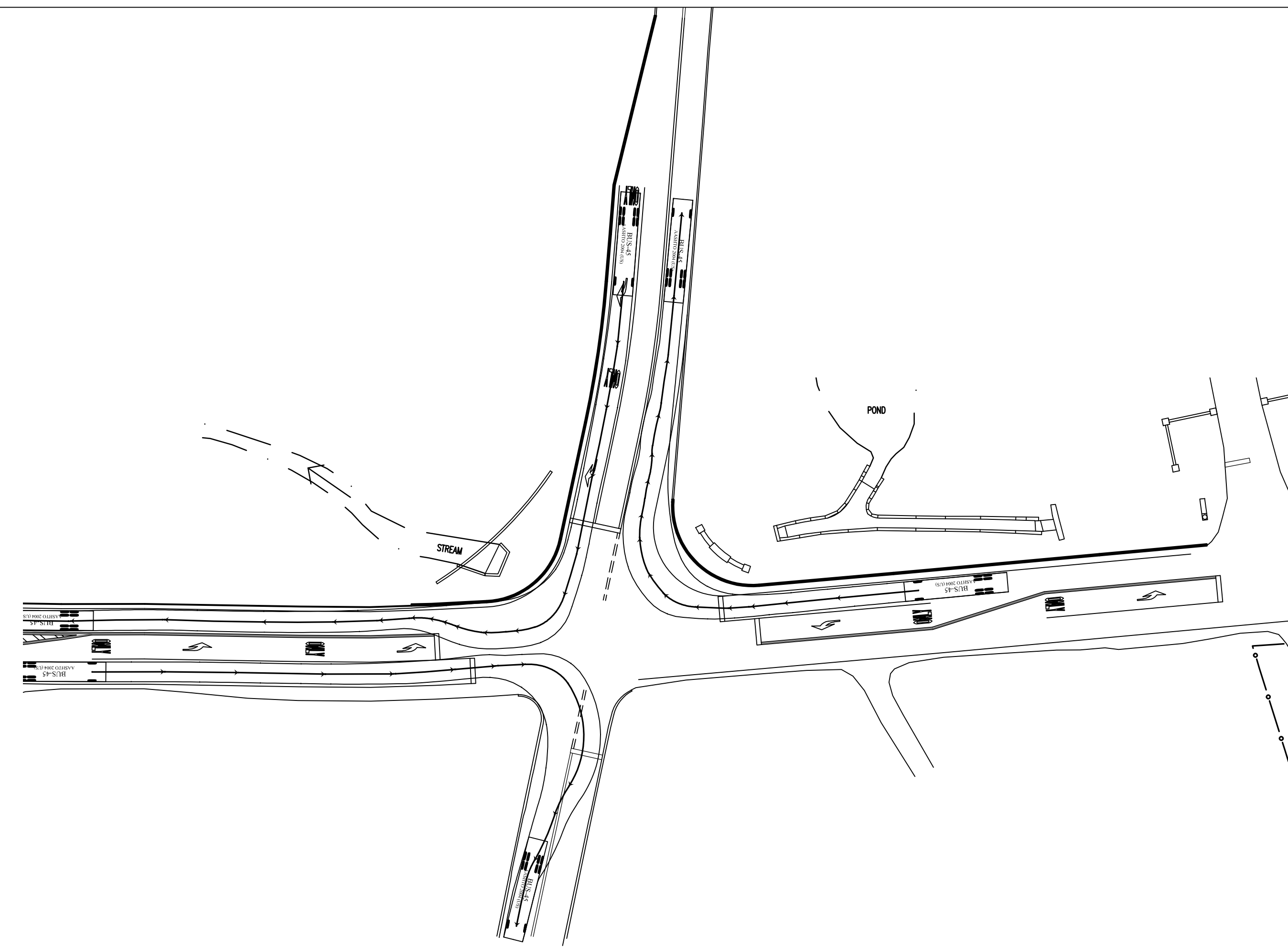
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WB-50 TRUCK TURNING MANEUVERS PLANS

DRAWN BY: BJD
CHECKED BY: KRM

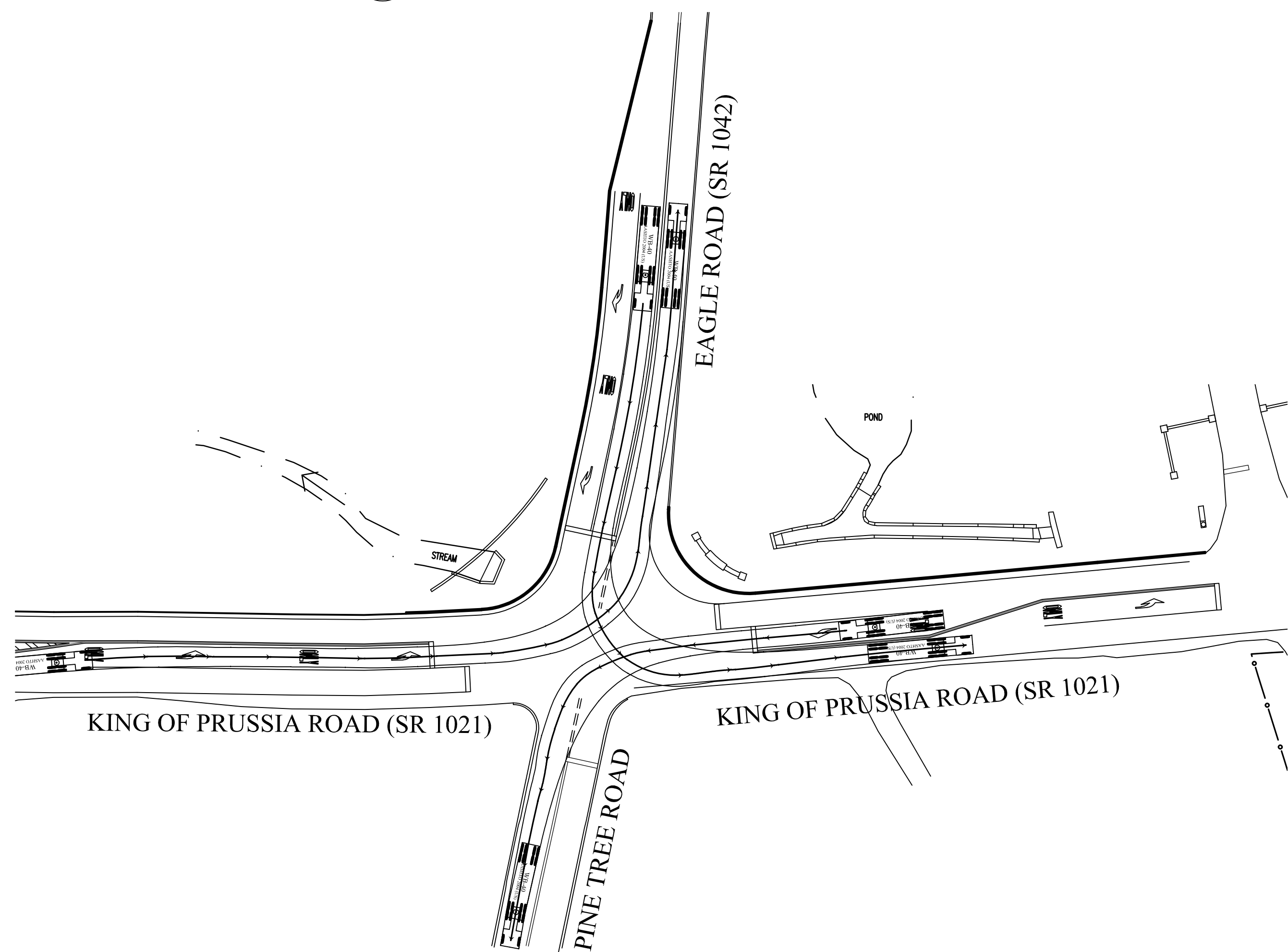
SHEET NO.
17
SHEET NO. 20 OF 24
PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011



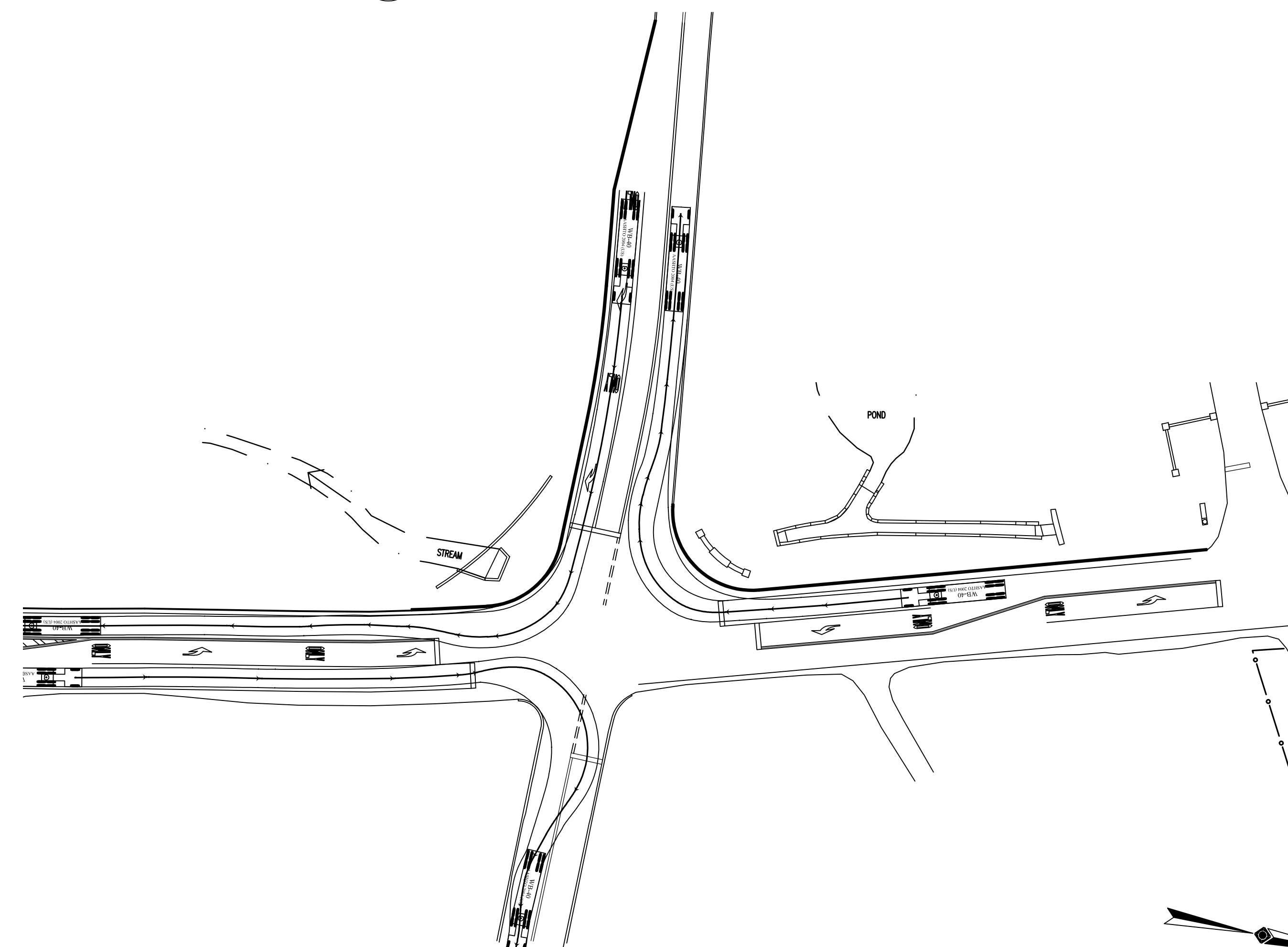
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45' BUS LEFT TURN MANEUVERS PLAN
SCALE: 1"=40'-0"



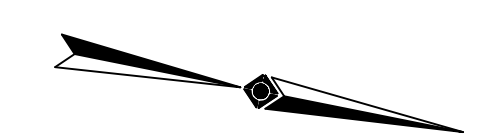
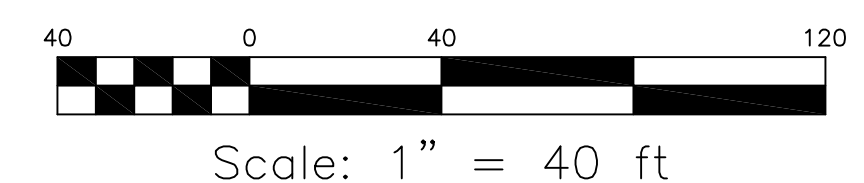
3
18
45' BUS RIGHT TURN MANEUVERS PLAN
SCALE: 1"=40'-0"



2
18
WB-40 LEFT TURN MANEUVERS PLAN
SCALE: 1"=40'-0"



4
18
WB-40 RIGHT TURN MANEUVERS PLAN
SCALE: 1"=40'-0"



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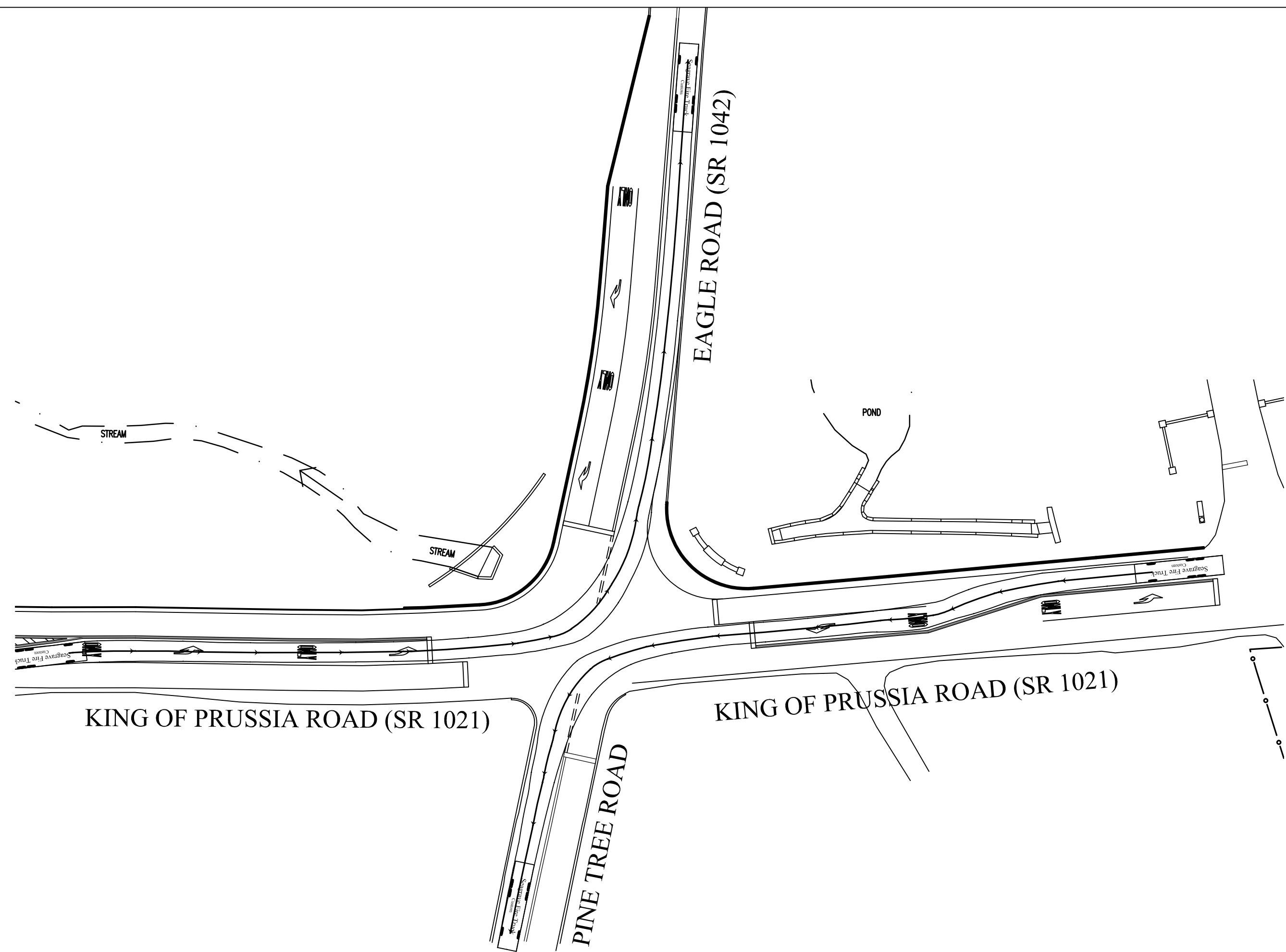
PROJECT
INTERSECTION IMPROVEMENTS
EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
08/28/12	H.O.P. RESUBMISSION
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10/17/17	RADNOR B.O.C. MEETING

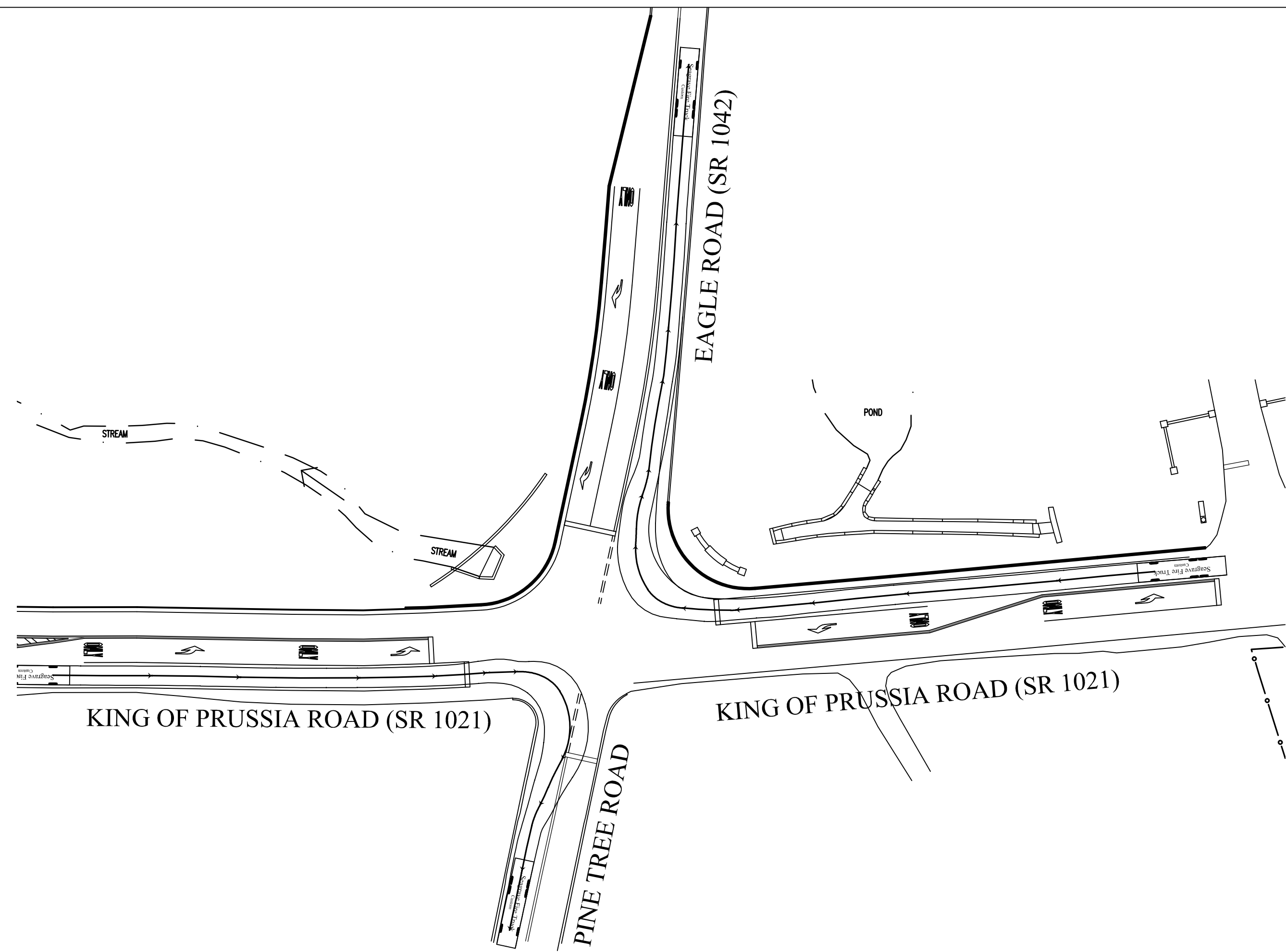
SHEET TITLE
**BUS & WB-40
TRUCK TURNING
MANEUVERS
PLANS**

DRAWN BY: BJD
CHECKED BY: KRM

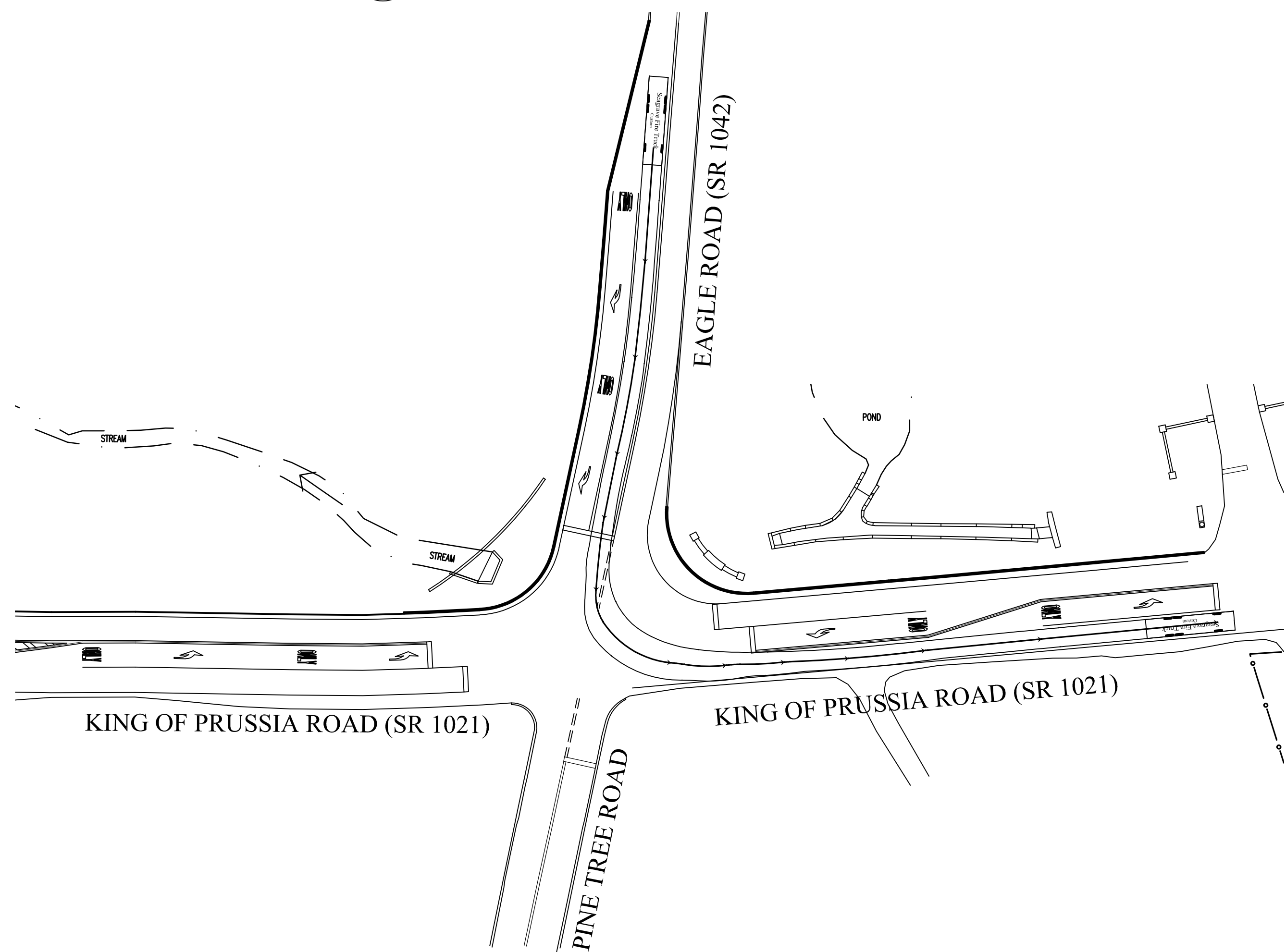
SHEET NO.
18
SHEET NO. 21 OF 24
PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011



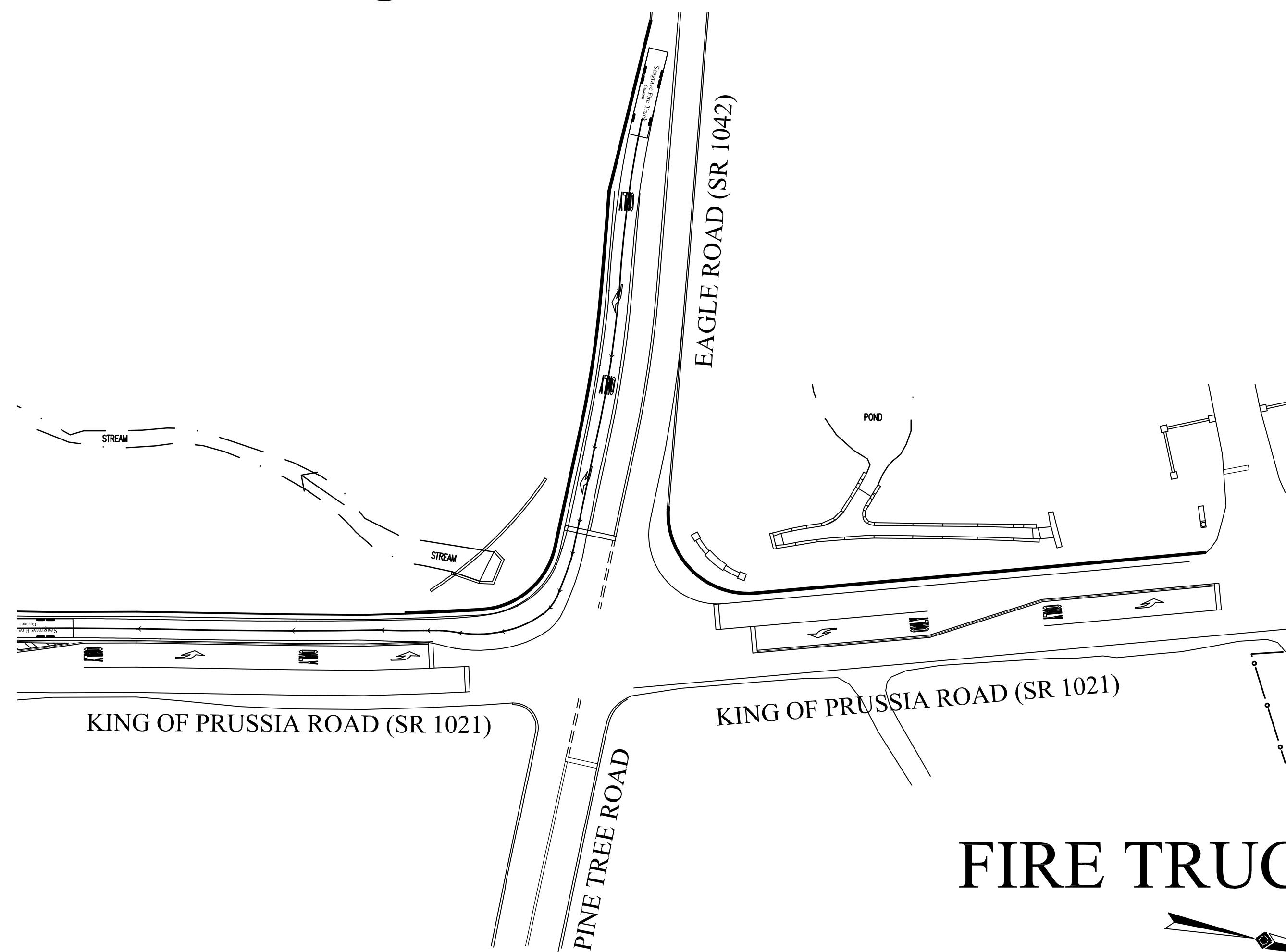
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SCALE: 1"=40'-0"



3
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SCALE: 1"=40'-0"

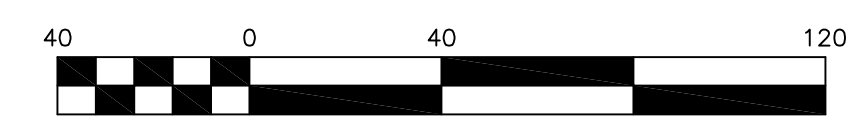
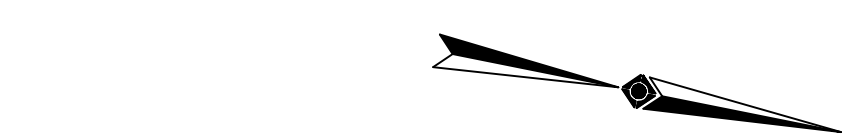


2
19 S.R. 1042 LEFT TURN MANEUVERS PLAN
SCALE: 1"=40'-0"



4
19 S.R. 1042 RIGHT TURN MANEUVERS PLAN
SCALE: 1"=40'-0"

FIRE TRUCK



Scale: 1" = 40 ft

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SEAL

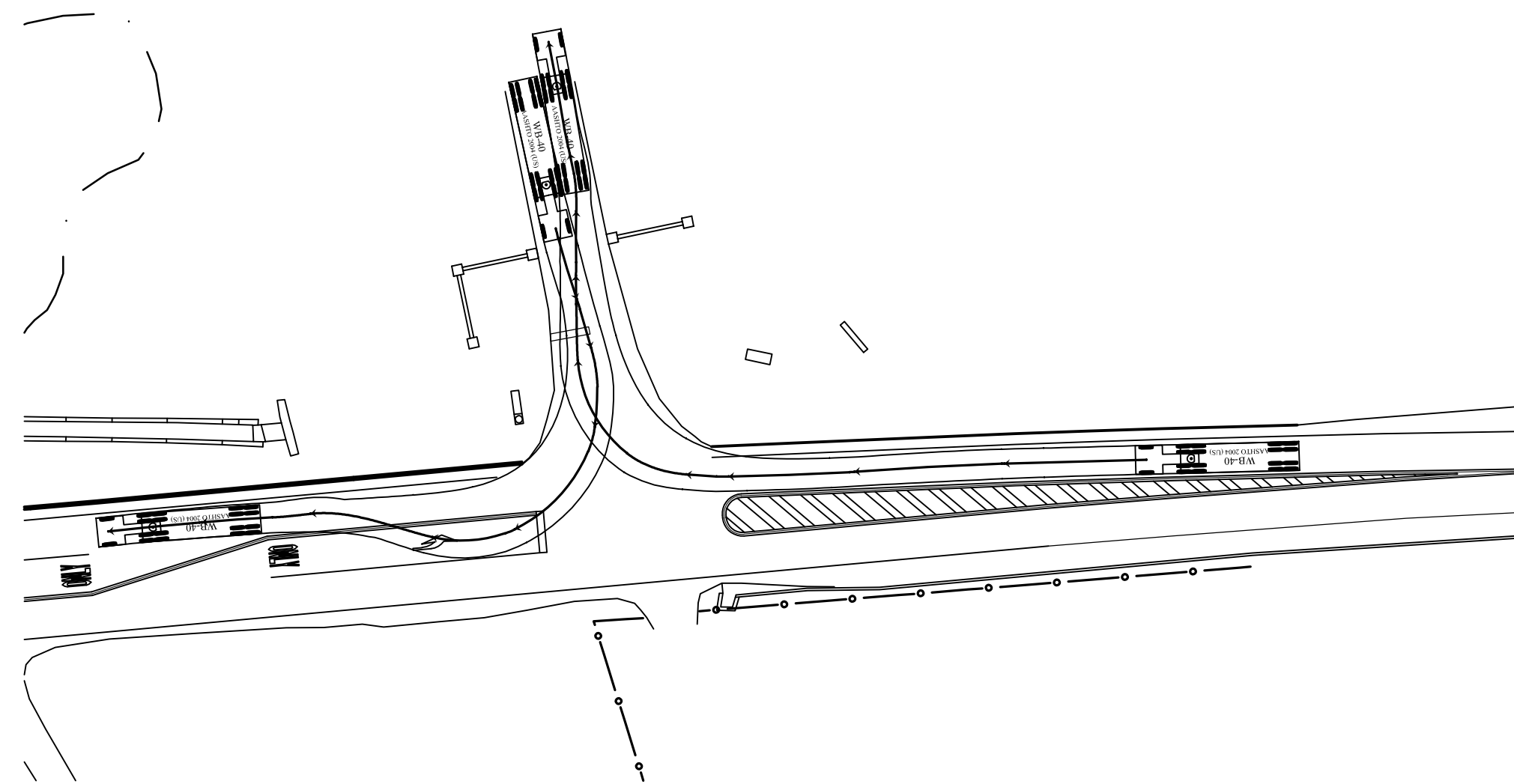
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INTERSECTION IMPROVEMENTS
EAGLE ROAD (S.R. 1042) AND
KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
03/11/13	H.O.P. RESUBMISSION
10/17/17	RADNOR B.O.C. MEETING

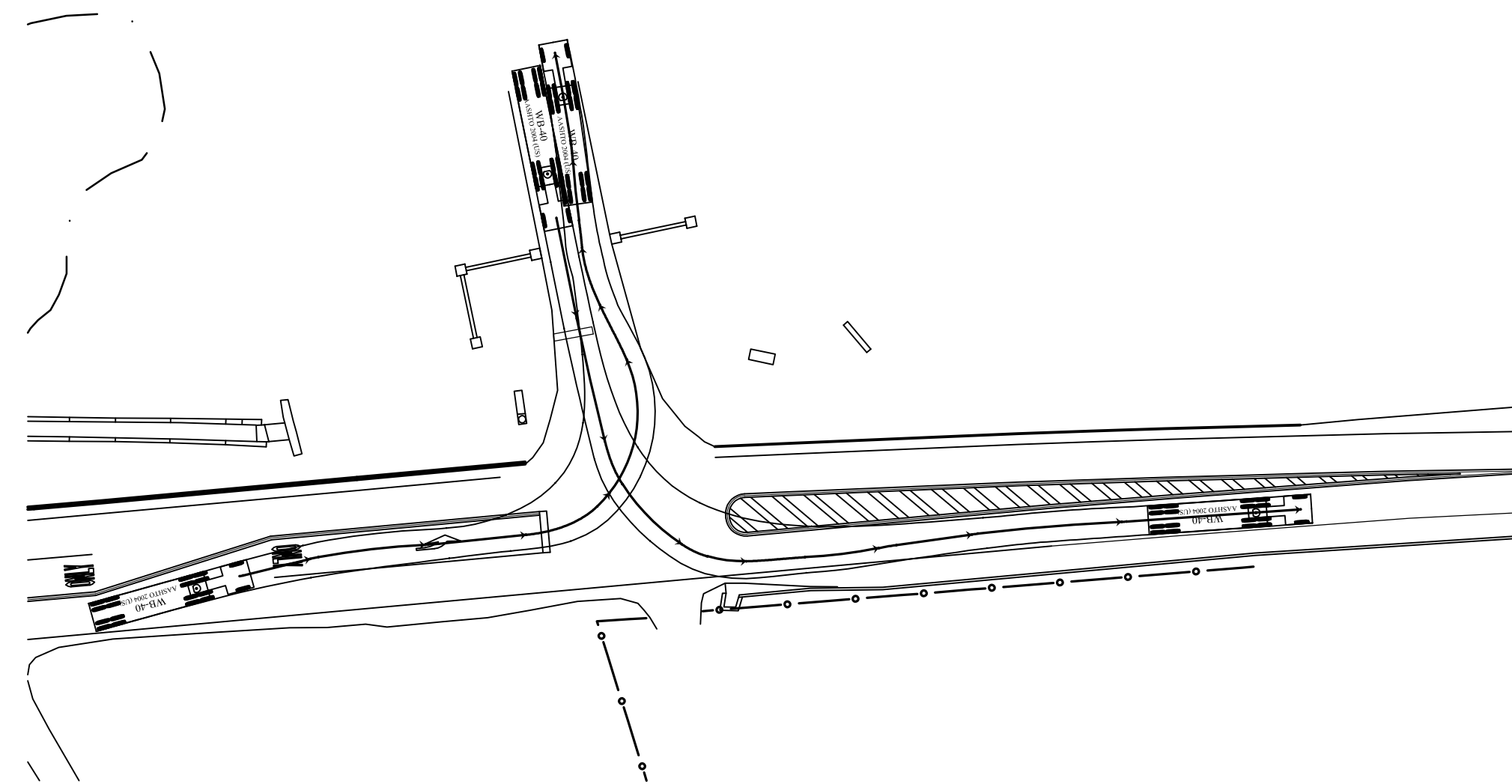
SHEET TITLE
FIRE TRUCK TURNING MANEUVERS PLANS

DRAWN BY: BJD
CHECKED BY: KRM

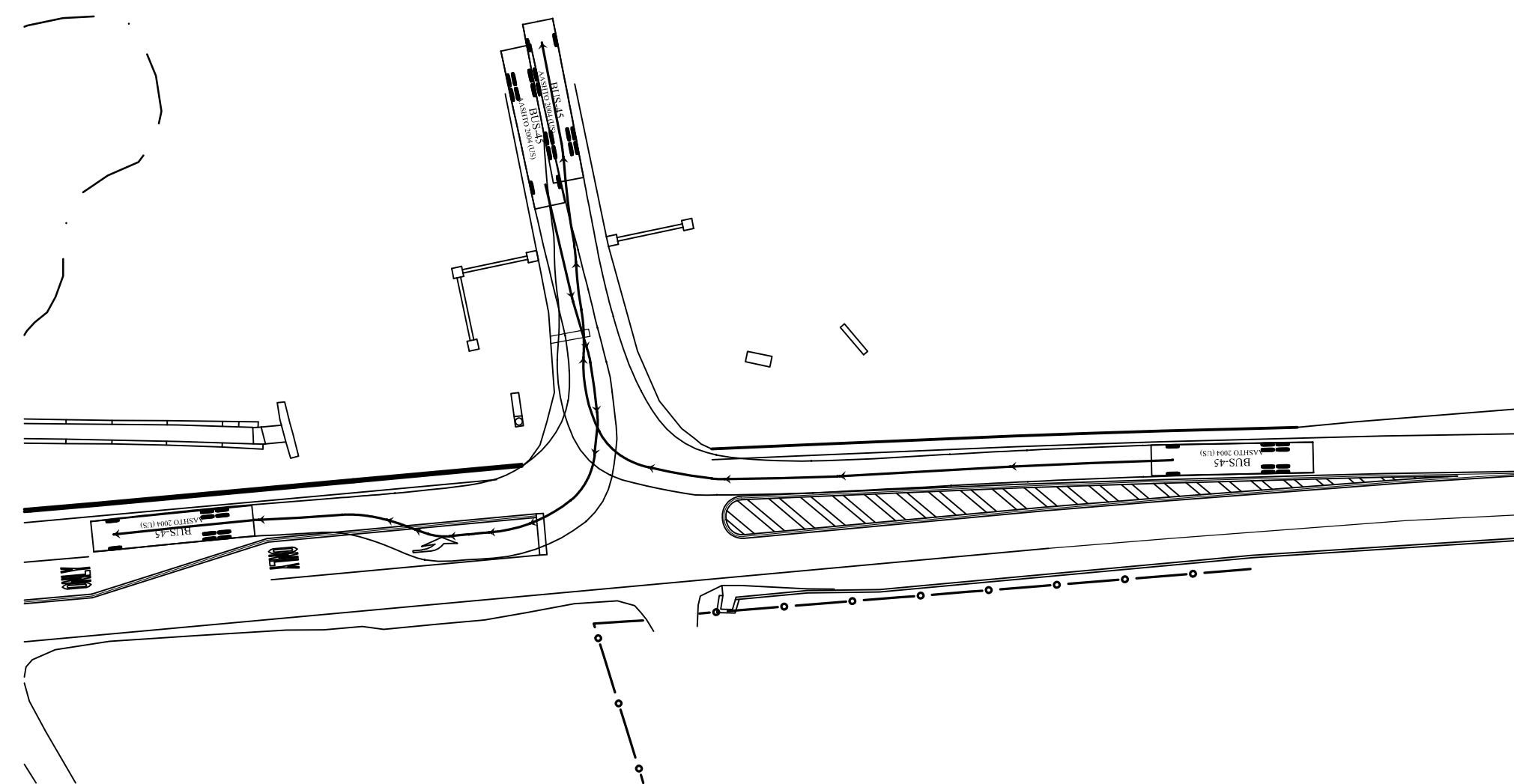
SHEET NO.
19
SHEET NO. 22 OF 24
PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011



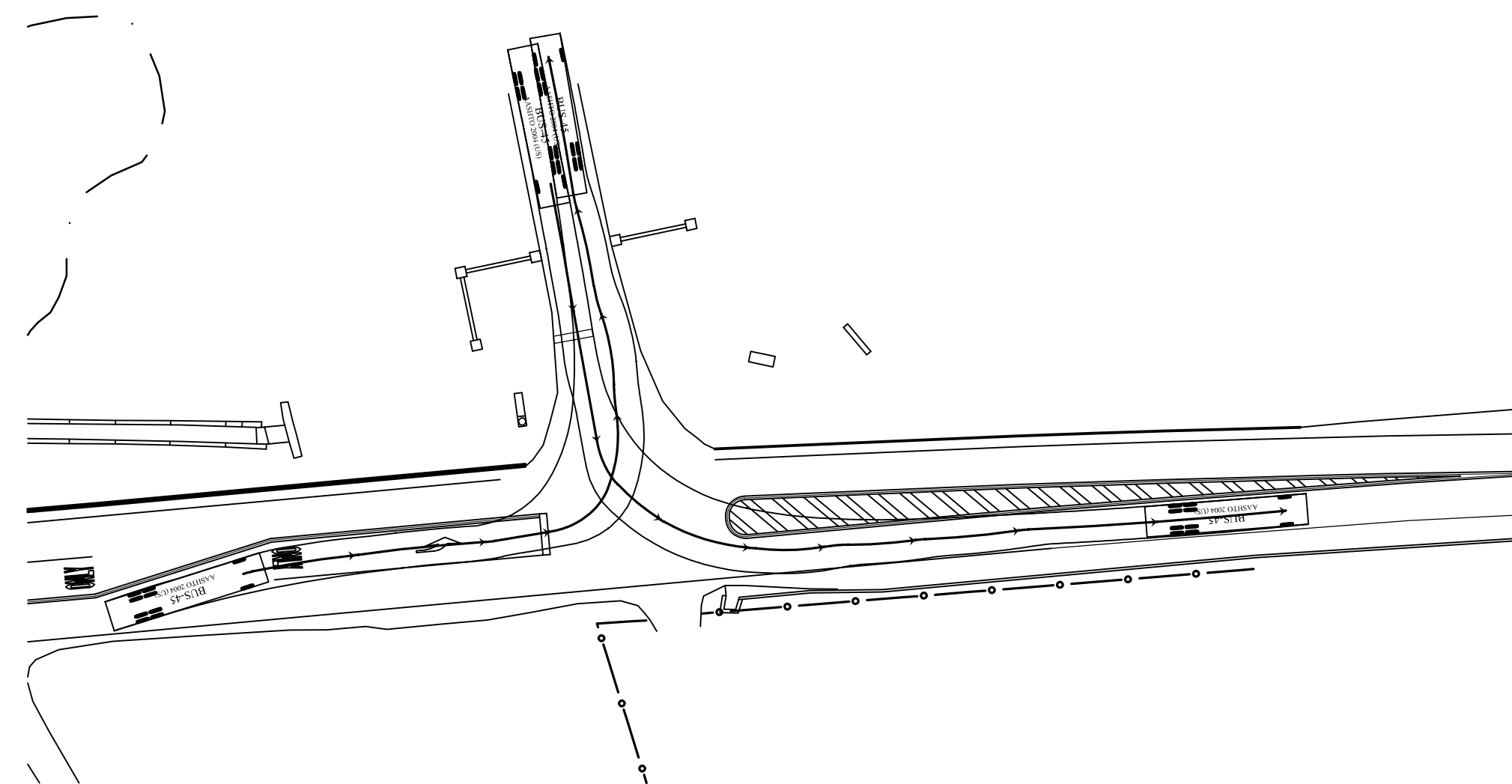
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WB-40 RIGHT TURN MANEUVER PLAN
SCALE: 1"=40'-0"



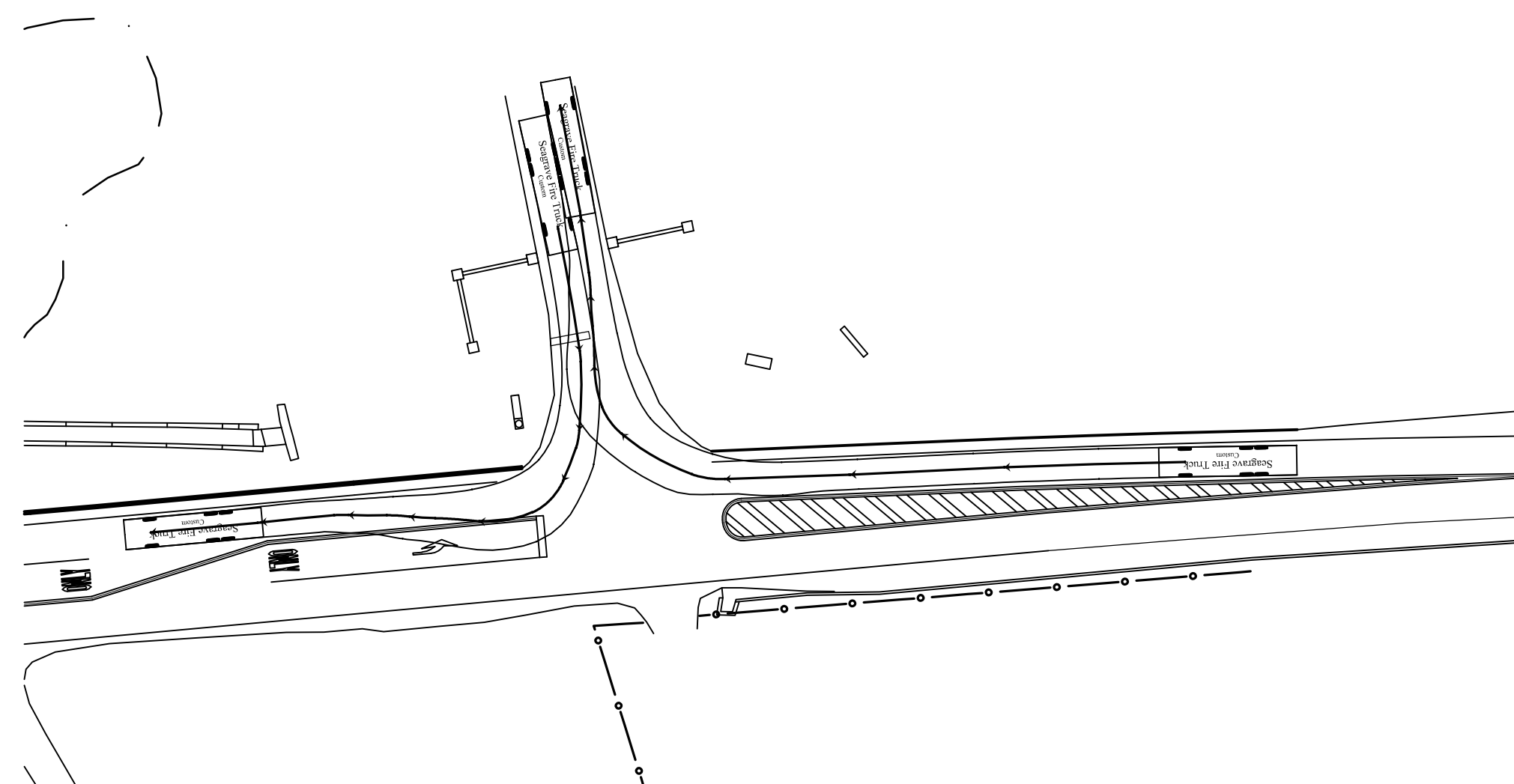
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WB-40 LEFT TURN MANEUVER PLAN
SCALE: 1"=40'-0"



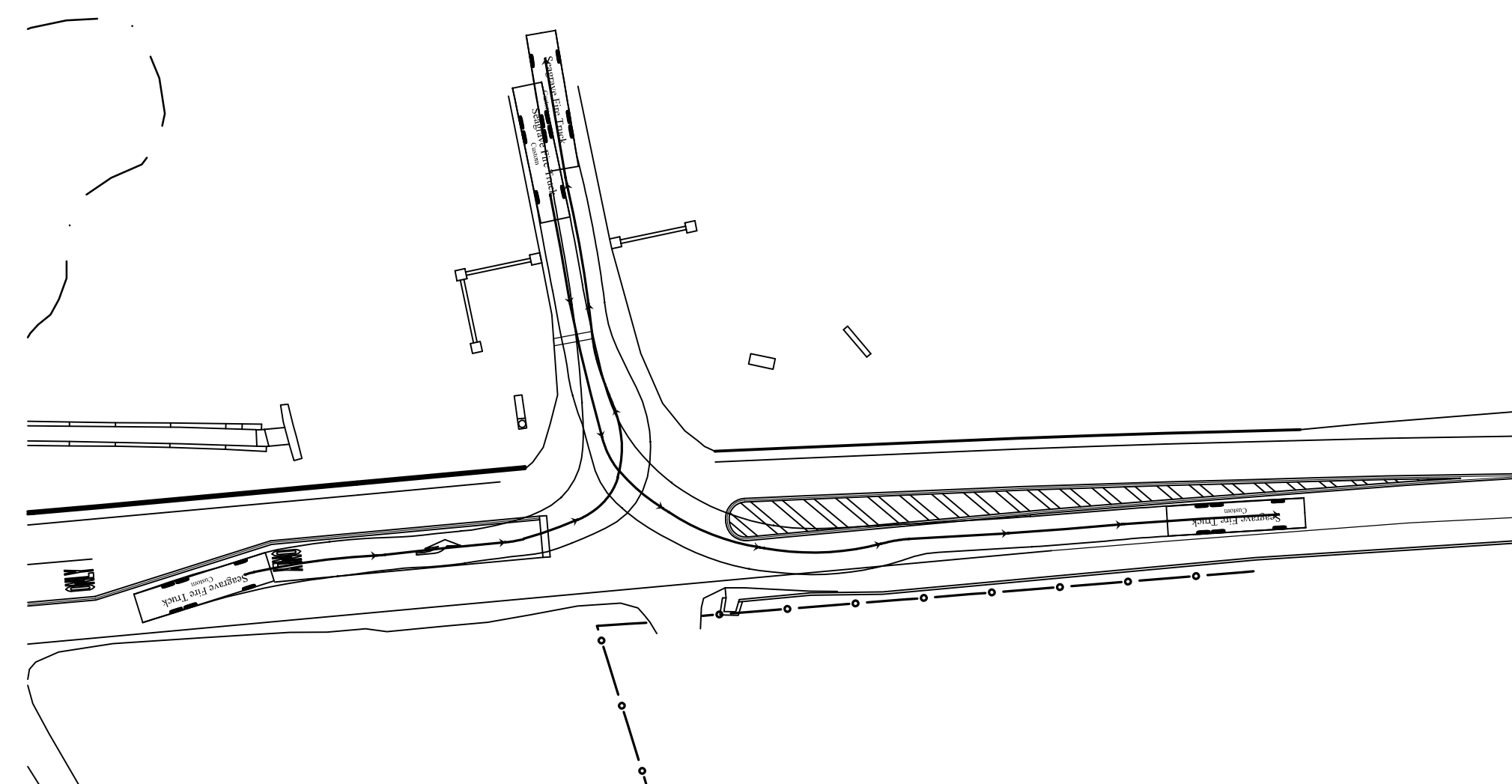
2
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45' BUS RIGHT TURN MANEUVER PLAN
SCALE: 1"=40'-0"



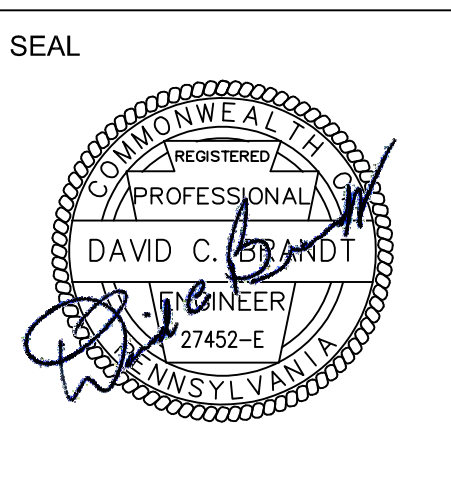
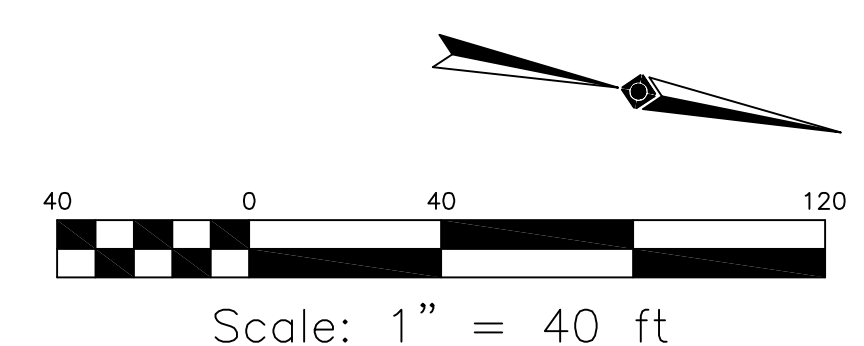
5
20
45' BUS LEFT TURN MANEUVER PLAN
SCALE: 1"=40'-0"



3
20
FIRE TRUCK RIGHT TURN MANEUVER PLAN
SCALE: 1"=40'-0"



6
20
FIRE TRUCK LEFT TURN MANEUVER PLAN
SCALE: 1"=40'-0"



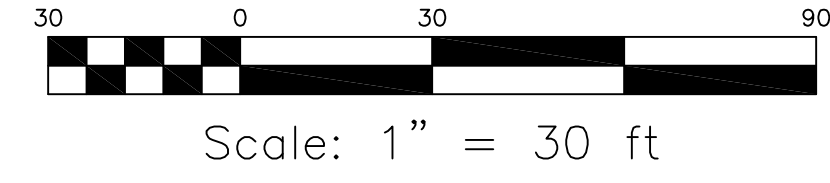
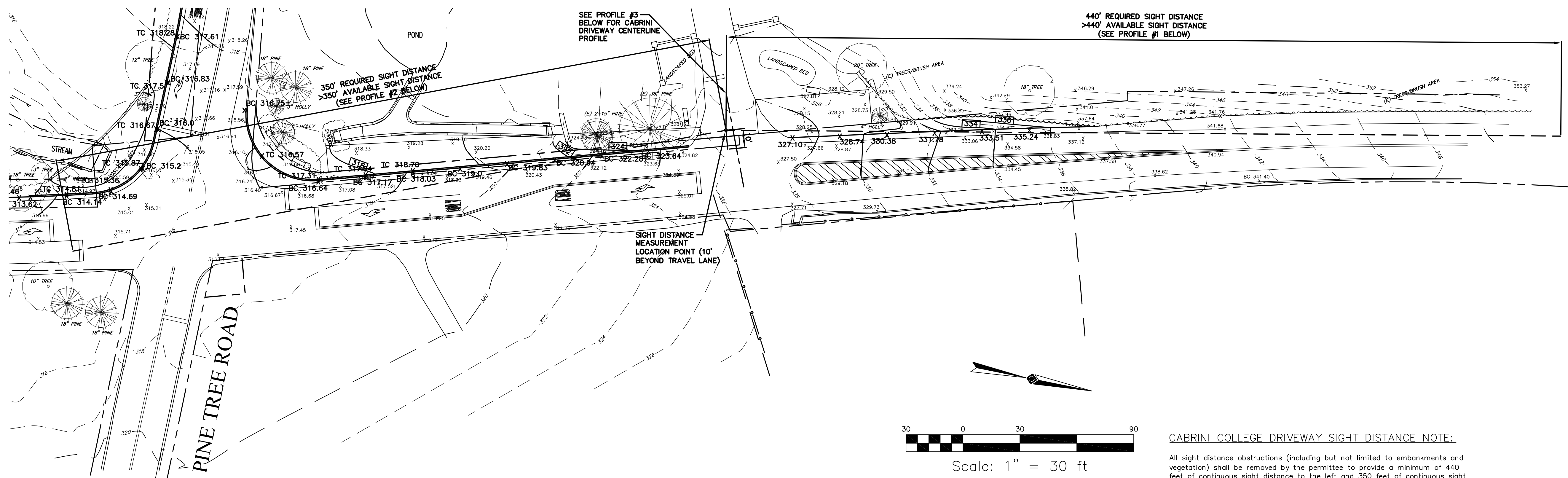
PROJECT
INTERSECTION IMPROVEMENTS
 EAGLE ROAD (S.R. 1042) AND
 KING OF PRUSSIA ROAD (S.R. 1021)
 SAINT DAVIDS, PENNSYLVANIA 19087
 RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
03/11/13	H.O.P. RESUBMISSION
10/17/17	RADNOR B.O.C. MEETING

SHEET TITLE
**CABRINI
 ENTRANCE
 TRUCK TURNING
 MANEUVERS
 PLANS**

DRAWN BY: BJD
 CHECKED BY: KRM

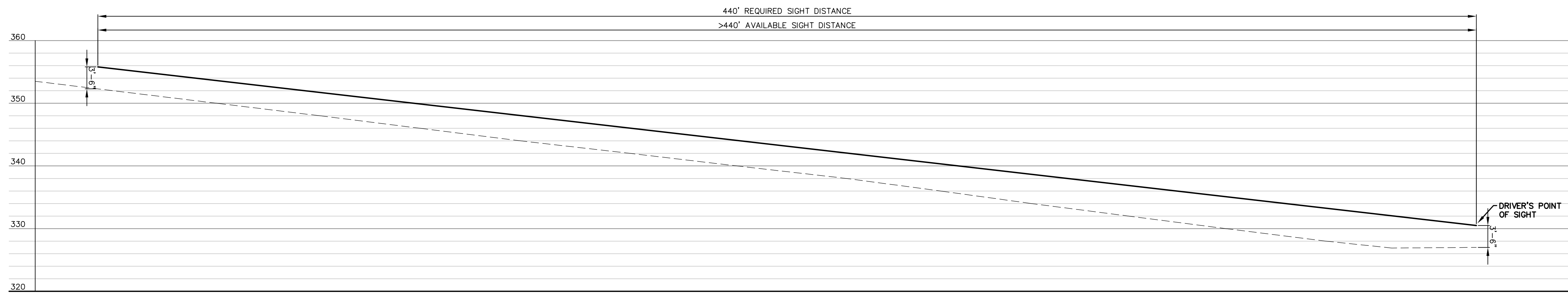
SHEET NO.
20
 SHEET NO. 23 OF 24
 PROJECT NO. 0124.057
 DATE: NOVEMBER 18, 2011



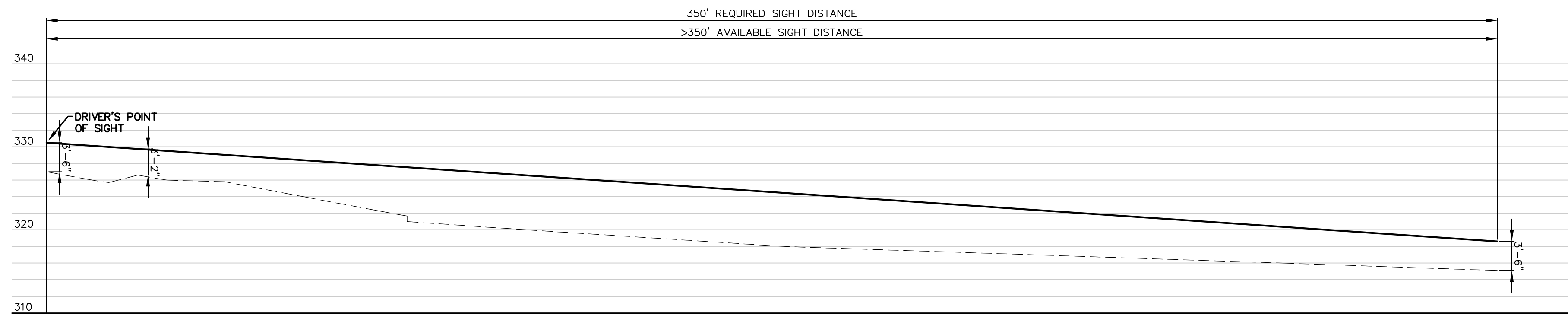
CABRINI COLLEGE DRIVEWAY SIGHT DISTANCE NOTE:

All sight distance obstructions (including but not limited to embankments and vegetation) shall be removed by the permittee to provide a minimum of 440 feet of continuous sight distance to the left and 350 feet of continuous sight distance to the right for a driver exiting the proposed driveway/local road onto the state highway. The driver must be considered to be positioned 10' from the near edge of the closest highway through travel lane (from the curbline if curbing is present) at an eye height of three feet-six inches (3'-6") above the pavement surface. The point sighted by the exiting driver shall be three feet-six inches (3'-6") above the pavement surface located in the center of the closest highway travel lane designated for use by approaching traffic. This sight distance shall be maintained by the permittee.

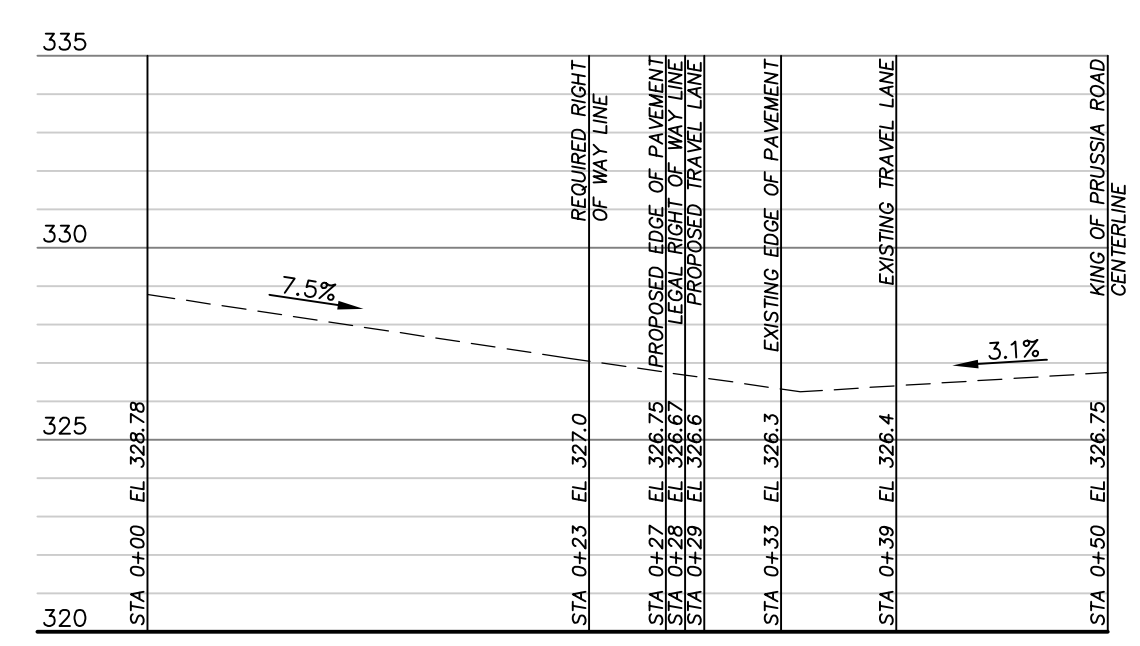
1
21
CABRINI COLLEGE ENTRANCE DRIVEWAY SIGHT DISTANCE TRIANGLE PLAN
SCALE: 1"=30'-0"



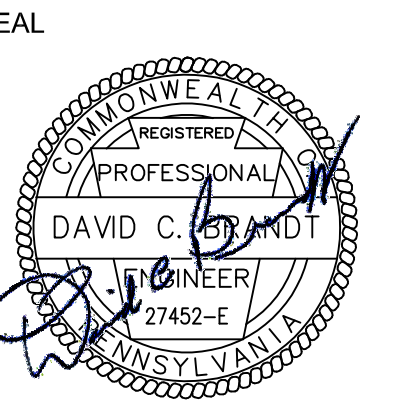
2
21
PROFILE #1: NORTHERN SIGHT LINE PROFILE OF VEHICLE EXITING EXISTING DRIVEWAY
SCALE: H: 1"=20'-0" V: 1"=10'-0"



3
21
PROFILE #2: SOUTHERN SIGHT LINE PROFILE OF VEHICLE EXITING EXISTING DRIVEWAY
SCALE: H: 1"=20'-0" V: 1"=10'-0"



4
21
PROFILE #3: CENTERLINE PROFILE OF CABRINI ENTRANCE DRIVEWAY
SCALE: H: 1"=10'-0" V: 1"=5'-0"



PROJECT

INTERSECTION IMPROVEMENTS
EAGLE ROAD (S.R. 1042) AND KING OF PRUSSIA ROAD (S.R. 1021)
SAINT DAVIDS, PENNSYLVANIA 19087
RADNOR TOWNSHIP, DELAWARE COUNTY

DATE	REVISION
03/11/13	H.O.P. RESUBMISSION
10/17/17	RADNOR B.O.C. MEETING

SHEET TITLE
CABRINI ENTRANCE SIGHT DISTANCE PLAN & PROFILES

DRAWN BY: BJD
CHECKED BY: KRM

SHEET NO.

21

SHEET NO. 24 OF 24

PROJECT NO. 0124.057
DATE: NOVEMBER 18, 2011



January 17, 2020

Mr. Steve Norcini
Radnor Township
301 Iven Avenue
Wayne, PA 19087-5297

**RE: King of Prussia and Eagle Roads Intersection
Proposal for Civil Engineering Services
AEC Proposal No.: 2020-005**

Dear Mr. Norcini:

Associated Engineering Consultants, Inc. (AEC) is pleased to submit this proposal to provide civil engineering services for the above referenced project. This proposal is based on our meeting with Radnor Township on January 7, 2020.

Project Understanding

AEC previous prepared construction drawings for the modifications to the intersection of King of Prussia Road and Eagle Road. A HOP permit application had been submitted and reviewed by PennDOT in 2012/2013, but never finalized.

The proposed project is to complete the permit process and construction the project. Documents will need to be modified and resubmitted to PennDOT in response to their last review letter dated April 8, 2013. Once approved by PennDOT, documents will need to be submitted to the Township for a Grading Permit.

Modifications to the drawings include the Signal Plans and Traffic Study that was done by Traffic Planning and Design (TPD). AEC will subcontract with TPD for their portion of the work. A copy of TPD's proposal is attached.

Engineering Scope of Work

Design, Documentation, and Permitting

- Conduct a site survey to confirm existing conditions \$3,700
 - Survey physical/topographical conditions (2 people)
 - Update the existing conditions plan with surveyed information
- Prepare permit/construction Drawings \$13,000
 - Revise drawings per last HOP review comments
 - Revise drawings to include the replacement of the stormwater pipe along Cabrini's property
 - Coordinate with TPD and update AEC's drawings per their update information
 - Update "Right-of-Way" forms from adjacent property owners
 - Prepare response letter
- Update Signal Plans & Traffic Study (Traffic Planning & Design) \$12,300
 - Revise drawings per last review comments
 - Conduct manual counts to update study
 - Determine traffic volumes and signal phasing and timing per new counts
 - Resubmit updated documentation to Radnor and PennDOT
 - Provide one (1) revision and resubmission per review comments

• Submit to PennDOT for HOP Permit	\$4,000
o Prepare application package and submit	
o Receive review comments	
o Revise drawings and resubmit, if required	
• Submit to Radnor Township for Grading Permit	\$2,000
o Prepare application and submit	
o One (1) Shade Tree Commission meeting	
o One (1) resubmission per review comments, if required	
o Revise AEC's drawings per TPD's updated information	
Total Design, Documentation, and Permitting	\$35,000

<u>Bidding, if required</u>	\$1,000
• Attend one pre-bid meeting	
• Respond to contractor RFI's	

<u>Construction Administration, if required</u>	
• AEC Services	\$10,000
o Review shop drawings	
o Respond to contractor's RFI's	
o Attend six (6) meetings and/or site visits	
o Prepare field reports	
o Provide as-built drawings	
• TPD Services (Allowance)	\$5,000
o Provide PennDOT, Township or Project Team Coordination	
o Prepare an As-Built Traffic Signal Permit Plan, if directed by PennDOT	

Total All Services \$51,000

Compensation

All work shall be performed on a fixed fee basis, plus reimbursable expenses. If the scope of the work varies from the scope outlined above, fees will be adjusted accordingly. Additional services will be billed on an hourly basis at rate of \$150.

Reimbursable expenses such as, printing, postage, overnight or hand delivery charges and application fees, are not included in the engineering fee above. The expenses will be billed separately at a rate of 1.1 times our direct costs.

Billing and Payment

AEC will issue invoices on a monthly basis as work proceeds. Payment is due within thirty (30) days of the date of the invoice. If payment is not received within thirty (30) days, a service charge of 1.5% per month (18% per year) may be charged.

Assumptions/Clarifications

- There are no Land Development or Zoning approvals required for this project.
- There are no stormwater management requirements.

We appreciate the opportunity to quote our services for this project and look forward to working with you in the near future. If you have any questions or require any additional information, please do not hesitate to contact me.

Mr. Steve Norcini
Re: King of Prussia and Eagle Roads Intersection
Proposal for Civil Engineering Services
AEC Proposal No.: 2020-005
January 17, 2020
Page 3 of 3

If you wish to retain Associated Engineering Consultants, Inc. for the above services, please sign and date below where indicated, and return one copy for our records.

Sincerely,

Associated Engineering Consultants, Inc.



Karen R. McManuels, P.E.
Manager, Operations

Signature

Date

Title

Purchase Order or Project Number

F:\AEC_Proposals\2020\Radnor Twp - KoP-Eagle Intersection.docx



TRAFFIC PLANNING AND DESIGN, INC.

WWW.TRAFFICPD.COM

Professional Services Agreement – Letter of Engagement

Date: January 10, 2020 Client: Associated Engineering Consultants, Inc.

Client Address: 485 Devon Park Drive
Suite 113
Wayne, PA 19087

Client Contact: Karen R. McManuels, P.E.

Project Name: King of Prussia Road/Eagle Road – Signal Design

Municipality/County/State: Radnor Township, Delaware County, PA

TPD Project Manager: Guido W. DiMartino, P.E.

TPD Project No.: AECI.00001

Traffic Planning and Design, Inc. (TPD) is pleased to submit this Letter of Engagement regarding the above-referenced project. This Agreement will be between TPD and Associated Engineering Consultants, Inc. ("Client").

Scope of Services

Upon Client's authorization, TPD will perform the following tasks related to the traffic signal design at the King of Prussia Road/Eagle Road intersection:

1. Project kick-off coordination with the Client and the Project Team.
2. Revise Traffic Signal Permit Plan and Traffic Signal Construction Plan per latest roadway design file (to be provided by Client). *This assumes limited changes to the layout submitted in 2012 and the latest roadway design does not impact signal equipment locations. No pedestrian accommodations were provided at the intersection in 2012.*
3. Revise Traffic Signal Permit Plan, Traffic Signal Construction Plan, and Traffic Signal Design Study to address "Signal" comments from 4/8/13 PennDOT review letter.
4. Revise Traffic Signal Permit Plan, Traffic Signal Construction Plan, and Traffic Signal Design Study to address "Traffic Signal Plans" and "Traffic Signal Design Study" comments from Radnor Township review email, prepared by Gilmore & Associates.

5. Conduct manual counts for the weekday morning (7:00-9:00 A.M.) and weekday evening (4:00-6:00 P.M.) peak hours at King of Prussia Road and Eagle Road.
6. Determine Opening Year Projected Condition traffic volumes for the AM and PM peak hours at King of Prussia Road and Eagle Road.
7. Determine proper traffic signal phasing and timing for King of Prussia Road and Eagle Road based on the projected traffic volumes.
8. Coordinate the completion of an Application for Traffic Signal Approval (PennDOT form TE-160) with Radnor Township.
9. Provide a Traffic Signal Design Package to Client for submission to PennDOT and Radnor Township.
10. Upon receipt of written comments from the Township and PennDOT for the above submission, TPD will revise the traffic signal design package per any comments regarding mathematical, analytical, drafting or typographical errors by TPD, accordingly. If there are comments which materially change the scope of the proposed improvements or are due to reviewer or client preference, TPD will identify these comments, and discuss with Client to determine if TPD is to comply. If so, TPD will issue an out-of-scope for the cost to revise the design to accommodate the change(s), prepare the appropriate responses, and provide the revised Traffic Signal package to the Client for submission to the Township and PennDOT.
11. Upon review and approval from PennDOT and Radnor Township, coordinate the submission of a final traffic signal permit plan on mylar to Radnor Township for signature, and forward the mylar to PennDOT for signature/final approval.
12. Attend two (2) PennDOT field meetings; the pole spot meeting and traffic signal final inspection meeting.
13. Allowance for construction assistance:
 - If directed by PennDOT, prepare an As-built Traffic Signal Permit Plan.
 - PennDOT, Township or project team related coordination.

Please note, an out-of-scope will be required if the construction assistance exceeds the allowance budget noted below.

Not included:

- HOP design, which will be completed by Associated Engineering Consultants, Inc.
- Project team and/or PennDOT/Township meetings and conference calls, besides those listed above.
- Any additional resubmissions not included in the Scope of Services.

Fee for Services

The services described above will be provided based on TPD's current fee schedule. TPD's flat fee for these professional services listed in Tasks 1-12 is **\$12,300.00**. TPD's allowance for Task 13 (Construction Assistance) is **\$5,000.00**. TPD will not proceed with services beyond this fee without additional coordination with Client.

Expenses such as copies, prints, postage, mileage, next-day mail, and hand-delivery of materials are **not** included in the fee for professional services, and will be billed in addition to TPD's professional services.

{Continue to next Page for TPD Standard Terms and Conditions}

Terms and Conditions

1. *Payment Terms*

- a. *Invoices:* TPD shall prepare invoices in accordance with its standard invoicing practices and submit the invoices to Client on a monthly basis. Invoices are due and payable within 30 calendar days of receipt. If Client fails to make full payment on any undisputed amount due to TPD within 30 calendar days after receipt of TPD's invoice, then (1) the amounts due to TPD will be increased at the rate of 1.5% per month (or the maximum rate of interest permitted by law, if less), and (2) in addition TPD may, after giving seven (7) calendar days written notice to Client, suspend services under this Agreement until TPD has been paid in full all amounts due. TPD shall not be obligated to resume services under the Agreement until Client has paid all sums previously due and owed by Client. Client waives any and all claims against TPD for any such suspension.
- b. *Payment:* As compensation for TPD providing or furnishing services, Client shall pay TPD as set forth in TPD's Professional Services Agreement. If Client disputes an invoice, either as to amount or entitlement, then Client shall promptly advise TPD in writing of the specific basis for doing so, and may withhold only that portion so disputed, and must pay the undisputed portion. Client agrees to reimburse TPD for all costs and expenses incurred in connection with the collection of invoices due here under, including reasonable attorney's fees.

2. *Instruments of Service*

- a. Drawings, specifications and other documents prepared by TPD and TPD's consultants are Instruments of Service for use solely with respect to this Project. This includes documents in electronic form. TPD and TPD's consultants shall be deemed the authors and owners of their respective Instruments of Service and shall retain all common law, statutory and other reserved rights, including copyrights whether or not the project is completed.
- b. TPD grants Client a non-exclusive license to use the Instruments of Service solely and exclusively for the purpose of constructing, using, maintaining, altering and adding to the Project, provided that the Client substantially performs its obligations, including prompt payment of all sums when due, under this Agreement. Client may make and retain copies of documents for information and reference in connection with use on the project by Client. The non-exclusive license does not come into existence until payment is made and any license that has come into existence is automatically terminated upon TPD's suspension of services under Paragraph 1 a. for Client's failure to make any payment due under this Agreement.
- c. Instruments of Service are not intended or represented to be suitable for reuse by Client or others on extensions of the specific project for which they were prepared or on any other project. Any such reuse or modification without written verification or adaptation by TPD, as appropriate for the specific purpose intended, will be at Client's sole risk and without liability or legal exposure to TPD or to TPD's Consultants. Client shall defend, indemnify and hold harmless TPD and TPD's Consultants from all claims, damages, losses, economic damages and expenses, including attorneys' fees arising out of or resulting from such reuse or modification.

3. *Standard of Care*

The standard of care for all professional engineering and related services performed or furnished by TPD under this Agreement will be the care and skill ordinarily used by members of the subject profession practicing under similar circumstances at the same time and in the same locality. TPD makes no warranties or guarantees, express or implied, under this Agreement or otherwise, in connection with any services performed or furnished, or in any report, opinion, document, by TPD.

4. *Limitation of Liability*

- a. To the fullest extent permitted by law, the total liability in the aggregate, of TPD and TPD's officers, directors, employees, agents, and independent professional associates, and any of them, to Client and anyone claiming by, through or under Client, for any and all injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to TPD's services, the project, or this Agreement, from any cause or causes whatsoever, including but not limited to, any negligence, errors, omissions, strict liability, breach of this Agreement, misrepresentation, or breach of warranty of TPD or TPD's officers, directors, employees, agents or independent professional associates, or any of them, shall not exceed the total compensation received by TPD under this Agreement or \$50,000 whichever is greater.
- b. Client and TPD waive against each other, and the other's employees, officers, directors, agents, insurers, partners, and consultants, any and all claims for or entitlement to special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to this Project or Agreement.
- c. TPD may rely upon the accuracy and completeness of, and shall not be responsible for, any acts or omissions in any data, design elements and information supplied by Client, or by any contractor, subcontractor, supplier, agent or employee or any other person acting on behalf of Client.

5. *Termination*

- A. The obligation to continue performance under this Agreement may be terminated:
 1. For cause,
 - a. By either party upon 30 calendar days written notice in the event of substantial failure by the other party to perform in accordance with the Agreement's terms through no fault of the terminating party.
 - b. By TPD:
 - i. Upon seven (7) calendar days written notice if Client demands that TPD furnish or perform services contrary to TPD's responsibilities as a licensed professional; or
 - ii. Upon seven (7) calendar days written notice if TPD's services are delayed for more than 60 calendar days for reasons beyond TPD's control.
 - iii. Upon seven (7) calendar days' written notice if Client fails to pay TPD for its services in accordance with contract terms.
 - c. TPD shall have no liability to Client on account of a termination for cause by TPD.
 - d. Notwithstanding the foregoing, this Agreement will not terminate as a result of a substantial failure under Paragraph 5.A.1.a if the party receiving such notice begins, within seven (7) calendar days of receipt of such notice, to correct its substantial failure to perform and proceeds diligently to cure such failure within no more than 30 calendar days of receipt of notice.
 2. For convenience, by Client, effective five (5) calendar days after TPD's receipt of written notice from Client.
- B. In the event of any termination under Paragraph 5, TPD will be entitled to invoice Client and to receive full payment for all services performed or furnished in accordance with this Agreement, plus reimbursement of expenses incurred through the effective date of termination in connection with providing the services, and TPD's consultants' charges, if any.

6. *Successors and Beneficiaries*

- a. TPD and Client each is hereby bound and the successors, executors, administrators, and legal representatives of TPD and Client are hereby bound to the other party to this Agreement and to the successors, executors, administrators, and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements, and obligations of this Agreement.
- b. Unless expressly provided otherwise, nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by Client or TPD to any Constructor, other third-party individual or entity, or to any surety for or employee of any of them. All duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of the Client named in TPD's Professional Services Agreement and TPD and not for the benefit of any other party.

7. *Dispute Resolution*

Disputes shall be initiated by written notice. Prior to the initiation of any legal proceedings, Client and TPD agree to negotiate a resolution to each dispute between them in good faith during the 30 calendar days after receiving written notice of the dispute. If negotiations are unsuccessful in resolving the dispute, then the dispute shall be mediated. A written request for mediation may be made by either party. The receiving party shall respond within ten (10) business days, and the initial mediation session shall be held within thirty (30) business days of the request. The parties shall share equally the costs and expenses of the mediation, except that each party shall bear the cost of its own legal representation. If mediation is unsuccessful, then the parties may exercise their rights at law. Either party may proceed in accordance with applicable law to meet filing deadlines, but any litigation shall be stayed for a reasonable period to negotiate and mediate the dispute as set forth in this paragraph.

8. *General Conditions*

- a. TPD shall complete its services in accordance with the schedule identified in the Professional Services Agreement or if no time period is specified, within a reasonable period of time.
- b. If, through no fault of TPD, such periods of time or dates are changed, or the orderly and continuous progress of TPD's services is impaired, or TPD's services are delayed or suspended, then the time for completion of TPD's services, and the rates and amounts of TPD's compensation, shall be adjusted equitably.
- c. TPD shall not at any time supervise, direct, control, or have authority over any Contractor's work, nor shall TPD have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any Contractor, or the safety precautions and programs incident thereto, for security or safety at the Project site, nor for any failure of a Contractor to comply with laws and regulations applicable to such Contractor's furnishing and performing of its work. TPD shall not be responsible for the acts or omissions of any Contractor. TPD neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform its work.
- d. TPD's opinions (if any) of probable construction cost are to be made on the basis of TPD's experience, qualifications, and general familiarity with the construction industry. However, because TPD has no control over the cost of labor, materials, equipment, or services furnished by others, or over contractors' methods of determining prices, or over competitive bidding or market conditions, TPD cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable construction cost prepared by TPD. If Client requires greater assurance as to probable construction cost, then Client agrees to obtain an independent cost estimate.
- e. If any term or provision of this Agreement shall be held to be invalid or illegal, such term or provision shall not affect the validity or enforceability of the remaining terms and provisions of this Agreement.
- f. This Agreement is to be governed by the law of the state in which the project is located.

9. *Total Agreement*

- a. This Agreement (together with any expressly incorporated attachments), constitutes the entire agreement between TPD and Client and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, or modified by a duly executed written instrument by both parties.
- b. This Agreement may be executed by way of original, facsimile, PDF or electronic signature and transmitted electronically. The Agreement may be executed in counterpart, each of which shall be deemed an original, but all counterparts together shall constitute one and the same Agreement.

{Continue to next page for Authorization Page}

AUTHORIZATION PAGE

Terms and Conditions for this Letter of Engagement

TPD's standard Terms & Conditions below shall be considered part of this Letter of Engagement.

Confidentiality

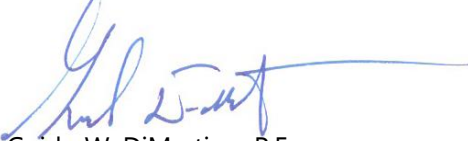
Client agrees that any unauthorized use or disclosure of TPD's standard Terms and Conditions or rate schedule constitutes a violation of applicable state laws, regarding, without limitation, unfair competition, misappropriation, and trade secrets.

Client Acceptance

TPD's offer of services under this Agreement shall remain valid for thirty (30) calendar days from the date of this letter. Acceptance of the Agreement after the end of the thirty (30) day period shall be valid only if TPD elects, in writing, to reaffirm the letter, and waives its right to re-evaluate and resubmit the letter. In order for TPD to begin our services, we request that Client review this Agreement and return the signed authorization to our office.

Prepared by:

Traffic Planning and Design, Inc. (TPD)



Guido W. DiMartino, P.E.

Senior Project Manager

Client Authorization (TPD Job #AECI.00001)

Client authorizes TPD to proceed with the services as described within this Agreement:

Signature: _____

Name (Please Print): _____

Position: _____ Firm: _____

Date: _____ E-mail Address: _____

Phone Number: _____

Please retain one copy for your file and forward an executed copy to TPD.

RESOLUTION NO. 2020-58

**A RESOLUTION OF RADNOR TOWNSHIP,
DELAWARE COUNTY, PENNSYLVANIA,
AUTHORIZING THE PAYMENT OF CHANGE ORDER #1 FOR THE
ROBERTS ROAD CULVERT REHABILITATION (CONTRACT # B-19-007) TO
LOFTUS CONSTRUCTION, INC. IN THE AMOUNT OF \$36,860.14**

WHEREAS, Radnor Township has incurred a change order to the original contract price due to unforeseen conditions, as part of the Culvert Rehabilitation

WHEREAS, the tabulation of the change order is as follows:

CO #	Description	Cost
1	Locate the full length of the interfering gas main using test pits, excavate to the main, support it, excavate beneath it, install form work, pour concrete around it, remove the forms and fill the voids	\$36,860.14
TOTAL COST OF CHANGE ORDER #1		\$36,860.14

NOW, THEREFORE, be it **RESOLVED** by the Board of Commissioners of Radnor Township does hereby Authorize the Payment of Change Order #1 for the Roberts Road Culvert Rehabilitation (Contract # B-19-007) to Loftus Construction, Inc. in the amount of \$36,860.14.

SO RESOLVED this 18th day of May, A.D., 2020.

RADNOR TOWNSHIP

By: _____
Name: Jack Larkin
Title: President

ATTEST: _____
William M. White
Manager & Secretary

Radnor Township

PROPOSED LEGISLATION

DATE: May 12, 2020

TO: Radnor Township Board of Commissioners

FROM: Dennis P. Capella, Engineering Project Manager

CC: William M. White, Manager
Stephen F. Norcini, P.E., Township Engineer

LEGISLATION: Resolution #2020-58: Authorizing Payment of Change Order #1 for the Roberts Road Culvert Rehabilitation (Contract # B-19-007) to Loftus Construction, Inc. in the amount of \$36,860.14

LEGISLATIVE HISTORY: This specific change orders have not been before the Commissioners previously.

PURPOSE AND EXPLANATION: During the process of construction of the Roberts Road Culvert Rehabilitation an unforeseen issue was identified and needs to be addressed. A summary of the current change order follows:

CO #	Description/Explanation	Cost
1	Locate the full length of the interfering gas main using test pits, excavate to the main, support it, excavate beneath it, install form work, pour concrete around it, remove the forms and fill the voids (cost breakdown is attached)/During standard procedure test pits to locate the water main, a gas main was identified within the culvert limits instead of outside as indicated in the PA One Call and subsequent bid plans, and construction modification are required accordingly.	\$36,860.14
TOTAL COST OF CHANGE ORDER # 1		\$36,860.14

IMPLEMENTATION SCHEDULE: Pending Board of Commissioners approval, the Change Order will be signed and a requisition will be entered into the financial system.

FISCAL IMPACT: This project is funded by the Stormwater Management Fund. Sufficient funds are available within this item to cover the cost of this change order.

RECOMMENDED ACTION: *Staff respectfully requests the Board of Commissioners of Radnor Township to authorize payment of Change Order #1 for the Roberts Road Culvert Rehabilitation (Contract # B-19-007) to Loftus Construction, Inc. in the amount of \$36,860.14.*

Cost Proposal
Roberts Road Culvert Rehabilitation

PCO #01 - Gas Main Accomodations

Item #	Description of Work	Total Cost
1	Perform additional test pit work determine exact location of gas main	\$ 5,203.26
2	Excavate around and expose gas main and prepare for being supported	\$ 3,203.26
3	Deliver materials to site; Install supports and protect gas main from damage	\$ 6,124.01
4	Selectively excavate adjacent to and under gas main to allow arch repairs	\$ 9,728.27
5	Install forms to create void around gas main to allow future maintenance	\$ 8,702.10
6	Remove forms from void and place screenings around gas main	\$ 3,899.24

TOTAL \$ 36,860.14

Radnor Township



PROPOSED LEGISLATION

INTRODUCTION

FROM: Kevin W. Kochanski, Community Development Director
SUBJECT: Emergency Generator Ordinance Amendment
DATE: May 13, 2020

LEGISLATION:

Ordinance #2020-11 Amending Chapter 280 of the Radnor Code, Zoning Ordinance, adding Section 115.6 establishing installation and setback requirements for Emergency Generators.

LEGISLATIVE HISTORY:

Current ordinance regulations do not specifically address emergency generators for residential or commercial applications. As such, they have been regulated as an accessory structure; which in most residential applications will allow emergency generators to be placed in close proximity to a side or rear property line. Emergency Generators are mechanical equipment that produce noise and could impact adjacent neighbors. Over recent years, Emergency Generators have gained in popularity and the Department occasionally has received complaints. The proposed regulations will still permit their installation but offer a much greater protection for adjacent neighbors.

Delaware County Planning Commission – Once introduced, the ordinance will be sent to the County Planning Commission for review. Comments are expected prior to the adoption hearing.

Radnor Township Planning Commission – Once introduced, the ordinance will be sent to the Township Planning Commission for review. Comments are expected prior to the adoption hearing.

FISCAL IMPACT:

This ordinance is not expected to have any impact on the Budget.

RECOMMENDED ACTION:

The Staff would respectfully recommend that this Ordinance be Introduced on May 18, 2020 and be forwarded to the Township and County Planning Commissions for their review.

Thank you for your consideration.

ORDINANCE NO. 2020 –11

**AN ORDINANCE OF RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA
AMENDING ARTICLE XX, GENERAL REGULATIONS, OF THE RADNOR
TOWNSHIP ZONING ORDINANCE BY PROVIDING INSTALLATION AND SETBACK
REQUIREMENTS FOR EMERGENCY GENERATORS**

NOW THEREFORE, IT IS HEREBY ENACTED AND ORDAINED by the Board of Commissioners of Radnor Township, as follows:

Section 1. Article XX, Section 115 is hereby amended, adding a new subsection to read as follows:

280-115.6 – Emergency Generators

Permanently installed Emergency Generators shall be permitted as an accessory use in all districts in accordance with the following:

- A. Emergency Generators shall not be located in the front yard.
- B. Emergency Generators shall meet the minimum side and rear yard requirements for principal structures in the district in which they are located. However, in all cases emergency generators shall be at least 15 feet from any property line.
- C. Emergency generators located on residential lots less than 1 acre in size shall be located no further than 10 feet from a side or rear of the principal dwelling unit it is intended to serve.
- D. Emergency generators shall only be used in a power outage or emergency situations for the duration of the event; provided, such are operated within the manufacturer's specifications and with all standard noise-reducing equipment in use, unmodified, and in proper operating condition.
- E. Testing or maintenance cycles of emergency generators shall be in accordance with manufacturer's specifications and for only a short duration between the hours of 10:00 a.m. and 5:00 p.m. Monday through Friday.
- F. Emergency generators, used for the sole purpose of supplying electrical power to dwelling units within residential zoning districts may operate at a decibel level not to exceed 75 decibels, measured at the closest property line.
- G. Standby generators that are permanently wired into load centers shall be in accordance with, but not limited to, the National Electrical Code, the Pennsylvania Uniform Construction Code, UL and the manufacturer's specifications. Such generators shall require a permit with inspection(s).
- H. Portable standby generators not hard-wired permanently into residential electrical load centers do not require UCC or Township permits.

Section 2. Severability. If any section, paragraph, sub-section, clause or provision of this Ordinance shall be declared invalid or unconstitutional by a court of competent jurisdiction, such decision shall not affect the validity of this Ordinance as a whole or any part thereof other than that portion specifically declared invalid.

Section 3. Repealer. All ordinances inconsistent herewith are repealed to the extent of such inconsistency.

Section 4. Effective Date. This Ordinance shall become effective in accordance with the Home Rule Charter of Radnor Township.

ENACTED AND ORDAINED this _____ day of _____, 2020.

RADNOR TOWNSHIP

By: _____

Name: Jack Larkin

Title: President

ATTEST: _____

William M. White, Secretary

RESOLUTION NO. 2020-59

A RESOLUTION OF RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA, APPROVING THE FIVE-YEAR CAPITAL LEASE AGREEMENT WITH BANKFUNDING, LLC FOR THE FINANCING OF THE TWO PURCHASED SANITATION PACKERS WITH PLOW AND ONE PURCHASED DUMP TRUCK WITH PLOW

WHEREAS, the Five-Year Capital Plan, incorporated into the 2020 Budget, included appropriations for the replacement of two (2) Public Works Sanitation Packers with the two (2) purchased 2021 HV607 SBA 6x4 International Truck Chassis, Leach 25 Yard Refuse Body, and Good Roads Model 120M Snow Plow together the Public Works Sanitation Packers “Refuse Trucks with Plow”; and

WHEREAS, the Five-Year Capital Plan, incorporated into the 2020 Budget, included appropriations for the replacement of one (1) Public Works Highway Maintenance Dump Truck with the one (1) purchased 2020 Model 348 Peterbilt Truck Chassis, Beaucroc Dump Body, and Metropolitan Straight Plow together the Public Works Highway Maintenance Dump Truck “Dump Truck with Plow”; and

WHEREAS, the Capital Plan projected financing the replacement equipment through a five-year capital lease at the conclusion of which, the ownership of the equipment will become the Township’s; and

WHEREAS, the Board of Commissioners authorized the purchase of the equipment referenced herein via Resolution 2020-18 dated February 10, 2020; and

NOW, THEREFORE, be it hereby *RESOLVED* that the Radnor Township Board of Commissioners does hereby authorize the Township to enter into a five-year capital lease agreement with BankFunding, LLC at an interest rate of 1.850% APY which results in an annual payment of approximately \$120,814.97, with the first lease payment due on or about December 1, 2020 and annually thereafter until the conclusion of the lease period, at which time the Township will own the equipment outright.

SO RESOLVED this 18th day of May, 2020.

RADNOR TOWNSHIP

By: _____
Name: Jack Larkin, Esq.
Title: President

ATTEST: _____
William M. White
Township Manager / Secretary

Radnor Township



PROPOSED LEGISLATION

DATE: May 12, 2020
TO: Board of Commissioners
FROM: Robert V. Tate, Jr. Acting Finance Director

Handwritten signature of Robert V. Tate, Jr. in blue ink.

LEGISLATION: Resolution No. 2020-59, authorizing the financing of three (3) Public Works vehicles:

- Two (2) Public Works Sanitation Packers (Refuse Trucks with Plow)
- One (1) Public Works Highway Maintenance Dump Truck with Plow

LEGISLATIVE HISTORY:

- (1) The Board of Commissioners authorized the purchase of these vehicles on February 10, 2020, Resolution No. 2020-18.
- (2) The Five-Year Capital Program, incorporated into the 2020 Budget, included capital leases for three (3) Public Works vehicles (“Sanitation Packers” and “Dump Truck”). The lease terms projected a five year payment period with a purchase option of \$1 at the end of the financing.

PURPOSE AND EXPLANATION: The purpose of this request is to allow the Administration to finance the three (3) replacement Public Works vehicles approved in 2020: Two (2) Public Works Sanitation Packers “Refuse Trucks with Plow” and one (1) “Dump Truck with Plow” both purchased under PA CoStars contracts with financing of a five year capital lease provided by BankFunding, LLC.

The three (3) Public Works vehicles will be purchased from the following vendors in accordance with a PA Costars contract and Resolution No. 2020-18:

Two (2) Refuse Trucks with Plow and One (1) Dump Truck with Plow			
Description	Vendor	Costars Contract	Price
2021 HV607 SBA 6x4 International Truck Chassis	G. L. Sayre, Inc.	25-017	\$95,405.64
Leach 25 Yard Refuse Body	GranTurk Equipment Co., Inc.	25-046	\$93,673.50
Good Roads Model 120M Plow	H.A DeHart & Son	25-052	\$13,370.00
Subtotal for One (1) Refuse Truck with Plow			\$202,449.14
Subtotal for Two (2) Refuse Trucks with Plow			\$404,898.28
2020 Model 348 Peterbilt Truck Chassis	G.L. Sayre, Inc.	25-017	\$95,244.00
Beauroc SSM4 Dump Body and Metropolitan Plow	Triad Truck Equipment	25-060	\$76,662.00
Subtotal for One (1) Dump Truck with Plow			\$171,906.00
Grand Total			<u>\$576,804.28</u>

On May 7, 2020, the Administration received the following proposals from three (3) firms for a five year lease term with a purchase option of \$1 at the end of the financing. Please note that figures below are for *THREE* (3) vehicles:

Firm	5 Year	Annual Payment	Total 5 Year
		(5 Years)	
Bank Funding, LLC	1.850%	\$120,814.97	\$604,074.85
TD Equipment Finance, Inc.	1.862%	\$120,925.89	\$604,629.43
Clayton Holdings, LLC	1.960%	\$121,167.95	\$605,839.75

IMPLEMENTATION SCHEDULE: With the Boards authorization, Township Administration will accept Bank Funding, LLC five year lease proposal. The estimated delivery date of the three (2) vehicles is July/August 2020. The first lease payment will be due on December 1, 2020 and annually thereafter for five years.

FISCAL IMPACT: The fiscal impact will be an annual obligation of \$120,814.97 to be paid from the Township's Capital Fund (#05) for years 2020 – 2024. The interest expense during the financing period (five years) is \$27,270.57. At the conclusion of the lease term, five years, ownership of the vehicles will be the Township's. If at any point during the lease term, the Board of Commissioners does not appropriate for that particular year's lease payment obligation, the lease contract will be voided with the vehicles being forfeited to the financial institution (Non-appropriation Clause).

The Five Year Capital program estimated the aggregate payment for the three (3) vehicles to be \$135,000.00 per year over the five-year term. The actual payments will be \$120,814.97 per year over the five-year term.

Other financing options were considered during the analysis including:

Alternatives	Notes vs. Capital Lease
Operating Lease	More expensive and no ownership at the end of the term
Cash Purchase	Less expensive, but would require more cash than the capital fund has allotted to it for 2020

RECOMMENDED ACTION: The Administration respectfully recommends that the Board authorize the Township to accept Bank Funding, LLC proposal to provide five-year capital lease financing for the purchase of the three (3) Public Works vehicles.

Reports of Standing Committees of the Board

New Business

Garrett Hill Overlay Zoning Changes (requested by
Commissioner Farhy)

Commercial Marijuana Restrictions (requested by
Commissioner Farhy)

Ban safe injection sites anywhere in Radnor Township.
(requested by Commissioner Farhy).

Board vote to immediately open Radnor Township
playgrounds for public use (and directing OEM to provide
applicable safety guidelines for the public to follow); and
directing the Director of Radnor Township Recreation &
Community Programming Department to provide an in
person children's summer camp for children of the Township
(and directing the OEM to provide applicable safety
guidelines for the camp). These actions are to be undertaken
in accordance with the Radnor Home Rule Charter.
(requested by Commissioner Booker)

Old Business

Public Participation - *If you would like to participate in the meeting, please send an email to publiccomment@radnor.org.*

This email address will only be monitored during the meeting.

E-mails sent to this address during the meeting will be read into the record.

Adjournment